FOUR MONTHS IN PERSIA

AND

A Visit to Trans-Caspia

By

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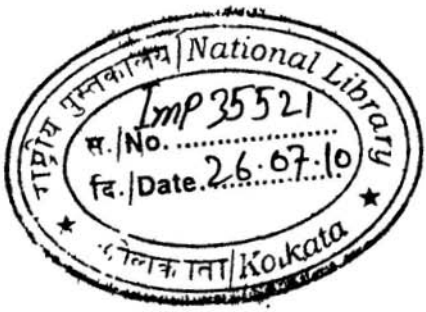

PREFACE.

THE following pages have been compiled from articles which have been contributed by the author to various Indian papers and to the *Asiatic Quarterly Review*, *Journal of the Royal Asiatic Society*, *Proceedings of the Royal Geographical Society*, *United Service Magazine*, &c., &c.

C. E. BIDDULPH,

Uncovenanted Civil Service of India.

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FOUR MONTHS IN PERSIA IN 1891.

FOUR MONTHS IN PERSIA.

There are few, I imagine, whom business or pleasure has summoned to the East who have not blessed the institution of the Orient Express, in spite of its many imperfections of food and accommodation; for to the traveller who has probably many days, if not weeks, of more or less discomfort and an unsettled life before him, it is a relief to know that on leaving Paris he has, at any rate, three days and nights of perfect rest before him, wherein to recover from the worry and bustle of preparation and collect himself for further troubles in store in the future. Provided with a few interesting books he may pass the time even more than pleasantly as he sits reading, while capital after capital, and nation after nation, succeed one another before his eyes like the scenes of a dissolving view. He goes to sleep in Paris, he wakes up in Stuttgart, he breakfasts in Munich, he dines at Vienna, and again as day follows day the same with the capitals of Hungary, Servia and Bulgaria, till he reaches Constantinople; the train, meanwhile, in which he is seated conveying him through every variety of scenery, common place, beautiful, or wild and romantic as the case may be; now dashing for hours along dead level plains, now crossing mighty rivers as the Rhine and the Danube, and again climbing through the rocky gorges of the Vosges, the Alps and the Balkans. Winter, however, is hardly the most favourable time for such a journey, especially when, as was the case with our party, from the windows of our carriage but little was visible in the intervals between the towns but an endless expanse of snow, buried under which all the features of the landscape were lost in a dead monotony of white.

It was thus, not without a sigh of relief, that, descending from the passes of the Balkan Mountains, we found ourselves traversing the bare plains of Roumelia and Turkey, which, though commonplace enough in the aspect which they presented, were yet perfectly clear of snow. Constantinople, as we entered it,

looked dirtier and more dilapidated than ever, and the babel of tongues in the streets of Galata sounded all the more distracting, as their owners looked the more slovenly and rascally, for a long absence from similar surroundings. Our introduction to Turkish rule commenced most inauspiciously, alike for our own tempers as for our appreciation of the imaginary reforms said to have been introduced into the general system of official administration. Being the unfortunte owners of a gun and some cartridges, we found that to the officious zeal and fevered imagination of the Custom-house employes we were forthwith to be put down as Incendiaries, Dynamiters, Nihilists, Socialists or whatever, in Oriental countries, supplies the place of such nightmares to the inhabitants of more civilised countries, and treated accordingly with a corresponding degree of distrust and suspicion. This attitude, however, of these officials we found was not entirely owing to a sense of duty or to absolutely disinterested motives, including sad to relate for the new standard of Turkish morality, the most persistent designs upon our pockets. These we withstood gallantly as long as our constitutions and tempers could hold out against repeated visits from our Hotel in Pera to the Custom-house in Stambul, and endless wrangles and disputes when we arrived there. Finally we succumbed, and then found that it would be only by the special intervention of the British Consul and wholesale bribery that we should succeed in rescuing the ill-fated weapon from the hands of the insatiable harpies who had seized upon it, and see it safely placed on board the steamer which was to convey us to Batoum on our way to Teheran.

We arrived at Constantinople intent upon continuing our journey with the least possible delay ; but we found that it would be useless to proceed further for another week, as the steamer from Baku to Enzeli only leaves once a fortnight during the winter months, in consequence of which our journey thus far had unfortunately been so timed that more than that period must now elapse before our possible departure from Baku. We determined, therefore, to spend a portion of our spare time where we were, and where, as has been said, we found ourselves extremely comfortable, in place of trusting to the tender mercies of Batoum or

Baku, which places in previous experiences had not inspired the most pleasant of associations.

After another desperate struggle with the Custom-house officials, involving the transfer of sundry Medjidies from our pockets to those of certain rascally-looking Greeks and Armenians, we found ourselves on board the boat which was to convey us on board the good steamer *Anatolie*, of the Compagnie Pacquet, which was to take us on to Batoum; but on approaching this we found to our dismay that our troubles were not yet over, for, seated in a boat alongside this steamer, we beheld yet another harpy whose presumed business it was to see that we took nothing on board subject to export duty. The mode of dealing with this one however was, as we found, simple in the extreme, for, under the direction of the guide who accompanied us, as we passed this boat, we held up a Medjidie in a very pointed manner, and then in the same way handed it over to the latter, whereby it was understood that, in consideration of this sum, we were to be allowed to pass on without stopping and place ourselves and our baggage on board without further let or hindrance. We were fortunate in catching a steamer of this particular line, as it is the only one which gets over the distance between the two ports in even fairly good time; for it takes no more than four days to do what the Russian steamer does in six or seven, putting in on the way only at Samsoun and Trebizond instead of the numerous other petty ports which the latter visits.

The Black Sea happily belied its name, and proved rather deserving of its euphemistic designation as the "Euxine," for during the whole of our voyage scarcely a ripple even broke its surface. We were thus able to enjoy the scenery of the coast, which must be really lovely later on when the snows are melted, and the sea air without any discomfort. On board we found ourselves the only passengers, and this we regretted all the less, as, when once the ice was broken, we found the Captain to be capital company. At first he was inclined to be a little brusque, but this soon wore off as he seemed to discover that we were not such bad specimens, considering that we were Englishmen, and our relations speedily became so cordial that

when it came to parting we separated with mutual regrets. At Trebizond, tempted by the picturesque situation of the place, we went ashore for a few hours while the steamer was discharging cargo, but were soon disenchanted by the filthiness of the town. From the sea, indeed, the view is most effective, but when once a landing is effected the charm vanishes, for the streets are just as dirty and narrow as those of any other Turkish town.

Batoum in the winter appears, if possible, a more undesirable residence than Batoum in the summer, and as the steamer approached the port, nothing could be more dismal than the scene presented; the air was thick with snow and sleet, so that only the bare outlines of the hills surrounding the town were to be seen; while what was visible of the latter appeared as if struggling to escape from being swallowed up in a morass of mud and slush. As it was Sunday we had to wait some hours for the Customs officers to come on board and pass our baggage before we were allowed to take it ashore; but the delay thus occasioned was amply compensated for by their politeness and courtesy when they did put in an appearance. Nothing then could be more considerate than their demeanour: in fact, the whole business was nothing beyond a formality, not a case of mine was opened and not a charge of any kind made. I was all the more surprised at this, as I had been repeatedly assured that the examination by the Russian Customs officers was extremely searching and unnecessarily severe, so much so that it would be hopeless to think of getting the unfortunate gun and cartridges, which had already cost me so much trouble at Constantinople, passed. I had, in consequence, been strongly advised to leave it there behind me; but this is only another instance of how grossly things are misrepresented, for the experience of most of my fellow-countrymen whom I have met, who have travelled in Russia, has been almost precisely that of my own, since, as I say, nothing could be more courteous than the treatment which all travellers meet with at the hands of the Russian Customs officials, more particularly, it would seem, if they are Englishmen.

There is unfortunately only one hotel at Batoum where French is spoken, and where charges are proportionately high, the hap-

less traveller being entirely at the mercy of its proprietor; so, if possible, it is desirable to lose no time in continuing one's journey to Tiflis or Baku, as the case may be. If the traveller be bound for shores across the Caspian, it is probable that he may have to wait some days, in which case the time thus to be got through may be spent far more pleasantly at Tiflis, where the climate is generally very agreeable and the hotels are good, than at either Batoum or Baku. There are two trains on from Batoum daily, one at 2 p.m. and the other at 9 a.m. The 2 p. m. train arrives at Tiflis at about 7 a.m. the next day, and the 9 a.m. train at 11 p.m. the same night. One advantage of going by the 2 p.m. train is that there is generally more room in it, and it was the one by which we decided to proceed. All along the line of rail lay heavy snow which, of course, got deeper and deeper as we climbed the Suram Pass, to such an extent that till quite recently the movements of the train used seriously to be impeded by it from time to time. This difficulty has now been overcome by the opening of the Tunnel through the highest point of the Pass, at which they have been working for some time past. Unfortunately it was night when we past through it, and thus were unaware of the fact.

Daybreak found us at the station of Mtshet, the ancient capital of Georgia, where there is a very curious old church, which I had visited some months ago in the course of a journey across the Caucasus. The church itself, though recently restored, must date from a very ancient period, but what is the most interesting feature about it is that it contains, intact, within one of its aisles, a still more ancient chapel, which must date from the earliest appearance of Christianity in these parts, and which the present structure was evidently built to protect and amplify. It is very curious to see this little shrine—the proofs of the extreme age of which can be seen in the weather-worn aspect of the materials of which it is composed—standing complete within the walls of the church, or rather cathedral as it might be called, for its size is above that of an ordinary church, which has been built over it. Inside this latter portion of the building are the tombs of the Georgian Kings, some of which

appeared to be very old, but the inscriptions being in Armenian it was impossible to ascertain the dates, and the attendants were too ignorant to give assistance in deciphering them.

As is the case throughout the Caucasus, the church here bears testimony to the barbarous treatment to which the Chirstian population in these parts used formerly to be subjected at the hands of their Mahommedan neighbours, by the fact that it forms the centre of a strongly fortified position which used to constitute the rallying point for the inhabitants of the town itself and its neighbourhood when attacked by the latter. Of the town itself but little is now left, the population having for many years abandoned it for Tiflis, which is the present capital of the Caucasus, and but little remains now of Mtshet itself but the church towering above a miserable hamlet.

About an hour after passing this station the train arrived at Tiflis. Here, instead of the raw damp climate of Batoum, we found a brilliant clear sky and a sharp frosty air. Though no snow was lying in the valley itself in which the city is situated all the hills enclosing it were covered with white, and when on looking out from the verandah of the Hotel de Londres a little later the peaks of the Kasbeg, the Caucasian Mont Blanc, shewed themselves covered with a rosy tinge as they became lighted up by the rays of the rising sun, the view was really lovely and quite Alpine in its effect.

The kindly landlady of the hotel was delighted to see old friends, and bustled about to make us comfortable, so that we soon found ourselves installed in a snug warm room with a good meal before us, which quickly made us forget all the discomforts of Batoum and the night journey thence by train. The last time I had been in Tiflis the weather was too hot to allow of much being done in the way of going about, so I now determined to make up for past omissions. The only sight, however, which really impressed me much was the old church, built high upon the sides of the hills overhanging the town, from which a really splendid view is obtained of the city and its neighbourhood.

Fortunately, at the time I visited the spot the sun was shining brilliantly and the effect produced by the bird's-eye view thus

obtained of the snowclad summits of the hills in front and enclosing the valley of the river Kur, the semi-oriental character of the town which lay at its feet, and the endless expanse of the valley along which the river itself wound its way, was very fine indeed, and amply repaid the visit to Tiflis as well as the climb up to the church. We availed ourselves of the opportunity thus afforded by our stay in Tiflis to provide ourselves with a few of the requisites for the march from Resht to Teheran at this time of the year, more particularly with Burkas, that is, long, felt waterproof cloaks, just as effective as regards the warmth they afford as fur coats, and about one-tenth of the cost; the price of a good Burka being about ten roubles instead of a hundred, which would be that of a fur coat. Another requisite was a Bashlik, that is, a sort of cowl for protecting the head from rain or snow, and a fur cap. Provided with these and some good field boots which we had bought at Dean's in the Strand before starting, we felt ourselves prepared to meet whatever might befall us on our way as regards the outer man. The provision for the inner man we deferred until our arrival at Baku, where, as we had had previous experience, excellent shops are to be found of every description.

The following night found us on our way to Baku by the train leaving Tiflis at midnight. In the same compartment with ourselves was a Russian returning from a holiday in Russia to his present home at a distance of over 100 miles from a station about 10 hours' distant along the line from Tiflis. He described in pathetic tones the difficulty he encountered in getting the Mahommedan inhabitants of the Caucasus, among whom he lived, to move in any way towards improving their position, and that in spite of the wonderfully productive powers of the land. He appeared to be engaged in some agricultural undertaking and to be full of energy; which like the same quality under similar circumstances in the case of Anglo-Indians, appears to be somewhat misplaced, as it seems more frequently to conduce to failure than to success. He could not help saying with a sort of good humoured sharpness when he heard that I was bound for Teheran: "Ah! you English find this railway of ours rather convenient;"

I dare say?" to which I replied that, "thanks to the kindness of the Russian Government in providing the railway, we could now get over the greater part of our journey with a great deal of comfort, whereas, without it, it would be a very difficult matter ndeed to get to Teheran;"-at which he laughed considerably. We arrived at Baku about 6 in the evening, and went off straight to the Hotel de l'Europe, which is the only one we knew of. The charges there are extortionate, and I believe that the Hotel Metropole, which has an English Interpreter, is better. In the Hotel de l'Europe no one speaks English, and only the proprietor very indifferent French. There is an excellent shop next door to the Hotel de l'Europe, where every sort of tinned and other provisions may be purchased, and we there fitted ourselves out with stores of every description for the march from Resht to Teheran, where absolutely nothing is procurable upon the way except eggs; among other things, with a few bottles of brandy and good wine, which are luxuries of inestimable value in Persia, nothing of the kind being procurable there except at exorbitant prices.

We much regretted that our stay in Baku did not admit of our going to see a sight which is quite unique, even in this land of petroleum springs, and that is the bursting of a spring at Bala Khani, which only occurs very rarely. Here we were told, I am afraid to say, how many gallons of oil were being thrown up hourly, so that all the neighbourhood was flooded, while all efforts to close the opening had proved unsuccessful; even nine-inch iron bars being worn through by the impulse of the fount with the sand which it carried in it in suspension like wood as fast as they could be put on. It seems strange that the Russian Government, in view of the absolute necessity of the presence of unlimited supplies of petroleum in these parts for the promotion of its schemes for the national welfare and aggrandisement, does not place some restriction upon the exploitation of the petroleum springs by which such reckless waste of this valuable material as that of which the above is an instance could be checked to some extent; for what would Russia do without the petroleum residue which supplies with fuel at almost a nominal cost her railways from Batoum to Baku and from Uzan Ada to Samarcand, besides all her steamers upon the Caspian, and to

the abundance of the supply of which her astonishing progress in these parts may be almost entirely attributed.

Were this, indeed, to fail, how powerless would she become, for coal appears to be procurable in very small quantities, and that at extremely high prices, whereas the petroleum residue is not only almost absurdly cheap in price, but far more effectual than coal for purposes of heating. I ventured some remarks of this kind to one of the officers on board the steamer from Baku to Enzeli, who appeared a very intelligent man, and who spoke English perfectly, but was met by the answer, "Oh! if the petroleum fails, something else will turn up." I thought that this was a truly Oriental way of looking at the question, the more so as it is one which, as far as can be judged, will have to be faced before very long, for I am told that, though it is only since the last twenty years that the petroleum springs have been regularly worked, it is already getting more and more difficult to tap them; for those near the surface being nearly exhausted, it is now found necessary to bore to very great depths before they can be come across. There is no doubt that the control of the exploitation of these springs is a matter of which the Russian Government should take very serious notice, as on their existence depends almost entirely the prospects of the regions in its neighbourhood and in Trans-Caspia.

As the steamer leaves Baku for Enzeli at midnight, we went on board after dinner, and being dead tired were fast asleep in no time. We did not thus realise the state of affairs till we awoke in the morning, when we found that the sea was very rough, and that the little toy-thing of a boat, which is all that the traveller can find here to convey him across the perils of the deep, was dancing about like a cork on the waves, and all but attempting to throw somersaults, as it appeared to us, with the most disastrous effect upon our interior economy.

The following morning showed us the coast all buried in snow; the wind, however, had gone down a little. As it was still impossible, in the present state of the sea, to land cargo at Lenkoran, all that destined for this place was transferred to a "lighter," which we then proceeded to tow outside the bay and left anchored opposite this port at a little distance off, till such

time as the sea might go down, and continued ourselves on our journey to Enzeli, where it was absolutely necessary that an attempt should be made at any rate to land the mails. The Captain was not at all sanguine about this, and told me that he fully expected to have the pleasure of my company back to Baku, as he saw no possibility of a boat coming out from shore. He said that in this case it would be the second time that he would have come without being able to land, for on the last voyage the sea had been just as rough. During the morning while we had been in calm water, I had recovered sufficiently to take note of what was going on round me, and to make the acquaintance of the Captain and the other officers, whom I found all first-rate fellows. Still much as I felt indebted to them all for their kindness, and indeed nothing could have been more hospitable than their treatment of me, I could not in simple honesty reciprocate this kind sentiment on the part of the Captain, and I determined to go ashore at all cost if possible whenever we got to our destination.

We found ourselves off Enzeli about 10 p.m. and lay there at anchor all night with a repetition of the harrowing experiences of the former night, the steamer being engaged apparently in desperate struggles to turn right round, funnel under. When day broke the prospect looked very hopeless. About a mile off us stood Enzeli, but between us was visible a very unpleasant looking bar, which was covered with foaming breakers, while the wind was rising, and not a boat was visible. The Captain, however, determined to wait an hour or two before commencing his journey back to Baku. At last with the aid of a field-glass, a boat was descried making its way through the surf, now rising on the top of the waves, and now entirely disappearing in the trough between them, in which from time to time it lay so long that it almost seemed as if it had disappeared altogether, and in due course of time it arrived safely alongside the steamer.

At Enzeli I took the opportunity of getting a cup of tea and a good warm, before commencing to cross the Lagoon to Peri Bazaar, where horses are to be found to take one across the remaining six miles by road to Resht. The wind was bitterly cold, and rain and sleet were driving hard as we crouched down

in the open boat which took us over; but with a fair wind approaching almost to a gale we did the distance to the mouth of the river on the other side in but little over an hour. We were then towed up stream for about an hour and a half. The channel in which the river ran was bounded by low mud banks, beyond which stretched endless swamps teeming with geese, duck, snipe, pelican, and every species of water fowl, a regular paradise for a sportsman; but tempting as the inducements thus offered were, we had no time to delay but hurried on to get to the end of this stage of our journey. At Peri Bazaar, which we reached after about a couple of hours winding up this river, we found numbers of ponies waiting, and had no difficulty in getting over the remainder of our journey to Resht. The road lay through rather pretty country, forests and jungle interspersed with patches of cultivation, till we arrived at the suburbs of the town, when we had to traverse the usual labyrinth of filthy lanes and alleys which usher the traveller into an Asiatic city.

Resht at this time of the year is one of the most dull and dreary-looking places that it is possible to see, with leaden skies above and endless mud and swamps on all sides. The appearance of the town itself, with its filthy alleys and squalid tumble-down houses, is in itself enough to make an impression on the cheeriest and most philosophical temperament, as the pestilential atmosphere with which one is surrounded is likely to have the same effect upon the robustest frame. No wonder then that it has such an evil repute among Europeans, who look upon it as a sort of graveyard of their species. There is not, therefore, as may be imagined, generally much competition for the honour of representing Her Majesty's Government here in the capacity of Vice-Consul, and the post had been vacant for some years till quite recently a young man was promoted to it from Teheran. He came full of health and spirits, an universal favourite, as it appeared, alike among Europeans and Asiatics; he sickened and died of typhoid fever within three weeks of his arrival. It was in his deserted house that we put up for our stay, and lucky indeed we were to find shelter there, for the only other accom-

modation would have been in the public caravansarai, where the rooms are filthy and ill-ventilated. Still, poor as the shelter thus appeared, and repugnant to the habits of the ordinary English traveller, it, at any rate, is such as protects him from the inclemency of the weather, and thus answers its purpose as far as all purposes of absolute necessity are concerned.

The outer man being thus provided for, it is not till the question of the provisions required for the inner man, and the all-important problem of what there is to eat and drink, presents itself, that one begins to realise the gulf which exists between the European civilisation, of which the last trace is embodied in the steamer which conveys one to Enzeli, and the Asiatic barbarism of the shores on which one has landed. It is probable that an Anglo-Indian, in spite of his Oriental experience, is almost less prepared to experience such a sudden change of his surroundings than any other person; for, to begin with, wherever he may find himself in the more civilised parts of India, there will always be a staging bungalow within some attainable distance where he can find shelter and both food and servants to cook it; and if he passes beyond these limits he is always accompanied by his servants, tents, cooking apparatus, and so rendered completely independent of circumstances; but to a traveller arriving with his baggage in Resht, after having settled the question of where to go for shelter with comparative ease, the knotty problem of how to manage for food is one by no means to be solved with equal facility. A servant must be found first to cook the food, then the pots and pans to cook it in, and lastly, when all this has been prepared, the food itself. In the meantime, the unfortunate traveller must either starve or be satisfied with kabobs and other delicacies of Oriental cookery procured in the bazaar, or a badly cooked, repulsive-looking fowl served up in what appears to the civilised eye an almost indecent condition of nakedness, which is all that results from the supremest efforts of the servant of the caravansarai in response to his repeated entreaties for food. In our case, happily, we were provided against all such troubles and discomforts by the resources of the Vice-Consul's

house in which we stayed, and where we fared almost luxuriously upon pheasant, duck, snipe, woodcock, and all similar products of the neighbouring swamps and jungles.

Little as was the inducement for a prolonged stay in Resht, the difficulties of getting out of the place and on our journey to Teheran were considerable; first, there were ponies to be ordered from the Chapparkhana or State Posting House; then there were ropes and blankets and all sorts of necessaries for the journey, to be purchased in the town. As regards the ponies, any one who has had the slightest experience of dealing with Asiatics may easily understand that every sort of solemn engagement was entered into by the man in charge of the Posting House to send them without fail the first thing the next morning, and that, in spite of all these promises and every form of threat, inducement, or entreaty which we could bring to bear upon him, it was not till the third day that any sign of them appeared, the morning of the third day however at last found us well on our way out of the town towards Kudum, which is the name of the first stage at a distance of about eighteen miles from Resht. The road thus far was excellent; for, indeed, it is not till about six miles further on that the real troubles of the journey begin, and wound through what, later on in the year when the trees are in foliage, must be the most lovely scenery. At present the bareness of the forest and the vast expanses of water and swamp lent a gloomy aspect to the scene, which rather reminded one of the weird effect of some of Dore's illustrations. On either side stretched endless expanses of forest and jungle completely bare of leaves and as silent as death, but here and there the monotony of the scene was relieved by the patches of primroses, violets, snowdrops, and every variety of spring flowers with which the sides of the road were studded. At Sangar, half-way on our day's march, where there is a capital sarai or staging house, we halted for an hour to rest and eat our luncheon, the baggage in the meanwhile going on, so that by the time we arrived at our quarters for the night we found everything ready for our reception, and dinner in course of progress. This plan we continued throughout.

Our party comprises a couple of mining engineers, who have been prospecting for mines for the past twelve months. Poor

fellows! they appear to have had a very hard time of it, having to be perpetually on the tramp, and that, too, into the most out-of-the-way and inaccessible parts of the country, where food and shelter are alike of the poorest description. They amused me much with their accounts of their experiences among the Natives of the country. They did not seem very hopeful about mining prospects, for it appears that the geological formation all over Persia is more or less of a comparatively recent origin, that is, later by some hundreds of millions of years, I suppose, in the magnificently grandiose way in which scientific men talk upon these subjects, than the older formation in which minerals and coal, etc., are found in great quantities. These older formations are of course at present deep below the surface of this more recent formation, but as the latter would have to be brushed away to a depth varying from 500 to 5,000 feet to get at them, they might almost as well for all practical purposes not be there at all. Again, there are abundance of small deposits of copper, iron, etc., as it is, but every place where these are to be found has been known to the inhabitants of the country and worked by them for centuries, till such limited supplies as were obtainable from these sources have been pretty well exhausted. Add to this that all the best of them are in the hands of private individuals, who are only prepared to part with their rights at the most extravagant prices, and it will be seen that the mineral wealth of Persia is not a very reliable quantity in the estimate of the natural resources, upon the development of which the regeneration of the country is to depend.

At Kudum we found a capital caravansari, with clean beds, fireplaces that did not smoke, and every luxury. Here, tired out with the first day's march, we slept the sleep of the just, full of the most sanguine hopes regarding the marches before us, the difficulties of which appeared to us from the day's experience to have been much exaggerated, but little did we know what was in store for us, or the days of aching frames and hungry insides which had to be got through before we should again know a feeling of comfort similar to that which now pervaded us. Next morning our troubles began, when at a few miles distance rising from the dead level plains which we had hitherto been traversing,

and where the aneroid barometer, by the way, only marked 150 feet above the sea-level, we commenced to ascend the valley of the Sufeid Rud, so called from the whitish colour of its waters, which are heavily laden with the soil of the hills from which it here emerges and from the deposit of which during many centuries the delta of the Gilan, as the tract of swamp and jungle intervening between here and the shores of the Caspian is called, is formed. Here we began with a morass formed by a stream running wild over the deep alluvial soil at the edge of the river. This was so deep and broad that it took us about an hour or more to get over it. The only thing I can compare it to is what is termed cotton soil during the monsoon. Having struggled through this we rested our horses a bit, and then proceeded to pick our way among shingle and boulders along a path which led up an ascent like the side of a house. Having arrived at the top of this we found a corresponding descent in front of us, and so we went on mile after mile the whole day for about 14 long weary miles, the only incident which varied the monotony being when, from time to time, one or other of our ponies tried to vary the mode of progression by walking down one or other of the hills upon his head. Had only a path been cut along the edge of the river all this incessant going up and down like a switchback railway—for no sooner had one finished descending one hill than one began immediately the ascent of another—might have been saved, but that was too much to expect of an Asiatic people. What was good enough for their ancestors two thousand years ago, is good enough for them, and must suffice for their posterity.

I must say though, that in the interests of simple humanity it does seem out of place to be commencing a road from Shuster to Teheran, while human beings and animals alike have to go through such horrible experiences along the miserable track which leads from Resht, which is the great highway of communication with Europe, and along which human beings travel by thousands annually, and beasts of burden by tens of thousands. I suppose the reason why the British Government has brought no influence to bear for the promotion of such a good work is because it knows that Russia would be immensely benefited by it; but if this

is the case, it appears to me to be carrying national jealousy to an extreme, and to rather an ungenerous one too, considering the extent to which we ourselves benefit in our intercourse with Persia by the Russian Railway from Batoum to Baku, in the absence of which we should be obliged to make a long and tedious journey all the way on horseback from Trebizond, a distance of 700 miles, a great part of the way being over a succession of rocky and difficult mountain passes, almost impassable during a great part of the year on account of the snow. It was not till about 4 p.m. that climbing up to the top of the last of these interminable hills in that day's march, we saw half-way up the broad open valley which there lay before us, the village of Rustomabad, where our quarters were to be for the night. Here again we found an excellent caravansarai, and that too, so situated, that a magnificent view lay before one's eyes from every point to which they were turned. The sarai itself was built just outside the village on a piece of rising ground in the middle of the valley from which at a distance of about two or three miles on either side rose gradually great ranges of mountains to a height of from 8,000 feet to 10,000 feet, a great part of which were, strange to say for this part of Persia, fairly well wooded. All the upper ranges were, of course, covered with snow, and the view as the sun rose and set was most lovely. With the exception, indeed, of the immediate foreground, which consisted of dusty plains, the general effect of the landscape was quite Himalayan in its character. It was to the last degree aggravating to find in reference to the mountain barometer that, in spite of all the labours of the day, we appeared to have ascended only about 350 feet since leaving Kudum.

Our way the next day lay still up the valley of the river, but as we were able to keep nearer to the river-bed, we had not to go through the repeated ascents and descents of the previous day's experience. We passed several villages at distances of about four or five miles apart, each with groves of olive trees around it, which appeared to be the principal product of this neighbourhood. I noticed that great pains seemed to be taken with the culture of these trees; a broad trench being dug out of the ground on the upper side of each as it stood on the side of the hill, which was

filled with manure and kept irrigated. The scenery during the day's march was very pretty, and the path being less atrociously bad than that of the day before, I was able to converse with my companions, whose store of technical information on geological and kindred subjects I found full of interest. They explained to me how impossible it was to find any great stores of coals or minerals among the formation we were passing through, and in one place they pointed out what had been made a great deal of by the Persians as constituting a valuable seam of coal exposed on the side of the road. I should have passed it by myself without noticing it, but my attention being directed to it I found it to be a strata of about nine inches broad of what appeared to me to resemble a stuff called, I believe, anthracite, that is, a sort of coal of a pale colour and a strong consistency, such as used to be found in the neighbourhood of Mach in the Bolan Pass, and about the importance of the discovery of which similar exaggerated accounts were given at the time.

It was very amusing, in the course of our several marches, to observe the condition of the telegraph line from Kasvin to Kesht, which is in the hands of the local authorities, and which ran alongside the track; in places it had insulators, in places it had not; here and there were poles stuck into the ground at every angle to support the wire, but between Resht and Kudum it was stretched along trees in the jungle which had simply their branches lopped off; sometimes it was fixed on to these poles and sometimes it lay along the ground. How on earth they ever managed to send a message by it, it was difficult to imagine, but they do occasionally, and what is still more strange the message reaches its destination. Manjil we found to be quite a metropolis with a Telegraph Office and Post Office. Here I parted from my companions, who had to remain to prospect some neighbouring hills, and had to continue my journey alone the following day. Fortunately the road was very good. By this I do not mean to suggest for a moment that any attempts had been made to improve it; but as it lay along a wide valley and involved no steep inclines there was no natural difficulty of any

kind to be encountered in traversing it, and I had been provided with a good supply of food for the day. It was thus not till I arrived at the Chapparkhana at the end of the stage, where I was to spend the night, that I realised all the "désagréments" of travelling without a servant.

Here I was shown into a very fairly good room, and when a fire had been lighted I felt quite comfortable; but when it came to thinking of what to eat, I found how far the resources of a Persian Chapparkhana were below even those of the much despised Indian dâk bungalow in the cooking line. Nothing was forthcoming but the grisliest of fowls served upon a piece of *chupatti* instead of a plate, with a lot of half-smoked and half-burnt rice in a bowl, the whole being dignified with the title of *pillau*, which seemed quite a libel upon this dish, which can be composed under more favourable circumstances, of such inviting materials. As it was, hungry as I was I could not eat it, and was obliged to have resource to some tinned provisions which I had brought from Baku. On these I made a fair meal, but wished that I had brought more, for not having foreseen quite the absolute deficiency of edibles on the way, I had only brought a small quantity. The height of this place, which was called Paiechinar, was marked by the aneroid about 1,300 feet. The next morning we began the toilsome march over the Kazan Pass to the next halting place, and I may say that, without exception, I found it the worst march I had ever made in my life. For the first six or seven miles, though the ascent was very steep and the track villainous, there was no snow. Along this part it was astonishing to see the number of chikoa or French partridge which we disturbed. The whole of the way lay among stony hills and stretches of perfectly bare earth, such as may be seen in the neighbourhood of the Bolan Pass and in Pesheen: indeed, the whole of the scenery during the following marches was exactly of this type. After this the snow began and deepened till, when we got to a little village at the top, it must have been generally about four or five feet deep, and in many places far deeper. Here the aneroid marked about 5,700 feet.

During frost the difficulties of marching through the snow must be far less than when it is beginning to thaw, as was the case on this occasion; for owing to the constant passage of numbers of animals, a track of hardly pressed down and frozen snow is formed, along which one can ride in perfect security, as it will bear any burden; but when a thaw sets in, the frozen top of this softens, and then as the animal goes along, one or other of his legs sinks through every moment, sometimes all four together. The result is equally wearying and unpleasant to animal and rider; first one hind leg goes through up to the hocks, then with a struggle the animal extricates it; then a foreleg goes through, and another lurch and struggle ensues; then both forelegs go through, and one is all but thrown over the animal's head. Indeed, on more than one occasion I found myself standing on the snow with the animal sunk altogether up to the girths beneath me. The mules and ponies so well understand the benefit of this track that, when meeting Kaffilas coming from the opposite direction, nothing would induce them to go off it; they knew too well that, bad as it was, it gave some footing, whereas the moment they left it they went floundering about in the snow, from which it was almost impossible to extricate themselves. Add to this that snow began to fall heavily, and it may be supposed that a march across the Kazan Pass in the winter is not one which one would undertake for pleasure.

It was thus with feelings of no little relief that descending the other side, we came in view in the distance, of the staging house of Mazra, where our troubles for the day were to come to an end. Here we found the worst accommodation we had yet come across; for the room we occupied had no windows, and the chimney smoked so that we could not light a fire in spite of the cold; and when it came to food, our lot indeed appeared a sad one, for we were reduced to a piece of raw bacon, which was all we had left, besides a tin of biscuits. We accordingly turned the biscuits out, fried the bacon in the empty tin, ate the lot, and turned in to sleep with the cheerful consciousness that at our next halting place, namely, the great city of Kasvin, we should find a hotel

with every luxury, a regular high-road and a carriage to convey us over the rest of our journey to Teheran. Dreaming of all these joys we fell fast asleep and forgot all the misery and troubles of the day. The next day's march to Kasvin was only a degree better than that of the preceding day, all round the Chapparkhana the snow lay piled to a depth of from six to seven feet, and through this a path had been cut; but for seven or eight weary miles beyond we floundered along through deep snow at a funereal pace of about 1½ miles to two miles an hour till we arrived on the plains at the foot of the hills. There the snow got less and less till, as we approached the town of Kasvin, it had almost entirely disappeared. Descending from the Kazan Pass one arrives on a plateau, the height of which ranges about 4,000 feet, and of which the greater part of Persia is composed. Here, as we emerged upon this vast plain, we could descry far far away, about ten miles off, the groves and orchards which surround Kasvin, but so heavy was the path with slush and half-melted snow, that it took us nearly five hours to traverse this distance, and it was quite dusk when we entered upon the environs of the town.

After marching through about three miles of mud and slush, into which the horses sometimes sank almost up to their girths, we arrived at the gates of Kasvin, which, fortunately, were still open. Had we been an hour or so later they would have been shut and then we should have had to spend the night outside, where we could, for, according to the laws of the Medes and Persians which, as every one knows, altereth not, the gate of a city, when once closed at night, cannot again be opened. Passing through the gate we entered upon an apparently endless series of streets, the centres piled up with half-thawed snow which had been scraped up there from the sides and from off the roofs of the houses. Every now and then in the midst of this snow a chasm yawned in front of us, where the top of the drain, which it seems to be the fashion in Persia to conduct along the middle of the street, had become uncovered. Seeing great dark passages descending on either side of the main street, I asked where these led to.

I was told to the Ab-ambar or Wells, wherein is stored the supply of water for the hot weather when a great scarcity ensues. It seemed almost incredible from the number of streams which we had passed on the way, and the river which flowed bank full only a short distance from the town, that any scarcity demanding such a measure could really be a fact, but I was assured it was the case. It only shows the reckless improvidence of the people of the country, for the whole of the neighbourhood is eminently suited for the construction of tanks. Hundreds of rivers and streams issue from the hills on every side in the immediate neighbourhood, which could with the most moderate engineering skill be made use of for the purpose.

Emerging from these alleys we entered upon the "Grand Place," as I suppose it would be called in a French town, which to our surprise we found dimly lighted up with oil lamps. This was a degree of civilisation which our previous experiences had not prepared us for, and we began to entertain the most extravagant hopes regarding the luxuries which we might find awaiting us at the "Hotel" which was at the opposite end of the "Grand Place" facing the Hotel de Ville, which was at the end by which we entered. Passing through an iron gate we entered upon a sweep which led us up to a really imposing looking building built after the fashion of an ordinary Indian bungalow, with broad verandahs all round, but about three times as big. Within we found a number of rooms which would have appeared plain or even sordid enough in Europe, but which, after our late experiences, seemed to us the height of comfort. In one of these we soon succeeded in lighting a blazing fire and sat down to warm and rest ourselves beside it, delighted to think that we should never have to do the journey thence to Resht but once again in our lives. In a short time the attendant appeared bringing some really capitally cooked cutlets and a bottle of Kasvin wine, which turned out to be very excellent.

The next day we started off to drive the remaining 80 miles to Teheran. For our own accommodation we found that a brougham had been provided, while our luggage was placed upon a

Tarantass; the road was about as bad as bad could be, so that we succeeded with difficulty in doing more than 40 miles a day. Our way lay along a vast plain enclosed on either side, towards the east and west, by ranges of mountains covered with deep snow, now in the course of melting, but stretching out as far as one could see towards the south. The sides of this plain inclined towards the middle, and along this rushed a broad torrent fed by constant streams from the melting snows on the mountains on either side. For the first day's journey the road was very heavy, and it was late in the afternoon and getting quite dusk by the time we arrived at the caravansarai, where we were to spend the night. This we found a miserable place, and in an indescribably filthy condition. We were, however, too tired to be critical, and retired promptly to rest. The next day the road improved vastly, as it led along the side of the range of mountains to the east of the plain where the ground was gravelly and hard, and we rattled along at the rate of about six or seven miles an hour, so that about 3 p.m. we came in sight of Teheran. When I say we came in sight, I must rather qualify my statement, for much to our disappointment there was but little to be seen. I should therefore rather say, to be strictly correct, that we came in sight of the place where we were told that Teheran was situated, for the city is built on rather low ground and behind huge mud ramparts, which rise to a height of about 40 feet above the level of the ground. As all the houses in the town are of mud, and but few of them rise to the height of the ramparts, all that is distinguishable in the distance is a few trees and insignificant looking towers. As one approaches nearer, one's attention is attracted by a tower built in a garden on the outskirts of the town which, being painted a brilliant green, acquires from its contrast to the dull gray monotony of its surroundings, an importance among the features of the landscape hardly merited by its size, which is paltry, or its style, which is debased. It is, however, the first sign of the neighbourhood of a large town which presents itself, and stands like a sentinel outside its gates, typical of the tawdriness and unsubstantiality of the régime which exists beyond.

Entering the town, one's carriage is stopped by the Custom-house officials who, with a demonstration of conscientious zeal thoroughly Asiatic in its character, appear to be determined to overhaul all our baggage. We find, however, as we had expected, that after a little conversation the transfer of a few krans to their palms has a magic effect in overcoming the conscientious scruples by which they are actuated, and continue our way to the hotel, as the miserable collection of hovels, which is all that a stranger arriving here can find to shelter himself in, is euphemistically designated. Having procured a room, which appeared to act as either dining-room or sleeping-room alternately, we proceeded to take steps to endeavour to remove a portion of the grime which had accumulated on our bodies in the course of our seven days' journey from Resht; for, needless to say, no bath of any kind had been procurable upon the way; but upon enquiries being made, the proprietor of the hotel evidently considers such a request a demand upon his resources as unwarranted as it is without precedent, and coldly informs us that if nothing less than a bath will suit our requirements he might possibly be able to get one ready in the course of several hours, but that he would recommend us to go to a neighbouring Turkish bath in preference. We accordingly wended our way thither, for as to deferring such an important matter it was quite out of the question. The bath we found to be of the poorest and most miserable description, a great contrast indeed to those found elsewhere in Asiatic countries. This is probably owing to the fact that all the wealthier people have baths of their own, and it is only quite the poorer classes which frequent the public baths.

On awaking the next day I found that my face had become completely blistered all over from the effects of the sun upon the skin during the last day's march across the Kazan mountain when the sky had been quite clear. I had felt the glare a little, but as I had fortunately brought dark spectacles with me I did not anticipate any effects from it, least of all to a skin pretty well tanned, as I imagined, by years of exposure to an Indian sun in such climates as Sind and Rajputana. However, my face was

in such a state of almost rawness for that day, and almost a week following, that it was quite impossible that I should go out, the more so as I could not shave; and what with a half-skinned face and several days' growth of beard, I looked such an unutterable ruffian that I was ashamed to be seen even by my servants. I had noticed while marching through the snow that the Europeans I had met had their faces all wrapped up in clothes, except just places for the eyes to look through, but it had never occurred to me that this was anything but an absurdly foppish precaution to preserve their complexions. However, I shall be wiser another time, and not despise what appeared to me then a frivolous carefulness about one's appearance. At Baku I had luckily met at the hotel a young German who had just come from Teheran, and he told me that, owing to his being unprovided with dark spectacles, his eyes had been so affected by the glare upon the snow that he had been quite blind for days after his arrival in Teheran. I had profited by this portion of his experience, and provided myself with eye-protectors, but that relating to a veil or covering to the face I had neglected. In consequence, I had to spend six weary days indoors, only stealing out for a walk in the early morning or the dusk of the evening when no one was about.

However, I found plenty to interest me as soon as I was able to go about. I visited several of the Persian officials, and among others I had the honour of being received by the Naib-us-Sultanat, the Governor of Teheran, and one of the sons of the Shah, who made a most favourable impression upon me, as he does upon all Europeans, by the gentleness and courtesy of his address and manners. We found him, on entering, deeply engaged with a number of his officers in transacting business connected with his duties as Governor of the City and Commander-in-Chief of the local garrison. That he is not without remarkable acuteness and powers of observation was proved by an incident which occurred to me some days later. It must be remembered that on the occasion of this interview I was, of course, in "grande tenue" frock coat, tall hat, etc., and that it only lasted a few minutes. About a week after this I was walk-

ing along the streets, when a number of troops passed me. I followed them on to the Champ de Mars or large parade ground. There I found a number of troops drawn up for a review and awaiting the arrival of the Shah. I joined in the crowd of onlookers. A few minutes later the Naib-us-Sultanat rode up, accompanied by a staff of officers, and took up his position a little distance off. I did not recognise him a bit, as he had a great poke over his eyes, but I saw him look at me. He then took off this poke and rode up to me, and spoke to me, whereupon, of course, I knew who he was. He made me come out of the crowd, and sent me to a tent where there were collected a lot of the great officials. Here I found myself in rather an unpleasant position, as I was only dressed in a rough walking suit, while all those I was among were in full dress. However, they did not seem to mind, and so I remained there, and looked on at the review which, if not edifying, was, at any rate, amusing from the novelty and originality of the principles upon which it appeared to be conducted. After an hour or so's delay—for, I believe, it is considered undignified in an Oriental Court for a Sovereign to be punctual—the Shah appeared in a carriage drawn by six horses, and drove round the ground to the right of the line of the Cossacks and Artillery, which were drawn up in an alignment with the tent in which I was seated.

He then mounted on horseback, and rode along the line accompanied by all his staff. After that he rode back again, and then sat down in the tent to the right of the one which I was in. After this portion of the proceedings the real show began, and it was one well worth seeing, though difficult to describe. All round the large square, at one end of which the tents occupied by the Shah and his officers, etc., had been pitched, were drawn up regiments of every description and variety of uniform, to the number, probably, of about 6,000 to 7,000 men. Some of these were dressed in Austrian uniform, some in French uniform, some in German uniform: in fact, each regiment appeared to be uniformed according to the nationality of its Commanding Officer. I do not think that the Shah has any British officers in his employ, otherwise probably a regiment would have been present after

the pattern of the Grenadier Guards; for no regiment appeared to be conformed upon any less pretentious model than the "Corps d'Elite" of the country whose troops it aimed at copying. The Austrian regiments were regiments of the Guard: in the same way with the German, etc. Well, to continue. At a given signal all these regiments advanced madly from all three sides of the square, and then commenced nothing but what could be described as a species of ballet on a gigantic scale. Some advanced boldly and retreated frantically; others marched past, and through, and round one another. In some cases, after advancing to the middle of the plain, the band would suddenly halt, and the regiment following would march wildly round and round it like a whirligig. As each regiment, besides being uniformed after the type of the troops of a different nationality, had been trained and drilled in its own peculiar way, the effect produced was of a medley of troops of all nations parading, while the noise from the bands, which all played at once, was simply distracting. The Austrian troops manœuvred with their rifles slung muzzle down over the shoulders and turned right about with the peculiar swing and kick of the leg which is characteristic of the Austrian drill. The French manœuvred with the jaunty national step, and the Germans plodded along with the dull heavy beetle-crushing gait peculiar to the nationality which they represented; and so the show continued for about an hour. Altogether it was a wonderful sight, and one which I would not have missed seeing for anything. I should mention that all this time the Persian Cossacks, which are a body of very serviceable and well-mounted men, armed and drilled after the Russian type, and officered by Russians, maintained an attitude of dignified abstention from all this frivolity, and kept their places where they had been originally drawn up. As far as I could judge, this appeared the only portion of the troops likely to be of any practical use.

I was going to say that it is a pity that there is not any particular portion of the city of Teheran set apart for the occupation of the European population; but perhaps, considering the social relations of these towards one another, it is as well that it should remain as it is, scattered about the town, though

this involves a great deal of trouble when making visits. Having completely recovered from the effects of my journey, I determined to go round and call upon all the Diplomatic representatives. This I found no slight undertaking, as one lived in one quarter of the town and the other in another. In the principal street, however, four Legations have, with great consideration for the public, apparently managed to find suitable accommodation for themselves: hence the street is called the "Grande Rue des Ambassadeurs"—a title the pretentiousness of which is hardly carried out in the effect produced by its appearance, which is anything but imposing. This is owing to the fact rather of the peculiar mode of construction of the Persian houses, than to the absence of fine buildings. Throughout the towns of Persia the streets in which the private houses are situated are lined with blank walls, the monotony of the effect produced by which is only broken by the gateways, which appear at intervals according to the dimensions or pretentiousness of the premises existing behind them. These gateways open into a courtyard or garden, at the further end of which, or around which, are ranged the buildings constituting the house. This is by no means an unpleasant or inconvenient arrangement, though it is not one that contributes to the general appearance of the town; for ample light and air are thus secured to all the rooms of the house, while the garden in the middle, which has generally a little tank or a fountain in its centre, and is traversed by paths shaded by trellis work with creepers, gives a very much prettier outlook than would be gained by a view only on to the streets. The privacy thus secured, too, is another great advantage.

I was much interested in the course of my visits to discover, as it appeared to me, the origin of the popular designation of an American as "Yankee Doodle," which has always appeared to me to be a matter of such obscurity as to defeat all enquiries. I wished to call upon the American Minister, but could not for the life of me manage to make the coachman understand where I wanted to go. At last I called in the aid of an interpreter, and he appeared to me to say something that sounded to me exactly like "Yankee Doodle." At this I was equally surprised and

shocked, for I could not imagine how such a vulgar English expression could have penetrated hither and become in common use among the people of the place, and it appeared to me to be a most unbecoming mode of designating the Diplomatic Representative of a very great Power. I accordingly remonstrated with the author of this expression against its use, when after some difficulty he succeeded in explaining to me that the words he had used had not been Yankee Doodle, as I had imagined, but "Yangee Doonya," the Turkish for New World, which is the term by which America is geographically designated throughout the educated classes in Persia.

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It was not without feelings of considerable satisfaction that I found myself at last after some delay about to leave Teheran *en route* to Ispahan, the more so as I had had the luck to secure for myself a companion for the journey, whose society could not fail to be alike pleasant and interesting, as he had been working for a long time past in various out-of-the-way parts of the country, mapping and obtaining general information for the benefit of the Intelligence Department. As he wished to proceed to Ispahan by any way rather than the beaten track, I was delighted to fall in with his views which quite agreed with my own feelings upon the subject, and we decided to march through a portion of the great central Desert of Persia *viâ* the Saih Kuh Mountains, which, though lying in the immediate vicinity of the high road, was, as a matter of fact, almost unexplored country, so much so that the actual position of the mountains themselves has been only approximately defined upon the maps.

After several unsuccessful attempts we managed to effect a start, and the music of the mule bells, as our caravan wound its way through the outskirts of Teheran, sounded quite inspiriting to us riding on ahead with our guide to lead the way to the first camping-ground, in spite of the fearful din which it created on a closer acquaintance. One delight of wandering off the beaten track is that one feels so thoroughly independent and master of oneself, there is no feeling of being obliged to cover a certain

distance in the course of the day's march in order to arrive at a predetermined camping-ground; for the merits of all the various possible camping-grounds being unknown, one is free from all prejudice or preference on the subject, and thus at liberty to halt when one feels thus inclined without being harassed by any scruples as to whether one ought not to have gone so many miles further. Besides one great advantage of travelling in this manner is that one is inclined to accept in such a philosophical manner whatever befalls one; being absolutely unprepared for any conveniences, one has no possible grounds for being discontented or grumbling at not finding them, and consequently if the water is bad or supplies not forthcoming, or if it comes on to rain and there be no shelter near, or one's tent gets blown down in the night, or the thousand-and-one incidents occur that mar the enjoyment of marching in comparatively uncivilized countries, one accepts one's fate without demur and tries to make the best of the circumstances for expecting nothing one cannot be disappointed; and if one finds that no difficulties occur but that things go smoothly, one is proportionately happy and contented. The climate of Persia in the month of April is peculiarly pleasant for out-door life and marching. The sun is warm by day and yet the air is still quite cold, so that the moment one is able to get out of the direct rays of the sun one finds oneself in a delightfully cool atmosphere such as reminds one of a spring-day at home, and when one is tired one can lie down under the shade of any chance tree that one comes across, not that such natural adornments of the landscape are by any means plentiful as a rule, and doze away a couple of hours or so after luncheon during the heat of the day.

Leaving Teheran behind us our first day's march—after passing the shrine of Abdul Azim and the abortive attempt at a railway which there comes to an abrupt conclusion and may be looked upon as a typical result of all attempts to foist upon the conservative Persian a degree of civilisation which he is alike unprepared for and disinclined to—lay through the vast level plains of more or less culturable land which stretch out for a distance of 40 or 50 miles towards the east. I say culturable pointedly, for land of

this description is comparatively scanty throughout Persia except in limited patches scattered at intervals where springs are found to exist, or else along the immediate margins of the rivers. Here, however, it is to be seen stretching for miles with abundant supplies of water apparently intersecting it in all directions in the streams brought down by numerous *kanats* from the hills which bound it to the immediate north. Not that by any means the whole extent of the area thus available appeared to be actually brought under cultivation, but still the dusty grey monotony of the greater proportion of the surface of the ground was here varied by extensive stretches of luxuriant crops of barley and corn of the most brilliant green, while the edges of the water-courses were fringed with rows of stunted willow trees, the whole scene presenting, as my companion told me, a very good specimen of the productive portions of Persia viewed under the most favourable circumstances. Under the scanty shade to be obtained from some of these trees we halted for lunch and to allow our caravan of mules to precede us to the village where we had decided to camp for the night, and hot though the sun had appeared to us while riding, we found the air directly we sat down in this trifling shade quite cool, not to say almost cold. It was delightful to lounge thus in the open air discussing our frugal meal after a month's confinement to the stuffy houses and narrow streets of Teheran, and it was with some reluctance that we roused ourselves to continue our march on to our halting place.

As the day wore on clouds gathered on all sides and rain appeared in the distance upon the mountains, so that when we arrived at our tents I thought it advisable to remove my goods and belongings to the cover of a dilapidated sort of summer-house in a garden near. The more so as my tent was one of Persian manufacture bought in Teheran, and when pitched now for the first time presented the most comical appearance such as invited but little confidence in the protection to be afforded underneath it from either sunshine or storm. However, as regarded the former, it belied its name, for flimsy as was the quality of the cloth of which it was made, it afforded all the shelter which I subsequently found myself in need of in this respect, at any rate

as far as Ispahan, except in the case of one or two days upon the desert. From this the actual force of the sun's rays in this part of Persia during the month of April may be gauged in spite of the apparent heat of the sun; while as regards rain we never experienced any, so there was no occasion to provide against it in our case fortunately. Not but what rain does occasionally fall in Persia, particularly at this time of the year, but the area affected by it is usually the immediate neighbourhood of the mountains, whereas our way lay along the plains at a considerable distance from any hills even; still we could observe, as long as they were in sight, heavy clouds hanging over the mountains to the south in the neighbourhood of Kum and Kashan.

It is not perhaps generally known that of late years a large lake has formed itself about 60 miles due south of Teheran which is gradually extending its margin and swallowing up more and more country till it promises by the extensive surface of water which is thus being created to introduce a considerable change into the climate of this part of the country, particularly as regards the rainfall. Indeed, it is said that symptoms of such a change have already shewn themselves according to the opinions of the older European inhabitants of the Capital. The story of the occasion of the formation of this lake is too thoroughly characteristic of the country to be omitted, not that I would by any means be any guarantee for its authenticity. It is said that amongst other improvements lately introduced into the country was the construction of a cart road from Kum to Teheran. On its completion, however, it was found that with the conservatism characteristic of all Oriental peoples, the inhabitants of the country preferred the old track along which they had been accustomed to travel for centuries to the new road, in spite of its bridges and culverts and other European innovations. The Government, distressed at this want of appreciation on the part of its subjects at the efforts thus made for their advantage, directed that the embankment, which had from time immemorial prevented a certain river from encroaching on this track affected by the people of the country, in preference to its own beautiful brand-new road, should be cut through with

a view to rendering it impassable and thus literally forcing its recalcitrant population into the way into which it would have them go. No sooner was this done, than the river, treated in this unceremonious manner, deserted its old channel altogether, and instead of running to waste as it had hitherto done in the deserts to the south, turned towards the west, and finding there a vast hollow extending for miles and miles of soil of a description endowed presumably with less powers of absorption than that in which it formerly used to waste itself, commenced to form a lake there. As this hollow stretches far away towards the desert without any outlet, the water thus accumulated extends its area year by year till, as I say, it is already beginning, in spite of the comparative recency of the diversion of this river which only dates, I believe, from about 8 or 10 years back, to exercise, according to the popular opinion, a noticeable effect upon the climate and rainfall of the neighbourhood.

Amongst the Mahommedan population, who are always prepared, for reasons as often of personal convenience and to save themselves trouble as for any other, to see the inevitable in whatever occurs, the formation of this lake is looked upon as a special miracle on the part of some presiding Saint of the neighbourhood with which it would be nothing less than sacrilegious to interfere, and accordingly they religiously discourage any suggestions of an attempt to restore the stream to its former channel. In this case this fatalism of their character is not without its merits, for it is possible that a more energetic people might have resented this independent action on the part of the river and promptly suppressed it while it was still possible to do so, in which case the benefits that will probably result from its action would have been lost. While on the subject of this lake which, however, promises to become a most useful and important feature in the natural economy of the country, it is as well to remark upon the tremendous amount of water which appears to be allowed to run to waste on various scales in different parts of Persia from that contained in a small irrigation rivulet or in a *kanat*, the tail of which is left to wander away without being made use of, as may be frequently seen when marching, to that comprised in the volume of a

good-sized river, as was the case with the one in question formerly, and as is the case with the Zaindarud, the tail of which forms an extensive and hitherto undefined swamp locally distinguished by the designation of Gawkhand, on the way between Ispahan and Yezd.

Our next day's march brought us to a sight full of interest, for continuing our way through the same more or less cultivated plain, we came upon the ruins of the ancient Persian city of Veramin, which, to judge from the extent of space covered by its remains, must have been a very important one in former days. Unfortunately, in consequence probably of the bigotry of the Mussulman invaders, the only portion left in anything like a state of preservation amongst them was a solitary tower of a most peculiar form covered with inscriptions which loomed out in the distance in solitary grandeur amidst the ruins and decay which surrounded it, and which apparently had constituted a fire-temple originally. The tiles bearing the designs and inscriptions were still mostly perfect, but the base of the tower was so undermined by the breaking away of the bricks forming it, that there seemed but little probability of its being able to stand the wear and tear of many years more. It seems a pity that such an interesting relic should be allowed to disappear, but any steps to prevent such a thing are of course out of the question in a country like Persia. On the very top of this tower a stork had curiously enough built a huge nest, and standing on the top of this presented a very quaint appearance which it was difficult to make out in the distance.

We found that for this night, in consequence of the threatening appearance of the atmosphere, our servants had taken us a room in the village where we were to stay; the consequence was that we constituted a sort of popular show to the whole population from the time that we arrived at our quarters till it was too dark for us to be visible any longer. For all this time the whole of the flat roofs of the houses surrounding the yard in which we were seated was crowded with women and children who seemed never tired of watching us and commenting upon our proceedings, for though only about 40 miles distant from Teheran, we were then in parts so much

out of the beaten track that a *Feringhi* was but seldom seen there, perhaps not once in a lifetime, so that our appearance created a considerable amount of interest amongst this portion of the population which never had a chance of moving from their homes to visit the strange sights in Teheran.

It is very amusing as one gets further and further into the wilds in Persia to hear the questions asked of one by the villagers and to see how utterly and completely ignorant they are of anything beyond the limited sphere known to them and bounded by the villages scattered round. Many of them appear to be quite incapable of understanding that there could be any other religion in the world besides that of Mahommedanism and to take it for granted that we must be co-religionists with themselves; this was particularly the case with myself, as being acquainted with many of the forms of faith prevalent among the Sunni sect, I could to a certain extent carry out this misconception on their part. In other places, where the inhabitants were better informed and well acquainted with the existence of representatives of a different form of religion known distinctively as *Feringhis*, I cannot say that the feeling which they gave expression to on the subject of their personal opinion about these, would be regarded as entirely flattering to ourselves. One day while out shooting amongst the mountains of the Siah Kuh I fell in with some wandering Arabs and sat down to have a talk with them; they understood that I was a Mahommedan, and for the purpose of enquiry I did not disabuse them of this idea, but repudiated any connection with the Christians, saying that I was of a nationality called English, which was an infinitely superior and more wealthy and powerful race than any other *Feringhi*, whereupon one of these unsophisticated children of the desert began to express his feelings very candidly on the subject of the representatives of the Christian religion with whom he had been acquainted, in the course of which he said, "We have a proverb here that 'bad as is a Belooch, he is better than a Christian.'"

To understand the point of this it must be explained that this conversation took place in the neighbourhood of a famous pass in the great Persian desert through which the Belooch

marauders used to go to raid upon the villages to the west and the caravans passing along the high roads from Teheran to Ispahan and Yezd. Mounted on swift camels they used to dash out of the waterless and inaccessible wilds of the desert, collect all the plunder that they could and then return to their lair where no one was able to follow them; so that till quite recently their name was a terror throughout the more orderly classes of the people. The particular Christians referred to would be of course the Armenians, which is the only Christian population of Persia with which its Mahommedan inhabitants are to any extent acquainted. These Armenians are a thoroughly commercial race, and though treated with but scanty respect or consideration by the Mahommedans, are able to retaliate upon these in the course of their business relations with them; for the Mahommedan being mostly a careless and improvident individual, with but little spare cash beside him, as a rule is glad to come to the despised Armenian Christian to borrow money. Besides this, the latter are dealers in goods which the ordinary Persian cannot obtain elsewhere, such as European goods of various descriptions, which he is in the habit of selling to his ignorant and confiding fellow countryman at about ten times their real value; so that the real gist of the proverb was, "It is better to be robbed by the Belooch than by the Christian," or "Great a robber as is the Belooch he does not equal the Christian." I endeavoured to explain to him that the terms Feringhi and Christian were not synonymous, and that the Christians with whom he was more immediately acquainted were not *Feringhi*, as the latter came in every case from very long distances across the seas, whereas the Armenians lived in the same country with him, but I doubt if I made much impression upon him.

In another place, as I was haranguing an assembled crowd of villagers on the superior excellencies of the English over every other variety of *Feringhi*, I was asked if I was of the same religion with the "Ooroos!" This of course I said was so, my interlocutor then proceeded to enquire how it was in that case that we were not friends; this was rather an embarrassing question, as according to a Mahommedan point of

view the idea of two nations of the same faith being enemies or rivals is a most unnatural one, and I did not quite know how to answer it till it suddenly occurred to me to explain that certainly we were both Christians but that we were of rival sects, similar to those of the *Sunnis* and *Shiahs* amongst the Mahommedans. This of course immediately satisfied their difficulties, and I made a markedly favourable impression upon them in favour of my own nationality when I went on further to explain that of the rival Christian sects the English represented the orthodox faith, such as would correspond to that of the Shiahs amongst the Mahommedans.

It seemed to me indeed astonishing to observe how intense appeared to be the hatred existing between these two conflicting sects of the Mahommedan faith, for extreme as is the feeling of aversion of the fanatical Shiah Mahommedan of Persia to a Christian, and in this respect I must say that he excels the Sunni Mahommedan of other countries, though his aversion does not take such an openly aggressive form, still it is not greater than that which he entertains towards his co-religionists of the rival sect. There is nothing more characteristic of this than that while he will speak with the greatest reverence and respect of the Christian's Prophet (as they call him) Jesus, who in the Mahommedan creed is described as "The Spirit of God," he will never mention the great leader of the Sunni sect, namely, the Caliph Omar, without terms of the vilest abuse. As an instance of the tolerant spirit of the better informed or less fanatical Persian Mahommedan towards a Christian, I may mention that, losing my way one day, I found myself separated from my servants and quite alone in the neighbourhood of a large village. I rode into it to get a guide, and found a lot of the inhabitants collected upon the open space in the middle; some of them when they saw me jeered at me, one man seized the reins of my horse, and said, "Give me money and I will shew you the way," when an eminently respectable and dignified looking man, whom I afterwards found to be the headman of the village, walked up to me, *salaamed*, and simply said, "Follow me." As we got outside the village he began to open up a conversation and asked me where I came from and where I was going to, and

finally what was my religion. I said I was a follower of Jesus as they term it in Oriental countries; he then said, "Are you, indeed? Well, Jesus, you know, is one of our great Prophets, for we say in our creed, 'there is no God but God, and Jesus is the Spirit of God.'" And finally we parted with the greatest cordiality, but not till he had put me quite on my road, and though he had put himself to considerable trouble to do this, he would not accept any reward, but gave me his blessing and said he was very glad to have been of use to me.

The majority, however, of the Mahommedan inhabitants of Persia, particularly such as inhabit the cities, is by no means disposed by such charitable feelings towards the Christians who live amongst them. Being more orderly in their habits and civilized in their demeanour than the Sunni races, with which our national relations bring us mostly in contact, they are not so openly aggressive in their attitude towards them as are these latter, but their disgust and hatred are not the less deeply rooted because it is not shewn, or is disguised under the veil of politeness and sociable manners.

It would seem, however, that this fanatical feeling is more prevalent amongst the inhabitants of the towns and larger villages who are more immediately under the influence of the *Mullas* and religious teachers, whose interest it is to encourage these feelings from professional reasons, as they are aware that an extended intercourse with Europeans will introduce more liberal and enlightened ideas into the country and thus lower their own influence, which depends upon their own self-assumption and the ignorance of those whom they impose upon, just as the case with the Brahmins who, as a class, are the most determined opponents of our rule in India. In the smaller villages however, and those considerably removed from the beaten track, I must say that I have experienced the greatest kindness and hospitality, but then, as I say, in many of these they do not know what a *Feringhi* is, and only associate the idea of a Christian with an Armenian.

The next day brought us to the limit of the area of cultivation which we had hitherto been traversing, and before us lay eight days' march through a region where absolutely nothing

was procurable but water, and that only of a very indifferent quality in places, and at long intervals. Here we had to halt for two days to negotiate for supplies of grass and grain for the maintenance of the 20 mules and ponies which carried us and our baggage, besides the supplies necessary for the 12 human beings, comprising ourselves, our servants, and the muleteers.

It is difficult for those who have not had an experience of the kind to imagine what innumerable requirements are suddenly found to arise for a party about to enter upon a region where there is nothing to be obtained of the simplest necessaries of life for such a short period as even seven days; and as the time approached for our starting, it seemed even doubtful if the eight camels which we had hired for the purpose would be sufficient to carry all the miscellaneous collection of articles which, according to our servants' account, was quite indispensable for our well-being, if not for our actual existence, during the next few days. In considering this point we had reason to congratulate ourselves very much that at any rate we had no necessity to take water with us, as would have been the case had we been bent upon crossing many other portions of the same desert, where even water is missing, for this would have involved the entertainment of about 50 camels at least, instead of only 8, to carry the great leather water bags used on such occasions. Even in this point we found we were rather too sanguine, for though we were told that water was, as we found to be the case, procurable more or less along the route we had decided upon following, still it was not always drinkable, and in more than one case we had to carry the water intended for our own personal use for some days from the last point where we had had the luck to come across a spring of sweet water.

Those who have never lived in any countries but such as abound in streams and springs, and where brackish water is unknown, can hardly understand what an important part the presence of water of any quality plays in the existence of those who reside in regions such as those of Persia and Central Asia, and how much the comfort of these depends upon the merits of the particular supply of water upon which they are dependent for their daily sustenance.

To an Englishman, for instance, it sounds strange if not absurd to hear a person discussing the merits of the water at a particular place as if it were some rare kind of wine, or to have one's servants urging one when one is already tired with a long march to go on some miles further before halting, on the plea that the water there is so much better than that at the place where one proposed to stop; but when one has had some days' experience of the vileness of the flavour and unpleasantness of the effects which water, apparently bright and clear to judge from its appearance, is capable of attributing to itself, and has tried to disguise the taste with tea or spirits, only to find that Epsom salts and tea were only more nauseous than Epsom salts and whisky, and that for a thirsty man the only thing to do was to grin and bear it and be thankful to be able to occasionally wet one's mouth with the filthy solution of salts and other minerals which was all that Nature had thought fit to provide for the convenience of those who ventured into these regions, evidently not intended for the residence of man, or if so only for those who could find no means of existence elsewhere, or had a grudge against their fellow creatures which compelled them to take to the most inacessible parts of the earth, I say it does not take long to understand the merits of a delicious draught of really sweet water, and that the first question asked upon arriving at a well or a spring and seeing any one drink of it is, "Is the water sweet?"

Having completed all our preparations we marched the next day; but such is the uneasiness inspired by the idea of entering upon a journey into the desert and the reluctance with which it is faced, that we could not persuade either our muleteers or camelmen to go further than the remains of a dilapidated village, which stood as it were like a solitary outpost about eight miles into the desert where a scanty spring of water had induced a single family to settle, and thus constitute as it were the last vestige of a settled population for a distance, it may be said, of several hundreds of miles, if not to the very confines of our possessions or Sind. It was of course too annoying after having already wasted so much time to be obliged to waste a day thus, for 24 miles constitute a proper day's march in Persia, and by going

on a distance of about 18 miles further, we should have been able to reach a spring of water where we could have camped for the night. However, there was no good in trying to force the inclinations or prejudices of our servants, and the only thing to do was to fall in with as good a grace as possible with the immemorial custom of deferring an entrance into the wild and desolate regions which lay before as long as there could possibly be an excuse for doing so.

It is strange to observe the vague fears and superstitions which in the minds of the more settled populations in the neighbourhood surround the vast extent of barren and uninhabited country known as the Great Desert of Persia. So little are the latter acquainted with those regions into which they rarely venture themselves, that there is nothing they are not ready to believe regarding the wonders and horrors to be seen there—the monstrous animals and the malignant spirits which haunt these wilds, besides the more tangible dangers resulting from possible attacks by robbers—from the mouths of those whom the overpowering calls of superstition,—as in the case of those who determine on making a pilgrimage to the sacred shrine at Meshed,—or business,—as in that of the owners of camels and mules who gain their living by conveying merchandise to and from between the towns and villages on either side of this desert,—have compelled however much against their fears and inclinations to visit this strange region. These even hurry along the beaten tracks which have been traversed from unknown centuries, looking neither to the right nor left, but with their eyes fixed on the goal of the day's march, thankful to get to their journey's end day by day without having encountered devil, monster or bandit, and to find there a supply of water sufficient for their needs, but utterly ignorant of anything regarding the country they have passed through, beyond that which lay within a few hundred yards of the path which they have come along. And yet such is the scene of absolute desolation which encounters the eye in every direction as one marches on hour after hour and day after day through these vast solitudes, and the weird appearance of the forms assumed by the ragged and broken outlines of the sterile ranges of hills and mountains which rise abruptly from the plains at various intervals,

rendered still more imposing and grotesque, whether viewed by sunlight or moonlight, through the intense dryness and clearness of the air, which magnifies their dimensions tenfold and exaggerates equally the relief between light and shade, till a little bush appears in the distance like a big tree and a trifling rock like a huge mountain; while the mountains themselves appear covered with all sorts of fantastic appearances in the forms of castles and precipices with black and awesome abysses. So strange and unworldlike is the landscape thus presented on all sides that even to the well-balanced and matter-of-fact mind of the European traveller the desert is not without its charms, if only on account of the strange qualms which the extreme solitude of the scene and the unaccustomed appearances which there surround him produce on his mind.

The only human beings who frequent these parts are scattered bands of the "Ilyats," or wandering tribes of Persia, who graze their flocks in the more favoured portions. There a supply of water sufficient for the purpose of supporting their limited numbers is to be found, and these in the wildness of their manners and grotesqueness of their appearance accord well with the surroundings amidst which they spend their lives.

Our first day's experience of this uncanny region was, I must say, most favourable. It is true that we had to march 16 miles straight on end before we could reach any water; that we lost our way amidst the labyrinth of low hills amidst which the particular spring which was the goal of our day's march was situated, and that all the servants and followers, who were of a most resolutely despondent frame of mind regarding the proposed line of march, began to howl and say that we were all fated to die of thirst in the desert; also that the spring itself, when we found it, was so limited, that the animals could only drink by detachments, each successive one waiting till the little hollow filled with water, which was all that presented itself, which had been completely emptied by the one preceding, had had time to fill itself again; not to say that this water itself when obtained was muddy and brackish, and hardly fit for human consumption under any circumstances. In spite, however, of these contretemps, the air which we breathed was fresh and bracing, and the temperature

so deliciouly cool, not to say cold at this time of the year, that all these little unpleasantnesses appeared hardly worth thinking of compared with the general sensation of health and enjoyment.

As night fell our servants, having exhausted their alarms regarding the perils to be encountered from risk of thirst or starvation, had a fresh access on account of those which they imagined they might be likely to incur from robbers, and worked so upon the feelings of my companion that, to my intense horror and dismay, I observed him to hand over a rifle and cartridges to an old Hindustani cook, whom he had with him, with instructions to make use of it should occasion arise. The poor old man accepted the strange position of guardian thus thrust upon him with perfect apathy, but probably with an inward resolution that nothing would induce him to go through such a hazardous experiment as that of even loading the *Sahib's* rifle; at least such was my hope and trust, and it was only on this supposition regarding the state of his feelings on the subject that I found any relief to my own mind. As it was I spent a restless night, during which the figure of the old cook with a loaded rifle pointed in my direction haunted me like a nightmare. The night, however, passed without any occasion for resorting to extremes, and we all arose from our slumbers duly rested to continue our journey to the next spring which in this case was about 24 miles distant. Half-way we halted for lunch, and the place we chose being situated in a hollow and thus cut off from the cool wind which was blowing, we here had a chance of getting an idea of what the heat of the desert could be like later on in the year, and I must say that it made us congratulate ourselves that we had not deferred our depature from Teheran till a month later. Though the real heat of the sun's rays was nothing compared to India, the apparent clearness and dryness of the atmosphere made the discomfort experienced by the glare and sunshine out of all proportion with the actual degree of heat experienced, and I for one was thankful to get on horseback again and continue my route, the relief obtained by the distance I was thus raised above the ground being very appreciable.

Our halting place for the night lay amongst the recesses of the Siah Kuh or Black Mountains, which stand out as an important

feature in the landscape of the neighbourhood. They have always had an unenviable reputation as being, on account of their inaccessibility, the haunt of all sorts of outcasts and refugees from other parts of Persia and similar desperate characters, so much so, that the Shah Abbas, who appears to have been the only one of the sovereigns of Persia within memory who had any sense of his duty towards his country and his subjects, caused no less than three strongly fortified caravansarais to be built within about ten miles of one another in spots where water was procurable amidst the valleys of these mountains, so that travellers might, within the protection that these afforded, feel themselves secure from all danger at the hands of the lawless population which infested the neighbourhood; and here these caravansarais still stand, though in a lamentable condition of ruin; for not only have none of this monarch's successors had the public spirit to keep these buildings in repair, but it is even said that one of his successors, Futteh Ali Shah, with an inconceivably childish jealousy, truly Oriental in its character, did his utmost to destroy them. In spite, however, of this barbarous treatment and the ravages of time, the buildings, thanks to the substantial mannner in which they were erected, still afford a considerable amount of shelter to the traveller, if not the degree of protection that they were intended for in former times.

Shah Abbas appears indeed to have been an unaccountably enlightened monarch to have been produced in such an obstinately non-progressive country as Persia. Had it been any other nation or country that was concerned, one would have said that he had been before his times; in a Mahommedan country, however, all times are the same. The idea of any advancement proportionate to national existence is there quite opposed to all the ideas current amongst a people with whom everything is subordinate to a religion the main principles of the teaching of which is based upon a doctrine of fatalism, according to which the greatest duty of mankind is to accept everything that may occur, whether inevitable or no, as the will of God, and that to atttempt to evade it by any personal exercise of energy or authority is nothing less than an impious intervention with His decrees.

Though the monarch Shah Abbas cannot then be said, according to Mahommedan ideas, to have been *before* his times, he is a singular character amidst them, for wherever there are to be seen the ruins of a road, a bridge, a caravansarai, or any other work intended for the benefit of mankind throughout Persia, its origin is invariably ascribed to Shah Abbas.

We did not, however, camp at either of these caravansarais, as the water there, though abundant and to all appearance as bright and pure and sparkling as could be seen, was, we found on trial, too salt to be drinkable by those unaccustomed to its flavour, and we continued our march to another spring a few miles further on, where the water was less tainted by minerals. Here we determined to halt for a day before undertaking the long march which lay between us and the next reliable supply of water, distant about 40 miles off, across a plain covered with salt incrustation known by the term of Kavir.

Early the next morning I started to climb up the rocks overhanging our little camp where, I was told by the guides whom I took with me, there was every chance of seeing ibex or wild sheep; and so I did, but owing to the clumsiness of my companion I could not get near enough to them to get a shot. I was, however, amply repaid for my trouble by the wonderful view I obtained from thence of one of the most peculiar sights it has ever been my fortune to look on, and that was an immense sea of what looked like ice, but which was really salt deposit, which entirely filled the hollow in the plains towards the south and stretched away as far as the eye could reach on either side, glittering in the sun like a sheet of glass. I sat for hours looking at this strange spectacle through my field glasses, and listening to the tales of my guides regarding the peculiarities of its composition, and the dangers to be encountered in traversing it. According to their account this vast deposit of salt was of the consistency of ice, and like the latter formed a coat of varying degrees of thickness upon the surface of the water which was underneath it, so that in places where the coat attained a thickness of several feet, as was the case in many parts, laden mules and camels could cross this plain

with perfect safety, while in others, where this was not the case, this crust of coagulated salt would break beneath their weight and they would be engulfed in the morass beneath. The path across was thus only known to those who were in the habit of traversing it, and a very little deviation on either side of this would probably involve certain destruction, and they proceeded to recount tales of the various travellers who had crossed it at unfavourable times, such as by day or in a storm, and who had never been heard of again. It was very difficult, of course, to imagine how all this could be the case, as in a saturated solution of salt and water the salt would naturally be deposited upon the bottom, and not caked upon the surface. But in spite of the strangeness of the story we found it to be quite the fact, for, our curiosity being whetted by all the accounts we had heard of this strange natural phenomenon, we determined to march right across the plain instead of proceeding, as we had intended, round its edges. Upon consultation with our muleteers, who knew the way well, we determined not to attempt the crossing by day, as they told us that the glare would be so blinding that it would be almost impossible to avoid losing our way, while the brilliant moonlight offered every facility for marching by night. The next morning therefore we marched to a well some 12 miles off, where there was a ruined dome which *had* formerly covered a tank,—a work again ascribed to Shâh Abbas—but the interior of which was now dry and thus afforded a delightful shelter from the sun. In this we rested for the day, and about half past three in the afternoon we commenced our march towards the brink of the salt deposit which lay another 16 miles further on. This we reached just as the sun was low on the horizon, but some time before it got dusk, so that we had every opportunity of observing the nature of the surface which we were traversing.

As we approached the margin, the ground which had been hard and dry before, got damp and heavy, and from all appearances in the winter a regular swamp of sticky clayish soil must have extended some distance along the shore, to judge from the marks of where the animals of various caravans had sunk deep into the mud, and in some cases been unable to extricate themselves, as was

evident from the skeletons which were seen scattered about. After following the track as it wound amidst this morass for about a mile or so, we came upon the actual sheet of salt. This at the edge was somewhat soft and sloppy like half-melted ice; but as we proceeded it gained more and more in consistency, till at a distance of three or four miles it resembled nothing more than very solid ice, such as might have been seen on any English pond last winter, strong enough to bear any weight, and for this, as far as appearance is concerned, it might very easily have been mistaken, had it not been that its surface was not perfectly even, but resembled more ice which had thawed and then frozen again after a slight fall of snow, and that instead of being continuous it was broken up apparently into countless polygonal blocks. Of its solidity there could be no doubt, for there we were, mules and horses, travelling over it without a vibration of any kind being perceptible, or a sign of our weight having the least effect.

After marching for about eight or ten miles upon this strange surface, we halted for a few minutes to examine, as far as we could, its composition, and by means of an iron tent-peg and a tent-hammer we endeavoured to detach a block of salt to take away with us; but hammer away as we would we found the salt crust too hard for us to be able to make any impression upon it, and though we succeeded in bending our tent-pins almost double, we made no impression upon the salt beyond detaching a few chips which we were obliged to be satisfied with as the result of our labours. We found these to be of the purest white in this part, though the salt round the margin was, as might be expected, owing to the comparative thinness of the crust it formed, more or less soiled with dirt. Here we were assured that the crust of salt was six or seven feet thick, and we could easily believe it, from the result of our attempts to bore a hole in it. The muleteers stated, as I have mentioned, that under this strata of salt lay, if not standing water, at any rate a quagmire which would swallow up beyond possibility of extrication those who, ignorant of the correct track or losing their way, ventured on the thinner portions which were not strong enough to support their weight. They told us also

that in the winter when the snow which fell there melted on this surface there was always water standing upon this surface, which later on, as the snows on the mountains round began generally to melt on the approach of spring, increased to a depth of two or three feet or more, but that still the mules could always cross it so long as the water was not too deep for them to find footing.

It is difficult to explain this phenomenon, though that it is the case is beyond all possibility of doubt. It may be that this incrustation is the deposit accumulated on this vast low-lying plain in the course of centuries upon centuries, during which storms of rain and the annual melting of the snows, besides the perennial streams which all drain into this basin, have brought down in their waters from the strata of salt through which they have passed these incalculable quantities of salt in solution; the summer sun has dried up the water by evaporation and left the salt deposit lying upon a soil more or less saturated with moisture. The layer of salt thus deposited has gained in thickness and consistency year by year till it has become a solid homogeneous mass too firmly bound together in the parts distant from the shore where its thickness was most, owing to the greater depth of the water which accumulated there and consequent larger amount of salt deposited, to be broken by any pressure of water from below. The perennial streams have poured their waters underneath this strata which has thus reversed the ordinary process of constituting a deposit at the bottom of a fluid by becoming in its place a crust upon the top. The winter rains and the melting snows again have not found sufficient place underneath the salt and yet not succeeded in breaking this crust by pressure from below; they have therefore accumulated upon the top till such time as the dryness of the air and the heat of the sun had completely finished the process of their evaporation.

We were assured that if we had succeeded in boring a hole completely through the strata upon which we were travelling to the water which lay beneath, the latter would have come spouting out at the means of exit thus afforded it, and flooded all the surface. This we could imagine to be the case on the above theory, besides the fact that towards the edges where the layer was thinner and thus

unable to resist the pressure from below, the crust had evidently been burst through by the rising of the water during the winter and lay tossed up in blocks piled in utter confusion on all sides, where they had been thrown about and left to dry on the evaporation of the water which had caused the disturbance, lent itself very pointedly to the conclusion which we had formed. We had a still further demonstration in support of this the following day when having camped upon the further side, we sent a party to endeavour to bring a solid block of salt: they went about two or three miles from the edge on to the salt incrustation in a place where the salt was not strong enough to bear a greater weight than that of a man; they were therefore obliged to go on foot. They returned quite unsuccessful, for they assured us that though they succeeded in boring through the salt, as soon as they had done this the water kept rising so rapidly through the opening thus made, that they had to give up the attempt to break off a complete block and satisfy themselves with bringing back a piece which they had detached from the surface. This was about 6 or 8 inches thick and was, as we found, composed of dirty crystals very different in appearance from those we had obtained further towards the centre of the salt.

After this halt we continued our tramp across the salt, and anything more weird and unworldlike than the scene which surrounded us it would be difficult to imagine. All round us lay a vast expanse of brilliant white salt glimmering like snow in the light of the moon, and unbroken by any relief to the dead monotony of the effect thus produced, except in such cases as here and there a bush or piece of stick blown off the neighbouring plains had got embedded in its surface. Not a sound was to be heard except the tramp of the horses and animals and the music of the mule-bells, while every now and then as a high wind was blowing a piece of bramble or a wisp of grass would come racing past along the level surface in a ghostly manner that was calculated in the dim moonlight to give one quite a start. The effect of the moon upon this dead white surface was to render things less discernible than had we been on bare ground, and we easily understood how easy it must be to lose one's way here, for once or twice, getting

separated from the *kaffila*, I found that the only guide to its position was the sound of the bells. The track moreover was of the vaguest description; the only signs by which it could be distinguished being the traces left by previous *kaffilas* which had crossed, and these occasionally failed us, so that to our consternation we found ourselves wandering off the route on a surface which had apparently never been touched by man or beast. The general impression produced upon my mind by this night's march is such that I shall never forget; the ghostly white surrounding, the dim moonlight, the faint figures of the *kaffila*, the muffled sound of the bells, and the strange ring of the surface upon which we moved as it resounded to our horses' footsteps, all combined to present a *tout-ensemble* that it would be quite beyond the power of any pen to describe.

We crossed the margin of the salt on our entrance upon it at about 6-30 p. m., and marching steadily at an average pace of not less than $3\frac{1}{3}$ miles an hour, we found ourselves at the other side about 3 a.m.; thus deducting half an hour for our halt, we had marched steadily for about eight hours upon it, and thus traversed about 25 miles in a straight line. From the view which we subsequently obtained of the vast hollow in which the incrustation has accumulated and from the accounts of the people dwelling near, we reckoned that the total extent covered by it could not be less than about 500 square miles, if only it extended in the direction from west to east, as far as it did in that in which we had crossed it from north to south, but as far as we could judge it must have extended much further. As we approached the further edge of the salt the crust evidently became less substantial, for more than once making a mistake in the path we found our horses plunging up to their girth in a substance that resembled exactly melting snow, out of which we had to make the best of our way towards the harder material upon which we had been marching for so many hours. At length we hit off the beaten track which had been hardened by constant use during so many centuries, and were thankful indeed to find ourselves again upon *terra firma*. Here we found the ruins of another very fine caravansarai with a well near, at which our poor beasts were only too

thankful to be able to assuage their thirst after their continuous march for twelve hours without stopping. It was indeed marvellous to observe the powers of endurance of the mules which did not seem a bit fatigued. The salt certainly seemed to present to them a surface eminently suited for their footing, for they stepped out across it at a tremendous speed all the way. However, none the less were we all glad for a rest after having covered a distance of what must have been very nearly 50 miles since the preceding morning. As day broke we observed about four or five miles further on what looked like an extensive oasis with a large caravansarai near it, to which we determined to move in preference to remaining where we were with absolutely no protection from the sun, and accordingly we packed up and moved off. The oasis we found to be much exaggerated by mirage, but still there were present a few stunted trees, running water, and some fields of grain. We accordingly pitched our tents there, and determined to halt for a day to repose ourselves. I have always the pleasantest recollections of this day's halt; the shade of the trees, the noise of the running water, the greenness of the little patch of cultivated ground, call up in my mind the pleasantest recollections after the four days' march through the arid country which had preceded it. The coolness of the air too was something quite surprising; all day long we were able to sit out in the shade of a thin awning with our heads uncovered, enjoying the most delicious breeze. We noticed, in fact, that all through the neighbourhood of this salt plain, as it might be called, the air was exceptionally cool and fresh; this may be probably owing to the fact that such a vast surface of salt must absorb an immense amount of moisture which the wind must carry away with it as it crosses it.

During the day we sent a party on to this plain, which commenced at a distance of about a mile from where we were camped, and extended as far as the eye could reach towards three sides of us, to bring back a block of salt, and sat down with a telescope in our hands to watch their operations. The whole of the plain, as the sun got strong, was covered with a glimmer which made it very easy for us to believe the stories of

the blinding effect which the glare had upon the eyes of such as had attempted to cross it during the day, and of how many had lost their way and their lives in the attempt in consequence. As it was, we found it most difficult for us to keep our party of explorers in sight when once they had got upon the salt, for their figures danced up and down in the heated air, and got more and more indistinct till it was almost impossible to make them out, and we began to get quite anxious lest they should lose their way and wander about on to the more dangerous parts in spite of the precautions we had taken in the way of sending guides with them. However, after a couple of hours' delay, we could discern them making their way towards the edge out of the white daze that lay beyond, at which we felt much relieved, and soon they were back in camp again with their trophies. The only drawback to the complete enjoyment of our day's rest was that the water, although bright and sparkling in appearance, was more than usually brackish in flavour, so that no beverage that could be concocted turned out to be anything but nauseous and almost undrinkable. However, we had, in the course of our six days' march, thus far got so used to this state of things that we had reduced ourselves to the minimum of liquid which it was possible to consume during the 24 hours without feeling too great thirst.

This little oasis, with all its delights and richness of vegetation did not extend over more than an area of perhaps 10 or 12 acres, and beyond this limit all was sand and desert for miles and miles, the nearest village being at least about 35 miles off. Its only inhabitants were two old men who lived in a huge ruined caravansarai close by, another of the monuments of the inevitable Shah Abbas, which, unfortunately for the inhabitants of Persia, has met with so little imitation at the hands of his successors; for this, like its companions, though originally constructed in the most magnificent and substantial manner, is now fast falling into a state of ruin far beyond the possibility of any restoration. It was curious to note how completely this old couple had possession of this really valuable patch of ground which, of course, it was quite impossible that they

could make full use of, limited as was its extent; and yet the nature of the land around and the amount of the water-supply, which was abundant, were such that at least three times the area actually irrigated might have been brought under cultivation. In this we saw one of the constantly recurring proofs of the fact that, small as is the area of culturable land in Persia, it is in considerable excess of the requirements of its scanty population. After one day of welcome rest for man and beast, we started on a march of 24 miles across the sand to the nearest well. Our march led us through the sand-hills which border the south side of the Darya-i-Namak, and stretch thence for a distance of upwards of 40 miles up the valley enclosed by the ranges of the Koh-i-Nuttanz, and others, some 20 or 30 miles to the east. Fortunately, owing to the dampness of the air, a slight vegetation is scattered over the surface of these sands; otherwise it would be almost impossible to traverse them.

It is curious to notice that while to the north of the great Salt Lake no sand is visible, the whole of the southern side is covered with huge sand-hills which stretch some 15 or 16 miles inland. It was through the outskirts of these that our way lay, and heavy work it was plodding through such heavy ground. As the day grew, too, moreover the wind rose and the air became filled with particles of sand which inflamed the eyes, so that for a couple of days afterwards, they did not recover from its effects. At the well we found the remains of another old caravansarai, doubtless the work of Shah Abbas, and to our delight discovered that the water was not salt, at any rate not *so* salt, for even then it was not positively sweet. Here we had great difficulty in pitching our tents, owing to the high wind and the lightness of the soil, which gave no grip to the tent-pegs. However, we succeeded at last, and fortunately as the sun set the wind went down and we were able to sleep in peace without any risk of the tents coming down upon our heads. From this spot we had a view of the first villages which had come in sight for over 100 miles since we had entered upon our passage across the desert, though in this neighbourhood they were very sparsely scattered, being distant about 10 to 20 miles apart as far as one

could judge. It certainly took us a good 12 miles to get to our next camping ground, which was situated in what might be called by comparison one of the more populous parts of Persia, for here there were at least three good sized villages within a radius of about 12 miles.

The scantiness of the inhabitants of Persia and the great proportion of even these that live a nomad life are points regarding the interior economy of the country which do not yet appear to have attracted the amount of attention they would deserve in any estimate to be made of its political condition. According to the statistics to be found in Whittaker's Almanack, the population of Persia is calculated at about 12 persons to the square mile. Moderate as this estimate may seem to be, it is open to question whether it is not rather above than below the mark, for there is nothing that strikes the traveller more than the paucity of the villages even in the most favoured portions of the country. This is owing, as is the case in all the countries of Central Asia, to the scarcity and unreliability of the water-supply, in the absence of a sufficient supply of which the intrinsic qualities of the soil of any region, of however productive a character they may be, are of no more value than if they did not exist.

Persia, however, like Afghanistan, is a country which consists more essentially, as far as its physical characteristics are concerned, of rocky mountains and more or less sandy or desert plains, in most parts of which the processes of agriculture are quite impossible, while in others they are only carried on by dint of the most persevering labour on the part of the inhabitants. The culturable part of the country may indeed be said to be limited to the margin of the rivers which run through the vast plains intervening between the ranges of mountains which intersect the surface of the country, and the valleys amidst these where water is found of a nature suited to the purposes of cultivation ; for again it must be borne in mind that small as is this supply compared to the vast area of the entire country, a not inconsiderable portion of the natural springs pass through strata more or less salt in the nature of their composition before their issuing from the surface of the ground which renders

their waters thus useless for any practical purpose. No more striking instance of this could be quoted than the vast salt plain which I have already described, where an area of upwards of certainly 500 square miles of an extensive hollow between a number of mountain ranges is found covered with an incrustation of salt reaching in parts a thickness of several feet and increasing in extent year by year; and yet this can only have been formed by the salt held in solution in the waters of the various springs, which, issuing from the valleys of the neighbouring mountains, have emptied their waters into this low ground; the waters have become evaporated in conseqence of the dryness of the atmosphere, but the salt has remained. This, of course, is a very exceptional case, and probably the only one of the nature which exists in Persia, but to the smaller proportion of salt held in solution in varying degrees in most of the streams and rivers, the surface of the ground bears witness, which glitters in many places that have been irrigated, with a slight efflorescence of salt. Though there are few parts of the country where this is not noticeable to some degree, it is especially the case in the plains round Ispahan and the lands watered by the Zainda Rud, one of the most fertile tracts of the country towards the north and east, at any rate. Independently of this peculiar characteristic of its waters, the soil itself, as might be expected, contains in many places a considerable amount of salt which is inextricably mixed up in its composition.

It is thus easy to be imagined how small a proportion of the vast region known under the comprehensive designation of Persia would really be susceptible of cultivation and capable of supporting life, let alone producing superfluous necessaries or luxuries, such as would guarantee the belief that its exports could be extended to any very considerable extent; indeed, could all the culturable portion of the country be collected together in one spot, I feel sure that the area thus covered would not be found to bear a much greater proportion to the entire surface of the country than that of possibly half as much again as the ratio of inhabitants per square mile, that is, that taking the whole area of the country as represented by a hundred, the proportion of culturable land would

be represented by the figure eighteen, or amount to one-fifth of the entire extent. I have chosen this mode of expressing my idea in order to give prominence to the fact that, in spite of the limited area of its extent which is thus susceptible of cultivation, the country is yet apparently capable of sustaining a considerably larger number of inhabitants than are at present found existing in it; and it is to this fact that the well-to-do appearance of most of the population may be attributed, for though money is very scarce indeed amongst the poorer classes, there are but few of them who are not sufficiently supplied with the absolute necessaries of life. This is, as I say, owing to the fact that land capable of cultivation is abundantly in excess of the present requirements of the population, and any man who has industry can find a patch of ground somewhere or other sufficient to grow the crops necessary for his daily food, while the vast extents of plain and mountain, in spite of their arid and unpromising appearance, supply him with an inexhaustible pasturage where his flocks may graze without any fee, and from a portion of the wool which he cuts off the backs of these, his women-folk weave the simple garments he needs for protection from the sun and cold, and the rest he exchanges for the few luxuries he requires, such as tobacco, tea, etc.

To this same fact, namely, the scantiness of the population in comparison with the area of culturable land available, may be attributed also his comparative immunity from heavy taxation and freedom from the oppression of the tax-gatherer, which are both so fatal to the prosperity of the agricultural classes in most Oriental countries; for both Government and the tax collector are alike aware that, should their demands exceed the limits of his endurance, it would not be a difficult business for him to leave the lands he is at preset cultivating, and seek some distant part of the country where the local governor is less exacting and his officials less oppressive. Of the general moderateness of the rates of assessment, I have but little doubt from the enquiries which I made, the only disadvantages attaching to them is their uncertainty and the variety of pretexts which are adduced in furtherance of attempts

to squeeze additional sums from the cultivator on every possible occasion, in addition to those which have been defined as the rightful dues of the Government or landlord ; but in this respect Persia differs in no way from any other Oriental country.

From what has been said it will be gathered that Persia is not a country the resources of which are capable of any very extensive degree of development, as appears to be the popular idea amongst commercial classes in England at the present time. Indeed, had that been the case, it is difficult to imagine how many centuries would have passed during which the country would have been inhabited by nations of varying degrees of civilisation and intelligence,—for that the present inhabitant of the country is deserving of being characterised with both of these attributes is undoubtedly the case, though perhaps not to the same extent as the more ancient races which preceded the Mahommedan invasion—without the existence of these internal resources being discovered and encouraged. But that the present Persia can never have been anything but a poor country is evident from every point of view in which it be regarded, for there is no evidence that the position of its more ancient inhabitants differed very much from that of those of the present days, as far as any traces exist of the degree of material comfort attained by them. They must have lived in the same mud villages and travelled by the same villainous tracks which are all the means of communication which now exist, and if remains of magnificent ruins, such as those of Persepolis, are to be seen in places, these are not to be interpreted as signs of a general condition of prosperity on the part of the inhabitants of the country very greatly exceeding that of the present day, but rather as proofs of the greater despotic power of the rulers of the country, who could thus accumulate round themselves and expend on their own personal gratification the wealth extracted from the country, which should have been applied to the general benefit of the community.

The existence of these remains, however, proves that in those times the sums thus accumulated were made use of in a more civilised and refined manner, and devoted to the attainment of more tangible results than under the present

regime, when they are mostly squandered in ways for which no return is visible, or hoarded for the purposes of barbaric display, of which the treasury in the palace of the Shah at Teheran is an instance, where may be seen cases upon cases full of pearls, diamonds, and every sort of jewels, all aggregating almost an inestimable value, and yet lying unset and uncut, a source of no possible benefit or gratification either to their owner or the public, except from the satisfaction which the former may derive from the mere consciousness of the fact of his ownership of the same.

There is another point to be taken into consideration in the comparison of the country at present distinguished geographically as that of Persia with that contained in more ancient times within the limits implied by the same designation, and that is, that the ancient Empire of Persia included almost the whole of Asia Minor and Mesopotamia down to the mouth of the Euphrates, a great part of which extent is even now some of the most productive country in the world, and the whole of which, previous to the influx of the Arabs and its subsequent subjection to all the vagaries and venality of Turkish rule, was famous for the richness of its resources, whereas the present Persia includes for the most part, as has been pointed out, an area within which, for obvious reasons, the extent of culturable land constitutes only a percentage upon the whole, while a very great part of it is swallowed up in a huge desert, which is absolutely valueless for purposes of production. Towards the south, indeed, and the west, the country assumes a more promising aspect, but the latter of these regions is inhabited by unsettled and warlike tribes, whose existence is rather an element of menace to the public security than that of access to the national prosperity in spite of the superior advantages of the districts in which they are found.

It is a thousand pities that these misconceptions regarding the country should not only have been allowed to exist in the minds of the European public, without any attempt at removal on the part of those more acquainted with the facts of the case, but actually encouraged for political reasons by the representatives of the several rival European powers who are striving for a predominance

in local influence ; for the consequence has been that there has been a rush to the country of unscrupulous adventurers of every description, while the Shah himself has been tempted to introduce a system of indiscriminate granting of concessions. This is a method of replenishing his private purse on the part of the monarch of an Oriental country, the demoralising influences of which upon himself and the disastrous effects upon his subjects, have been too strikingly visible in the case of that of Egypt, not to make every genuine well-wisher of the country most anxious not to see a repetition of such an experience on the part of Persia. The trade of Persia is, and must always be limited, and though doubtless capable of extension to some extent, this good object would rather be forwarded by such encouragement as would be offered to the introduction of European capital, and the formation of companies for the cultivation of the special branches of industry, for which the country is suited, by the introduction of good roads, particularly in the direction of the north and north-west frontier, where is the most immediate means of access to Europe, rather than in the granting of concessions of various natures to private individuals.

The next day, on arriving at our halting place, we found that the shrine of a local saint was to be our quarters for the night. These shrines are built of great size, consisting frequently of several stories, and after our hot march, which had been through exactly the same description of country as that of the preceding day, we were delighted to be able to put our camp furniture in one of the great open balconies on the second floor of this building and lie on our beds, enjoying the cool breeze ; the coolness of the air in the shade or at a little height above the ordinary level of the ground, is one of the pleasantest features about the climate of Persia at this time of the year. However hot the sun may be by the day and out in the sun,—and that it is very hot there is no doubt—the air itself always remained deliciously cool as far as our experience went, and the temperature completely changed the moment one got under the slightest shade. As for the nights they were almost without exception quite cold as long as we were in the country ; namely, up to the beginning of June, that is out of

the towns; the climate of the latter was, of course, always very much warmer than that of the country round, owing to the confined way in which the Persian houses are built, and the fact that being all constructed of mud, they absorb an immense amount of heat from the rays of the sun. As a proof of the slightness of the shelter required to protect one from the effects of the sun at this time of the year in Persia, I may mention that I found that afforded by a native tent, of the flimsiest description bought in the bazaar at Teheran for about twenty-two shillings, amply sufficient, even when camped in the desert.

Close by our quarters was what had apparently at one time been a very large town, but which was now more than half in ruins. We were told that the reason of this seeming decrease of population was owing to the fact that it consisted principally of weavers, and that during the great famine of 1872 the inhabitants had, owing to their having in stock no supplies of grain at all, perished to a greater extent even than in other parts of Persia. This may have been the case here, but abandoned villages and half-ruined towns are by no means uncommon in Persia, and this fact must not in all cases be attributed by any means to a decrease of population as might at first sight be imagined; the number of ruined houses and villages that one sees is most probably owing to the circumstance that almost all the buildings are constructed with domed roofs made of sun-dried bricks. These domes are built with the greatest ingenuity and would be capable of lasting for years if repaired occasionally, but this the people are too lazy to do. The consequence is that whenever an exceptionally heavy storm of rain or severe winter occurs the domes fall in, and then it becomes easier to build a fresh building altogether than to clear out the rubbish from the old one, and put on domes to it, which is a work of the greatest difficulty, as the art of building domes of sun-dried bricks depends upon their being built upon all sides at once from the very ground. In the case then of the domes of the greater part of a village falling in under the above circumstances, the inhabitants build an entirely new village upon a site near, and in that of a particular house a fresh one is built in its place. It is only by this means that one

can account for the fact that one sees such numbers of ruined houses standing side by side with new ones, and the same is the case with villages and even large towns. The appearance usually presented by the number of ruins one comes across in Persia is thus very deceptive, as I say, for at first it would appear as if it pointed to a very marked diminution of the population.

Beneath the quarters in which we were installed we looked down on to the mosque, from which a door opened into a dark chamber, wherein was the tomb of the saint, where a light was kept perpetually burning. This, of course, we were not allowed to enter, but when I was rested in the evening, I went down into the mosque and sat there talking to the *Mullahs* for some time without their appearing to be anything but rather pleased with my attentions. I found them a very simple, honest set of men, and was amused at the interest they took in examining my field-glasses and other European things I had with me. Whilst sitting there, surrounded by an admiring crowd, the Akhoon arrived, whose hereditary right it is to guard the shrine. He was of greater pretensions and more reserved demeanour by far than those I had been conversing with, and was accompanied by a number of attendants; but he was very polite to me, and we conversed in a somewhat ceremonious manner for a few minutes. These shrines or Iman Zadas, as they are called, are very numerous, and there are few villages of any pretensions that do not possess one. They are always distinguishable by their pointed roofs covered with tiles or, in the case of the very wealthy ones found in the towns, such as those of Kashan or Kum, which latter is one of great celebrity, with copper plated with gold.

Our marches for the following two or three days were along the low ground lying between the ranges of the Kohi-Natanz, which attain a height of about 12,000 feet, and a range of hills lying at a distance of about 40 to 50 miles from the base of these towards the desert and running parallel to our route. The heat which we encountered was thus considerable, while the country was only distinguishable from that of the desert which we had hitherto been traversing, by the fact that villages existed at distances of about 15 to 25 miles; the intervening spaces being

composed of sands absolutely devoid of water, except in the rare instances in which some philanthropic and wealthy person had built an Ab-ambar or covered-in well by the roadside, where the weary traveller might drink and repose before continuing his journey.

These Ab-ambars are a capital institution, and one which I could not help frequently thinking might be introduced into India with the greatest advantage, for I do not remember anything corresponding to them in that country. They are simply very broad wells covered in with lofty domes, and with a long and broad porch leading to the approach down to the water, where a grateful shelter, rendered additionally cool by the presence of the large surface of water in the immediate neighbourhood, is afforded to the traveller to rest in during the heat of the day. The Ab-ambars are of all sizes, according to the means or design of the builder; a good sized one would have a diameter of about 40 to 50 feet, with a porch to correspond capable of accommodating a large party, and thus partake more of the nature of a tank or reservoir than anything else (the word "Hauz," however, is reserved to an open tank), while the smaller ones have no pretensions beyond that of a covered-in well as I have described with a portico only capable of receiving two or three persons.

At one of the halting places I was amused to watch the proceedings of a party of boys who had picked up an empty tin of potted meat which I had thrown away. This they were evidently dying to become the possessors of, owing to its brilliant colours and the pictures of animals on its surface, and were holding a consultation on the matter, which would doubtless have ended in one or other becoming the fortunate owner of the prize, had it not been that one of them happened to catch my eye looking at them, whereupon he put it to his nose and then threw it away with an expression of the greatest disgust, and they all commenced clearing their throats and spitting violently to relieve their systems of the contamination resulting from so close a contact with the food of the *Feringhi*, which of course they thought could not be anything but the flesh of the loathed swine, for the popular idea amongst the more ignorant Mahommedans is that Europeans

live almost exclusively upon swine's flesh, and this is what accounts for a good deal of their disgust, for it is what their *Mullahs* always tell them, with the addition that our drink is exclusively brandy, and that we never go to bed in any other state than dead drunk.

At this same village where the inhabitants appeared to be particularly unsophisticated, nothing would satisfy them but that a Kodak they saw me handling was a musical box, and they kept on asking me to play some music. I had great difficulty in convincing them of their mistake, and of the fact that I was not a wandering organ-grinder. It was very amusing in some of these more out-of-the-way places to observe the excitement which the visit of a *Feringhi* occasioned. As soon as we appeared, a sort of general holiday seemed to be proclaimed, and our camp became the centre of general attraction of the entire village population, particularly the more juvenile members of either sex, just in the way that the appearance of a travelling show on a village green in England would quickly be the signal for the collection of all the idle population round it. The men stood in groups watching us, while the boys whooped and hallowed and played their games all about. If we were in a particularly good humour, the more respectable inhabitants were allowed to come near and converse with us for a few moments without any extra charge being made, and then their questions were very quaint, such as how many days' march it would be to our country, and whether the water there was good, etc., etc., and if we did not think Persia a very splendid country, much better than that of our own? To these questions we generally used to reply that our country produced everything that was found in Persia with two exceptions, and these were salt water and desert. At this they used to appear somewhat disconcerted, for the Persian's absolute belief in the superior merits of his own country over those of any other in the world is almost inconceivable.

After traversing this valley for about four days we commenced the ascent of the mountain range which lay between us and the plain upon which the city of Ispahan is situated. The first day's march took us to a height of about 5,000 feet above the sea-level;

there we camped close by a large and flourishing village which, as the crops were all standing and the trees and shrubs just covered with the fresh verdure of the spring, constituted a patch of the most brilliant green, and thus presented a striking contrast to the dull brown and grey which was the uniform hue of the mountain sides and the plains stretching away in the distance at its feet. As one ascended higher and higher in the mountains, it was very curious and interesting to look down upon the landscape which lay below one, though the effect produced by no means led to a favourable impression of the general productiveness of the country. The villages in the plains and along the sides of the mountains shewed as little tiny spots of bright green scattered at great distances upon a generally brown surface. In fact, after my two months' travelling in the country, the best simile which I could think of to compare the general impression which its aspect had made upon my mind, was that of a sheet of brown paper which had been blistered by the wet, the irregularities thus formed being supposed to represent the mountain ranges; on this surface the villages would be represented by a few dashes of bright green paint. This may be not a very romantic comparison, but it is a very good one of the general effect produced by the appearance of the country.

On our way up to the Pass over the ridge where we were to camp for the night, we passed by several couples of the finest specimens of the Imperial grouse which I have ever seen; they looked almost as big as chickens, and I regretted very much having no gun with me wherewith to secure a specimen. At our halting place, which was at another tiny patch of bright green cultivated land—the only one on our way and yet 20 miles distant from our last one—we found a capital caravansarai, but as the height we had now reached was that of about 7,000 feet, the cold was so great that we hardly knew how to keep ourselves warm in the doorless rooms, which were the only accommodation it offered for our entertainment; we made the best of it however, and by dint of putting up rugs and blankets over the openings managed to keep out a great deal of the wind. Crossing the Pass the next day at a height

of about 8,000 feet, we found ourselves, after traversing a great plain for about 20 miles, right behind the snow-clad peaks of the Nuttanz Mountains which, rising to a height of 12,000 feet, had served us as a beacon for many a weary day's march ; and here it may be as well to remark upon the peculiarities of the aspect and formation of most of the mountain ranges in Persia, as compared with those of which I have had experience in any other part of the world.

At a distance a range of mountains in Persia presents no marked difference in its appearance to that to which one is accustomed in the case of other ranges which one may have seen : that is, they shew sharp and rugged outlines rising apparently more or less abruptly from the level of the country round ; but on approaching nearer it is found that these peaks and rocks form but a very small proportion of the general elevation, which consists mainly of an extensive and unbroken rising of the surface of the ground, constituting, as it were, a gigantic mound from the summit of which rise the actual mountains themselves, and even then not abruptly, but gradually, the ridges being intersected with great broad level plains which rise to the bases of the highest peaks. The appearance produced is as though there had been a gradual upheaval of the ground to a considerable height, when the higher parts of the rising ground, being unable to bear further the pressure from below, had given way and the strata of rock had burst through into their present position on the summit of these gigantic mounds, from which they rise abruptly in lofty ridges and peaks of perfectly naked rock. Some of these attain a height of 11,000 to 13,000 feet, while Demavend, the Mont Blanc of Persia, one of the Elburz range of mountains which run parallel to the coast of the Caspian sea, rises in solitary grandeur to a height of about 19,000 feet, and is visible to a distance of about 200 miles towards the south.

This fact of the mountainous character of the country of Persia is one which does not seem to have attracted quite as much attention as it deserves generally. Indeed the physical geography of the land altogether is a subject upon which the most erroneous impressions seem for the most part prevalent, in spite of the

importance attaching to its more careful study in consequence of the attention which is being drawn to the country, and the encouragement which is being given to the investment therein of European capital for the purpose of the development of its resources. The whole of the region extending from the Elburz Mountains and those forming the present boundary between Persia and Transcaspia to the Persian Gulf may be described as a vast table-land of an altitude in the lowest depressions existing upon its surface of about 2,000 feet to 3,000 feet; from this plateau arise an infinite number of the mountain ranges which I have described, so that the main portion of its level surface consists of the more or less extensive plains or valleys which lie between these ranges. I have said the main portion, I should rather have stated the case with the reservation of the main portion *for practical purposes*, for the main portion of the level surface of the plateau is, as a matter of fact, comprised in the vast salt desert which extends over an area such as could not be estimated at less than that of from 60,000 to 80,000 square miles, and is absolutely incapable of sustaining any form of life. This is the Great Desert; but besides this, the surface of the country is dotted with comparatively small patches of desert of the same description, known locally by the term Kavir, which range from about 2,000 to 15,000 or 20,000 square miles in extent, so that the total area of desert in the Persian plateau might safely be put down at about 150,000 to 200,000 square miles, which, as I say, consists of a soil and is of a geological formation, which renders the support of any sort of life upon it an absolute impossibility, except for a period of a few of the winter months, when the Ilyats or nomad tribes take their flocks to graze upon the scanty vegetation which then appears in portions of it. But even this is the case only in the neighbourhood of the scanty wells which are found along the few routes by which it is traversed; beyond the limit of this, these parts of the country are as unknown and unexplored as any of the most out-of-the-way recesses of Central Africa.

The remainder of the surface of the plateau which constitutes the greater portion of the country of Persia is, as I have said,

covered with ranges of mountains divided by more or less broad valleys and plains. Such of these as are watered by natural streams or by means of artificial water-courses, locally termed *kanats*, the nature of the construction of which I will describe later on, are the only portions of the country which are susceptible of cultivation, and along the borders of these are found clustered all the villages; for the amount of land in Persia which is cultivated otherwise than by means of irrigation may be described as inappreciable, the rainfall being very precarious, besides being even then extremely partial in its effects, which are confined principally to the immediate neighbourhood of the mountain ranges. The valleys and plains themselves vary in height; that in which the city of Ispahan is situated being about 5,000 feet above the sea-level, while the one surrounding Kashan does not attain 3,000 feet. It must not be understood that the whole of the extent covered by such of these valleys as have a supply of water available is by any means cultivated or indeed susceptible of cultivation under the most favourable circumstances, for the water-supply is very limited, and the area over which it can be made use of does not extend beyond a comparatively slight distance from the banks of the stream or river which is its source, varying from a few hundred yards to several miles.

In the case of the Ispahan plain, which I am told is one of the most favourable instances of this description to quote, as it is traversed by a river of some considerable volume, viz., the Zainda Rud, the area of cultivation extends to a distance of about 10 to 15 miles from its banks towards the north, but then it must be taken into consideration that towards the south it is mostly confined by rising grounds or hills.

In addition to the villages situated under such exceptionally favourable circumstances, there are numerous isolated ones scattered over the mountain sides, and along their bases, and the plains below which are irrigated by the *kanats* which I have spoken of. These *kanats* are subterranean water-courses; they are constructed by digging a well in some spot near the base of a hill where the drainage from its surface is likely to be accumulated or where a spring is suspected to exist; for upon what principle these wells are

dug, or how their particular position is decided upon, I have never been able to make out. There is no doubt that the greatest skill and ingenuity are exercised in their selection. This well being dug, another is dug at a short distance in the direction in which it is desired that the water should flow, and a channel is dug under the ground connecting the two, and laid at an inclination specially designed for the length of the intended water-course and the contour of the ground which it is intended to traverse, and so on mile after mile till it is conducted to the land for the irrigation of which it is required. As frequently between the source and the supply this channel has to be conducted across low ground, through high ground, and round the margins of hills, it is apparent what a degree of care and ingenuity is required for their successful completion. These *kanats* are of every degree of capacity, from that containing a volume of water sufficient only to irrigate a few acres to that enough to satisfy the requirements of a large village. In the cases of the larger villages and towns however, the water-supply necessary for the requirements of these is obtained by the construction of numerous *kanats* converging upon them from various spots in the neighbouring hills and rising ground.

The peculiar formation of the mountains which, as I have described, consist of vast extents of gradually rising ground crowned only with rocks and peaks, lends itself, as may be imagined, most favourably to the establishment of villages along their slopes and in the vast broad valleys which lead up to the bases of these ridges at their summits, and these are in consequence dotted here and there with patches of cultivated ground varying in extent according to the volume of the *kanat* upon which it is dependent, or the number of the same which can be accumulated at any particular spot.

From what I have said it will be understood that however great may be the obstacles presented by the configuration of the land in Persia to the construction of roads and railways,—and that such works could only be executed with the greatest difficulty, and at almost ruinous cost, is almost beyond all question—still it is only owing to the fact of the presence of these

mountain ranges that any portion of the country is habitable, for that portion of the country in which they do not appear, and in consequence no water-supply is found, is and must necessarily always remain a howling wilderness.

As regards the constuction of roads for wheeled traffic, these might doubtless be made use of to some extent, but that only a very limited one, for it must be taken into consideration that, to be led at proper gradients for this purpose, they would, owing to the broken nature of the country, have to adopt such a winding course between any two points as to quite double the distance in many cases. If not constructed with sufficient gradients to materially lessen the collarwork upon the beasts of draught employed, they would be useless, for no animal could stand the work of dragging heavy weights up and down the succession of steep ascents and descents presented in the course of traversing the mountain ranges which intervene on every side. In addition to this, owing to the scattered and scanty nature of the population and the great distances which separate the villages and the places where supplies of food and water are obtainable, it would be necessary that the roads should be laid down as much with a view to facilities for obtaining these requisites as for any other. What has been said about roads applies with ten times greater force to the subject of railways, for, as many Europeans who have spent their lives in the country business and other employments have declared, one train a week either way would be quite sufficient for all the goods and passengers that it would be found necessary to convey to and fro between Teheran and Ispahan. The fact is that as pack-animals are the traditional means of transport, so they are that best suited to the nature of the country and the requirements of the population, and if it be desired to improve the means of communication, this object would be best attained by improving the mule and camel paths at present existing, and keeping them in repair generally, and by clearing off the snow in the winter in particular in the places where they cross over the mountains. By this no slight benefit would accrue to the population, for on better paths the animals could move with far greater speed than at present and infinitely less waste of material, whereby the charges for transport would be materially

diminished, while the sums spent on a cart-road of four or five hundred miles would suffice to put and keep in thorough repair all the paths in Persia. As it is, during the winter months in many parts of the country, communication is not unfrequently completely stopped for many weeks together owing to the depth of the snow on the mountains, which reaches that of seven or eight feet, and the accumulation of water in the valleys and on the plains, where, owing to the entire absence of drainage, it turns all the ground into a quagmire capable of swallowing up the mules and their loads together.

Our camping ground for the night was one which I shall always think of with the most delightful associations of brilliant verdure and shade and running streams. Though it was only a little oasis of a few acres in extent, similar to that at which we had camped after crossing the plain of salt, and was the abode of only one family, still it was the one spot of green which was to be found after a march of 24 miles, and as far as could be seen there was not another like it for about an equal distance. There we lay all day on the grass in the shade of a few stunted apricot trees, fanned by a most deliciously cool breeze, for the height of our encampment could not have been less than that of about 6,500 or 7,000 feet above the sea-level. So reluctant indeed was I to leave it and exchange the luxuries I was enjoying for the weary tramp across the hot dusty plains which stretched for miles away below us towards Ispahan, the site of which we could just distinguish in the extreme distance about 50 miles off, that I determined to have another day there, which I occupied extremely pleasantly in reading and writing—occupations for which but little leisure or inclination were found upon an ordinary working or marching day. After a day's rest I commenced my descent down to the plateau upon which the city of Ispahan is situated. This is at a higher level than that of Teheran, the altitude of which above the sea-level it exceeds by some 500 or 600 feet. Looking down from the higher ground raised some 2,000 feet above it, the whole valley lay spread out before me. It appeared to have a breadth of about 40 miles, upon the extreme further limit of which Ispahan itself is built immediately at the foot of the mountains

which close it in on either side, and on the banks of the Zainda Rud which winds along its southern margin.

The appearance presented by this plain at this distance and height was that of utter desolation, for the area of cultivation irrigated by the waters of the Zainda Rud does not commence till some 20 to 30 miles have been traversed from the foot of the mountains; and it was only in the faint distance that, with the aid of the field-glasses, we could distinguish what appeared to be trees and villages, but whether this was the case, or whether it was merely the effects of the mirage, we could not say. After a march of about 25 to 30 miles across these hot burning plains we arrived at a village of some pretensions where we determined to camp; we found a fairly good caravansarai there, and I was delighted to exchange the dust and glare outside for the gloomy shade of the stables which formed the only part of the building which afforded any shelter from the sun, and there I took up my quarters for the day. The following day's march brought us by a very roundabout road, which considerably augmented the actual distance, but which wound about amongst irrigation canals to avoid the necessity and expense of making a few bridges, and led us to the gates of Ispahan. On the way we passed several ruined villages said to have been destroyed by the Afghans when they invaded Persia; the whole route being through a most desolate country, in spite of the amount of water available, this appeared to be owing to the fact that the soil contained a quantity of salt, for all the edges of the canals and the surface of the ground where the water had run to waste was covered with a slight incrustation of salt.

Passing through the city, which presented an appearance of extreme dilapidation, an immense extent of the old covered bazaars having fallen to pieces, we emerged on the banks of the river from whence we obtained our first view of Julfa, which from this point presented the appearance of a patch of the most brilliant verdure on the further side of the river nestling right under the peaks of the mountains which rose precipitously and almost over-toweringly above it. A closer acquaintance took off a good deal of the charms of the general effect as viewed from a distance, for it was only after winding through what appeared to be miles of the most incon-

ceivably filthy lanes and alleys that we arrived at our destination, which was the hospitable house of the representative of the principal firm in these parts, *viz.*, that of Messrs. Ziegler & Co., where many a traveller before myself has received the most unlimited kindness and hospitality. It was delightful to exchange the discomforts of camp life, with its daily recurring annoyance of packing up and moving on another stage, for the luxury of a well-appointed house and the quiet and repose accompanying the assurance each day as one lay down to rest, that there would be no hurried risings and wranglings with muleteers and long weary marches through scenes of more or less desolation to camp at night in some place where nothing but the most meagre supplies were procurable, and probably the water might be salt and barely fit to drink.

I had been studying on the way the interesting final chapters in Mr. Stack's account of his travels through Persia, in which he describes the Revenue system, and very useful I found them to me in the course of my enquiries. But when later on he dilates upon the charms of marching in Persia, I put him down as an enthusiast, whose interest in the country and in the novelty of the circumstances in which he found himself placed, outweighed in his mind the perpetual annoyances and discomforts which such a life involves to an European. Personally, I differ from him entirely, for in my opinion the petty miseries of momentary recurrence which attend a traveller in Persia are such as have never come within my acquaintance in the course of a somewhat varied experience of camp life, and require, as I say, a most patient and enthusiastic temperament to bear with any equanimity. The utter misery of the journey by Chappar is beyond all description, and such as can only be realised by experience; it can be best estimated, as the writer of the admirable letters upon Persia, which appeared in the *Times* last year, has expressed it, from the fact that the only solace which an European, who is compelled to undertake a journey of this kind, derives from the fact, is a frantic desire to get through it at some unprecedented rate of speed. The changing from one jaded pony to another, which has to be flogged till it struggles into the roughest of canters which it only maintains as it

were under protest, till some roughness of the ground or slight ascent affords it an excuse for relapsing into the same slow and dejected walk with which it commenced; the arriving, worn out with hunger and fatigue, at a filthy caravansarai, destitute of any approach to furniture, where the only food forthcoming s contained in the tinned provisions one has brought with one, which one has to eat seated on the floor; and then the lying down to rest and closing one's eyes only to find that dozens of every species of known insect or parasite have collected to feed upon one;—all these horrors are beyond my feeble powers of narration. Ah! how I have longed for the much despised Dawk Bungalow with its rascally *Khansama* and everlasting *moorghi* curry.

There is but little to interest one about Ispahan, which presents nothing but the appearance of a dejected ruin, for the few relics of former grandeur which it still retains are fast falling into utter decay from persistent neglect, and will disappear altogether before very long. It seems a pity that this should be the case, for the town is far more fitted for being the capital of the country than that of Teheran, alike from its position and its geographical situation: for it is built on the banks of a river in one of the most fertile districts of Persia, and is situated in the most central portion of the country whence all the various trade routes radiate to the N. S. E. and W.; whereas Teheran is situated in a spot where water is scarce and the country in the immediate neighbourhood unproductive; and its position altogether is so isolated as compared with the country of which it is the capital that but little influence can be brought to bear from it, as being the seat of Government, upon the more remote districts of Empire. It has been fortunate in possessing as its Governor the only man in the country, who, in spite of his many failings, has shown himself as possessed of any energy or character; but even this advantage on its part has provoked the jealousy of the venal and incapable favourites of the Shah at the capital, who have devoted themselves most successfully to prejudicing the former against him and thwarting him in all his schemes for the improvement of the districts committed to his charge. Notwithstanding these determined efforts to ruin his power however, the Zil-us-Sultan still presents a character of

sufficient importance in the political estimate of the country; in spite of his severity, and the unscrupulous nature of his proceedings on many occasions, he is much looked up to by those over whom he rules, and is possessed of immense influence amongst the various nomad tribes of the neighbourhood, such as the Bakhtiaris and Kashkais, who form the backbone of the warlike population.

Julfa is only of any interest as presenting an opportunity for the study of the Armenian character on its native heath as it were, which is more particularly worth the trouble just now in consequence of the attention that has been directed towards the position of this people under Turkish rule in Asia Minor. I cannot say that either my personal experience or the accounts one receives of this people, whether from Europeans or Asiatics, are such as to impress one with a very favourable estimate of their character, from any point of view, or to dispose one to move a little finger on their behalf in any trouble they may find themselves involved in under their Mahommedan rulers. The only previous experience I had had of the Armenian character was in the course of a trip to Central Asia, where I was accompanied by an Armenian guide, whose character I took great pains to study as we were thrown together constantly. I should now say that he was a very favourable specimen of the race. I could not help laughing one day at the naive way in which he remarked on being detected in a little error in his accounts, which was not as may be supposed pecuniarily to his detriment. "Ah! you know, I am an Armenian, *I cannot help making money.*" And this is exactly the character of the race; an Armenian, wherever he is placed, "*cannot help making money.*"

I was told a capital story characteristic of the people. The Armenian colony at Julfa was transported there, as is well known, by Shah Abbas the Great from the original Julfa in Armenia proper. During this monarch's life-time they met with due protection as being his special protégés, but after his death they were constantly subjected to every sort of outrage and oppression at the hands of their Mahommedan rulers till quite recently, since a number of European merchants and others have made their headquarters amongst them, and by their presence prevented the recurrence of such scenes of violence. The Armenians, elated at this, have endeavoured to magnify their own importance in the eyes of the local population at the expense of their European

patrons, so much so that a leading Armenian being asked by a high Persian official why the Europeans took so much trouble about an Asiatic race which was of habit and mode of life quite at variance with their own, replied, "Ah! the reason of this is that they look upon us as a race entitled to peculiar respect, as are the Syuds, or descendants of the Prophet, amongst you, and treat us accordingly."

Life in Julfa has been aptly described as "cribbed. cabined and confined," whether from a moral or material point of view. The settlement itself, which can hardly be called a town, as it is utterly devoid of any such buildings or streets as could support its pretensions to such a title, is composed of a labyrinth of filthy alleys, where the stenches rampant on every side would more than rival those of Cairo in olden days. Each of the alleys is carefully designed so as to lead nowhere, and is closed at either end with great heavy gates so that the general plan of the place reminds one of the labyrinth in the Crystal Palace Gardens; in fact to get into the place, or from one point to another within it, one has to go up and down and round and round for miles, being all the while close within distance of the point aimed at. The object of this contrivance, of course, was of sufficient importance to the inhabitants of the place when it was first laid out, and that was to put every obstruction to the entrance into this refuge of their Mahommedan neighbours, and to enable them to be shut off into a particular part in case they forced their way in. It is not the less annoying, however, to be led half way up one alley, then half way down another, and so on, to arrive at a place that you find you could easily have chucked a stone to from the spot from which you originally started; the more so as all the while one has to run the gauntlet of the most abominable smells that European nostrils were ever offended by. These alleys are all enclosed by lofty walls not less than from 10 to 15 feet high, which effectually prevent any sufficient circulation of the air, and, from the sides of these, doors open into little court-yards enclosed in the same way, which form the approaches to the houses.

Altogether a physically more unhealthy mode of life than that adopted by the inhabitants of Julfa it is impossible to imagine; the wonder is that European, and particularly English constitutions to which fresh air is considered an absolute necessity, can stand it. Built as these houses are, there is absolutely no

outlook of any kind from any part of them, and yet the view from the situation which is on high ground overlooking the valley of Ispahan is, as soon as one gets out of Julfa, most lovely. It is astonishing that the European colony should be content to remain as it does in the midst of its present sordid surroundings with so many facilities for making a more exclusively European quarter on the various charming sites in the immediate neighbourhood. I am sure a change of this kind would have the most beneficial influence alike physically and morally upon the members of which it is composed. As it is, European life in Julfa appears a very melancholy way of spending one's existence. The only relaxation indulged in from the daily round of work appears to be indiscriminate gossip and criticism of one another, the latter being frequently, as may be imagined, not remarkable for its temperateness or the good feeling shown; however, this appears to be only human nature, for stations in India are by no means free from these failings, and the more remote the stations the greater their development.

The only building of any interest is a church built in the time of Shah Abbas, the walls of which are painted in a gaudy and grotesque fashion. A day or two after my arrival was the Armenian Easter, and I must say the effect produced by the costumes with which the lanes were thronged, gave quite a picturesque effect to the otherwise squalid scene. The men all appeared in brilliant coloured silk and velvet coats, while the women were dressed in long shawls or, as we would call them in India, *saris*, enveloping the head and body down to the feet, of the most spotless white. This appears to be the costume generally adopted by the Armenian women, with the addition of a broad white bandage drawn across the chin right up to the mouth like that worn by nuns. It is not unbecoming in its effect, and probably, like that of the nuns, the ancient female costume prevalent amongst Christians many centuries ago. In general the costume of the men differs in no way from that of the Persians, from whom they have, probably for reasons of policy, thought it best not to distinguish themselves. The rising generation, however, appear to effect for a head-dress a dark coloured Turkish fez.

It seems a strange inconsistency to find amongst a community of the most ancient Christians existing an English missionary, and it is difficult to imagine how funds collected, presumably for the conversion of the heathen, can, with any appropriateness, be expend-

ed upon the education of Armenian youths, who, as a rule, are quite quick enough and can, in most cases, afford the luxury far better than many classes in England.

Going for a walk one afternoon, I passed by the cemetery, or rather burying ground, for it is only an open patch of ground on the hill side. Amongst the graves I found several European ones of some age, amongst which that of Dr. Edward Page, of Trinity College, Cambridge, who was buried there in 1702, attracted my notice as being a member of the same distinguished College at which I was myself an unworthy student, there were other Dutch tombs dating from 1650. The whole presents rather a melancholy and desolate scene, for the space is not enclosed. This is done on purpose, I am told, for its being walled in and specially marked off as a Christian burying ground would be the signal for its prompt desecration by the fanatical Mahommedan population, whereas lying as it does, undistinguished in any way from the remainder of the hill-side, attention is not called to its existence. It may be policy to leave this spot in its present neglected condition, but it does not the less go against the grain to visit the European portion and see the stones covering the graves of those who in their time were distinguished travellers, gallant officers, and famous merchants, lying broken and scattered about over the surface of the ground. After spending a few days at Julfa I moved down to Ispahan for a day or two preparatory to starting on my way back to Teheran. Here I found out little to interest me beyond the fact that an officer was present there, for the purpose of buying mules for transport for the Indian Government.

There appeared to be no lack of mules of a very good stamp procurable, though at somewhat high prices. The great breeders of mules appear to be the Baktiaris, and some that I saw were of a most sporting appearance. For ordinary marching it appears that the produce of well-bred mares is found most suitable as being more plucky and enduring, while for the carrying of heavy weights, bigger and coarser bred animals are preferred. The necessary condition for the advantageous employment of the former is of course that they should not be overloaded, and this is a point which the ordinary Indian Sarwan or muleteer and more especially the British soldier, to whose tender mercies the animals thus purchased were eventually to be entrusted, have no idea of, or do not trouble themselves to pay attention to. It

was really quite heart-breaking as one looked at the long lines of these valuable animals, upon the careful treatment of which so much of our military strength in India depends, to think of what their experiences might be in the immediate future, in consequence of the various little frontier wars upon which we are at present engaged. The mules had mostly been purchased at ages from two to four years, with a view to their being fed up in India for a couple of years or so and being regularly trained before being made use of for service; but in the present emergency it seems more than probable that they will be sent off for the use of the troops immediately upon their arrival in Bombay. In any case it seems a thousand pities that these mules should be sent to India without any muleteers to take charge of them; for the mule, like the camel, is an animal that requires to be understood, and one the value of whose service depends entirely upon the treatment which he receives.

In Persia, as the principal traffic of the country is carried on by means of mules, a special class of the population has for centuries devoted itself to gaining its livelihood by the maintenance of these animals, so that the muleteers of Persia may be considered as nearly as possible experts upon any subject connected with mule transport. It would thus be well worth while for the Government of India to offer a number of these liberal terms to accompany the mules, bought in Persia, to India, and thus form the nucleus of a Mule Transport Corps. As far as I could make out, it seems to be the custom to attach one man to about every three mules, but such a large proportion would not be necessary in this case; it would be sufficient to take one Persian muleteer to every ten mules, the remainder being replaced by natives of India. Though the Charvadar, as he is locally termed, a corruption from Charpadar, is one of the most aggravatingly stupid and obstructive individuals in the world to deal with, there is no question that he is completely the master of the means he has adopted or been bred up to for gaining his living. He knows to a pound what weight each of his mules can carry, calculates exactly the distance they can traverse without injury, and nothing on earth will induce him to exceed in either case the limits which he has fixed for their powers of endurance. Then, for himself, he spares no pains in looking after the comfort of his animals, the daily load-

ing up is a most important function not to be hurried over on any account or done carelessly; and the moment the march is over, though he may have had to walk many miles under a hot sun, he busies himself over their feeding and later on their grooming, the last thing before lying down to rest.

The Charvadar, as I say, has the general character of being one of the most aggravating specimens of the human race; there is nothing he is asked to do that he does not raise an objection to or grumble about, but this is only from his anxiety about the security of his means of livelihood. Amongst his own countrymen, of course, every one tries to drive a hard bargain with him, to get him to put the heaviest loads possible upon his mules, and take them over the greatest possible distance daily in the shortest possible time, so that naturally he has come to look upon every one who wishes to hire his mules as a person who is bent upon taking an advantage of him in some way. It is astonishing, however, to observe under such careful management what distances his mules will traverse and at what a pace on an emergency, or, if a sufficient inducement be offered; as I have mentioned on one occasion when crossing the Darya-i-Namak, our mules must have marched not less than 50 miles in about 18 hours, including a long halt during the heat of the day. Again, in the case of the caravans one meets upon the roads, it is surprising to see the pace at which the mules travel and the loads which they carry; so far from there appearing to be any occasion to drive them along, it is not an uncommon sight to see a little mule, almost buried under the load he is carrying, scurrying away at such a pace, that he has to be held back to keep with the caravan he belongs to; I say a little mule purposely, for the smaller stamp of animal seems to be the pluckiest.

The pack saddle used is worthy of attention, for it is evident from the peculiarity of its form that it has been designed purposely as the result of experience. In appearance it resembles the double hump of a camel, and its dimensions are out of all proportion with the size of the animal, but it answers its purpose infinitely better than all the new fangled inventions in the way of pack saddles which have been produced, owing to the fads of various officers and others interested in the subject. It is made of thick cloth, stuffed with hay, and its shape is such that the weight of the load is distributed evenly over the whole of the body of the animal, and not

bearing upon the spine or jammed against the sides as is the case in the various patterns of regulation pack saddles. There is no doubt that professional transport owners whether they be camelmen or muleteers, even though they may be Asiatics, understand all these things much better than European amateurs. I remember well, during the late Afghan war, when I had exceptional opportunities of observation, being posted for months, years I might almost say, upon one of the principal lines of communication, I noticed that the much despised Punjaub pad was the mode of carrying loads which did least injury to the animals. As for a fiendish instrument of torture which had been invented for the occasion, and consisted of an apparatus of iron and wood, weighing I don't know how many pounds, and with great hooks on either side to which the loads were attached ; it never seemed to have occurred to the inventor of this that no more ingenious method could have been adopted to bring the greatest possible strain to bear upon the spine and against the ribs. I know, however, that the consequences of this method of loading were most disastrous to the animal concerned.

On leaving Ispahan, I considered myself fortunate in having secured, as my companion, a pensioned non-commissioned officer of the Royal Engineers, who had just retired from the Telegraph Department after a residence of about 25 years in Persia. I thought naturally that, after a residence of such a length, I should find in him a fund of every sort of information about the country ; but in this I was woefully mistaken, for he turned out to be utterly ignorant of anything beyond the limited sphere in which his official duties had run, while as to the country lying a few miles off the line of telegraph, it was as completely unknown to him as any part of unexplored Africa. I do not say that this was his fault, for he appeared to be a fairly good specimen of his class, and had evidently taken some pains to learn the language of the country ; it was rather that of the system to which he was subjected. As has been remarked, it is astonishing to think that such a system for the absolute restriction of all attention on the part of the subordinates of the department to the mechanical discharge of their official duties should have been, not merely allowed or sanctioned, but actually enforced by the British authorities in such a country as Persia ; for, as my companion informed me, when I taxed him with his want of enterprise in not acquainting himself with the country in the neighbourhood of a place in which

he had spent so many years, "the orders of the Director are that no subordinate may go off the direct line of telegraph without obtaining leave to do so, and paying for all the expenses of his transport on the occasion." The consequence of this has been that I found, as I say, that even the immediate neighbourhood of a place in which he had lived by himself for 17 years without a European neighbour within 70 miles, was as strange to him as any unexplored country. He complained naturally of the effect which such an order had in limiting the few recreations possible in the way of shooting and fishing excursions, by which the dreary monotony of the life of the subordinates, placed in many of these out-of-the-way places, might have been varied. I believe, however, that the Telegraph Department is not entirely responsible for this unpatriotic and culpable neglect of such an important means of exercising an honourable influence in the country, for that, even if its directing officers were willing to encourage on the part of its employés an intelligent attention to the circumstances of the country and population amidst which many of them are destined to spend their lives, such a policy on their part would probably only provoke disagreeable criticism on the part of the Legation, who would resent any approach to an infringement of what they consider their special province, namely, local information of every description.

Whatever may be the cause, however, of such a short-sighted policy, the fact remains that for the last quarter of a century we have had scattered throughout the line of the telegraph numerous Englishmen ; many of them, particularly the civil members of the department, of a very high class of intelligence, each one of whom, if properly made use of, might have been a mine of information on all local subjects and a source of considerable influence amongst the population surrounding him, and that we have more than simply neglected, one might say, determinedly declined to turn to any practical use the presence of this valuable material. I should qualify these rather sweeping remarks with the observation that at last we appear to have recognised the error of our ways in this respect, and have apparently endeavoured to atone for past neglect by taking one, at any rate, very marked step in recognition of the value of the services of which the Telegraph Department is capable, by appointing as Consul at Ispahan a senior officer of the department. This is indeed a good move, and o[illegible]

which has revived the drooping spirits of those of the employés who are of a more studious and enterprising disposition and have devoted their leisure time—of which such of them as are stationed along the line have no lack, their duties taking up only a few hours in the day—to making themselves acquainted with the languages and manners and various subjects of interest of the people among whom they are living. It is to be hoped that this step may be followed by that of appointing men of this stamp on their retirement from the service of the Telegraph Department as Vice-Consuls in various parts of Persia. Where could any body of men be found more suited for such a position than such of these as have spent many years of their lives in almost complete isolation from their fellow-countrymen, but in constant and, as far as is possible between Europeans and Asiatics, almost intimate intercourse amongst the people of the country; the more so that thereby they have become unfitted for a life in England, and would prefer in many cases to remain, if only a slight inducement were forthcoming, in the land of their adoption.

It has been unfortunate for the civilian element in the Telegraph Department in Persia that, though its duties are now of an essentially civil nature, it has been thought necessary to adhere outwardly to an appearance of military control in its administration. It may have been advisable for many reasons, in the case of the original construction of the line, to entrust the work to a scientific branch of the service, as Persia was then a comparatively unknown country, and it would have been difficult to organise a Civil Department to carry out the work; but now that the department is for all practical purposes worked by civilians, the military representatives forming but a minute and almost inappreciable percentage upon the whole, it seems too absurd to keep up any longer the farce of a military organization. That the interest of the department would be best considered by opening out all appointments to civilian employés is self evident, for what can be more discouraging than for the Superintendents and Assistant Superintendents to work conscientiously for years, leading the while a life which entails many hardships, to find that promotion beyond a comparatively subordinate grade is completely closed to them, and that, as fast as one Director or Assistant Director retires or is promoted, his place is supplied by an officer of the Royal Engineers, who may be transferred from the Public

Works Department India, or the Sappers and Miners, or any other branch of the service, and is probably utterly ignorant of anything connected with electricity and the telegraph, beyond what he learnt as a cadet, whereas these have had a thorough technical education?

As to the plea of the presence of privates and non-commissioned officers of the Royal Engineers in the department necessitating any military control this is too absurd to require serious consideration, for the reason that, out of all the number of employés, only an infinitesimal proportion come under this category, and these would, with advantage, be more suitably employed elsewhere, for their duties in the Telegraph Department are, as is well known, far more efficiently performed by the civilians who have had a special and technical training.

On my return to Teheran I determined to take the route *viâ* Nattanz as far as Kashan, and thence to strike due north with a view to skirting the western margin of the Salt Plain or Darya-i-Namak, as it is called, which I have already described, and thus fixing as far as possible its locality. I was all the more interested in resolving on this, as I found to my surprise that the European population of Ispahan were completely ignorant of the very existence of such a remarkable natural phenomenon as it might be called, for I should fancy it must be almost unique. But I found less occasion for such surprise at the ignorance of these, when later on, on my return to Tehcran, I found that all the European colony there, comprising as it does many who have spent all their lives in the country and are presumed to be authorities on every subject connected with it, was equally unaware of the fact.

The first day's march lay through an endless succession of crops for about 15 miles. As we continued our march beyond this distance, the villages and cultivated land became more scattered, till at our camping ground for the night, about 10 miles further on, they had disappeared altogether, and beyond us lay nothing but the desert as far as the eye could reach, the nearest water obtainable being at a distance of about 16 miles, where we found another magnificent caravansarai built by Shah Abbas also in ruins. We were delighted here to take up our quarters in the stables, which still remained standing and afforded a grateful shelter from the sun, for the heat had been intense during the day's march, which had lain through the low bare plains at the foot of the hills we were now beginning to

ascend. When it got cool in the evening, and we were recovered from the fatigue of the march, we went out to visit the ruins of what appeared to have been a palace built on a very imposing scale close by the caravansarai; as we wandered through the courts and suites of rooms, where accommodation could easily have been found for a regiment, we could not help thinking what a pity it was that what had been erected with so much labour and expense, for this, like the caravansarai, had been built of stone in the most substantial way, should be allowed thus to go to rack and ruin.

The next day we continued our march towards the summit of the Pass by which we were to cross the ranges intervening between Ispahan and Kashan. The ascent was easy and led for the greater part of the way along one of the wide valleys which I have described, till we arrived, after a march of about 20 miles, at its highest point, and then descended about 5 miles or so to halt for the night at a little hamlet on the further side. The height of the Pass was, as far as we could make out by the aneroid, about 8,000 ft. and that of our camping ground about 6,500. Here we found but little procurable either in the way of supplies or shelter for the night, which was all the more annoying as we were very hungry and the night was bitterly cold with a high wind blowing and every prospect of rain coming on. However, we were too tired to be critical about either food or shelter, and, after having got our tents pitched with some difficulty, retired to rest, and slept soundly in spite of the howling of the wind, the flapping of the tent, and the imminent prospect of our finding ourselves buried underneath it, which threatened us at every moment. Our journey for the next two days lay over a weary succession of stony ridges, which all radiated as it were from the central peak of the mountain range and extended like a series of barriers laid across the line of our march. As our path here skirted the higher part of the range where the rock, bursting through the soil which had covered it, had become exposed, we had ample opportunities of observing the peculiar features of the mountain formation which I have already referred to. It will be understood that winding round the mountain sides, as near to their summits as was practicable, we were traversing the higher portions of the valleys which descended from them to the plains below, and the ridges which intervened between them. These ridges thus constituted an apparently endless succession of ranges of hills rising out of the otherwise

even slopes of the mountain sides, in some cases almost abruptly, to a height of about 500 to 1,000 or 1,500 feet; thus our route lay for about 20 miles till we arrived at Nattanz, a lovely and most productive oasis, where is situated the village after which it takes its name; and the next day again a march of about 25 miles more led us to the foot of the mountain, where we entered upon the broad open plains surrounding the city of Kashan.

In spite of the difficulties of the Nattanz route and the annoyance occasioned by the irregularities of the ground which it passes over, it is undoubtedly the only one by which a road suited for wheeled traffic could be made between Kashan and Ispahan; for the ascents and descents by the more direct route, *viâ* Kohrud, are such as would render it quite impracticable for such a purpose.

From Kashan it was, as I have said, our intention to strike off the beaten track, which here bends to the west, in a direction due north, with a view to marching along the western margin of the Plain of Salt and thus defining exactly its position and extent. After a day's repose we accordingly started with this object before us. Our way, for the first 14 miles after leaving Kashan, lay through more or less cultivated country. We then entered on the desert, and, at a distance of about 10 miles further, arrived at what might be termed the furthest outpost of this area of cultivation, a dilapidated village where we determined to camp, no water being procurable nearer than at a distance of about 30 miles along the line which we intended to take. The following day's march lay, as may be supposed, through utter desert, not a sign of vegetation of any kind being apparent till we got close within sight of the village at which we were to halt for the night. We found here a considerable area of ground under irrigation and covered with crops of wheat which had just ripened and were now being reaped. The scene was a very busy and amusing one, for all the population of the neighbouring villages had turned out for the occasion, and men, women, and children were holding high holiday in the intervals between the work, or, as they reaped, gathered, or gleaned the corn. Besides the crowds of people thus assembled, all the village cattle of every description had been collected to graze upon the green grass left where the crops had been cut, and the scene presented an extraordinary medley of human beings of either sex and of every age, mingled with a mob of cows, horses, camels, goats, sheep, etc., while the hubbub

was indescribable, for all the people seemed to be in the highest of spirits to judge from the chattering and laughter which went on. At this village occurred the first and only serious obstruction I encountered in the course of my experience of the inhabitants of the country, and that was that our muleteers refused to proceed any further along the proposed route, alleging that it would lead them through morasses where their mules would be lost. I have reason to believe that my companion was at the bottom of this mischief, for he had been all along most anxious to get back to the beaten track from which he had never ventured before all the years he had been in the country, and out of which he appeared as much out of his element as a fish out of water, for I never saw such a picture of helplessness as he proved in this difficulty. Receiving no assistance or support from him I had to give in, for the men went off and left the mules on our hands, and much against my will I had no alternative the following day but to turn off to regain the regular road at the town of Kum.

Here I found a civilian telegraph employé of a very different stamp, a well read and intelligent man who had taken great pains to study the language and everything of interest connected with the country which he had chosen for his home, and consequently a most interesting companion and full of information. The position he held amongst the inhabitants of the neighbourhood, amongst whom he had lived for many years, was one of exceptional influence, and a striking proof of the homage which Asiatics are always willing to pay to the sterling qualities of a good, honest Englishman, however little claim he may have officially or socially upon their attention. In any other service a man of this stamp would have been made use of in the line for which he was so evidently fitted by training and experience, and for which he had so laid himself out, and promoted to a position of trust as a superior officer in the department, or made use of as a Consular Agent; but in this case all his labour and qualifications appeared never to have attracted any attention, and there he was still a simple signaller upon the line of telegraph, with no duties beyond those of testing the line within his charge once or twice daily. I only mention his case as an instance of the valuable material which has been wasted in Persia by the present system of the administration of the Telegraph Department.

I was delighted to find that I should be able to continue my

journey in a carriage, for I was heartily tired of marching across the monotonous wastes I had been traversing for so many days, the more so as the sun was getting hot, and I had already more than once felt rather knocked up by its effects. I was the more tempted to be reconciled thus to the abandonment of my original plans by the fact that this was the first carriage which had come over the road under course of construction between Ispahan and Kum, and that by returning in it I should have a practical opportunity of forming an opinion as to its suitability for wheeled traffic. I accordingly started the next day in luxury with all my immediate requirements stored in the carriage round me, the remainder being left to follow after with the mules ; the carriage itself was a comfortable landau, and was drawn by three horses harnessed in troika fashion all abreast. The road, for the first six or seven miles was very fairly good, as it lay along more or less hard soil and over moderately even ground, we then descended a slight incline preparatory to crossing a broad valley between the rising grounds on either side, which would in the winter constitute a huge bottomless morass. Here the road, which had been originally intended more for pack animals than anything else, had been made in the way commonly used in Persia for this purpose under such circumstances, that is, huge blocks of rock had been buried all along it in the centre to give a secure footing to the animals. Of course just now the soil was all dry and the road inches deep in dust, but from the way in which it yielded under the wheels of the carriage, as it passed along, it was evident that these precautions were anything but unnecessary in the wet season. At present, however, crowds of labourers were at work extracting these blocks of stones with a view to breaking them up and making metal for the carriage way with them. I was told that these parts of the roads constituted the most difficult ones to deal with ; for, owing to the looseness of the soil in these low parts and the absence of all drainage in bad weather, any quantity of metalling thus spread over its surface would infallibly be swallowed up, and yet it was impossible to retain the local system of burying huge blocks of stone, though that was best suited for bearing the weight of traffic, as the soil would get washed away from between the interstices of these, and thus make it impassable for wheeled traffic.

Crossing this piece of ground, with many jolts and bumps,

we ascended the high ground on the other side, only again, after a few miles, to have a repetition of our former experience. About this point the line of the present road takes a tremendous sweep to the west to avoid the lake, which has been formed by the cutting of the embankment of a river in order to destroy the older and more direct road which was under the charge of a rival to the Amin-ul-Sultan or Prime Minister, who had originally constructed the road I was traversing, though it is now in the hands of a Company who have obtained the concession for working it. I have before explained the circumstances of the formation of this lake, which I then supposed to be continuous with the Plain of Salt, but which I now had an opportunity of fully satisfying myself was completely distinct from it, being separated from it by miles of dry land; for, from the top of the hill which I climbed for the purpose I could easily, with the aid of a field glass, distinguish its further margin and even the nearer side of the Plain of Salt beyond.

It is a great pity that more pains have not been taken to correct the maps of Persia, particularly of this neighbourhood, lying in such close proximity to the capital, for, strange, nay, almost incredible as it may seem, there is not a single map procurable in which it is laid down correctly; that of Colonel St. John, which appeared to be considered the standard authority, I found most unreliable. Not one of the villages which I passed through between Kashan and Kum, when I went a little off the beaten track, was put in its proper place, while most of them were altogether omitted. The position of the Siah Kuh and the Kuh-i-Gugird, as shown on this map, I found, too, to be quite wrong, while, as I say, the Plain of Salt and this new lake are not marked at all. It is a great pity that some more systematic measures are not taken for remedying these deficiencies, for such amateur work as can be done with a plane table and prismatic compass, which were the only instruments used by my companion to Ispahan, though very valuable as matters stand, is useless for all practical or scientific purposes. What is wanted is a professional survey officer with suitable instruments and a proper staff of chain men, etc.

Before actually arriving at the lake itself we had to drive straight up a steep incline which gave one a capital idea of the Asiatic theory upon road making, which is to follow a line along the shortest possible distance between any two points

selected. I do not say that in the case of the country traversed on this occasion it would be possible under any circumstances to lay out a line of road with any regard to suitable gradients for wheel traffic; for the ranges of mountains which it must cross stretch far away on either side, so that it would be quite impossible to outflank them; but still something might have been done to modify the abruptness of the ascents and descents. In this case, however, as one arrives at the bottom of the hill or mountain to be crossed, one sees the road stretching in the most uncompromising manner straight up its sides for miles and miles, as far as the eye can reach, in front; and when one has arrived at the highest point, the same view meets one's eyes below. It is impossible not to pity the unfortunate animals which are to drag carts and other vehicles over such a road; however horses are cheap in Persia so it doesn't matter if they wear out rather quickly.

I have already said that, this road having been originally constructed under the auspices of the Amin-ul-Sultan, the building of the bridges and culverts, caravansarais, etc., was given out on contract to natives of the country with the natural result, for though, to judge from the exterior of such portions of these as still remained standing, nothing could be more carefully or solidly constructed, this solidity, alas! was limited to the outside masonry or brickwork, all the interior being filled up with earth or rubbish; the consequence is, that though only a few years old, they are all more or less in a state of collapse. I laughed immensely at the appearance of a bridge constructed under such circumstances, which I had to cross; the brickwork coating of one side of it had all tumbled down, leaving the mud and rubbish of which its interior was composed, exposed and bursting out; how on earth the contractor had contrived to make the arches stand at all it was difficult to imagine. This bridge, however, had evidently had exceptional labour expended upon its construction, for some portion, at any rate, of it was standing, whereas the other two which had been made at the same time had entirely collapsed. I do not think that the traffic suffered much inconvenience in consequence, for I do not imagine that any carriages or carts had ever been over it, in fact such things don't exist in Persia for the purpose, and the people prefer their old way of transporting goods by pack animals, when it does not much matter whether there

are bridges or no over the minor streams, for a ford is sure to exist somewhere or other in the neighbourhood of the desired direction.

I was heartily glad when this, the most excruciating drive of which I have ever had experience, drew to its close, and I found myself approaching the shrine of Abdul Azim, from which commences the only portion of this road which has any pretensions to be fit for vehicles, and soon after drew up at the door of the Hotel Prevot, where I had stayed before I started on my journey. When I left the hotel it had no other occupant, but on my return I found that every room was full, and it was with the greatest difficulty that I succeeded in obtaining quarters in a little cupboard of a room which formed an ante-room to another apartment, and the only means of getting in and out of which was through the window. This sudden influx of visitors I found to be owing to the opening of business of a Tobacco Company in the place, and the aspect of the verandahs was quite lively with the unaccustomed crowd of Europeans who sat chatting and laughing there. I was told that about 20 or 30 employés of all nationalities had arrived, and that quite a panic had struck the followers of the true faith in consequence of this sudden incursion of so many infidels.

I found Teheran in the summer hardly more agreeable than in the winter, and was rejoiced when, after an enforced stay of a few days, I found myself in a carriage on my way to Kasvin *en route* to England. I had as my companion one of the engineers that I spoke of as having treated me with so much kindness in the course of my first experiences of Persia. He appeared to have been treated most shamefully, simply because he was an honest man and declined to say that mines existed where he knew that it was not the case, or that the particular mine which he was ordered to work was worth the expense that the Company would incur in attempting it. While on this subject I may as well repeat what information I could pick up from the natives of the country and from Europeans who have been many years resident there, and more or less studied the question regarding the mineral wealth of Persia, as this also seems a subject regarding which various misconceptions exist. It appears, as has been said, to be generally recognised that abundance of small deposits of copper and other minerals exist, and that these are of good quality in most cases, but every place where they are to be found has been known to the inhabitants of the country and worked by them for centuries.

Coal is come across in many places, but, as the thickest seams yet found do not exceed, as I am told, 2 ft. 6 in. in thickness, it can hardly be said to be present in sufficient quantities to repay working upon an extensive scale, especially if the expense of transport be taken into consideration, and it was for expressing an opinion to this effect that my unfortunate companion had been virtually forced to resign his employment by the treatment which he received. It is supposed, however, to exist in greater quantities below the surface of the Kasvin Valley, but the artesian boring which has been made in Teheran by the Doctor to the American Mission has penetrated, I believe, to a depth of 300 ft. and yet not passed through the region of alluvial deposit, or encountered rock.

While in Teheran on this occasion I heard that a party of more sanguine and, perhaps, also more worldly wise engineers had been prospecting over the country already visited by my friend and his companion, and been fortunate enough to discover valuable mines at almost every step, which he had overlooked. I was very sorry to find that his companion, whom I had met with him at Resht on my arrival in Persia, had been summarily dismissed for want of discernment and for short-sightedness regarding the existence of these minerals, as this appeared to me to be a rather severe measure to take.

The country traversed from Teheran to Kasvin looked really quite rich and productive at this time of the year, for, owing to the melting of the snows on the Elburz Mountains, all the plains at their feet along which the road wound were saturated with moisture and covered with great patches of cultivation, the intervals between which even presented also a distinct tinge of green; this latter, however, was not likely to last long as the moisture to which it owed its existence would soon become evaporated by the sun, the power of whose rays was daily becoming greater. From Kasvin onwards the country completely changes its aspects as one ascends to the summit of the Elburz range and looks down upon endless expanses of the densest forests, and the richest vegetation, stretching far away over the ranges of mountains and hills towards the north, and the plains which succeed these to the edge of the Caspian Sea. These mountains rise generally to a height of 10,000 to 12,000 ft. and higher: the Caspian Sea is thus enclosed towards the S. and S. W. by a lofty wall, as it were, of high ground which

attracts the damp atmosphere rising from its surface, and yet intercepts its passage further south; this is thus condensed by its contact with the cold air upon the summits of these mountains to descend in heavy and abundant showers of rain upon their northern slopes and the plains extending from their feet; the latter are, moreover, watered by the numerous rivers and streams issuing from these ranges to such an excess that, owing to the level nature of their surface and consequent insufficient drainage, a great portion of their area is composed of swamps and morasses. Owing to these causes the luxuriance of the vegetation in these provinces is almost phenomenal, their power of production, however, can never have a fair chance of development until measures are taken for rendering their climate less injurious to human life than at present, by the introduction of a careful system of drainage; but this would be a work of such extensive character that there is no prospect of it ever being undertaken by the present Government of Persia.

Nothing can give an idea of the brilliancy of the verdure and the romantic effect of the scenery as we descended through the valleys, leading to these plains, winding along the bases of continuous ranges of mountains rising to a height of 10,000 ft. and upwards; the slopes of which were covered with magnificent forests, terminating at their summits in open stretches of grass of the most brilliant green. Not a village was visible in the upper portions which seemed to be abandoned to be the haunt of game and wild beasts, and one could not but think what splendid sport they must afford if only one had the time to devote to wandering about amongst them in its pursuit. In our case our attention was so much devoted to getting back to England by the quickest possible route, that, even if we had had guns and no other call upon our time, no temptation would have induced us to delay an hour upon our way.

In spite of the loveliness of the scenery and the pleasantness of the climate, the march from Kasvin to Resht will never recall to my mind associations of any nature but those of the greatest horror and disgust, for, travelling as light as possible, and being without tents, we were obliged to rest in the caravansarais provided at intervals along the way; and there we found to our cost that the population by which they were tenanted, and which had been in a state of torpor, apparently, on the occasion of our march to Teheran, had revived with the genial warmth of

spring, and were bent upon making up for lost time. Like the human population of Persia, it appeared to consist of a variety of distinct races; in fact, till this experience I never had an idea of what a field the different kinds of parasites could extend over.

It was thus with feelings of unmingled delight that we found ourselves once more upon the deck of a Russian steamer on our way to Baku, and right thoroughly did we appreciate the moderate luxuries it afforded us in the way of food and lodging after the squalid discomfort of life in a hotel in Teheran, and more particularly the miserable experiences we had been through during the last few days.

Astara.—The next day brought us to Astara, the Russian frontier post on the Caspian Sea and the proposed terminus of a branch railway which is being made from the main line between Batoum and Baku. Here we had an opportunity, of which we did not fail to avail ourselves, of making a comparison between the depressingly hopeless aspect of the Persia in its present state of corruption and degradation, with which we were more immediately acquainted, and the possibilities of which the same country would be capable under the beneficent rule of an enlightened and progressive people.

Landing on shore, instead of having to wade through endless mud and slush before we could get a footing on dry land, we found a little jetty, alongside which we could draw up. Close by was a very respectable carriage and pair waiting to receive us, and this was not by any means the only one in the place, for we passed by several others equally well turned out in the course of our drive. The cantonment, as we should call it, consisted of a number of neat though unpretentious buildings, and comprised barracks for the cavalry and infantry regiments stationed here, a few shops and private houses, the whole carefully laid out, the roads being well made and planted with trees on the sides, and the houses clean and well kept, each one surrounded by a little garden of its own. Nothing could afford a greater contrast from its brightness and order than the picture thus presented to the sordidness and distress existing only a few hundred yards off across the frontier.

We were again much struck here, as we had been before in the Caucasus and Trans-Caspia, with the fine physique and soldierly bearing of the Russian soldiers whom we met, and

equally impressed with the careful way in which it was evident that they were looked after by their officers. One large party of the cavalry we found employed in sawing up timber and preparing flooring for a standing camp, which it was apparently intended to establish here; again we looked into the barracks and found everything in apple-pie order; one large dormitory which we visited was full of men doing lessons under the superintendence of the non-commissioned officers. The men, wherever we came across them, seemed bright and busy, for the Russian principle appears to be to keep their soldiers occupied as much as possible, when off duty, by every variety of employment for their own private benefit as well as for that of the public,—a principle which it would be well if we were to try to apply a little more in our own case, particularly in India, where idleness affords so many temptations to the British soldier, which he is less qualified by training and surroundings to resist.

Having viewed the position of the rulers, we proceeded to do what we could towards forming an estimate of that of the ruled. The bazaars we found clean and flourishing, the number and variety of the shops which they contained appeared to us altogether in excess of any possible requirements of the place; but this we were told was owing to the fact that all who could flocked thither to avail themselves of the absolute security to life and property there afforded them under Russian protection; just as in India our cantonments in Native States are crowded with the warehouses of the native merchants, who have taken refuge there from the lawlessness and misrule rampant on all sides when once the boundary between British and Native territory has been overstepped.

Here our experiences of Persia under either aspect, whether of Native or European influences, came to an end, but as we steamed away from Astara we could not help remarking to ourselves how unfortunate it seemed for the destinies of the inhabitants of the country that the two great European powers, who are virtually the arbiters of these, should waste in futile rivalry the immense opportunities which their combined action would give them for the amendment of the terrible abuses existing under Persian rule, and the amelioration of the condition of what may, without any exaggeration, be described as one of the worst governed people in the world.

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We may now conclude with a short review of the subjects

which had most forced themselves upon our attention during our stay in the country, for, in the course of a tour, brief though it may be, through the provinces, one is brought far more in contact with the people and thus enabled to obtain a far greater insight into the domestic politics of the country, and arrive at a much clearer comprehension of the relations existing between the central authority, the governors of the various districts, and the populations over which they rule, than would be the case by a protracted residence in the capital, where the Shah is the main object of general attention, and the intrigues or disputes of the officials and favourites by whom he is surrounded the principal subject of discussion.

It appeared to us that the regions defined politically under the comprehensive designation of "The Persian Empire" might be separated both geographically and ethnographically into three great divisions, which differ entirely from one another as to their physical attributes and the character and origin of the population found residing in them, namely,

1. The northern portion bordering upon the Russian Frontier and including the following provinces :—

Azarbaijan.	Mazandaran.
Gilan.	Khorassan.

2. The central and eastern portion including the provinces of

Teheran.	Farsistan.
Ispahan.	Kerman.

Laristan.

3. The western portion bordering upon the Turkish frontier.

Of these divisions the first constitutes by far the most valuable and productive portion of the country whether consideration be had of the variety and abundance of the natural resources contained therein or the facilities offered for the development of the same. This is particularly the case with the provinces of Gilan and Mazandaran, which comprise the mountain ranges of the Elburz, and the plains which now extend from their bases to the margin of the Caspian Sea, in consequence of the gradual retrocession of its waters from their surface.

South of the Elburz Mountains the landscape completely changes its aspect ; the limit of the rainfall and its effects upon the appearance of the country being as marked as in the case of the districts north of the Himalayan Mountains

or east of the ranges of the Ghats in India. When once these ranges have been crossed the rainfall becomes scanty and unreliable, while the springs are few and far between. Instead of slopes covered with dense forests, succeeded by plains of almost impenetrable jungle which stretch as far as the eye can reach to the edge of the Caspian Sea, as is the aspect presented from the summits of the Elburz Mountains when viewed towards the north ; that presented towards the south is one of barren mountain sides destitute of any signs of vegetation, except the scantiest sprinkling of grass, such as, even after the melting of the snows when the most favourable conditions for its growth exist, is hardly sufficient to give a tinge of the faintest green to soften the dull monotony of the colours presented by the bare rock and earth from amidst which it springs. Beyond the bases of the mountains themselves extend vast plains, intersected by numerous ranges of mountains all presenting the same desolate appearance, except in such places as the appearance of a brilliant patch of green here and there at long intervals indicates the presence of a stream, or proclaims the fact that the inhabitants of the country have, by the exertion of the most patient industry, succeeded in rendering a sufficient supply of water available for the extent of cultivation thus visible.

The western limit of the region which would come under this description may be said to be about the 50th degree of east longitude. Thence it stretches to the frontier of Beluchistan. Its fertility, however, diminishes towards the east throughout its extent, of which an area of about 200,000 square miles is, as has been said, swallowed up in desert, which may be considered to be absolutely unproductive for any practical purposes. To the west of this boundary the rainfall is more frequent and reliable, the mountain ranges are more numerous and attain a greater average height, and the natural sources of water supply, such as springs, streams and rivers, are more abundant. The mountains are in consequence clothed more or less with forest and underwood, and their sides and the valleys between them afford capital grazing for cattle as well as far superior facilities for the cultivation of every species of crop.

The population of the Persian Empire comprises, as is the case with most Asiatic countries, races of every variety of origin. Amongst these, however, there are three which stand prominently forward as constituting by far the most numerous and important

portion of the inhabitants of the country; these are respectively of Turkish, Arab and Iranian descent.

It may be said that the northern and western portions of the Empire, where these march with the frontier of Russia and Turkey, contain mainly races of Turkish origin, but even here these are so intermingled, more particularly in the latter case, with various other distinct and semi-independent tribes, such as the Kurds, Bakhtiaris, Lurs and others, that it would be almost impossible to define any extensive tract in these parts as the exclusive abode of one particular race.

In the same way in the south, towards the Persian Gulf, various Arab tribes predominate, and towards the east those of Beluch origin.

Taking thus the three great divisions into which the Empire has been roughly divided, it may be remarked that—

1. The northern division contains mainly races of Tartar or Turkish descent.

2. The western division contains those of Turkish or Arab descent, besides various other wild tribes whose origin it is difficult to ascertain, and whose presence amongst the other inhabitants, as well as the inaccessible nature of the recesses which they inhabit amongst the mountains in this extremely broken portion of the country, has mainly contributed to its lawless and unsettled condition.

3. It is only towards the central portion of the Empire that a large extent of country is found inhabited by a population showing signs of a common origin, and this may be taken to be of Iranian descent, and such as would correspond to the Tajiks or Sarts of Central Asia. It is in this portion also that are to be seen the only relics of the ancient inhabitants of the country under whom it attained the degree of prosperity and consideration to which history has so often borne record.

These are the "Guebers," as they have been termed by their Mahomedan conquerors, of whom a small community have been allowed to remain in the practice of their religion up to the present date, their headquarters being in and around the town of Yezd, about 200 miles east of Ispahan. This people, who are known to us as the "Fire Worshippers," are, as is well-known, of the same origin as the Parsis of India, and, like the latter, have a high character for intelligence, honesty, industry and commercial instincts.

The entire settled population of this region, with the exception of the Arab tribes scattered about in different parts amongst

them, is doubtless derived more or less from this race, though mixed with the blood of the invaders, for the majority of the inhabitants are of a marked similarity of physiognomy, so much so that it is almost impossible to distinguish a "Gueber" from any one else. It may thus be said to constitute a distinct nationality homogeneous within itself, but completely separated from the surrounding races by every trait of appearance and national character, it is, moreover, one of undoubted superiority to these in point of intelligence and capability of progress in civilization, however much it may fall short of the same in physique and manly attributes.

These people, who may be distinguished as "the true Persians," appear to be the only portion of the general population which is possessed of national instincts, or which is capable of realizing that they have an interest in the maintenance of order, the encouragement of peaceful arts, and the support of the constituted authorities, whatever their failings may be, and it is owing to these qualities that they have been able, by combination and diplomacy and the exercise of their superior intelligence, to keep under control the other more warlike but less civilized and united races.

The settled population of Persia, however, of whatever origin it may be, constitutes only a portion of its inhabitants, for various regions within the limits of the Empire are the abodes of races more or less nomadic in their habits, and as such almost unconquerably wild in their nature and completely insusceptible to all civilizing influences. These live habitually in a state of semi-defiance of all constituted authority, the whole being distinguished collectively from the settled population by the title of "the Ilyats" or "the Tribes."

The relations of those tribes generally towards the central authority appear to be of so vague and undefined a description that it can scarcely be said to amount to more than a reluctant acquiescence in the restraints imposed upon them by the existing *régime*. They are thus always upon the alert to take an active part in any political disturbance that may occur, or to profit by any opportunity which may present itself of a recurrence to their old lawless and predatory instincts, while it is only the fact of their internal disunion which prevents their constituting permanently a greater element of danger to the well-being of the country than they do at present.

As the "Ilyats" are by far the most warlike portion of

the population, it has always been the aim of malcontents or pretenders to any position of authority to get them on their side. For the same reason it has been the policy of the reigning monarch to enlist as many as possible of them individually in his service, and by fostering tribal jealousies and dissensions amongst them in their homes to prevent their constituting so great a menace to the security of his position as might otherwise be the case.

In spite of the fiction which is kept up of an administrative organisation based upon European lines, in which a separate minister is entrusted with the charge of each of the several branches of the public business,—the whole constituting collectively a council which would be available for the purpose of advising the Sovereign regarding points of momentous interest or those affecting the general policy of the country—, the Government of Persia differs in no way from that of most Oriental countries, and is absolutely despotic in its character. The will of the Sovereign or of the deputy appointed by him is the only law recognised, and from this there is no appeal.

The position of any one of the ministers or governors is thus entirely dependent upon the degree of favour with which he is regarded by the Shah, and a man who is to-day occupying a post of trust and confidence,—honoured and courted by all around him—, may to-morrow find himself stript of all belonging to him, and possibly submitted to what cannot but appear to a European the intolerably humiliating punishment of the Bastinado, or thrown into prison. Not that on this account the least disgrace would attach to him in after-life on a change occurring in his circumstances, for as the Sovereign can bring any one of his officials to the dust, so he can in the same way raise him to more than his former position of favour, and the lapse of a few days may, unless he have been made away with in the meantime, see the victim of all these misfortunes more powerful than ever, while he himself may have the satisfaction of looking on at the subjection of one of his rivals, or of those who had brought about his own temporary abasement, to the same experiences as he had gone through himself.

In the same way the position of every official is entirely dependent upon the caprices of his superior, whose favour is, as a rule, more likely to be conciliated by pecuniary considerations than by any regard for the well-being of those placed under his charge.

The province assigned to the rule of a local governor may be

said to be handed over to him to deal with absolutely at his own discretion subject to the payment of an annual tribute, and so long as this does not fail in amount or in regularity of payment, the only feature in his administration which would earn the disfavour or suspicion of the central authority would be the fact of his becoming too popular amongst the local population, or strengthening his military position beyond its lowest possible requirements, either of which circumstance would be considered to constitute a menace to the existing *régime*.

The relations between the central authority, by which is meant the Shah and his favourites at the capital, its deputies, and the populations over which they rule, are peculiar even for an Asiatic country,—where in any case all sorts of conflicting interests are found struggling for predominance in the national counsels—, for in Persia, owing to the disturbed character of its history for many centuries past, and to the variety of the races comprised within the limits of the Empire, but little national feeling of any kind exists, still less such as would correspond to the loyalty of a European people towards their Sovereign. In consequence of the scattered nature of the population, which is spread over an immense area, out of all proportion with the aggregate of its numbers, the Shah himself may be said to constitute little more than an ideal personage in the minds of the greater portion of those over whom he nominally rules, the more so that he seldom moves beyond the immediate neighbourhood of his capital. In the out-lying provinces therefore the local governor is the person to whom all look as the supreme arbiter of their interests in the daily routine of life, or in any emergency that may arise. This is the more the case inasmuch as, owing to the great distances which intervene between the capital and the provincial seats of government and the difficulties of communication between the same, the governor of a province may, as has been pointed out, be said to occupy the position almost of a tributary chief rather than of a local deputy responsible to the central authority for his conduct of the duties assigned to him.

The monarchs who have successively ruled over the Persian Empire since the period of the Mahomedan invasion have never had any claim upon the loyalty of their subjects as being in their origin of royal or even noble descent; on the contrary the founders of the several dynasties which have existed have been

mere adventurers, who, by skilfully availing themselves of the opportunities which came in their way, have risen to positions of trust and influence under the Sovereign for the time being, and have finally made use of the power thus acquired to oust their patrons and usurp their places. This is a fact so well recognised that for the too powerful minister or provincial governor there is no alternative but open rebellion or the scaffold.

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The forces which would constitute the military strength of Persia may be divided under two categories, namely, the more or less trained troops of various descriptions, and the irregular levies of the "Ilvats" or semi-independent warlike tribes.

The former are, as a rule, of excellent material, being mostly of Turkish origin, for the true Persian has no taste for warfare, and if there should appear any chance of his being called upon to risk his life in the service of his country, he is always willing to pay a handsome sum to a member of some nationality, whose tastes appear to run more that way, to become his substitute on the occasion.

If, however, the material be good, the organization of the standing army, as this might be called, is about as bad as it could be; for, though the fiction is kept up of the troops which constitute it being trained and equipped after the model of European soldiers, no discipline of any kind exists amongst them, while the corruption amongst the administrative body and the higher officers is so great that the men themselves rarely see the colour of their pay. As to anything in the shape of Supply Departments no such a branch of the service exists, except, perhaps, in the imagination of those who draw the pay from the State for their equipment.

The troops which are present in Teheran and thus kept under the eye of the Shah and the immediate supervision of the European officers employed by him, are of course serviceable to some extent, but even these are armed, trained, and equipped in such a varied and fantastic manner as to be quite incapable of acting in concert, and thus useless for any other purpose than that of a military spectacle or the suppression of some trifling disturbance. Amongst these, however, an exception must be made in favour of the cavalry, or rather mounted infantry, organized on the model of the Russian Cossacks and officered by Russians. These are the only portion of the troops that have any pretence to being properly trained and equipped, and they are most excellent of their kind;

the men are smart looking and of excellent physique; they are said to be mostly possessed of some private means, and they thus present a marked contrast in their appearance to that of the poor half-starved privates of the other regiments; the horses are small but well kept, and the whole turn-out is a thoroughly serviceable one.

Apart from other considerations, which would not incline one to look upon this body with quite such favorable eyes,—for it constitutes the nucleus of what might be expanded to the presence of a strong and compact Russian force in the Persian capital, which is a fact not without a certain amount of menace to our national interests—, its existence is of the greatest importance to the European residents there, as it is the only portion of the troops which could be relied upon for their protection in case of a general rising of the population, and this is a contingency that is always possible amongst a Mahomedan population, and more particularly so in Persia under existing circumstances.

Owing to the great distances intervening between the capital and the chief towns of the several Provinces, and the unruliness of the population in many parts, each provincial governor is obliged to entertain a certain number of troops in order to maintain order and to protect his own person. In former days a governor used to be allowed great license in this respect, and he used to take a pride in maintaining as many troops as possible by way of adding to his own dignity and importance; the local forces of the several provinces thus contributed collectively in no small degree to the military strength of the Empire.

It has, however, become the policy of the present Shah and his favourites to concentrate as much of the power as is possible in the capital, and with this object the forces of the local government have been reduced to the lowest possible number consistent with the maintenance of order, and a proportionate decrease in the number of troops available for national purposes has been the result.

The "Ilyats" are an element of the population which, however troublesome in time of peace, would be a most important contribution to the national strength in time of war, from the fact that each man amongst them is by birth and tastes a soldier, and that they would each and all be only too delighted as a rule to find any pretext for sallying forth from their fastnesses to join "*con amore*" in any disturbance that might arise. Thus, ill-equipped and utterly devoid of any organization as they are, still owing to their "morale" and

"physique," and proficiency in all the methods of Asiatic warfare, they would contribute far more to the strength of the military position, on any occasion on which the national forces would be called out to repel a common enemy, than the actual standing army of the Empire.

Unfortunately, owing to the general ill-faith and injudicious policy of the reigning dynasty, the good feeling of this important section of the armed population has been completely estranged, and it is doubtful whether the present Shah could, whatever might be the degree of the emergency which presented itself, rally any but an inconsiderable number of these warlike races round his standard.

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As instances of the distances to be travelled and the delay which would have to be incurred in sending troops from the Capital to repress any serious local disturbance, it may be observed that Meshed is distant about 500 miles by road from Teheran, that it would take a traveller marching by regular stages nearly a month to traverse the distance, and that supplies of provisions and water are so scanty along the route that no considerable body of men could move by it without previous arrangement. The same may be said of Kerman, Tabbas, and other out-lying districts, but to a greater extent, the distances being longer, and the intervening country equally, if not more, destitute of supplies.

It should be noted that since no roads of any kind exist in the country beyond the two which I have described, as leading respectively from Teheran to Kum and to Kasvin, wheeled traffic may be said to be practically unknown; consequently all baggage and supplies of Commissariat stores and ammunition would have to be conveyed upon the backs of mules and camels. As to artillery nothing beyond the calibre of mountain guns could be transported through any portion to be traversed beyond the same limits.

A VISIT TO TRANS-CASPIA IN 1890

A VISIT TO TRANS-CASPIA IN 1890.

SUCH a cloud of mystery has from time immemorial involved the regions comprised under the somewhat vague designation of Central Asia, and so many misconceptions exist regarding that portion of them which has come under Russian rule, that it appears to me to be most desirable that any one who has visited those parts and thus had an opportunity of judging, however superficially, for himself, should do his best to convey to the public his unbiassed impressions on the subjects which have come under his notice, and this all the more that the general vagueness of the information obtainable hitherto on these points and the various misconceptions arising therefrom, have formed the great obstacles to a satisfactory mutual understanding between the two great European Powers, which should be working together in unison for the amelioration of the conditions of the Asiatic populations which Providence and their own individual energy and enterprise have brought under their respective rules, instead of, as has been too unfortunately the case more often hitherto, watching one another's progress with jealousy and distrust, and making use of every available opportunity of criticizing unfavourably the results, and depreciating or misrepresenting the motives of one another's policy.

There is but little doubt that the remoteness and inaccessibility of these regions has been a great temptation to the few European travellers who have succeeded in penetrating to them in past times to draw upon their imaginations a good deal in their descriptions of what they had seen on their return to their homes, and the ground has been prepared for such exaggeration on their part by the daring hyperbolisms with which the various Oriental writers on Central Asian matters have—doubtless with a view to currying favour with the several despots at whose Courts they resided—depicted the wonders and magnificence to be found

there. To an Anglo-Indian, for instance, it is difficult to understand on what grounds any one of the ruined cities contained within the district of Old Merv could have been imagined to be deserving of such a superlatively pretentious title as that of "Shah-i-Jahan," or "Queen of the World"; this title is, however, only a degree more audacious in the claims which it advances than that assigned to the now existing city of Bokhara of "Al Sherif" or the "Noble." As a matter of fact, the city of Bokhara does not, in the present, constitute half as fine a town as, say, Ahmedabad, or a hundred similar cities in India, and has no traces of any pretensions to former grandeur that could bear comparison with those to be found within or in the neighbourhood of these latter, while there is nothing to be seen about the remains of the ruined cities of Merv, which would lead one to suppose that those in the past were any larger or finer than the city of Bokhara is in the present time. It is, indeed, fortunate alike for the outside world and for those more immediately concerned that the mist of ages which has hitherto imparted a fictitious glamour to these regions, from the mysterious interest attaching to the vague outlines visible from time to time through it, should now be beginning to rise and dissolve in earnest, thanks to the introduction of the railway and the electric light, for these prosaic and uncompromising revealers of facts have shown that, what appeared in the distance to be a mirage of Oriental splendour and luxuriance, is, in reality, nothing but a repetition of the squalor and sordidness characteristic of most Asiatic countries.

In the case of the city of Bokhara the beauty of the lineaments of its outline are still, as far as the organs of sight and scent are concerned, a great deal too pronounced to suit European tastes, for a more filthy and neglected town could hardly be seen anywhere, even in a Native State in India, while there is still enough remaining of the ruined cities of Merv to give an idea of how abominable must have been their condition in the past. Travellers to these parts, like those to all out-of-the-way places, have, in fact, been ashamed to come back to their homes without some wonderful tales to tell of what they

had seen, and have, in consequence, been prepared to see wonders and beauties where no such existed except in their imagination. Samarcand is in reality the only city in Central Asia that has any fine remains which would bear witness to its former grandeur, and these, dilapidated as is their present condition, after the wear and tear of many ages, are undoubtedly still most imposing in the spectacle which they present.

Again, were it not that all such exaggerations are characteristic of Asiatics, it would fill one with wonder to think of the extravagance of the terms in which the old writers have described the populousness and natural resources of these supposedly favoured regions.

There is nothing about the districts now comprehensively designated as Trans-Caspia, that is, the region stretching east from the banks of the Caspian Sea to the borders of China and Afghanistan, which would lead one to believe that they have ever been much more thickly inhabited than they are now; the existing villages are but few and far between, even in the most favoured portions, and there are hardly any signs that they ever could have been very much more numerous in the past. If indeed the ruined cities of Bairam Ali and Sultan Sanjar in the Merv district are to be taken as any criterion of the former populousness of these regions, then the only deduction to be drawn from a careful inspection of their sites is, that the population in the past must have been infinitely less than what it is popularly imagined to have been, for, neither of these ruined cities cover an extent of ground one-half as great as that occupied by the present city of Bokhara, and it is difficult to imagine that either of them could have contained a population exceeding at the utmost 50,000 to 60,000 persons, crowded together, as these would naturally be, in an Asiatic town, in a way which would be impossible with Europeans.

Beyond this it is obvious that to maintain such a numerous population as is supposed to have existed in this neighbourhood in bygone ages, a very extensive area of cultivated land would be required; whereas, whatever may be the degree of fertility of the soil, and there is no question that this is most astonish-

ing in places, the amount of water supply available—without which the richest soil is as valueless and incapable of supporting life as the sands of the desert—is limited in the extreme, while there is nothing to be seen which would impress one with a belief that it was ever very much more abundant in past times than it is now.

The only rivers available for irrigation are the Oxus, the Zarafshan, the Murghab and some minor streams; of these the Oxus and the Zarafshan both appear to be streams which it would be most difficult to make use of for this purpose, owing to the fact that they partake more of the nature of mountain torrents than of steadily flowing rivers. Their beds are broad and shallow and choked up with the débris of sand and shingle which is carried into them by the heavy floods which periodically rush through them on the occasion of the melting of the snows at their sources amongst the highlands of the Pamir or the mountains of the Hindoo Khoosh, and which not only fill their channels but wander wildly over the country on either margin, thus making all attempts at retaining the main volume of the river within a fixed course well nigh impracticable. At other times the beds of these rivers contain an almost indefinite number of separate streams which seldom unite but wander about independently amongst a complete labyrinth of ridges and sandbanks, such as must ever effectually preclude the possibility of their waters being made use of to any practical extent for purposes of navigation. It is thus easy to see how very difficult it would be to evolve any such extensive scheme of irrigation from the waters of these rivers as would materially alter the character of the country through which their courses lie. In the case of the Oxus, it might be said to be almost impossible to carry out an enterprise of this nature except on such a limited scale that the advantages thus to be gained from its waters would be almost infinitesimal compared with their volume, while in that of the Zarafshan, the benefits actually derived from this stream have been much exaggerated in the past, and indeed up to quite recent days. The hyperbolism implied by the epithet Zarafshan or "Gold-scatterer" is on a par with that which has been made use

of in describing Bokhara as "the Noble," and Merv as "the Queen of the World;" it is thoroughly Oriental in its character, and must be taken to imply not a river that spreads any great amount of wealth over a large extent of country, but one along the banks of which a limited stretch of highly cultivated land has sprung up in an otherwise barren and desolate region; if one may compare mole-hills to mountains, the relation of the Zarafshan and the area irrigated by its waters to the deserts through which it flows, present very much the same aspect as may be seen in the case of the Indus in Sind, or in that of the Nile above Cairo in Egypt. In the same way the size of both the Oxus and the Zarafshan have been very much exaggerated, for the bed of the Oxus, though stretching over an immense breadth, did not appear to me to contain one-quarter of the volume of water of the Indus or Ganges, while the Zarafshan, at the time I saw it, near Samarcand, consisted of half a dozen distinct streams wandering through a waste of sand and shingle, none of which were more than about two or three feet in depth. Altogether the extent of land irrigated from this stream is extremely limited, in comparison with that which is lying waste from want of irrigation, and the productive capabilities of this district seemed to me to be greatly overrated, unless it were possible to find some means of much enlarging the present area of cultivation; that this would be possible to some extent by a more careful management of the water supply is doubtless the case; but it must be taken into consideration that even if this were done, and the difficulties resulting from the shallowness of the channels constituting this river, and their liability to be torn up periodically by heavy floods, were overcome, the valley through which the river flows is itself limited, its area being confined on either side by highlands and mountain ranges.

The length of the Samarcand Valley is about fifty miles, while its average breadth must be not less than thirty miles; this would give an area of about 1,500 square miles of irrigated or irrigable land, and, as far as could be judged from such superficial observations as could be made without exploring the district, this would be about the amount actually brought under cultivation. In

Bokharan territory the surface of the ground in the neighbourhood of the line of rail appeared to be suited to purposes of irrigation on a much more extensive scale, as here the mountains and highlands receded to a distance from the course of the river, leaving in their place extensive plains; but here again the supply of water is evidently far inferior to that procurable in the Samarcand Valley and quite insufficient for the needs of the land actually under cultivation, let alone the possibility of extending this area. This is probably owing to the fact that the Russians, being in command of the sources of the stream, naturally make every provision that the requirements of their own immediate subjects should be supplied to the full before passing on the water required for their dependent the Amir of Bokhara.

I have dwelt upon the point of the actual and possible capabilities of these districts more particularly for two reasons: firstly, because there appear to be no grounds for believing that they ever were much more productive in the past, or thus capable of supporting a much larger population than is now found inhabiting them; from which it follows that the accounts of the tens and hundreds of thousands slaughtered by the Tartar and other invaders, such as Jenghiz Khan and Tamerlane, must have been mere Oriental exaggerations; and secondly, because much stress has been laid upon the supposed abundance of the resources of all kind to be found in them, such as it was imagined would be sufficient to render Russia independent of any necessity of relying upon supplies to be procured from Europe, and thus constitute for her a fresh base upon the very borders of Afghanistan, in the event of her seriously contemplating an onward move into that country or towards India.

The amount of water available from the minor streams which flow through the several oasis of Merv, Tejend, Kizil Arvat, etc., appears, as has been stated, to be very limited as compared with the vast extent of land which might be made use of for purposes of cultivation, were a more abundant supply forthcoming. The whole of the region extending from Kizil Arvat to Merv possesses soil of unquestionably the most wonderfully fertile nature, and, were the rainfall heavier, or were it traversed by larger streams,

it would most probably become in course of time, as its population increased, a very exceptionally productive tract of country; but while its rainfall is insufficient and unreliable for agricultural purposes, there appears to be no possibility of procuring such a supply of water as would give a chance of a full development to the intrinsic capabilities of the soil. A more careful management of the present supply would indeed doubtless give an immense increase to the extent of land now under cultivation; still such an increase would be but small compared with what might be possible, were a sufficient volume of water available for this purpose; but, whereas it would require an Indus or a Ganges to give these regions a fair chance of showing their powers of production, the only streams existing for this purpose are the Murghab and others of a similar calibre; of which the Murghab, as seen at Merv, does not appear to contain a greater volume of water than say the Wye at Hereford. It is true that the Russians are a people that are not to be daunted by difficulties, and they have shown their determination to make the most of the resources contained in their recent acquisitions in Central Asia by the various works of construction and engineering which they have taken in hand, and, should they succeed in rendering the whole volume of the water of this river available for purposes of irrigation, according to their present schemes, a very large increase of cultivation will ensue in the Merv oasis at any rate; but even then, this extent would be but a drop in the ocean, compared with the thousands of square miles of rich soil stretching thence towards the Caspian, of which, as far as one may judge, it will never be possible to render but a comparatively small portion, of any practical use for the support of human life.

While on this subject, it may be mentioned that the term *oasis* is somewhat of a misnomer as applied to the several cultivated tracts distinguished as Merv, Tejend, Akhal Teppe, Kizil Arvat, etc., as by its use it is generally implied that the tract surrounding such an *oasis* of more or less watered land is of the nature of sands or desert, utterly insusceptible of cultivation under the most favourable circumstances; whereas, in the case of the region extending from Kizil Arvat to Merv, the soil is throughout this

extent equally remarkable for its fertility wherever water can be found, as is shown by the luxuriance of the growth of grass in places where water has accumulated. In spring, moreover, after the winter rains and the melting of the snow, it is clothed all over with dense verdure, of which the traces may still be seen even at the end of the hot season, in the débris of withered grass and dried-up stalks with which the surface of the ground is littered.

The fanatical and turbulent demeanour of the inhabitants of Central Asia, particularly of those of Bokhara, is another myth which has been entirely done away with by a more intimate acquaintance with these populations, and a more careful appreciation of the position which their European conquerors have acquired amongst them. To understand how this is the case, it is necessary to notice briefly the distinctions between the several races found in these parts; these may be divided into those of Persian, Tartar and Turkish descent. The Kirghiz constitute the Tartar element, the Tajiks that of Aryan or Persian descent, while the Usbegs are Turcomans of the same origin as the inhabitants of Merv, Tejend, Akhal Teppe, and the territory reaching to the Caspian, not to say the Turks themselves of Istambul, and the so-miscalled Mogul conquerors of India. A very short stay in Samarcand or Bokhara is sufficient to enable any one accustomed to associating with Asiatic peoples to distinguish between these races by their physical characteristics and modes of life. The Tajiks or Sarts, as they are called indifferently, constitute the town population, and all speak Persian; they appear a docile, hardworking people; the majority of those inhabiting the towns are engaged in various forms of trade and mercantile pursuits; besides those in Samarcand itself, great numbers are employed in the households of the European residents there, in every sort of work, domestic or otherwise. The servants are all Tajiks, so are the gardeners, bakers, butchers, labourers, etc., etc. The Usbegs and the Kirghiz on the other hand speak mostly only Turki and Tartar; they constitute the rural population, and seldom visit the towns except upon market days; they are of quite a different temperament to that of the Tajiks, being less commercial in their tastes, and more reserved in their demeanour

towards Europeans; that they are of perfectly distinct origin is apparent from their physiognomy, the features of the Kirghiz being markedly of the Mongolian or Tartar type, while there is nothing about those of the Usbeg to distinguish him from the ordinary Turcoman or Turk; they keep completely distinct from one another moreover, living in separate villages, and do not, as I was informed, ever intermarry. How then such a meaningless term as that of Turko-Tartar as a comprehensive designation for these races ever came into existence, it is difficult to imagine: it would be almost as sensible to describe the inhabitants of Wales as an Anglo-Welsh race, indeed a great deal more so, for these races do intermarry, whereas the Usbegs and Kirghiz do not.

As regards the population of Bokhara itself, it differs in no material respect from that of Samarcand; the town population is composed mainly of Tajiks, who, as I have said, are a quiet, industrious people, while the rural population is composed almost exclusively of Usbeg Turcomans, who have no more peculiar attributes of fanaticism or ferocity in their character than their fellow-countrymen in the adjacent districts directly under Russian rule. The evil character which Bokhara has gained amongst Europeans is merely owing to the fact of the former remoteness and inaccessibility of its position, and the consequent immunity which successive tyrants ruling there have enjoyed from any retribution for their atrocious treatment of such hapless European travellers as may have fallen into their hands from time to time. Now that their relative positions have been changed, and the European has become the master of the position, the whole population has apparently accepted the altered state of affairs, in the same way as would be the case with any other Asiatic people; and, while the ruler has become a mere puppet, his subjects have every appearance of fully appreciating the benefits to be derived from the change of régime, and to be quite prepared to transfer their allegiance to the *de facto* ruling element, as soon as they may be permitted to do so. In the meantime they are contented to continue their recognition of the nominal ruler as being the accepted medium of communication with the former:

as to any patriotic wish for independence, or fanatical aversion to the *Feringhi*, I do not believe that such feelings exist, for to all accounts the principal ambition of the greater part is, by any pretext which can be adduced, to obtain the privilege of naturalization as Russian subjects for the sake of the benefits which it confers, while numbers of Russian tradesmen and merchants occupy houses in various parts of the town, and live amongst their Mussulman neighbours with as much apparent confidence and security as if they were in their own country. No greater proof of the absolute confidence which the Russian Government has in the demeanour of the population of Bokhara could be found than in the fact that the Political Resident there occupies quarters in the very midst of the town with a guard of only twenty Cossacks maintained evidently more for show than for protection, as the only troops procurable, in case of any emeute or disturbance, would be from Samarcand, whence they could not be brought under a delay of at least twenty-four hours. The Bokhara of history, with its horrible associations of the sufferings endured there by our own fellow-countrymen, may thus be considered as completely a myth of the past as any Greek legend; it only existed at all in the light in which it appeared in past ages, owing to its inaccessibility and the consequent impossibility of bringing anything more than a moral influence to bear upon it,—a fact which its barbarous rulers were fully aware of. Now that it is traversed by roads and railways, and overawed by European troops, it is not different from any part of the India of the present, and we, of all nations, are the last that should indulge in maudlin and sentimental regrets over the barbarities and abominations of the regimé which has ceased to exist; rather should we offer our hearty congratulations to the introducers of the change as benefactors, to no slight extent of the human race.

The difficulties attending the construction of the line of rail from the Caspian to Samarcand, and its maintenance in efficient working order, would appear to have been alike made too much of. That it evinced a spirit of the greatest resolution and enterprise to commence a work of such a magnitude, through so barren and apparently profitless a region, is beyond

question; but once that the work had been commenced, the only difficulty to be encountered was in bringing forward the materials from Europe, and, as far as the line beyond Askabad was concerned, laying them down with sufficient speed to attain the object required, which undoubtedly at the time was of a strategic nature, for the course taken as far as the Merv oasis is over country as level as the plains of the Punjaub, with the exception of the first thirty or forty miles. The only real difficulty encountered has been in the crossing the tract of country intervening between the Merv oasis and the banks of the Oxus. For the first sixty miles or so of this extent, the sand hills of which it is composed, are stationary, and evidently in the spring covered with rank vegetation, the remnants of which could be seen in the withered grass and stalks of plants with which the surface was strewn. Underneath the surface too, where it had been cut through, could be seen a layer of closely matted roots, which extended to a depth of from two or three feet in most places; the obstacle offered to the carrying of the line of rail through these sands must, to all appearance, have been trifling. After traversing these, the railway enters upon what are termed the "Moving sands," that is, those which, throughout the year, are destitute of any vegetation at all such as would bind them together, and are thus in constant motion, being wafted to and fro, according to the quarter from which the wind happens to be blowing at the time. These, in the first case, must have occasioned a great deal of trouble in the laying down of the line, but now that this has been completed, and, moreover, well ballasted throughout, they present no further obstacle to the progress of the trains, as I was assured by several Russian engineers, than does the snow in the winter in most parts of Russia. In any case, the delay resulting from an accumulation of sand upon this portion of the line, which only extends for about thirty to forty miles, would not be of more than a few hours' duration. Whatever may have been the condition of this railway a year or two ago, it is now, to all appearance, most solidly and substantially constructed throughout the whole distance. This is probably owing to the fact that the Russians have been working steadily to improve it bit by bit, ever since its

first opening for traffic; it is not indeed metalled throughout, but this has been done wherever there appeared to be any urgent necessity for it, as, for instance, through the stretches of sand referred to; and, doubtless, this work will be carried out gradually through its whole extent, as quantities of material were being quarried at various places, apparently for this purpose.

The weak point about the communication by rail is, as would be expected, the bridge over the Oxus, which, being constructed entirely of wood, must necessarily be liable to break down at any time in case of a flood, or in the event of its being exposed to any abnormal strain; but such an occurrence would not break off the connection with Samarcand to any serious extent, as abundance of rolling stock and material is available on the further side of the river, and passengers and goods could easily be conveyed across by boats. In any case, the interruption to through traffic occasioned by such an occurrence would be only of a temporary character, for the very fact of the bridge being made of wood, would facilitate its repair, abundant supplies of this material being kept in store for the purpose. The important part which this railway has played, independently of all other considerations, in consolidating the newly-acquired territories through which it passes, and pacifying the population contained therein, is beyond all estimation. As we have had ample experience of it in India and other similar parts of our possessions, the introduction of a railway acts like magic, in reducing to order the most turbulent and troublesome races, and such has been the case with the Turcoman and other inhabitants of these parts. Already cowed by sanguinary and disastrous conflicts, the civilizing influences of the railway and other innovations seem to have reduced them to a ready and willing submission to the rule of their conquerors, and completely diverted their thoughts from the old channels of rapine and bloodshed in which they had run for centuries, to the peaceful occupations of agriculture and commerce. The trains now traverse the entire distance of nine hundred miles from Uzun Ada to Samarcand in three days and two nights, or about sixty hours, and thus average a speed of fifteen miles an hour, including stoppages, or a running speed of about twenty miles an hour.

This pace must frequently be exceeded, as the delays at the stations are very long, so that from time to time a speed of quite thirty miles must have been attained; there cannot thus be much that is faulty about the construction of a line of rail, which can bear constant heavy trains running over it at this rate.

The excursion of which I was a member was conducted under the management of the Compagnie Internationale des Wagons Lits, and nothing would offer a greater contrast to the experiences of former travellers, or furnish a stronger proof of the altered condition of affairs now existing, than the ease and comfort which characterized it throughout. From the moment of leaving Paris till that of arriving at Samarcand, the only hardship to be encountered was that of changing from one comfortable, not to say luxurious, sleeping car or saloon carriage to another, or to the saloon of a steamer. It seemed, indeed, as one passed station after station on the Trans-Caspian Railway and alighted for a cup of tea at that of Geok Teppe, or to breakfast, lunch, or dine, as the case might be, at those of Merv, Amu Darya, and Bokhara, and found there well-built and carefully-kept stations surrounded by bright little gardens, and containing all the necessary appurtenances of waiting-rooms, refreshment-rooms, etc., hardly possible to realize the fact that but a few years had elapsed since some of these had been the scenes of the most desperate and sanguinary encounters between the introducers of all these modern innovations and the barbarous inhabitants of the country, while others had only been visited at the risk of their lives by a few daring and intrepid explorers. Such, however, is the magic influence of modern science and civilization that, like a fairy wand, it reduces in a moment, as it were, the most savage and turbulent specimens of the human race to peace and submission, and causes houses and gardens and fountains to spring out of the very sands of the desert at its touch.

Comparatively little interest would be aroused in the breast of the traveller whose object it is to study the resources of the country and the social condition of its inhabitants, until he finds himself approaching the Kizil Arvat oasis, where, after traversing a weary stretch of sand and desert, such as is calculated to predispose him

against the region to which he is receiving such an unpromising introduction, he makes his first acquaintance with the Trans-Caspian territory under its more favourable aspect; passing through patches of cultivated ground irrigated by streams of running water, he may descry far, far away in the distance, a jet rising from a fountain, which thus marks the position of the station. Here is a great railway depôt and changing station for engines, which, if the traveller's approach be made by night, he will find all lighted up by the electric light. The country through which the line of rail passes from this point onwards as far as Merv, reminds one very strongly of that traversed by the railway between Jacobabad and Sibi in Upper Sind, or Kutchi, as this particular portion is called. On one side the landscape is closed in by barren storm-swept ranges of mountains rising almost precipitously out of the plains, absolutely destitute, as far as is discernible, of the slightest trace of vegetation, while, on the other side, a boundless expanse of level ground stretches away to the horizon, as far as ever the eye can reach, without a hillock or a tree of any dimensions to break the monotony, of the view. The soil of these plains, moreover, seemed to be of a quality very similar to that of the Pat—as the vast extents of uncultivated land so familiar to the dweller in Sind are called—and, like the latter, apparently was possessed of the most extraordinary productive properties, for wherever water was available, appeared flourishing villages, surrounded by gardens and orchards, and fields, covered with crops of various descriptions; while, that the rest of the land as yet lying waste was possessed of similar powers of production, was proved by the fact that in places where the water had been allowed to run to waste, or had not been made use of, sometimes at great distances from any village site, the most luxuriant stretches of grass jungle had sprung up; and, again, that, where this was not the case, and no signs of the neighbourhood of running water at any time of the year were apparent, the whole of the surface of the ground was covered with the débris of grass and plants, which bore witness to the richness of the vegetation which it produced in the spring, after the melting of the snows and the winter rains, when the whole landscape is said to

be one of the most brilliant green, dotted with flowers of every hue. That this might be the case could be easily imagined by an Anglo-Indian from the effect which may be seen to be produced upon the arid plains of Sind or the Punjab after the bursting of the monsoon, when grass and flowers spring up like magic on all sides. It is thus, as has been pointed out, a mistake to describe this region as a "desert," by which is generally implied a tract of country devoid of any productive capabilities, even under the most favourable circumstances. It is rather like the Punjaub, one containing, to a considerable extent, an alluvial soil, of an exceptionally high degree of fertility, which only requires a sufficient supply of water to be capable of an almost unlimited degree of development;—and there of course is the difficulty—for the only streams visible as far as the Tejend and the Murghab are paltry in their volume, and quite unequal to such a task, however much the present state of things may be improved by a more careful management of their waters, such as would enable the supply thus available to go much further than it does now, and perhaps extend it, by constructing artificial water-courses from the mountains to the south, in which all these streams take their source.

The analogy between the districts comprising "Trans-Caspia," that is, the extent through which the railway runs from the Caspian to the Oxus and Sind or the Punjaub, exists, as may be expected, only as far as regards appearance and physical characteristics. The climates of the two countries will, of course, bear no comparison, and there is nothing more absurd than the impressions regarding that of India, which seems to prevail amongst the majority of Russians, officers and others, with whom we were brought in contact. Being, as they are, natives of an exceptionally cold climate, with no colonies or possessions such as would give them an idea of the degree of heat of which a tropical climate is capable, it seemed beyond their powers of conception to imagine a temperature higher than that which they were liable to experience in Trans-Caspia. This of course was very high compared to that of European countries in the same season, but still was trifling in its effects as compared to that of India. Though the thermometer stood in the train by which we were

travelling, on more than one occasion, some degrees over 100° Fahrenheit, still, as every visitor to tropical countries is well aware, the actual degree of temperature is no criterion of the effects resulting from exposure to the sun; it is the directness of the rays that the European feels. As is well-known, Europeans in Australia can work out of doors without any further covering to their heads than that which they would wear in Europe, in a temperature which, as registered by the thermometer, is equal to that recorded in many places in India in the hot weather; and yet, if any European were simply to walk about in India with no more protection to his head in such a temperature, let alone attempt manual labour, he would probably die in an hour or two of sunstroke. If any proof were required of the difference of the effects of the rays of the sun, even in very high temperatures in the Central Asian regions, as contrasted with those experienced in India, it might be found in the fact that both men and officers, though clad in white, found sufficient protection was afforded to their heads by wearing a plain white linen covering completely devoid of padding over the ordinary regulation flat cap.

After Kizil Arvat, the next place of interest at which the train stopped was Geok Teppe; the station being close by the famous enclosure, there was just time enough to run out to look at it. The walls appeared to me very much smaller in their dimensions of height and thickness than I had imagined from previous descriptions, probably owing to the fact that in India, one is so accustomed to the sight of structures of this kind, that they do not impress one in the same way, in which they would a visitor from Europe, fresh to such scenes. In surveying the site and the neighbouring country, one could not but be struck by the unaccountable spirit of infatuation which must have impelled the Turcomans to deliberately place themselves at the mercy of their invaders, by entrenching themselves behind these walls, on a piece of level ground commanded by hills, or, at any rate, rising ground at a distance of only about one or two miles. They could not possibly have taken more certain steps to ensure their own ruin by any possible contrivance; whereas, if they had only

taken to the hills, or scattered themselves over the plain, and laid in wait for convoys and detached parties, as Afghans or Beloochees would have done under similar circumstances, they might have almost indefinitely protracted the advance of the Russian troops. It could not but strike one, as one stood upon the walls of Geok Teppe, what an infinity of trouble and complications of all sorts would have been saved us upon various occasions in the course of our frontier difficulties in India, if we could only, in the first instance, now some fifty years ago, have induced 30,000 or 40,000 Afghans to shut themselves fast up in a similar position, and wait there till we had succeeded in annihilating the greater portion of them; for it is very much to be doubted if half a century ago, when we were fonder of acting than of talking, and less the slaves to maudlin sentiment than we are now, we could have resisted the temptation to make the most of the opportunity thus afforded of making an impression that would have immediately secured us as firm a hold upon the country as the Russians have attained in Trans-Caspia by their stroke at Geok Teppe.

That any real cruelty is involved by such drastic measures is very much to be questioned, for Asiatics are moved by no qualms of mercy or compassion in their treatment of one another; and it is unfortunately beyond all doubt that the rules by which Europeans should be guided in their dealings with them must always be based upon essentially different lines from those on which they would conduct themselves towards one another, if they would secure a position of predominance. It might indeed be argued with considerable reason that even if the results attained by the respective procedures were equally successful, it is more merciful in the end to strike once and for all than to adopt a policy of half measures, and be thus compelled to repeat the blow time after time. Our frontier wars have occasioned us infinitely more loss of life and expense in comparison than any war the Russians have undertaken in the acquisition of their Trans-Caspian provinces, and probably caused a great deal more suffering in the end to the populations against which they were conducted. If women and children were killed in the heat of

conflict in considerable numbers at the taking of Geok Teppe and on other occasions, it must not be forgotten that great numbers of the same must have perished as the result of our frontier operations from hunger and exposure, in consequence of the destruction of their homes and the devastation of their crops.

The Afghans, however, have always shown themselves a great deal too cautious to fall into a trap such as that into which the Turcomans fell upon this occasion, much less construct one of the kind for themselves; and while they have always swarmed in thousands to attack us at a disadvantage, and never failed to collect to intercept a convoy or a detached body of troops whenever a favourable opportunity of doing so presented itself, we have always experienced the utmost difficulty in getting enough of them together at a time to make an impression on them when the advantage has been on our side. In fine, if it were a piece of the most inconceivable infatuation on the part of the Turcomans to devise such a scheme as the building of Geok Teppe to oppose the Russian advance, it was nothing less than a special dispensation of Providence which impelled them to adhere to it; for the result has been that they have received such a lesson as has entirely altered the social conditions of the country; and while the difficulties and dangers under which the operations of agriculture had been carried on up till this date, were amply demonstrated by the fortified condition of the villages and the numerous little mud watch towers with which the fields were dotted, the absolute needlessness of any such precautions, under the present regime, was amply exemplified by the numbers of unarmed villagers which could be seen moving to and fro between the villages. The peasant can thus now cultivate his ground and raise his crops in complete security from all possibility of annoyance.

There is little apparently about Askabad, the next station on the line of any consequence, that would tempt the traveller to stop there unless he have ample leisure. It is merely what would be called in India, a big Military Cantonment like Mhow, Nassurabad, or a dozen others, and is thoroughly European in character. Merv, on the contrary, further on, is full of interest

to an Englishman, as having been the subject of so much discussion and inquietude.

The extravagance of the hyperbolism which dignified the commonplace cities, of which the ruins are now strewn over the neighbourhood of Old Merv, with such a pretentious title as that of "the Queen of the World," may have been excusable on the part of an Oriental who cannot express himself on the commonest subjects, except in terms of the most ridiculous exaggeration, but how any native of the British Isles, which contain a population that has always had the credit, amongst the nations of the continent of Europe, of being conspicuous for its coolness and moderation of expression, could ever have been found capable of applying to those plains—for not even a town or building had been existent there since the destruction of the city of Bairam Ali, until quite recently—an epithet of such absurdity in the misconceptions which it suggests, as that describing it as "the Key of India," it is difficult to imagine. Had some rich and populous city marked the spot, and had it been the centre of a highly cultivated and flourishing district, there would have been some possible grounds for the exaggerated importance thus assigned it,—though what with Herat, and Cabul, and Balkh, and Kashmir, so many keys of a similar description have been invented that it is difficult for any one of a practical turn of mind to understand which is the actual one that is to unlock, to an invading army, the gate into our Indian possessions. But while Old Merv consists of nothing but bare plains covered with the wrecks of ancient cities, but destitute of all signs of habitation, the pretensions to importance of New Merv are limited to the existence there, of the unfinished embankment commenced by the Turcomans in 1881, to oppose the Russians, and abandoned, after the completion of only three of its sides; and the location on the banks of the Murghab, close by, of a semi-European town, which owes its existence, as much to the fact of a weekly market being held in the neighbourhood, as to its being the head-quarters of the small body of troops which constitute the garrison of this district. The surrounding country is, however, fairly well populated, and several villages were visible in the distance.

Most fortunately, the day we spent here happened to be market day, and we, consequently, had the opportunity of visiting a very interesting scene in the place where it was held, within Koushid Khan's enclosure. It was quite astonishing to see the dense crowd of Turcomans which collected there, in the course of the day, and equally difficult to imagine whence so great numbers could have sprung from in the midst of such an apparently sparsely inhabited country. It is probable that the scantiness of the villages here may be misleading to a visitor fresh to these parts, in the estimate which he would form therefrom of the numbers of the population, as the Kibitka is the dwelling which the Turcoman prefers to live in, even pitching these, for this purpose, round his house, in the cases in which he is the proud possessor of such a proof of an advanced civilization, as was noticeable on more than one occasion. Wherever the throngs which crowded the market-place may have come from, however, there they were; and all the morning, till some time past noon, the inhabitants of the neighbourhood kept pouring in from all sides. Many of them seemed to have come from great distances, to judge from the marks which their horses bore of dust and perspiration. They all wore the national head-dress, which of course adds very much to the apparent height of the wearer, and equally exaggerates his ferocity of appearance; the rest of their dress consists of a long, loose dressing-gown-looking sort of garment, with a band or "*Kummerbund*" *wound round the waist*. From their aspect in this costume, it was easy to imagine what a demoralizing effect a mob of such figures, with naked swords brandished in their hands, and yelling and howling, as all Asiatics do on such occasions, must have had, when charging down upon a body of opponents from among the less warlike populations in their neighbourhood. In the market, business was pretty brisk; the principal articles in demand being padded coats for the approaching cold weather, sheepskin caps, and green tea. The latter appeared to be much sought after, and was of the kind of which great quantities are to be seen for sale in the shops in Samarcand, namely, Indian green tea.

The proceedings were marked by their orderliness throughout, there was no wrangling or disturbance, and the entire absence of

the din and clamour which characterizes an Indian bazaar was quite remarkable. It was curious to observe, amongst this countless crowd of those who but a few years before had been the most desperate and fanatical opponents of their present rulers, numbers of Russian soldiers wandering about exchanging jests with them or engaged in driving bargains, and yet absolutely unarmed, while not a policeman or an armed man of any description was discernible for the purpose of maintaining the peace. Indeed, to judge from appearances, such a contingency as the possibility of any kind of breach of it occurring never seemed to have been even contemplated by the authorities.

Amongst the Russians the Turcomans have a high character for a certain kind of honour, which makes it possible to trust them with any charge, while they would die sooner than break a pledge once given, and in this, they offer a marked contrast to the Afghans, who are bye words throughout the East for their treachery and duplicity. In general terms they appeared to resemble in character the Beloochees, who inhabit the mountains which border upon Upper Sind, and the Punjaub, with this distinction—that they do not seem of by any means so irreclaimably savage a type; there was a mingled frankness and wildness about their manners which very much reminded me of the bearing of these tribes upon our own frontier, but there was none of the bluster and ferocity of the Afghans about them. As far as appearances go, they have completely changed their *rôle* since they have come within the influence of Russian civilization, and distinguished themselves by the readiness with which they have adapted themselves to the complete alteration in their circumstances and mode of life, which have been the inevitable consequence. It is not to be surprised at, therefore, that it should have become rather the fashion amongst the Russians to make a good deal of them, the more so that, like all such high-spirited races, there is little risk of any misinterpretation on their part of such conciliatory treatment at the hands of their conquerors, but rather every reason to believe that it will lead to a complete forgetfulness of any personal injuries they may have received in the past, and the springing up of probably the most cordial relations between the two races. To such a result

we have two most striking analogies in our Indian possessions, in the case of the Sikhs and Ghoorkhas, whose present oyalty and devotion to our rule is precisely in proportion to the desperateness with which they opposed us in the defence of their own independence.

A visit to the Club and some of the gardens near amply repaid the trouble taken, for, by this means, it was possible to form an idea on the subject of the quality of the soil by a personal inspection of its produce. The luxuriance of the growth of the trees and other vegetation was beyond all description, and indeed such as would hardly seem credible, unless one had ocular demonstration of the fact. As Merv was only annexed in February, 1884, none of the poplars and willows planted along the avenue leading up to the Club could, in September, 1890, the time of my visit, have been more than six and a half years old, and yet their height and foliage were such that they quite shaded the road between them, while the girth of several of those which I measured was upwards of forty-five inches, girths of thirty to forty inches were very common, amongst these, many must have been planted more recently. In the gardens, the same degree of luxuriance in growth was noticeable in the case of the fruit trees, vines, etc.

As Merv Proper or New Merv, as it is called, to distinguish it from Old Merv or Bairam Ali, is the great commercial centre of the oasis, where no doubt, in time, a flourishing European settlement will arise—indeed, even now, its appearance is prosperous enough to judge from the numbers of Russian and Armenian shops and houses of business to be seen there—so it is apparently intended that Bairam Ali, as the railway station is called from the adjacent ruined city of this name, should be the head-quarters of the administration of the district. Here what would be called, in India, a very complete station—a term not to be confounded with a railway station, but meaning an European quarter—has been laid out, traversed by broad roads, lined with young trees, and dotted with some really fine houses or rather bungalows, which is a term that would give a better idea of their appearance and style, such as would compare favourably with most buildings of a similar description in India. These were intended for the housing

of the principal officials; besides these, there were some large buildings, intended for the special accommodation of those connected with the railway, and one on quite a palatial scale in course of construction, destined for the reception of the Czar, whenever he should visit his private domains in the neighbourhood. Altogether, there were all the signs of a rising place about Bairam Ali; and if it continues its present rate of development, quite a fine European station will be visible there in a short time. In the public gardens may be found further evidences of the wonderful fertility of the soil; it was difficult, indeed, to believe that the trees and shrubs which were to be seen here had only been planted since four or five years ago, already the poplars had attained a height of some twelve to fifteen feet, and the other species in proportion. Every variety of tree suitable to the climate was found here, and hard by was an extensive plantation or rather nursery garden, containing I am afraid to say how many trees destined to be planted out upon suitable sites.

Of the ruined cities of Merv, that of "Giaour Kila," the most ancient one, supposed to have been built by Alexander the Great in the third century before the Christian era, is the only one to which any real interest attaches. The size of its mud fortifications even now, after the lapse of so many centuries since their construction, is indeed astonishing, what then must it have been when they were new? As it is, they loom in the distant plain like low ranges of hills, and quite dwarf, by their dimensions, all other ruins in their neighbourhood. Inside these stupendous ramparts all is a dead level, not a vestige remaining of any building, except in the citadel, from the midst of which rises a great mound of earth; into this and other parts deep cuttings have been driven, but with what result in the way of discoveries there were no means of finding out. It is impossible, but what these immense mounds must conceal remains of ancient buildings, which have thus lain buried for centuries upon centuries; and a more extensive and systematic attempt to unveil the secrets which they contain could not but be full of interest to the world at large. Compared with these remains, the ruined cities of Sultan Sanjur and Bairam Ali appeared hardly deserving of notice, for, in the

course of a drive of ten or twenty miles out of Delhi may be seen the remains of more than one ruined city, which, in its prime, must have been infinitely grander than any that ever existed in the neighbourhood of Merv. There was one point regarding these which attracted attention, and that was the small amount of burnt bricks which appeared to have entered into the building of any portion of them; all the houses, the walls, the fortifications, etc., are made of sun-dried bricks or mud. In the city of Sultan Sanjur the only remains which had been built of burnt bricks was the tomb of the monarch from whom it takes its name; in Bokhara, with the exception of the Minar-i-Kalan, and a few other buildings including the Charsu, and in Samarcand again, all the great remains of the time of Tamerlane were built of the same material, covered with tiles on the outside. From this it would appear that there never was a sufficient growth of trees in these parts, any more than in Afghanistan or other neighbouring countries, to admit of wood being used to any considerable extent for the purpose of burning bricks; this is all the more curious from the fact that, whenever any pains have been bestowed upon their cultivation, they grow, as has been remarked, with the most wonderful rapidity and luxuriance. The *reboisement* of this country would indeed be a feat worthy of the enterprizing zeal of its present rulers, and beginnings have already been made in this direction, for, not only at Bairam Ali, but at every station along the line of rail, there are extensive plantations of young trees, which will, in course of time, be distributed along the edges of the watercourses, and wherever there is a possibility of their being protected from the ravages of camels, goats, and other enemies of all first attempts at arboriculture.

Passing beyond the limits of the Merv Oasis, the line of rail enters upon the expanse of sand which stretches thence for a distance of one hundred miles to the borders of the Oxus. The first portion of this consists, as has been said, of what may be termed stationary sand hills, in order to distinguish these from the Moving Sands which follow, and which are continued beyond the Oxus, where they threaten to swallow up a great portion of the Bokhara territory. The existence of vegetation upon the

stationary sands leads one to believe that there may be some truth in what is said about the latter, or "Moving Sands," to the effect that they are composed not really of sand, but of detritus of soil, of a very good description, which would speedily be reduced to a stationary condition, if only it could be got to stand still for a time; but this is precisely the difficulty to accomplish, for, consisting, as it does, of very finely divided particles, it is driven about like water under the influence of the wind in every direction which the latter takes.

The spectacle which these sand hills presents outvies in its singularity any description which could be given of it. As far as can be seen stretch great billows of sand, rising in many cases to a height of about thirty feet, each one of which is of almost exactly the same contour and appearance as the other; the lee side descends abruptly in a semicircular form to the bottom, while the windward side slopes gradually away: at the time that our train was crossing these hills, the wind was blowing from the north-west, and, as our way lay north-east, nothing could be more strange than the sight they thus presented, rising as they did in this peculiar conelike shape one behind the other to the horizon; on the one side nothing but the abrupt and semicircular lee sides met the eye, on the other only the sloping and smooth windward surfaces were visible, while, as if to carry out completely their resemblance to the storm-driven waves of a sea, a haze of particles of sand hung over their tips, just like the surf which hovers over the crest of a roller on the point of breaking.

Approaching the Oxus, these sands become replaced by villages, surrounded by richly-cultivated lands, but even these had been attacked at their margins, as could be seen by the remains of houses rising from the midst of the sand; on the further side of the Oxus the encroachments of the Moving Sands become more strikingly apparent, when, after crossing a stretch of highly-cultivated land, an area is entered upon which is now visibly undergoing the process of being gradually swallowed up. Here the line of rail passes for miles through what had evidently been prosperous villages, but which were now to be seen in every stage of desolation, in consequence of the steady invasion of

the Moving Sands; some had been completely engulphed, so that nothing remained but the bare walls to mark their sites: everything else, trees, bushes, grass fields, being alike buried under the sand; in the case of others, the operation was yet in process, and a few trees with a little cultivation were still remaining, while in the case of some it appeared to have been only just commenced, and the surface of the ground was dotted with numbers of tiny little miniature sand hills in course of formation. Judging from the general appearance, one would imagine that the wind must blow steadily for many months at the same time at any rate, from the north-west, otherwise it would be difficult to account for the steady advance of the sand from this direction, for the particles are so minute and friable that the least gust would drive them back to the same point from which they came.

After finally quitting the region of sand, the area watered by the Lower Zarafshan in Bokharan territory is entered upon. This, in its general effect, reminds one very much of the Mastoong Valley in Khelat, or the Peshin Valley: village succeeds village, each surrounded by fields of various species of grain and orchards; the supply of water, however, seems very inadequate to supply the requirements of the district, as appeared from the constant expanses of dry land where no crops had been sown, and by the stunted condition of the crops in many cases on the remainder. Such is the landscape that meets the eye for upwards of about a hundred miles, when it changes gradually to great bare plains, on which villages are to be seen only at long intervals from one another. The barrenness of these appears to be owing to the fact of the level of the ground being here too high for water to be able to find its way there for purposes of irrigation, while to judge from the paucity of wells visible, the subsoil water must be at a great depth below the surface. Not a tree or a bush is here to be seen; and the monotony of the view is only broken now and then by the mud walls and roofs of a village, themselves hardly distinguishable from the soil by which they are surrounded. This is apparently of a good quality, for in many places it had been broken up for large extents, evidently in anticipation of rain upon which to sow a crop of grain; in most parts, however, the surface was covered with

cornel-thorn, which the villagers were then cutting for fuel. Though very few cattle were to be seen here, their places for all purposes of agriculture being supplied by horses, the sheep were comparatively numerous and fine, though nothing to approach in numbers the vast flocks visible in Beloochistan and the neighbourhood of Quetta. After traversing these rolling plains, the line enters almost abruptly upon the sphere of irrigation of the Upper Zarafshan in Russian territory. For some time before actually entering upon this the river itself, with its narrow fringe of cultivation on either side, is visible from the line of rail which passes along a piece of high ground above it. From the impression thus given, as well as from subsequent observations, the area cultivated from this portion of the river appeared very much more limited in its extent than that in Bokharan territory, though far more abundantly supplied with water. Altogether its productive capabilities appear to have been much over-rated, unless it were capable of very considerable extension, which, from the nature of the river and the configuration of the ground, does not appear to be the case.

The city of Bokhara being situated at a distance of upwards of ten miles from the railway station, the only means of getting there is by country cart or by carriages provided by the Political Resident. The latter do not at all come up to the standard of a Political officer's equipage in India; in the present instance they consisted of an antiquated brougham, and an, if possible, still more shabby and dilapidated-looking landau. Each of these was drawn by two horses, who had to carry riders in addition; the animals were of as sorry a description as the conveyances they drew, but by dint of blows and yells were kept at a fair speed all the way. The road was rather worse kept than an ordinary village road in India, being seamed with deep ruts, and covered inches deep with dust, while the streets which have to be traversed on entering Bokhara in order to reach the Residency, which lies at the extreme further end of the town, would be a reproach to the commonest village in India, such is their narrowness and filthiness. The guest-house provided for the accommodation of visitors is of the most modest description, and consists of nothing more than a couple of rooms in a low mud building enclosing an

open square; nothing, indeed, could present a greater contrast than the unpretentiousness of the buildings of which these form a portion, and which constitute the abode of the Political Resident, as compared with those answering a similar purpose at the smallest of the native States in India. They consisted simply of an ordinary native house of a trifling superior description with a few doors and windows knocked into it to make it habitable by Europeans; the approaches to which opened immediately into a filthy alley, while at the back was an unkempt, desolate-looking piece of ground, termed by courtesy a garden.

In the city itself there is little to interest a traveller accustomed to the East beyond its associations. The only objects which strike the eye are the Minar-i-Kalan—a moderately fine tower—and the Charsu or covered bazaar, which is certainly a very extensive and well-built one. Altogether the town is an extremely disappointing one to visit, in consequence of the anticipations aroused by previous descriptions; in reality, its appearance is mean, the streets being narrow and indescribably filthy. The most remarkable feature about the place is the extreme orderliness of the population, and the little attention which the appearance of an European wandering about the bazaars by himself appears to attract on the part of those whom he encounters; as to any signs of ill-will or fanatical dislike to a *feringhi*, the most timid and unsophisticated visitor would have found it difficult so to misinterpret any words or gestures of the crowds that thronged the streets. The only thing to be complained of was that these were rather too free and easy in their demeanour, while the shopkeepers were, as might be imagined, too anxious to sell their wares at exorbitant prices; in this they failed, as nothing was visible worth buying.

A certain amount of interest, of course, attaches to the prison, though nowadays there is nothing remarkable about either the building or its occupants; indeed the latter appear to be much better fed and looked after than those of many a prison in a Native State in India. As there has been some discussion regarding the scene of Stoddart's sufferings, it may be as well to mention that it was in the dungeon, the entrance to which is now covered up with a slab in the floor of the prison; this con-

tains the bug-pit spoken of, and not the Kana Kanch, as has been surmised by a recent writer. The Political Resident is my authority for this; the former must have allowed his imagination to run away with him a little, for, as has been said, there were no signs of the prisoners being in any way ill-treated, any more than on the occasion of the visit of the *Times'* correspondent to which he refers; indeed anything of the kind would not be tolerated by the Russian Government.

The political position of Bokhara, and the relations of the Amir and his subjects towards the Russian Government, are matters that are full of interest, and would be well worth a more lengthy study than it is possible to afford them in the course of a hurried visit. There is hardly any analogy to be found in India to the relative positions of the two parties; for, while the State of Bokhara is more absolutely under the control of the Russian Government than any one of the semi-independent Native States of India, there are less outward signs of such control visible than would be seen even in such a more distinctly independent state as Cashmere; as has been said, twenty Cossacks constitute all the escort attached to the Resident, who himself lives in a house in no way distinguishable from any other in the bazaar, and with nothing about it to denote that it is the abode of the representative of the dominant race.

As to the fanatical and possibly turbulent demeanour of the Bokhara population, it is as completely a myth as many of the popular notions regarding Central Asia, for, as far as can be judged, neither the Tajik inhabitants of the town nor the Usbegs who dwell in the villages, differ in any way from their neighbours and fellow-countrymen in the Samarcand district; at any rate, the Russians do not appear to be affected with any feelings of nervousness on this score, as numbers of them are to be seen occupying native houses in different quarters of the town, where they carry on business of various descriptions.

At Samarcand, one finds oneself again in the centre of civilization with its accompanying comforts. Alighting at a very fine station, a number of capital carriages are to be found waiting to convey one along beautiful broad roads, lined with magnificent avenues of poplars and planes, to the Russian town distant about

three miles, where very clean and comfortable rooms are to be found in the several hotels. Were it not for the European shops which line the roads, this portion of Samarcand would remind one of a British Cantonment in India. The European population here is, however, ten times greater than could be seen in the biggest station up-country, for the streets are filled with Russians, merchants, tradesmen, coachmen, labourers, so that the effect produced is rather that of an European town, in which the natives of the country are in a minority, and it has been correctly remarked that Samarcand is inconceivably more European in its character than any station in India.

The native town has nothing remarkble about it, except the famous ruins, which have been so frequently described by various travellers; its streets, however, are full of interest to a stranger from the crowds of every variety of Central Asian nationalities which throng them, especially on market days, when all the people from the country round pour in, mounted on horseback, with wallets to carry away their requirements in. It is astonishing to note the number of horses visible upon these occasions, for so few comparatively are to be seen as a rule that it would seem hardly credible that the neighbourhood could produce so many; this is probably owing to the fact that, like most races in the East who use horses extensively, these are kept mostly inside the villages, and only brought out when some longer distance than usual is to be traversed, donkeys or small ponies being made use of for ordinary work, such as visiting the fields, or going from one village to another. On market days, however, they are to be seen in hundreds, one might almost say thousands, for the torrent through the streets all day is incessant. It was surprising to observe that not a single Russian soldier or policeman was to be seen on duty in the whole town; the people seemed to be left entirely to their own ways, so different from what is the case in a town in India, where a certain number of policemen are always on duty, and if it be situated upon the frontier, one or two military picquets as well; altogether the complete absence of any outward signs of force in these parts is very striking.

There must of course be a considerable amount of troops some-

where or other ; but they are certainly not kept "en evidence"; all that is to be seen of them, in an ordinary way, are a few soldiers wandering about with only their side-arms on. Probably the policy is to give the offenders such a lesson if a disturbance or unpleasant episode of any kind does occur, as to make its repetition a matter for very serious consideration; however this may be, Europeans and natives alike walk about the streets of the bazaar, with as much apparent security as if they were in the West End of London, and without any sign of the requirement of the presence of a policeman or other guardian of the peace.

From a hill on the edge of the Zarafshan, about three or four miles out of Samarcand, on the road to Tashkent, an excellent view is obtained of the valley of the Upper Zarafshan, looking down upon it from this height, the impression given of its fertility is greater than that derived from passing through that portion of it which is traversed by rail. The view thus obtained is most effective; the whole expanse at one's feet looks one mass of the most brilliant verdure, not the least noticeable feature in the landscape being the abundance of fine trees, such as poplars and planes which are visible in every direction. Standing thus due north of the city, the valley appears to be shut in on the east and west at distances of about four and eight miles respectively by high ground and mountains, amongst the latter towards the east can be discerned the snowy peaks of the Hissar Ranges; towards the south and south-west, the valley widens out as far as the eye can reach to a distance of about thirty to forty miles; but in the extreme distance, can be distinguished, looming through the haze, the outlines of further ranges of mountains.

The luxuriance of the vegetation does not appear to be entirely due to cultivation, but rather, in many places, to a rank growth of grass and trees, for a great portion of the water seems to be allowed to run to waste, owing to a deficient system of irrigation. This is a defect which, as it may be imagined, it would involve great difficulties and immense expenditure to rectify in any way; for this river, like the Oxus, does not appear to have made for itself any regular channel within which it could be retained by embankments, but to wander along on its course in the most erratic manner.

Though exceptionally low at the time I visited it, it stretched at intervals over upwards of a mile of country, and consisted of about six or eight different streams, which, if they could all have been contained within one bed, would have made a good-sized river; as it was, none of them appeared to be more than about two feet to three feet deep. It is said that after the melting of the snow on the mountains, or after heavy rains, the whole of this extent is covered with a rushing flood of water, which sometimes spreads even far over the margins on either side: this peculiarity of the shallowness of the beds of these rivers detracts, as has been said, considerably from their value for purposes of irrigation, while it renders any schemes for remedying this defect extremely difficult in execution. Before coming to the banks of the Zarafshan itself, a number of channels are crossed of the Siob (as it is called, "Siah ab" or "black water" being its proper name), a branch of the Zarafshan deriving its name from the colour of its water which is dark, and apparently laden with particles of soil. It is said to possess peculiarly fertilizing properties much superior to those of the main stream of the river, which is extremely clear; it appears also to contain minerals in solution as well as particles of soil in suspension, as it is not considered fit for drinking purposes on account of its disagreeable effects upon the system.

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From what has been said, it will be seen that in their advance eastwards towards the Afghan frontier, the Russians have hardly acquired much that—whatever its prospective value may be now that European influences and energy are being brought to bear on it—is at present worth the loss of life and expense that these conquests have cost them, were it not for the strategic advantages conferred by the advanced positions which they have thus gained. Whether this advance was ever taken with this specific object in view is indeed a doubtful question; it is even more than probable that it was forced upon them by circumstances much in the same way as the gradual conquest of India was upon the East India Company.

Our own experiences on our Western frontier of India, amidst regions very similar to these which we have found for the most part incapable of providing food-supplies to any reliable extent

beyond those required for the existing local population, would lead us to believe that the difficulty of accumulating along the line of the present Russian frontier the necessaries of food required to push forward a force which could not be reckoned by less than scores or fifties of thousands, could only be exceeded by the almost utter impossibility of maintaining a current supply of the same for probably an indefinite period.

Limited, however, as the resources of the Trans-Caspian regions must be for many years to come, it is apparent that their development will not be allowed to fail for want of energy or enterprise on the part of the Russian Government. Of the various schemes now on foot for the extension of irrigation and the introduction of all sorts of improvements in the mode of agriculture, some will succeed, and some will doubtless fail, as must always be the case in a new country, where it is necessary to buy experience; but the general result cannot but be an important increase in the productiveness of these districts.

No more convincing proof could be adduced of the complete confidence of the Russian Government in the security of its position amongst the populations of these parts, than the fact that the line of rail is watched throughout its extent by soldiers of the Railway Battalion, posted by themselves at long distances from one another, that civilians and soldiers alike never seem to dream of carrying arms, however great the crowds of the inhabitants of the country they may mix amongst, that the inhabitants of the great towns appear to be left entirely to their own devices without the presence of any police or guardians of the peace being considered necessary, and, as has been said, that the Political Resident at Bokhara lives in an ordinary house in the midst of this densely populated city, with no other protection at hand than that afforded by a guard of twenty Cossacks. That the general order thus prevailing is due to the actual presence of large numbers of troops is certainly not the case, for there is nothing that perplexes the visitor more than the paucity of these visible throughout Trans Caspia; though doubtless the consciousness that overwhelming forces could be brought forward at very short notice in case of a disturbance, would exercise a salu-

tary and restraining effect upon such restless or disaffected spirits as may exist amongst the local populations.

Under these circumstances it is hardly either fair or generous to describe, as has been done, the Russian system of administration in Central Asia as being one of government, but not to any considerable extent of improvement or civilization. If only the absolute security for life and property which has resulted from the introduction of Russian rule be considered, this must be allowed to be one of the most important steps possible in the process of civilisation, especially if we consider the scenes of cruel despotism, anarchy, and rapine which have characterised these regions for centuries past, as far back almost as any record of their condition is extant. That this result has been attained, no one will deny. The Russian system of administration amongst Asiatics may not, it is true, be based upon the same lines as is that of our own; but that does not prove that it is not well adapted for the races amongst which it works, or that it will not be successful in the results which it is capable of attaining. We have ourselves admitted that our own system of administration is too cumbersome and complicated to be suited to many of the populations under our rule in India, by the fact that we have placed large districts under what is termed Political control, that is, under the charge of officers, mostly military men, who have but little technical training in such matters, and are allowed to administer the districts thus placed under their rule on the broadest principles, indeed, almost entirely according to their own common sense. Such, too, is the case with the populations over which Russia rules in Central Asia. It is not possible always to deal with Asiatics as with Europeans, for amongst many classes of them leniency is mistaken for weakness, and conciliatory measures for timidity.

Again, regarding the subject of education, the indiscriminate education which we have thrust upon the people of India has not been without its accompanying evils, for, though the warrior and agricultural classes, which are the backbone of the country, are languishing in obscurity, the mercantile and clerkly classes have acquired an unmerited importance and notoriety owing to the results of our training. The populations of Central Asia have their

own system of education which is well suited for their requirements, and which being conducted on the principles of the Mahomedan religion, in addition to its practical teaching, involves a high standard of moral training. This it would be as unwise as it would be impolitic on the part of the European rulers to interfere with.

Finally, it cannot be too strongly urged upon the visitor to these regions that, in order to turn to good account the experience he will gain there, he must endeavour to free himself, as far as possible, from all national prejudices and refrain from indulging in wanton and disparaging criticisms of the administrators of the countries through which he is travelling. That right good work is being done in these regions by the Russian Government is beyond all question, however different its mode of procedure may be to that of our own; and even if there should be at present considerable rivalry existing between British and Russian interests in these parts, it is at any rate desirable that we should treat one another with the courtesy due to generous rivals, and strive at least to give one another credit for the good points in our respective policies and systems of administration.

Note.—It is well known that the Russians look upon a great part of Vambery's account of his travels in Central Asia as pure inventions and insist that he never visited many of the places described therein. This is an imputation which one would not feel inclined to pay much attention to, as it is but natural that they should try to impugn the authority of such an uncompromising opponent of their interests and policy in Central Asia, were it not that on reading his book one is astonished at the inaccuracy of his description of places such as Samarcand and Bokhara, which he represents himself as having spent much time and trouble in exploring.

As a marked instance of this I may mention that he states (page 299) that the inscription over the entrance to Tamerlane's tomb runs thus :—

عمل الفقير عبدالله بن محمود اسفهاني

I happened to have had my attention attracted by this very inscription when visiting this city, and I took it down at the time in my pocket-book. It runs thus :—

عمل العبد الضعيف محمد بن محمود نباله اسفهاني

It will be noted that whereas the epithet applied by the writer to himself as put down by Vambery is فقير, that is "poor" as regards worldly goods, in the original the word used is ضعيف, that is "feeble" in respect of body.

It is surprising to say the least that a man of Vambery's observation and Oriental acquirements should have read the inscription and quoted it so inaccurately.