Dr. Rock in N.W. China (review)*—On his way from Burma to South-East Tibet, in the autumn of 1922, Dr. J. F. Rock met the remarkable English traveller and explorer, Brig.-General George Pereira, and the two spent several days together in the town of T'eng-ch'ung (better known by its old name of T'eng-yüeh) in South-West Yunnan. Pereira had recently completed his now historic march from Peking to Lhasa and recounted to Rock that he had passed some 100 miles to the west of the snow-capped Amnye Ma-chhen (usually Amne Machin Shan on English maps, Amnye Matchen on French, and Amne Matschin on German), and that at a distance of a hundred miles it was an amazing landmark probably higher than Everest itself. The range lies west of the great bend of the Yellow River—flowing at an elevation of 10,000 ft. above the level of the sea—in Ko-ko Nor territory, some 1,300 miles west of Shanghai and 1,200 miles north of Rangoon, and the surrounding territory is inhabited by the fierce marauding Go-log tribes ruled by their so-called Queen. Pereira's brief account was sufficient to fire in Rock the ambition to reach the stronghold of the Go-log and to explore botanically the valleys and spurs of the great range of the then unknown gorges of the Yellow River. The opportunity came in 1926 and Rock was accompanied by Mr. William E. Simpson, a young American missionary and geographer who lived and dressed as a Tibetan, who later discovered a beautiful limestone snow-capped mountain with seven glaciers radiating like the spokes of a wheel from below the main summit, and who was finally murdered by Moslem bandits.

This book tells the story of the successful journey from Cho-ni in Kansu, first up the Tao River, on to the religious city of Labrang where in 1926 some 3,000 monks inhabited the lamasery, and then across the wide swampy platea to Ra-gya Gom-pa on the Yellow River. The author writes in most scholarly fashion of the geography and history of the region. Of greater interest to the botanist, however, is the brief account of his exploration of the previously unknown immense gorges of the Yellow River north of Ra-gya Gom-pa; of the 60-mile valley of Tag-so Nang with its spruce forests, and huge centuries-old groves of *Juniperus tibetica*; of the Bá Valley with its ruined remnants of the seat of the ancient Hor Kingdom; of the doomed spruce forests of the Gyü-par Range, doomed because the sheep and yaks of the nomads have killed off all the Mnium moss which is so essential to the undergrowth of a healthy spruce forest.

West of Ra-gya Gom-pa, and in the territory of the Go-log, Rock and Simpson viewed the huge massif of Am-nye Ma-chhen, the first white men to see what is undoubtedly one of the grandest mountain ranges in the whole of Asia from west of the Yellow River. Eternal snow covered the range for about 5,000 ft., with the snow-line beginning about 16,000 ft. Thus, although the exact height of the peaks was not determined, clearly none of them compares with Everest.

Rock soon realised that to botanise on the range was quite impossible. A quick dash with fast riding animals (yaks are too slow) and a few pack horses might be feasible; but to explore and collect at leisure with thousands of the hostile Go-log scattered all around the range would require either a well-armed army or the friendly co-operation of all the Go-log.

* The Amnye Ma-chhen range and adjacent regions, a monographic study, by J. F. Rock. Rome, Instituto Italiano per il medio ed estremo oriente, 1956. Pp. 194, 80 pl., 5 maps. Price 6,500 lire.

Thus only the vegetation of the forehills of Am-nye Ma-chhen was examined, and from a botanical and dendrological standpoint the region is disappointing and the alpine flora not nearly so rich as that of the Min Shan and the mountains further south. A very short summer, with snowstorms and 3 ft. of ice in the stream beds of the valleys in July, no doubt in large measure accounts for this. Still, there is beautiful virgin forest of *Juniperus tibetica*; there are acres of *Meconopsis horridula* and *Primula sikkimensis*; and Rock did discover at least two new species of *Pedicularis*, one new *Corydalis* and one new willow—*Salix Rockii* Goerz.

The story of the journey is magnificently illustrated by eighty of the author's photographs (incidentally the texts accompanying plates XVI and XX require to be transposed) and five maps. There is also a most useful gazetteer.

This scholarly work clearly is of more importance to geographers and those interested in the political history of the country than to botanists. In fact the political history of the province of Ch'ing-Hai (known to the west by the Mongol name of Ko-ko Nor) could only have been written accurately by Dr. Rock, for only he had copies of the Records of Ch'ing-Hai, copies which he made in the Library of the Ministry of the Interior in Nanking shortly before the originals were destroyed by fire. Thus, although this is not the book many botanists have been hoping Dr. Rock would write, there is no reason why a botanist should not applaud the enterprise of the Instituto Italiano Per Il Medio Ed Estremo Oriente in publishing this monographic study.

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