

that on almost any soil some grasses may be grown with profit. On the Great Plains, although the region is so vast, the problems are less varied, since the conditions are more nearly similar throughout. Here to a great extent the problem is the preservation of the natural pastures and meadows, and their renovation where they have been injured by overpasturing or by the plow. Over a great part of this region the natural meadows should be allowed to remain, and the plow should not be permitted to disturb the well-set sod. In the Rocky Mountains the conditions are extremely varied, and the problems are accordingly more numerous. In many places the natural meadows must be preserved, while in others, as under irrigation, grasses especially suited to the new conditions must replace the scanty growth which preceded them. A new problem obtrudes itself here, viz., that of forage plants for the 'alkali soils.' The problems in the Northwest include the last mentioned (apparently solved by the growth of species of *Atriplex*), and the renovation of the natural pastures which have been overstocked. In the Southwest some interesting facts are brought to light, as that as soon as the prairie fires are stopped the mesquite tree (*Prosopis*) and the prickly pear cactus (*Opuntia*) increase very rapidly, while at the same time the extermination of the coyotes allows the rabbits and prairie dogs to increase to such a degree as to make them most serious pests. On the Pacific coast the work has included the problem of the control of shifting sands in addition to studies of pasture and meadow grasses.

In the course of these investigations much valuable material for scientific study has been obtained, and great quantities of seeds of the more important species have been secured for distribution and trial elsewhere in the country. Above forty bulletins have been issued by the division, ranging from quite popular to technically scientific. No one can look over the work done, as indicated in this bulletin, and not feel that Secretary Morton did a good thing when he established the Division of Agrostology, and that it has fully justified its existence.

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#### THE SOUTH AFRICAN MUSEUM.

THE report of the South African Museum for 1900 may be styled a record of good work performed under adverse conditions, for the war in South Africa has affected the museum in more ways than one, lessening not only the number of contributors to the collections, but the number of visitors. This falling off is the first break in a steady increase that has been going on for a considerable period. The accessions of vertebrates have been principally of birds, but one example of the young of the rare cat *Felis nigripes* was obtained in a rather curious way, it having run into the trenches at Zand River during a hot engagement.

Two of the contributors to the museum, Mr. Walter Francis and Dr. A. C. Stark, have been killed during the war; the latter was engaged in the preparation of a work on the birds of South Africa, the first volume of which had appeared. The second volume has been completed by the director, Dr. W. L. Sclater, and is now in press. Dr. L. Peringuey has sent to the printer the first part of a descriptive catalogue of the *Scarabeidæ*, and states that the manuscript of the second part is well advanced. The second volume of the *Annals* of the museum is well along and all the collections are said to be in good shape, and we hope with Sir David Gill that the time may soon come when it will be possible to increase the small appropriation made for the maintenance of this museum.

F. A. L.

#### SCIENTIFIC NOTES AND NEWS.

DIRECTOR W. W. CAMPBELL, of the Lick Observatory, was elected a foreign associate of the Royal Astronomical Society at the meeting of November 9.

MR. ALEXANDER AGASSIZ, accompanied by Mr. W. McM. Woodworth, has undertaken an expedition to the Maldive Islands in the Indian Ocean, in order to study the coral formations. A steamboat for this purpose has been chartered at Ceylon.

PROFESSOR F. LAMSON SCRIBNER, chief of the Division of Agrostology of the United States Department of Agriculture, has been given charge of the Bureau of Agriculture which is to