across and from Johnson's 'Khitai-dawān' had been noticed by me before, running up a side valley northward (Map No. 22. B. 1). The route could be traced quite clearly up to about 7 miles from its debouchure; beyond this its traces had become completely obliterated by fallen masses of snow and rock-débris. A short distance further up the valley narrowed and branched into two steep ravines, one coming from a glacier visible to the north, the other from a snow-filled side valley towards the east. There was nothing to indicate on which side the approach to the pass lay. Yet an attempt to reach the watershed was imperative in any case for finally linking up our surveys.

Ascent to snowy col on K'unlun watershed.

Reasons explained in my Personal Narrative induced me to make the ascent on September 22 by the glacier northward, accompanied by R. B. Lal Singh and some Kirghiz. The climb proved very trying owing to the much-crevassed condition of the ice and, higher up on the névé beds, to the softness of the snow. Thus it was not until after ten hours of exhausting toil that the crest was gained, at a height of close on 20,000 feet. It proved to lie just below the shoulder of a great snowy peak, for which triangulation had shown the height of 23,071 feet. I had realized before that this difficult glacier climb could not lead to a pass practicable in modern times. But there was ample reward in the exceptional opportunity which the magnificent views, opening on both sides of the range from this commanding height,15 offered for our survey work. The time remaining for it was short and did not allow me to give adequate thought to the body after the exhausting fatigues. Mapping and photographic work was done in bitter cold, the thermometer showing 16° F. below Feet injured freezing-point at 4 p.m. with the sun shining. The descent had to be made without the chance of a halt, from fear of getting benighted on the glacier, and when late in the evening camp was reached, I found that my feet had been severely injured by frost-bite. This day of hard-achieved success had brought for me long suffering; but there was the satisfaction of knowing that it had also seen the last of our exploratory tasks accomplished.

by frostbite.

## SECTION III.—OVER THE KARA-KORAM TO ENGLAND

Serious results of accident.

Severe pains in my frozen feet left no doubt about the serious results of this accident and the urgency of surgical help. Unable to use my feet or even to sit in the saddle, I had myself carried down the Kara-kāsh valley as well as I could in an improvised litter. Reaching Portash after four days of dolorous progress, I had the relief of finding there my heavy caravan of antiques safely arrived across the Sanju Pass. Arrangements for their further transport, the settling of accounts with the Kirghiz and the Khotan 'Kirakash' who had shared our expedition in the K'un-lun, and the discharge of old followers kept me hard at work on my camp bed for two days. The valuable convoy was left in charge of R. B. Lal Singh, who with self-sacrificing devotion never failed to share and lighten my burdens.

Kara-koram Pass crossed in litter.

Recognizing that gangrene had begun in the toes of my right foot and apprehending that it might spread further, I was anxious to move ahead towards Leh as rapidly as possible. Setting out on September 30 from the Kara-kāsh Valley with the lightest possible baggage, I had myself carried by forced marches along the Kara-koram trade route. Its unending line of skeletons of transport animals bore sad witness to the inclement physical conditions on these terribly bleak uplands. On October 3 my sorry little caravan crossed the Kara-koram Pass, 18,687 feet above sea, and where after the next march the rocks of the Murghe defile made further progress on ponies impossible for my improvised litter, I was fortunately met by a band of hardy Tibetan coolies. Without this timely help which Captain (now Major) D. G. Oliver, British Joint Commissioner in

<sup>15</sup> The Panorama XII reproduced in Desert Cathay, vol ii, offers some record of them.