A Himalayan Handbook
All About NAINI TAL

TO THE

PINDARI GLACIER

THROUGH

KUMAON

Fishing, Shooting, Planting, and Historical Notes.

Nine Views and Two Maps.

Compiled from authentic sources by C. P. O'LEARY

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NAINI TAL.

AMONG the many hill stations in the Himalayas, Naini Tal, the headquarters of the Kumaon Division and also of the Eastern Command, is the most central to the plains of Upper India, and is easily accessible, as the railway terminus, Kathgodam, is within only 13 miles of the lake by the bridle road, and 22½ miles by the motor road. Kumaon is among the best localities in India for all round shooting and fishing, and Naini Tal itself caters for many other branches of amusement. On the "Flats" all field sports and amusements, from horse racing to fancy fairs, can be held. Golf can be played on certain days in the week in the Government House grounds by the courtesy of H. E. the Governor. But the chief attraction of Naini Tal, one in which it stands unrivalled, is the boating and sailing to be had on its willow-fringed great lake. Orchards and tea estates occupy large tracks of the interior through which runs the route to the famous PINDARI GLACIER.

NAINI TAL is situated in the hills of the outer Himalayas which have here an average elevation of 6500 feet above sea-level. The greater elevation of the outer ranges compared with the intervening ranges towards the snowy range, is a striking feature of the landscape. The elevation of the lake of Naini is 6350 feet, its greatest length is 1557 yards, greatest breadth 500 yards, its circumference by the mall, which runs right round it, is over two miles, its superficial area is 120.5 acres, its greatest depth 93 feet. A ridge at a depth of about 20 feet runs across its centre and it is said that this ridge can be seen through its crystal clear water on a still day from the top of Cheena. The settlement has a pure spring water supply controlled by fine water works, also a well planned sewage system, while an elaborate hydro-electric scheme which supplies the whole station with electric
light has recently been inaugurated. The lower end of the lake (Talli Tal) where the Chota Bazaar, M.E. Church, and sub-Post and Telegraph office are situated has an open aspect towards the S. E. giving a full view of the sloping shoulders of the hills immediately overlooking the plains beyond. The stream that flows out of the lake, with a sulphur spring, is a mere trickle in dry weather, but in the rains it becomes a most picturesque and powerful waterfall. The upper end of the lake (Malli Tal) after a long gentle curve past St. Francis’ Catholic Chapel and the Boat House, terminates at the Assembly Rooms and Station Library on the Flats. The other institutions overlooking the Flats are the Masonic Lodge and the Volunteer Club. The valley then rises in a N. W. direction to Crosthwaite Hospital, Bara Bazaar and Market and keeps on rising past the Post Office, Y. W. C. A. Home, Waverley, Royal, and Metropole Hotels, The Club, Telegraph Office, the Pavilion, Secretariat Office, and St. John’s Church, until it reaches the precipitous slopes of Cheena and Deopatta. Cheena rises to a peak 8568 feet and Deopatta to 7987 feet. In the valley there is the bed of another lake called Sukha Tal which becomes an extensive sheet of water in the rains, but is entirely dry just before the monsoon breaks, while skating may frequently be indulged in on a small pool which usually remains frozen throughout the winter. From the N.E. banks of the lake along which the mall runs and where all the principal business houses, Grand Hotel and Y. M. C. A. Hostel are located, rises the ridge of Sher-ka-danda hill which slopes away to the north to Alma peak 7980 feet and to the east to Laria Kanta 8144 feet. On the ridge of Sher-ka-danda is Philander Smith College and the site of old Government House. Here is the lowest point from which a good view of the Snowy Range can be had, either from St. Loo Gorge, where the road leads down for Ranikhet, or from Snow Seat
close by. Midway up Sher-ka-danda on a fine open site stands the Ramsay Hospital and in this locality are situated the boarding houses, Kohila Lodge, Butterss Castle, and Suffolk Hall. From the S. W. shore of the lake, the chief natural features of which are a bluff known as Smugglers Rock and the steep cliff of Craig-Ellachie, rises the well wooded hill of Ayarpatta, the highest point of which is 7461 feet. On this hill are situated Wellesley School, the Convent, the Law-Courts, Lady Minto Nursing Association, All Saints College, St. Nicholas Church, Boys’ Diocesan School, St. Josephs College and Government House. To the west Ayarpatta dips into a defile known as the Kaladhungi Gorge where it meets a very picturesque road leading to cliffs, overlooking the foothills and the plains, called Lands End. The hill top at the gorge to the N-W is named Handi-Bandi which slopes down into Woodstock gorge and touches the foot of Deopatta. Through both these gorges run bridle roads that go down hill and meet above the Cemetery. The road after passing the Cemetery leads on to Saria Tal, Khurpa Tal and Mongoli on its way to Kaladhungi. At Khurpa Tal a road branches off to Dechouri. At the summits of Ayarpatta, Cheena, Laria Kanta, Sher-ka-danda and Alma are extensive picnic grounds from which commanding views can be had of the outlying ranges.

Adjoining the Municipal limits of the settlement on the East lies the Cantonment of Naini Tal. It begins at the lake bridge at the head of the Bullia ravine and runs along the old cart road to Kalakhan. The Staff quarters and Station Hospital now converted into the Eastern Command Offices are at the entrance; and at Kalakhan are located the barracks for convalescents. At Kalakhan the road takes a sharp turn to the north and leads past the Military Cemetery to a pine forest called
the Pines, a favourite and convenient picnicking ground about 4 miles from the lake bridge on a practically level road equally pleasant both for waking and riding. This bridle road eventually crosses the cart road to Ranikhet and Almora at Bhowali and leads into the Almora District, via Ramgarh, and also branches off to Bhim Tal and the lake district.

A Directory with map, giving a complete list of all the houses and establishments at Naini Tal, with their localities and with names of residents and visitors, is published periodically by the Naint Tal Gazette Press.

The above is a rough outline of Naini Tal and its surroundings and before turning to descriptive notes of walks, rides, and tours to be made in the neighbourhood, together with the fishing and shooting to be obtained, it may not be out of place to give here a detail of the journey up to Naini Tal.

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WAYS TO NAINI TAL

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The line from Bareilly to Kathgodam was opened to traffic in 1884, shortening the journey to Naini Tal by many weary days. Prior to this date the journey had to be performed from Bareilly by the dak-ghary or by palanquin. From the terminus at Kathgodam the journey may be completed by motor in about one and half hours or, if preferred, by pony or dandy along the 13 miles of bridle path; a much slower but to some far preferable means of progress. A third method, and one very commonly employed, is to motor to the Brewery, some 12 miles from Kathgodam, and then take the bridle road for the remaining 3 miles. The bridle road leaves the cart road at Ranibagh some 2 miles from Kathgodam passing by the military encamping ground and P. W. D. Inspection House. It winds
along the valley below the cart road and rejoins it again shortly before the Brewery is reached. Ten miles up the cart road is Jeolikote; and about here one gets the first clear view of the heights on which Naini Tal stands. This place, originally portion of a tea estate, is now the home of a native Christian colony run by the Catholic Mission. There is also a very comfortable P.W.D. Inspection House at this spot. Directly below Jeolikote on the bridle path is Douglas Dale, originally part of a private estate, and recently occupied by the Kumaon Government Gardens. A mile above Jeolikote the cart road branches, one arm going past the Brewery to Ranikhet and Almora, the other winding its way behind the hills to the south of the Ballia Ravine, the stream of which has its source in the Naini lake, past the Lymph Depot and P. W. D. Chalet at Patwa Dungar to Naini Tal, sweeping in through the Talli Tal Bazar to the very edge of the lake. At the Brewery, in addition to the old brewery buildings built in 1876 and now converted into headquarter offices and stores of the Naini Tal Motor Transport Company, there is a very comfortable hotel. The bridle road mentioned above runs steep up the Ballia ravine and some half mile above the Brewery passes the new generating station for the electric light. Then a little further on one passes the Municipal toll bar and about half way up the hill the Bull's Head fountain is reached, a much used resting and watering place, the name being derived from the sculptured fountain and trough erected by Sir Alfred Lyall when Lieutenant Governor. On nearing the top, the Police Lines are passed and the cart road is rejoined just below the Bazar.

From various spots on the road from Kathgodam glimpses can be had of the outlying parts of Naini Tal perched on the mountain side thousands of feet
above, but it is not until one emerges from the Talli Tal Bazar on to the very edge of the lake that the beauties of the spot truly show themselves—beauties which the walk or dandy ride along the lake-side to the residential quarter only serves to enhance.

HISTORICAL NOTES.

Naini Tal was known in ancient days for it is mentioned in the Skanda Purana under the name of Tririkhi-Sarovara, Triseswar, or Trishisarowar, the lake of three Rishis—Atri, Pulastya and Pulaha. The legend says that these sages on their pilgrimage came to Cheena and found no water there. They therefore dug a hole at the foot of the mountain which Brahma filled with water from Mansarowar the holy lake in Tibet, thereby giving those that bathed in it purification from their sins. The present name is derived from that of a Hindu goddess Narayani Debi (Naini Debi) who is credited with living in a cave in the Smuggler’s Rock. The first known temple to this goddess stood near the outlet of the lake near the lake bridge. About 1840, a fakir built a dharmsala, or rest house, for Hindus on the edge of the upper end of the lake where the Club boat house now stands. Shortly after a temple was added to the dharmsala: The temple and the dharmsala were both wiped out by the landslip of 1880. The conch and bell of the temple were found floating in the corner of the lake where the temple now stand, which was then the terminal station for country carts, and it was proclaimed that the gods ordained that the new temple be built there.

Prior to 1839 the glen at the head of the lake was covered with a dense forest, only resorted to by herds-
men of the surrounding villages who brought their cattle there during the hot weather and rains for the abundant pasturage of the valley. The place was regarded with some awe, not only on account of the numerous tigers and other wild animals, but also because of the demons and fairies that were supposed to haunt the neighbourhood. The existence of Naini Tal became known to the outer world after Kumaon was ceded to the British by the Gurkhas in 1816, but the lake was not actually visited by an Englishman till March 1839 when Mr. Barron ("Pilgrim") of Shahjahanpur entered the basin from the north, by way of Ratighat and the St. Loo Gorge. He thus describes his first view. "An undulating lawn with a great deal of level ground interspersed with occasional clumps of oak, cypress and other beautiful trees, continues from the margin of the lake for upwards of a mile up to the base of a magnificent mountain standing at the further extreme of this vast amphitheatre, and the sides of the lake are also bounded by splendid hills, and peaks which are thickly wooded down to the water's edge". He further writes that the water of the lake was crystal clear, the supply being maintained by a beautiful little stream born in the springs of the over-topping mountains. That countless herds of deer inhabited the forests on the surrounding peaks, and that pheasants were so numerous that they had to be driven off the camping grounds. In 1812 the first bungalow was built and is still in existence known as "Pilgrim Lodge", and from that date Naini Tal increased rapidly in size and prosperity. The native houses and bazaar were at first confined to Talli Tal and even as late as 1845 the site of the upper or Malli Tal bazaar was still occupied by ringall jungle which harboured tigers, leopards, gural and sambar. This accounts for the name given to the church which was built in 1846 and dedicated to "St. John in the Wilderness." It was not long after this that Naini
Tal became the summer seat of the U. P. Government. The first house occupied by the Lt. Governor in 1862 stood on the site of the Ramsay Hospital and was called "Stoneleigh". In 1865 the Lt. Governor built a house on the Maldon State and this continued to be Government House till 1880, when it was dismantled owing to the big landslip which it narrowly escaped. The next Government House was fortunately just completed that year and stood on the Sher-ka-danda ridge, a beautiful mansion built in the Elizabethen style, which, after 16 years’ occupation, was condemned and dismantled. The Sherwood Estate and building were then acquired from the Diocesan Boys’ School and the present palatial Government House was begun in 1896 and completed in 1900. The year 1880 was an unfortunate one in the history of Naini Tal due to landslip caused by an earthquake during heavy and continuous rain, from Thursday 16th September to Sunday the 19th. Up to Saturday the 18th at 1-30 p.m., when the landslip occurred, it had rained 33 inches in 60 hours. The slip took place on the steep slope from the site of Maldon estate, where Government House stood, to the site then occupied by the Victoria Hotel, and now occupied by the Poplars. Under the deluge the slope soon became one mass of semi-liquid matter and required little to set it in motion. During the Saturday morning a large tree and with it some surface soil were washed on to the back of the hotel burying in all five persons. While some of the rescue party were still at work here the main slip occurred, bursting upon the Victoria Hotel and sweeping it with terrible force across the Mall and on to Messrs. Beli & Son’s premises in front, and on the Volunteer Armoury and Hindu Temple on either side. This mountainous heap was then hurled on to the Assembly Rooms, part of which was thrown into the lake and the remainder reduced to a heap of ruins. The polo ground was strewn with wreckage, uprooted
trees, and boulders. The catastrophe was the work of a few seconds so that escape on the part of any who happened to be in the course of the avalanche was impossible. The killed and missing numbered 151 of whom 43 were Europeans. This number included several who were carried away in a flood at the outlet of the lake which was swept by a huge wave caused by the debris that had fallen into it. But out of all this evil, good resulted in large protective works being taken in hand at great cost. These work have been tried by heavy rain, and have thoroughly stood the test, as no landslips of any import have since occurred; and Naini Tal is now as safe as any hill station can be in the Himalayas. The stability of Naini Tal was most severely tested between the 10th and 17th August 1898, when 40 inches of rain fell during the week; and again between 20th and 23rd August 1901 when over 25 inches of rain were recorded in 96 hours, practically no damage being done in the station.

The Brewery which is situated at foot of the Ballia ravine was partially buried in the 1898 rains when the Assistant Manager and 28 natives were lost in an overwhelming subsidence of the banks of the stream, caused by the erosion of the flood which was so great as to carry away bodily the iron suspension bridge which spanned the Ballia below the Brewery. The 1901 rains also caused a subsidence in the same locality without, however, doing any serious harm.

In November 1876 King Edwary VII, then Prince of Wales, paid a visit to Naini Tal, coming up via Kaladhungi and staying at St. Loc, in old Government House grounds a house since dismantled. Lords Mayo, Lansdowne, Carson, and Hardinge also visited Naini Tal during their respective Viceroyalties.

The year 1921 was notable for forest fires in Naini Tal and Kumaon due to political incendiariam and it will be long before the marks and effects of that destruction will disappear.
The majority of visitors are quite content to find
their amusements and exercise within the basin of
Naini Tal and save for an occasional pic-nic on Cheena,
Ayarpatta, or Laria Kanta, seldom ascend higher than
is necessary from the level of the Lake. Of these there
are doubtless many whom lack of knowledge alone
deters from traversing the many beautiful roads and
paths within a radius of a few miles and thus from
becoming better acquainted with the wonderful variety,
beauty, and grandeur of the scenery. To such the
following notes of walks round Naini Tal may prove of
interest—enabling them to make excursions off the
beaten track.

Before describing the route taken it may be well
to preface a few hints. Boots should be entirely com-
fortable—with stout soles and nails or bars—rope soles
if used must be very good to stand the rough surface.
Rubber soles, preferably Phillips’ military soles
and heels, are considered best by many as they hold on
all ground except slimy rocks or wet clay. It is as well
to take a jhampani or some one else who knows the coun-
try and can if necessary interpret. Let him carry a havers-
sack with a stout knife—some string—paper and pencil,
a cap, a sweater and and other odds and ends you may
require. Have a good khud stick and see that the
point is well secured—do not let it be too heavy or
too flexible—the bamboo ones are very good. Do not
take the hills too fast and do little climbing until you
are acclimatized—a pony or dandy to get up from the
lake to the gorges enables excursions to be made with-
out useless exertions or loss of time.

It will be assumed that the reader has explored Naini,
has visited Laria Kanta, Alma, Cheena, Deopatta and
Ayarpatta and has been to Lands-end.

No. 1—Bhowali—7 miles along the road—this can
be reduced somewhat by taking the road which leaves
the Mall by the Catholic Chapel and going below “Lower Danda” round the hill above Talli Tal and joining the main road at the Toll-gate. Another short cut can be made by taking the upper road at the fourth mile stone and then dropping down to Bhowali by the Sanatorium road. At Bhowali refreshment can be obtained at two convenient hotels known respectively as Viewforth and the Royal Oak; and to walk out there for lunch, then go about three quarters of a mile along the road and have a look at Bhim Tal in the distance, returning to Naini Tal after tea at Viewforth makes a very pleasant day’s outing.

No. 2—Bhim Tal—is beyond Bhowali to the south-east 11 miles from Naini Tal—refreshments can be obtained either at the Dak Bungalow, or Lake View Hotel and a very good way of making the excursion, if it is not desired to walk all the way, is to ride to Bhowali, leave the horses there and walk on to Bhim Tal (4 miles)—have luncheon and return to Bhowali and ride in after tea. Should even this be considered too great an exertion ponies and dandies can be taken and left at the foot of the hill about 1½ miles from Bhim Tal. The journey between Naini Tal and Bhowali can be made in a rickshaw, very comfortably and easily, as has been frequently done.

No. 3—Ascend to the St. Loo Gorge and then take the road which descends to Rattighat. About half way between the third and fourth mile stones, i.e. 2½ miles from the gorge, is a bunnia’s hut on the right of the road, from which branch off Forest paths Nos. 18 and 37. No. 18 leads through a beautiful valley to the fish ponds at Bhowali. It is as well to enquire the way: ask for the “muchchi-ki-diggi.” There is a bridge a short distance beyond the ponds, cross this and follow the path about 50 yards beyond the bridge, cross the stream again and continue until you gain the high road at about the 24th mile stone, then turn to right—a short walk will bring you to Bhowali. The distance
from the St. Loo Gorge to Bhowali by this route is
between 7 and 8 miles.

No. 4—Ascend to Tonnochy chowki and crossing
over immediately in front of the Forest Guard's hut take
No. 1 Forest path. The descent is extremely steep but
leads one to the most beautiful ravine from which the
path ascends gradually to Kilberry joining No. 2 Forest
path—Lunch at Kilberry where there is a stream close
by and return by the main road. This is a walk of
about 9 or 10 miles from the chowki., there and back.

No. 5—Proceed in the direction of Kilberry by the
main road via Tonnochys and keep round to the left
(No. 4 path) after passing the empty huts on the spur
about a mile from the Kilberry Bungalow leave Kilberry
by No. 2 Forest path cross the stream, and come up to
the huts again via the opposite side of the ravine.
When in doubt take the right hand path. This is a walk
of about 7 miles from Tonnochys, there and back.

No. 6—Take the Cheena road from the upper
Kaladhungi gorge and arriving at the chowki follow No.
3 Forest path for about 3 miles where it joins the main
path to Pangot. At this point turn back along the
main path (No. 6). The ascent is at first fairly steep
and leads to the top of the cliff beneath which No. 3
path winds. It is however, shorter, and joining the
Cheena road, ends up at the Chowki from whence No. 3
path takes off. The distance is about 5 miles out and
back from the Choki.

No. 7—Is to begin with the same as No. 6, either
the Cheena road or No. 3 path being taken and contin-
ued on to Pangot, a village on the Ramnagar Rani-
khet road six miles from Naini Tal. Return the same
way.

No. 8—The same as No. 7, but take No. 7 Forest
path from Pangot to Kilberry. This leads first into a
most picturesque gorge whence the ascent to Kilberry
through the woods is very beautiful but rather a long
pull up—return from Kilberry by one of the two routes previously mentioned—Distance 13 miles.

No. 9—From the upper Kaladhungi gorge take the path which leads below the lime kilns to village of Babalia—from there take the path which leads to Saria Tal and return by the Kaladhungi road through the Kaladhungi gorge.

No. 10—For this a guide is almost necessary. Proceeding to the village of Babalia bear off to the right and passing the spring from which the village draws its water, ascend the hill to the gorge above Saria Tal, descend into the valley on the other side, towards Gyrakhet and follow the path down the stream—after about 2½ miles it crosses the stream—not for the first time—and ascends passing through an opening between the hills a few hundred yards from the Kaladhungi road at about 4½ miles from Naini Tal—Distance about 11 miles.

No. 11—From Cheena Peak road Chowki start along No. 3 path and take the path which branches off to the left a few places down the hill. This path descends the slope of Deopatta sharply. After about a mile it begins to rise again—a branch to the right going on down the valley. Keep to the left—the ascent will bring you to the end of Deopatta ridge whence a splendid view is attainable. From thence follow the hill round the left joining the main path above the village of Babalia and return to Naini Tal via the upper Kaladhungi gorge.

No. 12—Follow the Kaladhungi road for nearly 5 miles—turn to the right (North) and continue along the road till near the end of the long hill which lies on the left of the road—take the path which leads up to the crest of the hill and follow the same back till you again join the Kaladhungi road. Distance about 14 or 15 miles—most of which can be ridden.

No. 13—Follow the Kathgodam cart road from Talli Tal for five miles to the P. W. D. Chalet—return the same way or go on to the Brewery and ride up by
the bridle road. At the Brewery there is a most commodious hotel where all refreshment can be had.

No. 14—This should not be attempted unless in good waking trim. Naini Tal to Pangot (No. 6)—Pangot to a point about 2 miles short of Ratighat and thence by a path to the Chowki—or on to Ratighat and back by the main road and through the St. Loo gorge. Distance about 23 miles with a considerable difference of levels.

No. 15—About 3½ miles (by the milestones) along the Naini Tal-Bhowali road a spur runs out to the south-east and on the left of the road a path takes off at the Pines, follow this and it will land you on the ridge of the hill on the north side of which is a densely laid out Deodar plantation, extremely pretty, known as “Jabur”. The path No. 17 descends from the ridge and branches off to the left eventually joining the St. Loo-Ratighat road about a mile from the top—distance about 12 mile round. Before however, descending take a stroll to the east of the ridge where a fine view is obtained of the King Edward VII Sanatorium, looking like a model little town, and beyond this, of Bhowali with glimpses of the lakes at Bhim Tal and Naukuchia Tal, while to the left the Snowy Range can be seen. This spot is an ideal one for a picnic although not on the list of regular picnicking grounds. Instead of proceeding to join the St. Loo-Ratighat road as already pointed out, take the path that drops down to the upper Bhowalie road and return to Naini Tal the same way past the Pines. Distance of the whole walk to and from Jabur would thus be only 8 miles. Or the walk home could be done by taking the path that leads up to Lariakanta from Jabur Plantation.

No. 16—The same as No. 15, but instead of taking No. 17 Forest path keep on the right. The path emerges in the Bhowali “gaderi” about 1½ miles from the bunnia’s hut (No. 3) whence 2½ miles up hill brings you to the St. Loo Gorge.
Anyone who has done these walks will have a good knowledge of the environs of Naini Tal and will discern for himself cross-paths, short cuts and fresh routes. The opportunities for doing this are numerous and all that has been attempted in these notes is to indicate generally the routes by which the country can be opened up for further exploration.

The great advantage in going to the Kumaon lakes for fishing is not only their easy accessibility, but the fact that it brings one into the cool and healthy atmosphere of the hills. The five principal lakes in this "Westmorland of India" are Naini Tal, Bhim Tal, Sath Tal, Naukutchia Tal, and Malwa Tal. They are all well stocked with mahseer and hill trout with a recent
addition of speckled English trout in Naini Tal; this last introduction appeared successful at first, the trout attaining the weight of 7 or 8 lb. but they were soon exterminated. Licenses for fishing in the lakes are necessary and are obtainable from the Municipal office for Naini Tal and from the Sanitary Inspector at the other lakes.

**Naini Tal**—Fly fishing here after sun-rise until sun-set is practically useless owing to rowing and sailing which is practised at all hours of the day to the great enjoyment of everyone but the patient angler, and to this drawback is now added the hub-bub of motor traffic round the lake. But as the fish are still all there, fair sport can be had with the fly during two or three hours before sunrise or in the twilight between 7 and 9 p.m. when the lake usually resumes its original quietness so essential for fly fishing. And before the season begins with its boating and sailing, even the day time before mid April can give many a good catch to those who know the art of casting a fly. However, at all seasons, ground bait or ledger fishing from the banks, especially on a fine afternoon in the rains, usually results in some satisfactory catches. Mahseer up to 30 lb have been caught in this lake, but the average weight runs to about 2 lb only. For fly-fishing a small boat with a boatman is essential. The cast should be made at right angles to the line of weeds and always towards the sun and not towards the shadow of the boat. The finest gut for day fishing and rather stouter for dawn or twilight fishing is required. The best flies are Yellow Spider, Claret, Silver Doctor, Jock Scott, White Moth, Grey Midge, Black Gnat, Red Spinner and Bass May (Murray's patterns) dressed on No. 10 and 12 eyed hooks. Gilt fly spoons are also successful, which should be thrown exactly like a fly. There are two kinds of spoons recommended—one for open reaches and another for open patches of weed-covered water. All the right tackle
for both lake and river fishing can be obtained from Messrs Murray & Co. who take a great interest in this business.

The other four lakes follow in succession in a S. E. direction from Naini Tal. The roads to them start from the lake bridge and the Catholic Chapel and meet at the Depot Toll Bar and thence lead to the lake district via Bhowali. Sath Tal is the nearest being 9 miles from Naini Tal. Bhim Tal comes next 2 miles further, then Naukuchia Tal 1\(\frac{1}{2}\) miles further, and lastly Malwa Tal. 20 miles from Naini Tal. All these lakes can be reached from Kathgodam without passing through Naini Tal, by first going to Bhim Tal which is 9 miles from Kathgodam Railway Station. The best time of the year to visit these lakes for fishing is in April, May and June and after the rains in October.

**Bhim Tal**—Elevation 4000 feet, length incuding swamp to the N. W. is 1160 yards, its greatest breadth is 496 yards and its greatest depth 87 feet at flood level, the flood area being 155 acres. Bhim Tal has the advantage of not being polluted by the surface drainage from inhabited sites. At the outlet of the lake there is a dam 500 feet long, 48 feet high in the centre and 10 feet wide at the top. In April the surplus water is let off by iron sluices to feed the Bhabar canals. A pretty island is formed near the dam when the lake is at flood level, but this island joins the main land in dry weather, as the dammed up water gets drawn off, and this detracts very much from the otherwise picturesque appearance of Bhim Tal. There is a Post and Telegraph office here, a Dak Bungalow and two Hotels besides several cottages for rent. Boats can be hired on the lake. Bhim Tal may be said to have increased in importance since the building of a luxurious shooting box at the south end of the lake belonging to the Maharaja of Jind.

**Sath Tal**—A collection of five lakes about the same elevation as Bhim Tal. The first met with is a
small pool. Passing further into the basin, a second small pool is met; thence the path winds round the third lake, on to the fourth lake which is the largest, and is a considerable sheet of water about 1100 yards in length and 350 yards in breadth. Below the embankment to the south is a fifth small lake, and beyond this in the bed of the stream are two small lakes now dried up, making up seven in all. The long lake is beautifully wooded to the water's edge and surrounded by picturesque hill sides. There are several cottages at Sath Tal and boats on the lake.

**Naukutchia Tal**—The lake of nine corners is a most picturesque sheet of water, being about 1000 yards long from north to south and 750 yards broad at the widest point and its elevation is 4000 feet. In the N. W. corner there is a shallow bay covered with reeds and lotus lillies which when in flower add much to the colour of the scene. Overlooking this point there is an extensive camping ground and at the opposite end of the lake to the south there is a boarding house called Naukutchia Lodge. Some more cottages have been built in this locality. A rough path goes right round the lake and boats for fishing can be arranged for. Mahseer in the above three lakes generally run from $\frac{1}{4}$ lb. to as large as 5 lb. and are pretty plentiful and rise well to fly and spoon on the fine trout tackle already described. At Bhim Tal a preference is shewn to the Yellow Spider, at Sath Tal to the Claret, and at Naukutchia Tal to the Silver Doctor.

**Malwa Tal**—is 8 miles from Bhim Tal. The road ascends the ridge to the north of the valley and passing along the crest for a few miles through charming forests of oak, rises to a height of over 6000 feet and then makes a sudden and steep descent to the lake, the elevation of which is 3400 feet. The maximum temperature in the hot months is 82° to 86° during the day and 72° to 78° during the night. The lake is of
irregular shape, being 1500 yards long and 275 yards wide at the broadest point; its area is 1217 acres with a maximum, depth of 128 feet, but silt and debris are steadily altering the shape and dimensions of this lake. The mountains around are lofty and spring up directly from the margin of the lake. There is a Dak Bungalow, and boats are kept on the lake for the use of sportsmen. Malwa Tal is the best of these lake for fishing, maheer having been caught here with rod and line weighing up to 54 lb. Such heavy fish can only be caught by trolling with a suitable spoon or spinning with natural bait, but the best way to fish for the average weights which are about 2 lb. is with the following flies:—Claret, Silver Doctor, Cock-y-Bondhu, White Mouth, and Yellow Drake on fine casts.

**RIVER FISHING**

The Goula stream about a hundred yards from the Kathgodam Railway Station is spanned by a unique structure of reinforced concrete that springs up between its wide banks like a rainbow in shape, and from which is suspended an aqueduct bridge 317 ft. long. From this point the covered canal, which here flows into the reservoir of the aqueduct, can be followed up the right bank of the Goula for about a mile, till it meets the dam of the stream; and from this dam to the junction of two streams at Ranibagh, there are many runs and pools which hold plenty of mahseer up to 10 lb. and good sport can be had with a small gilt flyspoon or a Claret fly between 11 a.m. and 3 p.m. during April, May and October. To go from pool to pool necessitates wading and a light 12 feet rod easily commands the stream.

The Surju River about seven miles below Bagesar Dak Bungalow, gives good mahseer fishing from the banks, the fish running from 5 to 20 lb. The best time
is 11 a.m. to 4 p.m. during April and May and the tackle recommended is a 16 feet rod, single gut trace, and 1½ inch gilt spoon. With a small fly spoon smaller fish can be caught. Bagesar lies on the route to the Pindari Glacier and there are good camping grounds down the river, Pagela village being six miles and Asom village ten miles down Bagesar.

The Kosi River has the following fishing localities:—At Khairna Dak Bungalow in the pools below the bridge on the road to Ranikhet 12 miles from Naini Tal. Baitalghat P. W. D. Bungalow 12 miles from Khairna down the river. Garjia P. W. D. and Forest Bungalows 18 miles from Baitalghat. Close to Garjia is a large village called Dikuli of much archaeological interest, and here the cart road bridge spanning the Kosi river is met going up to Ranikhet from Ramnagar, which is six miles down the road from Dikuli. Up the river from Dikuli to Kumeria P. W. D. Bungalow, a distance of 10 miles, the best fishing is to be had. The pools at Dikuli and Garjia are full of big fish, and one pool right under the road at Garjia is known as the Commissioner's pool; and netting is not allowed in it. In the hot months of May and June early morning fishing is recommended with a small spoon and fine tackle.

The Baur stream forms a large pool above the headworks of the Kaladhuni canal and fishing here gives good sport with light tackle. All this locality through which the Kosi and the Baur flow is famous for big game shooting.
SHOOTING.

Shooting except in the Eastern Forest Division of the Almora District is only allowed with a permit issued by the District or Forest authorities from whom all particulars regarding the various fees and rules can be obtained.

The Kumaon division teams with game birds of every description, being particularly well supplied with the various kinds of pheasant from the brilliantly plumaged tragapan and monal of the slopes and woods just below the snow line to the more sober hued chir, koklas, and kalij of lower altitudes. More than one kind of partridge is to be met with while in parts the chikor shooting takes a great deal of beating. Possibly the Almora district holds out the best prospects of the last named sport, but good bags can be obtained much nearer Naini Tal—a favourite spot being Chopra on the Kosi River one march above Khairna. Ducks of many varieties are plentiful on some of the rivers during the autumn and spring but for this sport Naukuchia Tal is probably the best spot in the division.

For those who prefer the rifle to the shot gun the division holds great promise also. Tigers, often man-eaters, always very cunning and difficult to get a shot at, are numerous in some parts of the hills, while the Terai and Bhabar tracks abound in them. Panthers too are very common; nearly every village being haunted by at least one of these felines. The country at the foot of the hills is the home of countless chital, very good heads indeed being found near Kitcha on the railway to Kathgodam. The hills in places harbour numerous Sambhur, but the heads nowhere reach the length and spread that are to be met with in the plains; on the other hand for weight and circumference of the antler the larger hill heads take a lot of beating. Some of the best
trophies come from Hartola and the ridges across the valley from Ramgarh. Gurral, or the Himalayan Ibex, are to be met with all over the division; some of the best heads coming from the Almora-Garhwal borders near Lohba; while the ubiquitous Karkar or barking deer offers good sport and often a much needed meal in camp. In some of the higher and more quiet hills that shy, ungainly animal, the serow is to be met with but in many parts of the division it is strictly preserved throughout the year. To those who are prepared to go further afield the snowy ridges of Almora and Garhwal offer burrehal and tahr, while red bear in one locality at least are not unknown. Of the big game animals possibly one of the commonest is the Himalayan black bear, seldom seen but leaving his unmistakable tracks all over the country. In the early autumn he raids the ripening mandua and other grain crops nightly; lying up during the day in some near-by thicket. Cartridges for all modern rifles and shot guns can be obtained from Messrs. Murray & Co. Ltd. who have a well equipped establishment at Naini Tal.

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BOATING AND YACHTING.

There are three Boat Houses with their complements of boats belonging to Clubs viz., the Naini Tal Club Boat Houses along side the Memorial Gardens, the Y. M. C. A. Boat House, and the Depot Boat House opposite the Station Hospital. There are two private Boat Houses belonging to H. E. the Governor, one next to the Naini Tal Club Boat House and the other in Clark's Bay, along side St. Joseph's College Boat House. The remaining private Boat Houses belong to H. H. Nawab of Rampur and The Raja of Awaghur. There are a few English built boats belonging to native
boatmen that can be hired by any one. The rowing craft to be seen on the lake during the season are most varied and include the Depot whale boats, Thames wherries, steel punts, outrigged racers of all sizes and canoes; and when they all turn out on regatta evenings, with the beflagged yachts in the offing, or at illuminated night fetes, the scene on the lake becomes very gay and lively.

The Yacht Club which has its own lawn on the banks, has grown into a very important institution since it was established in 1897 with the introduction of Belfast built racing yachts by Messrs Murray & Co. Before 1897 yachting was indulged in irregularly and with very nondescript craft. Now the racing is of a very high and interesting order, and the fleet, commanded by a Commodore consists chiefly of one-designed boats specially built to meet the sailing conditions of the lake, by the well-known expert Linton Hope. Other sailing craft are allowed to race with the one-designs in handicap races, but the most interesting races from a spectator’s point of view are those when the full fleet of one-designs are all out on equal terms on a fine breezy day such as usually prevails on Naini Tal—making one of the prettiest sights one could wish to see anywhere.
The best time for touring in the hills is in March and April or in the autumn as soon as possible after the rains have ceased. The average date for this may be taken as September 15th. In the early summer there is usually a thick haze over the country, often obscuring the view even in the early morning, and after the beginning of May storms frequently rage over the snowy ranges. For the lover of flowers possibly the Spring is the best time for an up country tour as the rhododendrons are then at their best as are also the myriads of smaller flowers. In the autumn fine clear weather may be counted on, the woods and fields are green and the air bracing. The paths at this time of the year near the glaciers and just below the Snow line are usually clear until the second half of November while in the early part of the year one may be held up by deep snow as late as the end of May.

Before undertaking a trip of any magnitude the question of supplies and transport must be thoroughly gone into. It must be remembered that after leaving behind such centres of civilisation as Naini Tal, Ranikhet, or Almora the traveller must live on the country or on what he carries with him. At most of the recognised halts Sirkari bannias exist and, on due notice being given of expected requirements to the Deputy Commissioner of the district concerned, the Tahsildar will warm the bannia to have the supplies ready. These supplies usually consist of rice, food for one's servants, gram for ponies etc. and occasionally of eggs, fowls and milk. Grass and firewood can usually be cut by one's coolies near the camping site. All other stores must be carried with one. Stores cannot be too carefully packed and for coolie transport each package should not exceed 25 seers. The most convenient
Panchchula Range from Milam road

Trisul from Dewaldhar
recepticle for packing both stores and kit is the "khilta" a thin wicker basket covered with skins, usually gurral or karkar, and fitted with two hinges and a hasp. These khiltas are roughly 18" x 12" x 15" high and hold a surprising amount. One makes a coolie load, or two can be roped on to a pony or mule. Khiltas have these advantages:—over boxes, that they are lighter; over hampers, that they are cheaper; and over yakdans, that they are more suitable for coolie transport. They may be obtained from Messrs. Murray & Co. Naini Tal or Messrs. L.R. Shah and Brother Almora, the cost being 5/- to 6/-. Before making up one's loads it is as well to decide on the mode of transport coolie or pony. In both cases arrangements should be made with the Tahsildar of the district concerned giving him at least ten days notice to allow of the necessary men or animals being collected. The wages of a coolie are reckoned on a mileage basis and at the time of writing (1923) are 1/6 per mile for a load of 25 seers. Ponies work out about the same but they cannot be taken up to the snows owing to the badness of the roads. The chief advantage of ponies is that they cost much less during a halt.

The map at the end of these notes gives the recognised roads and most of the bungalows on these roads. These bungalows may be P. W. D. Inspection Houses, Forest Rest Houses, or Dak Bungalows, permission to occupy the first two must be obtained from the district heads of the departments concerned, while the third class is open to all travellers. Bungalows in all cases are furnished, usually as two single bed rooms, and most of them have a fair supply of crockery and cutlery together with lamps and cooking pots.

On the tours sketched below the traveller can rely on enough crockery, cooking pots and lamps being found in the various bungalows for a party of two, but it would be as well to take a certain amount of cutlery.
In the itinerary of each tour, the mileage, unless otherwise stated, is that from the previous halt.

The following abbreviations are employed.

P. O.  Post Office
T. O.  Telegraph Office
I. H.  P. W. D. Inspection House
F. R. H.  Forest Rest House
D. B.  Dak Bungalow
B.  Bannia
K.  Khansamah at the Dak Bungalow

Tour No. 1.

Naini Tal to Muktesar via Ramgarh and return via Bhim Tal.

<table>
<thead>
<tr>
<th>Location</th>
<th>Distance</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhowali</td>
<td>7 miles</td>
<td>P. O., I. H., F. R. H., Hotel (2)</td>
</tr>
<tr>
<td>Ramgarh</td>
<td>6 miles</td>
<td>P. O., I. H., D. B., (K) Hotel B.</td>
</tr>
<tr>
<td>Nathua Khan</td>
<td>6 miles</td>
<td>&quot; B.</td>
</tr>
<tr>
<td>Muktesar</td>
<td>4 miles</td>
<td>&quot; P. O., I. H., B</td>
</tr>
<tr>
<td>Dhari</td>
<td>7 miles</td>
<td>&quot; D. B.</td>
</tr>
<tr>
<td>Bhim Tal</td>
<td>10 miles</td>
<td>&quot; P. O., D. B., Hotel B</td>
</tr>
<tr>
<td>Bhowali</td>
<td>5 miles</td>
<td>&quot; P. O., I. H., F. R. H., Hotel (2)</td>
</tr>
<tr>
<td>Naini Tal</td>
<td>7 miles</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

The road as far as Bhowali has been described on page under “Walks and Rides No. 1”. In addition to the two hotels there are a P. W. D. and Forest Bungalow at this spot. From Bhowali the road passes through the bazaar and, leaving on the right the derelict remains of a turpentine factory started by the Forest Department in 1895 and burned down in 1915, makes a steady climb of two miles and then runs more or less level for two miles along the ridge to the Paugot pass and temple before falling steeply to Ramgarh. From spots along this ridge fine views of the snows to the north and over Bhim Tal and the other lakes to the plains to the south are to be had. At Ramgarh (elevation 5872 ft) there is a very comfortable hotel, the Oak View, a P. W. D. Inspection House and a five roomed Dak Bungalow.
with K hansamah. On leaving Ramgarh the road continues to fall sharply for about 1½ miles to the Ramgarh river, the left bank of which it follows for a mile or so before crossing it by a suspension bridge and then climbs upwards to the Pass at Nathua Khan: the first two miles of this climb along a bare and very hot hill side is known as the "Galleries". At Nathua Khan the road to Muktesar branches off from the main road which continues through Peora to Almora and after 2 miles of comparatively flat going rises steeply up an open mountain side for the last two miles into Muktesar which is at an average elevation of 7500 ft.

MUKTESAR owes its importance to the presence of the Imperial Bacteriological Laboratory which was moved here in 1896 from Poona. Considerable damage was done by fire in 1899 but by 1901 the buildings were restored and equipped again on a much larger scale. Since then the growth of the settlement has been very great, until now a large staff is employed necessitating the erection of many residential buildings as well as offshoots from the main laboratory as well as a great deal of general development of the estate to make the colony more or less self supporting. The chief object of the laboratory is the manufacture of serum for counteracting various diseases common among cattle. Anti-rinderpest serum is manufactured and distributed in large quantities, as also are mallein, tuberculin and tetanus anti-toxin. In addition to this ordinary routine work a great deal of original research of the very greatest importance is carried out. By the courtesy of the director visitors are allowed over a great deal of the Laboratory and the preparation of the serum may be watched in its various stages. On the knoll which rises behind the laboratory estate is the temple of Mahadeo and on the rocks near by are marks reputed to be the foot prints of horses, camels and elephants comprising the army of some god who was opposed in his progress here by the
local deity. From Muktesar an extraordinarily fine view of the snowy range is to be had with the whole of the Almora district laid out in front. Almora itself lies well below and due north of the P. W. D. Bungalow. The return road as far as Dhari is very uninteresting, running for the most part through cultivation and on the whole in a down-ward direction. Between Dhari and Bhim Tal there are some extremely picturesque bits of scenery in fir clad rocky heights hemming in a rushing mountain stream. The road is good and nowhere are there any very steep hills. Bhim Tal is some what off the direct road to Naini Tal but is well worth a visit for its scenery. The dak bungalow is situated by the lake about half-way down the north side, that is on the left as one approaches, and faces directly the Lake View Hotel across the water. Above the west end of the lake traces may still be seen of a prisoner-of-war encampment erected during the Boar War. The road to Bhowali leads past this encampment and goes steadily uphill until within a mile or so of Bhowali when it follows down the left bank of the stream and enters past the ruins of the turpentine factory.

Tour No. 2.

Naini Tal to Almora via Ranikhet
returning via Ramgarh.

<table>
<thead>
<tr>
<th>Ratighat</th>
<th>8 Miles I. H., B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Khairma</td>
<td>3½ Miles I. H., D. B., B</td>
</tr>
<tr>
<td>Bamshaon</td>
<td>5 Miles I. H., B</td>
</tr>
<tr>
<td>Ranikhet</td>
<td>10 Miles I. H., D. B., (K) Hotel B., P. T. O</td>
</tr>
<tr>
<td>Majkhali</td>
<td>10 Miles (from Ranikhet D, B.) D. B. (K) B</td>
</tr>
<tr>
<td>Katarma!</td>
<td>12 Miles I. H.</td>
</tr>
<tr>
<td>Almora</td>
<td>9 Miles D. B. (K)</td>
</tr>
<tr>
<td>Peora</td>
<td>9½ Miles D. B. (K) B</td>
</tr>
<tr>
<td>Ramgarh</td>
<td>10 Miles I. H., D. B., (K) Hotel P. O., B</td>
</tr>
<tr>
<td>Bhowali</td>
<td>6 Miles I. H., F. R. H., Hotel(2)P.O., T. O</td>
</tr>
<tr>
<td>Naini Tal</td>
<td>7 Miles.</td>
</tr>
</tbody>
</table>
The road starts by way of the St. Loo Gorge near Old Government House and after the pull up to the gorge goes steep down for 6½ miles, at first through dense oak forests which later give way to chir and finally to semi-cultivated land. The last half-mile is flat and near the bungalow a rocky stream is crossed by a suspension bridge. This is an extremely beautiful road both on account of the views of the snows and the Ranikhet hills and also on account of the more local scenery. The road passes through many leafy glades and crosses innumerable mountain streams. At Ratighat the cart road is joined and followed except for one or two short cuts to Almora. A mile from Ratighat the Ramgarh river is crossed on a girder bridge reconstructed in 1923. The road on this stage is practically flat following as it does down the right bank of the Ramgarh stream. One mile short of Khairna the village of Garmpani is reached. Here there is a way-side depot of the Naini Tal Motor Transport Company installed with a telephone as also is the I. H. at Ratighat. Khairna is at the junction of the Ramgarh and Kosi rivers the bungalow (3200 ft) being on the hill-side above the streams. This is a favourite shooting locality and the following game may be found near by:—sambhur, karkar, serow, gurral, panther, bear and occasionally a tiger. Chikor and kalij are also plentiful and the Kosi offers good sport to the fisherman. The Kosi is here spanned by a girder bridge carrying the cart road, while the bridle path to Almora (19 miles) follows the left bank to the junction with the Suwal: it then follows this river through Chopra with its Inspection House, until it joins the Almora-Peora road at the Gurari suspension bridge. After 1½ miles the cart road leaves the Kosi river and begins to rise, while a bridle path follows down the valley to Ramnagar via Baitalghat and Garjia. The road steadily mounts now into Ranikhet (5983 ft) and is on the whole uninteresting, passing through the terraced fields which
are so typical of the scenery in these hills. Five miles from Khairna is Bamshaou with its Inspection House and standing military camp, used during the movement of troops to and from Ranikhet. At ten miles the large village of Uprari is passed and the D. B. is reached as one enters the Ranikhet cantonments.

**Ranikhet** originally a tea estate came into existence in 1869 and now together with Chaubattia is the chief military cantonment in Kumaon. It is situated on a fir covered ridge running east and west at an average height of about 6000 ft. and is distant 49 miles by the motor road from Kathgodam. Chaubattia is really a separate area situated four miles away on the same ridge, which here rises to a height of 6942 ft. Near the highest point of this ridge is built the church, the spire of which forms quite a landmark. The residential portion of Ranikhet is at the eastern and highest end of the ridge, most of the bungalows facing north and commanding fine views of the snows through or over the near by fir trees. At the western end are the Alma Barracks, offices etc., and below these on the northern slope is the Bazaar where there are a few quite good shops. Beyond the Bazaar on a low lying continuation of the ridge is Dulikhel with its barracks, church and parade ground where polo and other games are played. The main ridge is more or less a plateau through which runs the Upper Mall connecting the Kathgodam road with that to Almora. Motor cars are numerous while tum-tums and rickshaws are not unknown. Ranikhet possesses a Club with a very good ball room and six good mud tennis courts, but unlike Naini Tal private courts are very scarce. The 18-hole golf course situated at Upat some four miles along the Almora road, is among the prettiest in India, enclosed as it is in fir trees on three sides and boasting a very extensive view of the snows and the intervening country on the fourth.
The climate of Ranikhet is much milder than that of Naini Tal with a rainfall of about 40 inches.

At Dwarahat 14 miles due north of Ranikhet by a bridle road which starts below the Treasury and passes through a variety of scenery are numerous old and partly ruined temples. These were constructed in the early part of the eleventh century and were partially destroyed in the middle of the eighteenth century when the Rohillas invaded this part of the country. They are now protected monuments and excavation and restoration work was started on them in 1922 with very interesting results. To those interested in ancient hill architecture the place is well worth a visit.

The road on to Almora carries straight past the Post Office, Club and Alma Barracks and then turns sharp right through the bazaar. Dulikhet or Standing Camp where there are more permanent barracks is passed one mile further on and the Golf Links at Upat at three miles from the bazaar. The road is very pretty but somewhat shut in until one approaches Majkhali some eight miles from Ranikhet bazaar. From various points near here very extensive views of the snows and of the country to the west may be obtained. This view is particularly fine at sunset on a good day during the rains. From Majkhali the road dips and then rises gradually to about the thirteenth mile from Ranikhet from which point it falls away through scattered chir trees and cultivation to the Kosi river near the 22nd milestone. This river was until recently crossed by an old iron girder bridge, but the advent of heavy motor traffic necessitated some improvement as the bridge was not considered safe for loads over 2 tons. A new bridge was constructed alongside the old one in 1923. This, the only one of its kind in the hills, is a reinforced concrete structure with a clear span of 100 feet. The remaining seven miles into Almora are all on the up grade for the greater part of the way, winding under fir forests with open hillside and cultivation below.
Almora the headquarters of the civil district of that name and also of the 1/3 Q.A.O. Gurkha Rifles is some 36 miles from Kathgodam by bridle path or 81 by the cart road via Ranikhet. The town and station are on a saddle shaped ridge running S.W. to N. E. The residential portion together with the church of St. Mark, Club, Sessions House, and Dak-bungalow are at the S. W. end on the northern slope, the elevation being between 5000 ft and 5500 ft. Further on are the Gurkha Lines and beyond them again the main town and bazaar. The bazaar is extremely picturesque with its stone paved ways, temples and quaintly carved shop fronts and is a very fine example of a hill bazaar. Beyond the town again is the Mission Settlement. The cart road enters Almora in a large horseshoe curve, the cantonments and town forming the front and one arm while the Sitoli ridge forms the other. This, originally a tea estate, was built on and occupied as a permanent camp for a battalion of Kumaonis during the war and is now the proposed site for an extensive Intermediate College.

Almora, prior to the rise of Naini Tal, was the capital of Kumaon and it was here that Sir Henry Ramsay the "King of Kumaon" had his headquarters as Commissioner. It was founded in the 16th century by the then Rajah of the Chand dynasty who moved his capital here from Champhawat in obedience to an omen. The legend goes that he was out hunting on the Almora hill when he came on a hare. He gave chase but suddenly the hare changed to a tiger and disappeared. His diviners considered that this phenomenon inferred that the Rajah's enemies would find that they had tigers to deal with and advised the Rajah to found a new capital on the spot where the tiger disappeared. To mark the place they drove an iron rod into the ground; it sank so deep that they said it had pierced Nag, the
serpent that supports the earth and consequently the Rajah's dynasty would reign for ever. To satisfy himself the Rajah withdrew the rod and found the end covered with blood; but in anger at his unbelief the gods proclaimed through the mouth of the seers that his dynasty would reign for but a few generations.

In 1790 Kumaon was conquered by the Gurkhas who had previously overrun Nepal. They held sway until the British took the country in 1815—Almora being captured on April 26th of that year.

Being much lower than Naini Tal or Ranikhet, Almora is considerably milder in the winter and hotter in the summer, the range of noonday temperature being on an average 45·88°. Snow however is by no means unknown but it usually lies for a very short time.

The Dak Bungalow with its annexe stands below the road at the motor terminus and immediately below the bazaar which may be reached by the steps leading past the Naini Tal Motor Transport Coy's offices.

From here the tour must be continued by bridle road. This starts off in continuation of the cart road past the Post Office and under the Cantonments. The first mile and a half is flat and then the road begins to drop, passing the Leper Asylum on the left near the second mile-stone and continuing down until the suspension bridge at Gurari is reached a short way beyond the 5th mile-stone. This bridge is over a tributary of the Kosi which at this spot marks the boundary of the Almora and Naini Tal Districts. A branch road takes off at this point and runs down the left bank of the river through Chopra four miles away to Khairna another ten miles on. This road has been mentioned earlier in the description of this tour. From the bridge the road rises steadily to Peora whence a very grand view of the snows may be obtained. About a mile short of the bungalow, a branch road bears slightly left-handed and leads on to Muktesar. The march
from Peora to Ramgarh is very hilly and in places rough going, entailing as it does dropping steep down into a small valley, that of the Deodar stream and then steep up the other side to Nathua Khan before making the decent to the Ramgarh river by way of the galleries, followed by the stiff climb to Ramgarh village. From hereon the road has been dealt with in Tour No. 1.

**PLACES OF INTEREST.**

Taking Almora as the starting point very beautiful tours can be made to Askote and Pithoragarh near the Nepal borders passing on the way Berinag with its tea gardens and wonderful views, or to Lohaghat and Abbott Mount and thence via Champhawat to the railway at Tanakpur. Every variety of scenery and country may be experienced on these roads which rise in places from about 3000 ft. to well over 8000 ft. Description of the roads is outside the scope of this handbook but brief notes on some of the places of interest to be met with may not be out of place.

ASKOTE near the junction of the Gori and Kali rivers on the Nepal border, is an important village on the main trade routes with Tibet and is a big Bhutia depot. At Joljivi five miles away to the north is held in the middle of November the first of the hill fairs, the site being the tongue of land between the Gori and Kali rivers. Here Bhutias from Milam, Munsyari, Darma, Bians and Nepal collect in great numbers with their herds of goats, sheep, ponies, donkeys, and jhippos or cross-bred yaks. Every animal carries its load, from the 20 to 25 seers of wool or borax on a sheep to the household goods piled high on the larger animals. The raw wool is mostly sold at Tanakpur but at Joljivi a brisk trade is done in ponies, borax or salt, rugs and the various kinds of Bhutia and Tibetan blankets. The scene as one walks down between the rows of booths is most picturesque, Bhutias and traders from
Tibet with their wares laid out being on all sides dressed in their quaint garb and decked with strange ornaments and necklaces in which turquoise has pride of place. This used to be a much more important gathering than that held at Bageswar in January, of which mention is made later on, but has declined in recent years.

PITHORAGARH (5400 ft) 15 miles from Nepal is the site of an old cantonment, the original bungalow having passed into the possession of the American Methodist Mission which has a large settlement here. There are still to be seen here the ruins of an old fort and watch tower dating back to pre-Gurkha days. On the direct road from Almora are Gangolihat and Jageswar with their old and interesting temples. At the latter spot the Rajahs of the Chand dynasty used to be cremated and their wives to perform Sati.

LOHAGHAT at the same elevation (32 miles north of Tanakpur) is another old cantonment site abandoned many years ago. Graves in the small walled cemetery date back well over a hundred years. The name is derived from lolu blood and according to the legend is the site of the sanguinary battle between Krishna and Bana in which the latter was defeated. The river ran blood and the soil was saturated with it, hence the deep red colour of the clay in the soil today. Midway from Almora is Debidhura the site of a religious fair held in August, the chief event of which is a curious game between representatives of different villages in which large stones are hurled from side to side; cuts and bruises are nearly general while broken bones are not uncommon. There is here a curious underground temple the entrance to which is formed by two large rocks. Near by there are several granite blocks and boulders dedicated to various gods but the most interesting is a huge weather worn rock overhanging the hillside and on it a smaller boulder of the same kind. Through the
middle of the large rock runs a vertical fissure and in the side of the smaller, which is some six feet across, there is a line of five small holes. The legend goes that two of the gods were seated on the flat surface of the large rock playing cards when a dispute arose. One drew his sword and struck at the other missing him but cutting through the rock; the other being unarmed seized the boulder and hurled it at his companion, the five holes being the marks of his fingers.

ABBOTT MOUNT in the northerly vicinity of Lohaghat is a recently established settlement on a privately owned estate originally known as the Raikot tea plantation, and it is now occupied by a few of the European domiciled community whose venture it is to make it a profitable fruit-growing industry, but like all such ventures in the interior of Kumaon, lack of suitable communications is the killing factor, and until this obstacle is overcome, such places must continue in their native backwardness. But once overcome, the possibilities of Abbott Mount for the domiciled community in search of pastures new certainly make it a land of promise.

CHAMPHAWAIT six miles from Lohaghat on the road to Tanakpur was the ancient capital of Kumaon from the middle of the tenth century till 1560 when the capital was moved to Almora. Of the ancient palace there is little trace, but the fort still exists and also the remains of some very beautiful temples which are well worth a visit.

BAIJNATH another place of interest in the Almora hills lies at an elevation of 3500 on the banks of the Gomti river some 35 miles from Almora to the northwards, the greater portion of the road being practicable for motors. The temples here again are the chief interest. The largest which is situated on the river bank being dedicated to the goddess Kali and is believed to have been built on the foundations of a Buddhist temple of the eighth century.
THE PINDARI GLACIER.

For the purposes of this tour Almora may be taken as the starting point as the roads to this point have already been described. The stages from here on are as follows:

<table>
<thead>
<tr>
<th>Place</th>
<th>Distance</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Takula</td>
<td>15 Miles</td>
<td>D. B. (K) P. O. B.</td>
</tr>
<tr>
<td>Bageswar</td>
<td>12</td>
<td>D. B. (K) P. O. B.</td>
</tr>
<tr>
<td>Kapkote</td>
<td>14</td>
<td>D. B.   P. O. B.</td>
</tr>
<tr>
<td>Loharkhet</td>
<td>8½</td>
<td>D. B.   P. O. B.</td>
</tr>
<tr>
<td>Dhakuri</td>
<td>5½</td>
<td>D. B.</td>
</tr>
<tr>
<td>Khati</td>
<td>5</td>
<td>D. B.</td>
</tr>
<tr>
<td>Dwali</td>
<td>7</td>
<td>D. B.</td>
</tr>
<tr>
<td>Phurkia</td>
<td>3</td>
<td>D. B.</td>
</tr>
</tbody>
</table>

PINDARI GLACIER 4½ miles from Phurkia or 74½ miles from Almora.

The bridle path takes off some half-mile down the Cart Road from the D. B. and after passing the Jail about one mile out and various mission buildings, comes to open country just before the second mile-stone. For the next mile it proceeds up a hot, open hill side and then runs flat or undulating for about seven miles. At six miles from Almora the Forest Rest House at Dina Pani is passed and at seven-and-a-half miles Kafar Khan is reached where the road bifurcates, one branch leading up the hill to Binsar. After the tenth mile a sharp descent is met followed by some three miles along a river bed before the final short climb to Takula bungalow at an elevation of 5250.

If time permits on either the outward or return journey Binsar is well worth a visit. From Kafarkhan it is 5½ miles up-hill all the way. The settlement consists of about half a dozen private houses mostly standing in their own orchards and the Forest Rest House which stands at about 7500 ft. Behind the bungalow the hill rises to Flag Staff Hill at very nearly 8000 ft. From here a very fine view can be obtained of the snows and also back towards Naini Tal; Binsar was the summer residence of Sir Henry Ramsay.
when Commissioner of Kumaon; and he built himself a bungalow there in the year 1852. The name Binsar is derived from Bineswar (Siva) to whom one of the Chand Rajahs built a temple in the beginning of the eighteenth century. From Binsar a forest path runs direct to Takula six miles away. The way is narrow and in places bad but is quite passable by pack animals. The last 1½ miles drop nearly 1500 ft.

From Takula the road rises sharply for half-a-mile, the rise being followed by just as sharp a drop for one-and-a-half miles through Chir forests. The road then runs comparatively flat for a couple of miles before the very steep ascent of the Pali ridge. During this climb it is interesting to note the old stone-paved way of the ancient traders which is visible in many spots. On the reverse slope of this ridge is passed the tea and fruit estate of Dewaldhar at about 5500 ft. The specialities of the estate are a particular fine kind of walnut and apple. The proprietor, a gentleman of Almora, is most hospitable and is always ready to allow travellers to use his guest house, a bungalow fitted with sitting room, bed room, dressing room and bath room, on due application being made. From Dewaldhar is obtained one of the finest views of the snows to be seen along the road. The route now drops for four miles to the level of the Sarju river through very picturesque Chir woods. The last two miles of this stage are flat and follow closely the right bank of the Sarju.

Bageswar is a quaint little town lying between the Gomti and Sarju rivers; and on the road to the Dak Bungalow both these rivers have to be crossed by suspension bridges and the town traversed. Bageswar bears a strong resemblance to Almora with its narrow flagged streets and elaborately carved shop fronts. On the spit between the two rivers there is an ancient temple which, according to the statements of the present caretaker, has been looked after by the same family for the last four or five hundred years. The name is said to be derived from Vakiswar one of the names of Siva. The bungalow (3200 ft) is on the
left bank of the Sarjhu above the town and faces on to the river. It was originally a plantation bungalow consisting of one large and two smaller rooms but now since alterations were carried out, there are four good sized rooms with bath rooms.

Before the coming of the railway Bageswar was a flourishing mart for the produce of Tibet and Bhut. Bhutias and others here disposed of their goods to the middle man who, one may be sure, made a good thing out of this trade. Now most of its glory has departed and the Bhutia with his caravan of pack goats, donkeys, mules or hybrid yaks goes down as far as the plains himself. In the middle of January is held the Bageswar fair, at one time a very important festival, now gradually losing its importance. However, it is still largely attended and much buying and selling of wool, borax, basketwork, blankets, etc from the north is effected, ponies too are brought in, but in nothing like the numbers of a few years ago.

From Bageswar the road follows the right bank of the river and is fairly level for the whole fourteen miles to Kapkote, though in places a considerable rise is encountered owing to the impossibility of carrying the road along the face of the cliffs. The scenery on this march is constantly changing; at one time the road is in a wide cultivated valley, and at another passing through a rocky gorge with the river boiling at the foot. About three miles from Kapkote the valley widens and on a clear day a fine view of the beautiful Bankattia peak (22530 ft) may be obtained. Again one sleeps within the sound of running water, the bungalow being but a hundred yards or so from the river at an elevation of 3750 ft. From Bageswar upwards, with the one exception of Dhakuri, one spends the night close to a rushing stream.

The next march to Loharkhet is by some considered the most beautiful of all, though where each march is so different from the one before, comparison is by no means easy, the variety of the scenery being one of the great
charms of this trek. The road starts off for the first mile along the right bank of the river, then, after crossing by the suspension bridge, for two to three miles, still follows the river though at a greater distance from it until a large tributary the Rapti is met, followed for half a mile, crossed and left. This spot is known as Kharbagar and is the taking-off place of the trade route to Milam, the Untadhura Pass and Tibet. A spur is now climbed and the Sarju again joined to be crossed a second time some six miles from Kapkote, and followed on the right bank until the final climb of two miles to Loharkhet at 5650 ft. The bungalow which suffered much in an earthquake in 1904, is very picturesque, being situated in a small clump of trees on the bare hillside close beside a mountain torrent.

The next march is probably the most tiring of all, involving as it does a rise of 4000 ft in the first five miles up to the Pass (9650 ft) over the Dhakuri ridge. This ridge, which runs N, E and S. W. from near the lower slopes of the Bankattia peak and separates the Pindar from the Sarju forms part of the water-shed between the Sarda and Ganges Systems. From here the scenery, as well as the vegetation, undergoes a radical change. A very fine view of the snow range from East Trisul to Bankattia with the Sundadunga and Pindar valleys in the middle and right foreground is obtained from the Pass. Directly below, half a mile away is the bungalow (8900 ft) with a view hardly less fine than that from the Pass. A halt should if possible be made at Dhakuri and a morning spent on the ridge in climbing to the beacon (10540 ft). The views from here will well repay the effort. To the South Cheena can be easily discerned, Chaubattia and Ranikhet too can be picked out and on a clear day the houses in the latter can be seen with the naked eye. Almora is harder to pick up being masked by Binsar and Kalimat but when the light is right a roof or two can be seen flashing in the sun. To the north west the view is curtailed by the projecting mass of East Trisul but to the East the snowy peaks can be seen past the Paanchchuli range till they dwindle away in the distance of Nepal. Nanda Devi (25689 ft) one misses as it cannot
be seen from anywhere on the ridge nor from any spot in the Pindar Valley. A feature of the ridge are the quaintly shaped oaks draped in moss and fern. The northern slope of the ridge is thickly wooded chiefly with the Himalayan oak, but silver fir, maple, walnut, chestnut, ash and elm abound, and in places there are dense thickets of ringal. This type of vegetation continues some way up the valley, but shortly below Phurkia gives place to the zone of birch, rhododendron, yew, which itself at higher altitudes gives place to an ill-defined zone of dwarf rhododendrons and junipers. Cultivation decreases rapidly above Loharkhet, the fields grow smaller and more isolated and mandua and chua are the only staple crops, though potatoes are grown to a certain extent at Khati, Cluua (purple amaranthe) with its large plumy heads make vivid patches of colour on the hill sides which blend in well with the rich tints to be seen in the jungles in the autumn. From Dhakuri the road drops to well below the 8000 ft—contour in about two and a half miles, and then runs with slight rises and falls some few hundreds of feet above the Pindar river to Khati, (7600 ft)

From Khati the road is much more level with a constant upward trend along the river side. The scenery is superb; the Pindar rushing in its boulder strewn bed between towering mountains densely clothed in forests, with the snows ever in the background. The road goes most of the seven miles to Dwali through thick jungle interspersed with open glades. The river is twice crossed, once about four miles above Khati and again just short of the Dwali Bungalow, which is perched on a small plateau (9000 ft) at the junction of the Pindar and its tributary the Kaphini. The three miles on to Phurkia (10700 ft) are very tiring partly due to the constant rise and partly to the height above sea level at which the road runs. One striking feature of the scenery on the last two stages is the large number of cascades and waterfalls tumbling from the melting snow fields above into the river. During the summer and rains these are particularly fine.
The Pindar, a tributary of the great Ganges system, takes its rise in a collection of five main glaciers on the southern side of the snow ridge running East and West through East Trisul and the beautiful Bankattia peak (22530 ft) which is so commonly miscalled Nanda Kot. The two westernmost of these glaciers, the Sukaram and Maiktoli are in Garhwal and feed the Sundadunga river which joins the Pindar a little distance below Khati. The easternmost, the Kaphini, situated below the Bankattia peak, gives rise to the river of the same name which runs into the Pindar at Dwali. The Pindar itself actually rises in the Pindari and Bankattia or Nanda Kot Glaciers midway between the other groups.

The glacier is supplied by two névés which emerging from behind the Nanda Kot and Nanda Khat Peaks unite and form a series of ice fields and cascades. Below the lower cascade the main flow is joined by a smaller glacier from Bankattia. This at first sight does not look like an ice floe as it is almost entirely covered by boulders and rubble. Between the two ice floes there is a high ridge of medial moraine, the lower end of which is separated from the left lateral moraine by about 100 yds of rough hummocky ice and boulders. The accompanying sketch gives a good idea of the lie of the main features.

In Phurkia Bungalow is kept a Log Book started in 1894. The original intention was that only scientific facts relating to the glacier and its movement should be recorded. This intention has since been lost sight of and the book has become a record of personal experiences together with interesting entries regarding the flora and fauna of the neighbourhood. There are entries relating to experiences at all times of the year and as conditions vary enormously in the spring and autumn it is well worth the visitor’s while to read through the book and determine on the route they intend to take in visiting the glacier. It must however be remembered that conditions vary yearly and one must not expect to find things exactly as they were in the same month of any previous year,
As far as the crest of the left lateral moraine (12275 ft) above the snout, a made road exists and before referring more fully to the best way to see the glacier it is as well to follow this road from Phurkia. The view from the bungalow especially by moon-light is particularly beautiful, looking up the rugged valley to the peak (21624 ft) at the head. The road leads along the left of the stream the whole way and except for a steep rise for about half a mile shortly after leaving the bungalow, undulates with a steady upward tendency to the foot of the moraine. Half-a-mile short of the glacier, Martoli (11730 ft) is passed; a large open space with a few graziers huts standing dotted about it. The views along this road are very fine, but it is not until one reaches the moraine and looks all round that the true grandeur of the scenery is really experienced. The glacier itself is small and compared with Switzerland and Kashmir insignificant and the real beauty of the scene is derived from the peaks which hem one in on all sides.

To experience the beauties of the place to the full, one should not be content simply to walk to the road's end; the climb to the upper end of the old medial moraine well repays the effort. To do this the route shown in red in the sketch is the easiest. Leave the road just short of the lateral moraine and lead straight on between this moraine and the rocky hill side: from the hill side along here the best view of the glacier is to be obtained. Climb up the moraine near the head, down the other side, across the boulders and dirty ice at the foot and then along the ridge of the old medial moraine, until the sheer rock wall is reached at a height of 13575 ft.

The snout (12035 ft) or actual exit of the river from the ice is hardly worth a visit or at any rate should be left till the return journey; the going will be easier and the clear morning sky needed for the open views from higher up won't be wasted. Sometimes there is a fair sized grotto at the snout into which the visitor can walk without difficulty but more often the stream issues from a low tunnel in the ice face, the top being only a few inches above the water. A passing reference has been made above to the sky. The start from Phurkia must be made as early as
possible, by day break, if the full beauties of the country are to be seen. The early morning is usually clear but by 11 o'clock clouds generally begin to hide the peaks and it is as well to be back in the Bungalow by 2 or 3 p. m. if one is to escape all rain and snow.

The peaks visible from the foot of the glacier are Bankattia on the east, from this side a sharp point, though from the south it appears as a tent with a ridge pole, next comes the somewhat blunted Nanda Kot and on the west of the glacier Nanda Khat, an unnamed peak and Dwali Dwar. Nanda Devi is not visible being some miles behind the unnamed peak, and masked by it.

Mention has been made already of the Kaphini Glacier and if time allows, a visit to it is well worth making. Like the Pindari this is small as glaciers go, but there the resemblance ceases. The feature that strikes one most is the general symmetry of the floe, the ice descending almost straight and very steeply in a southerly direction from an extensive snowfield in front of Bankattia. The main ice fall or cascade is practically unbroken except for a slight shelf about one third of the way up. There is little snow on the flanking slopes on the right side, but a fine panorama of snow clad heights is visible right down the left side as far as Dwali. Above the glacier on the left there are extensive snowfields, but these do not connect with the glacier. The snout (12150 ft.) is about half-a-mile from the bottom of the cascade (13150 ft).

This glacier is approached from Dwali, being nine to ten miles away up the Kaphini Valley, but there is no made road by which the journey can be made; a goat track alone exists, in places very rough and rocky. For the first two miles this runs through forests chiefly of ringal and hard woods, and then as the valley widens out through the open summer grazing grounds. It is not until one has gone from seven to eight miles that the glacier begins to show, but when it does the view is superb; the jagged ice cascade shimmering in the sun with the white tent ridge peak of Bankattia rising directly behind.

To visit this glacier, climb above the snout and return to Dwali the same day is heavy day's work and a tent
pitched on the grazing grounds would simplify things greatly.

Nothing can be laid down as to the best time to visit these glaciers. Visits have been made or attempted in most months of the year. Usually snow will hold one up before May. In the winter Phurkia bungalow is covered entirely by snow and cannot generally be entered before the end of April. Most of the flowers are at their best in June, but probably the best month in the year is October and if the full moon can be met at Dhakuri or Phurkia so much the better.

**FLORA AND FAUNA.**

Many entries of interest to the lover of natural history have been made in the Phurkia Log Book on the plant and animal life to be met with in the Pindar Valley above Dhakuri, but the lists that can be compiled from this book are probably far from complete. The appendix gives the names of most of the more common kinds of flowers to be met with and also of many of the birds.

For the primulas, rhododendrons etc. June is the best month and October for the gentians, eidelweiss, and Alpine composites.

In the early autumn a wonderful profusion of fruit may be found, including the blackberry, raspberry, ground raspberry, currents red and black, wild rhubarb, a kind of medlar and a blue ground berry like the wortle or blackberry.

In the log book very little mention has been made of animals except of the smaller rodents, but the region is very rich in game animals and quite good sport is to be obtained with a rifle.

Panther roam the country between Dhakuri and Dwali, sometimes high up on the mountain sides, more usually near the road. Bears are common, though not often seen owing to the thickness of the jungle. These animals often do considerable damage to some of the more isolated bungalows, especially Dwali, in the depths of winter, tearing out window frames and leaving claw marks on the doors. Karkar, gurral, pig, as well as an occasional serow and sambhur
are to be met with on the Dhakuri ridge, gurral also being found on the lower slopes above the road below Dwali. Musk deer, though rare, may be found, while tahr can be obtained on most of the higher slopes. Herds of 30 to 40 of these mountain goats have been recorded and several heads of 12” and over have been shot in recent years. Burral too have been recorded on the slopes above the glacier. The history of these animals is interesting. They were first recorded in the log book in 1912, but according to local information disappeared the next year to reappear again in 1921, presumably from the Milam side. Since then there has been a herd of a dozen to a dozen and a half living on and above the glacier, feeding with the goats in the summer and on the lower slopes in the winter. Again according to the local shikaries, none had been shot until one was secured in 1923.

Game birds too are plentiful. The beautiful monal may be met in numbers on Dhakuri ridge and again above Dwali. The tragapan or crimson horned pheasant (lungi in the vernacular) has been recorded. Jungle loving birds such as the pura partridge, kalij pheasant, and koklas are far from rare, and on the heights snow partridge and snow cock are to be found. Snipe are sometimes seen and in some autumn woodcock are very numerous on the small swamps close to Dhakuri bungalow. Last, but by no means least from the epicure’s point of view, comes the snow pigeon which is to be found in large flocks up both the Pindar and Kaphini valleys.

It is probably the wish of all sportmen who come this way to get a tahr of a respectable size, but let him not expect to do so without working for it and working hard. Females and young may be seen well within range from the road anywhere between Dwali and the glacier but the big males are high up in the hills. He must be as hard as nails and must be prepared to be on the hillside by sun up with the prospect of a climb to well above the 13000 ft contour, over all kinds of ground; thick jungle, prickly scrub, grass shaly slips and bare rock. He may be disappointed in his aim after all, but he will probably have enjoyed gazing over scenery that the sojourner in the valley cannot even dream of.
APPENDIX

I. BIRDS OF THE PINDAR VALLEY

Monal
Tragopan
Snow cock
Snow partridge
Snow or white bellied pigeon
Koklas
Kalij
Pura partridge
Ammergeicr

Yellow fantail flycatcher
Plumbeous redstart
Whitecapped
Blue fronted
White fronted
Pale bush warbler
Large billed willow warbler
Rufous bush warbler
Tits of several kinds including
the brown crested tit.
Wood peckers of several kinds
Indian blue chat
Indian tree pipit
Vinous throated pipit
Indian dipper
Plumbeous water-robin
White capped water-robin
Red headed bullfinch
Varieties of rosefinches

II. FLOWERS OF THE PINDAR VALLEY

Balsams
Thyme
Begonia
Primula (6 varieties)
Aconite
Pansy
Ranunculus (4 species)
Potentilla
Violets (one yellow)
Peony
Aquilegia
Salix, dwarf with red catkins
Grass of Parnassus
Pink thistle
White
Blue bell
Rhododendron (4 varieties)
Wild garlic
Iris Kumaonensis (mauve)
Rose (2 varieties)
Guelder rose
Spirea
Primrose
Delphinium
Purple cranes bill

Yellow colts foot
Purple columbine
Gentian (2 species)
Michaelmas Daisy
Yellow ragweed
Trefoil (brilliant blue flower)
Anemone (white & blue)
Dandelion
Edelweiss (large and small)
Sorrel
Geranium
Orchid pink
... spiralis
Forget-me-not
Tree orchids (varieties)
Purple centaurea
Buttercups
Cotoneaster
Honey suckle (2 varieties)
Lilac
Crataegus
Poppy (blue and yellow)
Saxifrage
Lilies of varieties
Aster
III. BUNGALOWS IN THE DIVISION.

There are many Dak Bungalows in the hills while other Bungalows belong to Public or Military Works and Forest Departments. Application should be made to the Departments concerned for the use of Bungalows other than Dak Bungalows.

**DAK BUNGALOWS—NAINI TAL DISTRICT.**

*With Servants*—Bhim Tal, Khairna, Ramghar, Peora, Tanakpur.

*Without Servants*—Ranibagh, Maluwa Tal, Dhai, Tanakpur.

**DAK BUNGALOWS—ALMORA DISTRICT.**

*With Servants*—Almora, Majkhal, Ranikhet, Some- swar, Bageswar, Takula, Dwarahat,

*Without Servants*—Hawalbagh, Bainskhet, Ganai, Kelani, Kapkote, Loharkhet, Dhakuri, Khati, Dwali, Phurki, Dhaulchina, Panwanaula, Naini, Gangolihat, Bans, Pithoragarh, Gurna, Chira, Lamgara, Mornoula, Debidhura, Dhunaghat, Lohaghat, Champhawat, Baijuth,

**DAK BUNGALOWS—GARWAL DISTRICT**

*With Servants*—Kotdwara, Lansdowne.

*Without Servants*—Adwani, Banghat, Bungidhar, Kai- nur, Dadamandi, Musagani, Pauri, Sakaulana.

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**P. W. D. INSPECTION BUNGALOWS**

*Naini Tal District*—Baldeokhan, (The Chalet) Baitalghat, Bhowali, Chopara, Garjia Haldwani, Khatima, Kitcha, Muktesar, Nalena, Ramgarh, Rati- ghat, Kumaria
Almora District—Bamshaon, Deori Katarmal, Machore, Richi, Siahi Devi, Taraam, Shinora, Ranikutnet, Balna, (Kausani).


FOREST DEPARTMENT BUNGALOWS.

Naini Tal District—Anlan Khera, Bhulor, Bhowali, Bajrani, Chausla, Chorgallia, Chunakhan, Dechauri, Dhela, Dhongalgarh, Garjia, Haldwani, Horia, Jaulasal, Jamnagwar, Juladeo, Kaladhuni, Kilbery, Kolona, Maldhan, Mangoli, Mohan, Molani, Parewa, Phantor, Ramnagar, Sitabani, Tanakpur.

Almora District—Askot, Airadeo, Berinag, Bij Lekh, Barachina, Bharionj, Bodiar, Chaubattia, Dalmoti, Danda, Dindihat, Danour, Dinapani, Gairal, Guliapani, Kanarichina, Kaladeo, Mandla, Matbiabanj, Senapani, Seoni, Siahi Devi, Thal, Patharia.


The above Inspection bungalows are all fully furnished but have no servants excepting, the chowkidar in charge
IV. ITINERARY FOR KUMAUN–GARHWAL

(1)—Naini Tal to Badrinath.

Naini Tal to Khairna ... ... 12 miles
Khairna to Ranikhet ... ... 15 "
Ranikhet to Dwarahat ... ... 14 "
Dwarahat to Ganai ... ... 10 "
Ganai to Lobha ... ... 11 "
Lohaba to Adbadri ... ... 11 ½ "
Adbadri to Karnprayag ... ... 10 "
Karanprayag to Nandprayag ... ... 13 "
Nandprayag to Chamoli ... ... 7 "
Chamoli to Pipalkot ... ... 10 "
Pipalkot to Helang ... ... 10 "
Helang to Joshimath ... ... 8 ½ "
Joshimath to Pandukesher ... ... 8 "
Pandukesher to Badrinath ... ... 10 "

Another road from Khairna to Dwarahat is as follows:—

Khairna to Siahi Devi ... ... 12 "
Siahi Devi to Majkhal ... ... 9 "
Majkhal to Dwarahat ... ... 12 "

(2)—Naini Tal to Kedarnath.

Up to Chamoli [Gopeswar] on Badrinath road.

Chamoli to Pangarbasas [Tungnath] ... ... 11 ½ "
Pangarbasas to Pothibasa ... ... 6 ¼ "
Pothibasa to Ukhimath ... ... 7 ½ "
Ukhimath to Guptkashi ... ... 2 "
Guptkashi to Patha ... ... 7 "
Phata to Gaurikund ... ... 10 "
Gaurikund to Kedarnath ... ... 8 ½ "

(3)—Naini Tal to Deoprag and Lachman Jhula, on Hardwar road.

Up to Karnprayag on Badrinath road.

Karnprayag to Nagrassu ... ... 10 ½ "
Nagrassu to Rudrprayag ... ... 10 "
<table>
<thead>
<tr>
<th>Route</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rudrprayag to Chatikhal</td>
<td>...</td>
</tr>
<tr>
<td>Chatikhal to Srinagar</td>
<td>...</td>
</tr>
<tr>
<td>Srinagar to Ranibagh</td>
<td>...</td>
</tr>
<tr>
<td>Ranibagh to Deoprayag</td>
<td>...</td>
</tr>
<tr>
<td>Deoprayag to Byansi ghat</td>
<td>...</td>
</tr>
<tr>
<td>Byansi ghat to Kottibh Heb</td>
<td>...</td>
</tr>
<tr>
<td>Kottibh Heb to Bijni</td>
<td>...</td>
</tr>
<tr>
<td>Bijni to Lachman Jhula</td>
<td>...</td>
</tr>
<tr>
<td>Thence on to Hardwar in the Dehra Dun District.</td>
<td></td>
</tr>
</tbody>
</table>

(4) — Deoprayag (Hardwar road) to Kedarnath,

Deoprayag to Rudrprayag as in Naini Tal Deoprayag road.

<table>
<thead>
<tr>
<th>Route</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rudrprayag to Agastmuni</td>
<td>...</td>
</tr>
<tr>
<td>Agastmuni to Bhiri</td>
<td>...</td>
</tr>
<tr>
<td>Bhiri to Guptkashi</td>
<td>...</td>
</tr>
<tr>
<td>Thence as in Naini Tal-Kedarnath road.</td>
<td></td>
</tr>
</tbody>
</table>

(5) — Naini Tal to Mussoorie via Pouri

<table>
<thead>
<tr>
<th>Route</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naini Tal to Khirna</td>
<td>...</td>
</tr>
<tr>
<td>Khirna to Ranikhet</td>
<td>...</td>
</tr>
<tr>
<td>Ranikhet to Dwarahat</td>
<td>...</td>
</tr>
<tr>
<td>Dwarahat to Ganai</td>
<td>...</td>
</tr>
<tr>
<td>Ganai to Kelani</td>
<td>...</td>
</tr>
<tr>
<td>Kelani to Bungidhar</td>
<td>...</td>
</tr>
<tr>
<td>Bungidhar to Kainur</td>
<td>...</td>
</tr>
<tr>
<td>Kainur to Saknyana</td>
<td>...</td>
</tr>
<tr>
<td>Saknyana to Chipalghat</td>
<td>...</td>
</tr>
<tr>
<td>Chipalghat to Pouri</td>
<td>...</td>
</tr>
<tr>
<td>Pouri to Srinagar</td>
<td>...</td>
</tr>
<tr>
<td>[Tehri State]</td>
<td></td>
</tr>
<tr>
<td>Srinagar to Takuli</td>
<td>...</td>
</tr>
<tr>
<td>Takuli to Tehri</td>
<td>...</td>
</tr>
<tr>
<td>Tehri to Kauriyagala</td>
<td>...</td>
</tr>
<tr>
<td>Kauriyagala to Dhanaulati</td>
<td>...</td>
</tr>
<tr>
<td>[Dehra Dun District]</td>
<td></td>
</tr>
<tr>
<td>Dhanaulti to Landoua</td>
<td>...</td>
</tr>
<tr>
<td>Landour to Mussoorie</td>
<td>...</td>
</tr>
</tbody>
</table>
(6)—Naini Tal to Kotdwar via Lansdowne

<table>
<thead>
<tr>
<th>Route</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naini Tal to Khairna</td>
<td>12</td>
</tr>
<tr>
<td>Khairna to Ranikhet</td>
<td>15</td>
</tr>
<tr>
<td>Ranikhet to Dwarahat</td>
<td>14</td>
</tr>
<tr>
<td>Dwarahat to Ganai</td>
<td>10</td>
</tr>
<tr>
<td>Ganai to Kelani</td>
<td>9</td>
</tr>
<tr>
<td>Kelani to Bangidher</td>
<td>10</td>
</tr>
<tr>
<td>Bangidher to Baijrao</td>
<td>15</td>
</tr>
<tr>
<td>Baijrao to Pokhra</td>
<td>10</td>
</tr>
<tr>
<td>Pokhra to Sanglakota</td>
<td>6</td>
</tr>
<tr>
<td>Sanglakota to Chanmasu</td>
<td>10</td>
</tr>
<tr>
<td>Chanmasu to Tilsia</td>
<td>8</td>
</tr>
<tr>
<td>Tilsia to Lansdowne</td>
<td>7</td>
</tr>
<tr>
<td>Lansdowne to Dogadda</td>
<td>9</td>
</tr>
<tr>
<td>Dogadda to Kotdwar</td>
<td>10</td>
</tr>
</tbody>
</table>

(7)—Pauri to Kotdwar

<table>
<thead>
<tr>
<th>Route</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pauri to Adwani</td>
<td>10</td>
</tr>
<tr>
<td>Adwani to Bilkhet</td>
<td>10</td>
</tr>
<tr>
<td>Bilkhet to Daramand</td>
<td>14</td>
</tr>
<tr>
<td>Daramand to Dogadda</td>
<td>5</td>
</tr>
<tr>
<td>Dogadda to Kotdwar</td>
<td>10</td>
</tr>
</tbody>
</table>

(8)—Pauri to Lansdowne

<table>
<thead>
<tr>
<th>Route</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pauri to Adwani</td>
<td>10</td>
</tr>
<tr>
<td>Adwani to Bilkhet</td>
<td>10</td>
</tr>
<tr>
<td>Bilkhet to Tilsia</td>
<td>9</td>
</tr>
<tr>
<td>Tilsia to Lansdowne</td>
<td>7</td>
</tr>
</tbody>
</table>

(9)—Naini Tal to Tankpur via Champawat and via Pithoragarh and Champawal.

<table>
<thead>
<tr>
<th>Route</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naini Tal to Ramgarh</td>
<td>13</td>
</tr>
<tr>
<td>Ramgarh to Peora</td>
<td>10</td>
</tr>
<tr>
<td>Peora to Almora*</td>
<td>10</td>
</tr>
<tr>
<td>Almora to Panwanoula</td>
<td>14</td>
</tr>
<tr>
<td>Panwanoula to Naini</td>
<td>10\frac{1}{2}</td>
</tr>
<tr>
<td>Naini to Gangolihat</td>
<td>10\frac{1}{2}</td>
</tr>
<tr>
<td>Route</td>
<td>Length</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Gangolihat to Bans</td>
<td>10 &quot;</td>
</tr>
<tr>
<td>Bans to Pithoragarh</td>
<td>7 &quot;</td>
</tr>
<tr>
<td>Pithoragarh to Gurna</td>
<td>7 &quot;</td>
</tr>
<tr>
<td>Gurna to Chira</td>
<td>10 &quot;</td>
</tr>
<tr>
<td>Chira to Lohaghat and Abbott Mount</td>
<td>9 &quot;</td>
</tr>
<tr>
<td>Lohaghat to Chamdawat</td>
<td>6 &quot;</td>
</tr>
<tr>
<td>Champawat to Dhuri</td>
<td>15 &quot;</td>
</tr>
<tr>
<td>Dhuri to Tanakpur</td>
<td>18 &quot;</td>
</tr>
</tbody>
</table>

**Naini Tal to Champawat, Lohaghat, and Almora via Mornaula**

<table>
<thead>
<tr>
<th>Route</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naini Tal to Dhari</td>
<td>20½ &quot;</td>
</tr>
<tr>
<td>Dhari to Mornaula*</td>
<td>15 &quot;</td>
</tr>
<tr>
<td>Mornaula to Debidhura</td>
<td>10 &quot;</td>
</tr>
<tr>
<td>Debidhura to Dhuanghat</td>
<td>10 &quot;</td>
</tr>
<tr>
<td>Dhuanghat to Lohaghat or Abbott Mt: (Br: road)</td>
<td>11 &quot;</td>
</tr>
<tr>
<td>Dhuanghat to Champawat</td>
<td>11 &quot;</td>
</tr>
<tr>
<td>Mornaula to Lamgara</td>
<td>9 &quot;</td>
</tr>
<tr>
<td>Lamgara to Jalna</td>
<td>2 &quot;</td>
</tr>
<tr>
<td>Jalna to Almora*</td>
<td>8 &quot;</td>
</tr>
</tbody>
</table>

**Naini Tal to Gwaldam**

<table>
<thead>
<tr>
<th>Route</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naini Tal to Ramgarh*</td>
<td>13 &quot;</td>
</tr>
<tr>
<td>Ramgarh to Peora*</td>
<td>10 &quot;</td>
</tr>
<tr>
<td>Peora to Almora*</td>
<td>10 &quot;</td>
</tr>
<tr>
<td>Almora to Hawalbagh*</td>
<td>5 &quot;</td>
</tr>
<tr>
<td>Hawalbagh to Someswar*</td>
<td>13 &quot;</td>
</tr>
<tr>
<td>Someswar to Kousanie (tea plantation)</td>
<td>6 &quot;</td>
</tr>
<tr>
<td>Kousanie to Baijnath</td>
<td>8 &quot;</td>
</tr>
<tr>
<td>Baijnath to Gwaldam</td>
<td>9½ &quot;</td>
</tr>
</tbody>
</table>

*Otherwise—*

Naini Tal to Majkali (via Naini Tal to Badrinath)

<table>
<thead>
<tr>
<th>Route</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Majkali to Someswar</td>
<td>10 &quot;</td>
</tr>
</tbody>
</table>

**Naini Tal to Gurnyanag (via Askot)**

<table>
<thead>
<tr>
<th>Route</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naini Tal to Ramgarh</td>
<td>13 &quot;</td>
</tr>
<tr>
<td>Ramgarh to Peora</td>
<td>10 &quot;</td>
</tr>
<tr>
<td>Peora to Almora</td>
<td>9 &quot;</td>
</tr>
</tbody>
</table>
Almora to Dhaulchina via Barachina ... 14 
Dhaulchina to Ganai ... 16 

Ganai to Berinag (tea plantation). To Bagesar, (22 Miles)

<table>
<thead>
<tr>
<th>Distance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Berinag to Thal</td>
<td>13 1/2</td>
</tr>
<tr>
<td>Thal to Askote</td>
<td>10</td>
</tr>
<tr>
<td>Askote to Baluakot</td>
<td>17</td>
</tr>
<tr>
<td>Baluakot to Dharchula</td>
<td>11 1/2</td>
</tr>
<tr>
<td>Dharchula to Khela</td>
<td>9 1/2</td>
</tr>
<tr>
<td>Khela to Titla</td>
<td>9 1/2</td>
</tr>
<tr>
<td>Titla to Galagadh</td>
<td>8</td>
</tr>
<tr>
<td>Galagadh to Malpa</td>
<td>7</td>
</tr>
<tr>
<td>Malpa to Buddi</td>
<td>7</td>
</tr>
<tr>
<td>Buddi to Garbyang</td>
<td>4</td>
</tr>
</tbody>
</table>

(13)—Naini Tal to Milam

Naini Tal to Kapkote as in the Pindari glacier road.

Kapkote to Shama ... 11 
Shama to Tejam ... 7 
Tejam to Girgaon ... 10 
Girgaon to Munساب | 8 |
Munساب to Bagodiar ... 10 |
Bagodiar to Rilkot ... 10 |
Rilkot to Milam ... 10 |

(14)—Naini Tal to Niti Pass

Naini Tal to Joshimath as in Badrinath road.

Joshimath to Tapoban ... 7 
Tapoban to Saraintota ... 8 1/2 
Saraintota to Jelum ... 10 
Jelum to Malari ... 5 1/2 
Malari to Bompa ... 7 
Bompa to Niti ... 3 1/2
15—Naini Tal to Muktesar

Naini Tal to Ramgarh ... ... 13 miles
Ramgarh to Peora ... ... 10
Peora to Muktesar ... ... 4½

or

Ramgarh to Nathua Khan ... ... 6
Nathua Khan to Muktesar ... ... 4

or

Naini Tal to Dhari ... ... 20½
Dhari to Muktesar ... ... 7

(16)—Naini Tal to Bhim Tal

Naini Tal to Bhowali ... ... 7
Bhowali to Bhim Tal ... ... 4

(17)—Naini Tal to Almora

Naini Tal to Ramgarh ... ... 13
Ramgarh to Peora ... ... 10
Peora to Almora ... ... 9

[via Ghorari and Kakrighat]

Naini Tal to Khairna ... ... 12
Khairna to Chopra ... ... 11½
Chopra to Almora ... ... 7½

(18)—Naini Tal to Kaladhungi

Kurpa Tal to (3 miles). ... ... 7
Naini Tal to Mangoli ... ... 7
Mangoli to Kaladhungi ... ... 8

(19)—Kathgodam to Almora

Kathgodam to Bhim Tal ... ... 9
Bhim Tal to Ramgarh ... ... 10
Ramgarh to Peora ... ... 10
Peora to Almora ... ... 9
(0)—**Kathgodam to Almora**

Kathgodam to Brewery [by bridle road]... 12 
Brewery to Bhowalie... 9 
Bhowalie to Ratighat... 8 
Ratighat to Khairna... 4 
Khairna to Bamsyan... 5 
Bamsyan to Ranikhet... 10 

(1) **Other distances**

Naini Tal to the Brewery [by bridle road]... 3 
Naini Tal to Ranibagh... 11 
Naini Tal to Ratighat... 8 
Ratighat to Ramgarh... 7 
Almora to Ranikhet Bazaar, 2 on to D. B.) 29 
Almora to Muktesar... 14 
Almora to Binsur... 12 
Almora to Haldwani... 39 
Naini to Jeolikot... 5½ 
Naini Tal to Pangot... 6 
Naini Tal to Kilbery... 6 
Naini Tal to Patwa Dangar... 5 
Kathgodam to Manora Camp... 18 

---

**V. RATES FOR RIDING PONIES AND COOLIES**

<table>
<thead>
<tr>
<th>Distance</th>
<th>Pony</th>
<th>Coolie</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Naini Tal less than 2 hours</td>
<td>1</td>
<td>0 0 4 0</td>
</tr>
<tr>
<td>4</td>
<td>1 8 0 6 0</td>
<td></td>
</tr>
<tr>
<td>over 4 hours or full day</td>
<td>2 8 0 8 0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Naini Tal to</th>
<th>7 2 0 0 12 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhowali</td>
<td>26 6 0 2 8 0</td>
</tr>
<tr>
<td>Ranikhet</td>
<td>31 6 4 3 0 0</td>
</tr>
<tr>
<td>Almora via Khairna</td>
<td>5 1 8 0 8 0</td>
</tr>
<tr>
<td>Jeolikote* (via Brewery)</td>
<td>3 1 0 0 6 0</td>
</tr>
<tr>
<td>Brewery</td>
<td>12 2 4 0 1 0 0</td>
</tr>
<tr>
<td>Bhim Tal</td>
<td>1</td>
</tr>
</tbody>
</table>

In District per day

*Jeolikote comprises the Catholic Orphanage Settlement, Verogomont Farm, Douglas Dale and Nalena.

The rate of coolies' wages for marches in the interior where no existing rate has already been sanctioned will be:

<table>
<thead>
<tr>
<th>Distance</th>
<th>Pony</th>
<th>Coolie</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 6 miles</td>
<td>0 8 0</td>
<td>Up to 12 &quot; miles 0 12 0</td>
</tr>
<tr>
<td>9</td>
<td>0 10 0</td>
<td>15</td>
</tr>
</tbody>
</table>
SUPPLEMENT—I

The historical notes at page 9 are supplemented here in reference to rainfalls, and the Brewery landslip that occurred at 9 a.m. on 29th September 1924 after an abnormal rainfall of 70 inches in six consecutive weeks, which has left a deeper mark than ever in the Brewery valley, while Naini Tal fortunately did not suffer the collapse of even a garden wall from the deluge that flooded all the country. The western hill-side known as Charta that had been threatening the Brewery hotel, bazaar, motor station and Post Office for some years, slid down and totally buried all those buildings, stopping short in its course just at the verge of the old Brewery premises which escaped as narrowly as it did when the eastern hill-side came down in 1898. The site of the Brewery hotel that lay beside a wooded ravine has now become a mountainous and barren pile of shale, leaving no trace of its former contours. Owing to timely warning no lives were lost and recovery of buried property was made by excavations. As the Brewery is a camping ground for troops, and forms the junction of the motor and bridle roads to Naini Tal, it will always remain more or less a busy halting place, and its former pleasing surroundings will in time be naturally restored.

The following is a rainfall record at Naini Tal for the past 8 years:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1917</td>
<td>0.20</td>
<td>4.55</td>
<td>0.72</td>
<td>3.85</td>
<td>17.40</td>
<td>26.02</td>
<td>39.20</td>
<td>16.45</td>
<td>31.87</td>
<td>4.28</td>
<td>1.80</td>
<td>0.75</td>
<td>145.69</td>
</tr>
<tr>
<td>1918</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.65</td>
<td>1.60</td>
<td>3.33</td>
<td>2.33</td>
<td>3.35</td>
<td></td>
<td></td>
<td>80.16</td>
</tr>
<tr>
<td>1919</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.08</td>
<td>0.45</td>
<td>3.33</td>
<td>2.33</td>
<td>1.60</td>
<td></td>
<td></td>
<td>118.34</td>
</tr>
<tr>
<td>1920</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.40</td>
<td>2.40</td>
<td>0.45</td>
<td>3.33</td>
<td>2.44</td>
<td>1.80</td>
<td></td>
<td>126.70</td>
</tr>
<tr>
<td>1921</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.85</td>
<td>2.30</td>
<td>3.33</td>
<td>1.60</td>
<td>4.61</td>
<td></td>
<td></td>
<td>110.30</td>
</tr>
<tr>
<td>1922</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.65</td>
<td>2.68</td>
<td>1.60</td>
<td>3.33</td>
<td>3.90</td>
<td>3.00</td>
<td></td>
<td>125.15</td>
</tr>
<tr>
<td>1923</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.30</td>
<td>0.60</td>
<td>1.50</td>
<td>1.50</td>
<td>1.80</td>
<td></td>
<td></td>
<td>96.12</td>
</tr>
<tr>
<td>1924</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>132.11</td>
</tr>
</tbody>
</table>
SUPPLEMENT. II

FRUIT PLANTING.

The cultivation of fruit is very successful in Kumaon where there are many orchards that do a large and profitable business in exporting fruit to Naini Tal, Ranikhet and the plains; and this industry is greatly encouraged and helped by the Government Orchard at Chaubattia.

This orchard is situated on a northern slope of the Ranikhet range in full view of the magnificent snowy peaks of the Himalayas. It is one of the largest planted in India and contains many fine healthy trees over forty-five years of age, which testify to the ideal soil and climatic conditions for fruit growing. The thousands of fruit-bearing apple trees, of which there are over one hundred and forty varieties, form a striking feature of the orchard.

The apple is propagated by means of budding and grafting. "Standard" trees are produced by budding or grafting on the "Crab" stock, a deep rooting and robust grower. "Bush" trees are the result of budding or grafting on the "Paradise" stock. The roots of this stock remain nearer the surface, and trees budded or grafted on it arrive quicker at the bearing stage. The following are recommended—ripening from the middle of June: Devonshire Quarrenden, Irish Peach, Red Astrachan and Summer Golden Pippin. From July onwards the mid-season and late keeping varieties mature. Favourites are—Beauty of Bath, Worcester Pearmain, Aromatic Russet, Packhorse Pippin, Cox's Orange Pippin, Ribston Pippin, Blenheim Orange, and Claygate Pearmain. Recent importations include the leading commercial varieties grown in British Columbia.

Cherries commence ripening during the second week of April. The dessert varieties Bigarreau, Elton, Downton, May Duke, and Late Duke are all that can be desired in point of size and flavour, whilst the famous acid Morellos are most excellent for cooking. Cherries can be sent long distances most successfully through the post.
Apricots are available from about the middle of May until July. Several very fine varieties, both early and late, are grown; these include the Moor Park Turkey, Royal, and Kaisha, which are suitable for dessert, bottling, and preserving. Dried or evaporated, the apricot is most useful and always in demand when fresh fruit is unobtainable.

Plums are in season from June till July, and as a dessert, for bottling and preserving purposes finds much favour. Amongst the varieties grown are—Early Orleans, Blue Imperatrice, Coe’s Golden Drop, Jefferson, The Czar, Victoria, Iodoigne Greengage, White Magnum-Bonum, and Reine Claude de Bavay. The last-named is a very large, rich flavoured greengage.

Peaches are in season from May till July. It is one of the most luscious of fruits and in great demand. For export to the plains it is very necessary to carefully pick during the early morning and pack cool. Peaches that are taken ripe from the trees during the heat of the day and packed warm seldom travel satisfactorily. The following kinds are grown here:—Early River’s Condor, Noblesse, Alexander, Royal George, Duchess of Cornwall, and Falean River, also recent importations of the leading commercial varieties from America.

Pears are in season from June till September. The pear comes a good second to the apple as a popular hardy fruit for dessert, stewing, and preserving. Over thirty, both early and late varieties, are included in the orchard stock, and are unsurpassed for their varied and distinct aromatic flavours.

Quinces are in season from August till December.—This fruit, which is powerfully odoriferous and astringent, is rarely used for eating in its raw state, but is much esteemed for preserving and marmalade making. Used in conjunction with apples it adds a fine flavour and gives briskness to pies and tarts. The quince tree itself is much employed as a stock for grafting and budding the pear.
Chestnuts are in season from September till December. Two distinct varieties are grown, the Japanese and Spanish, the former ripens about a fortnight in advance of the latter. There is a ready demand for the fruit as soon as it matures; its value as a farinaceous food is well known.

Oranges, citrons, lemons, limes, pumelos are in season from November till June.—These delicious and most refreshing fruits are said to have originated in the hot valleys of the Himalayas, the mountainous district of Eastern Bengal and of the Deccan. The orange tree, which is an evergreen, is an object of exceptional beauty, particularly so during its fruiting season. Hill-grown oranges, lemons, etc. possess greater flavour and are more juicy than those grown on the plains, the reason for this being that they ripen slowly during the cool winter months. The orchard stock contains over forty varieties. Of the soft-skinned oranges the Mandarins are the first to ripen; these are soon followed by the Tangieivins, which are remarkable for their delightful aroma. The harder-skinned varieties include Jaffa, Malta, St. Michaels, Washington, Navel, Royal George Seedless Navel, and the famous blood orange with its unique flavour, and pulp stained a deep crimson. Seville oranges, which are so much in demand for marmalade-making grow luxuriantly and produce fruit most freely. Citrons, lemons, limes, and pumelos are grown in addition to the foregoing.

Bush fruit is in season from June till July.—The cultivation of gooseberry, currant and blackberry, on modern lines has only recently been taken in hand in these parts. They are chiefly used for preserving, jelly-making and flavouring. The orchard has lately had several important varieties added to its already existing stock. Owing to their fragile nature they are not suitable for distant transport except as preserves.

Of Strawberries only the best varieties are grown and these from recently imported stock. In addition to ordinary ground cultivation excellent results may be obtained
by growing in seven to nine-inch pots or tubs. Strong healthy established plants are available from September to October at Rs 5 per hundred. They are specially recommended for sending to the plains.

The nursery contains a special stock of young fruit trees for sale purposes. These are available from October to February: strong healthy plants are obtainable at rates varying from Rs. 9 to Rs. 12 per dozen. The fruit trees above mentioned should not be planted in the rainy season a mistake hitherto frequently made, but during their dormant stage (from October to February) when they can be safely sent thousands of miles without the slightest damage, and planted with a minimum of loss. The Superintendent is always prepared to submit lists and estimates for customers' approval and to give advice on laying-out, planting, etc. Malis are trained on the orchard free of charge. It is incumbent on them to strictly conform to the garden rules laid down for the general staff.

TEA AND COFFEE PLANTING.

The cultivation of tea in Kumaon dates from 1841. Government started the industry and after proving its success, transferred the business to private tea companies and planters, and as many as 20 large tea estates came into existence. The planters, however, were never able to successfully compete with the other more accessible and conveniently situated tea growing districts of India, so the present prospects of the tea industry in Kumaon are said to be gloomy, and tea is now giving way to fruit and potato growing which is meeting with much success.

The cultivation of coffee never appears to have been seriously taken up in Kumaon, although it practically grows wild all about Haldwani where the soil and climate of the Bhabar seem peculiarly suitable for the successful cultivation of this much used berry. Unlike its rival tea, coffee planting would not have the disadvantage of contending with difficult transport in Kumaon.
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