

sue. Our casualties were 2 Officers and 6 non-commissioned officers and men wounded.

37. Colonel Lord Dundonald with a body of Colonial troops rode into Ladysmith on the evening of 28th February, and on 1st March General Sir Redvers Buller himself arrived, and the siege came to an end.

38. During the period from 6th January to 1st March, our struggle became one against disease and starvation even more than against the enemy. Our worst foes in this respect were enteric fever and dysentery, the former especially committing great ravages among the young soldiers of the garrison. Our deaths by disease from 2nd November, 1899, to 28th February, 1900, amounted to 12 Officers and 529 non-commissioned officers and men. The Officers of the Royal Army Medical Corps, the Army Nursing Sisters, the many ladies who voluntarily offered their services as nurses, and the hospital staffs of all ranks, maintained throughout the siege a brave and protracted struggle against sickness under almost every possible disadvantage, their numbers being most inadequate for the work to be done, and the supplies of drugs and of suitable food for invalids being entirely insufficient for so many patients for so long a period.

39. Even more important was the regulation and augmentation of the food supplies, as will be realized from the simple statement that 21,000 mouths had to be fed for 120 days; and the admirable manner in which all arrangements were made and carried out by the Officers of the Army Service Corps and Indian Commissariat Department under the able and untiring superintendence of Colonel E. W. D. Ward, C.B., my A.A.G. (B), will be evident from the fact that at the date of the relief we still possessed resources capable of maintaining this great number on reduced rations for another 30 days.

At the commencement of the siege, it became necessary to augment as far as possible all food supplies, and, with this view, one mill and subsequently two, were taken over and worked under military supervision and with labour and mechanics obtained from the employees of the Natal Government Railway, who remained voluntarily with the garrison. From these mills we produced during the siege mealie flour, mealie bran and crushed mealies. The mills were worked under the personal supervision of Lieut.-Colonel Stoneman, A.S.C., D.A.A.G., assisted by Major D. M. Thompson, Assistant Commissary-General, Indian Commissariat Transport Department.

When grazing and forage became scarce and the supply of cattle approached within a measurable distance of extinction, it was necessary to utilize for food the horses which would otherwise have died from exhaustion and weakness. From these slaughtered horses very considerable additions to the food supply were made by the establishment of a factory from which were made: (i.) "Chevril," a strong meat soup issued nightly to the troops; (ii.) a condensed form of "Chevril" which took the place in the hospitals of various meat extracts which had been expended; (iii.) a jelly similar to calf-foot jelly for the sick and wounded; (iv.) "Chevril paste" made of boiled meat and jelly and issued as a ration to the men, and which being similar to the potted meats manufactured at home was much appreciated by the troops; and finally (v.) "neats-foot oil," which was used for lubricating the heavy Naval Ordnance. The boiled

meat was given to the soldiers at the rate of $\frac{1}{2}$ lb. per man.

The whole of this factory was under the management of Lieut. C. E. J. MacNalty, A.S.C., whose untiring energy, ingenuity, and intelligence are deserving of high commendation. Captain J. R. Young, R.E., R.S.O., converted a railway locomotive shed into a factory, and displayed very great skill in improvising the various appliances necessary for the manufacture of the different foods.

With the object of still further improving the rations a sausage factory was established which converted the horse-flesh into excellent sausages, issued to the men at the rate of $\frac{1}{4}$ lb. per head. This factory was most efficiently worked under the supervision of Mr. R. Beresford Turner.

As a safeguard against any serious loss of animals by disease or from other causes with a consequent reduction of our power of continuing the defence, a reserve of "biltong" was prepared, under the superintendence of Captain A. Long, A.S.C., who undertook it in addition to his onerous duties of Local Transport Officer.

The very large number of enteric and dysentery patients rendered it necessary to utilise all available sources of milk supply. All milch cows were requisitioned, and a dairy system established which provided milk, on medical certificate, for the sick, both military and civilian.

The feeding of the civil population was carried out by the Army Service Corps, a staff of civilian assistants being organised for distribution, and a large shed specially converted for the purpose. The two foregoing duties were carried out under the direction of Lieut.-Colonel Stoneman, D.A.A.G., and Major Thompson, A.C.G.

40. On the investment of Ladysmith, the main was broken by the enemy, and the water supply for the camp and town became dependent upon the Klip River. A system of filtration by Berkfeld filters was commenced, which answered well so long as the limited supply of alum lasted; as soon as it was expended the muddy condition of the water clogged the filters, and this method became unreliable. Three condensers were then constructed out of improvised materials by Mr. Binnie, Maintenance Manager, Natal Government Railway, under the able direction of Engineer C. C. Sheen, R.N., H.M. Ship "Powerful." As a further means of obtaining pure water, apparatus for clearing water was constructed out of barrack sheeting placed on wooden stands, and having a deposit of wood ashes, through which the water was strained. It thus became possible to use the filters and also to provide all units with clearing arrangements. It was possible, so long as the coal lasted, to supply at least 12,000 gallons of condensed of filtered water daily. The management of the water supply was carried out by Lieutenant H. B. Abadie, 11th Hussars, who performed the duties of Staff Officer for Water Supplies, and whose work is deserving of much praise.

Mr. W. King, District Inspector, Public Works Department, Mr. R. Brooke and the officials of that department, rendered most valuable assistance in every way possible.

41. With the object of reducing the number of orderlies employed in the conveyance of letters, a postal system, which included all the defences and the camp and town, was organised and most efficiently carried out by Captain P. C. J. Scott, A.S.C.

42. In order to supply the deficiency of hay,