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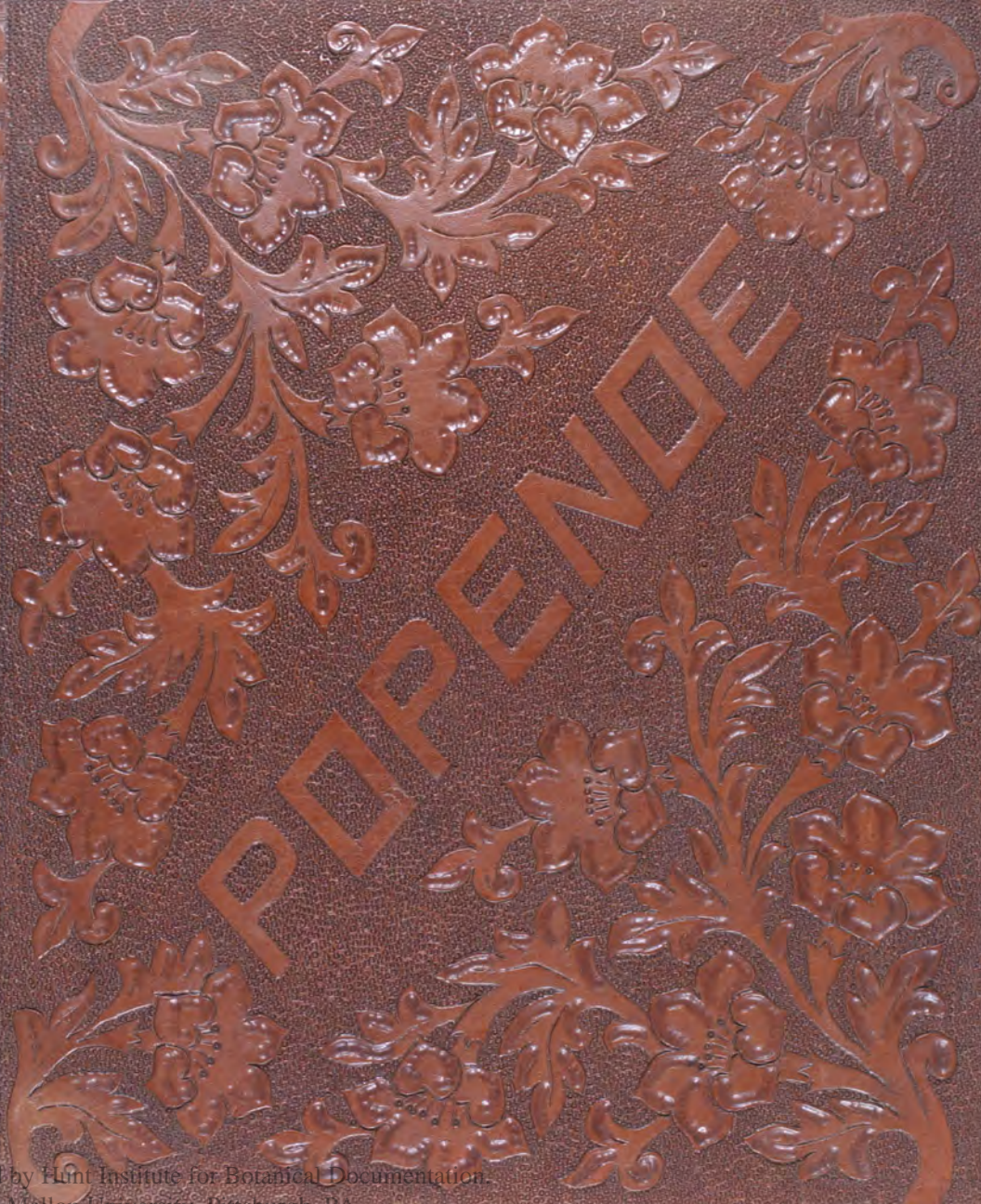
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About the Institute

The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.







Paul Wilson at
Vollawa Farm

3.

Chosen for publication
in Wilson Papers,
by Rosenzweig
but not used.

1896 - Summer.

Photo album - Collection #204
7

Not accessioned in present collection because of poor quality image.



Popenoe, Frederick Wilson
HI Portrait # 3

From Coll. #204, Photo Album 7

Published in Wilson Popenoe by
Frederick Rosengarten
LB P826 R, p. 59

See Envelope, Coll. 204, Box 43



Popenoe, Frederick Wilson #10

Item type: 4 x 5 B/W negative

Date of photo: c. 1914

Location of photo: Miami, Florida

Date acquired: 1976

Source: From Popenoe papers, Archives #204

Published in 'Wilson Popenoe' by Frederick Rosengarten p. 36

Original negative housed in vault on 5th floor

- Photo missing 24 Oct. 2005

↳ Found 1 Nov. 2005

↳ put with Part #3 in photo album 7
(no specific location in Coll)

LB P826 R copy 2

- SEE Envelope, Coll 204
Box 43

38



Benitez, Jorge

Portrait #1

From Coll. #204

photo album 7

"W.P." page 116

See Envelope "Photos
used in F. Rosengarten's
Biography, Wilson Popeoe"

Coll. 204, Box 43

Jorge Benitez

1930

horticulturist

Guatemala

flowerish dates:
1920-1940

Agricultural Assistant to Wilson Popeoe in Central America

27



HI Portrait # 20 WILSON POPENOE office
U. S. D. A, WASHINGTON ✓
from Coll. # 204
photo album 7 ~~about 1924~~ 1923

Published: Wilson Popenoe, page 96

See Envelope "Photos used in F.R.'s Biography"
Coll 204, Box 43



Enredo
1921

W.P.

Page 85

10

HI Portrait #16

From Coll. #204, photo album 7

See Envelope, "Photos
used in F.R.'s Biography"
Coll. 204, Box 43

Envelope
1917 (D.)
Neneing
FACATATIVA,
Columbia,
Sept. 1930



HI portrait
18

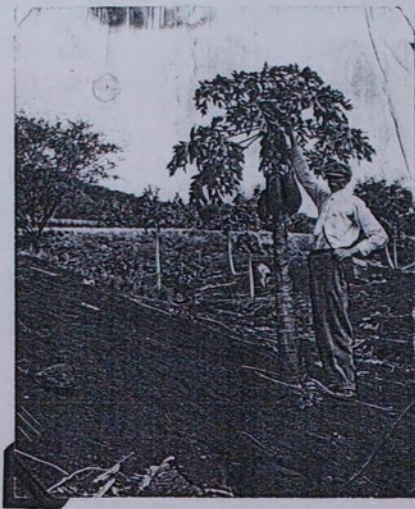
from Coll. # 20
photo album 7

9.

W.P.

Page 71

See Envelope, "Photos used in F. Rosengren's Biogeography"
Coll. 204, Box 43



HI Portrait #13

From Coll. #204, Photo
Album 7

6.

Published:
"W.P." page 9

See Envelope. "Photos
Used in F.R.'s Biography"
Coll 204, Box 43

Wilson Popescu
young papaya tree
in fruit
(about 1910) 1909

F.W. Papenoe

HI Beckett

~~1896~~ #21

from Coll. 204
photo album 7

W.P.

1896

age

4

W.P.

Page 2

SEE ENVELOPE,
"Photos for F.R.'s
Biography"

Coll. 204
Box 43



4

Leonard



TOPEKA,
* KANSAS



WILSON POPEÑO AND
HIS SOIL AUGER

NO DATE

HI Portrait
19

From Coll. # 204

Envelope 9

Put in Box 9

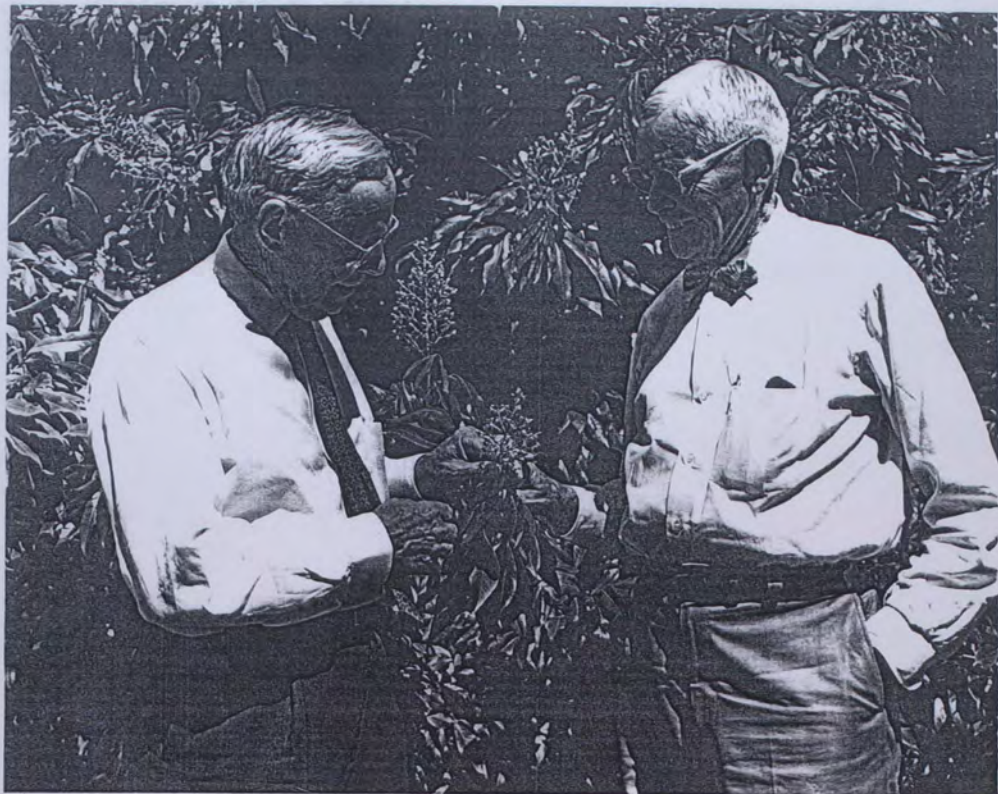
Put
in Photo Album 7

W.P.

PAGE 144

See Envelope "Photos
used in Frederic
Rosengarten's Biography,
"Wilson Popenoe"

Coll. 204
Box 43



From -
Coll 204
Box 9
Photo
Album 7

37.

Not used
in Book

See Envelope
Photos used in
FR's Biography
Coll 204
Box 43

Paul Popenoe ~~HI~~ HI Portrait #1

Wilson Popenoe HI Portrait #23
→ filed under ~~HI Portrait~~



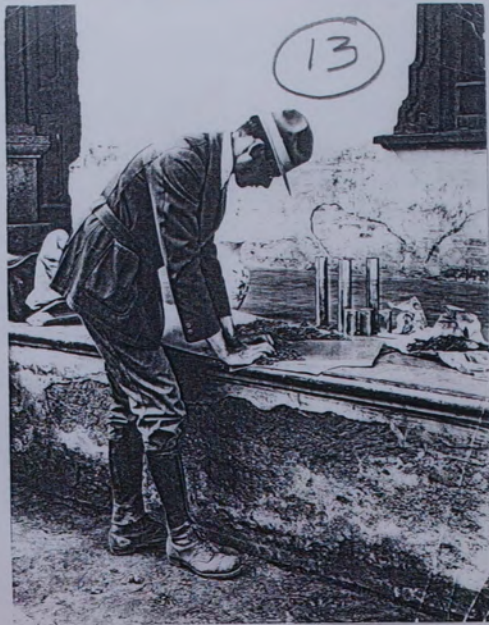
Wilson
Pojanec
about 1911
1915
California Nursery

14

"W.P." page 10
See Envelope,
"Photos used in F.R.'s
Biography" Coll. 204, Box 43

HI Portrait #17

from Coll. #204, Box 9
Photo Album 7



Wilson
Papenece
fracking
avocado
Ludwood
for shipment
to the
United States

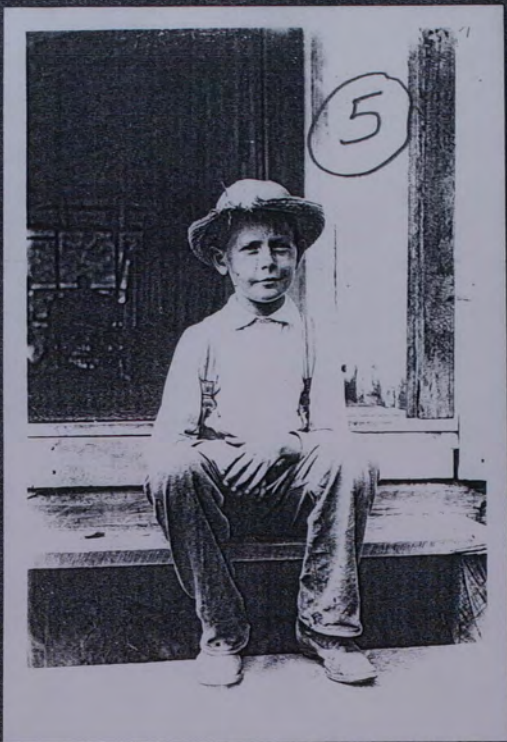
Mexico(?) Yes
about
1918

HI
Portrait #15

from Coll. #204, Box 9
- Photo Album 7

In W.P. - page 63

See Envelope, "Photos
used in F.R.'s Biography" Coll. 204
Box 43



Wilson Popeowe
about 1900

See Envelope "Photos for F.R.'s
Biography" Coll. 204, Box 43

*25 HI Postcard # 215

from Coll # 719 Box 9

Photo Album
7

W.P. - not used in book

W.P.

UNIVERSIDAD MAYOR DE SAN MARCOS
FACULTAD DE CIENCIAS
LIMA-PERU

Lima, febrero 8 de 1926.

Sr. Dr. Wilson Peñero,
Ministerio de Agricultura, Washington (U.S.A.)

Me es grato poner en su conocimiento, que han sido entregadas en la Secretaría General de la Universidad, para su remisión, la medalla y el diploma que le corresponde como Doctor Honorario de esta Facultad con cuyo carácter tuve la satisfacción de incorporar a Ud. en enero del año pasado.

Deseo estén ya en su poder esos documentos, que atestiguan la distinción que guarda por Ud. este centro de instrucción, que se complace en expresarle, una vez más, cordialmente su atente y S.S.

E. A. Howard

Decano de la Facultad de Ciencias
de la Universidad Mayor de San Marcos.



LEGACION DEL ECUADOR
WASHINGTON

Nº 85

24 de Mayo de 1926.

Señor Doctor Don Wilson Popenoe,
Superintendente de Experimentaciones Agrícolas,
United Fruit Company,
Tela, Honduras.

Mi estimado Doctor Popenoe:

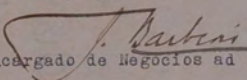
De acuerdo con los deseos de usted, manifestados en la carta que ha dirigido al señor Francisco Banda C., de esta Legación, tengo el agrado de avisar a usted que hoy he remitido al Doctor B. T. Galloway del Departamento de Agricultura de los Estados Unidos, la medalla y diploma que otorga a usted el Gobierno del Ecuador en reconocimiento de los servicios prestados por usted en favor de nuestra agricultura, a fin de que haga ⁶llegar a sus manos, por intermedio del señor Galloway Jr.

El Señor Ministro de Relaciones Exteriores en oficio número 30, de 11 de Marzo de 1926, me dice lo siguiente:

"Hoy se expidió el siguiente Acuerdo:- 'Numero 33.- A nombre de la Junta de Gobierno, el Vocal Ministro de Relaciones Exteriores, acuerda:- Nombrar al Señor Doctor Wilson Popenoe, Delegado del Ecuador al Cuarto Congreso Internacional Botánico que tendrá lugar en Nueva York, del 16 al 23 de Agosto del presente año.- Comuníquese, Quito, a 11 de Marzo de 1926.- Por la Junta de Gobierno, el Vocal Ministro de Relaciones Exteriores.- (f) Home-ro Viteri L.- El subsecretario (f) C. M. "arrea."-

Particular que me es grato comunicar a usted, en la esperanza de que las razones que expone usted en su carta del 4 de los corrientes, puedan ser obviadas y nos dé así el placer de que represente al Ecuador en el próximo Congreso Internacional de Botánica.

Aprovecho la oportunidad para reiterar a usted mis sentimientos de amistad y aprecio.


Encargado de Negocios ad interim.





*Fotografía de los delegados a la Conferencia Interamericana de
Agricultura, Selvicultura e Industria Animal tomada en el Jardín de la Casa Blanca
el miércoles 10 de septiembre de 1930.*



Nottawa Farm,
Beverlyton
Shawnee Co Mo

1896.

album 7



Gillespie Place
Montecito
1912

06



Sawyer Place
Montecito
1912

15



Sawyer Place
Montecito
1912

Seaforhia elegans



Erythea
armata
(Blue fan)

Phoenix
dactylifera
(Date)

Hollywood.



Chamaerops
excelsa.

Dracaena draco

Montecito.



Attlesco Mex.

Apr 16 1938

La Blanca tree with W. P. Jensen

FOTO REGISTRO
MEXICO

151







... de viajar por el Estado de
... Nacional Ciudad Juárez. (En)
... en que entran al Estado.
... para llevarse— hasta el punto
... cuando ese punto por el
... en los de la zona de los
... al final de la zona de los
... de los puertos de la ciudad de
... por la proximidad de la
... que se van a efectuar con
... los trabajos demarcanos, así co-
... tiempo de sector
... para una sesión con el objeto de
... se nos informó el CREM, en-
... de la entrada roma-
... del Distrito.
... que pertenecían por las obras que
... para el número del referido de-
... del monto total de las obru-
... se depositó el 10 por
... el CREM.
... el Departamento
... el señor Ingeniero José Ugal-
... tiempo de perten-
...

ONAL
PULAR

Espiridión Díaz Solís.

Atlixco

1938.



Looking inside crater of active (smoking) volcano Izalco, San Salvador



Approaching crater of active volcano Izalco, El Salvador



Fotografía de los delegados a la Conferencia Interamericana de Agricultura, Selocultura e Industria Animal tomada frente al edificio de la Unión Panamericana, el miércoles 10 de septiembre de 1930.

W. L. Brown
With the kindest regards,
W. L. Brown





POST CARD

THIS SIDE FOR THE ADDRESS



The Kansas State Temperance Union.

Topeka, Kansas,

Mch 9 93

Dear Ed:

We are only one behind you
now, our boy No. 2 having
arrived at 5 PM today.
So abances, and all
doing finely.

Yours,
Fred



233. Secretaría Privada.
Cac.

Guatemala, 14 de mayo de 1931.

Señor don
Wilson Popenoe.
12. C. O. # 1.

Muy señor mío:

Llegaron a mi poder tres jabas, conteniendo plantas diversas, todas valiosas, obsequio que mucho agradezco y que sabré cultivar.

Acepto Ud., con mi aprecio, las mas expresivas gracias por su gentileza.

De Ud atto. y S. S.

J. J. J.



Edward, 1882, 1883, 1884, 1885, 1886














TOPEKA, KANS.















The President of Ecuador has conferred the decoration, "Al Merito," of the first class, on Dr. Wilson Popenoe in recognition of his services to Ecuadorian agriculture. Doctor Popenoe recently severed his connection with the U. S. Department of Agriculture, in which he has been serving as agricultural explorer for twelve years, and is now associated with the United Fruit Company as an investigator of horticultural problems in the Caribbean region, with headquarters at Tela, Honduras.





WASHINGTON POST ROTOGRAVURE SECTION, SEPTEMBER 21, 1930



OFFICERS OF THE INTERAMERICAN CONFERENCE ON AGRICULTURE, FORESTRY AND ANIMAL INDUSTRY call upon President Hoover at the White House. Center, left to right—Dr. A. F. Woods, president of the conference; President Hoover and Leon M. Estabrook, secretary. A. P.











El sabio Popenoe representara al Ecuador en Cornell

Quito, 13.— (Telegrama para EL GUANTE.- Para los fines consiguientes, se hizo trascendental al Ministro suamericano, el nombramiento del sabio Wilson Popenoe, como delegado del Ecuador en el cuarto congreso internacional de botánica que se reunirá en Cornell University Ithaca, New York, del 16 al 23 de Agosto próximo. El Gobierno se reafirma en que la designación la efectuó, considerando la leal amistad que une al Ecuador con el prenombrado sabio, así como los vastos conocimientos que posee acerca de la flora de nuestro país.— Astudillo .



Believe It or Not

—BY RIPLEY



A MOUNTAIN THAT DROWNED A CITY

ANTIGUA - in Guatemala (A FLOURISHING CITY WITH UNIVERSITIES BEFORE CHICAGO WAS FOUNDED)
— WAS WASHED AWAY WHEN THE SIDE OF MT. AGUA BURST AND
RELEASED ITS CRATER FULL OF WATER DOWN
ON THE CITY BELOW.

Rip' GUATEMALA
June, 1929



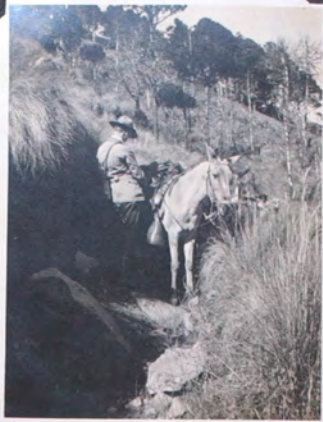
A BAMBOO SHOOT
GREW MORE THAN 1 1/2 FEET
IN ONE DAY

DR. WILSON POPENGE'S
ESTACION EXPERIMENTAL AGRICOLA
TELA, HONDURAS
June, 1929.



THIS
GUATEMALA
INDIAN
CARRIED A
100-LB LOAD
OF POTTERY
150 MILES
TO SELL
IT FOR
3 DOLLARS

On request Robert L. Ripley will send proofs and details of anything depicted by him.





That's our little brother

JOHN POPENOE

(born January 24, 1929)

2495 North Marengo Avenue

Altadena, California



From the home of the Popenoes
in California come sunniest greet-
ings to you for these holidays

Altadena

1927



*Felicia
Popenoe*



Men Who Are Paul

By HARLAN HALL
SOME years ago there sat beside a fireplace in Altadena a young man who was working over an odd-looking volume, the lettering of which looked more like a Chinese laundry list than anything else. That young man was Paul Popovich and he was learning not only to read Arabic but to speak it also. In one winter he learned to speak this difficult language so that he could talk to his brother, Wilson Popovich, who was able to go to Arabia and there do business direct with the sheiks.

Probably no accomplishment of one of the most remarkable young men in the Pasadena section will so directly appeal to the imagination as that of learning such a language as Arabian out of books and a newspaper. This is the story of Paul Popovich, who learned to read and speak Arabic in one winter. Wilson Popovich, who was able to go to Arabia and there do business direct with the sheiks, is Paul's brother. Paul Popovich, who learned to read and speak Arabic in one winter, is Wilson's brother. Wilson Popovich, who was able to go to Arabia and there do business direct with the sheiks, is Paul's brother. Paul Popovich, who learned to read and speak Arabic in one winter, is Wilson's brother.

May 28

NIGHTS TEMPLAR OF ALHAMBRA WIN DRILLING CONTEST
The annual drill contest of the Knights Templar of Alhambra was held at the Alhambra Hotel last night. The contest was won by the Alhambra team. The contest was held in the Alhambra Hotel. The contest was won by the Alhambra team. The contest was held in the Alhambra Hotel. The contest was won by the Alhambra team.

May 20

Men Who Are Making Pasadena Paul Popenoe

By HARLAN HALL

SOME years ago there sat beside a fireplace in Altadena a young man who was working over an odd-looking volume, the lettering in which looked more like a Chinese laundry list than anything else. That young man was Paul Popenoe and he was learning not only to read Arabic but to speak it also. In one winter he learned to speak this difficult language so that he and his brother, Wilson Popenoe, were able to go to Arabia and there do business direct with the sheiks.

Probably no accomplishment of one of the most remarkable young men in the Pasadena section will so directly appeal to the imagination as that of learning such a language as Arabian out of books and without outside assistance. However, that is but one of the more spectacular things which this man has done for he has a habit of planning his life in advance, analyzing the details and then carefully holding to that plan until the end is accomplished.

Learning Arabic was but a means to an end. Paul Popenoe had paid a visit to Northern Africa in search of date palm shoots. It was a more or less accidental visit at that, but it had given him the idea. He decided that if he could speak the language of the Arabians he could secure the rarest and most valuable shoots and start date culture on the right basis in California. In pursuit of that plan he learned to speak the language and ultimately, with his younger brother, succeeded in importing seventeen carloads of rare date shoots to the Coachilla valley, really founding the modern date industry in that section.

Paul Popenoe was born in Topeka, Kan., and came to Altadena with his parents when he was a youth of high school age. He finished his education, for the



penoes set great store by education, at Occidental academy and in Stanford. He then went into newspaper work and after he had saved up all of \$500, he decided he had enough money for a year abroad. With his \$500 he got together passage fare to Scotland and to the surprise of all of his friends he succeeded in remaining overseas for a whole year with that slender capital, travelling on foot and studying in all the principal cities. He was in Naples ready to leave for home the following day, his money having been nearly exhausted, when a letter from his father enclosed another \$500 with the suggestion that he go to Northern Africa and bring home some date shoots. The rest of that episode is already told.

A close student of humanity as well as plants, Paul Popenoe long ago became one of the leading authorities on heredity and eugenics in America. During the World war he was commissioned a captain to handle moral questions in the vicinity of cantonments. He first had the southwest for his territory and then was called to Washington and placed in charge of this work for the whole United States. His method was simple. When he found a vice fester too close to an army encampment he went to the mayor and chief of the police in the city harboring the plague spot. If they did not act he put them in jail. The plan of jailing the higher-ups worked fine and he made a record.

For a number of years the young Pasadenan edited the Journal of Heredity and it is interesting to note that among his authoritative books, in addition to one on date culture, are volumes on "Modern Marriage" and "Applied Eugenics," while in a short time another book on "Conservation of the Family" is to appear.

As a side issue Mr. Popenoe has an 80-acre date ranch in the Coachilla, writes magazine articles too numerous to recapitulate and is the living justification of the ancient saying about a prophet and his own country for in Washington he is much better known even than in his home city.







May 31 - 1926

Men Who Are Making Pasadena Frederick Wilson Popenoe

By HARLAN HALL.

ONE of the most unusual callings of any resident of Pasadena has been followed for years by Frederick William Popenoe, who, as an agricultural explorer for the United States government, has visited some of the most unusual spots on the globe, many of them far from the usual haunts of civilization. But a partial list of the countries Mr. Popenoe has visited at once reveals him as one of the most widely traveled men in the country, remarkably so considering that he is still a young man.

In seeking different agricultural products which might be profitably grown in the United States or its possessions, Wilson Popenoe, as he is best known, has made a comprehensive study of the plants grown in Japan, Malay Peninsula, India, Mesopotamia, Northern Africa, Brazil, Guatemala, the West Indies, Costa Rica, Panama, Ecuador, Peru, the less frequented parts of Mexico, and Chile.

In the concrete form of results much of the highly profitable avocado business of the United States is founded upon the results of such work, while the number of rare plants which Mr. Popenoe has discovered and imported, each of which may be the parent of a new agricultural industry, is a wonderful tribute to his thorough and untiring energy.

While born in Topeka, as was his brother Paul, who was the subject of a sketch in this department, he came to Pasadena when but a lad and secured most of his educa-



tion in this section, attending Occidental academy and Pomona college. Like his brother, he planned his life work while still a lad and the result has been to place him in the front rank of botanists, not only in this country, but in the world.

Occasionally Pasadena gets a chance to see something of the work Mr. Popenoe is doing through the media of an excellent lecture on some of the unusual places he has visited. He is a photographer of much skill as well as being an explorer and a student of plant life.

Besides the avocado Mr. Popenoe has brought into the United States many kinds of dates, mangos, pebbayes, unusual berries and different forms of the potatoes. One of his graphic bits of work was an investigation into the origin of the navel orange. This took him to Brazil where this type of orange originated.

Much of the writing which Wilson Popenoe has done has been for the federal government, but he has also produced some books privately printed and many authoritative botanical articles, including many contributions of the Standard Encyclopedia of Horticulture.

Wilson Popenoe's work is far better known outside his home section than in Pasadena and yet this is hardly true for among agricultural persons here as elsewhere his name and writings are widely known. However, he is so widely known abroad as to have been made a member of the Societe Nationale d'Acclimatation de France, Societe Horticole de L'Algerie, Anthropological Society of Washington, Maya Society, a fellow of the A. A. A. S., the Botanical Society of America, the American Pomological Society, an honorary member of the California Avocado Society, the Cosmos, Explorers and other leading clubs in New York City.

When it is considered that Wilson Popenoe is still under 35 years of age and has brought all this fame to his home section, Pasadena has a right to expect a brilliant future from him in any work he undertakes.









WASHINGTON POST ROTOGRAVURE SECTION, SEPTEMBER 21, 1930



OFFICERS OF THE INTERAMERICAN CONFERENCE...
the White House. Center, left to right—Dr. A. F. Woods, president of the...



Wilson Popenoe
sends
Christmas Greetings
1936



"1937 CANE CROP DINNER"

HONOURING

Messrs Goble & Shaw

FRIDAY, JULY 30th., 1937.

Menu.

Frivolités de la Volga

Tortue Claire au Xérès

Filet de Mulet Rouge Sauce Duxelles

Poulet de Grain Grillé Sur Canapé
Pommes Parisienne

Petits Pois Frais au Beurre

Coeur de Laitues Sauce Délice

Omelette Norvégienne

Café des Montagnes Bleues de la Jamaïque

A glimpse of the fountain in the patio of the house at Antigua, Guatemala, which was built by Doctor don Luis de las Infantas Mendoza y Venegas about 1635.



"1937 CANE CROP DINNER"

HONOURING

Messrs Goble & Shaw

FRIDAY, JULY 30th., 1937.

Menu.

Frivolités de la Volga

Tortue Claire au Xérès

Filet de Mulet Rouge Sauce Duxelles

Poulet de Grain Grillé Sur Canapé

Pommes Parisienne

Petits Pois Frais au Beurre

Coeur de Laitues Sauce Délice

Omelette Norvégienne

Café des Montagnes Bleues de la Jamaïque



GROUP SHOWS GIANT ORIOLES COLLECTED BY MANDEL GUATEMALA EXPEDITION

By **REYNOLD BLOOMER**
Curator of Birds

Oropendulas, or giant orioles, belong to the family of blackbirds and orioles so well represented in the United States by meadowlarks, grackles, cowbirds, bobolinks and orioles. They are indeed most closely related to the orioles whose well known pendant type of nest architecture they have improved on tremendously. They are found throughout the forests and clearings of Central and South America, from Southern Mexico to Brazil and Peru. About twelve species belonging to half a dozen genera are known. All of them are relatively large, the size of a small crow, and all are characterized by the fascinating colonial nesting habits illustrated in the accompanying picture.

This photograph represents a group recently installed in Hall 20, showing a portion of a nesting colony of Montezuma oropendula. It is the gift of Mr. Leon Mandel, and was collected during the Mandel Guatemala Expedition by Messrs. Emmet R. Blake, Assistant Curator of Birds, and Karl P. Schmidt, Curator of Reptiles. The birds were mounted and installed by Staff Taxidermist John W. Moyer, the plant accessories are by Preparator Frank Lett and the scenic background was painted by Mr. Arthur G. Ruerckert.

The giant tree in which the colony was found was about one hundred feet high and six feet in diameter. After vainly attempting to climb the straight branchless trunk to the eighty-foot level at which the nests swung, Messrs. Blake and Schmidt resorted to their axes. Five hours of steady chopping brought the tree crashing

to the ground. Although the colony of 138 nests was well populated with birds they were much gratified to discover that only a half dozen were actually occupied, no more than enough to supply the data needed for the construction of the group. One of the intricately woven nests was six feet long and the gourd-shaped nest chamber at the bottom a foot in diameter. In some cases two or three nests closely crowded together had

ing and posturing before each other in characteristic attitudes of courtship, defence and play. An adult is attacking a rice grackle which parasitizes the oropendulas. The female grackles wait for opportunities to slip into the orioles' bag-shaped nests where they lay their eggs, leaving them to be incubated and the young grackles to be raised to maturity by the oropendulas. In this interesting habit the rice grackles resemble our American cowbird and the European cuckoo. Another bird, the striped flycatcher (*Leptus*), also imposes on the oropendulas. The flycatchers are much smaller than the orioles, but gain their objective by sheer persistence and tenacity of purpose. Eventually they drive a pair of orioles away from their nest and the flycatchers then build their own nest within the larger one, and there raise their own family.

The background shows a savanna, dotted here and there with patches of forest, in the Motagua valley in eastern Guatemala. Man-made clearings in the forest seem to be favorable to the Montezuma oropendulas. The only undisturbed regions in which their nests were found were along river banks where the expanse of water provided them with the same breadth of view and lack of constraint that the savanna clearings seem to do. Because of the exposed situations and the tremendous isolated trees that the birds prefer, the colonies of the giant orioles are conspicuous features of the landscape wherever they occur in Central and South America, and they are well known to many persons who have traveled in those regions.



Giant Oriole Group in Hall 20

These South American birds, also known as oropendulas, are noted for their long hanging nests, a number of which may be seen in the exhibit. The specimens were collected by Assistant Curator Emmet R. Blake who was participating on an expedition sponsored and led by Mr. Leon Mandel, of Chicago. The group was prepared by Staff Taxidermist John W. Moyer, Mr. Arthur G. Ruerckert painted the background, and accessories were made under the supervision of Preparator Frank H. Lett.

been interwoven throughout their length, making a sort of swaying "duplex apartment."

The group shows a section of a colony containing about twelve nests. Eight or ten adults, the males about one and one-half times as large as the females, are busy weav-

Marshall Field Provides Scientific Equipment

Several thousand dollars' worth of scientific equipment, long needed in the various Departments of the Museum for the proper continuation and expansion of many types of research, has recently been provided through the generosity of Mr. Marshall Field, a Trustee of the Museum. For a long time some members of the staff have been hampered in their work through the lack of adequate facilities, and this gift will greatly increase effectiveness of future activities.

Leaflet on Autumn Flowers

With the arrival of September, timely reading for flower enthusiasts is offered in the Field Museum Leaflet *Autumn Flowers and Fruits*. This little book, with thirty pages of text, illustrated with a color plate, two colotype plates, and twenty-eight half-tones, is by J. Francis Macbride, Associate Curator of the Museum Herbarium. At the Book Shop of FIELD MUSEUM—25 cents.

Change in Visiting Hours Begins September 6

Field Museum visiting hours, which have been 9 A.M. to 6 P.M. daily during the summer months, will change to the autumn schedule—9 A.M. to 5 P.M.—on Tuesday, September 6, the day after Labor Day. These hours will continue until October 31. On November 1 the winter hours, 9 A.M. to 4 P.M. will go into effect, continuing until February 28. During the latter period, however, the Museum will be open until 5 P.M. on Sundays.

SUB-TROPICAL AGRICULTURE

Twelve Months Growing Season Where Nature

Dade County's Avocados

By WILSON POPENOE

Agricultural Explorer, U. S. Department of Agriculture

Those of us who stand on the side lines—whose relation to the avocado industry is that of interested observers, so to speak—contemplate with a feeling akin to grief the progress which has been made in Dade county during these past five years.

For 10 years now we have been telling people that the avocado is a coming fruit; that its commercial future in the United States is assured; and that avocado growing is certain to prove profitable.

No longer do we have to deal in futures. The avocado has arrived. As a commercial industry it is now established in south Florida, and when we say that we believe the avocado will, inside of 25 years, rank as Dade county's leading fruit crop, we do so with a feeling of confidence. Personally, I am not concerned over the difficulties to be encountered in finding an outlet for large quantities of avocados. Certain growers in Dade county seem to think it possible that overproduction is imminent. At present prices, and with the present marketing organizations, or lack thereof, this may be the case; but after having seen the important role which the avocado plays as a foodstuff in tropical American countries, it would be difficult to conceive that south Florida and southern California can grow more avocados than the United States can consume. People will have to be educated before a tremendous demand can exist, but there have been educated to eat grapefruit, and bananas, and many other fruits. It does not seem likely that we will bulk avocados. Certainly they would be showing extremely bad taste if they did!

I never come to Florida without getting myself in trouble, or having a very narrow escape therefrom. Possible, think because I have spent a number of years hunting avocados in tropical America, and studying the behavior of the tree in its native haunts; that I might know, off-hand, just how much fertilizer they ought to put on their first-year-old groves which don't bear well this season, and whether or not it was the diaphanous which made the leaves on the avocado tree, or the black downy growth which falls off. All these matters I will have to leave to the omniscience of Florida horticulturists; what the government is trying to do is mainly to scour the world for the very best avocados to be had and then bring them to this country where they can be tested and their value determined under our conditions. Incidentally, we are getting many items of interest concerning avocados and their habits, we have learned that it is not the fruit except when the moon is in its first quarter; that nothing in the world is so interesting as inserting the tongue of a capped woodpecker bird as small doses of avocado pulp administered daily, and that the best remedy for the head, avocados form the best remedy. Seriously, we have studied the avocado in practically every country where it is a culture of importance; we have observed wild avocados in their native haunts; we are studying the latest avocado literature, from the Conquest right down to the present day. All the sort of thing, we believe helps to form the background for avocado culture in this country. We are getting a broader perspective, we are viewing the subject from every angle, and I cannot help but feel that avocado growers in this country will find the information we have been during five years of wandering in remote mountain valleys and on coastal slopes of tropical America.

Furthermore, we believe we have brought you some good varieties. I have been to the avocado groves of the United States, and I would care to pick me out the best 10 acres I could find. And I would buy that 10, thinking that I was choosing the best grove in the United States for avocado culture. If I am wrong in my valuation for avocado culture, future years will show it; to the present time certainly does not. There is no other region where commercial avocado growing is yet upon a substantial basis, so far as I am aware. (If I am in error, will someone please correct me.)

But having picked out my 10, and having built me a little Spanish house of concrete blocks or limestone rock, with a patio in the center, and a fountain which throws a high jet of water just big enough to make a soothing murmur when it falls back into the pool surrounding it, what varieties of avocado would I plant? Echo answers, what varieties? For in all frankness, I do not know. I went to Florida this summer to endeavor to find out; and W. J. Krome told me three good ones, and George R. Collins another three which were also good, and somebody else another three, totally different. Of course, these men have no idea of the varieties which have done best with them, and strange to say, the best ones have not succeeded with ones which have proved half an satisfactory three miles from his place, nor a fourth so satisfactory at Miami.

Though perhaps I am exaggerating a bit. Sometimes my Latin blood shows itself in that way. But look at the matter just as seriously as I can, there seems to be no unanimity whatever in regard to the best varieties in southern Florida. As to Guatemala for south Florida, that is another matter. I would not have to founder about very long without learning that in Trujillo, Palocco and Waldin; and if I wanted to plant West Indians, I would put me in two of these three. But would you put me in two of these three to Guatemala, I would simply have to go to it rather blindly, and plant five or six, for example, Tanguito, Schmitt, Wagner, and one or two others. And of course I would have Collins in the mixed planting of about six varieties—sort of a Duke's mixture, and Florida avocado grower calls him—and I would interpret, as to whatever virtue these may be, in cross-pollination probably, the best is great deal I would gain by it.

After all, we are in such a bad way, when we can't get a good yield, that I am promising as a matter of the above. But it must be remembered that these six have been in a very limited area, and if one is planting outside that area, I would find them less satisfactory. To those who are able to plant avocados, the best advice that can be given is this: don't hold yourself down to a region, don't restrict yourself to a few varieties, unless you are new or two completely satisfactory. If there is any doubt about the matter, we are not shrinking at all very best sorts you are going to plant, look in several men who can speak from experience, and then set out your orchard and take care of your grove. For it should be known that the avocado is not to be classed with the peacan when it comes to cultural requirements. You cannot set 'em out and let the weeds take the place, and forget about 'em until the time comes to harvest the crop. The avocado yields high crops of fruit which contain a vast amount of food in the form of oil and proteins; and you must expect it to produce a crop of such quality that you can't eat it and get a headache, and you must expect it to be in just the right amount and at just the right time. Mr. Krome told

TYPICAL AVOCADO TREE AT COLLINS ORCHARD



me that he has learned to appreciate the susceptibility of the avocado to shock of any sort—too much fertilizer, or too much water, or in fact anything that disturbs the balance of its food supply. This agrees with my own observations on the conditions which obtain in the native haunts of the avocado. It is accustomed through long centuries, in an equable climate, with rainfall distributed throughout the year, and no excessive degrees of temperature. Its food supply never varies. Take it out of these conditions, and put it on relatively thin and poor soil, and subject it to alternate doses of fertilizer and starvation, and alternate drought and drought, and what are you going to get? Almost everything except fruit. We haven't yet learned how to treat avocados on Florida soils, at least most of us haven't; and it behooves us to make a profit careful study of the subject as it starts. I know a few things I would do; I

ORIGIN OF THE NAME "FUERTE"

By WILSON POPENOE

When the original Carl Schmidt introductions from Mexico were received at the West India Gardens in 1911, they were all budded by me on seedlings of the Mexican race which had been planted in advance for this purpose. Some of the varieties "took" well; others were less successful. One variety was so much more vigorous than the rest that it attracted our attention before the buds were a foot in height.

One day when my father and I were going over the Schmidt introductions, we commented particularly upon the high percentage of buds of this variety which had "taken," and the strong, vigorous start they were making. Father remarked, "That's the strongest grower of the lot. We'll call it 'Fuerte'."

This word means "strong" and "robust" in Spanish, and is a word in common use in Latin America. Father had learned it during his stay in Costa Rica back in the eighteen-nineties, along with a generous smattering of other words, several of which were drawn upon to name the Schmidt introductions. "El Alto" and "El Perfecto" were two of these. Shortly after these names were given, I became a member of the American Pomological Society, and on studying the Code of Nomenclature, found that varietal names should consist of only one word; we therefore dropped the article "el," which had originally been applied to Fuerte as well as several other sorts.

Calavo Lains

Feb. 1941

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F. O. POPENOE, SECRETARY.

Lincoln National Bank Building.

NO. 36 EAST FORTY-SECOND STREET,

OPP. GRAND CENTRAL R. R. STATION.

New York, Dec 3, 1886

Dear Sir:

Will you kindly insert the following, or something to its effect, in the next issue of your journal?

Yours truly,

F. O. Popenoe.
Secretary.

Albert Griffin, chairman, and F. O. Popenoe, secretary, announce that the headquarters of the Anti-Saloon Republican National Committee have been removed from Chicago to New York, and are now located in the Lincoln National Bank Building, on Forty-second Street, opposite the Grand Central Railway Station, in the latter city. An invitation is extended to all Republicans and opponents of saloon domination to correspond with or call upon them. Documents and information concerning the anti-saloon movement will be furnished by any one by the secretary.

Will write in a day or two. Having had my salary yet but need nothing will submit your story

ANTI-SALOON REPUBLICAN NATIONAL COMMITTEE.

F. O. POPENOE, SECRETARY.

72 COUNSELMAN BUILDING.

Chicago, Nov. 9, 1886.

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Oliver . . . Jan. 3rd - 1926
Paul . . . May 22nd 1922
David . . . Oct. 15 1932
John . . . Jan 24th 1929

Paul & Oliver
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