The altometer U. S. Navy No. 1440 read low all through the trip, indicating high barometer.

July 16	6:00 p. m.	-250	
17		-350	
19	9:00 a. m.	-250	
21		-300	
26		-190	
26	5:00 p. m.	- 75	
27	1:00 p. m.	+ 25	
Aug. 12		-400	
16		+ 25	Cape Town.

Cape Town. Wednesday, Aug. 13 - 2:00 p.m. to Aug. 28 - 5:45 p.m.

On August 13, land was in sight during the whole day - a mountainous coast with Table Mountain standing out prominently in the distance. A large quantity of Nereocystis was floating in the sea, and gulls, diving birds, and an occasional albatross were to be seen throughout the whole morning. Some of the mountain tops are snow covered. A closer view of this Cape shows Lion's Head and Table Mountain forming a very impressive amphitheater above the city. As you round the point of Lion's Head the whole Cape Town comes to view. It is probably one of the most picturesquely situated city in the world.

Aug. 16. General Notes on Plants in Cape Town

Found Chiefly in the Botanical Garden.

Phytolacea diaica, a rather large tree, 20 - 30 feet high, smooth bark, somewhat similar to a Pig Hickory, leaves entire, fruit in a greenish yellow raceme. It fruits very abundantly, the fruits often covering the sidewalk. It is used both as a street tree and as an ornamental in the botanical garden. It is rather knotty and scrawly looking at the ends of the branches. It is often found with several (3) main trunks from a broad

base. The seeds are black, small, and flat.

Pavetta caffra L. is a small shrub, six feet high, green foliage and small white flowers. Native to South Africa.

Dombeya dregena is a very pretty shrub with coriaceous green leaves.

Grewia sutherlandi K. K. & Harvey. Leaves were falling, but flower buds just opening. Spikes of brilliant red flowers four inches long and two inches wide. The small tree has an oak-like trunk. It is not over eight feet high

Short List of Plants Which Should be Secured in Cape Colony.

Morus latifolia, at Wynberg. A true mulberry.

Physilis edulis, the Cape gooseberry.

Prunus armeniaca, the apricot which is candied and sold as meebos.

Amygdalus persica, a native peach.

Prunus communis, a large, heart-shaped plum.

Bulbs and ornamentals of all kinds.

Timber trees for California and Hawaii.

Myrica hordifolia, the berries of which produce a wax used as polish.

From East London secure Avocado, custard apple, and large pineapple; and in British East Africa, Kikuyu grass, the best forage grass of the Cape region.

A Brief List of Botanists and Florists of the Cape Region.

C. Starke & Company, Ltd., Mowbray, Cape Town, one of the most progressive South African seedsmen. Their catalogue contains many wild plants which they are attempting to introduce into the trade.

Ayers, florist, St. George Street, next door to the Argus Office. Reliable florist who can supply many bulbs of native plants.

The best nursery for shipment is H. E. V. Pickstone and Bolle, Simondium, Cape Province.

Among the botanists may be mentioned Mrs. Frank Bolus, of the Bolus Herbarium, one of the leading systematic botanists in the Cape region.

Director R. H. Compton, of the National Botanical Garden of Kirstenbosch, who could supply many native plants of South Africa.

Dr. Rudolph Marloth, Cape Town, one of the leading botanists - an amateur whose chief work is analytical chemistry.

Professor D. Thoday, of the University of Cape Town, a plant physiologist.

Mr. C. W. Malley, Cape Entomologist, is also much interested in plants.

G. Rattray, of the High School of East London.

August 17. We went out over the saddle to Camps Bay. The mountains are covered with pine, prominent among which are the Monterey pines (Pinus insignis), which is the most rapid growing tree here, and large forests have already been produced. The stone pine (P. pinea), large plantations of which are secured by merely scattering the seed, and the cluster pine (P. pinester) and P. canariensis, a long-leafed, three-needled pine which looks a little like our white pine is also found here. Eucalyptus is grown practically everywhere. The natural vegetation consists of low heath with Proteas scattered through and especially abundant in protected areas. The silver tree, Leucophyllum, is abundant on protected slopes.

From the saddle one passes down through a veritable flower garden of yellow composites, heaths, and proteas to Camps Bay. At this point a

number of algae were collected (Nos. 30 - 41). The rocks are especially rich in algae and marine life, such as limpets, barnacles, and blood red, brick red, and green anemones, and kelp, and small seaweeds.

C 10. Granite rocks with great quantities of Nereocystis-like algae in the water.

We returned to Cape Town by way of Green Point.

August 18. C. W. Malley, Cape Entomologist of the Agricultural Department, provided transportation for a drive around Table Mountain. Mr. E. W. Rust, an entomologist from California, Edmond Heller, and H. C. Raven made up the party. At Mr. Malley's office, we met the Cape chemist, Mr. . . Zuritz, and the Cape veterinarian, Mr. . . Theiler. We drove east around Table Mountain and passed very extensive areas where P. pinea had been seeded and was now forming beautiful young forests.

This pine grows wherever the seeds are dropped and young trees are rapidly being produced about the old plantations. Wherever the land is protected from goats, dense thickets are soon formed. The whole face of the mountain, up as far as the cliff, is planted with pines, with occasional rows of Eucalyptus, and there are also braod fire guards, and also occasionally groves of the native silver tree (Leucophyllum argentium), one of the most beautiful trees of this region. We also passed through long avenues (Newlands Avenue) and even forests of oak (Quercus pedunculata), passed large pastures in which immense numbers of calla-lilies, known locally as hog-lilies since the roots are eaten by hogs (these animals are never called hogs, but are known as pigs). The callas are abundant even in the crotches of the large oak trees (driven up these trees by lions according to Heller, but according to Rust by pigs).

We passed the Rudd place, from which Gledsha was introduced into California, and on down to Wynberg. Wynberg has a mean maximum temperature of 72, a mean minimum of 52, rainfall of 42 inches, and an elevation of 250 feet. Here, Henry Cloate owns the oldest Dutch estate, known as the Alphen Farm. The fine old Dutch house has floors of yellow wood, and ceiling and walls made of teak from India. The outer walls are of thick stone work, and the steps and grounds give the place the appearance of age and beauty.

The vineyards look in winter very much like the California vineyards. During this period a green cover crop is grown and turned under. It consists largely of Erodium cicutarium, cockle, oxalis, and herbarium numbers 24-29. This cover looks very much like the ruderal growth in California, but it differs in having no plants of Malva rotundiflora. The vines are trimmed back each year and each row supported on one or

two wires.

C 11. A vineyard with a single furrow plowed through the cover crop. This photograph also shows a grove of oak trees in the background, a small peach orchard, and some of the ranch houses.

This cover crop is not planted. The weeds are simply allowed to form a dense cover. The soil is rather dark loam to sand, with finely powdered granitic rock. It looks very rich. E. cicutarium, called gloes-bloem, is one of the prominent plants. Near this point is a planting of what is here known as barley-wheat, a hullless barley, with a young crop three inches high and an older crop just come to head at the same time. This indicates a great variation in time of seeding.

C 12. A general view of vineyard and home of Henry Cloate. This house is over 200 years old.

D 1. A vineyard of Kampoot grapes, with Table Mountain in the background on which are shown plantings of pine and occasional trees of Leucophyllum argentium.

D 2. A peach orchard, Crimson galand, with a green manure crop of natural weedy growth.

This is the chief export peach of South Africa. Mr. Cloete stated that from one cargo of pears shipped to London last season he received two shillings per pear.

D 3. The old home of Henry Cloete. The tree growth about this home is largely Quercus pedunculata. The photograph also shows Henry Cloete, Edmond Heller, H. C. Raven, E. W. Rust, and C. W. Malley, with a Napier car in the foreground.

Auto hire is relatively expensive here and ranges from an equivalent of about $25 to $40 a day. Gasoline sells at about 90 cents a gallon.

A big stone wine cellar is filled with casks. The bottles are imported from Sweden, and here I saw large barrels of kaffir melons used as pig feed.

We then drove to Toekai, the forest station, where a large variety of trees from all over the world are grown. Director King and his assistant, Mr. Zohn, walked through this great planted forest. An unusually large number of trees grow well and the eucalyptus forms great forests, but plantings

of this tree are now being discontinued because of the equal adaptability of the much more valued pine.

D.4. A grove of Eucalyptus diversicula or the Karri gum, 30 years old. Also shows Messrs. Raven, Rust, and Zohn.

In addition to an excellent stand there are now many young trees starting up on the forest floor, and this reforestation may be regarded as complete and self-maintaining. The Monterey pine, Pinus insignis, is the best pine giving the most rapid growth. It forms great forests and grows more rapidly than any other trees. The canary pine, P. canariensis, is the best timber tree. It is a three-needled, long-leafed pine and looks somewhat like our white pine. For exposed positions the cluster pine, P. meritima, is best, while on the lowlands the stone pine, P. pinea, is regarded as superior to the others. The Monterey pine does best at high elevations, although a large number of trees are planted here that apparently have no record of these plantings and up to the present no accounts of

the forest have been published, the director's time being almost entirely consumed with executive work.

The calla-lily, an occasional bracken, and low red oxalis and in the lower places bunches of the golden wattle, Acacia pygnantha, (a tannin plant) constitute the chief undergrowth.

Groot Constantia.

Groot Constantia is the Government wine farm, named after Constance, the wife of Adriaan von der Stel. The house was built in 1685, and is a wonderful example of architecture and of the excellence of the work done at that time. The large oaks, some of which are now fallen are Q. pedunculata. There are on this farm about 140,000 vines and from this home came the famous wine known as Cape. One of the most interesting features of this old home was the basement or cellar, constructed primarily for slaves in the early

D 5. Front view of the old mansion showing the type of architecture and thatched roof.

The roof of this house is thatched with a rush-like plant which grows everywhere on the mountainside.

D 6. The back door of this mansion, with steps of old brick, the arch covered with large bougainvillaea.

In general, the wine industry and forestry seem to be the most important in this section. All of the important trees are introduced. There are orchards of peach, pear, and apricot, also smaller areas of cabbage, cauliflower, and garden pea. The grasses are the numerous, although two were collected at Groot Constantia. Citrus orchards appear to be rather poorly cared for.

20. S.P.I.-48180. The Cape gooseberry, Physilis peruviana, was collected at this place. This plant grows wild throughout the Cape region and is the principal fruit for making jam, Cape gooseberry jam being regarded as one of the choicest dishes of this region. The plant has a more

or less upright habit and stands from one to two feet high.

We then passed west through Constantia Nek to the Atlantic side. The mountain shows a large growth of Erica, Protea, and Metalasia muricata which has almost exactly the same habit and seems to require conditions somewhat similar to our Eriogonum fasciculatum. A yellow composite is common on some of the hillsides. The bottoms or lowlands are often filled with a peculiar stand of a coarse, palm-like grass, Prionium serratium, used largely for bedding horses and similar purposes. The Proteas have somewhat the same habit as to the large-branching cacti, or the Aloes, or the Euphorbias. Many of these are wonderfully beautiful. In places there is a fair grass covering, but the pasturage is considered poor since the animals are never fat. The pasturage is better for goats than for cattle.

We had dinner at Hout Bay at an attractive small hotel. Hout Bay is situated on the Atlantic side, 15 1/2 miles south of Cape Town. Here the winds have carried the sands of the shore inland across the face of the mountain and valley. There is at this point a canning factory in which the huge crayfish, a crayfish considerably larger than our lobster, is canned. The Dutch East Indies Company, in the earlier days, fortified this Bay, and a number of the small forts can still be seen.

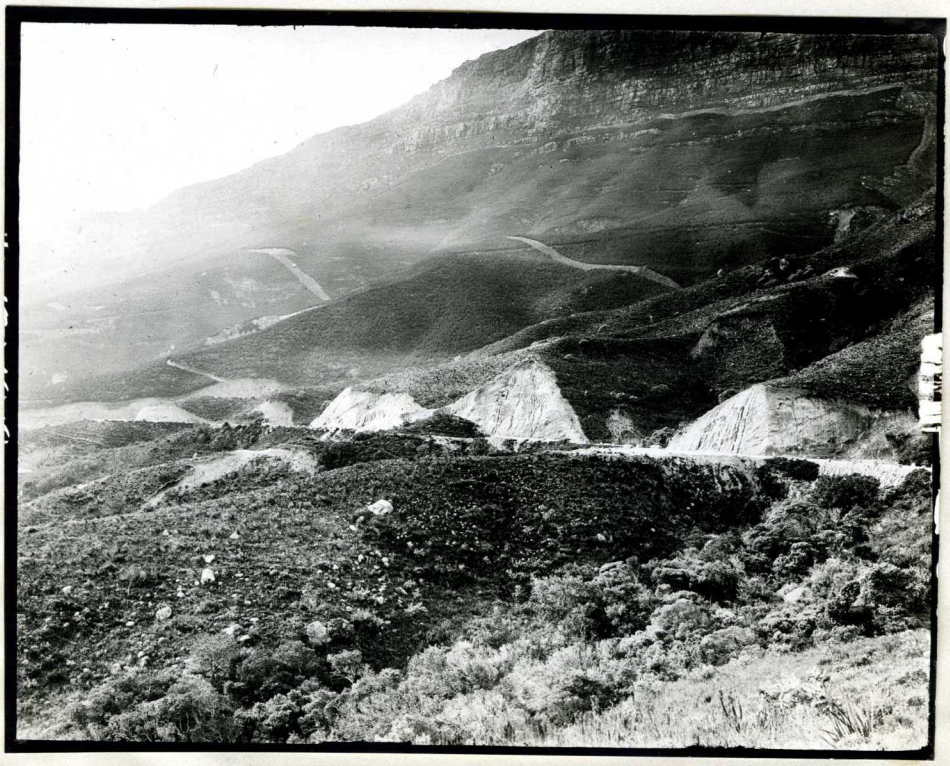
The hills are covered with Ericas, while the more protected and better watered locations show a more luxuriant growth of Proteas and, in some cases, Leucophyllum. The roadway here turns north along the coast, and the steep hillsides are like wonderful flower gardens. We collected at this point a number of plants, numbers 10 - 21, very few of which have been identified.

D 7. Shows the Atlantic side with a good growth of Proteas on the cliff, and clouds sweeping across from the Indian Ocean side in the background. The road built by convict labor is to continue along the coast from Cape Town to the Cape. It is here shown near the end of the completed section.

D 8. Looking north across the face of the mountain. Shows type vegetation.

The rocks here look somewhat like those of the Jurassic in the Pikes Peak region and the wind along this road is unusually strong, making it difficult to maintain a camera in an upright position.

D 9. Shows the general view looking north across Hout Bay, and in the background large plantings of pine. These plantings are made by the Government.



D 10. A much more detailed view and also shows fire-breaks on the mountains. In the foreground the natural vegetation consists largely of

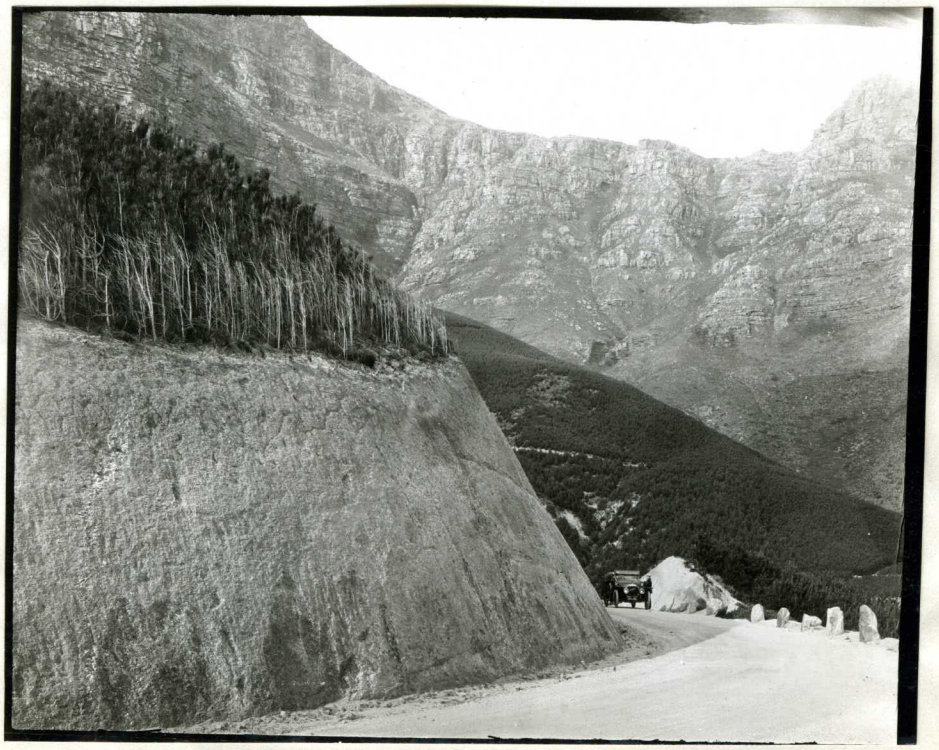
Ericas.

This coast vegetation is a type of chaparral which reminds one strongly of the coast vegetation in California. Extensive plantings of forest in the background were accomplished by merely scattering seed.

D 11. A white flower shrub, Metalasia muricata, which looks much like the Pacific Eriogonum fasciculatum. In fact, the vegetation looks almost exactly like that on a California hill, but botanically there is northing the same.

This shrub growth is deep-rooted, has small coriaceous green leaves above and white below, and is almost spiny to the hand. See herbarium 10.

D 12. Bobartia spathacea known as Biesroei, one of the irises, which looks like an unusually long-stemmed and tough rush. Seems admirably adapted to all kinds of mat and basket work, and should do well on the relatively dry coast hills. Fire has destroyed much of the taller vegetation.



E 1. Shows a cut in the road through soft granite, with pine - probably Pinus pinester - on the mountain side. Wind damage shown at the left.