

B.P. Schubert:

Trip records - Puerto Rico Nov.-Dec. 1954 }  
Photographic records (back of boots) }

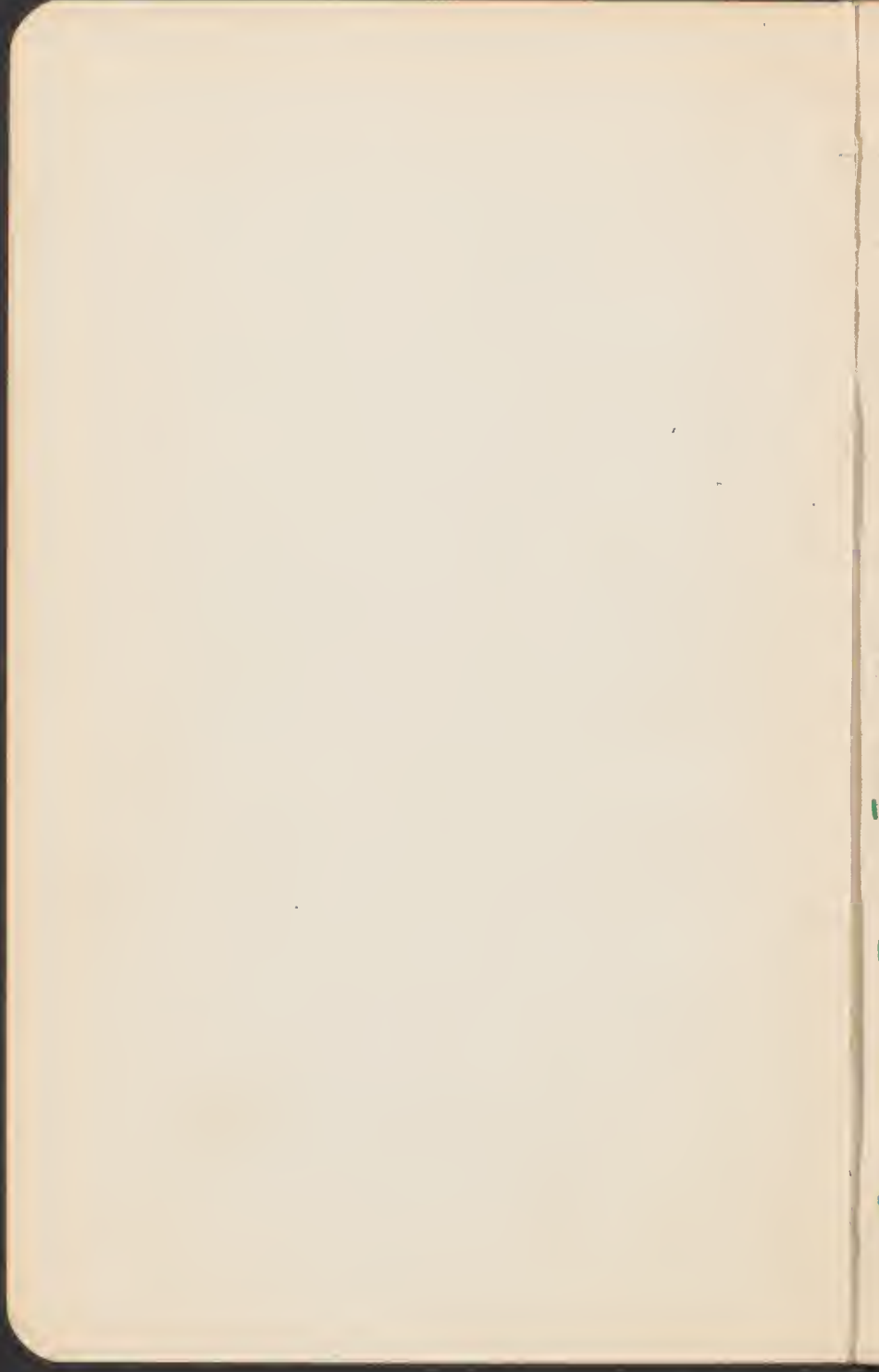
Panama + C.R.

May-

C.R. - Jan '56 -

53-B-22320

Manufactured by  
U. S. Government Printing Office



Puerto Rico

Arrived Mayaguez, Wed., Nov. 3, 1954  
walked around part of station +  
greenhouses in afternoon

11/4/54 Collected at Las Mesas (Monte  
Mesa of H. P.R.) in A.M., Piptadenia,  
Helicteres, Adesmanthera, etc.

Visited Polytechnic Inst. in  
P.M. Arranged for trip with  
Dr. Veliz on Fri., Nov. 12.

11/7 Worked on specimens + records  
at Expt. Sta., Mayaguez.

11/8 Collected on Station grounds,  
Mayaguez

11/9 all day trip to Maricao to  
collect 559 - 318

11/10 worked on specimens  
examined + photographed  
Dioscorea plantings

1. The first part of the paper is devoted to a

general introduction to the

subject matter, and to a discussion of the

main results of the paper, and to a discussion of the

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- 11/22 Collected at El Yunque  
+ Mt. Britton nos 388-407  
(excl. no/394).  
Cambridge
- 11/23 Collected at El Yunque chiefly  
on roads near Ranger Station,  
and old trail behind it  
nos/ 408-423
- 11/24 prepared material from  
Luquillo collections and  
put herbarium material  
from all collections in order
- 11/25 Thanksgiving Day
- 11/26 Sent 1 pkg., 7 1/2 lbs,  
Air Express Collect - containing  
Rauwolfia lamarchii  
dried bark, roots, + lvs. for  
testing + seeds for prop-  
marked att.: COE  
letter of transmittal to Mrs. Haines
- 11/27 Mayaguez (Sat.)



- 11/28 worked at Station on records  
+ lists (Sun)
- 11/29 worked on Dioscorea + looked  
at some Strophanthus plantings  
took photos
- 11/30 Collected at Guilaude Forest  
425-445
- 12/1 worked at Station on collections
- 12/2 Collected at Cambalache Forest  
with Freyre 446-462
- 12/3 worked at Station
- 12/4 Collected at Cabo Rojo Eighteen  
Branch (Warmke + Fontaine)  
463-469
- 12/5 Sun
- 12/6 worked at Station
- 12/7 Collected at Maricao (Winters)  
470-488
- 12/8 worked at Station

- 12/9 Collected at Las Mesas (winter)  
(Piptadenia, 2nd coll.) 489 - 494  
+ 29 plants
- 12/10 Collected Cassia at  
Maricao (winter 15)
- 12/11 Worked at Station
- 12/13 (Mon.) " " "
- 12/14 Left Mayaguez for San Juan  
+ Miami
- 12/15 Left Miami for Washington

## Panama - Costa Rica trip

5/17/55

5/17 left Washington Airport 12:45 P.M. <sup>DST</sup>  
 Arr. Miami 3:30 EST.

left Miami 8 PM EST

arr. Panama (Tocumen Airport)

5/18 12:50 AM Taxi to T wali Guest House  
 Ancon, C.Z. \$1.25 baggage transfer 75¢

saw Dr. J. Zetek + arranged  
 to go to Barro Colorado 5/20 +  
 to stay until 5/21.

5/19 } spent A.M. with Dr. Walter  
 nos/ } Lindsay - saw *Ormosia*  
 600 - } trees + collected from 1 fruiting  
 602 } spec. near Corozel cemetery -  
 seeds + hb. spec. <sup>5</sup>

collected 2 native *Dioscoreas*

evening saw Mr. Ciro de la  
 Victoria who collected *Ormosia*  
 seeds with Holdridge + compared  
 labels - gave him shipping tags  
 + told him to ship to Insp. House  
 Air Freight Collect.

5/20 to Barro Colorado Island  
(by train to Frijoles + launch  
to B.C.Is.)

5/21 B.C.Is. + ret. to Pancon

5/22 By bus to Colon + ret. (Dr. Lindsay  
by messenger)  
rec'd seed of *Armozia* + *Enterolobium* from

5/23 7:15 A.M. plane to C.R.  
met by Hunter of Stica at  
Airport - saw Holdridge +  
went to Embassy - Customs.

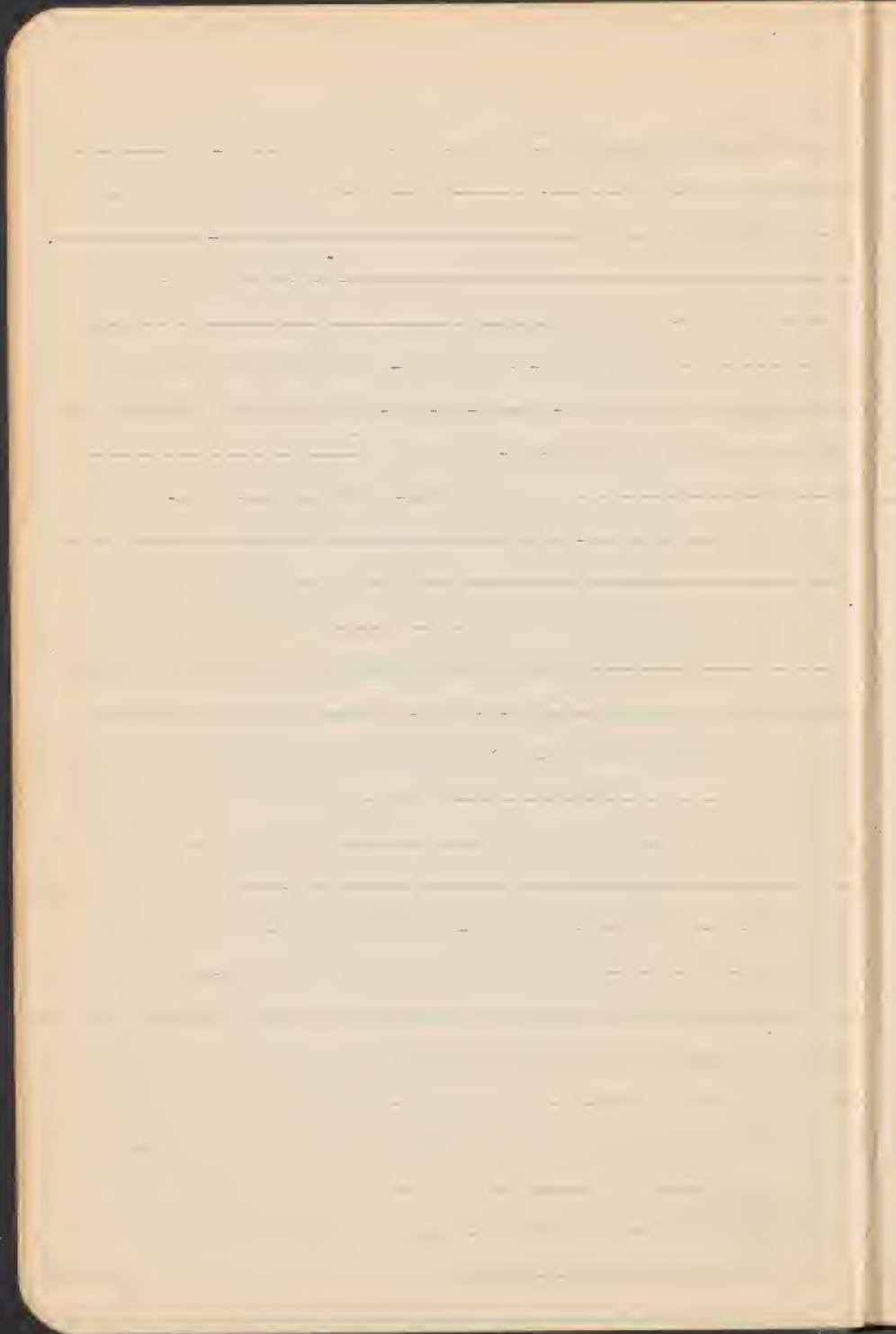
5/24 AM Embassy (Mr. Pisa)  
Customs + Dr. Pines

left about 3 P.M. with Dr. Holdridge  
for Turrialba to stay overnight.  
Met Dr. Allee etc.

5/25 Walked trail to river - coll.  
*Begonia*, n° 614.

left about 2:30 for San José





- 5/19/55 Panama Canal Zone with W.R. Lindsay  
n<sup>os</sup>/ 600-602
- 5/20-21 Barro Colorado Island  
n<sup>os</sup>/ 603-613
- 5/24-25 Turrialba with L.R. Holdridge  
+ D. Rogerson  
n<sup>o</sup>/ 614
- 5/28 Alajuelita with D. Rogerson  
n<sup>os</sup>/ 615-62~~7~~<sup>9</sup>
- 6/2 Las Nubes with D. Rogerson  
n<sup>os</sup>/ 629-636
- 6/4 Las Nubes with D. Rogerson  
n<sup>os</sup>/ 637-651
- 6/7 Alajuelita with D. Rogerson  
n<sup>o</sup> 652-667
- 6/8 Finca Las Concazas (Mr. Lankester)  
with D. Rogerson  
n<sup>os</sup>/ 668-671





- 6/9 Alajuelita with D. Rogerson  
nos/ 655a, 672-676
- 6/11 Irazu with D. Rogerson  
nos/ 677-695, 731, 732 (see blk. 4  
no/ 684)
- 6/14 Aserrí with D. Rogerson  
nos/ 696-707
- 6/15 Pan-Am. Highway with  
C. H. Lankester + D. Rogerson  
nos/ 708-730
- 6/18 Alajuelita with D. Rogerson  
nos 627a, 627b, large samples
- 6/20, 21, 22, 23  
Finca Volcan Angel with  
D. Rogerson (nos/ 750 + 751) 733-774
- 6/27 Finca La Nela with D. Rogerson,  
Ing Lozano + Miguel Ortúño  
no 672a large sample

[The page contains extremely faint, illegible text, likely bleed-through from the reverse side of the paper. The text is too light to transcribe accurately.]

- 6/29 Pan Am Highway with  
D. Rogerson 779 - 788
- 6/30 Alajuelita with D. Rogerson  
large samples  
nos/ 663a, 627c, 775 - 778
- 7/<sup>2</sup><sub>3,4</sub> Sonador Farm - Finca Volcan Ciego  
with D. Rogerson + M. Cone  
nos/ 789 - 821
- 7/9 Volcan Irazú with D. Rogerson  
nos/ 822 - 827
- 7/12 Left San José for Turrialba
- 7/13 Collected on trail (right-hand side)  
to Reventazon River in back  
of Institute Building.  
nos/ 828 - 845
- 7/14 Collected on trail (left-hand side)  
846 - 859
- 7/15 Collected in hills opp cont. 860-865  
+ hills Palenque

~~17.11  
H. 5/6  
2/16/7~~

~~12.11  
H. 5/6  
2/16/7~~

- 7/15 with D. Rogerson + J.J. Cordoba - in  
A.M. 860-865 + bulk Palicourea  
bulk collections in P.M. Palicourea + Hamelia
- 7/16 Collected on river trail + worked  
on presses 866-867
- 7/17 Collected on forest trail in hills  
opp. Inst. with Jorge Leon.  
868-876 + large coll Mollinedia
- 7/18 Trip to Moravia to collect with  
D. Rogerson + J.J. Cordoba  
877-888
- 7/19 Worked on presses + large sample  
of Mollinedia
- 7/20 Trip to Hills opp. Inst. <sup>+ Inst. grounds</sup> with  
~~17~~ D. Rogerson 889-895
- 7/21 Trip to Puntarenas with J. León +  
D. Rogerson  
Nos/  
Stayed at Puntarenas for night



7/22 went from Puntarenas to Barranca  
then to Las Cañas

N<sup>o</sup> 5

Stayed at Liberia for night.

7/23 Left Liberia about 7:45 A.M.  
collected some on return trip  
reached Turrialba about 5:15 P.M.

N<sup>o</sup> 5

7/24 Turrialba, worked on presses +  
samples

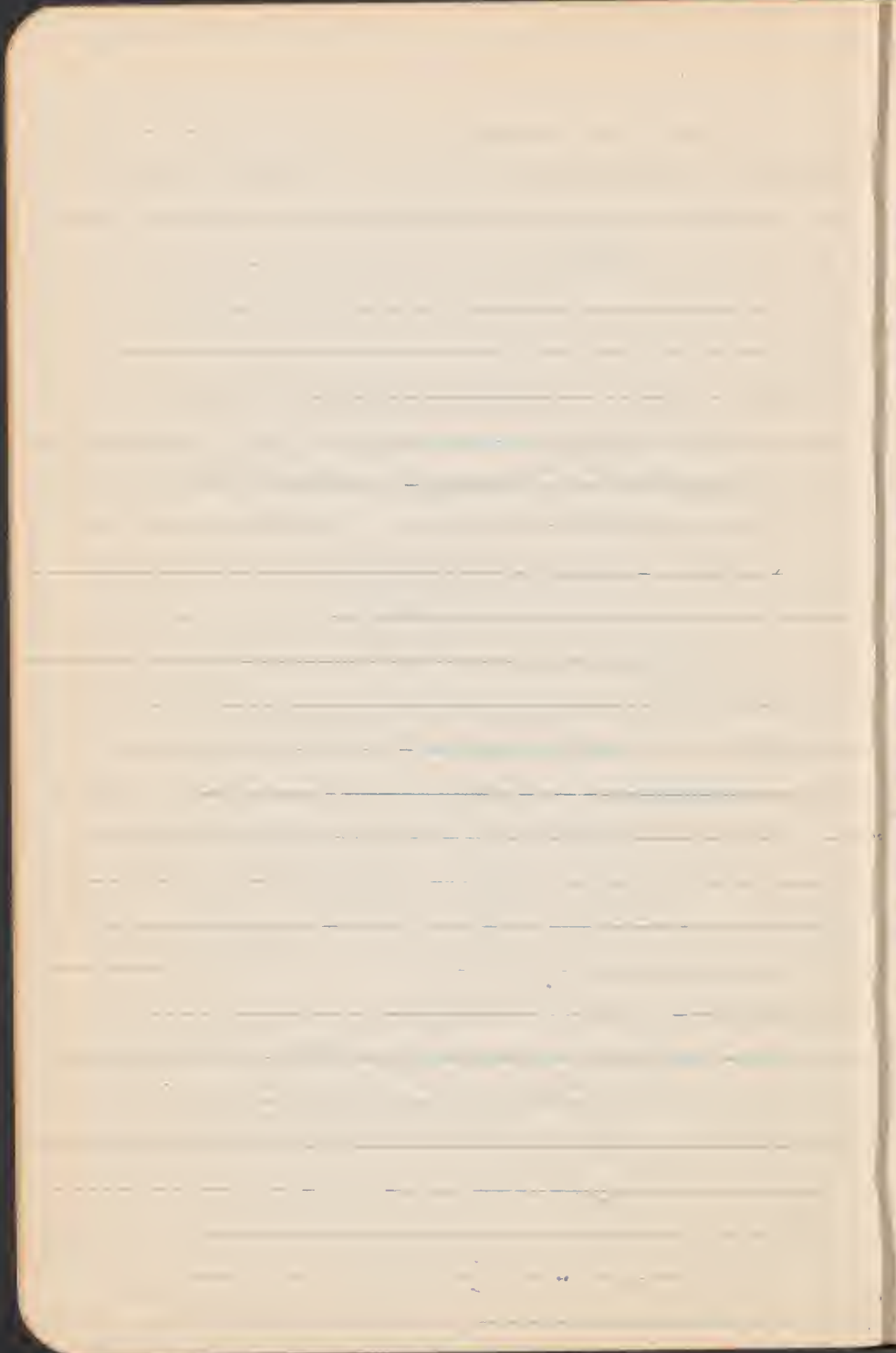
7/25<sup>7?</sup> To La Suiza to look for  
Hamelia + Palicourea  
+ worked on presses + samples.

7/26 To San José to Embassy  
→

7/28 Volcan Turrialba with J.J. Cordoba

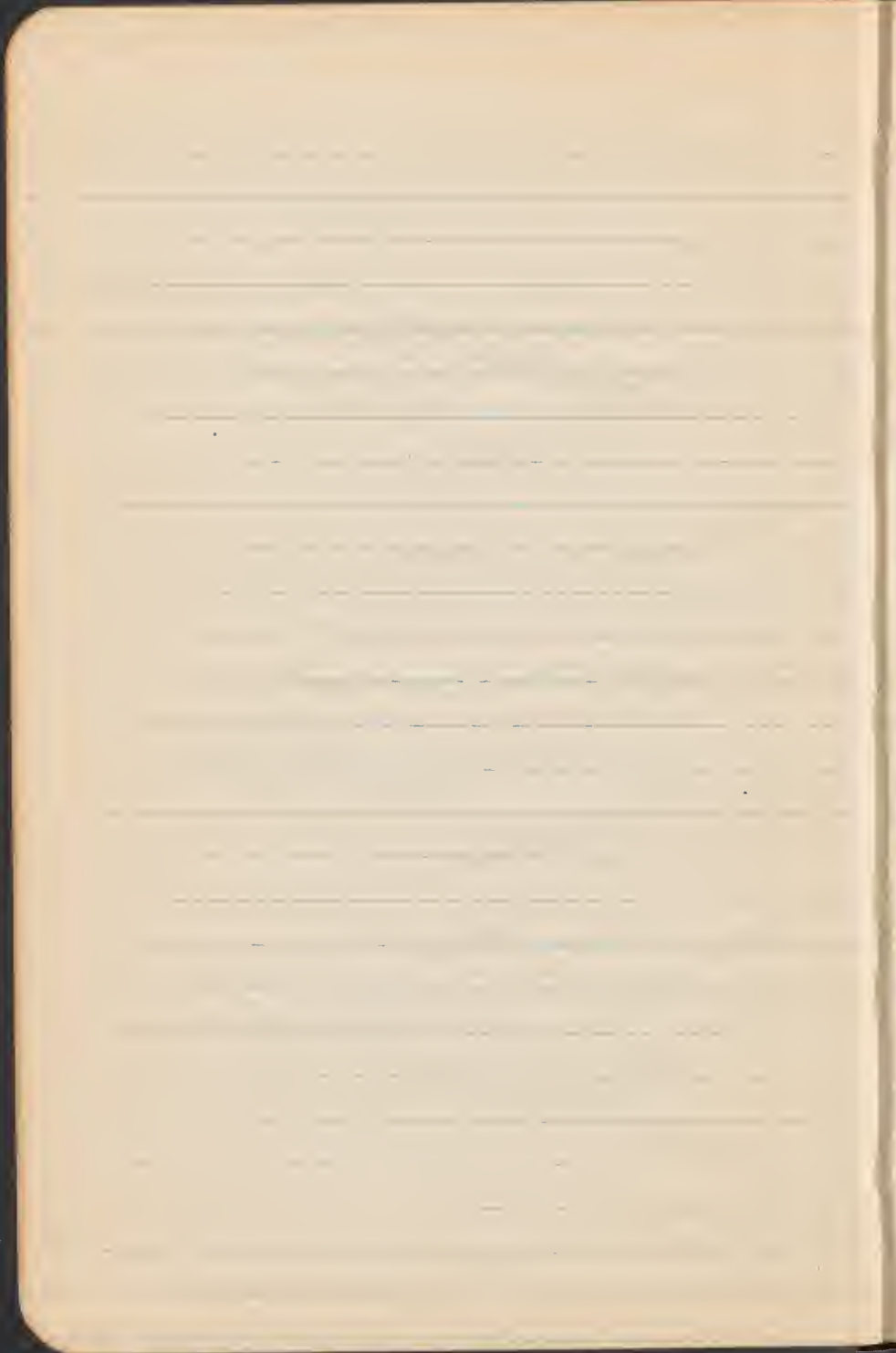
7/29 Institute

7/30 bulk colls opp Inst.





- 7/31 MacPhillamy & Ufer <sup>at</sup> Inst-  
from Ciba
- 8/1 ret'd. to San José
- 8/2 San José
- 8/3 " "
- 8/4 " "
- 8/5 " "
- 8/6 Dr. & Mrs. Horning arriv'd
- 8/7 Cartago
- 8/8 San José
- 8/9 Pan-Am Highway with  
Hornings to get bulk coll.  
of *Zanthoxylum melanostictum*
- 8/10 San José
- 8/11 Turrialba



8/12 Las Conchas with Hornings

8/13 Hornings left

8/14 San Jose

8/15 Prepared bulk shipment

8/17 Ret'd to Miami via Havana

8/18 " " Washington

The first part of the paper is devoted to a general  
 discussion of the problem. It is shown that the  
 problem is equivalent to the problem of finding  
 the minimum of a certain functional. This  
 functional is defined as follows:

$$J(u) = \int_{\Omega} |\nabla u|^2 dx + \int_{\Omega} f(x) u dx$$

where  $\Omega$  is the domain of interest,  $\nabla$  is the gradient operator, and  $f(x)$  is a given function.

The second part of the paper is devoted to the  
 derivation of the Euler-Lagrange equations for the  
 functional  $J(u)$ . These equations are shown to be  
 equivalent to the problem of finding the minimum  
 of a certain functional. This functional is defined  
 as follows:

$$I(u) = \int_{\Omega} |\nabla u|^2 dx + \int_{\Omega} f(x) u dx - \int_{\Omega} g(x) u dx$$

where  $g(x)$  is a given function. The third part of  
 the paper is devoted to the derivation of the  
 finite element method for the problem. It is shown  
 that the finite element method can be used to  
 approximate the minimum of the functional  $I(u)$ .

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 functional  $I(u)$ .

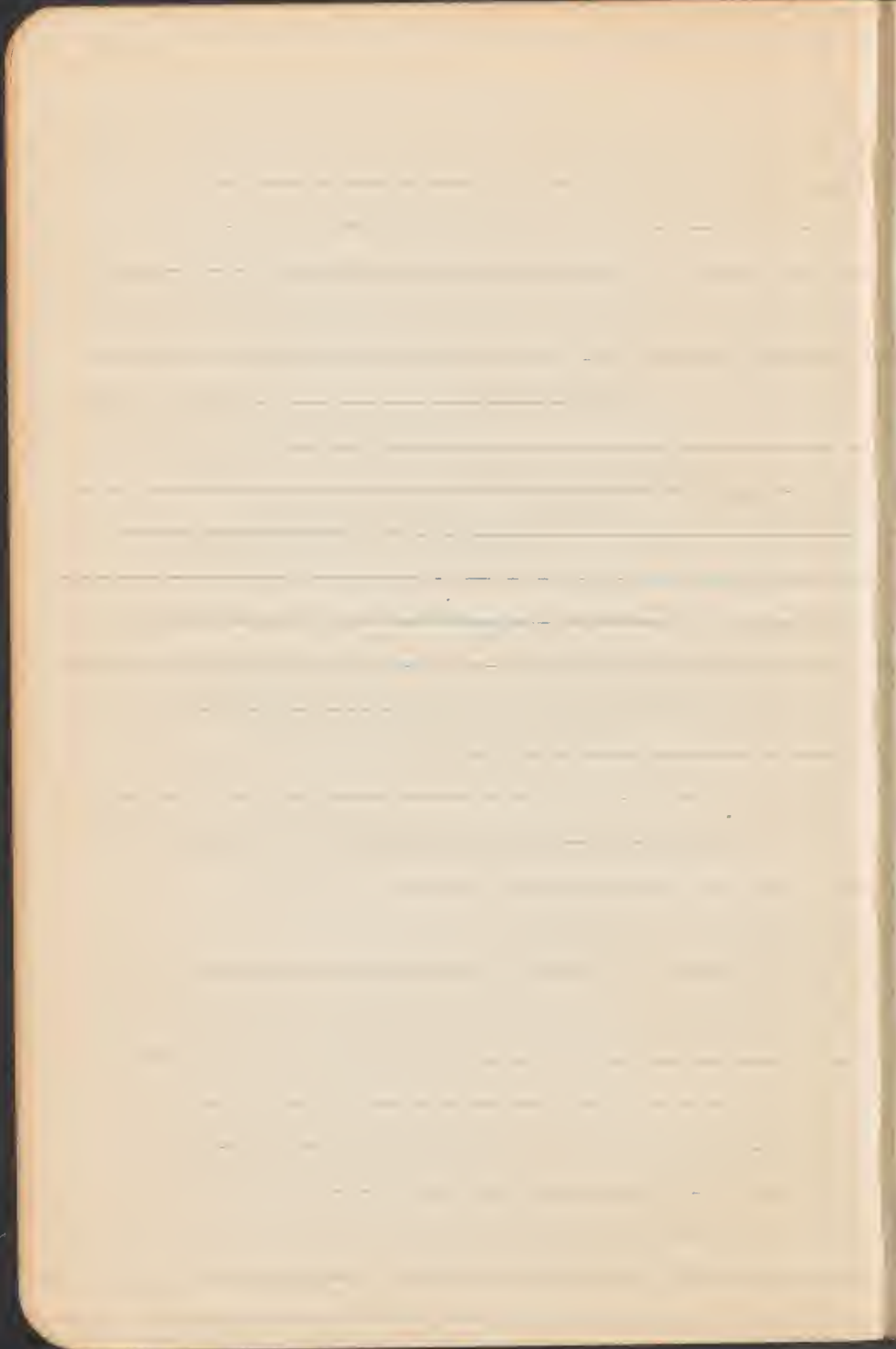
The eighth part of the paper is devoted to the  
 derivation of the finite element method for the  
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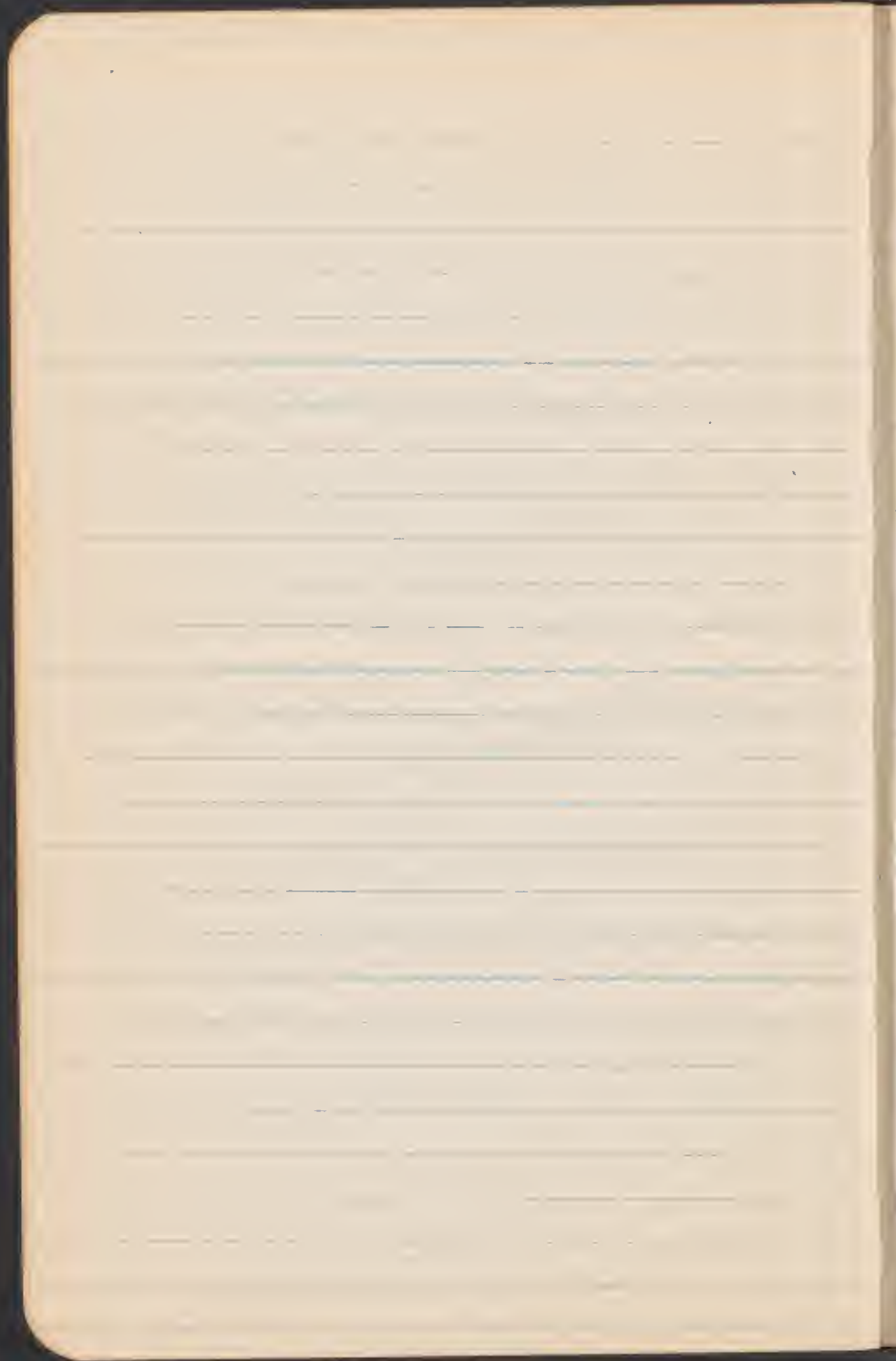
The tenth part of the paper is devoted to the  
 derivation of the finite element method for the  
 problem. It is shown that the finite element method  
 can be used to approximate the minimum of the  
 functional  $I(u)$ .

## Costa Rica 21

- 1/11/56 Left Washington  
Arr. Miami
- 1/12 Left Miami  
Ret. Miami  
visited Coconut Grove, P.I.C. in  
afternoon
- 1/13 Left Miami  
Arr. San José
- 1/14 To Inst. Turrialba office in  
San José in A.M.  
Collected in vic. Moravia  
in P.M. with L.R. Holdridge
- 1/15
- 1/16
- 1/17 To Inst Turrialba  
with Dr. Casseres

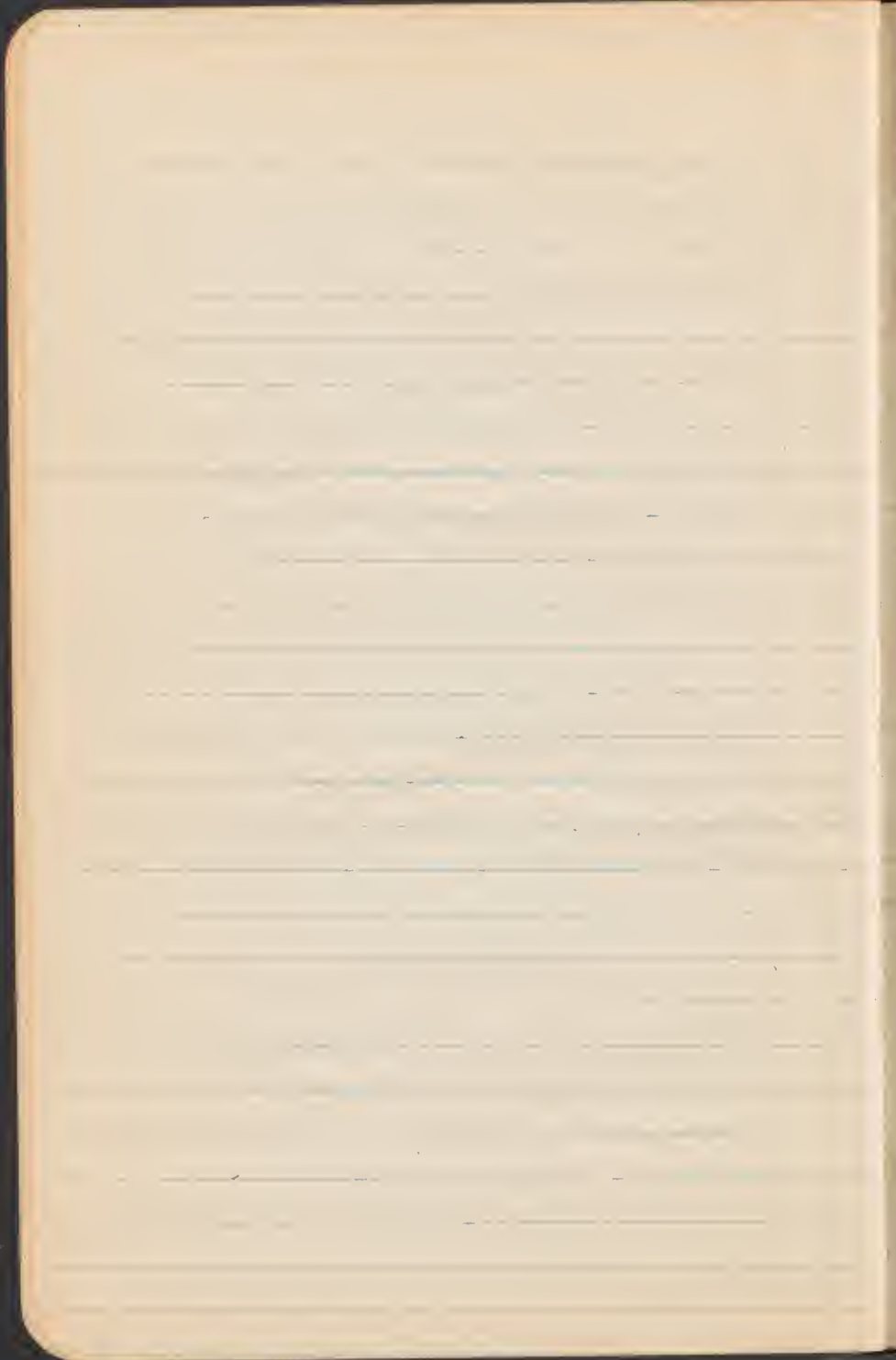


- 1/18 STICA Mr. Smith in A.M.  
Dr. Hurlimann (CIBA) noon
- 1/19 STICA Mr. Smith PM.  
Inst Turriella office San Jose
- 1/20 STICA Mr. Shea
- 1/21
- 1/22 Cartago
- 1/23 Pt. IV office  
Sr. Madrid at 5 P.M.
- ~~1/25~~ 1/24 Heredia (STICA nurse)   
 1/25
- 1/26 Got jeep
- 1/27 To Puerto Viejo de Sarapiquí  
with L.R. Holdridge





- A.M. collected
- 1/28 Puerto Viejo to San Jose P.M.
- 1/29 Inagu with Dr. Hurlimann
- 1/30 Rec'd equipment
- 1/31
- 2/1 Atenas to collect with Sr. Madrid
- 2/2 Las Nubes to collect with Mrs. Crellana
- 2/3 Cartago to take Begonias to Linda Vista to be kept for prop.
- 2/4
- 2/5
- 2/6



- 2/7 Atenas with Sr Madrid to collect
- 2/8 San José working on spec<sup>ms</sup>
- 2/9 " " " " "AM  
went over Hurlmann's coll<sup>s</sup> in P.M.
- 2/10 To see Dr. Carramano re trip to Tenorio
- 2/11
- 2/12
- 2/13 6:15 left in jeep for Hacienda Tenorio  
Arr. Las Cañas 12:15  
Went to La Pacifica (CIBA) with Dr. Hurlmann; arr. Tenorio 4:15
- 2/14 Coll - Tenorio



2/15 Coll. Tenoio

2/16 Coll. Tenoio

2/17 Coll. Tenoio

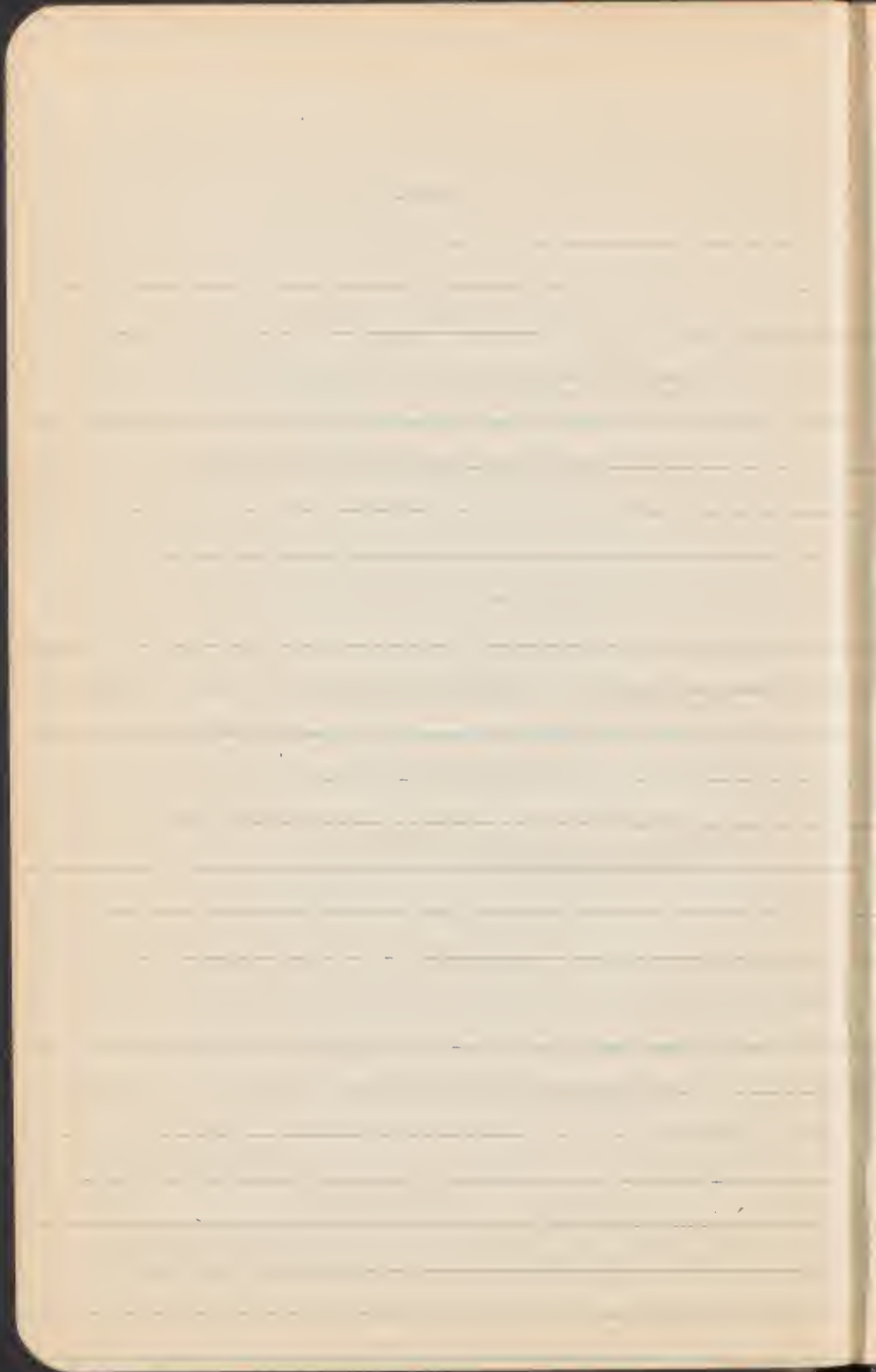
2/18 Left Tenoio for San José  
7:50 A.M. Arr. San José  
3:15 P.M.

2/19 San José

2/20 Jeep to be fixed

2/21 rec'd jeep in P.M.

2/22 To Inst. Turrialba  
to take chemical samples  
with E. Scamman



2/23 to El Coco for D Rogerson

2/24 San José

2/25 San José

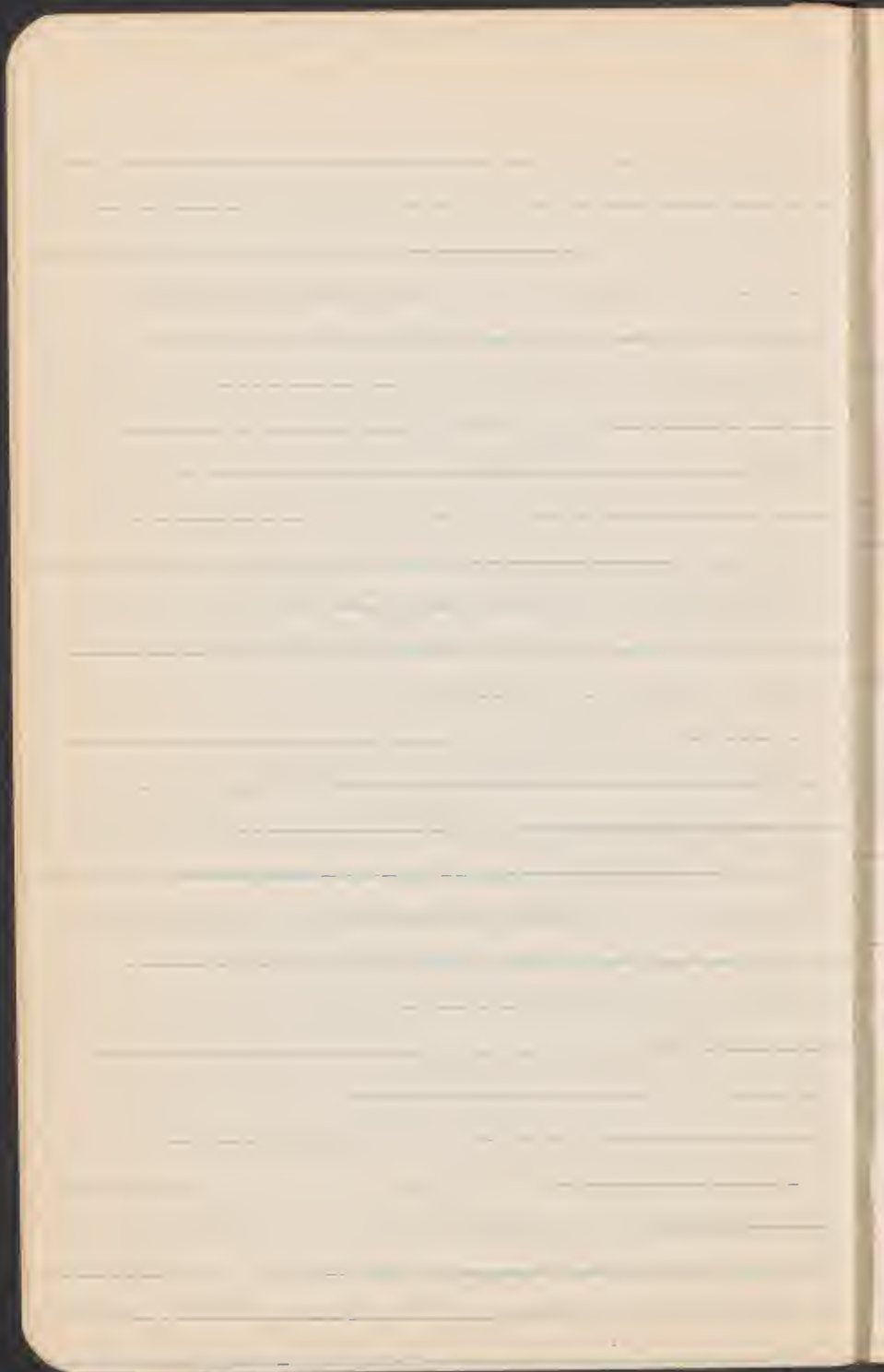
2/26 Rio Segundo - Finca  
Flor del Mayo (Mr. Leubster)

2/27 STICA - Embassy re.  
jeep for DLR + re Los Diamantes

Commander Sansonetti in  
P.M. re visiting Italian  
Colony

2/28 Left La Sabana 8:30 AM  
by AVC (pilot R. Edgerton) for  
Guapiles - arr. 9 AM -  
met by Dr. McMillen in jeep  
for Los Diamantes

2/29





3/1

[Faint, illegible handwriting on a lined page]

B  
Q  
J  
W  
I  
S

Costa Rica Feb. 4, 1957 —

Sun. baggage ramp. Wash 50¢ Taxi 40¢  
Miami 50¢Taxi 40¢  
Arr. San José 12:40 P.M. (=1:40 EST.)  
Feb. 4 - baggage 50¢Feb. 5 - Embassy to arr. for license  
Tues.

Holdbridges

Wed Feb. 6 - Embassy

Pefidera to arr. for trip  
to Puerto ViejoInst. offices Turrialba fare  
Thurs. Feb. 7 - Inst. To arr. for \$10  
trip to Las Cañas, Highway, etc.

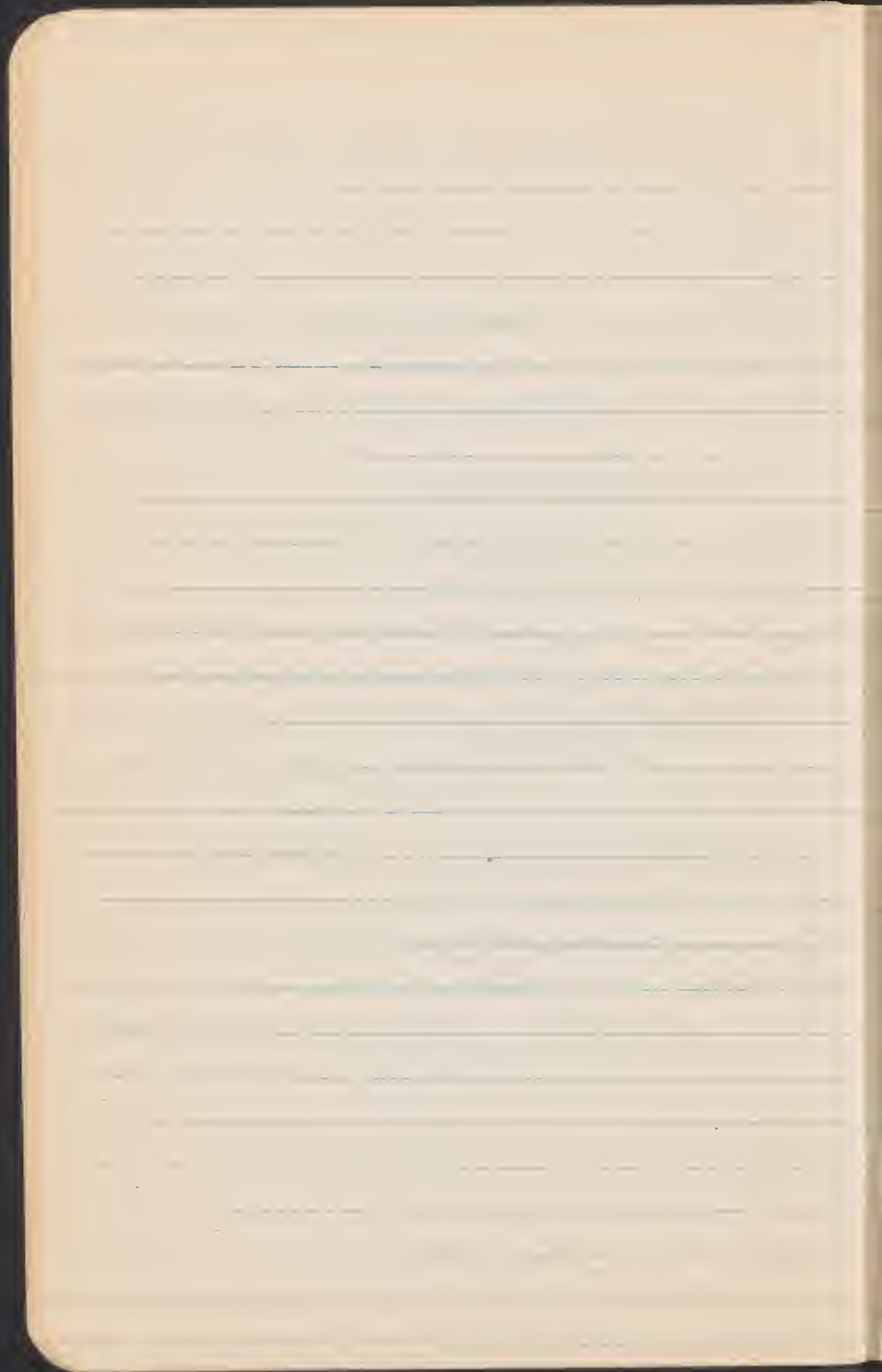
Fri. Inst. off.

Bought paper bags \$ 47.<sup>05</sup>  
" sachs \$ ~~6.25~~  
10

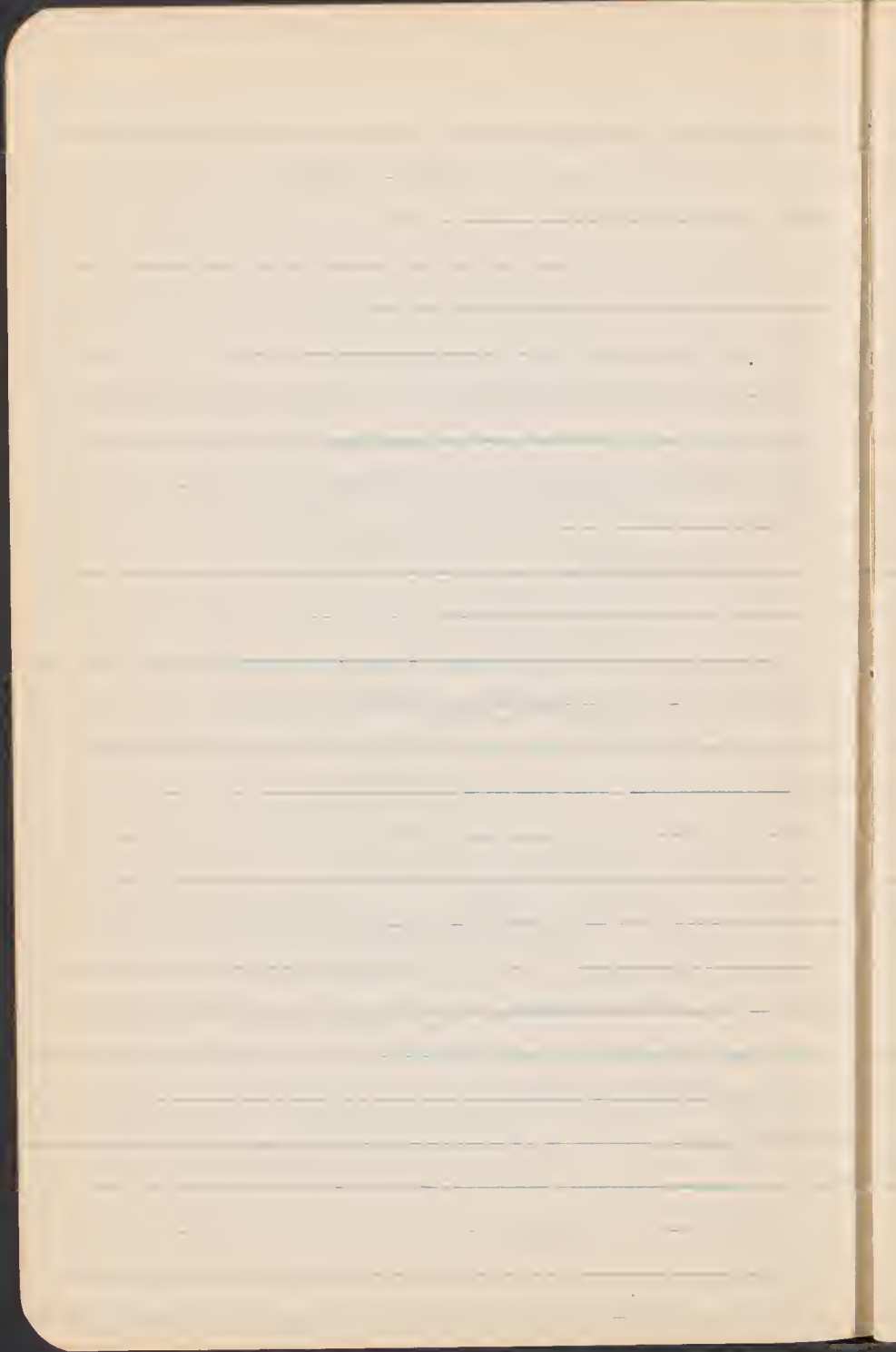
Sat. left 8:30 AM for PV de S.

Sun coll nos 1350 - 1360

Mon. A.M. rain







Costa Rica (2)

Roll 1

Irazu

Cartago from highway

Euphorbia from Alajuela rd.

Atenas from rd.

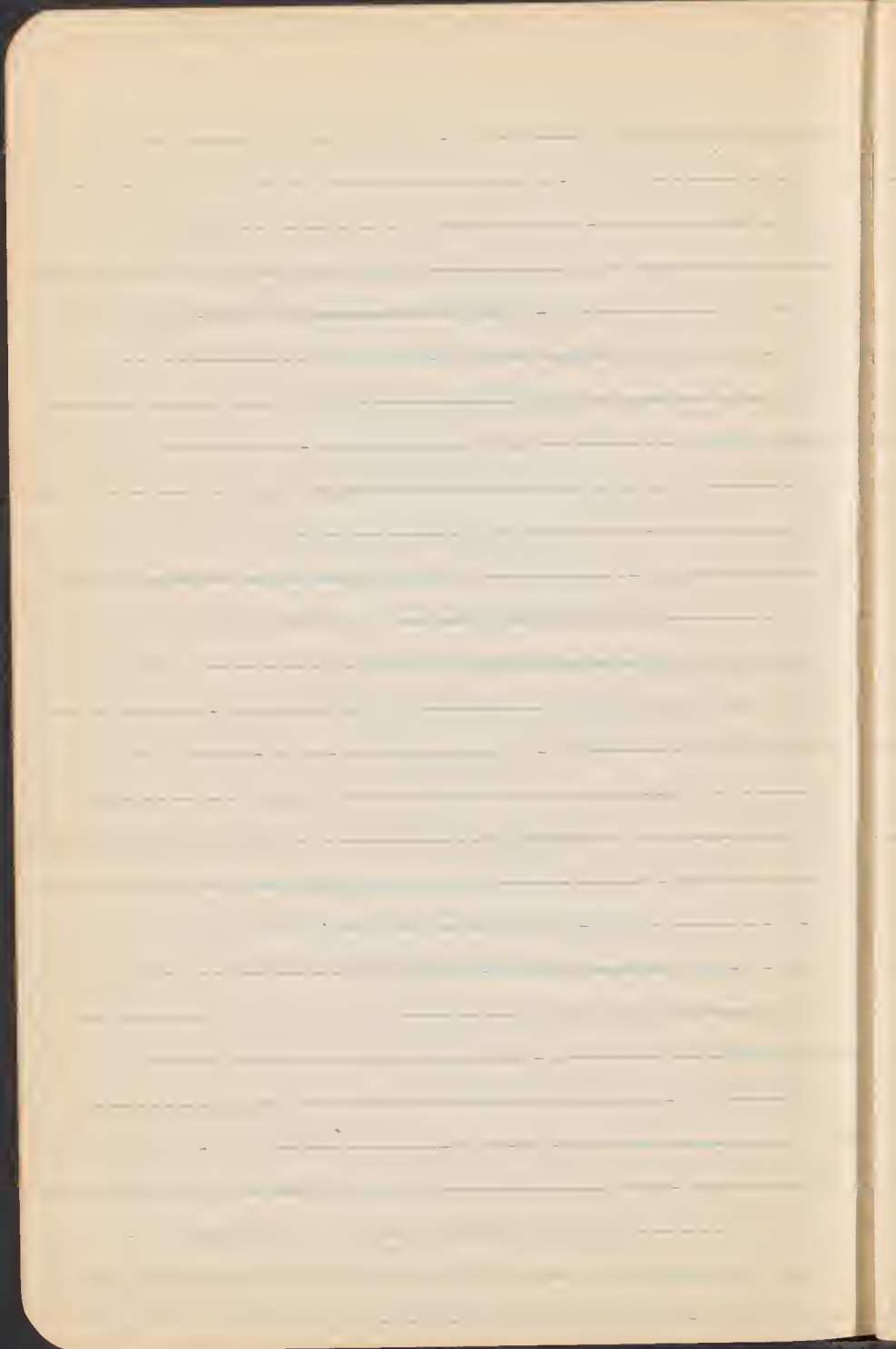
Poas from Atenas

Cutting Coconut at Tenorio

Pracocks " "

Roll 2

Finca Flor del Mayo  
Picnic (Mr. Lankester's)

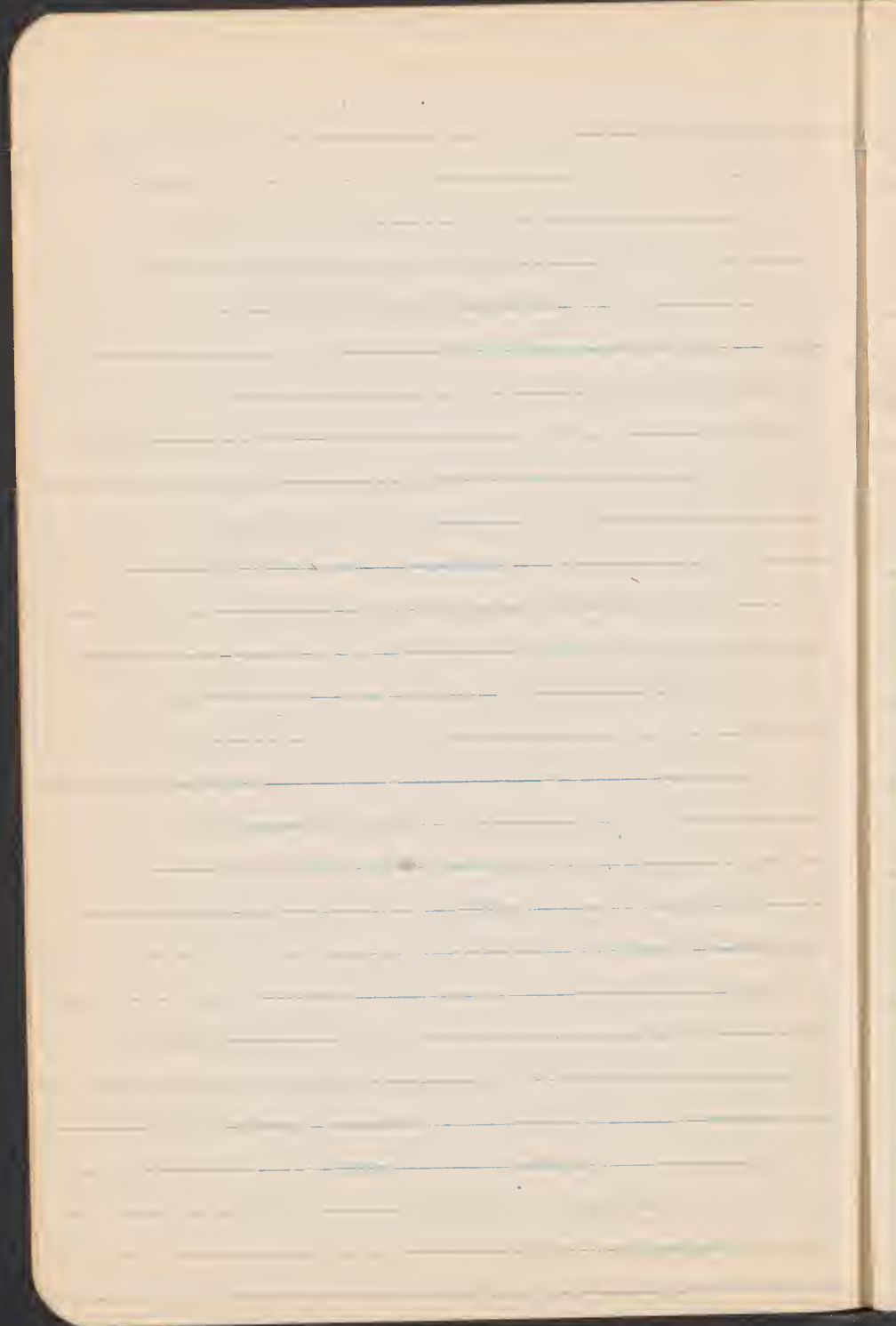




Costa Rica (1)

Roll 4

- 1+2 cattle returning to dairy  
3 Nicholas (gauchero)



Erythrina berteroana  
some Strophanthus  
planted on -

also Black pepper on  
this.

list of detts of  
Strophanthus n° 3  
wanted

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L

# 354

*Ochromia huourei*

	<u>m</u>	<u>s</u>
Fruit	++	+
Bark	+++	+++
Leaves & stem	-	-

Roll 5. continued

22. ~~Combretum~~ planting at Station  
with ~~Bougainvillea~~ above it and  
~~Congea~~ just starting above that.

Roll 6.

- 11/30/1. } Coffee tree in fruit, rd. to  
2 } Guilarte Forest

- 12/2/15<sup>4</sup> 3. } Teak plantation at Cambalache  
4. } Forest.  
5. }

Roll 5. continued

6. Roast pig in front of restaurant  
- La Verdadera Lechonera

11/21/54

7 } Falls at El Yunque  
8 }

9. Sea from restaurant area  
El Yunque Resort

10. twd San Juan from Mt. Britton

11. " El Yunque " "

12. hills west of San Juan


13. twd. San Juan

5/9/22

11 ↑

↓

14. Strophanthus PI 189622

2 double fruits grows to look like 1  
4-parted one 

15. heavily fruiting, bush-trained

16. type PI 189622

11/29/54

supplemental  
Exp. {

17 bush type planting

18 trellis " "

} high yielding  
recently sent  
nos 199225  
226  
227.

19 bush type "

20 trellis " "

21 " " fruiting

} early sending  
PI 189622

4

sent to Olive St. 1.1.19, 54

Roll 4.

- 1. Guanica Bay from the shore
- 2. " " " " "
- 3. " " " " "

- 4. Guanica Bay from the forest
- 5. " " " " "
- 6. " " " " "

7. Winters at Tamarindo

8. Opuntia, in flower, as close up as possible - Tamarindo -

9. Group of Opuntias, at same loc., slope on side of road Tamarindo, Guanica Forest, P.R.

10. Turk's Cap cactus, genus Cactus in fl. + fr., near Tamarindo, Guanica Forest, P.R.

45/7/11



45/5/11

11-20 continuation of Dioscorea plantings with PI. no. in photos

Roll 5

- 1. Guajataca from main road
- 2

3-5 Sugar cane in flower - road to San Juan between Guajataca + S.J.

45/12/11

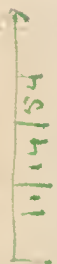


Roll 3. continued

- 7. Cathedral, Ponce front to + back of
- 8. " " " " Fire House

- 9. Fire house, D. Rogerson in front.
- 10. a Ponce school with Pomisetias in corner + street adjoining

- 11. } From hill to surroundings
- 12. } of Ponce (land side)
- 13. }
- 14. }



- 15. } to sea from Ponce
- 16. } including island (Hona?)
- 17. } from hill.

- 18. Playa Ponce to sea incl. island + boat

4/2/54

- 19. Couroupita guianensis Aubl on Sta., Mayaguez with telefoto lens
- 20. Same as 19, with f 1:2 lens
- 21. Administrat<sup>n</sup> Bldg, Mayaguez Sk.

Roll 2. continued

- 4. Observation Tower, Maricao Insular Forest toward San German
- 5. " toward Mayaguez (behind hills)
- 6. " toward north shore
- 7. " ne. toward rough hills
- 8. " toward S. shore, ~~Guantanamo~~ <sup>Guánica</sup> Bay

9-20 *Dioscorea* plantings, close ups of numbered collections (PI nos. in photos)  
 11-10/54

rec'd 11/26/54

Roll 3. sent to Rochester, N.Y. 11/15/54

- 11/15/54 {
- 1. Junction of Tabonuco + Maricao Rd., looking twd S. shore of island.
  - 2. Same only 1 rec'd
  - 3. Harold Winters
  - 4. Same loc. as 1 + 2 showing curving rd. in distance twd right.

- 11/4/54 {
- 5. Fire house, Ponce
  - 6. " " "



①

# Photographs

Roll 1. rec'd transparencies 11/19/54

1. Approaching Miami by air.
- 3-5. Leaving Miami by air
6. " San Juan, P.R. for Mayaguez
7. " " " , coconut palms
8. half way betw. San Juan + Mayaguez  
low limestone hills
9. farther inland - hill country
10. same but denser hills
11. } Piptadenia peregrina in fruit at
12. } Las Mesas outside Mayaguez
13. { Old coffee mill at Las Vegas on
14. { Limon Rd. toward Maricao, P.R.  
at Km. 16
15. { the village with breadfruit tree  
in foreground Km. 16

Roll 2. (not lost) rec'd transparencies 11/18/54

1. { women washing clothes in river
2. }
3. houses on other side of bridge

same place as  
11-18-54

1-31

