

*Pir Panjal  
Pass.*

*Sunset  
Peak,  
Chitta Fou  
Pass.*

*Choft Gail  
Pass.*

*Part of  
Arête of  
Mt.  
Tatticoti*



*E. F. Neve, photo.*

**THE PIR PANJAL RANGE.**  
Profile view, taken from Mt. Tatticoti.

*Swan Electric Engraving Co., Ltd.*

## ON THE SLOPES AND CREST OF THE PIR PUNJAL.

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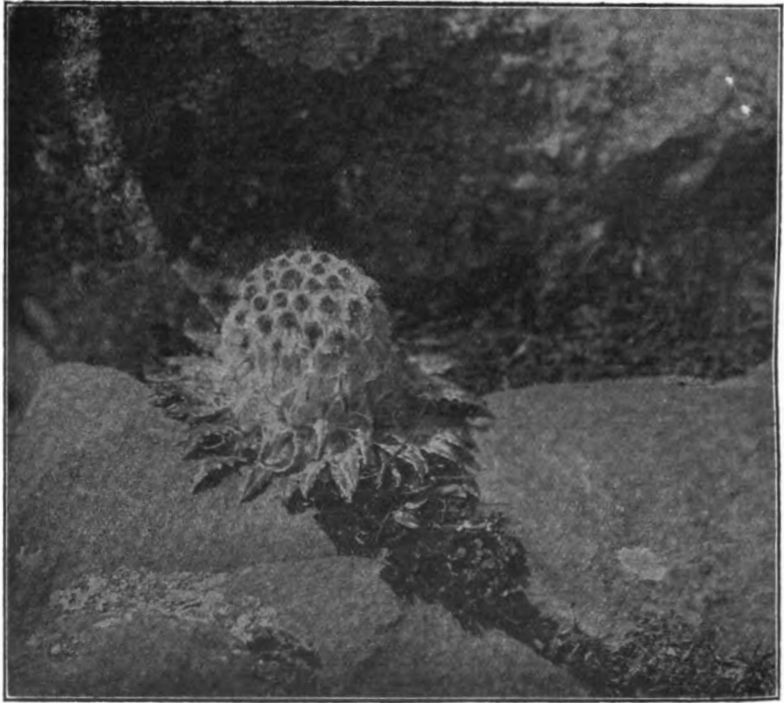
THE valley of Kashmir is separated from the plains of India by a mass of mountains, which culminates in the Pir Punjal range, a line of rocky peaks and snowfields which extends for 80 miles from north-west to south-east, and forms the south-west boundary of Kashmir.

The highest points of this range are Sunset Peak and Tatticooti, both of which are just over 15,500 ft. above sea level. Several passes cross the range, the best known of which are the Banihal and the Pir Punjal. These are at the east end of the valley. The well-known Baramulla cart road follows the Jhelum river down the magnificent gorge which forms the north-western termination of the range, and between this gorge and the Pir Punjal pass there are several tracks which cross to the Punjal. Some of these, such as the Sedau, Konsa Nag, and Golabghar passes, are fairly good paths. Others are routes adopted by herdsmen who carry across supplies of grain and salt for their cattle and flocks. On all of these a foot path leads up the valleys and slopes to the edge of the glaciers and snowfields, and there the traveller has to strike out his own route with the aid of map and compass or occasionally a local guide. Such are the Choti Galli pass (14,000 ft.) and the Chitta Pani pass (14,500 ft.), which are representative of a whole series of routes which cross between the peaks at about this altitude all along the line.

The Pir Punjal has its seasons. In mid-winter it is covered by deep pure snow of dazzling whiteness, with which the black cliffs and vertical faces of rock of the serrated edge, the jagged crest of the ridge show up in sharp contrast. Long, gently curved lines of snowfield stand out clearly against the sky. Deep cobalt-coloured shadows lie on the mountain side and are prolonged downwards into an atmosphere of mauve which drapes the lower slopes. All the upland meadows, the margs and high valleys are completely enveloped by a white mantle many feet deep, and the band of dark forest is speckled with the snow which rests on and weighs down the branches of countless firs and pines.

In the spring melting takes place very rapidly. By the end of February the valley of Kashmir is always free of snow. And

day by day the line recedes up the foot of the hills. A few days of warm sunshine clear the trees. The southern slopes of the margs soon emerge and stretches of upland pasturage often present a rippled appearance owing to the melting of the snow on the S. side of all inequalities in the ground, while that on the N. side remains. A bank, a tuft of grass, a furrow or clod—all



THE GREAT SAUSSUREA

act as cover to the snow and help to prolong its stay. But soon all is gone and the upper slopes begin to show, first as light brown and then as green patches. And when the spring sun is shining, great sheets of melting snowfield above, like a mirror, reflect the brilliant light. Backwards and upwards retreats the snow line, exposing first the fringe and then the masses of piled-up moraine which fill the upper end of each tributary valley.

In the autumn the old snow is almost entirely melted on the Pir Punjal range, leaving a series of grey rounded glaciers



*E. F. Neve. photo.*

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**TATTICOOTI GLACIER, AND THE CREST OF THE PIR PANJAL RANGE.**

The double peak is Mt. Tatticooti (15,534 ft.), the higher summit of which, on the right, was climbed by the writer, in 1901.

streaked with water-courses and resting in the hollows between the peaks and main ridges.

The spring flowers are all gone. In their place we see clumps of spikes of rich red polygonum, the tall lavender-like stachys, the mauve swertia and a delphinium, with large cowl-shaped flowers. Everlastings and edelweiss are still abundant. Above the forest the slopes are clothed with miles of juniper bushes in dense dark green patches, among which red, orange and yellow clumps of euphorbia, with oleander-like leaves, form beautiful masses of colour. On the higher peaks the last flower to be seen is the great saussurea, like a globe of white velvet the size of a cricket ball, the surface studded with violet blossoms, each about half an inch across, which project slightly from the surface. The whole rests in the centre of a rosette of foliage. It is a most curious flower and greatly prized by the people, who call it the king of medicines. Decoctions of it form a bland soothing drink which is said to be agreeable and helpful in catarrhal affections of the digestive and respiratory organs.

To approach the glaciers we have now to climb over long stretches of moraine.

These icefields are wonderful in the autumn. In the early morning before sunrise all the moisture is locked up by frost. So keen is the cold, even in the first week of September, that the inside of one's tent sparkles with rime and looks like the interior of a salt mine. Walking on the glaciers at this time is difficult if the slope is more than 20°, as in many places the ice is perfectly smooth. When the surface is slightly honey-combed it is easier. Absolute silence reigns. Not a sound is to be heard at this early hour. Having done our climb to the crest or the summit of one of the peaks, on the return journey there is a vast change.

In the early morning the sun rose in a cloudless sky. Now fleecy clouds have gathered and tend to drift across the higher peaks. The sunshine is hot and the silent glacier of the forenoon has become alive with sound and motion. Everywhere is the roaring noise of water. Torrents are pouring down the ice slopes. The whole surface is wet and glittering with the movement of water. Miniature avalanches occur ever and anon on any of the steeper faces upon which snow has remained. And falling stones are frequent. All the streams are swollen and laden with *débris*. These diurnal variations are at their height during the month of September, when the great sun heat of the day is succeeded by frost at night and the range of temperature between day and night often exceeds 100° F.