A description of this popular and important station, where so many officers of the Corps get an opportunity of serving, may, I think, prove of interest to your readers.

The physical aspect of the Himalayas may be roughly divided into three divisions, and I take the following apt description of these from Crooke's "North-West Provinces of India": "First we have the outer Himalayas, with a height of from 5,000 to 8,500 feet, which rise abruptly from the lower plain, and then sink sharply to the north into deep and narrow valleys. Here the clouds rising from the ocean first strike the mountain barrier, and produce an excessive rainfall, the general average being from 80 to 90 inches; about the same as that of the Scottish highlands, but all concentrated within little more than a quarter of the year. There is little arable soil, and the climate, except on the breezy summits of the hills, is malarious and unhealthy; population is scanty, and the country is mostly covered with dense forest. Behind these heights are lower hills and wider valleys, receiving a rainfall little more than half that of the outer barrier. Here population is more dense and cultivation more extensive. Behind these, again, are the giant peaks and higher valleys, which during the winter are impassable from snow, and in the summer are inhabited by a scanty nomadic population." It is in the second of these divisions that Ranikhet is situated, in latitude north 29° 38', longitude east 79° 29', on a pine-clad ridge of the Kumaon Hills, 6,069 feet above sea-level, and distant by road and rail 104½ miles from the well-known cantonment of Bareilly. Kumaon, the district in which it lies, has an estimated area of 3,680,000 acres, or 8,000 square miles, of which only about 200,000 acres are cultivated, and is bounded on the north by Thibet, on the east by Nepal, on the west by Garhwal, and on the south by the malarial belt known as Terai, and which separates it from the plains of India. The terminal station of the Rohilkhand and Kumaon railway, which starts from Bareilly, is
Kathgodam. It is fifty-four miles from Bareilly, and is situated at the foot of the hills, and a good cart-road, 50½ miles in length, connects it with Ranikhet.

Ranikhet is the hill station of what has hitherto been known as "The Rohilkhand District," but, as I write this article, the designation has been changed to that of "The Bareilly Brigade," and henceforth will form one of the Brigades of the 7th or Meerut Division of the Eastern Command, under Lord Kitchener's new redistribution scheme for the Indian Army. The Brigade is under the command of a Brigadier-General, who, with his staff, resides at Ranikhet during the season, i.e., from March to November. Ranikhet, with the adjoining hill of Chaubuttia, which is about 1,000 feet higher, forms one station, and is under the command of the senior officer; similarly, the Senior Medical Officer, Ranikhet, is ex-officio Senior Medical Officer of Chaubuttia for sanitary duties.

Chaubuttia is distant five miles by cart-road, and three miles by pathway and pony track, and has hitherto accommodated the headquarters and wing of a British regiment, but is only occupied from March to about the middle of November, when the troops return to Bareilly. Extensive additions to the barracks have just been completed, and this year it is proposed to locate a whole battalion here. It possesses its own Station Hospital, under command of a Major, R.A.M.C., and will have accommodation for 108 beds, inclusive of women and children. Ranikhet itself affords accommodation for a full battalion at the Kumpoor barracks, which consist of single-storied buildings, with the exception of one block, which is double-storied, and almost a whole battalion is located at what is known as "The Standing Camp," which consists of single-storied barracks only.

In addition to these there are numerous detached blocks of married quarters, which accommodate about eighty families of other units in the command. These are always fully occupied during the summer months, or rather the season, which is reckoned from the beginning of March till about the middle of November. During the remainder of the year the garrison consists of one company, and perhaps the married families of one or two regiments, accommodation for which may not be available at Bareilly during the winter months. The strength of the garrison in 1904, exclusive of Chaubuttia, was approximately as follows:

<table>
<thead>
<tr>
<th>Period</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>From January to February</td>
<td>170</td>
</tr>
<tr>
<td>March to November</td>
<td>1,800</td>
</tr>
<tr>
<td>November to end of year</td>
<td>100</td>
</tr>
</tbody>
</table>

and excluding married families previously mentioned.
C. E. Nichol

Chaubuttia has its own Station Hospital, as already noted. The Station Hospital, Ranikhet, consists of one main block, facing north and south, and commanding a magnificent view of the snowy range, and two similar detached blocks facing east and west, together with a separate Station Family Hospital and detached buildings for infectious diseases, for men and women. The site is a well-chosen one, and there is an extensive flower garden, which contains some very fine specimens of the deodar (*Cedrus deodara*). The accommodation is for 214 beds during the season, which is reduced to 108 during the winter months. All the blocks are single-storied. The surgery, medical store-room, medical officer's rooms, &c., and hospital store-keeper's godown are all detached from the main building. It is under the command of a Lieutenant-Colonel, and he has under him three junior officers during the season, and occasionally one during the winter months. There is the usual complement of assistant surgeons and Army Hospital and Bearer Corps, and, in addition, during the season, three sisters of Q.A.I.M.N.S.I. are stationed here for duty.

At the Standing Camp there is a detention hospital of eight beds, but the sick are all treated in the Station Hospital, Ranikhet. There is a first-class General Cantonment Hospital for the followers and native population, and this appointment, as well as that of Staff-Surgeon, is held by a R.A.M.C. officer.

The general health of the troops is satisfactory, though in past years there has occasionally been a severe outbreak of cholera. This has generally been traced to the pilgrim traffic to the holy shrines of Badrinath and Kedarnath in Garhwal, stragglers from which come back through the station annually. Up to last year the water supply had been from certain springs which were protected, but as the supply used invariably to run short in the summer months, other springs, not so well protected, had to be taken into use; and certainly the epidemic of 1903, which caused the death of one officer and seventeen men, was due to one of these surplus springs becoming contaminated. Cholera, at the time, was raging in the adjoining tehsil of Almora and Naini Tal, and gradually encroached up to the villages surrounding cantonments. A strict cordon was drawn round the bazaar and infected barracks and the regiment scattered out in surrounding sanitary camps. Both other regiments in the station escaped infection. There was a similar outbreak in 1890, I believe, in which Surgeon-Captains Renny and Cronin, two promising young officers of the Corps, lost their lives. This year, 1904, for the first time, there is a properly laid-on pipe
supply of excellent water, from what are known as the Nag springs. These are situated about three and a half miles beyond Chaubuttia, far away from any village or other sources of contamination. There are seven springs altogether, which are carefully protected by barbed wire entanglements, and the water is pumped up by powerful engines. The yield of the springs in the wet season is 110,000 gallons a day, and during the dry weather 64,000 gallons, and this is now piped on to Chaubuttia, Rumpoor Barracks, Station Hospital, Ranikhet, and all detached married quarters, and has already proved an inestimable boon, and had an excellent effect on the health of the troops. Private bungalows in the station have also the benefit of this supply. The Standing Camp last year drew its water supply from what are known as the Chupra and "X" springs; this was invariably boiled before use, and always yielded satisfactory analysis; but this year it is contemplated also to supply it with a pipe supply from the forest spring beyond Chaubuttia.

The water supply of Ranikhet up to last year had always been the great difficulty, both as regards its scantiness and liability to pollution, and future years will in all probability show a very marked improvement in the general health of the community. In past years Ranikhet has also acquired rather an evil reputation from the extensive prevalence of that somewhat mysterious disease "hill diarrhoea"; this, I am of opinion, was also largely due to the impure water supply, and it is satisfactory to note that last year, for the first time for many seasons, the cases have been very few indeed.

Enteric Fever.—There are usually from twenty-five to thirty cases during the year—about one-third of these are probably contracted in the plains or on the line of march, and develop within a short time on their arrival in the station. The remainder are undoubtedly contracted in and around the station, and here, again, I consider the source of many of the cases is impure water drunk down the khud sides when out catching butterflies and shooting, &c.

One severe case of a young officer last year was traced to his drinking water whilst out shooting, immediately below a native village. The cases as a rule are fairly mild, and with few complications. Last year there were twenty-four cases and two deaths.

Malarial Fevers.—These are all imported cases. There are a few mosquitoes to be found in the hot months, but these are all of the Culex breed. I have never found any Anopheles. I have met with very severe cases of ague, however, in the low-lying hot valleys in the district amongst missionaries and the native popula-
tion. The Anopheles in these cases probably breed in streams and running water.

Other diseases call for no special comment.

The climate of Ranikhet is essentially a salubrious one. January is perhaps the most disagreeable month, raw, cold, and often ushered in with snow and hailstorms, that make one fully appreciate the benefits of a good log fire. February is also a cold month, but a distinct improvement on January. March is a very pleasant month—pleasant, sunshiny days with a cold wind. April, May and June the temperature gradually increases, but the heat is never unbearable and punkahs are never required. The monsoon is ushered in by loud and frequent thunderstorms, and generally breaks about the third week in June, and from then until the middle of September there is a rainfall of about 50 inches, and for days and days together the hills are often shrouded in mist and fog, and altogether the general condition is one of "dampness." The rains cease about the third week in September, and from thence on to the end of the year the weather is as near perfection as possible. October and November are perhaps quite the pleasantest months, cold, bracing, and exhilarating, with bright sunshine—days that speed only too quickly and makes one grudge all the time spent indoors. These are the months par excellence for shooting and fishing and making various pleasure trips to places of interest in the district. December, too, is a pleasant month, but often bitterly cold at night. I have compiled a table (see Appendix) from meteorological returns, which gives full details regarding temperatures, &c.

Ranikhet, as I have stated, is placed on a pine-clad ridge, in fact, it may be described as situated in the midst of the great Chir pine-forest. The Forest Survey shows the forest area in Kumaon to be 433,951 acres, and in British Garhwal, the adjoining district, over half that amount again. The Chir pine (Pinus longifolia) is peculiar to the Himalayas and has a very extensive range. The area of Chir alone is over 150,000 acres, and the number of measurable trees per acre is about twenty-eight, divided into first, second, third and fourth classes respectively, besides seedlings. The first class trees are over 8 feet in girth—some have measured 14 feet in girth and 140 feet in height. The age of such a tree is computed from the rings to be over two hundred and fifty years. The timber is beautifully grained and is strong and durable, is full of turpentine, but is chiefly used for fuel. All the roads and paths of the lower hills up to 6,000 feet pass through miles and miles of this Chir pine, and the ground is covered with slippery pine-needles, shed in the
Fig. 1.—Amongst the Chir pines at Ranikhet.
spring season, so that walking is very tiring, and the feathery tops afford only very scanty shade. The Chir pine is the predominating feature of Ranikhet; other trees growing on the hills are the Himalayan cedar or deodar (Cedrus deodara), a very beautiful conifer, the wood of which is the most valuable of all the Coniferae for housebuilding, boats, railway sleepers, &c., the timber being little affected by extremes of heat and cold, and is most durable; the blue gum tree (Eucalyptus obliqua); the rhododendron (Rhododendron arboreum), the blooms of which in the month of March present the most brilliant colouring, and are never forgotten by those who have seen them; the cypress (Cypressus torulosa); the ash (Fraxinus floribunda), the wild pear and cherry, the willow, and three or four varieties of oak, the chief of which is Quercus incana. This latter is the next commonest tree to the Chir pine. There are many others in addition to the above to be found, but it is not necessary to mention them here. The holly bush, calling back memories of Christmas in the old country, is quite a familiar sight, and the dog roses, blooming in the summer months, together with the dahlias in every variety of hue in the autumn, are a constant source of delight to the "memsahibs." Though the flora of Ranikhet is, taken on the whole, beautiful, it is not comparable to that of the higher ranges, where magnificent forests of oak, chestnut, spruce, and birch replace the Chir pine of the middle ranges. There the botanist, as well as the ornithologist, entomologist, geologist, archaeologist, or almost any other "ologist," can revel in his hobby to his heart's content. In over fourteen year's service in this country, during which a large portion of my leave has been spent in shooting trips and wanderings in these hills, I must confess they possess to this day for me so great a fascination as when I first made their acquaintance; and, again, I often hope to wander in distant Garhwal, far off the beaten track, camping in those noble forests, and midst scenery which for grandeur is unsurpassed in the world.

The bungalows in Ranikhet are not too numerous, but suffice for the married residents. They are substantial, stone-built structures with iron roofs, and very comfortable. The rents vary from 600 to 1,400 rupees for the season, and compare favourably with those of other hill stations. Some of these possess quite good vegetable and fruit gardens, and many of them command a splendid view of the snowy range. Some of them are double-storied, but the majority are single-storied. The cantonment is an extremely well-kept one, and is one of the few hill stations where
it is possible to drive a trap, and where such a vehicle is really useful. There are many charming rides also through the forest in all directions. The clothing worn by the troops throughout the season is khaki drill, but serge is required for the winter months, and good English tweeds are most useful, and also the puttee cloth made in Kashmir. Supplies are nearly all brought up from the plains. The beef and mutton are of excellent quality, considering the scanty grazing. The sheep are always brought up from below, as well as ducks, fowl, quail, &c. Nearly all the English vegetables—cabbage, cauliflower, potatoes, beans, peas, beet, &c.—are grown in Ranikhet, and, in addition, excellent apples and pears, apricots, cherries, and mulberries are obtainable in due season, and during the winter oranges are brought in from the neighbouring districts. There are three large shops, one kept by a European, a second by a Parsee firm, and a third by a native merchant, where supplies and stores of every kind are always procurable, quite fresh, and at reasonable prices. Messrs. Rustomjee and Sons have been established for many years, and do a very large business; in fact, they are quite the "William Whiteley" of Ranikhet, and are always most courteous and obliging to their customers.

The milk supply to the Station Hospital is given to a contractor, who has had it for several years, and he has his cows in sheds on the khud side below the hospital, where they are under the personal supervision of the Senior Medical Officer; in addition, an old guardroom, a detached building in the hospital compound, has been fitted up as a dairy, with separators, &c., and many modern improvements. This is inspected daily and at any hour by a medical officer, and has been found to answer its purpose admirably. The majority of resident officers and their families are supplied with milk, butter and cream from this source in their own locked tins, and complaints as to quality are very rare indeed.

The Standing Camp regiment, the regiments quartered in Kumpoor and at Chaubuttia, have all their regimental dairies and cows under careful sanitary supervision.

A certain amount of butter for the troops is obtained daily during the season from the plains, supplied from Aligarh and other well-known dairy factories.

Last season, for the first time, Messrs. Smith, Rodwell and Co. have been running "tongas" through daily to Kathgodam. The fare is 15 rupees, and the journey takes about nine hours up and seven going down. It has proved of great benefit to residents and other travellers passing through on shooting expeditions, &c.,
in addition to all the young officers who are detailed to attend garrison classes at the station, and will, probably, become a regular institution in future years.

The games played in the station are polo, cricket, football, hockey, tennis and golf. Polo is now played on both the Kumpoor and Standing Camp parade grounds, but the game is generally three a side. There is an excellent station club, to which have been added this year a large ball-room, with a floor on springs, and concert-room, new card-rooms, &c. Here there are several tennis courts, which are crowded every day during the season. The ancient and royal game has many enthusiastic votaries. There is an excellent course of nine holes, laid out at Upat, a few years ago, by that well-known sportsman, Colonel Parkinson, lately commanding the 1st Hampshire Regiment, and for this we all owe him a debt of gratitude. Upat is about four miles distant along the cart-road to Almora, and is in itself a delightful spot, and in high request for picnics, luncheons and gymkhanas. With its grassy spaces and wooded glades one might, except for the chir pines, imagine one's self in some well-kept English domain. I look upon the golf links as one of the most powerful of Ranikhet's many attractions.

To attempt here a description of the glorious view of the snowy range of the mighty Himalayas requires a much more graphic pen than mine to do it justice. One's first impression is one of awe and delight at such unparalleled grandeur. Imagine a long chain of stupendous mountain peaks of dazzling whiteness, the highest seen from Ranikhet being Nanda Debi, over 25,000 feet, and 9,000 feet higher than any summit in Europe, stretching right across the horizon as far as the eye can see. It is during the winter months, from October to February, that the finest views are obtainable; during the hot months they are completely hidden from view by a thick atmospheric haze, and in the rains are wrapped up in dense mists, and only when the clouds lift, after a passing thunderstorm, do we catch a flashing and momentary glimpse of the snows. Trisul, with its triple peaks, is the most prominent of the group. Nanda Debi, noted above, with its brother peaks of Nanda Kot, Moo Gobin and Trisul, extend over 1,400 square miles, or 920,000 acres of the survey maps. From its great masses of snow-fields the Niti, the Rishi, the Pindar, the Trisul, and other glaciers descend. The inter-alpine valleys of the snowy range are known by the name of Bhot, which term is rather ethnographical than geographical, and signifies the tract occupied by the Bhootiyas. This includes the districts bordering on Thibet, Byans, Darma and Chaudans on the East, Junhar in the middle, and Painkhanda on the west.
The chief places of interest in the vicinity of Ranikhet are Almora and the Pindar Glacier, Naini Tal, and the Kumaon Lakes. The archaeologist will find Dwarahat, 12 miles off, well worth a visit, and the geologist, botanist and sportsman will find, indeed, plenty to interest him in the neighbouring district, Garhwal. The glacier of the Pindar River is a very favourite trip, and many visitors go there annually. It is not a difficult one, and there are bungalows available for accommodation the whole way. A most convenient starting-point is Almora, which can be reached in three or four marches from Kathgodam. From here the distance is seven marches, or 75 miles, but the journey, of course, could be lessened by doing double marches. It is generally undertaken in the spring or autumn. In the former the scenery is at its best and strikingly beautiful on all the hill sides in the gorgeous bloom of the rhododendron. There is some stiff climbing to be done in parts, and the scenery in places is very fine. Those who are keen on shooting and fishing generally prefer the autumn trip; chuker, mooral and gooral can generally be got en route. Almora, 19 miles by short cut, 28 miles by cart-road, from Ranikhet, and 30 miles from Naini Tal, is built on a bare, saddle-shaped ridge, running north-west to

![Fig. 2.—A "bit" in the higher ranges.](image)
south-east for about two miles, with an elevation of from 5,200 to
5,500 feet above sea-level. It is surrounded on all sides by higher
ranges, which protect it from storms. The rainfall is 40 inches,
and 60° F. is about the annual average of the temperature. It is
very hot from May to end of June, the temperature then being only
about 15° cooler than that of the neighbouring plains. In the rains
72° F. is the average temperature, and the range rarely varies 2°
in the house night and day. In the summer months there is always a
thick haze, which is common to all the surrounding hills, and shuts
off all views of the snowy range. From its dry, equable temperature
it is considered an excellent place for the treatment of lung affec­
tions, but for other invalids it is rather relaxing than otherwise,
and the heat is enhanced by the total absence of shade. The hillside is
quite bare of any trees. The water supply is good.

The capture of Sitoli, where a decisive battle was fought in
1815, resulted in the defeat of the Ghoorkas and the cession of the
whole division to the British. The leading part in this local
Kumaon War, under General Ochterlony, was taken by Lieutenant-
Colonel William Gardner, afterwards Lord Gardner, of Anglo-
Indian fame. Those were the days when De Boigne and Perron,
the Savoyard and Frenchman, had reached their zenith, and when
George Thomas, Claud Martin, Gardner, Skinner, and many
another "free lance in a foreign land," carved their way to fame
and fortune. Truly stirring times for any soldier with a spirit for
adventure.

Almora is now the permanent station for that distinguished
regiment, the 2/3rd Ghoorka Rifles, and any one wishing further
information about it, I can only refer him to those delightful
leaves from a hill journal, entitled "Almoriana," written by my
friend "V."

Dwarahat, twelve miles from Ranikhet, is a picturesque little
place, situated on a plateau at an altitude of 5,200 feet; the plateau
is several miles in extent, and is well watered and surrounded by
low hills, and is a favourite manoeuvring ground for the troops. The
remains of many ancient temples lie scattered about in groups in the
surrounding fields. They are of the usual pyramidal form, orna­
mented with some simple moulding, and surmounted by an orna­
ment resembling a "Turk's cap." They are mostly in ruins, having
been desecrated by the Rohillas when they invaded this part of
Kumaon. The palace of the old Rajas was built on the rock called
the Tharp, and just below it is the bazaar. The most important
temple now in use is the Badrinath. It comprises some of the
older temples, enclosing a courtyard, much frequented by pilgrims. One of the images bears a date corresponding with our A.D. 1048. There are many other old temples, mostly in ruins, some dating back to the eleventh century; only about half-a-dozen temples are now in use. The place was a considerable centre for trade in the olden days, but its importance has now much diminished. At present it boasts a school, dispensary, a dak bungalow, and a large colony of native Christians, under the direction of some missionary ladies.

The Kumaon Lakes are known as Naini (6,407 feet above sea-level), Bhim (4,500 feet), Naukuchiya (4,000), Malwa (3,400 feet), Sath, and others, with the affix "Tal," or lake, attached. They are a favourite resort of visitors, and their existence has been assigned to landslips which closed up the valleys in which they occur. They certainly form one of the most remarkable and beautiful features of Kumaon. The Naini lake, of wide-world fame, is about 1,500 yards long by 400 broad, and with an average depth of 40 feet. It lies in a valley which runs north-west and south-east, and is surrounded on all sides, except the east, by the lofty ridges of Sher-ka-danda, Cheena, Deopatha, and Ayarpatha. It is not necessary here to attempt to portray the fascinations and attractions of this charming station, the summer headquarters of His Excellency the Governor of the United Provinces of Agra and Oudh, and also of the Lieutenant-General commanding the Eastern Command; suffice it to say there is a capital boat club, with an average roll of about 100 members. There are a great variety of boats, racing fours, pairs, and skiffs, to say nothing of wherries and canoes. Most of them are built at Henley. There are also several sailing boats, and the course is about six miles. Rowing and sailing regattas are held every fortnight during the season, and there is always great excitement during the famous "Ranikhet Week," at the beginning of June, when teams from both stations compete at all games.

(To be continued.)