

September 14, 1920.

De Aar, Cape Province. This city reminds one somewhat of a western town. The houses are mostly brick, plastered over, very low, one story as a rule. The streets are very broad. It is cold, windy and dusty. The vegetation near the town is apparently entirely ruderal, consisting of a low bush, Mesembrianthemum, shown in the following photograph:



o4.---A pure stand of Mesembrianthemum. A small euphorbia-like plant, but without value for forage. This plant is apparently greatly favored by overgrazing and also by breaking, which is here called "brek" or "brekked", where it shows an almost pure stand.

The roadways on the hills shown in the background of o4 seem to be the old war roads, since this was one of the chief centers of action during the Boer war.

A gutierrezia-like composite occurs here occasionally.

Passing northwest from the first escarpment the vegetation changes, and here we have the natural plant cover.



o5---The dominant vegetation,--a small euphorbia-like shrub, 8-12" high, habit and smell similar to Artemisia. It is probably the famous karoo bush, Pentzia, see Herb. 153.

There is also an Atriplex, Herb. 154; a spiny shrub, Herb. 152, and Aristida rangei Pilger is the common grass.

See soil sample No. 3, a red sandy loam collected here.



o6.--Similar to o5, but shows more of the yellow composite, Herb. 152. One of the Boer hills of this section is shown in the background. This area has apparently been overgrazed and the soil is almost barren.



o7.--A general view of the city of De Aar from the hills northwest. P.H.Thierry shown in the photograph.



08.-- E.H.Thierry, of the News Enterprise Association.



09.--H. L. Shantz.



o10.-- A general view. Vegetation as in o5, but in the rocks on the hills at the left were collected Herbs. 157 and 158. Herb. 157 Onotholaene, and Herb. 158 _____.

In general the vegetation of this section is desert shrub, but there is here and there a small amount of grass, and during the rainy season doubtless a good deal of forage, but many of the shrubs are eaten, and this makes the desert pasture relatively good. It compares favorably with the better areas in our West. The karoo bush is similar to our bud sage. The soil was moist in the first foot, and apparently the present rest period was due partly at least to cold weather.

September 15, 1926 :

De Aar to Prieska. We left De Aar at 1 p.m..No change for some distance out of De Aar. On the high land the soil became shallow, with lime rock subsoil at about 1 foot. Vegetation consisted mostly of low karoo bush with a little overgrazed grass

between the bushes, and practically no actively growing vegetation at this time.



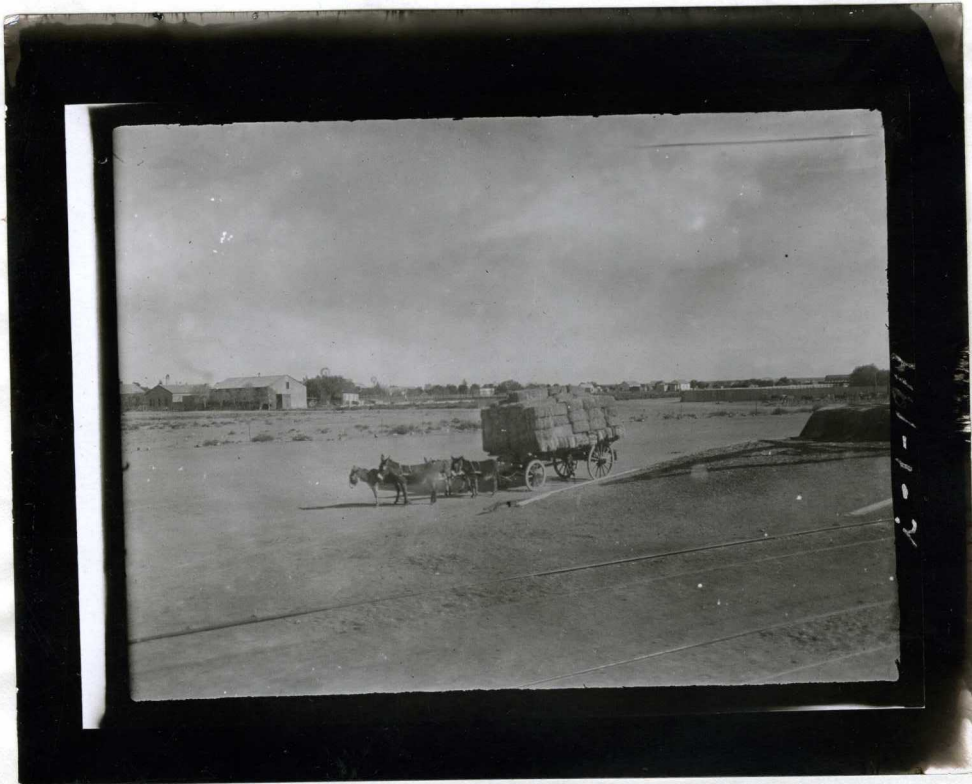
oll.---Shows karoo bush at Quaggafontein. There is a small amount of grass between the plants and a white ranch house in the background in the distance. The soil has white rock underneath about 1'.

Here were collected two plants, Herb. 162 and 163.

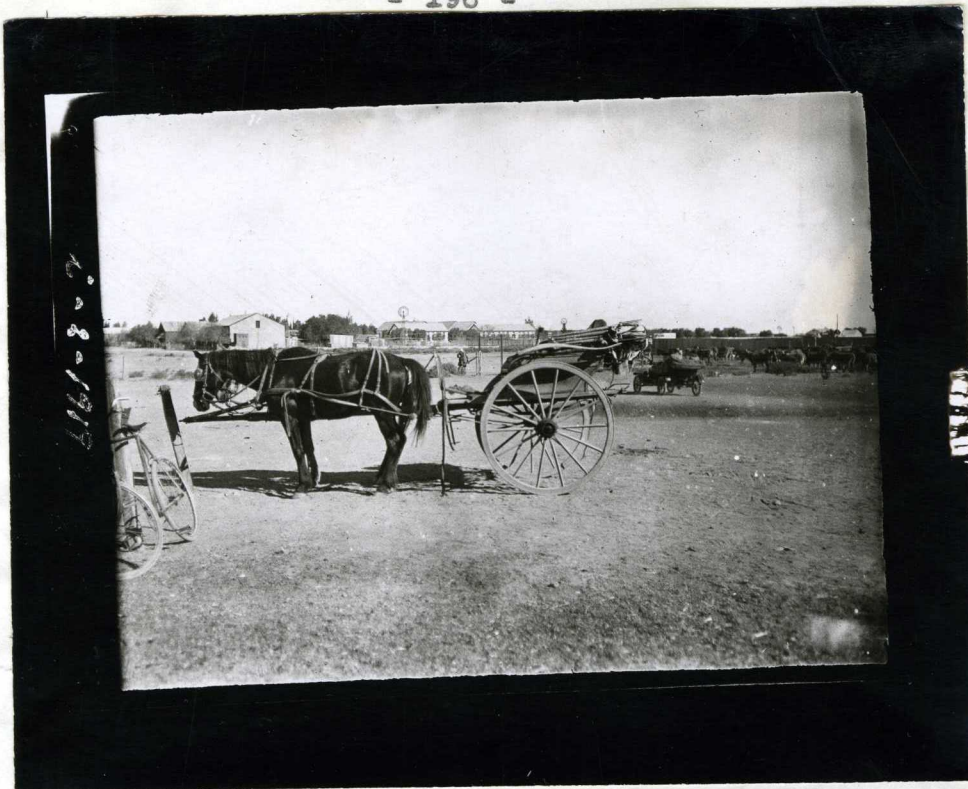
Van Heerden. The vegetation changes slightly beyond this place. The bushes become larger and there is a mixture of coarser shrubs and portulaca. One of the shrubs has a very angular type of branching, and I have been able to secure no name for this plant. Simply refer to it as an angular-branched shrub in the notes which follow. The soil looks a little deeper than before and a few miles beyond we pass back into the old karoo type.

On areas badly overgrazed Mesembrianthemum has come in to form almost a pure stand.

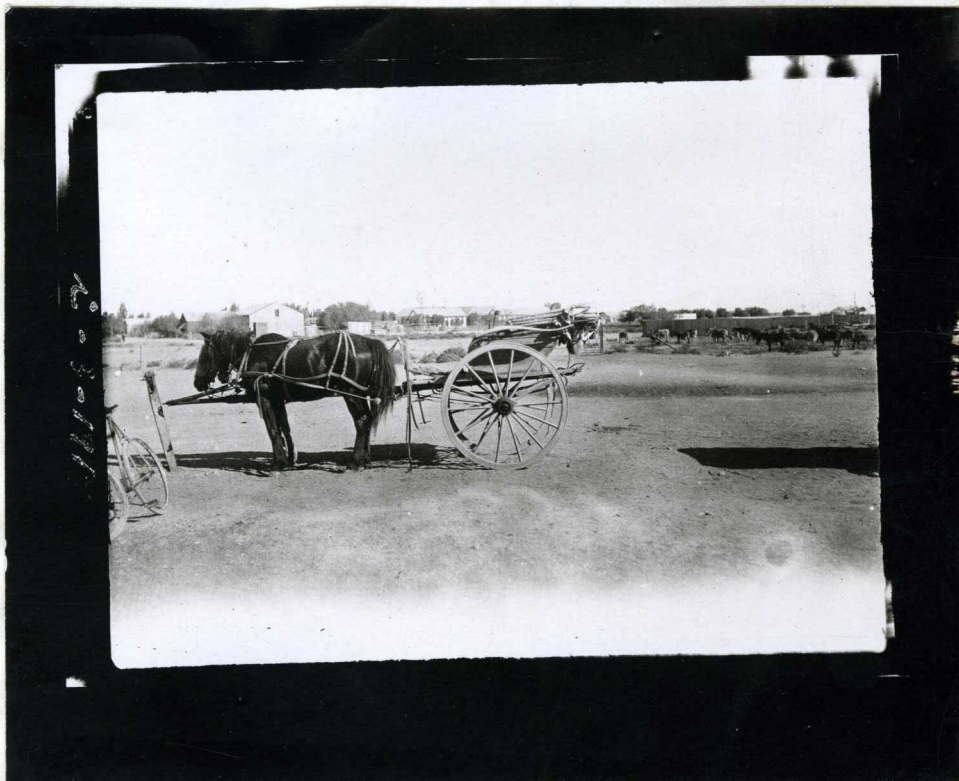
Britstown. Elevation 3681 feet. An attractive desert town, with golf course cut through the mesembrianthemum brush. Donkeys are the chief type of transport.



11.--Shows donkey team hauling baled straw, and general view of this section.



12.--A typical Boer car with two horses, two wheels, and four sides. *seats.*



13.--Another view of the same car. Almost all of the land about the town is under irrigation.

As you approach the hills more and more of the coarse, angular

branched shrub appears.

Vogelgeraas.



14.--Shows the angular-branched type of vegetation, with large herd of sheep in the background. Also gives general idea of the topography of the country.

Desert continues with only a slight change, and we drop into an irrigated valley with ostriches, sheep and horses.

Houwater. Elevation 3465 feet.



15.--Shows farms of sisal plantations and ostriches grazing on alfalfa.



16.--General view of the river bed. This is a beautiful green spot in the desert.



large — 012.--Shows alfalfa, horses, donkeys, donkey wagon, sisal plantation, and the hill country behind. Also fence, the posts of which are made of the old iron railroad ties.

The soil here is reddish[#]brown, only about 2-5 feet deep over a stratified or schisted rock (grey or slate). In the bottom land just beyond the sand is more abundant, where we crossed the Ongers river. No vegetation occurs on its banks and alkali could be seen in the river bed.



17.-- Is a general view some distance beyond, looking back from the train. Herb. 152_____, quite abundant here.

The soil along the river bottom is of the alluvial type. Vegetation is just starting to leave out.

Ongers.

Pl.-- A general view of the vegetation, which is characteristic of much of this country. Mesembrianthemum is not especially abundant.



Herb. numbers 165 and 166 are rather important, the latter particularly as a food plant for grazing animals.

After passing a rather large reservoir the brush becomes larger and more dense, also some evidence of alternation with what appears to be karoo bush and an occasional green plant (like atriplex).

Omdraaisvlei and Kleindoorn. Larger brush. It is just sundown. The soil apparently is very shallow.

Grootdoorn. Elevation 3307 feet.



P2---Typical vegetation.