64. S. P. I.-48529.

65. S. P. I.-48530.

66. S. P. I.-48531.

67. S. P. I.-48532.

68. S. P. I.-48533.

69. S. P. I.-48545. Phaseolus vulgaris.

August 28. Packed and mailed most of the introduction numbers to the States. Raven, Thierry, and I left at 5:45 p. m. for Port Elizabeth. The country out of Cape Town soon changes to a sandy plain, sand blowing across False Bay at the South.

At Parow the soil is very sandy, thin, and poor. The vegetation consists of rushes and Ericas. There is an occasional rye pasture on the thin, sandy soil. Almost the whole country is plowed up by moles which seem to be very abundant here. At Stickland Siding, the vegetation is still the same, with occasional eucalyptus trees. There is not much change as far as Mulders Vle, where it became too dark to make further observations.

August 29. En route to Port Elizabeth.from Cape Town. It became light enough to see shortly east of Buffelsjaagts. This city is 198 miles from Cape Town. This whole country is covered with a growth of bitter bosch or pepper bush, a low, small-leaved bush. See herbarium 86. During the dry season this bush is burned off and this favors to some extent a growth of grass. An Andropogon-like grass (see herbarium 85) is quite abundant. Many bulbous plants grow in this type. See herbarium 87.

d 2 and d3 were taken about 10 miles east of Buffelsjaagts and show the uniform low cover

d 2.

d 3.

Spring buck, Merino sheep, long-horned, black cattle, and an occasional ostrich are the principal animals seen. Grainfields are rare. They are just starting to grow. The plants are pale in color. They seem to look as if they were short of nitrates.

d 4. Taken a little farther on. Shows larger brush. This is a general view and a few Aloes are shown in the back. This is part of the great open Cape brushland. See herbarium 88 for one of the common bushes.

The soil is reddish and rocky, and a little farther on the country becomes much more luxuriant. Aloes and Polygolas are more abundant, and the vegetation becomes much more varied and rich. The soil profile is about as follows: Surface - 4 inches - pink; next 6 inches, deep reddish brown; next two inches, pink; below this, gray.

d 6. Open valley. Brush vegetation on the hills and acacias (leafless) on the bottoms. The white houses of Heidelberg Cape may be seen in the background.

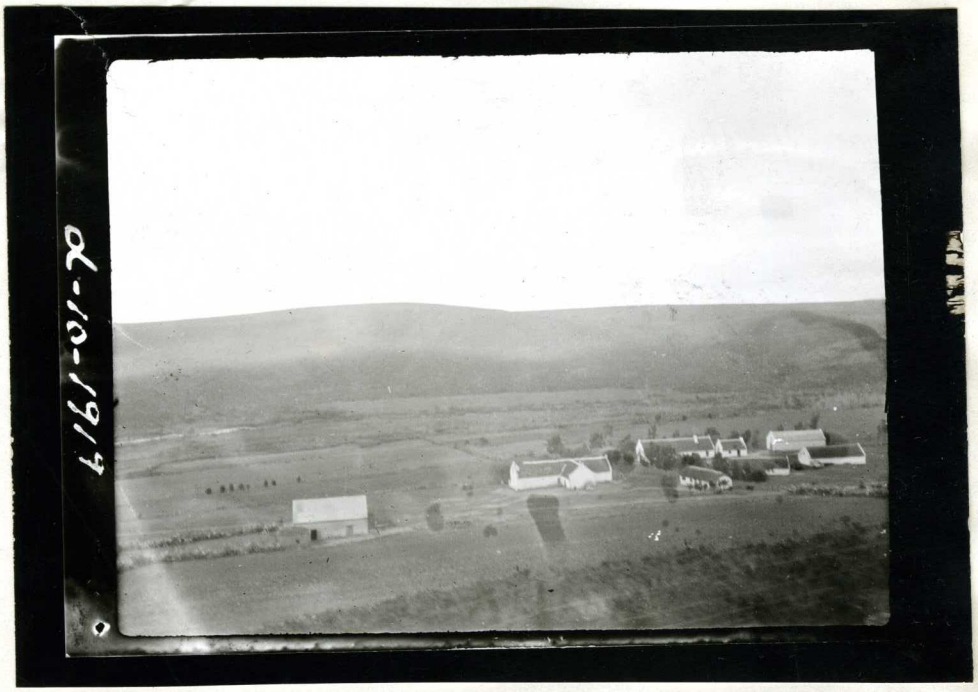
The country has now become much more luxuriant. The principal products are wool, grain, Aloes, tobacco. The grains are chiefly wheat, oats, and barley. The Aloe is Aloe ferox, which is shipped to America and is used largely in patent medicine. The vegetation along the river is largely acacias which are leafless at this time of the year. The Heidelberg river bed is dry or almost dry and shows a great many acacias along the bottom. The hills beyond have a shallow soil, rocky and red, and the vegetation looks somewhat like our Adenostoma chaparral of the California coast but is somewhat lower and not as even in height.

d 8. Taken just beyond, and shows brush, Aloe, and a few cattle grazing.

d 9. Shows acacias, Aloes, and farm buildings. Also pigs and ostriches.

The soil is dark brown to a depth of about one foot, and white below. The vegetation seems to be a small quack grass.

Riverdale is a village of odd Dutch houses and filled with natives.



d 10. Just beyond Riverdale. Shows a group of farm houses, with Adenostoma-like brush in the foreground. See herbarium 88.

Beyond Riverdale the country resembles the upland parts of the California coast. Most of the vegetation has been burned over and most of it is low brush. In places the large Scirpus (thatch) is abundant, and is cut and bound in small sheaths 4 to 6 inches in diameter and stacked in a shock to be ready for use in roofing houses. In many places, and especially at Riverdale, the leaves of Aloe ferox were cut and stacked into piles ready for shipment. A little farther on, in the sand land, heath and Proteas become more abundant and presents a wonderful variety of colors - purplish reds and pinkish forms of Ericas-and pale yellow Proteas are abundant as well as many tall showy plants. Sedges or Scirpus and a great variety of sand hills plants produce a vegetation extremely rich and varied, even where the vegetation burns over each year.

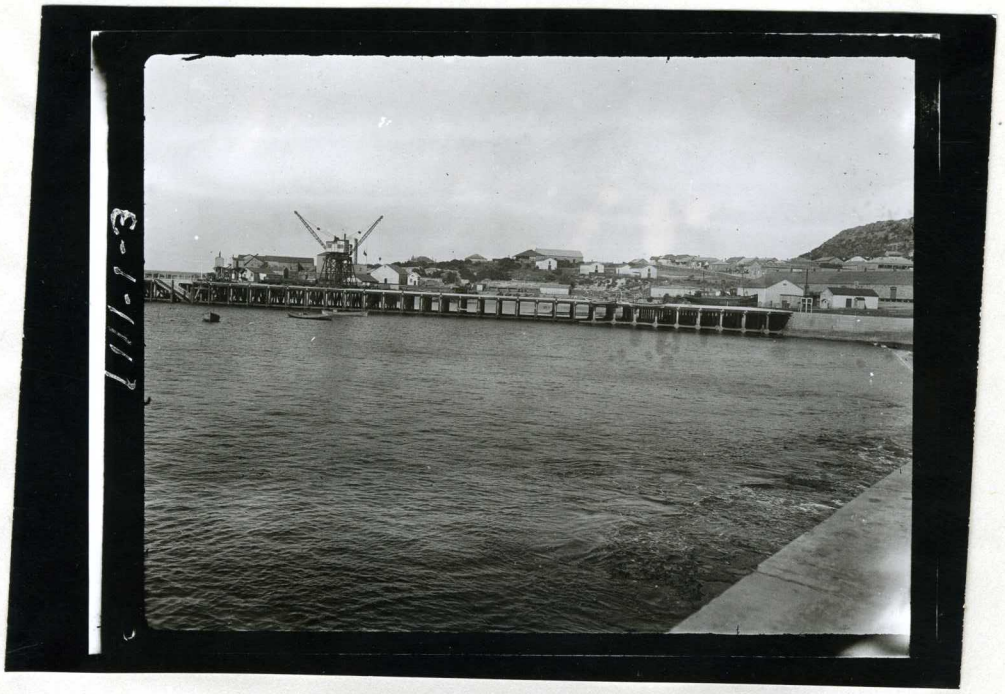
d 11. A general view in the sand hills area. Shows principally scattered yellow-leaved Proteas, also tall, large-flowered Ericas. There are a few sheep in the background. This photograph is shown in the great sand hills area at Zoutpan.

The Ericas, herbarium 89 - 91 and also 92, an everlasting, are abundant here in the sand.

We arrived at Mossel Bay at 2:30 p. m. and left at 2:50. The Bay is very attractive, and the town is made up entirely of stone houses.

d 12.

d 12. A general view across the railway depot, with the Bay and docks in the background.



e 1. The pier and water front at Mossel Bay.

e 2. A general view of the engines and train, with the depot at the right at the back.

e 3. Snap shot of E. M. Thierry and H. C. Raven on the depot platform.

Mossel Bay is 318 miles by rail from Cape Town. It is about midway between Cape Town and Port Elizabeth by sea. It had a white population in 1918 of 2429. The houses are built largely of sandstone quarried in the neighborhood. A breakwater has been constructed and the harbor affords good arrangements for landing and loading cargo. This port is a summer resort for those living in the neighboring districts, and the oysters are celebrated throughout South Africa. The climate is equitable; rainfall about 17 inches, the annual maximum 70.7 and a mean minimum of 56.8. There are good carriage and load roads constructed in the vicinity. The flora consists largely of Aloes, Ziziphus, and Acacias. Aloe ferox and the small-stemmed but more branched form are both abundant.

e 4. Shows the natural vegetation near Mossel Bay.

e 5. Similar to e 4, but showing more of the dune vegetation.

e 6. The shore line and vegetation just above Mossel Bay.

e 7. Another view of the bay showing the dunes held in place largely by grasses.

e 8. Bushland, sand dunes, and salt flats in which Salicornia is a prominent plant.

e 9. The seacoast of Mossel Bay and the town at the right.

As we pass on up this grade there are many attractive plants - beautiful white shrubs with head-like spiraea, also many Protea-like shrubs and plants resembling Senecios.

At Outenique, you pass into a great open area, with a few eucalyptus trees. Here the vegetation is rather low and there are a few grasses. The fences here consist of wire, with a clay brick base about one foot high. There are a few Proteas.

Schimmels Kranz is a level or gently rolling upland, dark surface soil 2 to 3 feet deep. This is a fine open country. The farm houses are far apart. Land here is said to sell for about 5 pounds per acre. There are large wattle plantations, also pear orchards.

George is 32 miles from Mossel Bay and about 4 miles from the coast. It has an elevation of 620 feet and a white population in 1918 of 2482. The town is situated near the base of the Outeniqua Mountains, about 3 miles from Montagu Bay. It is one of the most attractive locations in this colony. The streets are wide, well shaded with oak trees (probably the so-called silver oak or Grevillea), and are bordered by streams of running water. The scenery, of course, is varied, due to the seacoast, forests, and mountains. Good hunting may be obtained in the mountains. The railway passes up the mountain to Power, where a number of herbarium specimens were collected. Looking down from the mountains over George there are great tree plantations all along the base of the mountains. Eucalyptus is one of the principal trees. Herbarium specimens 93 - 95 were collected at Power.

The forests about George are said to be dark and humid, the sun's rays being scarcely able to penetrate the thick foliage and dense overhead tangles of monkey ropes and wild vines, for the verger is almost tropical in its luxuriance. There are two seasons: Summer of 9 months of the year, and the other 3 months forming a combination of autumn and spring. The pine plantations here seem to be principally Pinus insignis, P. pinea, P. halepensis, P. canariensis, and P. australis.