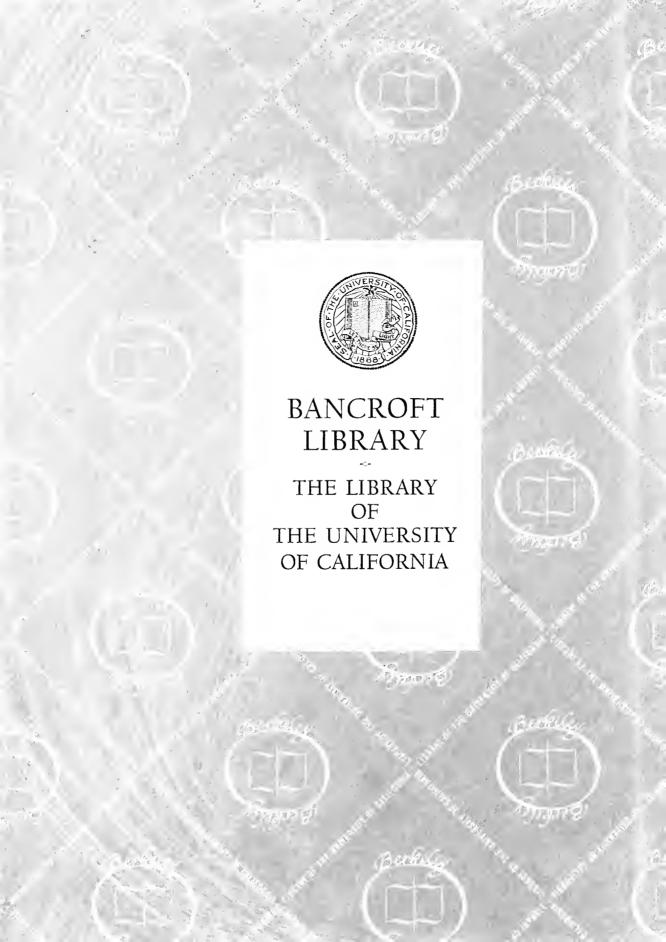
C-D 4022





• •	14 . ( 4.) deg.
4	The state of the s
	A Company of the second of the
e t	A STATE OF THE STA
*	
u .	
	100
,	15.1
	Profile the second of the seco
	the state of the s
	to the state of th
	The state of the s

a.
76
,
1
1
#
and the second s
ł
1
1
4
4



University of California General Library/Berkeley

Regional Cultural History Project

#### Frank Adams

FRANK ADAMS, UNIVERSITY OF CALIFORNIA, ON IRRIGATION, RECLAMATION, AND WATER ADMINISTRATION

> An Interview Conducted By Willa Klug Baum

> > Berkeley 1959

to A the terrible of the full Larois .

a van at the

LA CARRETT PACE CONST the state of the s

cro el eltro

FRANK ADAMS,
UNIVERSITY OF CALIFORNIA,
ON IRRIGATION, RECLAMATION,
AND WATER ADMINISTRATION



FRANK ADAMS

(About 1940, by Henry Washburn, Farm Advisor of Santa Cruz Co.)

•				
			1	

All uses of this manuscript are covered by an agreement between the Regents of the University of California and Frank Adams, dated June 22, 1959. The manuscript is thereby made available for research purposes. All literary rights in the manuscript, including the right to publish, are reserved to the General Library of the University of California at Berkeley.

No part of the manuscript may be quoted for publication without the written permission of the Librarian of the University of California at Berkeley.

Then we are the constanted at 1 to some fix

to character of Jattebraia and train land, father after a branch always and train land, father done 22, 1955. The expression is a last and average 22 of the control average 23 of the control are assumed by the control of the area and an action of the enth of the area and are the enth of the area and the control of the c

#### Introduction

California's land is fertile, its climate ideal for agriculture, but in most areas irrigation is a necessity. Irrigation on the giant scale demanded brings with it many problems: legal questions of the equitable division of the waters available; engineering problems of the storage and transportation of waters from areas of abundance to areas of scarcity, sometimes requiring canals hundreds of miles in length; agricultural problems of the skillful application of water to the land and then necessary drainage; political problems of the organization of public districts for the purpose of building, financing, and administering irrigation works. Water has always been and continues to be one of the major problems in California and the rest of the West.

In order to preserve some of the details of the development of water-use institutions and facilities in California, several interviews with men intimately connected with these developments have been conducted by the Regional

. The transfer of the state of

agric there, but in more areas instited to a cool the arise and a start in the gians scale democrat with the citibit and explains; investigated of the equivalent problems; and issue of the fibration of the start of transportation of antenders of accretion of accretions required accretion of accretions and the length; explainted and the continual and the continual accretion of accretion of waves to the lund and the continual proclems of the continual respective accident of the organisms; and the account and continues to be one of the ratio are start as always to the and continues to be one of the ratio areas and the race of the one of the works.

In order to preserve some of the details of the development of writer-use institutions and familifies in delifornia, severed in orders with more intimuted, somether with those development mays been conducted by in those

Cultural History Project of the General Library of the University of California at Berkeley. One of these men is Frank Adams, whose Bulletin 21, <u>Irrigation Districts in California</u>, although published in 1929, is still the standard source book for irrigation district history. Adams entered irrigation work in 1900 and, with only a brief interlude in the business world, was engaged in public work on irrigation problems until long after his retirement in 1945. His life covers half a century of significant developments in irrigation and reclamation in California and the West, and his memories go back even further to the 1880s and 1890s when his father, Edward F. Adams, organized one of the earliest fruit exchanges in California.

It was Dr. Elwood Mead, then head of the Division of Irrigation Investigations, later commissioner of the Bureau of Reclamation, who in 1900 first persuaded young Frank Adams, Stanford student, to try his hand at measuring water flow. This experience, and his strong attachment for Dr. Mead, led Adams to give up his planned career as an agricultural journalist and make a career of irrigation in the Division of Irrigation Investigations, United States Department of Agriculture, the California office of which he later headed. From 1916 until his retirement in 1945

The state of Celtionnia at Borkeley. The state of the sta

It ear Dr. slwood Mead, shed near of a division of Irrivation of Irrivation covertive tono, labor considers and covertive tono, who to letter considers and covertive function of Gerladasion, who to letter times a mind of the read of the for Dr. Mead, the Adams to tive no his planned mater of the Adams to tive no his planned mater of the John hallon of Irrivation to the the Liviation of Irrivation investigation investigation, "but edition of Irrivation investigation of Irrivation of Irrivation in the Department of Archeolution Theorem the California of the California of

he was professor of irrigation at the University of Division so make the T the California, serving as head of the Department of Irrigation 15.00 38 mg from 1916 to 1936. as well as irrigation economist for the Agricultural Experiment Station and for Giannini - 1 m m, filtel m Foundation. His work included consulting with the Bureau Try da L. Tran of Reclamation, the California State Division of Water Resources, and numerous other public bodies, some of which of the fighter was done after his official retirement from active service. While much of his work involved the gathering of technical data upon which the construction of irrigation projects m#1937 was based, he is probably best known for his achievements in the field of water administration and of the political organization of water-use districts.

The following series of interviews was tape recorded by Willa Baum during the winter and spring of 1958 in the living room of the Adams home at 1831 San Juan Avenue, Berkeley. The room was austerely furnished, cool, shaded by the gnarled live oaks outside the windows. Toys and hobby collections in view bespoke the nearby presence of the Adams grandchildren, and the landscape paintings on the walls evidenced their owner's familiarity with and love for the land. The most impressive item there was a large grandfather clock with elaborate dials and various chimes, a gift from the Commonwealth Club to its founder,

Mid following series of interies, who bene is paired to will a wind the fear to the control of the date body of 1913 Squired or a control of the date body from the control of the role of

Mr. Adams' father. In this setting, seated near the piano, in front of a card table which served as his home office, Mr. Adams related the story of his life and achievements to the interviewer and the spinning tape recorder, interrupted only by the entrance of Mrs. Adams bringing coffee and cookies.

Adams, a slender man of medium height, was eightythree years old at the time of the interviews. Difficulties of speech, hearing, and vision had slowed down his prodigious output of technical writings, but he still continued to gather information and to write at his home and at his office in Giannini Hall. He spoke slowly and deliberately, first carefully thinking out what he wanted to say. The clearness of his thought is evidenced in the finished manuscript. Some of his humor comes through also, though this was most evident when the tape recorder was not running. Adams impressed the interviewer as an old-school gentleman, with his high button shoes, his quiet sense of humor, his unwillingness to depreciate anyone, his sense of integrity, and his friendly and helpful manner. He would probably be considered a conservative in most of his political views; the reader may judge for himself where Adams stands on water matters.

d. name father. In this setting, unstanded the pines, a card the pines, in the card the pines in the card the story of his life and actions of the the story of his life and actionance the interviewed of the spinals that the economy is later than the printer only he the economy of the situation of the colors of the colors.

Addres, a slender man of on the raight, als elected Perse years old at the time of the Entervises. Difficulties of speed, hearing, and vision and aloned found in products a orthoic of backnical unitions. Lit hi still continued to gather information and we with oil to make and at his office in Giannini Pall. The cooks closely and deliberately, first carefully thinsing out what in wanted to say. The clearness of his thought is evidenced in the risials as a reconstruction of some and the set the rest also, thereah this was most evident when the far powers was not runding. Adams impressed the intervence as on old-ser ool gentleman, with his high puthor street, his quiet sense of busor, his nawillingness to deproviate anyone, his sense of integratty, and his friendly end telpful magner. He would brokely be considered a connormal in most of his political views; the reader any judge for himself where adams stends on water meterra. After the tapes were transcribed, Mr. Adams twice went over the manuscript in great detail, checking on all the information he was able to, revising the wording, and perhaps with excessive modesty modifying his own role in the projects in which he was involved. The preparation, editing, and other effort he so cooperatively spent on this undertaking was great. He also gathered together and donated for inclusion in the manuscript photographs of some of the key figures he mentioned.

Mr. Adams over the years has collected a large body of materials pertaining to irrigation and reclamation and sundry other matters. Many of these have been donated to Bancroft Library, some are available in the Library at Davis, some are now in the Water Resources Archives of the University, and some still remain in Mr. Adams' possession.

This series of interviews was part of a larger series undertaken by the Regional Cultural History Project to record for posterity eyewitness accounts of significant phases of California's history during the 20th century.

Willa Klug Baum

Regional Cultural History Project University of California General Library, Berkeley July 30, 1959 The same became the conservat grown and a

of motion also promise him, so the section of an article of a section of a section.

The content of interprise, was put to was a first to the suderies of the content of the suderies of the content of the content

TIRE ELL

aegional satural Mathery Grojent hiveralty of Maltiornia Dalace Library, Enrowled him 30, 1950

# Award of the John Deere Medal

by the

AMERICAN SOCIETY

of

AGRICULTURAL

ENGINEERS



PHILADELPHIA, PA. June 25, 1947

## TABLE OF CONTENTS

FAMILY AND EARLY YEARS	1
ANCESTORS	1
FATHER - EDWARD FRANCIS ADAMS	2
Youth and Young Manhood	2
Early Business Career	4
Move to California; Pacific Coast Agent for Schoolbooks	5
Farming in the Santa Cruz Mountains	9
Organizing Cooperative Fruit Exchanges	11
Summer School of Economics and Husbandy	13
Author of The Modern Farmer	17
Editorial Writer for the Chronicle	21
MOTHER - DELIA COOPER ADAMS	24
BROTHERS AND SISTERS	26
FRANK ADAMS - EARLY EDUCATION AND VOCATIONAL INTEREST	30
Alfred Holman and the Rural Press	32
STANFORD UNIVERSITY	35
Financing a College Education	35
Courses and Professors	36
Student Life	41
Participation in Student Activities	49



## TABLE OF CONTENTS

FAMILY AND EARLY YEARS	1
ANCESTORS	1
FATHER - EDWARD FRANCIS ADAMS	2
Youth and Young Manhood	2
Early Business Career	4
Move to California; Pacific Coast Agent for Schoolbooks	5
Farming in the Santa Cruz Mountains	9
Organizing Cooperative Fruit Exchanges	11
Summer School of Economics and Husbandy	-13
Author of The Modern Farmer	17
Editorial Writer for the Chronicle	21
MOTHER - DELIA COOPER ADAMS	,24
BROTHERS AND SISTERS	26
FRANK ADAMS - EARLY EDUCATION AND VOCATIONAL INTEREST	30
Alfred Holman and the Rural Press	32
STANFORD UNIVERSITY	35
Financing a College Education	35
Courses and Professors	36
Student Life	41
Participation in Student Activities	49

# ema / Billar

ŗ	PARLOY AND BARING YEARS
e <sup>nth</sup>	ANDESCRIPTION OF THE PROPERTY
	PATHER - HD SED FILL & ADI
2	TOUL SEN SING DIE OF BUT OF STANDARD
1	THE STATE OF THE PROPERTY OF T
	sweetleene act
Ç	trained in the Santo war fruits in
A	The sent mental constant of the constant of th
ri	Assert School of Econoules and the Const
5	Arthor of The Modern Perman
115	Editor of edd not until leightibe
* .	MARTH COOPER ATIANS
	TRIPHIES AND DISTRIB
/ h	PROBLEM AND SERVED BY CLUTTER A DECEMBER OF THE SERVED BY DOUBLE SERVED BY THE SERVED
1	permi farme of the made beauth
	MIN IN IN IN IN ANY
In the	Manuelas a Dillege Education
,~a	ALOCA OT Deld TO BE WELL O
ri	Student Live
\$	Participation in Student Acti iti-

#### CONTENTS

		de .
Tax Exe	mption on University Property	51
Dismiss	al of Dr. Ross	52
Master' Nebra	s Degree at the University of ska	55
EARLY WORK WI	TH DR. ELWOOD MEAD	57
First M	eeting with Dr. Mead	57
Another Work	Opportunity to Go into Newspaper with Alfred Holman	61
Cache C	reek Investigations	64
Work in of Ex	the Washington Office of the Office periment Stations, 1901 - 1902	70
Washing	ton, D. C.	72
Lobbyin	g Duties	75
RECLAMATION A	CT OF 1902 AND DR. ELWOOD MEAD	80
Pressur	es for the Reclamation Act	80
	d's Background in Western ation	85
Irri	gation Laws of Colorado	85
Irri	gation Laws of Wyoming	87
Rooseve	lt's Message to Congress, 1901	91
Controv Dr. M	ersy Between Mr. Newell and ead	98
Comment	s on the Reclamation Act	103
IRRIGATION IN EXPERIMENT	VESTIGATIONS FOR THE OFFICE OF STATIONS, 1902 - 1906	112

## t Wattra

à.	tage or clearly in hiterary xe
17.	RECH AND TO TREBINE
	Master Cores at the Salve sign of Medeam
4000	CONTRACTOR OF THE STATE OF THE
5.2	March 19 41 the Martin Co. Herse
1.	and the contraction and on the second
	ENCLIPTIFICATION SHOWS THE STATE OF THE STAT
(	week in the Washington 1781 and the street
C	O TO SUBJECT OF THE PROPERTY O
	PETTING SOLVERS
_ (B	RELIGIOU ACT OF 1902 AND DR. PLANTER
1	Presentes for the feelamotion
	Dr. Measta Brokerount in Weatamp
10	of smotel to awai neldering!
F 7	Irrigotion faws of Woming
Ę	Roosevelt's Message to Congress, 1907
: (	Controversy etween 'Tr. Length and Pr. Head
7	The actions of the pagence
Si	IPERCATION INVESTIGATIONS, 1905 - 190

## CONTENTS

UTAH INVESTIGATION	112
The Virgin River	113
The Sevier River	122
INVESTIGATIONS OF INTERSTATE WATER RIGHTS ON THE PLATTE RIVER - 1903	124
Salaries and Expenses	130
INVESTIGATION OF MODESTO AND TURLOCK IRRIGATION DISTRICTS - 1904	131
Early History of Modesto and Turlock Districts	132
Keeping Records	134
Applying Water to the Land	135
District Operation	137
OTHER WORK - 1904 - 1905 - 1906	141
Professor (Major) O. V. P. Stout	143
FAMILY	145
IN THE LIGHTING FIXTURE BUSINESS, 1906 -1910	145
WIFE AND CHILDREN	147
ADMINISTRATION OF CALIFORNIA IRRIGATION INVESTIGATIONS AND THE DIVISION OF IRRIGATION, UNIVERSITY OF CALIFORNIA	149
Early Years of the Department of	÷,
Irrigation, University of California	149
Cooperative Relationship Between Irrigation Investigations, the State,	153
and the University	0.00
Conducting the Irrigation Census	160

#### "PWW. V.C.

Con the second	TO STALL PROVER HAPO
	TOVICE PLANTING WITH
S. C. J.	TOVIS TELEVISION TO THE TWO STATES
St	INVESTIGATIONS OF INTERIORATE DATES ON THE ON THE RIVER - 1905
085	Geleries and Expenses
	TAVESTIBATION OF MODESTS AND TOTAL OF THE INDUSTRIBUTES - 1904
SET	Naturally History of Modernto ad misself
11 1	Kersing and Caroning and Caroning
	Amal off of refew miviona
1	neiderago drindalo
THE	OTHER WORK - 190% - 190% - 290
215	teres . 1. 1. (Motor) teresore
हैंगर	To a transfer of the second se
1 1 -	IN THE LIBRERT WIRE ONE WAS, 1 OF -1.1
7/12	MISCRIE D GMA FFLY
	AS INTERACTION OF CALLEDEN A TERICATE A TYVESTICATION OF LIVE DIVISION OF LIVE A MAINTEN OF CALIFORNIA.
941	Early Vector of the Department of Intering Later media
5 : <b>T</b>	Cooperative Relationship Between Irrication Investigations, the Seeta, and the University
6.5	Conducting the Instrakion Consus

#### CONTENTS

Kuhn Project	163
Solano Irrigated Farms	166
Work of the Cooperative Inves	stigations 170
Irrigation Practices	173
Duty of Water	173
Burning of Brush in Range	Areas 176
Initiation of Studies	178
Cooperation with Other Specia	alists 182
Personnel Personnel	183
Comments on Agricultural Exte	ension 187
WORK WITH THE STATE CONSERVATION CO	OMMISSION 192
Members of the Commission	192
Irrigation Resources Study as	nd Map 200
Background of the 1913 Legis:	lation 203
Defeat of the 1903 Works	Bill 203
Commonwealth Club Study of Rights, 1904 - 1905	f. Water 205
Commonwealth Club Section Conservation	on 206
1913 Water Commission Act	209
Other Recommendations of the Conservation Commission	State 216
Licensing Power Sites	216
Riparian Rights	218

## CONTENTS

	Kiphin Project
of I	Butto Sevenitri onofoli
77	But identife was artifered oct or Frow
And the state of t	Treing 100 Practices
11/3	redev to vivi
27.1	Sever excell ai depart to gatheres
EVIC	Initiation of Studies
SEL	edellerose a control offy nother cont
Cij	INTERESTANCE
$\lambda_i \cdot \mathbb{I}$	Colon In Dams Invited no sinone.
2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	O. TIPL THE STATE WASARY LINE OF THE STATE O
. [	action from 1 500 to Bracket
175	the ybode ecomogal aciderian
officers of the second of the	Background of the 1913 beauty block
•.	Defeat of the 130) Works 511
<i>(</i> )	Commonwealth link Study of magnetic Rights, 1906 - 1906
200	Gowentth Club Section on Commonwation
900	tol colerinou cotto EIRI
* * * ·	Other keepmmendetions of the State Conservation Commission
	Licensing Power Sites
duces.	Riparian Rights

## CONTENTS

	Forest Fire Protection	220
WORK !	WITH IRRIGATION DISTRICTS	223
	Preparation of Bulletin No. 2 in 1915	223
	Irrigation District Legislation	225
	Bridgeford Act of 1897	226
	Improving the Market for Bonds	228
	Bond Certification Commission Act of 1913	234
	Increasing State Supervision Over Organization	236
	Withholding of Water from Appropriation	
	Pending Formation of a Proposed District	240
	Making Formation of a District Easier	242
	Other Legislation	244
	Helping to Organize Districts	249
	Irrigation Districts Compared to Other Districts	252
	Kern River Water Storage District	255
	Large Farms vs. Small Farms	258
	<u>Difficulties</u> in <u>Developing Irrigation</u> <u>Districts</u>	261
	Santa Clara Valley Water Conservation District	265
WORLD	WAR I	273
	Increasing Food Production in California	273

### COMPENIE

1:3	ហល្វៈថេខ៩ថ្ម មេ ការ៉ាក្រ ថខ្លួចក្រ
35.5	STOLEN IN STATISTICS
993	Met ci s .o. altering to action con-
155	reideleised Joinst id octobrine I
68	THE CO JOA COROSTOR
828	about the large large Place
11.3	our Septification to dission with of lyll
136	Increasing State Supervision Were Organization
Ods.	Ibbbolding of webse from Acoronsistion Rending Germation of a Proposed District
0,43	Making Formation of a linthict algeing
p. ic	coldsfaired medic
(:	edulate Gresseamo ed reidsed
t y gay	Trainable Historiates Company on there
. 5	Mera River Vator Storage Matelot
( . <u>1</u>	nore Mana ev more seral
r>s	Olfriculties in Leveloping Essistion
yan and him	Santa Clara Valley Wathr Conserved ion District
573	I HAN CITICW
272	Increesing Food Production in Californ a

### CONTENTS

Work with the Army Educational Corps in France After World War I	277
LAND SETTLEMENT IN CALIFORNIA	283
Background of the Land Settlement Act	283
Durham and Delhi Settlements	287
COMMONWEALTH CLUB STUDIES	294
State Investigation of Water Resources: The Marshall Plan	<b>29</b> 5
State Water and Power Act	309
Changes in the Commonwealth Club	314
WORK WITH VARIOUS ORGANIZATIONS	318
U. S. Chamber of Commerce, 1926	318
California State Chamber of Commerce	321
California Economic Research Council	323
Publication of Bulletin 21, Irrigation Districts in California, 1929	328
Irrigation Districts Association	331
California Water Council	335
American Society of Agricultural Engineers	336
State Farm Bureau and the State Grange	340
Institute of Irrigation Agriculture	343
"Winning of the West Conference"	347
SURVEY IN PALESTINE	351
WORK ON INTERNATIONAL AND INTERSTATE WATER	362

# FURTER

4.2.2	Work with the Arry Educational Jors in
\$ 1.00 \$	HAND SAD LEGGENT IN CALIFORNIA
73.5	Barksprind of the Lend Jet Lame t Jet
	edromefited laife but radgar
· (-)	COLUMN SATUR COURS COUNTIES
::Q::	tere corentination of wat a Pracesa:
:08	J. 1880 Die 11-38 Steil
M.E.	Mississing is a standard for the same of t
FTE	WORL WITH VARYOUS ORGANIZATIONS
LIF	1. 3. Chambin of Commerce. 192
IR	California State weather of merry
£37.	Salifornia Magnamic Res ero guncil.
₽.÷;	inblication of miletin 1. Continu
III.C	griveloosad edoindel goldenium
	Itomic county aimedile
38.0	american Society of Agricultural Engineers
1.48	State Farm Buroan and the State Grange
Ein	Enstitute of Irrigation Agriculture
1110	"Hining of the West Conference"
$r_c$ .	SURVEY IN PARENTAL
Cd 1	WORE ON INTHENATIONAL AND THE STAYS WATER

## CONTENTS

Attempted Compact Between the United State	<u>s</u> 362
Rio Grande Joint Investigations, 1935 -	367
COMMENTS ON CALIFORNIA STATE ENGINEERS AND OTHER LEADERS IDENTIFIED WITH CALIFORNIA IRRIGATION AND WATER DEVELOPMENT	374
State Engineers	
Outstanding Engineers	378
Wells A. Hutchins	383
SOIL CONSERVATION DISTRICTS	386
CONSULTING WORK	394
CENTRAL VALLEY PROJECT	394
Water Charges Study, 1938	395
Solano Unit Studies, 1948	400
Somments on the Central Valley Project	402
OTHER WORK	406
Tri-Counties Project in Nebraska, 1935	406
Brush-burning Studies, 1947	408
American River Studies, 1947	412
Other Studies	413
CONCLUSION	416
APPENDIX	423
Copy of Memorandum of Plan to Utilize and Reclaim the Arid Public Domain, by Georg H. Maxwell	<u>e</u> 423
Copy of Substitute for Memorandum of Plan to Utilize and Reclaim the Arid Public Domain	425

### COLLENTS

362	Attempted Compact stycen the United States
367	Rio Grande Joint Investigations, 1925 -
371:	DOMPEN I ON CALIFORNIA STARE ENGLESS OF THE LEADERS IDENTIFIED WITH CALLED THE TREE SELECTION AND WATER DOVELORS.
37%	RINGE DE LEGE
275	lutatending Englineers
333	Bullotth . A called
336	SOUL COMSERVATION DISCRICTS
198	MEON OW INTURNOO
39%	THE PALLAY PROTECT
295	Water connection Section . Total
CO.	BICI RELIGIO TIME CARTO
gen!	Comments on the Pentrel Valley value.
An,	WEST STATE
2	All elegated at to leat estauco-in
201	Brush-burnler Studios, 1947
SI	American River Studies, 1917
Ef.	colbura constitute and the colour constitute and the colour colou
116	CONCINCION
£	APPROVICE
£34 <sup>2</sup>	Copy of Memoreandum of Plen to Ottlize and Recisim the Arid Public Docain, by Porrect H. Deswell

Cony of Substitute for Momentandum of Plan to Utilize and Reclaim the Arid Public Domain

## CONTENTS

	Copy of Draft of Letter Prepared by Elwood  Mead for Mr. H. G. Burt, President of Union Pacific Railroad, to be Submitted to Board of Directors	426
	Copy of Letter from Elwood Mead to Mr. H.  G. Burt Regarding George Maxwell's Plans, April 21, 1899	439
	Letter from Frank Adams to Edward F. Adams Regarding Appropriations for Irrigation Investigations, December 14, 1901	443
	Publications of Frank Adams (and Co-Authors)	447
	Unpublished Reports and Papers of Frank Adams	461
	Commonwealth Club Activities and Reports re Irrigation and other Water Legislation and Policy	462
INDEX		464

11 11 1 M

	Sopy of Syst of Labter Prepared by 31wco Mesi for Mr. 1. 4. Art. President of the Front Control of the Sabritory of Journal of Checkers
7	en of the second entropy of the second
Estal	nels. I form a some word north a tool
* * * 1 :	The same of the sa
, hu	Unoublished Reports and County of
Agent,	Immorphish Clark their at the second of the

## LIST OF ILLUSTRATIONS

Frank Adams, about 1940frontispiece
Dr. Edward A. Ross
Dr. Elwood Mead91a
Dr. Samuel Fortier
An Article and Photographs by Frank Adams Appearing in Sunset, June-July, 1906141a
Major O. V. P. Stout144a
Dean Thomas F. Hunt
Professor F. J. Veihmeyer181a
State Engineer Wilbur F. McClure
Professor Martin R. Huberty417a

# e : Millial Cach

101 ( 1)1.	. (t	9 4 7 9 7 7 8 8		Ub.C⊤ <sub>€</sub>	c.: , ,	y y F
::X-••••••		* * * * * * * * 4 *	9 3 4 4 4 4 4 4 <i>4</i> 4	BE Comment	ga ng = P fasa	. 1.
3.1		9 4 <b>3</b> 4 9 9 <b>9</b> 4	* * * * * * * * *	* * •	oc. i	• 1 \$ 1 miles
gl3L		* * * * , * 4 ;		2021 t.e.s	for of	<b>◆</b> . 30
si 1	), T	anth yd , ydd 1-6a	torrenks wast, Ja	orig ii	afojet Distan	in the state of th
, , <u>i</u>	. 4 7 4 4 6 7 2 4 .	• • • • • • • • • •	· • • • • ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±		• • •	
		? * <b>* * * * * </b>	• • • • • • č i	<i>.</i>		CP H
		• • • • • • • •	. Teyeni le		i Toelo	de la la
20 3 c • 4 • • • •	* * * * * * * * * * *	r ≠ 727. £00.	e • i Tuc	Tiw 166:	ign. 9	すっけに
5 7 F (	******		1. dm/	. Eldre	Loats	2011

### FAMILY AND EARLY YEARS

#### ANCESTORS

Adams:

My father, Edward Francis Adams, was the son of Reverend Thomas Adams and Catherine Swan Adams.

My mother was the daughter of Aaron B. Cooper and Levinia Whipple Cooper. Father's paternal and maternal ancestors emigrated from England to

Massachusetts in the early 1600's. We have no information about Grandfather Cooper's ancestors, but Grandmother Cooper descended from Kelemn

Winslow, who came to Massachusetts from England early in the 1600's. Kelemn was the brother of Edward Hohm Winslow.

North Brookfield, Massachusetts, and brought up on the farm of his father there under the strict religious conditions of 18th Century New England. He attended Dartmouth College, graduating in 1814, and following several years devoted to a study of theology and the classics, he entered the ministry. After something over half a century of dedicated service in the ministry and related activities as a Congregational missionary in the District of Maine



(before Maine was a state), pastor of several churches in Kennebec Valley of Maine, an ardent worker in the cause of temperance in Maine, pastor of several Congregational churches in Geauga County, Ohio, and agent for the Congregational branch of publications in northern Ohio, he returned to Kennebec Valley and died there in 1881, two days before his 89th birthday.

FATHER--EDWARD FRANCIS ADAMS

### Youth and Young Manhood

Adams:

Father was born in Augusta, Maine, December 30, 1839, while his father was editing temperance papers in Augusta. Father's younger days were spent in Augusta and nearby Portland and on an uncle's farm in North Brookfield on land that had been in the family for nearly two hundred years. When Father was about seven, Grandfather Adams took up his ministry in Ohio in Geauga County and it was there that Father grew into young manhood.

After a thorough classical preparation necessary in those days for entrance into college,

Father went to Western Reserve University. He



was able to stay there only until about the middle of his sophomore year, owing to lack of financial Then he returned to his old neighborhood in Ohio and worked for a time on the farm of a cousin near Hambden. Hoping to become a lawyer, he studied with the leading lawyer in the neighboring county seat. After about a year of this he decided to go into farming and was a farmer on his own a few miles south of Chardon, Ohio. He served for about six months in the Civil War, but was invalided home with the scourge of the Civil War, dysentery. Several years after returning to the farm he was induced by an uncle to heed the western fever and move out to Missouri, where he purchased some land and anticipated being a farmer there. As an aid in establishing himself in Missouri he became land agent for a railroad which had lands out there and traveled over the country rather widely.

He had married when he began farming south of Chardon and took his wife and two young children to Missouri, but his wife and little daughter succumbed to typhoid. Completely broken, Father returned to Ohio with his little son Ned. He didn't know what to do for quite awhile. He worked on a farm, but soon decided to become a teacher. He became



proprietor and principal of an academy and superintendent of schools in a suburb of Cleveland. To supplement his income he became agent for school maps
and books, in which he had become greatly interested.

Deciding to give his full time to that work he resigned
his superintendency of schools and moved into Michigan,
where he and my mother married Christmas Eve. 1868.

### Early Business Career

Adams:

For the next ten years he was agent for various school publications and a magazine and finally became associated in Chicago with what was then the largest manufacturer of office, school, bank, and church furniture, A. H. Andrews. He was in charge of their agencies over the country.

Baum:

It sounds like your father moved around quite a bit, took different jobs. Why did he do that?

Adams:

He was in some branch of school supplies continuously from the time he began to be an agent of these maps and books as a side issue while he was teaching and superintendent of schools. He used his summers in that way. He gave up his superintendency of schools to go definitely into that same business. As conditions changed he moved over into another branch of that same industry, finally coming into the firm that



was manufacturing school, office, and church furniture.

He was a born salesman in those days. He was just
getting a new start after his marriage to Mother.

# Move to California;

# Pacific Coast Agent for Schoolbooks

Adams:

During those ten years from 1868, when he was married, to 1878, he was traveling so much that he became completely worn out. Fearing that he was going to be permanently ill, he took the family to California and went to the home of my Grandmother and Grandfather Cooper, who in the middle '70's had gone to California and begun farming on the Mendocino County coast near Kibesillah about twelve miles north of what is now Fort Bragg. This was, of course, pioneer country.

Baum:

So your mother's family were pioneers also.

Adams:

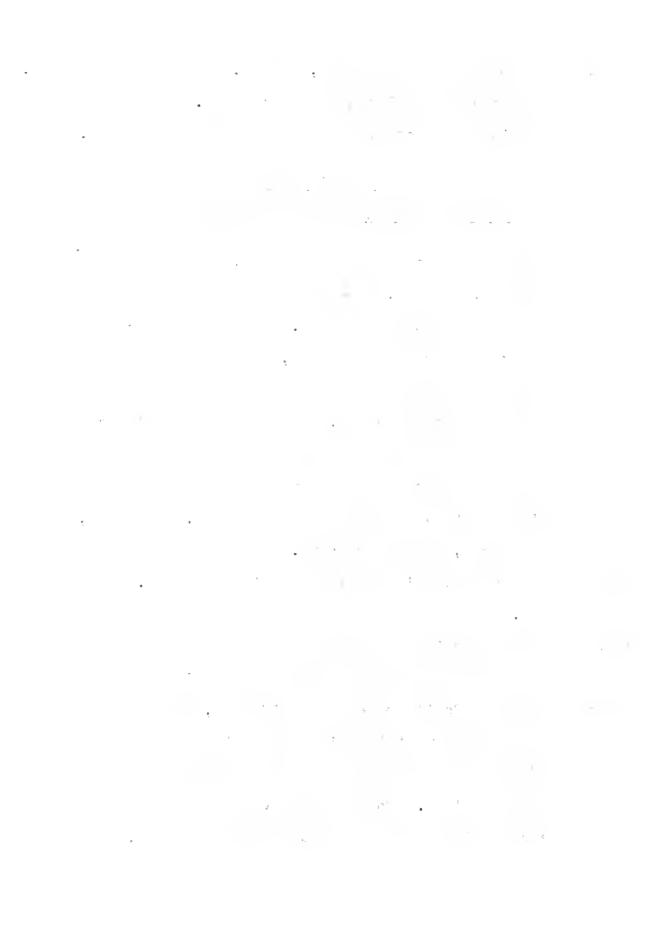
Yes.

Baum:

How many children were there in your family by the time your father took you to California?

Adams:

When the family moved to California, my older brother Ned went to Maine to be with Grandfather Adams and he stayed there until Grandfather's death in 1881. There were five children who accompanied Mother and Father to California, ranging



in age from three to eleven. There were my three sisters, Evangeline, Katharine, and Marion, and my brother Will. I was the youngest, having been born in Chicago September 19, 1875.

After about a year on Grandfather Cooper's farm near Kibesillah, working in the open and spending a good deal of time fishing off the bluffs in the ocean, Father regained his health and went back to work. He was very well-known among schoolbook publishers and had several opportunities and he chose the Pacific Coast agency for A. S. Barnes & Co., publishers of schoolbooks. They later merged with other schoolbook firms into the American Book Company. The family moved to San Francisco in the summer of '79 and Father began what turned out to be about twelve years as agent on the Pacific Coast, the Rocky Mountain states, and Hawaii for these schoolbooks.

He had a very hard life in that work because he again was constantly traveling. His old trouble, which was largely dyspepsia due to irregularity of life, kept coming back to him. In Oregon, for instance, he was sometimes away from home as much as six months, traveling over the state and over into Idaho and Utah, in good and bad weather, by team and sometimes by horseback, seeing to it that the members

\* • e\_\_\_\_ . ror is 

of boards of education in these various counties were on his side. That was his job.

He had to deal with legislators, he had to help draft school legislation because the laws were very crude at that time in Oregon where he worked primarily, and also in California. In '79 or '80 he went over to the home of the state superintendent of schools in Oakland and drafted a school law for California. He had become thoroughly versed in that field by dealing with legislators and school authorities in Ohio and Michigan.

Baum:

What means did he use to do that? How did he persuade them? I suppose there were competing book agencies.

Adams:

Oh yes, competition was very severe in those days.

Well, he always said that he liked a fight and he was always a fighter, so he kept at it. He became acquainted with the right men. In his early days in Ohio he had to make the rounds of the school boards, going from member to member, to get his books adopted, so his experience dated back many years.

Baum:

Did he do it by his own personality, or by the excellence of his books?

Adams:

By his personality, his persistence, and his ability to make friends, by helping legislators and school authorities in drafting legislation. I remember he



said in a little autobiography he wrote that in his work in Ohio and Michigan the schoolbooks he handled had a distinctive quality and reflected a great improvement in educational methods, but the books he handled on the Pacific Coast were no better than those of his competitors. It was just a matter of who could get his line adopted. He was very vigorous, very much alive in his work. He made many friends and knew the best people. He learned how politics were worked. Around legislatures there was a lot he didn't like, and he was constantly writing home that at his first opportunity he was going to get out of that business and stay out of it. Father was referring here to his experiences with the American Book Company and not to those with A. S. Barnes & Co. before the merger with the various book firms into what was known then as the "schoolbook trust." He always said that his experiences with the Barnes firm were some of the happiest business experiences of his life.

He was very lonesome on these trips and his correspondence shows that if he didn't get a letter from home every day at a certain time he was very unhappy. That situation extended over 12 years. Of course, he wasn't far away all of the time because

the property of the state of th the state of the s The second of th the professional and the state of the con-The second of the second second second the state of the s the control of the co and the contract of the state of the contract the state of the s the second of th the second of th The second that the contract of the second s the second of th were proportional and the proportion of the property of the pr

and the second control of the second control Line of the state of the section of the state of the s entering the second of the sec the state of the s

Adams: his headquarters were in San Francisco. The family remained in San Francisco for about three years.

### Farming in the Santa Cruz Mountains

Adams:

After quite a search for a place for the family to grow up. Father had purchased a farm down in Santa Cruz County, in the Santa Cruz mountains, in 1881. We moved there in 1882. We still have that farm, by the way, in the family. That's where we were until the older children finished at the district school. We had the joy of attending the oneroom district school up there. I wouldn't have missed it for the world. Then we moved back to San Francisco in 1889 where my three sisters and my brother Will entered Cogswell Polytechnical College, and I entered my last two years in grammar school. Cogswell, a privately endowed school of secondary grade, was then being operated by the board of education of San Francisco. It was an unusually fine high school with an unusually fine faculty, some of whom later became distinguished teachers elsewhere.

Early in 1892 Father left the work which had been so unsatisfactory after the merger of the schoolbook enterprises. The family went back to the

and the second of the second o

# the second secon

. . , · , · . · . · · · · · · · · 

management of the second of th The contract of the contract o The series of the series of the series to be sent that the

The state of the s the second of the second of the second of the second A company of the company of the form of the form of the form of the company of th the first of the particular production of the second of Constitution of the contract of the contract of proceedings and opening of the contract of the

the state of the form of the first of the state of the st

The second of the second of the second of the manager of the contract of the contract of the contraction

farm. That was just at the time of the depression. Father hoped to get into some new business, but the time was not ripe for that. For several years he stayed on the farm and went back to "dirt farming," but he was very active in community affairs.

Baum:

Adams:

What kind of crops did you have on your farm?
With the exception of about 25 acres, the farm was composed of various types of forest growth. These 25 acres of open land and five or ten acres which we cleared were planted to prunes, pears, apples, apricots, peaches, and grapes. It was a mountain farm on the top of the Skyland Ridge and a lovely place to live. It was a wonderful community with fine neighbors. Many of the people up there had come from the city after retirement from their activities there. There could never be a finer community to live in and for children to grow up in than that Skyland area.

Baum:

What town were you near?

Adams:

No town. Our nearest railroad station was Wrights. It was on the railroad that formerly ran through the mountains to Santa Cruz. There was a general store and a post office there. It was about four miles from the farm. The farm was on the crest of the Santa Cruz mountains, about ten miles back from

the coast, where we could look out over Santa Cruz, Capitola, across the bay to Monterey, and back through the gap above Los Gatos to Mt. Tamalpais. So it is beautiful country.

Baum:

When you were away from the farm I suppose you had somebody to take care of the trees.

Adams:

Of yes, a chum of my older brother back in Maine, who had come out to join us, took charge while we were in San Francisco attending Cogswell School.

My brother Ned and this chum of his, Will Chamberlain, had been in school together there.

### Organizing Cooperative Fruit Exchanges

Adams:

It was not long after we returned to the farm in 1892 that Father became interested in a movement among farmers to establish their own marketing agency to dispose of their dried fruit. He attended a meeting in San Jose and was the only man who went prepared with a plan of organization. He was elected to the board of directors and made manager and was given the task of going about among the growers in Santa Clara Valley and raising funds to establish what was known as the Santa Clara County Fruit Exchange. The canvass for subscriptions to the stock of the exchange was successful, a building was erected,

and the exchange began operations, I believe, the following year. There were a number of local exchanges around the valley and others were organized. The Santa Clara County Fruit Exchange was to be the central agency for marketing the product from the local exchanges. Colonel Philo Hersey, a very prominent fruit grower in Santa Clara Valley, was president of the exchange.

After the work of organization was completed. Father turned to the organization of what was known as the California Fruit Exchange. This was a state exchange and was primarily intended to gather information as to markets and prices so that the local exchanges would have some information as to what their fruit was worth and not be at the mercy of the dealers. That venture did not last very long because of the hard times. It was very difficult. Father had both the task of raising money to keep it going and of gathering the data and issuing bulleting about markets and so forth all over the The president of the State Fruit Exchange world. was a very prominent grower at Yuba City, Mr. B. F. Walton.

Baum:

The California Fruit Exchange didn't sell anything though?

Adams:

No. It arranged for selling to some extent the first

. .

the state of the s

year, but the local exchanges around the valley disposed of their products through the Santa Clara County Fruit Exchange.

I remember during the early days of the Santa Clara Fruit Exchange the packers were fighting the growers' movements very bitterly. One day, while Father and I were sacking the year's crop of prunes for shipment to the exchange, a gentleman drove up in a very smart rig with a view to getting Father to abandon the exchange and buy fruit for packers. That was the kind of competition the farmers had. I remember how proud I was of Father when he flatly refused, although he very much needed the money that he would have received because he had no income except from the farm, and farm prices were very low at that time.

Baum:
Adams:

He got no income as manager of the exchange?

Oh, some nominal figure. I think it was \$5 a day when he was occupied. He was manager of the entire County Fruit Exchange only during the organization period.

### Summer School of Economics and Husbandry

Adams: Back in the early days in Ohio while my Father was working on the farm of a cousin and while he was

studying law, he was very active in all community affairs. That was characteristic throughout his life. The same thing happened in our mountain farm country. We organized first a Farmers Alliance during the Populist movement, then a grange. Father was anxious that our grange should really do something. He therefore proposed, and the grange sponsored, and he organized, the first summer school of agriculture in California. It was known as the Summer School of Economics and Husbandry. It was sponsored originally by the State Grange, although we received no help from that organization. It was handled entirely by our Highland Grange, of which I happened to be secretary, thus I kept familiar with what was going on.

The summer school was held on our farm there in the mountains in the grove near a sulphur springs. That was in 1895. It continued through '96 and '97, although the last two years it operated on a reduced scale. We had lectures on agriculture in the morning and on economics in the afternoon. The lectures on agriculture were given by the members of the staff of the College of Agriculture of the University of California. All the members of the College of Agriculture staff, Dr. Hilgard, Professors

 $r_1 = r_2 + r_3 + r_4 + r_5 + r_6 + r_6$ 

The state of the s

or with the second of the seco

Adams: Wickson, Jaffa, Loughridge, Woodworth, and assistants
Hayne and Bioletti, participated. In the afternoon
the lectures on economics were given by Professor
E. A. Ross of Stanford.

Baum: How were these men all paid?

Adams: They were not paid. We supplied their accommodations while they were in the mountains and they all came, volunteered. That was a normal thing for the College of Agriculture because the College of Agriculture staff always gave such service without pay except from the University. They were very glad to come. For Dr. and Mrs. Ross this was a vacation. I had the opportunity to get acquainted with all members of the staff of the College of Agriculture. Of course I got acquainted with Dr. Ross. He and Mrs. Ross stayed with us on the farm each year the school was held.

Baum: How much did the people who attended these lectures pay?

Adams: There was a slight charge of \$2 per family for the entire course. Whatever expenses arose were borne by Highland Grange or local contributors, but they were nominal. We all pitched in and did the work.

Our Highland Grange became known all over the state.

The whole plan of that school was to have authoritative

instruction and discussion of issues relating to agriculture, cultivation questions, and economic questions affecting agriculture. The whole purpose was to find out the facts regarding these matters and to discuss them in an open-minded and fair way, without any idea of influencing anybody except as the facts would influence them.

We didn't have a large attendance at any of the schools. I suppose the maximum must have been forty or fifty, made up largely of the neighbors, but we had a number of very prominent men from the outside, including Mr. John Swett and his son Frank, who were very well known. John Swett was a great educator who, I think, had been largely responsible in the early days for establishing the public school system in California. At one time he was superintendent of schools in San Francisco and another time was State Superintendent of Public Instruction. The Swetts lived on a berry vineyard in Alhambra Valley back of Martinez, where Frank Swett still lives.

I remember we had one or two men interested in social welfare generally. We had probably the best-known shipper of fruits to Europe, Mr. A. Block. There were some prominent people in our neighborhood who came. It was very successful.

tito in the second second 6 e 3  $\mathbf{y}^{\star}$ 

. • 0.00

The section will be the section of t

. The world in the company of the contract of the result of the state of the Baum: How long did the sessions last?

Adams: The first year it was two weeks. I believe it was three weeks one year, but I'm not sure about that.

Immaterial.

## Author of the Modern Farmer

Adams: Let me show you this book my father wrote.

Baum: (reading from book). Edward F. Adams, <u>The Modern</u>

<u>Farmer in his Business Relations</u>, published in

1899 by N. J. Stone Company of San Francisco.

Adams: The initial inspiration for this book, I think, came from the first session of our Summer School of Economics and Husbandry. He was a student of economics and he read extensively on all phases of public life, government, and the economic situation of the country. At the conclusion of the first session of the summer school he wrote the opening chapters of this book. They were a summary, really, of Dr. Ross's first lecture, because Father had passed through the period in agriculture in Ohio that Professor Ross had described. Then he proceeded to write this book, mostly while he was traveling. He could sit in the smoking car of the train, smoke his cigar, and write. Nothing bothered him at all. So he wrote it practically out of his head without

.

 $\langle \alpha_{ij} \rangle$  ,  $\langle \alpha_{ij} \rangle$ 

Adams: reference to anything.

It proved to be a book of very great value. His idea all through was an objective statement regarding the economic issues of the day as they affected the farmer. Let me just indicate here some of the chapter headings: The Old Farmer, The New Farmer, The Evolution of the Farmer, The Hope of the Farmer, The Scientific Farmer, The Agricultural College, The Experiment Station, Special Schools of Farming, Agriculture in Common Schools, The Study of the Farm, The Further Study of the Farm. Those were all introductory chapters.

Then he took up the farmer's relationships with his family, his fellows, his competitors, his creditors, politicians, and finally the current discontent of the farmer. Then he discussed the farmer as a businessman dealing with the banker, with the commission merchant, with the railroads, with the speculator, with the tradesman, and with the tax-gatherer. Then the farmer as a cooperator, and he described the various phases of farmer cooperation with which he had been identified so closely in the Santa Clara and State Fruit Exchanges. Then the farmer and questions of the day.

I don't know where you can find as objective a

you can find here. He didn't express his own opinions in any case. His mind was objective in dealing with those things because he thought the great need of the time was for farmers to understand the facts regarding public questions rather than to be swayed by sentiment and emotion. He very clearly outlined the issues of the day, the tariff, the export bounties, the single tax, currency, labor questions, trusts, referendum, and socialism. His final chapter dealt entirely with California fruit marketing associations.

Baum:

How did this book sell at that time?

That's a very interesting question.

Adams:

I think only a few hundred copies were disposed of.

It was published as a subscription book and it had hardly come from the press when the publisher went broke. The plans that the publisher had for canvassing it were very much curtailed. Father once said that he knew of no book that had ever received such high praise and so few subscribers.

It didn't sell.

It was very generously received all over the country. Presidents of universities, the Assistant Secretary of Agriculture, deans of colleges of agriculture, all wrote very high praises. I remember

"The book has too much good sense to be salable."

It was very well received, a very thoughtful book.

In later years when Dr. Mead came to the University, back in 1915 or 1916, he wanted Father to revise it, bring it up to date. Father did it for the fun of it, not expecting that anyone would publish it, and no one did. I have his revised manuscript.

Baum: You have written this typescript biography of your father. What are you planning to do with it?

Adams: I am going to try and finish it. I did it primarily for the family. I want to get enough copies made to distribute around to members of the family and put one in Bancroft Library.

Baum: You wrote the <u>Early History of the Irrigation</u>

<u>Division</u>, <u>College of Agriculture</u>, <u>University of California</u>, (<u>With some Side-Lights</u>). Where will that typescript history be available?

Adams: There's a copy at Davis, a copy at Los Angeles, and I have a copy and you have a copy. Archives in the Library can have your copy when you are finished with it.

Baum: All right. I'll deposit it there.

· ( · · ·

The second secon

ne.

• •

BARRIER ALIV

•

•

•

.

•

## Editorial Writer for the Chronicle

Baum:

How did your father come to be a newspaper man and a writer for the Chronicle?

Adams:

Father had become quite well known through his connection with the organization of fruit exchanges and the summer school held on our farm. after the conclusion of the summer school, Father was asked by the San Francisco Call, which was then a morning paper, to write a series of articles entitled "Plain Talks With Farmers." He prepared those articles during a period of six or eight months. I think it was while the articles in the Call were still running that he was asked unexpectedly by the Chronicle to become its agricultural editor and to prepare the agricultural portion of the weekly Chronicle. All the San Francisco papers published weekly editions in those days, largely for sale out in the rural areas. Father continued as agricultural editor of the weekly Chronicle as long as the weekly was published, which was, I think, for four or five years.

In 1898 the principal editorial writer of the Chronicle left to become war correspondent in the Spanish-American War and Father became principal

editorial writer on the Chronicle, and continued in that capacity until a few years before his death, nearly 30 years later. Also he was a frequent contributor of special signed articles in the fields of public affairs, finance, economics, and agriculture.

Baum:

During the time he was agricultural editor on the Chronicle, was he able to stay on the farm in the Santa Cruz mountains?

Adams:

Initially he remained on the farm and did most of his work there, but spent two days of every week in San Francisco with his material. When he became principal editorial writer he had to be there continuously so he and Mother moved back to San Francisco. Our permanent home in San Francisco wasn't established until about 1903.

Baum:

I would like to ask you about your father's political opinions.

Adams:

Father was a Republican. He grew up in the days of Lincoln and lived through the Civil War period. He was always a Republican, but not an extreme one. He often referred to himself as a stand-patter, which he really wasn't. I know of no one who could better indicate his point of view than Herbert Hoover. Father was a strong supporter of Mr. Hoover and men of that type.

• 

• • • •

• • 

-

- : :

 $oldsymbol{\cdot}$ ·

c . there . 

Baum: Was he a Theodore Roosevelt supporter?

Adams: Oh yes.

Baum: In 1912, did he vote for Roosevelt or Taft?

Adams: Taft, by all means. Taft had been nominated and Roosevelt came in with a third party. I'm very sure he supported Taft.

Baum: He stuck with the party?

Adams: Yes.

Baum: What did he think of LaFollette? LaFollette split from the party in 1924.

Adams: Well, everyone had a high regard for LaFollette, and I know Father did, but I'm sure that Father did not vote for him.

Baum: Then he always stuck with the party.

Adams: I am not warranted in saying that he voted the straight Republican ticket. I do not remember that he ever told us how he voted. I doubt if he ever voted for a Democratic president. He probably always voted for a Republican governor, although in one case I know he didn't. He voted for Franklin K. Lane, who was defeated and later became Secretary of Interior. Lane was one of his close friends. When it came to the lesser offices I'm sure he voted for the man he thought was the better man for the job.

In the late '70's and early '80's he was very

A Section 1

e, er

.

active in the Republican Party. I know he attended at least one Republican State convention and also participated in the convention that drafted the new constitution of 1879 and had some part in drafting platforms. In the late '80's he ran for assemblyman from Santa Cruz County, but was defeated by a few votes. Above all he was opposed to graft and buncombe in whatever party it appeared. He had one rather peculiar idea as to politics. That was, as he expressed it to me, that everyone should vote according to his own interests and thereby the interests of the majority would prevail.

## MOTHER--DELIA COOPER ADAMS

Baum:

You haven't yet told us about your mother.

Adams:

Mother was born in Warrensville Ohio, a small rural community outside Cleveland. Unfortunately, we have very little information about her early life. She taught school in Warrensville. I know this, because on visiting Warrensville in 1915 I met a lady who had gone to school and who spoke very affectionately of Mother as a teacher. Mother also taught in Newburg, south of Cleveland, where Father was superintendent of schools. She and father met in a boarding house there. Her last teaching was in

.

•

for the contract of the contra

· ; c

•

. . .

Adams: Hillsdale, Michigan, which was then the home of her parents.

The burden of rearing five children fell largely on Mother, owing to Father's frequent absence from home both before and after the family moved to California. When Father moved from Kibesillah to San Francisco in the early summer of '79, beginning his work as Pacific Coast agent for the Barnes' School Books, he left the responsibility on Mother for directing the harvest and marketing the crops on the portion of Grandfather's land which Father had planted. During the early years in San Francisco when my father was away in Portland and other places traveling on his school book business Mother took on the responsibility of making frequent visits to his office and taking care of his correspondence.

After moving to the farm in 1882 the responsibility of directing the farm work fell largely on Mother. Each morning our faithful Chinese farm worker would come to the kitchen door and ask for directions for the day. When the orchard and vineyard began to bear she joined the others in packing or processing fruit for market. She carried her full share in neighborhood activities. Feeding and clothing the children, keeping them well and happy, guiding them

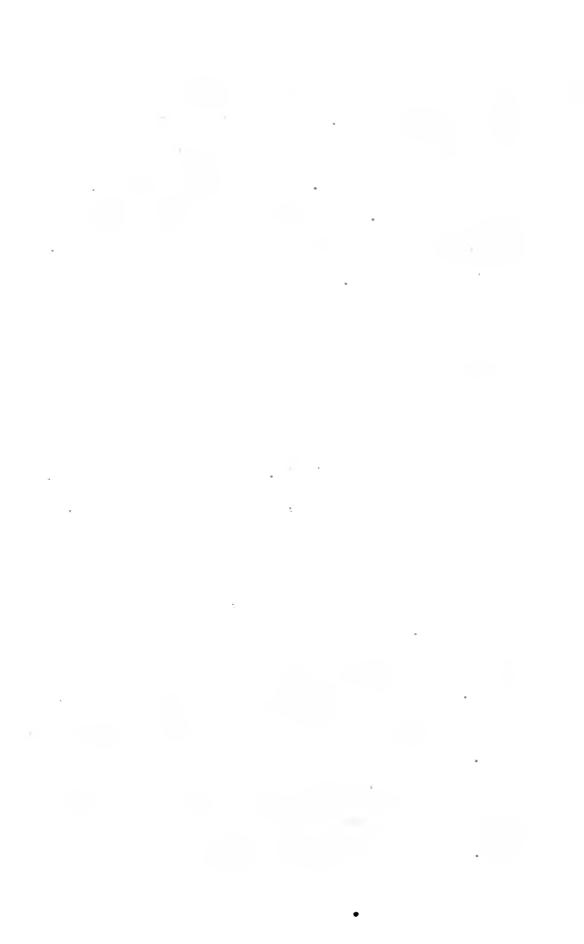
and keeping them properly disciplined was not her only responsibility. I have often felt it was Mother's watchful care of Father which enabled him to accomplish so much. After a long illness, she left us in 1918. No mother ever gave herself more devotedly to her family, or was more loved by her family and friends.

## BROTHERS AND SISTERS

Baum:
Adams:

Did all of your sisters and brothers go to college?
You will recall that my sisters and brother Will
went to Cogswell School in San Francisco in the
late '80's and early '90's. My two older sisters,
Evangeline and Katharine, finished there in '91.
My sister Marion left Cogswell School about the middle
of her last year to become supervisor of drawing in
the public schools in Stockton, succeeding my older
brother Ned, who had been there in that position
and who had entered Stanford when Stanford opened
in '91. She had been a very fine student at Cogswell
and I am sure later received her diploma of graduation
there.

Ned came out to California when he was about
21 years old and was with us on the farm for several
years. He then went off on his own on various



enterprises, finally ending up about 1890 as supervisor of drawing in the public schools at Stockton. When Stanford opened he had made up his mind he wanted to go to college and study mechanical engineering. had been married and had one child and had to have a position if he went to college. So he want to Stanford on the third of October, 1891, two days after it opened. I went down with him as a kid in high school in San Francisco. He called on Dr. Jordan. Before he left that day he was offered three positions and chose one with Professor Charles D. Marx, head of divil engineering. So he became a member of the first faculty there as an instructor in drawing. There he stayed until the celebrated suit against the Stanford estate made it necessary for all in the faculty below the rank of full professor to leave. He had senior standing when the time came for him to leave. He rustled around for three months and got backing andwent to Cornell, where he finished his engineering course. for a short time an instructor there and then went into engineering and had a very wide and successful experience as an engineer.

While still in Cogswell, my sister Evangeline studied singing and after the family returned to the

tor. ·

•

....

farm in early 1892, she spent a few months continuing her work in singing at Mills College. In 1896, the year I entered Stanford, she came down to College Terrace, where we lived, and kept a cooperative house for my other two sisters and myself and several friends. She was invited to go to Sao Paulo. Brazil. to teach music to children in an American school and spent about two years there. Later she graduated from San Francisco Normal School and taught for several years in the San Francisco schools. had attended some classes at Stanford while keeping house for us, but did not register. Later she got her degree at the University of California and then taught in the San Francisco State Teachers College. being in charge of teacher training. She stayed there until her age of retirement.

Evangeline was married to Dr. Arturo Spozio, editor of an Italian daily paper in San Francisco. Dr. Spozio was a reserve officer in the Italian army and was called at the beginning of World War I and was killed in one of the early battles.

My sister Katharine, after graduating from Cogswell, attended and graduated from San Jose State Normal School and for several years taught in various places, beginning in our Skyline district

• ( • • • • 

school. She was with us in our cooperative home in College Terrace from 1896 to 1897, but was teaching in the Mayfield High School. Later she graduated from Stanford and became a teacher in the state normal school at Tempe, Arizona. After several years there she was married to John Hicks, a cattleman of New Mexico, and lived there a number of years until her death.

My sister Marion graduated from Stanford in 1898 and for a number of years was a history teacher. She went first to Santa Barbara as supervisor of history in the schools at Santa Barbara and then to the Lick School in San Francisco, which was headed by one of her old instructors at Cogswell School. After 12 years at Lick School she became head worker of the People's Place, a community settlement in the North Beach area of San Francisco. When World War I broke out, she and my sister Evangeline went to Italy as Red Cross workers. On returning from Italy, Marion took charge of the Americanization work administered by the public schools at San Jose and carried through to their examination for citizenship a large number of foreign-born residents of the San Jose area.

My brother Will didn't finish Cogswell. He got

и т

£ : v.

Free of the contract of the second

the state of the s The second secon

Adams: a job in business and was in business of one form or another until he went back to the farm, oh, along about 1921 or 1922, and stayed there until his death

That's a rather disjointed account of the family history. There's much more to be told, but too much detail has been told already.

FRANK ADAMS -- EARLY EDUCATION AND VOCATIONAL INTEREST

Baum: Did you attend Cogswell High School also?

several years ago.

Adams: When the family moved from San Francisco back to the ranch in 1892 I was in the middle of my first

year in Cogswell. I was able, with the help of my sister Marion-family finances were very low

after Father left his work--to finish that first

year in Cogswell. Then I went back to the farm

where I pitched in and did farm work. I had learned

earlier to work on the farm and was very fond of the

farm. I remained there for about a year and a half,

when Father obtained a scholarship for me at Belmont

Preparatory School, a boys' school of which Mr.

William T. Reid, a former president of the University

of California, was headmaster. Iw as able to attend

Belmont for a spring term, either in '93 or '94, and

then had to return to the farm where I took over and

s \* • ; -• : . • 

looked after things until I entered college in the fall of '96.

When I entered college I had had only a disconnected year and a half in high school. Under the regulations at Stanford then, I wild enter as a special student because I was almost 21, with the provision that I make up my deficiencies, either by examination or by extra work in college.

In the early days of Father's work in marketing and in connection with the Summer School of Economics and Husbandry, I had become acquainted with Mr. Alfred Holman, who was then editor of the Pacific Rural I was looking forward to working with him because I was very much attached to him. He visited the farm on several occasions. During the summer school of agriculture I also had become tremendously interested in Dr. Ross and the field of economics. I had previously found among Father's books the first Outlines of Economics by Dr. Richard T. Ely, who was the pioneer teacher in that field in this country. So when I entered college I was not quite sure what I was going to do, whether I was going into the field of agricultural economics or into newspaper work with the Rural Press. I had had a little experience in newspaper work reporting for the San Francisco Call

...

.

e i vita di vi

The Care Control of the Ca

Adams: the meetings of the summer school of agriculture back in 1895. Also some previous experience as our community correspondent for one of our Santa Cruz papers.

# Alfred Holman and the Rural Press

Baum: Could you give me more details on Mr. Holman's career?

Adams: I didn't know too much about Mr. Holman in the early days. He came up to our farm one weekend in the first session of the School of Economics and Husbandry. I was very much taken by his personality and he was extremely friendly toward me. Later, after a heavy storm all over the state, he wired me up on the farm requesting that I let him know how all the fruit in our community had gone through the storm. That was a very important fruit-producing section at the time. I was very flattered by the telegram. I was about 19 years old then.

We took the <u>Rural Press</u>, of course, and I read it very religiously because I was interested in all phases of farming, especially fruit growing. It seemed to me that it would be fine to work with Mr. Holman on the <u>Rural Press</u>. Mr. Holman and a Mr. A. H. Halloran had acquired the <u>Rural Press</u> and the

Mining and Scientific Press, I think sometime in

• #1] N . \* ·

•

 $m{\cdot}$  . The first  $m{\cdot}$  . The first  $m{\cdot}$  . The first  $m{\cdot}$  .

Adams: the early '90's. Mr. Halloran edited the Mining and Scientific Press.

Baum:
Adams:

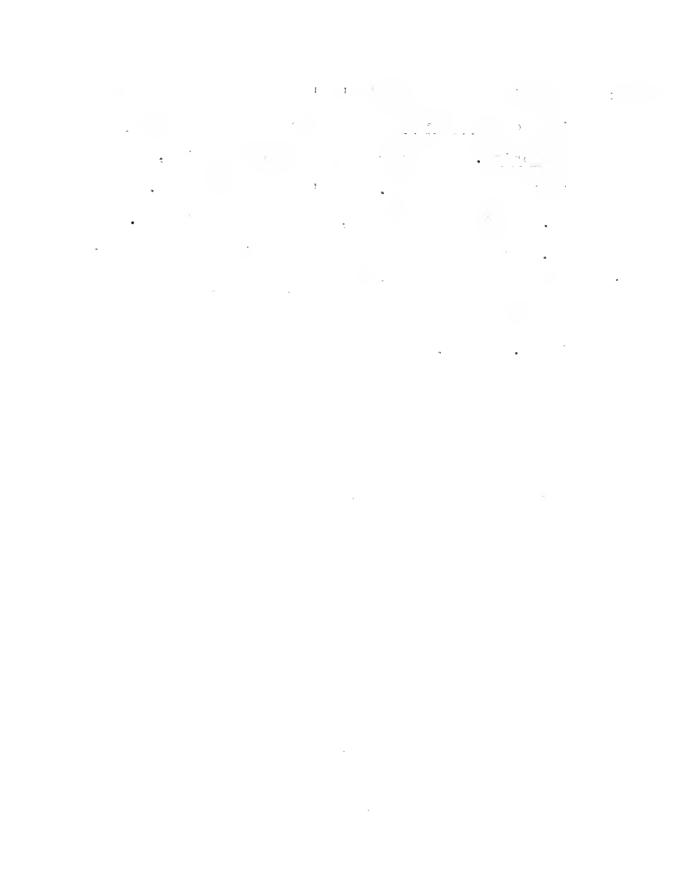
Was Mr. Holman connected with any other papers? At that time he wasnot. I will tell you about his other papers later. For many years he had been associated with the Portland Oregonian, edited and, I think, at least later owned by Mr. Harvey W. Scott. Mr. Scott was recognized as one of the very strong editors in this country and the Oregonian was generally looked upon as one of the strongest papers in the West, if not the strongest. Holman's grandparents moved to the Oregon country in the '40's and '50's and Mr. Holman had grown up there and entered the newspaper business with Mr. Scott, first as a cub reporter and finally as managing editor. He was a very great admirer of Mr. Scott, very closely associated with him. He once described Mr. Scott as "the parent of his mind." Mr. Scott once publicly referred to Mr. Holman as "the beloved son of his professional life." That shows their very close relationship. I found these things out later, of course. I didn't know them at the time. All I knew about him was from my brief contact with him.

Baum: What was his subsequent career?

. 1 1 1 1 2

. • 49

Sometime in the middle '90's he had sold his interest in the Rural Press and returned to the Portland Oregonian. As I understood it at the time, he was taking charge of Mr. Scott's interest there. Perhaps Mr. Scott was traveling, as he frequently did. When Mr. Holman returned to the Oregonian I gave up my interest in going with the Rural Press because my interest in the Rural Press was largely my interest in Mr. Holman.



### STANFORD UNIVERSITY

### Financing A College Education

Baum: Then you decided to go to Stanford?

Adams: Yes. When I told Father I wanted to major in economics at Stanford with Dr. Ross, he asked me how I was going to sell my education. That was a good practical question. I frankly didn't know, but I thought I would find a way and I went ahead.

Father, being on the <u>Chronicle</u>, had suggested my name as a possible correspondent for the <u>Chronicle</u> at Stanford. I was given the position and for four years I had that position at Stanford and was able in that way to earn my way as I went.

Baum: Did you earn your full way by that one job?

Adams: I was a couple of hundred dollars in debt when I got out, which I paid with my first earnings after that.

•

I had worked one summer vacation as a canvasser for the Rural Press and for the Chronicle in Humboldt, Mendocino, and Sonoma counties. I earned enough to get started that fall. Otherwise I worked on the farm during the summers because there was plenty of work to do there.

### Courses and Professors

Adams:

I entered Stanford in the fall of 1896, five years after the university opened. It was still a very young institution. I remember that you couldn't fail to sense the atmosphere of freedom there.

A German line was often quoted, "Die Luft der Freiheit webt", "The winds of freedom roll." I remember in Dr. Jordan's talks, it was one of the things he said.

Stanford in those days was substantially elective. Certain courses were required in engineering, but in other fields you merely had to satisfy your major professor that you had a well-rounded selection. I began pouring through the catalogue and picking out courses centering on economics. I took it to Dr. Ross, who was to be my major professor. He said, "I think you ought to have some science." I said. "I've had a little science in high school. I

. .1

•

• •

; · · · · · · ·

.

had some physics and botany and I don't think I need that. I think I should go ahead in economics."
"No," he said. "You go down and see the zoology department and talk it over." Well, as a result I took in my freshman year a basic course in zoology.

It was one of the most beneficial courses I took.

I also took a course in physics with Professor Rogers, one in algebra with Dr. R. L. Green, a year of entomology with Dr. Vernon L. Kellogg, and courses in botany with Professors William R. Dudley and Douglas H. Campbell. They tied in with agriculture and with the things I had become interested in while on the farm.

Dr. Ross also wanted me to take some foreign languages, so over the period of my work there I got in both German and French. The first year of German was very hard for me because, owing to the interruptions in my earlier schooling, I had forgotten what I had learned about grammar. My instructor was Miss Margaret Wickham. I took other courses in German. In fact, I took a course from each of the other members of the German faculty including Dr. Goebel, Dr. Griffin, Dr. Rendtorff and Mr. Schmidt. The courses covered German literature, both prose and poetry, and scientific German. These

•

Adams: courses were very enjoyable.

I also took a course in French with Professor Frien.

Of course, being a major in economics and sociology I took many courses in that field, in fact, more than were required. My recollection is that the head of the department when I started was Dr. Amos G. Warner, a very well-known man in the field of charities. He was not well and died shortly after I went there and Dr. Ross became head of the department. Dr. Ross was a great teacher and undoubtedly the, or one of the, outstanding men in sociology at that time. He was a stimulating lecturer and a great favorite of his students. His presentations were always thorough and if controversial questions came up he was always free from bias, although whenever right and wrong was at issue, he was always sure to be on the side of what he thought right. An example was his attitude during the 1896 political campaign on the money question. He espoused the Free Silver cause, because he believed the demonetization of silver had worked a great injustice. That was not a popular side to take on the Stanford campus at that time, but that made no difference to Dr. Ross. It was

5.5

7

· 10 () 8 (2.6)

\*

•

the transfer of the second

,

. .



Dr. Edward A. Ross

		7	

Adams: typical of his independence of thought.

I took a number of courses from Dr. Ross and at least one course from each of the other members of the economics and sociology Departments. of these was Professor Harry H. Powers, a brilliant lecturer. He left some time in my second year and was succeeded by Dr. Frank A. Fetter, a wonderful teacher and man who later became head of economics at Princeton. Dr. E. Dana Durand came while I was there. He was subsequently in a responsible position with the United States Industrial Commission, and also director of the United States Census in 1910. Dr. Morton A. Aldrich came while I was there. subsequently was dean of the School of Business at Tulane University. Lincoln Hutchinson was an instructor, and there was Mrs. Mary Roberts Smith. wife of the head of the department of mechanical engineering. Later, as Mrs. Dane Coolidge, she was professor of economics or sociology, or both, in Mills College. She and Professor Smith were divorced and she had married Dane Coolidge, who was a student in the college while I was there, much younger than she was. Finally, there was Dr. Burt Estes Howard. a very brilliant man who had made a great reputation as a speaker on social problems and as a minister.



Adams: He was there during my last year in college.

> I took other courses outside of economics and sociology a side from those previously mentioned. One was in psychology with Dr. Frank Angell. were two courses in English compostion with Professor H. B. Lathrop; a course in English literature with Dr. A. G. Newcomer and finally a general introductory course in law given jointly by the head of the department -- Dr. Nathan Abbott, and the remaining members of his faculty, Professor Hall, Professor Clark B. Whittier, Professor Lewers, and Professor Jackson Reynolds.

I took a course in American history that was taught by George Elliott Howard, who was looked on by Dr. Jordan as one of the greatteachers of the country. Dr. Howard left in about my third year and his course was completed by Dr. Clyde A. Duniwauy, who subsequently became president of several western universities.

I finished Stanford with the Class of 1901, having been out one-half year on the Cache Creek investigations which will be mentioned later.

Did you take any engineering courses? Baum:

> There were many very able and distinguished men at Stanford. They were especially outstanding

Adams:



because the university was young and was charting a new course in education out here. Dr. Jordan had a wide acquaintance with educators in the East. He selected the faculty very largely from Cornell and middle western institutions. They stood out as very distinguished men, very impressive to the young student.

I could go on for a long time talking about those professors. I knew them to speak to, all of them. I got to know some of them quite well.

Baum:

Was this in part because of your contact through the newspaper?

Adams:

Partly, yes. Very largely. I found it desirable to know people, both faculty and students.

Baum:

Were faculty salaries particularly high that they could attract such fine scholars?

Adams:

No salaries were particularly high in those days, compared with salaries today. Dr. Jordan stated in his little book, <u>Days of a Man</u>, that the early salaries were from \$2,000 to \$3,600, but for a few of the higher places as much as \$7,000.

## Student Life

Baum:

When you were in college, how many of the freshmen had already chosen their life careers?

the state of the s

.

,

e the first of the second of t

the state of the s

Adams: Many of the students at Stanford when I was there were more mature than students now.

Baum: Were they older?

Adams: I was twenty-one. That was not any older than lots of others. There were others older than I. We had some just out of high school, of course, but you remember that the '90's were a period of depression. They hadn't recovered from the extreme panic of 193. A larger proportion than normal, I think, earned their living while they were in college. I remember making that the subject of one of my newspaper It was a noticeable feature of the life there. They waited on table, some were agents for the laundries, there were some who did personal service here and there, several of us earned our living on newspapers. One student had a shoe repair shop; another a bicycle shop in a little annex to the Men's Gymnasium. Ernest Wilson opened a candy store in one of the buildings back of the main quadrangle and from that went on to establish a candy manufacturing business which opened stores in several cities and still manufactures the "candy with a college education." It was evident that a

large number were making their own way.

. • . .

There was very close association between the faculty and the students. Dr. Jordan always addressed the freshman class. I remember one of the things he used to say was, "You will have made a mistake if, when you leave here, you don't know many members of the faculty well and your major professors intimately."

Alto, the college paper, carried a column of these at-homes. Any student was welcome. I think students would go more to the homes of their major professors than to others, but I remember going to at-homes of a number with whom I had no other contact. I remember especially Dr. Melville Best Anderson's home at Menlo Park. He was the head of English, a great Shakespearean scholar. The Anderson at-homes were always in the afternoon on Sunday.

Dr. Jordan had at-homes frequently. He would sit in a big chair and the students would gather around him and he would tell stories of his experiences. I frequently went there.

Baum:

Did many of the students take advantage of these at-

Adams:

Many did. There was always a nice group present.

I went most frequently, of course, to Dr. Ross's
home. Faculty wives entered into those at-homes



Adams: very heartily.

At Dr. Ross's he would talk to us or some of the students would be good storytellers. Dr. Ross was a good storyteller. I remember one of the Stanford women who frequently entertained us, an economics major, her name was Agnes Morley. She had grown up on a cattle ranch in New Mexico and had remarkable experiences as a young girl. A few years ago she wrote a book, which became a best seller, on her early life there, No Life for a Lady. She was then Mrs. Newton Cleaveland. Newton Cleaveland was a close friend of mine in college. Mrs. Cleaveland died only recently.

Dr. Ross used to be a great storyteller in his classes. He had this theory, that there always was a certain number who were inclined to go to sleep. When the rest of the class would laugh heartily, the sleepers would wake up and wish they had listened more carefully.

The student body was not large then, probably 1,000 or 1,200. I remember it reached 1,500 while I was there. The university opened in '91 with something between 400 and 500, which was a great surprise to Dr. Jordan. He had not expected so many. The University of California, believe it or not,



then had a student body of only about 400. In his Days of a Man Dr. Jordan spoke of a reception given for the Stanford faculty by the University of California faculty just after the opening of Stanford. A speaker from the University of California deplored the opening of Stanford. He felt that the University of California had only about 400 students and that Stanford was going to divide the available students between the two universities. That was Dr. Bernard Moses, a very noted member of the faculty at the University of California.

There was a good deal of activity among the students in organizations. Being a small institution, the students became more easily acquainted than in a larger institution. There were a great many student organizations for a university less than ten years old. These covered almost every phase of university activity—literary, athletic, music, as well as various departments such as zoology, botany, economics and engineering. Of course, there were the usual parties among the students.

I lived in Encina Hall a couple of years, the only dormitory for men. The women's dormitory was Roble Hall. Other students lived in Palo Alto,
Mayfield, Menlo. Some commuted from San Jose or up the Peninsula toward San Mateo.

4 · 4 . . . . ()

.

. - - 6

. 100

One thing about the student body, they came from a wide area. Some from many different countries. That was really an unusual feature at that time. The university started in that way because many students followed their professors from eastern colleges to Stanford. The beginning of a new university out in the west was something that attracted the entire country. With an endowment of \$20,000,000, it was then the richest university in this country. I remember students from the Middle West, Montana, Oregon, Washington, Nevada, Colorado. So it was a cross section of a wide part of the country rather than mainly students that were attracted to the state University of California.

I was looking through one of my old Stanford picture albums and it brought to mind our life in Encina Hall. We paid only \$5 a month for our rooms. I suppose blankets were supplied to us and we had a table and a couple of chairs and two iron beds and mattresses. Everything else we supplied ourselves, our table covers, our bookcases, any extra equipment we wanted.

(Look at pictures in album). Here is a picture of my room in Encina Hall, and Herman Grunsky, brother of C. E. Grunsky. He was then my roommate.



Here are some of my classmates. We always wore white shirts with the high stiff collars, my Father used to call them "dude collars". There were some less conventional attires but ordinarily we dressed this way. We had class hats. A junior hat was a gray plug. Senior hats were stetsons. Here's my old junior plug--still have it after fifty-odd years. All battered up.

I spoke of the atmosphere of freedom down there.

No rules and regulations regarding students whatever.

No prohibitions. The University was interested only in good work and good order. If from time to time someone overstepped the bounds, why, he went away.

The saying in those days was that he was taken to the edge of the campus and dropped off.

I remember one notable instance of that. One of the most popular students in the University, who was a leader in all the deviltry and escapades, finally was dismissed. Word got around that he was to leave on the train. I went down there to cover the story. I think 90% of the student body was there. On my way back to the campus on my bicycle I fell in with Dr. Jordan. He was also on his big, high bicycle. Most of the faculty in those days had bicycles to get around on. Dr. Jordan said to me he felt very, very

. 00 \*\* • •

sorry they had to dismiss Will Irwin. He was a very able and very fine man, but they just couldn't stand him any more. Too much deviltry. Later that man was forgiven, he came back and got his degree. He became a very distinguished man in journalism and was one of the very best of war correspondents during World War I. That was Will Irwin. Will began his journalism in San Francisco, then went to New York. His brother, Wallace Irwin, became very well-known as a writer, primarily as a satirist. He wrote poetry mainly at Stanford.

I feel sure Will Irwin and Chris Bradley and Billy Erb were largely responsible for first bringing out the old Stanford Axe originating the "Give them the Axe" yell. The axe was brought out first at a rally the evening preceding one of the games in San Francisco with California. I was there. It was at that game that it was stolen. After that, and in this I'm sure Will Irwin had a part, as a matter of reprisal, a group sneaked up to the Berkeley campus at night and stole the Senior Fence and put it on their wagon and started home. Early in the morning of the following day word came around that they were being pursued by a group of Berkeley students and wanted help. So we got together, oh, perhaps forty

•

e s

- 100

or fifty of us, got in buses and went down through Mayfield and finally met them near Mountain View. We accompanied them triumphantly back to the campus and went on to the Inner Quad and everybody turned out. Instead of this being a reprisal, it was really a dud because the California students said they didn't care anything about the Senior Fence and they got away with that.

# Participation in Student Activities

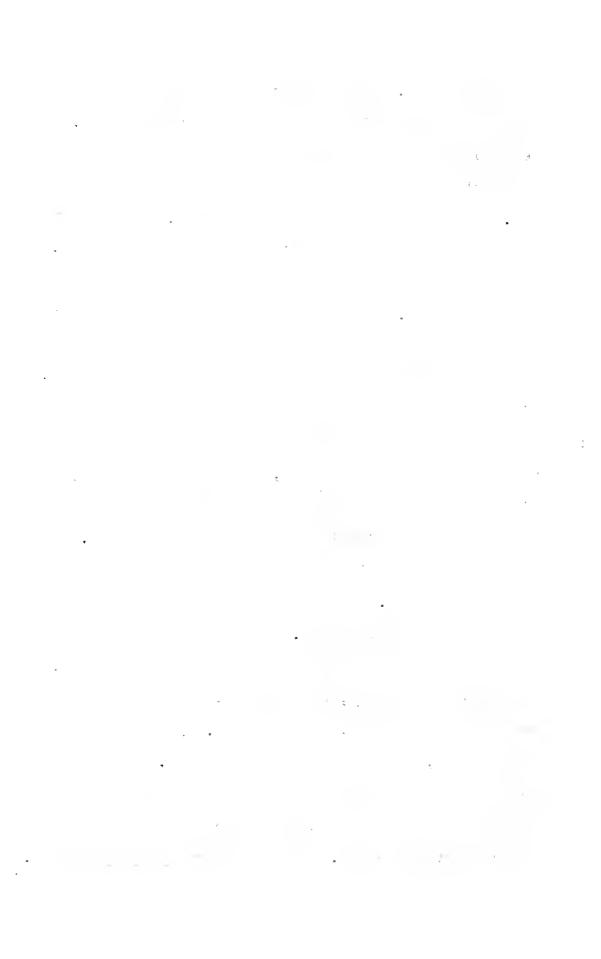
Baum:

Adams:

Did you take part in student activities?

Being interested in newspaper work I naturally worked on the college daily, the <u>Daily Palo Alto</u>, first as assistant editor and finally for a short period during my fourth year as managing editor. I resigned the managing editorship to give more time to my other work. I was on the board of editors of the 1901 Stanford <u>Quad</u>.

About 1900 the first Stanford alumni magazine, the Stanford Alumnus, was started, I think entirely as a private venture, by Charles E. Schwartz and Helen Swett, both of whom had graduated. I think they published it for three or four years and it was then taken over by the alumni association and has gone through several names. It is now the Stanford Review.



Debating was an important student activity. There were three or four student debating societies. I belonged to one of them, Euphornia. I was never a good debater but for some reason I was made chairman of the intercollegiate debating committee. This was the committee that arranged the intercollegiate debates in conference with a similar committee from California. The principal job of this committee was to select the judges for the intercollegiate debates, working with Joe O'Connor, who represented California. took the matter of selecting of judges very seriously, and I had to inquire into the backgrounds and general aptitudes of those proposed by Joe O'Connor or whom I myself suggested. I did this work for about two years. Another job I had while I was chairman was to help work out an agreement with the California committee as to rules governing the judging. alternate years a member of the Stanford and a member of the California faculty presided at the intercollegiate debates. Our debaters were not satisfied with the instructions given to the judges by the facutly member from California when he presided. So we negotiated an agreement that the presiding officer should give no instructions whatever to the judges. There were numerous other minor activities in which



Adams: I took part.

I remember one that seemed to me to be important at the time. It was a bit of proselyting among the high schools of the state. The president of the associated students appointed me chairman of the publication committee, and we arranged to have the college daily, The Daily Palo Alto, sent to high schools in the state. I presume this activity didn't last very long.

#### Tax Exemption on University Property

Adams:

I'd like to go into another historical matter.

Stanford was paying taxes on all its property. A movement was started to have the university exempted from taxes on all property involved in the educational work. Largely through the activity of George E. Crothers, who was a '95 graduate and who was then practicing law with his brother, Thomas G. Crothers, what was called an Anti-Tax Committee was appointed. That was soon changed to Tax Exemption Committee. An executive committee was named to direct the campaign. George Crothers was chairman. He asked the three correspondents of the San Francisco papers to be on that committee and I was one of them.

I left in 1900 -- I was out the fall term of



1900 -- before the work was completed, so I resigned from the committee. We had undertaken to raise money to pay the costs of the campaign. When I resigned I felt obligated to send in a small contribution, which to me in those days was quite a contribution. think it amounted to \$5. I sent that to George Crothers. Many years afterwards I was riding with George between Baltimore and Harrisburg on the Pennsylvania Railroad and he told me that I was the only one who put in a nickel on that campaign except his brother and himself. They paid the entire cost of it. George drafted the constitutional amendment and it was subsequently adopted. Fortunately, George and Thomas Crothers were able to carry the financial load which must have been substantial. George was attorney for Mrs. Stanford and very close to her and her affairs throughout the remainder of her life. Senator Stanford had, of course, died by then and she was the sole trustee under the original grant. The board of trustees had been named, but, I believe, they didn't begin to function until after her death.

# Dismissal of Dr. Ross

Adams:

An unfortunate occurrence took place during my period there, what was known as the "Ross affair."

. *	•		
	•		:
•			
			•
	•		
•			
	ę	·	
	,		

Dr. Ross was dismissed, reportedly at the insistence of Mrs. Stanford, for what she considered unwarranted attacks on the early railroad activities to which Leland Stanford was a party. There were, or course, in those early days great manipulations. Mrs. Stanford took offense. I won't go into the details of that. I cannot be sure of the facts after so many years. Dr. Ross's dismissal was looked into exhaustively by, I think, the American Economics Association, and the university was very severely condemned for what was considered a breach of academic freedom.

Baum:
Adams:

Because Dr. Jordan permitted Dr. Ross to be dismissed? Yes. That was my understanding.

Another unfortunate aftermath was that through indignation at Dr. Ross's dismissal, Dr. George Elliott Howard, the great history teacher, spoke out bitterly against the dismissal and was also dismissed. That created further furor in educational circles.

Prior to events leading up the dismissal of Dr. Ross and Dr. Howard, Stanford had planned to create a historical research center to be housed in the old Hopkins home on California Street, the site of the present Mark Hopkins Hotel. Dr. Howard was to be head of this institute. Plans were rather elaborate. I remember this because I covered the plan for a



Adams: newspaper story. Whether it was due to Dr. Howard leaving I don't know, but the project was never carried out.

Baum: Did you come into contact with Dr. Jordan while you were at Stanford?

Adams: I had daily contact with Dr. Jordan's office as correspondent for the Chronicle. His office was always open to the boys who were doing the newspaper work. He was very cordial, generous, frankly told us about things not yet ready to be announced, knowing that we wouldn't abuse his confidence. So I knew him very well. It was a great burden for me, having such an affection for Dr. Ross and Dr. Howard, to reconcile Dr. Jordan's taking the part he did in the dismissal of Dr. Ross and Dr. Howard.

Time healed my feeling somewhat and I saw Dr.

Jordan throughout most of the rest of his life. Dr.

Jordan once told me he wanted me to raise a million

dollars for Stanford to go into work in agriculture,

which previously had been planned but discontinued

because of lack of funds. He said, "When you get

that money I want you to come here and help us spend

it."

Baum: Did you raise that money for Stanford?

Adams: No. I was puzzled. I was then in the College of

CH.

Agriculture. I went to Dean Hunt and told him of Dr. Jordan's idea. Dean Hunt had no objections to my considering the matter at all. I wrote Dr. Jordan outlining what I assumed he had in mind for Stanford to do in agriculture, which was not to go into agriculture in all its branches as the University of California College of Agriculture, but to specialize in certain fields like entomology, plant physiology, soil chemistry, with a view to training teachers in the field. He wrote back that that was exactly what he had in mind. But I was not in a position to raise the money and never did. It did not seem to me proper that I should undertake this project for Stanford while on the faculty of the University of California. It was just an incident in my experience.

Baum: When was that?

Adams: Oh, I suppose about 1915 or 1916. Perhaps earlier.

# Master's Degree at the University of Nebraska

Baum: When did you finish your M. A. thesis?

Adams: Dr. Ross had gone to the University of Nebraska. I was working out of Cheyenne, Wyoming at the time. It was possible in those days to register and study in absentia for a master's degree. So I arranged that with Dr. Ross. In 1906 I finished my thesis, which



was my work in Utah on the Virgin and Sevier Rivers, supplemented by some discussion I gave on the economics of irrigation. I don't have a copy of my thesis.

I had it bound up and sent to Nebraska and it was accepted.

In the spring of 1906 I went to the University of Nebraska and spent six weeks there. They wanted me to get acquainted with their economics faculty and they with me. I did my principal work there in economic history with Mrs. Langworthy Taylor, wife of the head of the economics department. Then I went before the entire staff for a two-hour oral examination.

ŧ \* 4 • 

#### EARLY WORK WITH DR. ELWOOD MEAD

### First Meeting with Dr. Mead

Adams:

Having given up my ideas of working for the Rural Press when I was still in college, I had definitely made up my mind I wanted to work in one of the agricultural colleges. So when in 1899 the American Association of Agricultural Colleges and Experiment Stations met in San Francisco, I attended and went to all the sessions and met quite a lot of the people. I was at that time correspondent at Stanford for the Chronicle and I got them to send me on a week's excursion, which was arranged for the delegates of this convention, over the central and northern portions of the state. A committee composed of Professor Jaffa of the University of California College of Agriculture, Professor Emery Smith, then assistant professor of horticulture at Stanford, and my father raised something over \$3000 to pay the expenses of this excursion. Mr. James Horsburgh, general passenger agent of the Southern Pacific Railroad, furnished the Pullman train with a diner at a nominal charge and an entire week was spent on this excursion. About 125 of the delegates to the convention went on the trip.

. t ( ) • :

We went first up Russian River Valley as far as Ukiah to show them the northern coastal areas. We returned to San Rafael for a banquet that night at the Hotel Rafael, then a big hotel. Next day was a river steamer trip over the Delta, visiting a number of the large farms there. During the night we were carried down to Fresno and spent the next day going over the vineyards and out to the Kearney farm. Then we returned to San Francisco. The following day we went down to Stanford, then to the Santa Clara Valley where we had lunch at one of the large olive farms. We went on to the Hotel Del Monte for the night, where they had their final banquet. The next day the delegates took the 17-Mile-Drive. Leaving Monterey, we stopped at Salinas where the Spreckles sugar plant had just been opened. It was the largest beet sugar factory in the country. Then we stopped near Morgan Hill at the Morse Seed gardens. entertained there by the Chinese help at the seed gardens, who put on a marvelous display. Then we returned to San Francisco. That was the end of the excursion.

As correspondent for the Chronicle I had to file a story every night so I circulated very freely among the delegates. I talked with all of them, briefly



or at length, and came to know some of them very well during that brief period. That experience furthered my interest in agricultural college work.

One of the men I met on that trip was Dr. Mead.

He was then known as Professor Mead because when
he went to the Department of Agriculture a few years
previously, the director of the Office of Experiment

Stations, Dr. True, thought he should have a title
to help him in his work in conjunction with the
agricultural experiment stations. (The honorary
degree of doctor of engineering was not received from

Purdue until 1904.) He had, before being state engineer
of Wyoming, been a professor or assistant professor
of irrigation at Colorado Agricultural College at

Fort Collins.

Dr. Mead was just completing arrangements then for an irrigation investigation in California covering nine areas or streams, Honey Lake Valley up in Lassen County, San Joaquin River, Kings River, Yuba River, Salinas River, Los Angeles River, with a special report on the storage rivers and torrential streams in Southern California, typified by the San Jacinto and the Sweetwater. The investigation was to be made the following year. Dr. Mead told me the reports of the investigations would be coming in and he



wondered if I would care to come with him and help
put those reports into shape for publication. Well,
that was an attractive offer for a kid in college
and I showed a great deal of interest in it. He
may have been inclined somewhat toward me at that
time because Father had helped him very materially
in arranging for this investigation and for part of
the financing by California interests. So he knew
who I was when I interviewed him and I can't explain
otherwise why he offered me that position.

Baum:

You were to be an editorial worker, not an investigator of water?

Adams:

Yes, that was the idea. He suggested that in preparation for that work I make my last thesis at Stanford a study of riparian rights in California and I agreed to do that and did. In connection with that thesis on riparian rights I had occasion to see Mr. C. E. Grunsky in San Francisco, then city engineer. I wanted to find out from him about a report that the first state engineer, William Ham Hall, had written, which I could not find. Mr. Grunsky told me that Mr. Hall had submitted this report to Governor Waterman and that the governor had thrown it into the wastebasket. There had been a controversy between Mr. Hall and Governor Waterman regarding



hydraulic mining on the streams above the Sacramento.

As a result of this controversy the office of state

engineer was abolished and not reestablished until

1907.

Baum:

Did you know William Ham Hall?

Adams:

I met him once or twice and had some correspondence with him. I had read his reports and had seen him in the Commonwealth Club. He had figured very prominently in the engineering reports on early irrigation districts organized under the Wright Act.

I went back to college in the fall of '99 with this work with Dr. Mead in mind. I still, however, had my eyes on agricultural college work because the early interest had persisted, I was still in touch with the farm, and during the summer school of agriculture I had become well acquainted with and very much attracted to the entire faculty of the University of California College of Agriculture. So I had this in mind, economics and agriculture in some form, but rather hazy.

# Another Opportunity to Go Into Newspaper Work with Alfred Holman

Adams:

While all that was going through my mind, Mr. Holman came back into the picture. From then on I was in a

1

The most of district is a partial with the control of the control of

"Tosi" i medilili compression i The second of th the state of the second of the · wolfer at the server and a pri 1.03 The state of the s the control of the formation of agree a descent to bad a second of agree to the strain of the strain visits and the stra The state of the s the state of the s

# And so continuity on a long to And to the control of the control o

in the old the state of the sta

Adams: quandary, should I go with Mr. Holman or should I continue my plans with Dr. Mead?

Baum: What did Mr. Holman have to offer?

Adams: He then owned a controlling interest and was editor of the San Jose Mercury. He offered to take me on immediately, even before I was finished with college, at \$100 a month. I had gone down to seehim because he had asked my father to suggest that I go down to see him. This was along in November of 1899. in my fourth year in college. So the remainder of that year I had these things in mind: should I look toward journalism with Mr. Holman or go with Dr. Mead? I might say here that this was not my last opportunity to go with Mr. Holman. After I had decided to go with Dr. Mead and been in the work for a year or two I met Mr. Holman on the train going from San Francisco to Sacramento. He had disposed of his interest in The San Jose Mercury and acquired an interest in and was editing the Sacramento Union. He invited me to stop off and spend the day with him in Sacramento which I did. I met and visited with his two editorial writers --Franklin Hichborn and Wells Drury. Franklin Hichborn of course became very prominent in the Progressive

movement that culminated in the Hiram Johnson administra-

tion. Wells Drury gave California two very fine



Citizens and conservationists in Aubrey Drury and Newton B. Drury, the former as secretary of the Save the Railroads League, and the latter currently director of the State Park Service in California after having served for a period as director of the National Park Service.

When late in the evening I left to resume my return to Cheyenne Mr. Holman said to me, "Whenever you bring your grip and say you're ready to go to work with me I still have a place for you." Of course, I was then established in the irrigation work with Dr. Mead and had no thought of changing at that time. Subsequently, Mr. Holman became editor of the Argonaut, and so far as I know his last newspaper activity was as editor for a brief period of the Oakland Tribune. It is my recollection that on the death of a member of the family that controlled the Tribune Mr. Holman thought he could obtain a controlling interest in it and edited it for perhaps only a few months when Joseph R. Knowland got control. My timing may be in error. It may be that he was editor of the Argonaut after his brief time with the Tribune.



#### Cache Creek Investigation

Adams:

As previously explained I entered Stanford in '96. but with partial standing. I was to make up entrance deficiencies by examination and by taking extra units of college work. On account of this and my newspaper work, I couldn't take a full college load, so at the end of my fourth year in June, 1900, I still had a semester to go; however, the irrigations investigation in California was about to begin. I reported to Dr. Mead as ready for duty, because I had definitely decided to go with him rather than into newspaper work with Mr. Holman. Dr. Mead had concluded that I would first work as an assistant to Mr. J. M. Wilson in the study of irrigation on Cache Creek up near Woodland. He thought it desirable that I should have some field experience because I knew nothing of irrigation. I had seen my first irrigation on the excursion with the agricultural college people in the summer of '99. Mr. Wilson had not yet arrived for the work on Cache Creek so Dr. Mead directed me to report to the California Nater and Forest Association in San Francisco. That had been organized a year or two previously and had raised money to help finance the investigation under Dr. Mead.



Baum: This

This was a private organization?

Adams:

Yes. They raised a fairly large sum, perhaps \$20,000 or \$30,000, by private subscription and arranged with the Office of Experiment Stations of the Department of Agriculture and the Geological Survey and the Division of Forestry of the Department of Agriculture to undertake a study of water and forest matters in California.

Baum:

Who were members of this association?

Adams:

The president was Mr. William Thomas, who was a very prominent lawyer in San Francisco. I don't recall all the members, but they were such men as Fred W. Dohrmann, Arthur H. Briggs, who was important in State Board of Agriculture work, and T. Cary Friedlander who was secretary of the San Francisco Chamber of Commerce, I believe, and very much interested in forestry. Trying to find something to do pending beginning the work on Cache Creek about the first of July. I called on Mr. William Thomas, president of that association. He suggested that while I was waiting I look into the irrigation districts situation, seeing that organization of irrigation districts had been nearly a complete failure in California under the old Wright Act. He said that Judge James A. McGuire, former congressman from California, had



reorganized Turlock Irrigation District and put it on its feet, also that the Modesto Irrigation District was about ready to go ahead again. thought it would be a fine thing to look into the history of the whole irrigation district movement. That's where I got my first interest in irrigation districts. This idea interested me very much, so I began assembling information about the old districts, There was no first reading the Wright Act of '87. complete list of the old districts available, so I addressed a letter to each county clerk in the state requesting information as to the names of districts organized in his county. At odd times during the summer I continued assembling information by mail and at the end of the summer had made a fair start. However, Mr. Wilson arrived about July 1 and most of my time thereafter was devoted to work with him.

I spent the entire summer with Mr. Wilson on Cache Creek. There had been a great deal of litigation over water rights involving Cache Creek and Clear Lake, out of which Cache Creek flows. Our job was to look into the history of that litigation there and how the doctrine of appropriation had worked on Cache Creek, how the conflicts came about, what the water supply was there, what the irrigation practice was--a

a 2 • • , • \* 0 · - .

Adams: complete description of the irrigation situation on Cache Creek.

At the end of the season the engineers who had participated in the investigation over the state were brought together in a conference at the University of California campus with President Wheeler as host. Dr. Mead had brought the two universities into the investigation. The investigation on San Joaquin River was made by Professor Frank Soulé, head of civil engineering at the University of California. investigation on Salinas River was made by Professor Charles D. Marx, head of civil engineering at Stanford. He also brought into the investigation Mr. C. E. Grunsky, who had been associated in the earlier work of the state engineer, William Ham Hall, and who was then city engineer of San Francisco. Marsden Manson, who made the investigation on the Yuba River, was another engineer who had been largely identified with irrigation in California. For the study of storage and irrigation on the San Jacinto River and Sweetwater River Mr. James D. Schuyler was in charge. He was a very well-known engineer and highly thought of, and he was recognized as an authority on storage. Mr. E. M. Boggs wrote the report on the Los Angeles River. The investigation on the Susan

•

 $\epsilon$  . The second  $\epsilon$ 

- The second of the second of

or  $\alpha$  .  $\epsilon$  : 

.\* .\*

River in Honey Lake Valley was made by Mr. William E. Smythe. I can best describe him as a publicist. He was quite a writer, an enthusiast in reclamation matters, not an engineer. I think that he had some early association with efforts to reclaim Honey Lake Valley. Mr. Wilson acted as an engineer-consultant for Mr. Smythe on the Susan River to keep him straight in that field. At the end of that conference the engineers drew up a statement of principles of legislation which they considered were needed in California to straighten out the water right situation. I attended that and listened in on it.

President Wheeler showed great interest in the investigations and in what was proposed in the way of legislation. At the end of the conference he invited Dr. Mead to come to California and organize a department of irrigation at the University. Dr. Mead did not desire to give up his position as expert in charge of Irrigation Investigations in the Department of Agriculture, but he consented to organize the department and to give about a six-week course of lectures each year, as well as to assign one of his assistants to act in his absence to give regular instructions in irrigation and to take charge of



irrigation investigations in California in cooperation with the University. That arrangement was carried out and Dr. Mead gave his first course in the spring of 1901.

On the completion of the work on Cache Creek,
I accompanied Mr. Wilson first to Reno and then to
Cheyenne to assist in preparing a report. I returned
to Stanford in January of 1901. I was therefore in
my last semester at Stanford when Dr. Mead gave his
first course of lectures at the University of California.
Dr. Mead had been out of college work for a good many
years. He felt a little nervous about the University
contacts and he thought I could help him in his work.
He asked me if I wouldn't come down. I obtained a
leave of absence of six weeks and worked with Dr.
Mead in getting material together for his lectures.
This made it tough for me to finish my work at Stanford, but I made it and got through in June, 1901.

Baum:
Adams:

with some revision, were published about the following year as his little book on irrigation institutions.

Can you remember your early impressions of Dr. Mead?

I was very strongly attached to him. My relationships with him were very intimate. During those six weeks of the lectures we had rooms at Professor Soulé's

It was a fine experience. Dr. Mead's lectures,

. .

.

.

•

The second secon

home on Hillegass Avenue and I was with Dr. Mead constantly during the days and evenings on the work.

Baum:

What did he look like in his younger days?

Adams:

He had a rather youthful appearance. He was in his early forties.

Work in the Washington Office of the Office of Experiment Stations, 1901-1902

Adams:

On completing my work at Stanford I reported to Dr.

Mead. He directed me to proceed to Cheyenne, which
was the field headquarters. I got there, not knowing
what he was going to have me do. Within a few days
after arrival, word came that he had been in a streetcar
accident in Washington and his right arm had been
amputated. That, of course, was a great shock to us
there in Cheyenne. About a week later a wire came
from Dr. True, director of the Office of Experiment
Stations within which the irrigation work was conducted,
directing me to proceed to Washington to be with Dr.
Mead. Dr. Mead had recently established the main
headquarters of the Irrigation Investigations in
Washington.

I went there and was with him every day in the hospital while he was there and accompanied him to Atlantic City where I was with him while he recuperated.

1 1 1 1

**:** 

The state of the s

**.** . . . .

· Prof. in

.

and the second of the second o

ar † . °ner

in the contract of the state of

. The state of the

I remained in Washington until February of 1902. My work was principally editorial. Various reports would come in from the irrigation men in the field, and I did editorial work on these reports and some of the final work on the report of the California investigations which was about to be published as Bulletin Number 100, Office of Experiment Stations, Department of Agriculture. Dr. Mead had me prepare a rather extensive review of this report which was transmitted to the Chronicle and published under my by-line. purpose, of course, was to publicize this report in California, especially the recommendations regarding water rights legislation. The other reports on which I worked which I candefinitely recall were a report on irrigation in Wisconsin by Professor F. H. King of the University of Wisconsin, and one on the irrigation of rice down in the southern states by Frank Bond.

Of course I became very intimately associated with the others in the Office of Experiment Stations. The Office of Experiment Stations was set up to deal with the experiment stations and agricultural colleges in connection with their use of federal funds under the Hatch and Morrill acts and subsequent acts.

• December 1985

It made annual inspections of their work and use of federal money. I was in a large room in which five or six, in fact, practically all the other members of the Office of Experiment Stations were working.

There were Dr. E. V. Wilcox, Walter H. Evans, John I. Schulte, C. B. Smith (son of the director of the Michigan College of Agriculture, whom I'd met on that early excursion), Dr. C. F. Langworthy, D. J. Cosby and D. W. May (I think I have all of these initials correct.) Being right there in the same room with them every day I got to know them very well. That's where I met my wife, although we weren't married until five years later. She was a secretary, did my work. After I left Washington, she worked directly with Dr. Mead.

Years later, when I became connected with the College of Agriculture, several of these men came out on the annual inspection of the experiment station so I had a chance to renew the old association. They were long-lasting friendships I made there in that old office. The experience, of course, was a very valuable one to a young man just starting out.

## Washington, D. C.

Baum: What was Washington like when you were there?

. • • • \* • or\_ • 5 

It was, of course, very interesting. Arriving there during mid-summer during an unusually hot spell, the city seemed a sleepy place to me. The population, as I recall it, was only about 150,000 although it has become way over a million now. It was not uncommon to see shacks scattered among the residences even in some of the better areas. The central shopping area was confined largely to F and G Streets and Pennsylvania Avenue from about 12th Street to the Treasury Building on 15th Street. The only new and modern government building was the Congressional Library. This was considered a marvel, and it really was.

Most everyone you met seemed to be "in office," meaning working in some way for the government. I guess that expression is still common there.

It was not long after I arrived that the tempo of the city was quickened by Theodore Roosevelt becoming President. I was in Washington when McKinley was assassinated and Roosevelt took over. His vibrant personality seemed to permeate the city, especially, of course, the political life. I lived in a boarding house on 15th Street just across the street from the little Swedenborgian church which Roosevelt attended. He always walked up from the White House trailed by

The first one of the control of the

1. -!

.

e i la companya di seria di se

and the second of the second o

And the service of th

several of his sons and his younger daughter. They seemed to have difficulty in keeping up with him.

Another event that stirred the city in that summer was the court martial to determine whether Admiral Samson or Commodore Schley was entitled to credit for destroying the Spanish fleet which had been bottled up in the harbor of Santiago, Cuba during the Spanish American War. I spent an afternoon listening to the proceedings which were presided over by Admiral Dewey. I sat near enough to Admiral Dewey and the other men to get a clear impression of each of them. Admiral Dewey seemed to me to stand out head and shoulders above the others.

With the coming of fall, and especially with the opening of Congress early in December the social life of the city took on new emphasis. Of course I had no personal contact with this, but could not help but be aware of it. I did have opportunity to attend two of the President's receptions in the White House, where I had the privilege of shaking hands with him. Washington was then a great theater city, and it was not uncommon for plays to come down from New York for their premiere in Washington. It was fascinating to watch the celebrities, especially those of the diplomatic corps, as they arrived or

Adams: devined of the sum of the gourge adams. . to state one of coopings value of the overal of beneval And the state of the state of the state of where arty again models of the formal department of the garden A CONTRACTOR SOME A FROM A MADERNA TO A CONTRACTOR THE THE THE A the control of the second of t the sure of the second of the EDUTE TO THE REPORT OF THE SECOND SECTIONS OF THE SECOND SECTION OF THE SECOND TO THE REPORT OF THE PARTY OF T the contract of the contract o By a service of the s · Dear to make the street of the first of

It was the control of the state of the the reference of the first of the second of the prince ကြောင်းသည်။ ကြောင်းသည်။ ကြောင်းသည် ကြောင်းသည်။ ကြောင်းသည်။ ကြောင်းသည်။ ကြောင်းသည်။ ကြောင်းသည်။ ကြောင်းသည်။ ကြေ to the first tent of the state of the first tent of the state of the s of the energy man store with the energy of the and the second of anothing and in coal in a g to be a poetty; a will find a more of the What tenent and extracted of the wild rate of our the second of the grant convenience of the fit has a tite ream few 2 reft for the site of the fitter of the e – ಪರಗತ <sub>ಕ್</sub>ರಾಗ್ನ ಗರ್ತನ ಸಹಕ ಸಹಕಾದ ಅಧಿಕಾರಕ್ಕೆ <del>ಕಡ</del>ೆ ಕಾಗ ಕೆಗ TO CHEST SET 37 - OFFICE WITH MENT OF BOULDEST

departed in their beautiful horse-drawn carriages.

However, what was really most striking in Washington during that fall and winter was the dynamic personality of President Theodore Roosevelt.

One thing that surprised me was the absence of news from California and other western areas in the Washington city newspapers. I had to subscribe to the San Francisco Chronicle in order to keep posted on what was going on in California.

### Lobbying Duties

Baum:

While in Washington did you have to do any lobbying in support of your appropriation?

Adams:

The only lobbying I did in Washington was very brief.

In those days some of those associated with the movement for the Reclamation Act were opposed to Dr. Mead's ideas on federal reclamation and were constantly trying to cut off Dr. Mead's appropriations in the Department of Agriculture, so Dr. Mead had to be on the constant look out to keep his fences built in Congress. The appropriation for our work when I was in Washington was, I think, only about \$50,000, but that was a great deal of money in those days. The House almost always cut that down to a very small figure. Dr. Mead had to call on Senator

A company of the beautiful Control of the control o to a contract of the second of the contract of ្រុក ស្រែក ១១១ ខេត្ត ១០ភ្នំគ្នានៃ ២៤៨ ខែ២០ ខែ៤៨ មន្ត្រី។ JULY POCK ANCION STORY OF THE

\*\*\* /\*\*

the same of the same of the same of the same of the same · The second of the second of the second sec and a troops of the contract of the object of of agreement of the second of the second will . The second of the contract of the second o

# The second second was a second

enter the control of . The transported of the first of the

ರಕ್ಷಣ ಕಟ್ಟಿಯ The state of the second the second that it the company of the state of the will be the confer and form both on the control of the control we stall a country to medical tracks of the education in the angenish is all Arms to the angent such in minor than a second the steril test with a district grand in the selection of the second of the when I was included and a car. I aligh, one TO JOS, TO MAKE BE BENEFIT OF THE JOSEPH AND THE JO Went small tire the the Mean for the edit of the re-

Francis E. Warren and Congressman Frank Mondell of Wyoming and others of his friends in Congress to get it restored.

One day Dr. Mead asked me to see Congressman
Julius Kahn of California and Congressman Victor H.

Metcalf of California to enlist their support in our
appropriation in Congress. I called on Mr. Kahn.

He was very gracious and promised to help out. I
then called on Mr. Metcalf. He reminded me that
just a few days previously President Roosevelt had
issued an order positively forbidding any members of
department staffs to lobby for support of their
appropriations. I was through then. I had to leave.
That was the extent of my lobbying in Washington.

I have a letter here I wrote to my father in 1901 regarding our efforts to get our appropriation.

Baum: (reads letter). This is very interesting. May I include it in the appendix of this interview?

Adams: Yes, if you think this desirable. (See Appendix for letter.)

Baum: Did your office always have to keep pressuring to keep your appropriation up?

Adams: That was true for many years. Those in the field in irrigation work had as one of their duties to

100000

. .

ica : Peaceis . Fer et au. . . cacaca " ni Min E ... the second of simples of the parison of the parison .homeda or di

as the common the testing of the first was not . Ideal for more not the first of the bond of the in the comment of design of planetime to the tree en a la distribuit doncerga. I cellator or la esta en . The competition has been not been been been seen Sign religion to the Mathematical Contract of the Contract of ្រាស់ ប្រធានប្រជាពល ប្រធានប្រធានប្រធានប្រធានប្រធានប្រធានប្រធានប្រធានប្រធានប្រធានប្រធានប្រធានប្រធានប្រធានប្រធានប THE RESERVE OF THE PROPERTY OF THE RESERVE OF THE R

and the second of the set of the tenter of the second the with a special transfer of the property I state the second of the seco The state of the s some material of the minimum and at all surfers

with the second of the decimal and the second of the .97.1 95

the tit of the color of or other amends the there is the color Ser deliatropper e anor

This is a finite for a section of the section of the section a. This court of an as but her and biggs air

attend conventions and get legislatures and associations interested in irrigation and reclamation to pass resolutions favoring our appropriations. little of this experience in lobbying years later when temporarily in California from Cheyenne during the illness of Mr. Wilson who was in charge there.

I remember leaving one night to go up to see Will S. Green, who was head of the Sacramento Valley Development Association and long known as the "father of irrigation in the Sacramento Valley." They were having a meeting of this association in Colusa and I took the train, got up there after dark, registered at a hotel, and asked where I could find Mr. Green. I was told the board of directors of the association were having a meeting upstairs right then. went up and sat down. I was recognized by the secretary of the board, Mr. Harry Stabler of Yuba City. He came down and asked if there was anything he could do for me. I explained what was wanted. I had in pocket a resolution already prepared; of course. read it to him. He said, "That's all right." I sat down. In fifteen or twenty minutes it was passed and I left the meeting and returned to Berkeley.

Baum:

Did you have many contacts with Will S. Green?

I met him first in 1900 at a meeting of the Sacramento Adams:

: 770 3 C A

Valley Development Association at Colusa and saw him frequently in later years at meetings of the association. He was a very forceful man and very much devoted to the cause. He was largely responsible for organizing the old Central Irrigation District back in 1897.

I read that he superintended the construction of the Central Canal which later became the nucleus of Glenn-Colusa and other irrigation districts of that area.

Another example, Henry T. Gage was governor of California in the early 1900's. I was temporarily in California from Cheyenne. Word came from Dr. Mead that I was to see Governor Gage and get him to support a resolution in the legislature. So I went up to Sacramento and found that he was in the Palace Hotel in San Francisco. I returned immediately to San Francisco to the Palace and found that he had returned to Sacramento. So I went back to Sacramento and was ushered into his office and very cordially received. He was rather a gruff and formal kind of man, but he indicated that he would help us and I assume he did, I don't remember, but we got our appropriation.

At that time the legislature was appropriating a small amount to our work, the Geological Survey work, the Forestry work, topographic surveys, and stream-gauging. It came in the form of a biennial appropriation.

read: Velley davelo - of Adraelation of Column and some Transmitty in Tiber to be shown biour of the escondido. The ball on form your bus one introped your second talenage ica aforace in of ones missible capes of · His mineral surface to a literal med form mad ble with the contribution of the second of the second of the second with the section of the recommendation in a femore. It is first to a section to a sequence of a section of a section

commence of a second of the se in and a contract of the odd of at mortist and the second of the second o that from the form of the second of the seco of a latter of the state of the To. I sold the first of deal band base of program and the contraction of a contraction and continuous of the the terminal of the company of the company in the control of the desired of the control of the control of . With the State of the best of the second freedom the first that a formation of the property and a second THE THERE IS NOT BE ESPAINABLE TO SELECTION. . The transport of the transport of the first transport of transp

At the the lactelature of the sit of a maall suppose to num wo w, the Seolo that to come allege a be dominionly made, tolographic standers, and who a - a a genwing. It come in the form of a bit putal appror

About 1908 Mr. Clyde Seavey, secretary of the State Board of Examiners, got the legislature to pass a continuing appropriation so we no longer had to do that regular lobbying.

I had a long and very friendly association with Clyde Seavey through the years, a very fine man, one of the ablest and most devoted public servants I ever knew. The State Board of Examiners was changed to the State Board of Control and Mr. Seavey became a member. Later he became a member of the State Railroad Commission and from that he became a member of the Federal Power Commission. My last contact with him was while he was chairman of the Federal Power Commission in Washington, about 1934. He should have been governor of California. He would have made a very great governor. He was highly regarded everywhere.

Baum:

Adams:

I take it you disliked your public relations duties.

I hated to go after legislative support for money.

My other public relations I liked. In fact, my

whole work involved people. I never felt I learned

very much in the office. I had to learn in the field.

Whatever I was doing I thought out in the environment

of my subject, in contact with the people involved.

So that type of public service I enjoyed.

Baum: In other words, you like to give service and assistance.

Adams: Yes.

About 1904 Am. Hyde Scavey, repreteny of the E. . Soard of Estadom, white the E. dashbard of Estadom south the Estadom and representation at the molecular and the Same of the Estadom and the American

79

ris, periodices and mark the new box and a bull Indo Survey throngs between the reserve of a result of Ev. I has a my selections of according to a document of the control and there is the rest of any to the of the district the second the third mand of Charles to the ment and ្រុង ស្រុក they are a section of more affects of all to the was this and the continue of the saw of Continuity in Washington, The Civil and Archaired Ten of the control of vory gradient appropriate the first secretary to the I the the consideration of the constitution of . The word of the contract that the traction of the petrol of t owner collic relations i likes. The colling whole cosk favolved cooks. I never him to be and of it en or it is not be a little of a national grave the second of th of my rebject, in content with a menja involve. So Fish two continues of the complete the animonal.

In other wards, you like to give service and adiate in-

: " IIBC

: ams A

. 8 93

#### RECLAMATION ACT OF 1902 AND DR. ELWOOD MEAD

### Pressures for a Reclamation Act

Baum: You were in Washington about the time the Reclamation

Act was passed.

Adams: The movement for a reclamation act was just coming

to a head at that time, 1901-1902. There were two national organizations concerned with irrigation and

1

reclamation, the National Irrigation Congress and the

National Irrigation Association. The National

Irrigation Congress was widely representative of the

irrigation interests in the West. It met annually

in different cities in the West, had a large attendance

and was primarily concerned with administrative,

engineering, agricultural and other local problems.

It was, of course, much interested in obtaining federal

aid, but that was by no means its main function. The

National Irrigation Association, on the other hand,

was a purely promotional organization devoted to

campaigning for federal aid. It presumably had

prominent westerners as officers, but the real directing

power was George H. Maxwell, a San Francisco attorney

who had been employed earlier by large land owners in

the San Joaquin and Sacramento valleys to fight opera-

tions under the Wright Irrigation District Act.

1 -- -- -- 3

You ware in latington about the bime the manner. Act was paged.

0.613

" ae novement "on a morthwall on a st une from the state of and the second of the second of the second t and the terminant of the many once excellent at a first that in the enterpolition of pacific enterpolitics The content of the content of the content for the content of the ्री एक कर्ना एक ने करान के प्रतिशिक्ष करने अध्याप एक करानिकार है। irrivation incorporate in the last. It has to my apply ogarate este and to bad . Their add of realist of men atil ( and war orientily concerned title alitation as and . The fact of one weeth one formutfortings . Thirten's The will sight of bodoer dei docum present to asw th aid, but that was by no means the min thenth . The Resident Indicate a desprise time, a transfer of the start et s deve pelderimente Isabitemena visant e cew campaigning for federal sid. It preson bly had prominent been been as officers, but the election of a power vise in the P. Marriell, a first language of the control who had been employed earling by lend of and who the San Joseph Soundantin vellera to their bound tions under the of it derication II twint oct.

He was the one who carried the Wright Act to the United States Supreme Court which finally resulted in the act being declared constitutional in the famous Fallbrook Case.

Well. Mr. Maxwell got his largest financial support, I'm quite sure, from the western railroads which supplied him with \$30,000 a year for his propaganda. The interest of the railroads was, of course, to build up the country through which their lines passed. The states and local communities also pressed for federal aid. In Washington the governmental agency that was most directly concerned was the Geological Survey. Following the investigations of Major Powell, the Geological Survey had been studying the lands and forests and measuring the It was the Geological Survey which was to be the agency through which the proposed Reclamation It had probably already Act would be administered. been determined that F. H. Newell, head of the hydrographic branch of Geological Survey, would be in charge. At any rate, he was very active in the Allied with him were the heads of several promotion. bureaus in the Department of Agriculture, notably Gifford Pinchot who was head of the then Division of Forestry and Milton Whitney, chief of the Bureau

He will the one win depried the Wright in to the United States Superior count to the finally grow the factor of a set heting deal area and thattons) to the campus feathern that the first one that the first of the campus feathern of the campus feathern that the campus feathern of the campus feather

" was the set of the transfer of the the service of the control of the co we will not be my so that a data med the decay do the in an electron per metalent ser i i i ne demendial i i i i i i i i i i i i mem market from the control of the of pagare . The subtract of the control of the other set . Grand The the second of the following the second of the first of asis arrang digular, and interest of the said areas and and areas entropy to the interpretation of the section of the The same of the stand and offered and the of the first of the control of the control of the section The second of th the state of the s the second of th hydro call in breaders in the format of a lar orbyth ha chine . The any real and very articlicate read to the great of the control in the collection of location turion in the Pepartream of Adried I the out of Tirebuth continued by the about burner to but burn the of Porenter an Alton withness, chief of he danger

Adams: of Soils.

Baum: What were Dr. Mead's ideas about federal aid? Did he favor passage of the Reclamation Act?

Adams: Dr. Mead was strongly in favor of federal aid, but he

did not believe the urgent need at that time was reclamation of additional public lands. Most of the land in the irrigated areas of the West was already under private ownership. In some sections what was needed was storage of spring floods to supply late summer irrigation needs. The storage he had particularly in mind was that in the channels of streams. He believed this should be under public control in order to avoid water rights controversies in the use of the water stored. In some other sections the areas under canals already constructed greatly exceeded the areas irrigated. Dr. Mead believed the aid needed in those sections was such as would ease the burden of settlers and hasten the settlement of the area.

He probably had more knowledge as to the water needs of the western states than anyone else and his primary interest was in federal aid that would help solve existing problems. Anyone interested in really understanding the irrigation situation in the West at that time should read the last chapter of Dr. Mead's book, Irrigation Institutions, published by MacMillan

अधिकार १० १० १२ ११ १७

:

The state of the s

the control of the state of the state of the state of at the continue of the first field of a continue of the conti That it is not perfect on the tend and the state of the state of the makes the second besiden in commence of children to be seen and the seeker sunner to the book of the second of the temperature of the second of the ្នាក់ ការ៉ា ការ៉ា ការ៉ា មានក្រុម ១០០ មេដា ១០០០០៧ ១៩២ ២៣៣ ការ៉ា THE RELEASE TO BE A STATE THAT they have it be recovered also in manage from a ca are the result of any expect when it is interested and the The control of the first territory of the section of Albert no line in the verified partition . In which itself (4.3 = The the Control of or no the second tout and right the other against the even.

te unoted the constant the constant of the con

in 1903. I think Mr. Maxwell and those associated with him in the Geological Survey, on the other hand, were strongly in favor of the government itself going into the irrigation business on a large scale.

Baum:

I should think Mr. Maxwell would not have wanted that government participation in as much as it also meant regulations, such as the 160-acre limitation.

Adams:

That 160-acre limitation was introduced into the bill in Congress. Matters of that kind, however, didn't come up much in the campaign for the act.

The propaganda for federal aid largely centered in the Geological Survey and in Mr. Maxwell and those associated with him. The knowledge of the West possessed by the Geological Survey must have been considerable. For many years the Geological Survey had been measuring extremes in the West and studying the public lands. They framed their ideas as to the type of reclamation there should be in the West on that experience. Dr. Mead, on the other hand, had the point of view of the irrigators primarily. He wasn't so much concerned then with the public lands.

When President Roosevelt came to write his first message to Congress he asked Senator Warren of Wyoming to confer with him about how he should treat federal aid for reclamation. Senator Warren recommended

in Isti. I bittle deploration and bittle nesserials

LBI similar in the deploracion of the restrict of the similar in the deposit of the similar and the similar in the sim

In the second of the second of

The component of the control of the

Adams: that he call in Dr. Mead.

I might go back a little here and say that it was Senator Warren who had been instrumental in getting Mr. Mead to leave Colorado Agricultural College and go to Wyoming as territorial engineer and to prepare with Senator Warren the first irrigation act for this territory. Senator Warren undoubtedly also had been instrumental in getting Dr. Mead into the Department of Agriculture to head the Irrigation Investigations there. Well, President Roosevelt did ask Dr. Mead to confer with him and was very much interested in what Dr. Mead suggested. He said very emphatically, "That's what I want. Write it out. Send it to me."

Dr. Mead went back to the office and asked me to sit in with him while he was preparing this letter. When the letter was finished Dr. Mead had me take it over to the White House.

When the message came out it had a good deal of Dr. Mead's letter, almost verbatim or substantially verbatim, and expressed very clearly Dr. Mead's ideas. To reinforce myself on that I went over to the library the other day and had this photostatic copy made of that part of the message that referred to reclamation legislation.

. I was a clift of the court.

Fig. 1. The time and the time and the time and the time is a second seco

The object of the control of the con

Parties in the residence of the second of th

#### Dr. Mead's Background in Western Irrigation

Irrigation Laws of Colorado

Baum: What was Dr. Mead's background in irrigation in the western states?

Adams: Dr. Mead came out to Colorado in the early '80's.

For about three years, but not continuously, he was
a professor of irrigation at the Colorado Agricultural
College at Fort Collins. There he was able to become
thoroughly acquainted with the Colorado system of
administering water rights.

rights largely under regulations set up by the Mormon Church, Colorado was the only state in the West that had adopted a comprehensive water code. All the other states had followed a simple procedure which had developed in California during the early mining days. By that procedure anyone desiring to appropriate water would post a notice of appropriation on the bank of the stream from which water was to be taken and file a copy of this notice in the office of the county clerk. There was no check by any authorities as to whether the appropriation was perfected by diversion and use of the water; there was no check as to the quantities to

commence of the collapsing

† ရုပ္ျပည္။ ႏိုက္ကုန္း ကုိ ေတြက္လူျပည္သည့္ အာဏီ အာဏီက လိုေန္ကာသည္။ ကိုက္လည္လည္လည္သည့္

The state of the s

ring for the symbol of the sym

be appropriated. The county clerks' offices were filled with these notices of appropriation, some of which were indefinite as to amount or not clear in other respects. Some would call for the appropriation of all the water in the stream. It was impossible to tell from the county records whether appropriations had been perfected by diversion and use. When controversies arose they were carried to the court and any decision by the courts would relate only to the relative rights of the parties to the suit. was no way in which all the claimants to water on a stream could be brought into the suit, or at least there was no procedure of that kind. The litigation might settle the rights as between the parties to the suit, but not as against all other appropriators on the stream.

The Colorado code made very distinct advances. It set up the office of state engineer and provided that all appropriations for water in the state should be filed in his office. The state also established water divisions and water districts for administering the distribution of water. Furthermore, which was very important, the law authorized any appropriator to bring into a suit all claimants to water on the stream.

A c: be apprountated. The county element of co-PLILAR With 1988e to lives of colors ration belief of one In dome to drivery of the object of the The second of the state of the second of the There is a second of the secon to the people of the compatt, by the electronic of the people of they are a compared the second people against some void ್ ಕಿ ರಾ ಸಾತ್ರಕ ಕ್ರಾರ್ಥಿಕ ರಾ ಕ್ರಾರ್ಥಿಕ ಕ್ರಾರ್ಥಿಕ ಕ್ರಾರ್ಥಿಕ ಕ್ರಾರ್ಥಿಕ ಕ್ರಾರ್ಥಿಕ ಕ್ರಾರ್ಥಿಕ ಕ್ರಾರ್ಥಿಕ ಕ್ರಾರ್ಥಿಕ ಕ್ರಾರ್ಥಿಕ we will a transfer on the same set to store a leafer the mention of the profession of a solder of mention on the trans e o . . our com a dominad of his of me ate organistic of the state of the organization of the second are of getting out in low dust on part, in and buildien adata as well to a constant for the training and downed the \* ' ' ' '

. Provide the thirty of the same of the control of The state of the s ಕನ್ನ ಜನಕ ಜನಕ ಜನಕ ಕ್ರಾಮಾನಕ ಜನಕ ಮಾಡುವುದು ಮಾಡುವುದು ಚಿತ್ರವಾಗಿ the content of the section of the section of The second was now both doll methaw bind on the with contaw ಸಂದರ್ಭ ಕರ್ವರ ಸಾಹತ್ ಕರ್ಮ ಕ್ರೀಡ್ ಕ್ರಮ್ಮಿಕ್ ಕ್ರಾಮ್ ಕ್ರೀಡ್ ಕ್ರಾಮಿಕ್ ಕ್ರಾಮಿಕ್ at the same the control of the self of the self two on the income of wheemingh lie d'en a can't raind of JUBANUT

In addition to being at the state agricultural college, Dr. Mead was, for a brief time I believe, associated with the state engineer as assistant state engineer. At any rate, he was able to become fully familiar with the Colorado law and to notice its shortcomings. One was that there was no provision for the state engineer to check on the appropriations that were filed in his office, nor as to whether appropriations were actually completed by diversion and use of water, nor as to the capacities of the ditches and canals, nor as to the amounts of water actually put to use. Furthermore, in the absence of any expert testimony regarding these matters from the state engineer in the litigation, the courts awarded many excess decrees. That is, they adjudicated the rights largely as to the capacities of the ditches rather than as to the amount of water used. When working in Colorado in 1903 I tabulated the total adjudications and the total diversions on one stream and found a wide discrepancy.

Irrigation Laws of Wyoming

Adams:

In 1888 Mr. Mead went to Wyoming as territorial engineer. Between then and 1890 when Wyoming became a state a constitution was drafted and adopted. It

1 47 - 1 1

್ರಾಮ್ ಎ.ಆ. ಎಕ್ಕಾರಿಕ ಆಕಿಕ ತರ ಎಂದು ಕರೆ ಕರ್ಮಕರ್ತಿಯ ಕರ್ಮ entitle i emit wind a got to them this importion The second is a second to the second that it is betaloc be a willness. The sage seems, so were side to become the term add to the addition to the moter with the ministrate shareteen in the man think the term of the period idistragement and to see that make importance is not sold and a danger in the general action of the first of the All and the section of th and the matter of the second particle and the second and was wife and a second of the war are a state the common to the min, the contribution, and contributions and the contract of the second winds (\$1.85 \$450) is the extension and a relief to the firm of meditions of post and the month of the control of the specific of the control of the e e la company de la company d the second of the second will be a second that The second search and the second sections of the second se BASE FOR COMMITTER THE ERROL FOR THE THE TENTER THAT DR . Compagnets of the feath of the

## Time ton the sent netting

eastacer. In 1934 are, we get wont to dry ing an theoretony of a coneastacer. In enthon ord I when control con-

included a provision that all the water in the state belonged to the state. This was the first instance of such constitutional provision.

When Wyoming became a state Mr. Mead became state engineer. The first thing necessary was to draft a law which would provide means by which water, now the property of the state, would be administered. Mr. Mead is generally understood to have drafted that law, and I am sure he did. Francis E. Warren. later Senator Warren, had a good deal to do with it also. Legislation is frequently the result of the ideas of a number of people, but I am sure the basic provisions of the Wyoming law were adapted by Mr. Mead in the light of the knowledge he had gained while at Fort Collins. Mr. Mead's ideas and general philosophy regarding the administration of water in the West had been influenced by the work of Major John Wesley Powell of the Gological Survey. Major Powell made a long study of the lands, waters, and forests of the West and had written his classic report, Lands of the Arid Region. Mr. Mead knew Major Powell and was thoroughly familiar with his work.

Baum:
Adams:

What were the major provisions of the Wyoming law?

The office of state engineer was created and the

state engineer was given general administrative

included a provision that al. Our material but about helpaged by the about This was the first material as of such constitutional provision.

kadn Tyoming became a sinte Mr. Tead becha mante entimover. The times to destin . The cold regardless to the cold to the state of the state of item districts at the very state of the very entering the con-Te. that see a construction of the contract of land and i so cone he did. Form is . Emman. I have engtion threen, bad a retto the terminate cotsen. "To the first and the second of the first transfer of the first tr a reader of media. I say a series of the control red medians call of the W. of the educate wash the control of the Start to with the start of the garden Ambelian and the high the green to the car of made at most, if . if to de la sur la de la codendedat de la sur sur sur, e modern in this engage is from and and income the least ost B'T Elimo rejet . event le irolon de to fonce e long since of ine leade, and ine forth and of the area in a contemple of section to a far dead of the noted forther. The best whom after meal on a se thoroughly farilian tith its voris. Trial military so has another voice include suffer a domi-The public of the engineer was evened and ten

state environments and menter administrations

imas incia

authority over the waters of the state. Anyone desiring to appropriate water was required to file an application with the state engineer with adequate maps and other descriptions to indicate the place and nature of the appropriation. The application would then be examined by the state engineer and if he found that water was available and that the application was in order he would issue a permit to appropriate. The law specified that the appropriation must be completed within a certain period. At the end of that period the state engineer would examine the works built by the appropriator and the land irrigated and would issue a license to appropriate the amount of water specified in the license. This became a permanent right.

Of course, before the Wyoming law had been adopted many water appropriations had been made in the state and it was now necessary to adjudicate these in order to clear up the records. Instead of having the courts adjudicate these rights, the Wyoming law provided that they should be administratively adjudicated. A state board of control was set up composed of the state engineer and the superintendents of the two or three hydrographic divisions into which the state was divided. The adjudication began by having the

\* . \* \* \* . . . ^

authorities over the retries of the stire tandestrict as temperated authors of restriction of the state of the contract of ម្រុកស្រីបាន នៅ ខាងការសំពុកមាន ការសំពុកមាន សំព័រ សេច្ច សេច many and the forest thing of recitations and the error THE THE PROPERTY AND THE PROPERTY OF THE PROPERTY OF and of the first or of the section of the section of the second and the section and the formal of the Adalian bere age dard . Integral of the time of a specific care respect of is the first of the control of the control of the first of the control o The state of the s . Colored Colored Colored The first of the contract of t in the similar with the confidence and will muse the second of the electric control of the compact THE REPORT OF THE PROPERTY OF . Jr. : 1

At come of the composition of the control of the co

superintendent of the division in which the rights were to be adjudicated make the necessary surveys to determine the location of ditches and of the irrigated land. He would take testimony of users up and down the stream as to dates of priority, as to water used and would then post this information so that all interested could have access to it. There would then be a final hearing and, on the basis of all the information gathered by the superintendent of the division, the State Board of Control would adjudicate the priorities. There was, of course, appeal to the court on any of the decisions. As a matter of fact, there were practically no such appeals.

As in Colorado, the main hydrographic divisions were divided into watermaster districts, or at least provision was made for doing this, and watermasters were to be appointed to supervise the distribution of water within the districts in accordance with the priorities as established. The watermasters in each case worked under the general supervision of the division water superintendents.

A feature the Wyoming law sought to eliminate was the ownership of water by speculators. Such speculation had been pointed out by Major Powell in his <u>Lands of the Arid Region</u>. He believed that only those who used the

್ಯಾಯಿಕ ಎಂದರ್ಗಳಲ್ಲಿ ಸ್ವರ್ಷಕ್ಕೆ ಬ್ರಾಮಿಕ ಕುರುದ್ದಾರಿ ಕಾರ್ಯಕ್ಕೆ ಸ್ವರ್ಥಿಕ ಸ್ವರ್ಥಿಕ ಸ್ವರ್ಥಿಕ ಸ್ವರ್ಥಿಕ ಸ್ವರ್ಥಿಕ ಸ್ವರ್ಥಿಕ THE PROPERTY OF A STATE OF STA Enterting to be as a little to police (1) a signed-ob of 500 - 500 of the electric of the specific read, in the second for following the state of the second If you was a subject to the subject of . The state of the in the time to the control of the co The state of the s entered to the contract of the constraint of the contract of t The state of the s interest to the second of the the second of the second of the second of the second and the second of the state of the second the original te calcal deleters and midiacine cancellor a light of the meregal maps of the Lotte - moth for a contar

A feeter, the holder land the end . To fifther a portrader to a income orbit that because it is said that the sound and will be a commence of the contract of the

water should have the right to it. Adopting this principle the Wyoming law provided that there should be no direct ownership of water, but only the right to use water and that such right should be attached to the land irrigated. In other words, in principle the water would belong to the land rather than to an individual.

### Roosevelt's Message to Congress, 1901

Adams:

Now coming to the President's ideas and to what extent they were influenced by Dr. Mead and to what extent they differed from Dr. Mead's, I can do best by going through this excerpt from his message. It is from Volume 35 of the Congressional Record beginning on page 86, dated December 3, 1901.

President Roosevelt was familiar with the West, but I think his knowledge was more or less limited to his experience in the early '80's up in the Badlands of the Dakotas, where he had invested in a cattle ranch. That was cattle country. I've never known of any knowledge he might have had of the irrigated sections of the West. He had a wide knowledge of forests and quite a lot of his message is devoted to forestry and the effect of forests on the water supply.

When it came to reclamation, he said,

ા કર્મ માટે હતે હતું હતી પક લઈ ઇ ઇક્ટિક ફરાયો. ें अन्तर्भ में मुद्रिक भी विश्वस्था है। या दिवस भी के दें अहि के पहिला with the secondary and the first state of the second the reading of the distribution of the second of the secon and the person of the orthograms there is in our THE THE PROPERTY OF THE TOTAL THE PROPERTY OF . to just the first me

# A PRODUCTION OF AMOUNT OF THE PROPERTY

the for reality a the Presidential of a rather than the state of the s Control to the mort for the tracks · The second the second of the is there extra which party party of the countries of 

. The angle of the of the real pays of the control and it is indicated as a compact of of the interest of the following and agent in addition ranch. That we settle somether. Circoner to the any series and the series of the contract the series of th The Labi Bre Will to a not be socidans the and a fee all a reason ein to dof a edit p bas education Posestry and the offect of forcats of the element. When it can be mediamed or, ne noth,



Dr. Elwood Mead

	-9		
4			
	C.		
			`
		*	

The forests alone cannot, however, fully regulate and conserve the waters of the arid region. Great storage works are necessary to equalize the flow of the streams and to save the flood waters. Their construction has been conclusively shown to be an umdertaking too vast for private effort. Nor can it be best accomplished by the individual States acting alone. Far-reaching interstate problems are involved; and the resources of single States would often be inadequate.

Then he made his argument for federal aid. What he said in that connection was generally accepted as sound and fully concurred in by Dr. Mead. Dr. Mead even went so far as to believe that these federal works in aid of irrigation should be paid for by the government beyond the amount the farmers themselves could afford to pay.

Baum: You mean that it shouldn't be paid for by the benefited lands only?

Adams: I wouldn't put it quite that way. Everyone believed the proceeds of the public lands should be devoted to that purpose. The President, in his message, stated that the works should be repaid for as far as possible by those who used the water. I think Dr. Mead would have gone a little farther than anyone else at that time as to the extent the federal government should assume part of the cost, but I'm not sure about that. I know he believed water from the government projects should be given free during the early

He flower to the property of the control of the con

entitle and collections are entitled to a located the collection of the collection o

in the second of the form the transfer of the second of th

Thereld is not reite to the result of the second of the politic of the second of the politic of the second of the

years while settlers were being established, leaving repayment to the future.

To quote further from the President's message:

The Government should construct and maintain these reservoirs as it does other public works.

Now comes a very important statement, which I am sure was a contribution by Dr. Mead because it represents a very important point in his philosophy.

Where their purpose is to regulate the flow of streams; the water should be turned freely into the channels in the dry season to take the same course under the same laws as the natural flow.

Although Dr. Mead stressed the need for water storage in order to eliminate water shortages in periods of low stream flow and although he felt there was no need at that time for reclaiming further areas of public land, I'm sure he agreed in general with the President's statement regarding reclamation of the public lands. Let me quote further from the President:

The reclamation of the unsettled arid public lands presents a different problem. Here it is not enough to regulate the flow of streams. The object of the Government is to dispose of the land to settlers who will build homes upon it. To accomplish this object water must be brought within their reach.

I believe Dr. Mead would also have approved this statement from the message:

The pioneer settlers on the arid public domain chose their homes along streams from which they could themselves divert the water to reclaim

- The second of the second of the state of the second of the
- the second section is a second of the section of the second
- the second of th
- to the state of th
  - ំមានក្រុម ប្រសាធិប្រសាធិប្រសាធិប្រសាធិប្រសាធិប្រសាធិប្រសាធិប្រសាធិប្រសាធិប្រសាធិប្រសាធិប្រសាធិប្រសាធិប្រសាធិប្រ
    - වෙසර්ට වර ක් ස් ස් ස්කාර්තාව රාජ්‍ය වසින්න සහභාව
    - Total of the control of the control
    - Control of the contro
    - the profit of the management of the confidence of
      - the second of th
      - The company that the second of the second of
    - and the state of t
- and the state of the more than the state of the state of
  - The machine of the problem of the problem.
  - e is the rest of a self of a blood family of evalladic

starsmont from ' or desease:

The piones settless of the side of the state of the state of the set of the s

their holdings. Such opportunities are practically gone. There remain, however, vast areas of public land which can be made available for homestead settlement, but only by reservoirs and main-line canals impracticable for private enterprise. These irrigation works should be built by the National Government. The lands reclaimed by them should be reserved by the Government for actual settlers, and the cost of construction should be as far as possible repaid by the land reclaimed.

Now I will read some sections of the President's message which most fully express Dr. Mead's ideas as to federal reclamation. I'm sure that in substance, and in part verbatim, they were taken from Dr. Mead's letter:

The policy of the National Government should be to aid irrigation in the several States and Territories in such manner as will enable the people in the local communities to help themselves, and as will stimulate needed reforms in the State laws and regulations governing irrigation.

The necessary foundation has already been laid for the inauguration of the policy just described. It would be unwise to begin by doing too much, for a great deal will doubtless be learned, both as to what can and what can not be safely attempted, by the early efforts, which must of necessity be partly experimental in character....

Whatever the Nation does for the extension of irrigation should harmonize with, and tend to improve, the condition of those now living on irrigated land. We are not at the starting point of this development...A high degree of enterprise and ability has been shown in the work itself; but as much cannot be said in reference to the laws relating thereto. The security and value of the homes created depend largely on the stability of titles to water; but the majority of these rest on the uncertain foundation of court decisions rendered in ordinary suits at law.

: wish/

no in holdings. Jack operativities as the color of colors. There were included available for the colors of the solid without care of an astimation of the color o

on a will rest open sector of the open of the obtained of the sector of the obtained of the ob

\* Artor

And the common of the self form of a self form of a self form of the self and the s

in leastern a localisation of the control of the co

payer the halfor compared the constant of the constant of the stant of the stant of the constant of the consta

With a few creditable exceptions, the arid States have failed to provide for the certain and just division of streams in times of scarcity. Lax and uncertain laws have made it possible to establish rights to water in excess of actual uses or necessities, and many streams have already passed into private ownership, or a control equivalent to ownership.

I am sure inclusion in the President's message of these views relating to desirable federal policy were a great disappointment to Mr. Maxwell, Mr. Newell, and the others associated with promoting federal aid. It was just such views as these expressed in the President's message that had caused the rift between them and Mr. Mead. They were not interested in strengthening state administration of water and fitting the federal policy into local needs. They were embarked on a program of vast federal reclamation works and wanted no interference.

Another matter on which Dr. Mead felt very strongly was expressed in the President's message. It was that relating to private ownership of water apart from the land. This was a fundamental to Dr. Mead, and I believe the language of the President's message is almost exactly that contained in Dr. Mead's letter. I quote further:

Whoever controls a stream practically controls the land it renders productive, and the doctrine of private ownership of water apart from land cannot prevail without causing enduring wrong. 팯

11 55 20 2

Witch a lew enecitail excentions, the artication of her bise a marine and instance hers failed in aborder for the armine and instance in this area of and it. The marine is an armine and armine to excent about the to extend the following the armine armine armine to see a material term of a court o

Total content to the selection of an involutional content to the selection of the selection

Applied the content of this or the content of the state of the content of the con

Control of the mole and be an end of the bold the band of the condens of the cond

The recognition of such ownership, which has been permitted to grow up in the arid regions, should give way to a more enlightened and larger recognition of the rights of the public in the control and disposal of the public water supplies. Laws founded upon conditions obtaining in humid regions....have no proper application in a dry country.

In the arid States the only right to water which should be recognized is that of use. In irrigation this right should attach to the land reclaimed and be inseparable therefrom. Granting perpetual water rights to others than users, without compensation to the public, is open to all the objections which apply to giving away perpetual franchises to the public utilities of cities. A few of the Western States have already recognized this, and have incorporated in their constitutions the doctrine of perpetual State ownership of water.

My final quote which brings out Dr. Mead's thought:

Our aim should be not simply to reclaim the largest area of land and provide homes for the largest number of people, but to create for this new industry the best possible social and industrial conditions; and this requires that we not only understand the existing situation, but avail ourselves of the best experience of the time in the solution of its problems. A careful study should be made, both by the Nation and the States, of the irrigation laws and conditions here and abroad. Ultimately it will probably be necessary for the Nation to cooperate with the several arid States in proportion as these States by their legislation and administration show themselves fit to receive it.

I think that is sufficient to bring out the ideas Mr. Mead had with regard to public aid to irrigation. He was interested in the first instance in regulating the flow of streams in the existing

The recognition of guest example thick the best nermitted to grow up in the erid rest.r., etcologive way to a more enlightened and large recognition of the rights of the official and disposal of the outlie recommend and disposal of the outlie recommend of the control and disposal of the outlie recommend of the control and disposal of the outlie recommended noun control and disposal of the subject of the subject.

>

The arid of responding to the second of the

at only on the second on the second of the

: MARLELL !

taken should are controlled to see the seether seeds of present areas and the controlled to the control of the individual of the control of the individual of the control o

I bring that in enteriorate to lead anid I

tiens D. C. Se Sed with rogard to Cithestd in irrigalist. Cithesian is regulating the City of streams in the expension of streams in the expension of streams in the expension of streams.

irrigated areas so that they would have a full season's supply rather than an ample supply in the spring, and little or no water in the fall.

There is one point I want to go back and emphasize.

That is that water from federal works should be distributed according to state laws. Here is what the President said in his message:

The distribution of the water, the division of the streams among irrigators, should be left to the settlers themselves in conformity with State laws and without interference with those laws or with vested rights.

I am sure those directly concerned with water in the West were fully in accord with the above statement from the President's message. I feel just as sure that the Geological Survey and Mr. Newell were not. Western influence was able to get into the law a provision that the federal government should apply to the states for water rights for their projects just as anyone else might do. I have no right to say just what was in Mr. Newell's mind, but it must have been a thorn in his side to go into Mr. Mead's state of Wyoming and apply for rights to appropriate water for the North Platte project.

flui a condictor of their or some to exign the effect of សម្រាស់ ប្រែសាស ស សែល ១៩៩០១៩៩៩ ក្សាស្ត្រាស់ នៅឯស្មែន បា . The aff of war as a select the termination

-

The management of the second of the second second second Chinarity of markets of the contract of its the same of a street of the same of th the first a side of like porters and

in the same of the same the state of the same in the same tari e Pira e la compansión de la compan one to state a superior of the state of the superior of the su

 $\delta = \{ (-1)^{-n} \mid n \in \mathbb{N} \mid n$ o continued by the second state because of the second of THE THE SECOND SECOND STREET STREET STREET communities of a community of the control of the community of the control of the co of the control of the service of the design of vice of conduction in the farafall of tell and introduction stocker of all and is trought act to the office es or to en en en en en en front en en en en en en e with the same will will all against topy me it was a simple of only of more than despet illum all od så, pår kot midde has tatmovalt setaja . hoters attell direct est med them

#### Controversy Between Mr. Newell and Dr. Mead

Baum: Can you tell me more about the controversy between Mr. Mead. Mr. Maxwell. and Mr. Newell?

Adams: The controversy was very bitter. It came to be, really, a personal matter between them.

It first came to a head in 1900 in connection with a meeting of the National Irrigation Congress in Chicago. I was in Cheyenne working with Mr. Wilson on the California report. I asked permission to attend that Chicago meeting. Mr. Mead was president of the Irrigation Congress that year. Mr. Maxwell, who was directing the propaganda of the National Irrigation Association, was also chairman of the executive committee of the Irrigation Congress.

Dr. Mead had invited Mr. J. S. Dennis, who was head of irrigation in Canada where legislation largely copied after the Wyoming law had been enacted, to present a paper describing that. When the matter got to Mr. Maxwell he stopped it and was in a position to force Dr. Mead to cancel that invitation to Mr. Dennis. That caused a very bitter feeling in itself and was the beginning of that feeling, as far as I know.

Here, I'd like to have you read this letter from Dr. Mead to Mr. Dennis withdrawing the invitation. This was written in October, 1900. (They read copy

4

- I militare

Can you tell me more whout the contractor of let not net Med . Med . No. in woll, and . . Mewoll? , or ed appoint . Attit great year a memorition of the ; p.

. The transfer too median lowership , vifeso

in itameraca of Coky of home a cit or a contit of with a meet of the tations were sure early compress to Il rear, of was in They ease to dit on the is. Whans ed in tarimes, several, director site of the billion attend that the area mentions for the track to ្រាំស្រាក់ស្រាក់ ស្រាក់ និង និង និង មួយ ២០០០ ស្រាក់ស្រាក់ ប្រាស់ មិន oralicate the entropy of salar processing and salar salar cale The terral main the form we are invited on A coldingian. .3000 Concit of took eit to estation o cytano

teen of ineighbor in inact the literature of not the entire Was 'go tat the tent of the better present a sour decontitud lint. The continue are of to My. Norwell he atombed it is to read to to force we wead to cancel that invitation to me Pennis. "Pet camaed a very bittler "estide to the l and was in inning of thet feather, or the .. · neung

Tope, it does not not only the top one in. Mead to Mr. Terria withdrevier the invitation. into was antition to October, 1990. Per enaction Adams: of letter).

Baum: But that was Mr. Maxwell. Why did this bitterness carry over so strongly to Mr. Newell?

Adams: Mr. Maxwell was the principal promoter for federal reclamation. He was working with Mr. Newell and others for carrying out the type of legislation they wanted. They considered Dr. Mead's interest in state laws and state authority as standing in their way. Mr. Maxwell and Mr. Newell were very closely associated.

Well, that controversy between Mr. Newell and Mr. Mead smouldered on for years. It was very, very bitter.

Mr. Mead left the department of Agriculture in 1907. He had been invited to go to Victoria, Australia and take charge of the government irrigation works there, to be chairman of the state's River and Water Supply Commission. Victoria had expended a large amount of money on extensive irrigation works and very little of the water was being used. They had no settlers. The problem of settlement was the problem Dr. Mead had to meet. They had to get that water into use so the government would get its investment back and get the land under irrigation. Dr. Mead was in charge of that for the next seven or eight years. It was there that he got his ideas on

. Hotel C :

03 र ने 'ने 31 के 5कि पूर्व . हिलाओं किया निषय करता है। विकास के स्टार्टिंग के ता वहरूर निषय

The country of the contract of the country of the c

and the second of the second o

in 107. In oil best took of a collision of a collision, in 107. In the best took of a collision of a collision

land settlement which he later brought to California.

During that period, before Dr. Mead's return to California in 1915 or 1916, Mr. Newell had gotten into pretty deep trouble on the reclamation projects. A lot of opposition had grown up from the water users on the projects. I don't recall now the details of it, but the projects weren't paying out and the government was unable to get them to and the settlers on the projects became very critical of Mr. Newell. I believe there was also opposition by some of the state governments regarding the activities of the Reclamation Service but do not recall just what it was.

Baum:

heavy payments when they were just getting started?

Adams:

That undoubtedly had to do with it, yes. I remember the Engineering News Record carried a long series of articles after thorough investigations on the projects.

Mr. Newell had been succeeded for about two years, as I remember, by a Mr. Davis from Utah. Then Arthur P. Davis, chief engineer of the Reclamation Service, took over. A commission was set up, which Dr. Mead headed, to inquire into the reclamation work and find out what should be done. That was set up by the Secretary of the Interior.

Didn't the settlers feel that they had to pay too

Baum:

So Dr. Mead was going to investigate Mr. Newell's work?

diamet - land petalement which he later bor with to diffice a.

Durtics that period, before Or. Meastr we the Unitarian tipe in 1915, th. Waterline is 1915 or 1916. The Waterline is 1916 or 1916. The real gradium is a refer to the oreland to a refer to the project.

4 lot of ore project. I don't was to the arter we was the project. I don't was to the arter was the project of the pro

Denty as somethe when they seems in the formation of the plant.

The first and only only had to do rite. It. The formation of the first and th

cs l remember. I a Mr. Divie from Mah. I. ahabis.

T. Davis, a feet unglacer of the hooleant of errice, beak aris over.

The first over.

The footest of the into the reclamation when the address of the reclamation when the second which is also the reclamation when the second whet is also done. These was set in or the Second are of the interior.

on a steed at a rate to investigate or. Templite and

,

By this time Mr. Newell had been forced out.

While Mr. Mead was still in Australia, a lot of that controversy between Mr. Newell and the settlers was going on. Secretary of Interior Lane wanted Dr. Mead to return to California and succeed Mr. Newell. Dr. Mead said he wasn't going to bring up that old bitterness again, so he declined. When later Dr. Mead became chairman of the commission to investigate the reclamation projects he was still professor of rural institutions at the University of California. It was at the conclusion of the commission's work that he was made Commissioner of Reclamation.

Baum:

What effect did this conflict between Dr. Mead and Mr. Newell have on the work of Dr. Mead in the Department of Agriculture?

Adams:

It had no effect, except as it led to the constant efforts to block our appropriations in Congress.

While Dr. Mead was still head of the Irrigation
Investigations in the Department of Agriculture, the
men in the field had little contact with the federal
reclamation projects. In later years our relations
with Mr. Newell's people in the field were very pleasant.
As an example of this, Mr. Newell held a conference in
Salt Lake City of his project engineers to determine
methods of water delivery and management. I had

1 "

Control of the state of the sta

bille who control is bettern the weight in the control in the control of the cont

The first of the f

The second of t

unrestigations in the cosmic stands of the common term in the stands of the common term in the common term of the common terms of

previously prepared a bulletin on water delivery and Mr. Newell invited me to be present and participate in that conference, which I did. Later, when the Reclamation Service decided to change their local associations from water users' organizations to irrigation districts, one of their attorneys undertook to get the irrigation district legislation in the various states of the West so amended as to enable the Reclamation Service to work through them. That attorney and I became very close friends and worked together very closely.

I feel that the controversy between Dr. Mead and the others is of historical interest not because of the personal bitterness that arose, but rather because it resulted from a fundamental difference as to federal reclamation policy. I, of course, have described this controversy as I saw it. I wish that some researcher would try to look into Mr. Newell's and Mr. Maxwell's points of view.

I missed a good bet I think. I tried once to get in touch with Mr. Maxwell in his later years.

He was living in Phoenix. I wrote to him, but got no reply. I should have gotten on the train and gone to see him. After his death I read in the newspaper that he turned all his papers over to Tulane University.

ad not constitutely propared a but the or water delivery to w. Newell invited on the meanut and this process in that dinformance, which I did. Later, when when Received the design of Lacine design on the lace to the lace to adnosiations ( ) o mater description or isati ( ) to Tredentian expandito of the one . Adoladely rollexions odd o' de'dafaird orthate politroined ear tho ct vanions stor. Of the merican analysis of the spanta deal . The remainder of the relation of the section bother be considered to the considered to be presented as . Tarcia rest triberal

1 5

The state of the s of con original bitterment constitutes constituted to on the first the first of the first one of the first of t e the interest and the mail or in the first of the section of the This Told were as carevorated additioning and even totage . If clin cot of set of or even-years appeared and ir. Larveil's points of view.

I missed a good bot I tital. This is once in cos in to condition. . axwell in in some of all don. Po weg living in Chaemin. I erais to ita, and a no menly. I should have notten on the family of the to see him. After his eath I need in fig cause enthat be turned all his seners of more to fulcar miverall.

Adams: Why to Tulane, I don't know. We ought to have had those here.

### Comments on the Reclamation Act

Baum: It would sound like Dr. Mead would oppose the 160-acre limitation.

Adams: I think not. This was a basic provision in the Homestead Act and was, I think, accepted by everybody as to land acquired from public domain. I'm not sure as to what his views would have been as to water for land already in private ownership and developed. However, I believe that it was while Dr. Mead was Commissioner of Reclamation that the Secretary of the Interior waived this provision of the Act for the Imperial project and a project in some other state. I doubt very much whether Mr. Mead would have advocated applying the 160-acre limitation to water for lands already developed, but of course I can not express his own views. I do know that as Commissioner of Reclamation he was constantly confronted with speculation in private lands held under federal projects and was constantly endeavoring to circumvent it. What I have in mind was speculation in unirrigated private land. That is as far as I care to go in expressing Dr. Mead's views on the 160-acre limitation.

3 9. 14 JA

Why to "allene. I comit imms. We carried to here . Feet 80055

### dol n'essles on no Lach

77.2

: 1 ....

ing their second algow best in will note block the . . 'Sattmin

of a conference of the control of th ិត្រស្រាប់ គ្រង គ្រង ស្រុក ស្រុក រដ្ឋ 🖺 ្ត្រី 🖺 🧸 ប្រធានា ប្រធាន ប្ធពិធី ប្រធាន ប្រធាន ប្រធាន ប្រធាន ប្រធាន ប្រធាន ប្រធាន ប្រធាន ប្តិធី ប្រធាន ប្ត The for the . The second beaters foot or an con enter of a mean of their same of this expense. . We fay being of the ame swaven not be mile inef to a transfer of the figure of the first of the make a section of the the tensor and the control the transfer of the state of the bovine seize is alt the facetail and the color of the color of the color. norm in the life of the second standards and the first of the Elli Birth at the golden and attestinit chase of the at palmy fore already developed, but of no creat an native energy To section to a de december I comme and rich - were idla bodusetten viluetenno mew o' loldemei of reneigh a facility makes bead chart solveter as acidet and was constructly enderworter to almough the to to determine of notinfarmor asy brist at rend I Jack or or o send for men as far no least of the ettersing Dr. Halls views on the 150-aden Haita - .. Baum:

On this point where Roosevelt said vested rights should not be disturbed, I was wondering what Dr. Mead's idea was on the right to the use of water in excess of what the crops required. Would he have recommended reduction of the person's use of water?

Adams:

There isn't any doubt that he would. In fact, a great deal of our emphasis in our work in the old irrigation investigations was to encourage more economical use of water.

Baum:

Yes, I know it was. Would Dr. Mead have recommended taking away certain vested rights and forcing the water user to change his methods?

Adams:

Dr. Mead recognized that you couldn't disturb vested rights. He would not have advocated any procedure that would have taken away rights that were really vested by the existing laws.

Baum:

Even if these rights were to the wasteful use of water?

Adams:

I think so. The main point is that he recognized that vested rights must be protected. All of the state laws and the Federal Reclamation Act state that the right to use of waterdepends upon its beneficial use. The question frequently arises as to whether what might be called "uneconomical" use of water is beneficial use. The difference between

:១៣១៩

1 1 1

Car . . i

The many control to the control to the reliable to the filles to the control to t

Yer, I know it was. I said to the income at the said of the said o

Dr. Branch and the second state of the second of the secon

ි සිට කිසි විසි කිරීම සිට කිසි මේ සිට කිසිමි. මේ සිට කිසිමි සිට කිසිම සිට සිට කිසිමි සිට කිසිමි සිට කිසිමි සිට කිසිමි සිට කිසිමි සිට කිසිම සිට කිසිමි සිට කි

This is a second of the contract of the contra

what is wasteful use and what is economical use of water is not easy to define. I think that I am right in saying that the tendency in the court decisions and in administrative control is to more nearly approach what might be called more economical use. A striking example is the 1928 constitutional amendment in California providing that the right to water does not extend to waste of water or unreasonable use or unreasonable methods of diversion.

Baum:

Under the Reclamation Act, the money spent by the government was to come from the sale of public lands and was to be repaid by the settlers within a certain period of time.

Adams:

The first period was twenty years.

Baum:

Did Dr. Mead agree with that, or did he think more money should be appropriated than would result from the sale of public lands?

Adams:

That question didn't arise at that time. The increased use of money for reclamation projects and the gradual decrease of the total amount coming in from the sale of public lands brought about an amendment which made the royalties from oil lands available for that purpose. Around the late 1920's or a few years after Dr. Mead became Commissioner of Reclamation he called to the attention of the leaders in the West the fact that

AC & 113 :

where is weathern in the and which is economical the of wester is not just the finish that it is not in a regime to the tens that the same of the same in a same in the same in a same in the same

ner the less of contracting on the block grace.

: 0.01

1,7771

\* 21

who sale of the blic lender

Promoting as you was deale set

neria v. inia.

the correction identered as a constant of the second of and the second of the constant of the second of the second

the proceeds from public lands sales and oil royalties were fast drying up and that if reclamation was to continue in the West under federal aid, additional funds must be appropriated for that purpose.

That was the reason for organizing the present
National Reclamation Association. The old National
Irrigation Congress had lapsed. I think its last
meeting was in California in 1915. Dr. Mead got
Governor George H. Dern of Utah to call a convention
in Salt Lake City. There was a large convention—I was
there—and the National Reclamation Association was
formed. It has been a very active organization for
the promotion of reclamation since then.

Baum: For the purpose of lobbying for appropriations from the general fund.

Adams: Yes. Of course the association has taken up many other matters, but particularly I think matters of national reclamation policy.

Baum: Did Dr. Mead believe that the whole cost of reclamation projects should be repaid by the benefited lands?

Adams: The only expression of his that I recall is that the farmers should be required to pay only what they can afford. That, of course, was a very indefinite sum. The theory is that they can afford to pay the amount added to the value of the land by the use of water.

The state of the state of the second shopping the second state of Committee to the transfer of the first of the Iso idly the is is is the contract of the cont THE RESERVE OF THE PROPERTY OF THE PROPERTY OF and a side of the service and a service of a dame. . And the form of the board coit of form has The first of the constant of the constant of the and the second of the state of the second of er to a complete and the case . The contract The second of th Principles of a data factions, Symmetry TOVERS TO SERVICE SERVICES i deralo de la contracti of the community of the community of That the same the state of the s The ifor will be to the cities often too and or end or a few sould see the contraction The profit of a second of the contract of a contract of The second of the control of the state of the second of th or the same of the same of bootstopes are finished and provide

armore, right, or course, are worsed the their . The course

The single of the tenth of the single of the

IN TOO TO SEPTEMBE OF THE SECTION OF OUR OF SE

13 8

Some farmers can afford to pay more than others. Higher productive land can stand a higher charge than lower productive land. Land producing higher value crops can, in fact, really pay what it has to pay, I think; however, land producing low value crops must work on a much smaller margin.

Baum:

I believe sometimes now an uneconomic unit will be partially supported by a more economic unit elsewhere.

Adams:

This of course has been a live issue in discussion of the state water plan, particularly in connection with protecting areas in which water originates against diversions to Southern California. In such a large undertaking as a state water plan there are bound to be areas needing and demanding water that could not stand the entire cost of providing it. Whether it would be good business to make economic units carry part of the cost of uneconomic interest or by special appropriations of the state government is not likely to be the basis on which the issue will be decided. Rather, it will be decided on a political basis. It will be a question of who has the votes in state legislature.

Baum:

Another idea is that part of the share of the cost of the project should be repaid by power users, who may or may not be the same people as are using the water.

\* me 15.5

1176,377

.

Fire Parante des inflored in an east from all mil Pirane . The birth lead of county this is a manual term of the control of the second of the sec or party in the state of the st this equal with the after the work bont, a less that it . The second terms of the second and the the original representation of the section of If you got later is the policy of the property of the decident in the many the said of the most end of the term ciaram assistant to the composite material documents mineral contract to the contract of the contra or on the first of the contract of the contrac TO ELECT THE SECTION OF SECTION SHOWS AND THE SECTION OF THE SECTI and the standing and demanding with a company of . The transfer to done the mod fire the great of applied of they The state of the s At a finite of the authorized principle of the area single acqu the blue back on which is constituted and add add well be a question of the distance and filter . and fright

\* princip ST

The first federal project on which power was a matter of importance was the Salt River Project in Arizona. The income from power on that project was applied to paying off the cost of the project. The charge to irrigators was reduced materially by the income from power. Subsequently other federal projects developed power and the income was allocated to paying part of the cost of the project, thereby reducing the cost to the irrigators.

Around the '30's Dr. Mead got a new idea. He felt the income from power should not go to the project to reduce the cost to the irrigators, but should go into the reclamation fund for further projects. He so recommended in one of his annual reports to the Secretary of the Interior.

Baum:

That would be very unpopular with irrigators, wouldn't it?

Adams:

Undoubtedly so. To what extent that principle was applied in projects developed later when Dr. Mead was commissioner of reclamation I can't say.

Baum:

Would Dr. Mead have approved the present power policy of the Bureau of Reclamations?

Adams:

I don't think I have a right to say. I'm very sure that he was not an advocate of public power in the same sense as those whose main idea was public ownership.

: ar als

In the second project of the delication of the second second of the second second of the second second of the seco

Transcription of the first of the second of

with the transfer of the modern of the following of the f

To the . H. Encoded and to succeed as a set of company of the contract as a set of the contract

l continuint of the adversary. The response of the continuint of the continuint of the continuint of the continuint of the contract of the con

: - 1135

. (.

1 7/130

19 6 8 1

I think he would have wanted the income from power on the Central Valley Project to go toward reducing the cost to irrigators and making the project economically feasible. I think he was in favor of having public agencies have preference in acquiring that power, but I think he was not adverse to the sale of some of that power to the public utilities if that was the business thing to do. Mr. Mead had a very good business head. He was in no sense a doctrinaire. Many advocates of public power are doctrinaires. Mead was certainly not adverse to public ownership of power, but that was not his chief aim. I feel sure he would be in entire harmony with President Eisenhower's ideas as to cooperative relationships between private enterprise and the government wherever that is of most advantage to the government and to the project.

I am sure you already know that many of our irrigation districts in California have a large income from power developed on their projects and that some of them could not have financed their storage without this income. Districts that develop power on their projects are Imperial, Turlock, Modesto, Oakdale, South San Joaquin, and Nevada. Modesto and Turlock districts have had an income for a good many years,

in the rest about of ourse say there are and it i of the sentent willer of the comment of the sentence of the cost to its/gatons am native its and to a sider each omically thengthe. I bight be with the course of mark sublife agenci - Tive p ethnic in equificien the of 10 Mg and 1000 and the first of the contract to a con-Warve a fire . I . cd yell manufact of e sew . minmin no element of the state of dearmined boot In the first of the contract of the first of the contract part ighter that have not been been been been been the same of the same of the contraction of the cont sayiet latis the section with a fine of the corolinger the interpretation of the contraction of the contraction is hetween onlyabe interpolar in a contract of the second or the second of . tanion will

The second of th

and have put their finances in very fine shape by the income from power. You also know, I am sure, that the Central Valley Project is highly dependent on power and that the state water plan has counted on power income to make the project feasible.

Baum:

When the cost of power is high and the cost of irrigation water is lower as a result, don't the same farmers, who are the power users, pay more for the power and less for the water, but the same for water and power together?

Adams:

That is true, but the cost to a certain extent is shifted to those who don't irrigate.

Baum:

To industrial and municipal users?

Adams:

Yes. And there is a very good argument why they should pay a certain portion of the cost because they benefit from the development brought about by the project.

The indirect benefits of the project go to them. That is really a principle in our irrigation district laws.

Many of our irrigation districts include the cities.

The land within the cities is taxed on the principle that they benefit from the development.

Baum:

Adams:

Did you come into contact with Carey Act developments?

Personally, not at all. A few years ago I prepared

for the Food and Agricultural Organization a little

report on the nature of cooperation among water users

100.05

, η,

.=1 11

(F. ¥

• . . . . .

emplication of the complete co

of the men and the state of the control of the control

The state of the s

Did von como standanda sulla Gerey (1990). Por Comercia de Comerci

in the United States and included the experiences of a number of Carey Act projects in Idaho.

Dr. Mead realized that under the Carey Act there was no adequate federal or state control of the relationship between the settlers and the private company and no satisfactory control over speculation. For that reason he advocated stronger public control over the Carey Act projects and all other projects when there was a private contractor relationship between the landowners and the private company.

។ ១៨៦ ខែភូស នៅ នេះបានទៅ ។ ១៩១៤ ។ ១៩១៤ នៃ "ស្រា ការ៉ា នេះកាស់ស្រ andoff in the eight on these in the second the formation of the state of there and the transfer of the first transfer of the second constitution and the little of the little Let be the little of the second of the second of the whoche the state of the state o of the control of the control of the first of the control of the c

• The second of the second of

## IRRIGATION INVESTIGATIONS FOR THE OFFICE OF EXPERIMENT STATIONS, 1902-1906

#### UTAH INVESTIGATION

Adams: Here is a copy of the Report of Irrigation

Investigations in Utah which came out in 1903.

(Bulletin 124 of the Office of Experiment Stations.)

Baum: I see this was done under the direction of Elwood
Mead, assisted by R. P. Teele, A. P. Stover, A. F.
Doremus, J. D. Stannard, Frank Adams, and G. L.
Swendsen.

Adams: Yes. Each one of us, except Mr. Doremus, prepared a report to cover a certain stream or group of streams.

Mine were the Virgin River and its tributaries, Kanab Creek, and later the Sevier River, which is farther north.

Baum: Why did Dr. Mead decide to undertake this project?

Adams: Dr. Mead was devoting much of his interest at that time to promoting better state water laws. The first comprehensive study in that direction was the one in California, reported in Bulletin 100 of the Office of Experiment Stations. At the time the Utah study was begun, sentiment was growing in Utah for a new law following the principles developed in Wyoming.

# RESTRUCTION OF THE RESTRICT OF THE RESTRICT OF THE STATE OF THE STATE

### DO MARILE WELL ATO

e in the company of t

· almawi

. Mysen

11,000

A COMPANY OF THE STANDARD OF T

Who side the end of the transfer while the section of the Mend was evential and at the section of the first section of the section laws. The first compress of the section of the section

Adams: It was thought that a study of conditions in Utah would show how they had progressed under existing laws and indicate the desirable features of the new

law, should the state pass one.

Baum: So the federal government was assisting the state by gathering material on which the state could base a new state law.

Adams: Yes.

### The Virgin River

Adams: The Virgin River was my main assignment. It was the first job on which I was on my own. Naturally I was very enthusiastic about it and worked very hard. The purpose was a history of development, how the water rights situation had worked out, how the farmers operated their systems, what controversies they had had, the size and capacity of the ditches, the stream supply, the approximate area of land available for irrigation, and in general the information needed to understand irrigation in the Virgin River area.

The Virgin River area had been settled soon after the Mormons moved into Utah. There had been some scouting in southern Utah in the early '50's and actual settlement began there in the late '50's and early '60's. One influence that brought about this

Adres: The west thought that a stary of conditions for the world above the birey of its perfect that and a fire Lawa and incices he estat in the terminal . . C m. m lens of blocks . wit

the second day in a second on market transport of a first 

### The state of the s

Sign As are the first of the second The second of the second of the second the second of the second of Comment of the second · With the second secon the state of the s Under a control of the state of the s of an order to a look to be some in the state of the state The state of the second section of the second sections and the second control of cutoffer important fiftee feature

endly this. I taillasened that better the set of the

settlement was the shutting off of the cotton supply from the South when the Civil War opened. Some experiments had been made in cotton growing down there and Brigham Young thought they might be able to furnish cotton in the absence of cotton from the South. The main settlement was at St. George and that's where I made my headquarters.

with a meeting of a state irrigation congress in
Salt Lake. My job at this meeting was not only to
become acquainted with the people there, but to obtain
passage of one of those resolutions calling on Congress
to support our appropriations, which I did. I met at
that convention the Mormon bishop of St. George, the
district attorney of Washington County, and a Miss
Work, who was superintendent of an Indian school on
Santa Clara Creek, a small tributary of the Virgin.
I had previously, in Cheyenne, conferred with an
engineer who had recently completed a survey of the
line between Arizona and Utah and got part of my
bearings from him as to the country and where to go.

The travel from Salt Lake was by train to a station about fifty or sixty miles from St. George and by horse stage from there. It was a new country for me, new experiences. I hadn't seen much of the desert

క్రాలు ఆ కిరియం కానల్నులు న్నాలు ఆయోటికాట్లు ఇండ్లుకు చేశారు. విద్యాలు కొన్నాలు కుండానికి THE STREET OF THE BOOK OF THE STREET OF SCI. on the second of the first of the production of the contract profile tos. Land to a popular and the second of the second of The state of the s The state of the same of the same

- -- '

The second of th તુ પ્રાથમિક લાગે કે છે. જેમ જ They are the second of the second en a la company de la comp . The second of and the company of th The first of the state of the s . The state of the the second of th and the second of the second o which is the few earth one are the sea only and the second of the second o the second of th The second of the second section will be the second of the in the second of the second of the second of the second

Down are distanced to a distance of the contract of

country. I had spent a little time in Nevada around Reno when helping to prepare our reports on California work, but here we found an area of light rainfall, high temperatures.

I made my headquarters at the old Snow Hotel.

Snow was quite a name in that country. A man by the name of Snow had been in charge of the settlement there. One of his sons was president of the St.

George Stake and another kept the Snow Hotel, which was the only hotel in the whole basin at the time.

Back of St. George was a tall butte. My first morning I went up there and looked out over the village and the country and got my geography more or less straightened out. As I went back I noticed a horse-driven bus going through the street and some elderly people getting in. I found they were the temple workers. Every morning the older people who were more or less without means were gathered up and taken to the Mormon temple and there they worked during the day.

The first thing to do in going into that area was to become acquainted with the church officials because they were the guiding authorities in almost all affairs, temporal or religious.

Baum:

This was a completely Mormon settlement?

Be in the relief of the fidite some beautiful engineers in the con-Person of the property of the contract of the ¿The fam dd faile wows or such a result due. Pece will be the second of

And the second of the second o of the second of TO SEE THE CONTRACT the constant of the constant o The state of the s apprile to the state of the sta there is a solution of new story of the track

and the second of the contract of the second The second of th or the state of the property of the state of the s c und product the product of the second se of the company of the transfer of the company of th or the second of the fire of the second of t the state of the s the complete the second for the second control of the second 

in the complete of the of the test of or well to become a connationed after to a very a specific of you ಎಂದರ್ ಅವರ ಇದ್ದಾರೆ ಇದ್ದಾರೆ ಇದ್ದಾರೆ ಅವರ ಸಾರ್ಥಿಕೆಯಲ್ಲಿ **ಇದ್ದರೆ** ಸಾರ್ವದಲ್ಲಿ ಅವರ ಜಾಗಾರಿ all a "aire. to wral or yell a file Addition total promote that times a cost till

Adams: Yes. I found only one non-Mormon family in the settlement and they were there for the health of the father.

Baum: Were they in any way hostile to you or the other non-Mormons?

Adams: I never received a more cordial reception anywhere than down in that area. The first Sunday after my arrival I went to the Mormon meeting. The bishop, with whom I had traveled from Salt Lake down to St. George, told them of my presence and why I was there and told the people to help me out in every way possible. So I had a good start. A very, very pleasant experience in my personal relations with the people. That was repeated everywhere I went.

Baum: Were you alone there?

Adams: I was entirely alone. I covered the Virgin and its tributaries from Rockville, a short distance below Zion Canyon, down through Utah, a small corner of Arizona, and to St. Thomas on the Muddy in Nevada which was the last settlement before the Virgin entered the Colorado. Some of the settlements had only two or three families. A few had perhaps fifteen or twenty families. St. George had maybe four or five hundred people. I'm guessing. The largest field was out from St. George. I measured the flow of water in the ditches and before the season was over obtained

: RASANA

1 1 1 1

There is an expectation of the following moments and the second of the common of the following the second of the common of the c

The property of the second of the second of the property of the second of the property of the

Some in the icy mean

The cuting of the control of the control of the series of the series of the control of the contr

representative crop returns. People didn't live on their farms. The Mormons had the European plan of living in the settlements and farming the land outside.

During my few days in Salt Lake I had met the president of the Mormon Church, who was then Joseph F. Smith. I believe he was a nephew of the original Joseph Smith who had organized the church. He told me the people along the Virgin were very poor, the water supply was very meager, and that the church was very much interested in doing anything it could to help them.

Baum:

What did the people do with their crops?

Adams:

They were mostly used locally. Alfalfa and grain were their main crops. The surrounding country was cattle country. I think most of the farmers had cattle. They sold very little, as far as I know. It was a self-contained area. They grew some fruit and would carry some of it and their other produce to the northern settlements and get a little money. I do not remember where they marketed their cattle. They didn'traise enough produce to sell much. The irrigated areas were so small and total production so meager compared to the area that most of the young men of the

100066

The normal state of the companies of the

A control to the control of the control of the control of the design of the control of the contr

The different form of the doubt. The result of the second state of the second state. The second state of t

12 F 25

I mark

settlement had to go elsewhere. They couldn't support an increase in population. Consequently there were many more young women than young men. In that entire basin there were only about 14,000 acres irrigated in scattered settlements all up and down the river.

There were very few records of stream flow so I made numerous measurements of diversion and of principal tributaries during the season. In some cases I put in gauges and had the ditch tender take daily readings. From the various measurements and some records obtained from the county engineer I could approximate the flow throughout the season.

Baum:

Wasn't a lot of this work what would usually have been done by an engineer?

Adams:

The engineering phases of the investigation were not difficult and were similar to those with which I had had experience in the Cache Creek investigations.

One very interesting thing to me was a canal that had been under construction for about ten years and they hoped to complete it the following year. The purpose was to lead water from the Virgin River out onto what was known as Hurricame Bench, a very fine body of land. The reason for undertaking that was to get more land to keep more sons in the area.

1 2 411

septible of the control of the section of the secti

There is a saurament a collection of the emotion of the emotion of the emotion and of the emotion that the the the end of the collection that the emotion and that is a collection of the variable of the emotion of the variable of the emotion of th

The engine well of weeks of the first section with a collection of weeks and the collection of weeks at the collection of the collection o

the subsection of the construction for above the construction for an above the construction of the constru

Hurricane Bench was then a sagebrush desert.

When Mrs. Adams and I passed through there in 1947 we found the thriving settlement of Hurricane. That canal had been built by the farmers taking out stock, which they paid for in labor. Every year when they had time they would work on the construction of the canal and they finally made it. They did receive toward the end about \$5000 from the church to help complete it, but otherwise the entire expense was paid for in labor of the local people. They weren't afraid to work.

at the home of the bishop or with some family who undertook to take care of travelers. In the little town of Rockville was the dearest, motherly old lady, Mrs. Hall, who had come out with the original migration across the plains. Her husband was ill and she herself brought him out in a pushcart. Terrible hardships. They had no sooner reached Salt Lake than they were sent on this mission down into the south. She told me this story. They had no resources. They had to work for others to get something to live on. It wasn't until the crops of the others had been planted that they were able to plant some themselves on the little land allotted to them. The only thing they

13 10 1

The property of the second of the property of

consistence of the end of the end

could raise at the end of the season was broomcorn.

When the time came for them to take what little

produce they had raised up into the southern settle
ments to sell to get a little money for their own

necessities, all the settlements had been supplied.

She said they carried the produce all back and practically

lived on broomcorn the rest of that year. That shows

what devotion to some idea will do for you.

One thing that helped me a great deal down there was that I frequently joined in with the people in their social gatherings. I also went to the Sunday meetings occasionally. When I was out in the field I visited with the people and got well acquainted with a lot of them. Those close contacts are really what help you in your work in a job such as I had.

My travel was of course entirely by team. I carried my personal effects and camping equipment and my equipment for measuring water. If when night-fall came I was not near a settlement where I could obtain accommodations, I'd unhitch the team, water and feed them, tie them up, prepare my meal, spread out my blankets, spend the night, get up in the morning and start out again. A very interesting experience. I haven't had one since that equaled it.

My territory included Kanab Creek, which isn't

inmoba

could raise on the equation that seems that the the case of the could raise fine the sease the conduct that the sease the conduct that a little above the continers of the conduct that a constitution of the conduct that a conduct the conduct that the conduct the conduct that a conduct the conduct that are conducted to the conducted that are conducted to the conducted that are condu

The social is a first or a second of the indication of the indicat

espried an new malesfiecte and estimated in the piece of an equipment for means of the piece of an equipment for means of the piece of the fall came. Twee errors, and the means of the matter errors, and the ment of the fall that an entire equipment of the fall that an extension of the came of the fall that an extension of the extension of the matter of the might, cat of the fall of the came of the fall of the fall of the entire of the fall of the

My travitore included Frank Grack, seith isnt

a tributary of the Virgin River. The main settlement was Kanab. My first contact was with the president of the stake, Mr. Wooley. I got my bearings through him. He knew everybody, knew the conditions of everybody.

Baum:

So that in every case it was the religious leader who was the main authority.

Adams:

Yes.

In the early days in Utah water was alloted by the church to various settlements. Later they operated under an old territorial law which set up county courts which had authority to allocate water in case of controversy. Normally it was a mutual agreement between the settlers as to water. If the settlers themselves couldn't agree the church would arrange a settlement. Sometimes the county court would make the allocation, but there was not very much trouble.

There was occasionally some difficulty between the users along the Virgin from Rockville to St. George and the users in Long Valley along the upper Virgin. They told me of several occasions when the people around St. George and Rockville and La Verkin felt the upper users were taking too much of the supply and they got together and started up to have a scrap with them. Before they got there they'd have

and the standard of the second of the second of the second those a filte a contract the total as a of the at it is a did to the entitle in a constant of medye a good a conti

to the transfer of the second 4

The second of th there is a second of the secon the same of the sa and the state of t the second of the control of the con of the second of the second of the second of A CONTRACTOR OF THE STATE OF THE STATE OF THE CONTRACTOR OF THE CONTRACTOR OF THE STATE OF THE S on Fire company of the order of the company of the the 1720 in the thorse were . A Transfer is a since of the inclusion of figure is one of a recommendation.

. Completely not the property of the property The transfer of the section of the control of the approach recording to the second of the great and the stiffed of bar where . The arms after ag the second of the west acres in the distance Something and three the continue of the figure e and the second of the second second second

Adams: a torrential rain, the river would rise, and they would hurry back to their own ditches. So there

were still some controversies.

Baum: When did you finish your investigation?

Adams: I got down there in February and was there until

early fall.

at the time.

#### The Sevier River

Adams: I had heard that there had been complete settlement of water rights on the Sevier River, some distance north of Kanab. I was very curious to find out if that was a correct description of conditions. So I a sked authority from Washington to make a study of the Sevier situation on my way back to headquarters in Cheyenne. That permission was granted and after finishing at Kanab I drove up through Springville, Panguitch, Marysvale, and arrived at Richfield, which was the main settlement in the Sevier Valley

I find from my report that I reviewed some ;
forty cases of litigation on that stream. I found
there were a good many repetitions and inconsistencies.
The river ran through the jurisdiction of three
separate county courts. There would be an adjudication
down here, for instance (look at map), by one judge.
The rights to the water of the stream would be

in teritor volvenous definitions by well the state of a second of the state of a second of the secon

## Contract Contract Contract

near a subject of the rest of the second of the content of the con

I fin the report the contract of the report to the contract of the contract of

adjudicated by another judge up here. Although the situation was in excellent shape, and there were no pending conflicts of great moment, some of the adjudications that had been made earlier were again being reviewed by another court. It was clear that under the operations of the old Utah law they didn't have any final and clear determination of water rights on the Sevier River. I find that in my report I was bold enough to suggest the type of law that was necessary to meet that sination. I had to have confidence in myself on a job of that kind, and looking over those recommendations, they all seem to be sound now.

Baum:

What did the people along the Virgin River think of the work you were doing?

Adams:

They were all much interested. After this report was printed the following year I was surprised to learn from the state engineer of Utah that the district attorney of Washington County had recommended to him that my report be made the basis of the settlement of rights in the Virgin River basin. Obviously, I didn't have all the physical facts and other data necessary for an adjudication; that was not the intention, but I had an outline of them, the substance of the situation down there. The district attorney didn't realize the

inmerA.

Adjudicated by another inde no hore. This or ye will this or ye will this or next of the second of the second. And this or ye will the conflict of the second of another, core of the second of a this or the second of the second of the conflict of the second of the conflict of the second of the se

. Trill Or

√(C<sup>\*</sup>);

: rmr 3

insteaded bins provide alaborate the their angle for a provide worth wood.

The ward all in the peach. The content of the content of the collowing of the collowing of the collowing of the the collowing of the collowing the collowing the collowing the collowing of the collowing the collowing of the collowing the co

Adams: nature of material necessary for an adjudication.

Baum: Did you go back to Washington when you were finished?

Adams: No. I returned in the late fall to Cheyenne and

there I prepared these two reports.

Baum: The winters you spent writing up what you found out

during the summers?

Adams: Yes. I must have finished it before the winter was

over because in the early spring I was assigned to

another job.

INVESTIGATION OF INTERSTATE WATER RIGHTS ON THE PLATTE RIVER - 1903

Baum: What was your next job?

Adams: The Utah work was carried on in 1902. The next job was connected with the study of interstate water rights on the Platte River and tributaries. There were great uncertainties as to the principles that should govern interstate water rights. Many of the important streams crossed state lines, sometimes several times. The Platte River, for instance, had two main forks, the South Platte, which headed in Colorado and flowed easterly and northerly through Denver and joined the North Platte in Nebraska. The North Platte headed mainly in Wyoming although a few tributaries reached over into Colorado. It flowed

through Nebraska, joined the South Platte, and then

In the control of the c

# - The state of the

The control of the elegan of the control of the color of

flowed into Missouri. It was one of the important problems of the day and Dr. Meadwanted to make a contribution to the public understanding of the subject. So he planned this study of interstate water rights on the Platte. (Reported in U.S. Department of Agriculture, Office of Experiment Stations, Bulletin No. 157.

Water Rights on Interstate Streams, The Platte River and Tributaries. 1905.)

There had been controversies between users of water in one state or another. A very serious controversy had arisen between Kansas and Colorado over the Arkansas River. Kansas had brought suit to prevent the further use of water by Colorado from the Arkansas. While there had been some court decisions affecting water rights between states, and also I think there had been some between Canada and the United States, no principles had yet been developed which should govern the division of water between the states. Now here was this very important suit between Kansas and Colorado. That suit had been filed, I believe, in 1901.

So Dr. Mead picked out the Platte for a special study. He could have picked out the Snake River, which crossed several state boundaries, the Bear River, the Colorado River. There were many potential

1.19.00

Three in the contract of the c

I some a combined set of the construction of the Ambientage of the construction of the Ambientage of the construction of the c

To include the condition of the conditio

Adams: conflicts between the states.

Baum: What were your duties in this investigation?

Adams: I was given the task of finding out during the season of 1903 what became of the water of the Platte River and its principal tributaries. It was a one-man job in the field, except as I could obtain the assistance of the watermasters on these various streams.

I might illustrate the situation by reference to the watermaster on the Cache la Poudre, the main tributary of the South Platte, which flowed by Fort Collins and Greeley. (Greeley, by the way, had been established through the influence of Horace Greeley. I have a history of the Greeley colony.)

The watermaster there was a fine gentleman by
the name of Armstrong whose business it was to see
that each ditch got what it was entitled to each day.
He followed a routine procedure. He would get up
about four o'clock in the morning and get a record
of the flow of water in the river at the main
measuring point. He had a man stationed there.
With that information he would determine what each
ditch along the river was entitled to take that day.
He would then telephone to each ditch tender and tell
him how much water to take. Then he would have his
breakfast and get out his horse and buggy and patrol

1 2 2014 : 31 21

solflicts between the states. in the state of the energy deplets the state of the state I me imm der beide beid te greit met nerig sen I

addet in the endage and the manner of the SEE To news an - where a gent of the bodiest faction in the box strate ish in the first, ere start or thought to the see tabando of tu, a abirmanetesco . . . . no momo o colona a . .

the properties of the first of edecate it distinct

the makermenter on the days I do not be common The tendence of the following of the properties subject the contract of the factors of the contraction of . Total get- yet so the greekit n evic ?

To the first of the real result of the read on selfwas a second and the second second and small second second . . The state of the grant desire to the did to the death of the death on it is not be a grabuscal or the man action as during in a mark trianger side in the solo auch trade of the flow of water in the elver of the cet. meanwing oblat. It had a men a ment on the The that it window the began before it we will be the dital along the pive war a tipled to late for the Fe would then wilsphone to eart dito bonder at the n' or all tour ord nerth . o to ot nesten down work ala The state of the tree board and the state of the tree tree tree trees and

the headgates of various ditches to see how things were going, to see that the orders that had been issued were being carried out, and if there were any difficulties. He would straighten out anything necessary. There were gauging facilities at the head of each of these ditches which enabled the ditch tenders to determine the amount of water they were turning into the ditches. In a few cases I had to install facilities for that work.

When I visited the Poudre about once a month
I would make the rounds with Mr. Armstrong. I
arranged with him to have each of his ditch tenders
supply me with a record of the daily diversions into
the ditches. During the season I accumulated material
as to the areas that were irrigated.

Baum:

What streams did you cover?

Adams:

I did that on the Poudre, the Big Thompson, the St. Vrain, Clear Creek, and Bear Creek, all tributaries of South Platte River. And on South Platte from the mouth of the South Platte Canyon to Littleton, which was south and west of Denver, then to the junction of the South Platte with the North Platte. I followed the same procedure in Wyoming and Nebraska, except the facilities for gathering information through the watermasters were not as complete.

while the implementation of the end of the control of the end in the temperature of the temper isaged were to the religion; and if there is the eint, end a masketeria bilo tai ... to totalit min TROOP OF THE PROPERTY OF THE P of the secretary and a server to bit, was a tendence to tender miss delicinal de ene allocation de la company de thereties into a common to the state of the transfer 

c +

Strong Tyleifar Ene ware the the thought . The same of the same of the same of the same The second of the second of the second of the second The state of the state of the second of the or the conplantar in the common a path of a color of the . प्राप्तिक स्थान विकास का कि प्रति है। अप ineven in the morning of

Train, there has a some of the contract of the south daile iven. And on finite in the first the first and the contract of the following the following THE REST CONTRACTOR OF THE CONTRACTOR I will be an in the second of the second of the second of and the commence of the commen the acilities in mathemine informet . Alego ion be to the testeemandew

I covered only two tributaries of the North Platte in Wyoming, Homeshoe Creek and Deer Creek. Then the diversions from the North Platte from the Wyoming-Nebraska line down to Bridgeport and the diversions from the Platte between North Platte and Fremont. Only a few ditches obtained water from the main river, and I got what information I could. That was my job for the season.

Baum:

Were all the watermasters as cooperative as Mr. Armstrong?

Adams:

Very cooperative, yes. There was no difficulty.

That was a very interesting year. The type of agriculture was quite different from any I'd had any experience with in California. It was mainly alfalfa and wheat and sugar beets. I never shall forget the beautiful wheat fields around Fort Collins and Greeley and all that northern Colorado country. Under the climatic conditions there the wheat fields when the wheat was ripening looked really golden. In California the wheat fields look rather drab when they are ripe. The production over there was phenomenal. As I recall, some of those wheat fields used to produce sixty or more bushels per acre.

Of course I was not the only one working on this investigation. Professor O. V. P. Stout, head of

1000 mm

1.1.6.

I covered only two thibuteries of the trace.

Flathe in Apolin . For side These and Dier trace.

Then the diveredation of the Torth Depth of the trace to your new Behrenby line and the Colfress of the Torth Object of the Colfress of the C

i ea all the willimanasma are took like an e... Truschöner:

. The contract of the contrac

and replance with different and the control of the

in a paintent alor to está don en transcribilità de la compania del compania de la compania de la compania del compania de la compania del compania de la compania de la compania del compania de la compania del compani

civil engineering at the University of Nebraska, and C. E. Tait made the necessary measurements of streams and gathered further data regarding the water Walter B. Denton prepared a report on water system. I believe that Mr. Tait and one other rights. member of the Irrigation Investigation staff made some measurements of seepage losses in the main river. We each prepared our separate reports and these were sent to Washington where they were the basis of the published report which was prepared by R. P. Teele. I might add that during the season the field investigations were under the general direction of Clarence T. Johnston, who was in charge of the Cheyenne office. I should also add that Professor Stout worked with me in studying the use of water in the North Platte, between the Wyoming and Nebraska lines and Bridgeport. We made many trips there together.

I'm not quite sure what we accomplished by that study of interstate water rights on the Platte and its tributaries. I gave my copy of the printed report to Davis or UCLA. It was intended to be a presentation of the situation and the need for a settlement of difficulties. Whether any principles or solutions were suggested I don't remember. I think it was

contraction of the second sections of the contraction and the

rame mail. What wind of the end. Attended and a contract

Definition for in the court, of the end of the state of t

. ซากา จำนาสถาดมี ค**ต**อก **อังม**อก กามซอง อนุคลั ซึ่งโก อาษณ

As to expendent, the best of the ded. It is that the sent out of the sent out out of the sent out of the sent out of the sent out of the count of the out of the sent out of the sent out of the sent of the out of the sent of the out of the out

. midding and the feet amove bian cell

Pack was modely in the Utab indeptions, attempt on the contract.

There was a ground and that Interior additionate.

I was reimbroken for the example of great indeminance and and superiors.

They mid your four, hotel, and invel.

.20V HC

three did you wird in this conk on the claim investigation

10.5

\* . \*\*\*\*

1 .. 0 1

# 5 1

17.100

I commenced my work in the early spring and completed the field work in the late fall. From time to time I returned to Cheyenne to review my notes. I had clerical help in the office to keep my materials up to date. I completed my report in the following February and then was assigned to work with Dr. Fortier in California.

# INVESTIGATION OF MODESTO AND TURLOCK IRRIGATION DISTRICTS, 1904

Adams:

Dr. Fortier, who had taken over the work of the Irrigation Investigation under Dr. Mead in California, had asked Dr. Mead for my help in making an investigation in Modesto and Turlock irrigation districts. These districts had just overcome their legal and financial difficulties. Turlock had started to deliver water in a small way in 1901 and Modesto was ready to begin in 1904. The congressman from that congressional district, Mr. J. C. Needham, had gone to the Secretary of Agriculture and requested assistance from the Department of Agriculture The request had gone to Dr. Mead in Washington and then to Dr. Fortier in California and Dr. Fortier had picked me to do the job.

11 821

The first of the contract of t

The state of the s

De. Onties of the control of the con



Dr. Samuel Fortier

os\* 

### Early History of Modesto and Turlock Districts

Adams:

Irrigation was, of course, well advanced in the Fresno, Visalia, and Bakersfield areas in San Joaquin Valley. The Miller and Lux canals on the west side of the San Joaquin Valley were operating. A number of canals were irrigating land along the San Joaquin River on the east side of the river. There were small private projects in the Madera area, the Madera Canal and Irrigation Company, and in the Merced area, the Crocker-Huffman Company. The Crocker-Huffman Company had colonized some of that land. Other than that, the land on the east side of the San Joaquin Valley from Fresno to the Stockton area was mainly in dry grain farming. There was some irrigation on the riparian lands along the stream beds. An effort had been made to develop a project from the Stanislaus near Oakdale under what became known as the Tulloch system, but little had been accomplished. The typical minimum holding was probably a quarter section, The maximum, up to 2000 acres or more. 160 acres. In the days of profitable grain farming they got along all right, but the soil ceased to produce as it used to, low prices came on, in the '90's was the depression, and many landowners, especially the owners

of the translation with a form, and the translation of the translation in The second of th on is Jennie - se bil be an ordered in ser weller of the San entry Palla on the control of and the first of t There are the contract of the gate days and go want and Impire to tapany, a to be me treat, to co efficiency of the control of the con the second of th the first and actions of the state of the Emericans the Program to the "testine or set in the day ments a displace and a consequence of the me the profit of the section of the profit of the function Deer made in the first land and an area of the contract the state of the s and but libele fad bors aledil ded , ma nar in term that a fideline see mail for article facilities John From the artimum, no to 7) in or er article. n the dark of maniltable read . Product to election at the but the soil econes on the color en a at 1 17 million applies of it here di t some of friend, and and and and are the training the sound of

Adams: of small holdings, were in a bad way.

In 1887 Modesto and Turlock districts had been formed under the Wright law, (C. C. Wright, who drafted the Wright law, was a resident of Modesto.) They both employed engineers and after a year or two systems were worked out and accepted and bond issues voted and sold. Construction was carried to the point that La Grange Dam, a joint diversion dam on the Tuolumne River, was finished, and substantial portions of their two canals were constructed.

Large landowners were early objectors and the districts were in constant difficulty through litigation. The details of this litigation are given in my report of the investigation. (The investigation was reported in Office of Experiment Stations, Bulletin No. 158, Report of Irrigation and Drainage Investigations, 1904.)

These two districts comprised an area of about a quarter of a million acres. The Modesto people were entirely new to irrigation and what they wanted was some help in getting started in their plans of operation, delivery of water, management of their systems, and any help they could get in the use of water.

Adams: of small boldings, were in a bad way.

In 1837 Modesto and unlock districts and lean formed under the Wright law. (C. c. whight, the emiffe! the Wright len. are a re ident of modesto.) They but employed environmend after norman two cystems were vorked out gila occoped out soud 'somes voted and sold. The raction was east ind to the otal tout he irane lem, a joint iv. reise that so the Tholumne liver, the finished, the second continuantious .holim ance on walkans out minds to

Large landowners were still of octors and the districts were in on the difficulty through libloati m. 'the details o' this 'trigation are given in my reason of the invariantion. (The investization was reported in Dollas of Experient Stations, Bullebin No. 159, Legent of Indiretion and Oreinser Investigations, 100h.)

There in districts so sriged an area of about a querter of r million acres. The Waterto repole very intimaly new to implicate and whet they winted was come hold in gottler started in here blue of oberation, delivery of water, management of their systems, and any help they could cet in the unc of . Tejew

#### Keeping Records

What kind of aid were you able to give them?

Baum:
Adams:

One of my first jobs was to set up gauging stations on the main canals and on some of the main laterals with the idea of letting the districts know just how much water they were diverting from the river and how much water they were delivering to the irrigators.

Daily readings of the diversions in each canal were made by the dith tender at the dam. To stimulate interest of the landowners in the operation of the district system, I arranged with the principal local newspaper in Modesto to obtain this record of

diversions from the Tuolumne River every afternoon and

A plan was outlined for keeping records, both by the ditch tenders and by the superintendent of the district. As to the question of the Modesto district, I set up the necessary record books and forms and had them printed at their expense.

Baum:

In other words, did you set up a bookkeeping system of use of water?

Adems:

You might call it that.

publishit.

Another matter we went into was the rise of ground water. Experience had shown that as you brought water onto the land in quantity, ultimately the ground

#### รอบไกก "อออกสล

High Wind of ald we cay you allo to mive them?

Adves:

The of my first john was to no require at this as a site main mosts which the lies of letting the site includes the site in the site most water of your jest and most water of your jest and most water of your first include the site mod country to the include the site of the circular to the immediate.

The first water of the circular to the constant of the made by the little tender at the dam. To at anished interest of the limit or the dam. To at anished interest of the limit or the constant of the limit appear in foders to the ordering of the land of the land of the circular than a form the constant of the c

A linewer mulined for length rospids, both by the sites tender, end by the magnistradent of the the district. As to the august in or the local and holes and the tender to the sites of the sites and holes and the forms and had from uninted at the energy.

In other comes, vid you set up a book opins spating

You wirkt sall 'I that.

: Cure?

:30. 6.4

Another sa tro we tent into was blue fire of ground water. From Promience had about his as you broncht water outo the land in quartity, wittensely the mosans.

water would rise. We thought it desirable that they should begin to think of those things at once.

Three lines of wells were set up for keeping ground water levels. We made monthly records throughout the season of the ground water level. No wells were put in for that purpose; I simply used the farm wells in the area. In the upper portion of the district the water was about seventy-five feet from the surface, whereas in some of the areas down toward the San Joaquin River the water was something like ten or twelve feet.

Another matter we thought should be watched was the seepage from the canals.

#### Applying Water to the Land

Adams:

I spent a good deal of time with the ditch tenders on the various canals as they delivered water to the irrigators. I remember one landowner, a brother of Congressman Needham, was scared to death as to how he should use water when the day of delivery came. So at his request I went down and spent several days with him, took my rubber boots, went out in the field, with him, and helped him distribute water over the land, giving him some ideas as to procedure. I was not brought up on an irrigated farm, but my three years'intimate contact with irrigators on Cache Creek in California, on the Virgin River in Utah and on the

\$ 200 (200)

Mander would not be a considered the dealer of the design of sections and additional dealers of the section of

The state of the s

# State of Laboratory

Fruit constant with a challenge beyond in the form of the constant of the cons

Platte River in Colorado, Wyoming, and Nebraska had made me familiar with the practice and I was able to be of some help of that kind,

Then there was the matter of preparation of land for irrigation. Land was being prepared mainly in contour checks and it was obvious they were moving too much dirt. Arthur Stover of our Berkeley office came down and made some surveys to see just what they were doing and these were included in the report.

The methods of applying water to the land in California were quite different from those followed in the Rocky Mountain states. Out here the normal method was by the basin or check method. In the Rocky Mountain states contour ditches were run in the field and the water carried in those small ditches and spread over the land with the help of the irrigators out there with their shovels. Some of the land in Modesto and Turlock districts had a slope in which it seemed the check method was not the most economical method, so we leased about 25 or 30 acres in the Modesto District and set up a little demonstration project where we irrigated very flat land and sloping land. We irrigated land by strip checks, by rectangular checks, by contour checks, and by the mountain method. We ran that for a couple of years. Incidentally, I

Adding: The transfer of granting, symmetry and the contract of with a familian with on practice of I was not a deabout the following the od

र र र पहुंच्या देश व्यवकार । ए जन्म अन्य अर्थ अर्थ व राजनी संस्थान of glober Generally goternut bhail . I fair iomt mot without a magnetic field the ground nucleus too much wirk. Arthur Stover o our depleto o " 🖖 CAMP TOTAL FOR THE STORES TOTAL FOR BUTCH BEEN SOLD OF THE STORES ู่ สี่สุดแกล สถ้า กำได้นะโกก ตากง อาลก์ป bie กกได้มี ะศาพ

The most ode of anolytan vater to a law in Durchle and been thereath in the end a lancation Termon and a limit to teat at a reduction gamma of me manage the states applying the see the insome in Theme hert of beingers enter oft for Estil and and comend awar the land with the believe the innimity of out there with their showels. Frome of I - Ten die Todosto end Tropode districts but a glone in thing රීස අදදාස ය. එසතුර පන්ති කිලය සසහ එලෙන්ත්තාන ස්වත ්ර පන්ති වියාහමෙළම කීඩි method, no realisted about 25 on 30 annea rei er ercyob alddi 6 gy d e bee doiddi' edaeball in the Thirteen west delight to hoder, and his energy dreicad land. We immirebed lend by ethic comming of historial.x chester, by contains checks, and by the maintain acted. We went that for a comple of parties. The footstating

might mention that I sent a young graduate civil engineer down there to look after this experiment. His name was August Griffin who later became chief engineer of the South San Joaquin irrigation district and then went with the Canadian Pacific Railroad to Canada and became their chief engineer in charge of all irrigation matters.

Baum:

Were the irrigators eager to learn new methods and did they come to your demonstration farm?

Adams:

Our studies of the check method and their high levees, I think, did have an effect. Instead of having high levees over which farm machinery couldn't travel and having a difference of maybe a foot or more between one contour check and the next, smaller checks were built with broader levees so the crop could be grown on the levees and the farm machinery could pass over the levees.

#### District Operation

Baum:

In those years were the irrigators enthusiastic about the district?

Adams:

Oh yes. Shortly after I arrived in Modesto, early in March of 1904, they had their formal opening, a great jubilee. People came from all parts of the state for that opening. Quite a boom started in the development

- FITE

A - :: might mention that I cent a your; rande 'v' and down there to look after the ensemble down the His made was Austrat Triffig win dith begin a fur liment on distinct alimbeth resoluted and form and sec Toronto contina costra Coda rate describiles and the second of the second o . " Color of terings I'm to

1 - 411

week a city of a new affect around the entire time and THE PROPERTY OF THE PROPERTY OF THE PROPERTY PARTY

on a company band and an area of the continuous and Tayara, I tiling, oth howar a concert to the time. to for a contract of the contract of the state of and the same baying a difference of the property of the fiver william the order of the state and assumed a ca of an equation of the military of the order could be moved in take levision one the control of the me page over tive I street.

## 10°0 239 35' i

th Phone joins the family took on unidentic State of the state

1 3 5 P V

of res. Charts other Tarified in old . The follow Manch of 1901, they had their legant over the jubileo. Proof came form all a sea of our food that onedime. I item wilder hisam hisaetad in ing merchan mi

Adams:

of the district. I don't remember how large Modesto was at that time, I don't think over 2000 people.

It was the county seat. Turlock was a village of probably not more than 100 people.

Land could be bought in the two districts as low as \$30 or \$40 an acre. The highest priced land was held at \$75 an acre, which was then considered a prohibitive price. That was for raw land. In the next few years, and very evident during the years I was there, there was a lot of activity in the purchase of land.

Baum:

How did the irrigation district organization work in Modesto in those years? Was it an effective institution, or do you think some other form of organization might have been better?

Adams:

I was convinced before that study was over in 1904 that the principal irrigation development in the state would be under that form of organization.

Samuel C. Wiel, author of a standard work on water rights, brought over to Berkeley the proof of his first edition of his book. I remember in conversation with him that he was surprised that we were interested in irrigation districts. He had in mind the experiences under the old Wright Act and he thought they would

the control of the strivetet. I don't essenber in the control in ab then them, I unit think over 100 ou 100 It wis the consequences to the site of the order .et nam Eff - Motorco dos libradosc

on deligible to the death of the got of the boad The first top the off . A server the off or the selection than a section in the section of the plantage one intro-original factions for review their terms ne tiru ye ma. and very evident during the I was there, there was a lot of activity or are one asc .br . to

LI WISS

the a little three defects to not design to old bit work or today to those yearsy the it of table mi instibution, or do son think come or or itse so present as on min't have been by the confine Light on the straight of the s

: ETBlo.

that the artaclab freightion dayalounce . . . state could be under that form of or we said Samuel C. Hell, enthou of a starterd on he abor a chis, bicought over to lepterey the could be This edition of his book. If proceed to copy, we have ాగ్రామం కార్యాల్లు, జిజ్ఞుకి ద్వాహింగాలు ఇంది కర్వేలాని చేరి మన్కిగ in irrigation districts. To led in sign to each edenois under the old being Act and he took of the old refun

Adams:

never be attempted again. I told him then I thought our future in irrigation development lay in that direction.

That work in 1904 brought up some questions of management which were of interest. In Modesto District everything was running smoothly. No controversies within the board of directors and no controversies among the people. In Turlock, however, just the opposite was true. The superintendent or engineer that first year was soon superseded by another. Some of the farmers in certain areas were still very much dissatisfied, I don't remember now just why. While I was just completing the manuscript of my report, the leader of that opposition, who was down in the Hilmar Colony, came up to see me. I don't know why. He proceeded to tell me their troubles. I had known of those troubles and I referred to them in my reports and had pointed them out as difficulties that needed to be overcome. I handed a copy of my manuscript to this man. He read it, looked very sober. and went away. I think I had effectively answered him in that report.

Baum:

Did they get their troubles ironed out?

Adams:

Oh yes, within a few years the situation in those two districts was reversed. All was calm in Turlock

never be abtempted again. I told in the bear the our first or dayslopment later the bear of ection.

The work in 18 d north are an error of the anna gegermea b witten to be to interest. The in the title in Third reason of ... E. Socret thinkers of and dogsern Print 16 The Coll of the teach of the teach of the teach of emails the cold, In The Greek, were a just the apporting was some some and a simple some street of that first is very soon or necessary in the court was THE TO THE MENT PROPERTY SERVED HE EMPTH OF THE SERVE auch linearing of dieth memoria and the the a told impress an introfered demi new Toffer one, the leader of bloc spassifits, the real arm in the littler Jolony, came up to a me. I with cook why. Wa proceeded to this we their trouders. the brown of broad tradition and comment but a in my mesonts and red being the training agreement in that needed to be averdore. I handath our visit we manuacribt to the man. In send to, dealer ton. The man and mere gievierable bad I wall to a gawa draw bas in in the me orb.

Die they ant their traubles iroand was:
The year, without a few years the effustion in those two dirthicates are reversed. All was alle in further

import

Adams: District, all was confusion in Modesto District. But those districts have been models of success.

Baum: Why did this turmoil come about?

Adams:

I don't recall the details. It had nothing to do with the form of organization. It probably had more to do with the assessments and distribution of water. There are bound to be difficulties where people are dealing with water, especially during the early years of a project. It took Modesto District a little longer to eliminate its difficulties and get into smooth operation than Turlock District. They changed engineers from time to time, I do not recall why or what bearing that had on the operations of the system.

I think the smooth operation in Turlock District really began about 1913 or '14 when R. V. Meikle was made engineer of the district. He was working for me and had just completed his assignment when the engineer of Turlock District came to me to get help in presentation of their problems to the Secretary of the Interior. San Francisco was seeking a water supply from the Tuolumne River and the two districts were opposing it. The city attorney of San Francisco asked me to work on their case but I was unwilling to work on either side. I told them they could have Mr. Miekle and Mr. Miekle went there then to work on

: PARPE

1-11-8

1 13 13 13 13 1

District, all was numbered to Moderto District.

Cose districts www. on models a success.

Why did this tresult on earms.

mode early never at the light of the court of the conmode early never at the cistration. The respective court is a property of the complete of the court of the

Adams:

that problem and shortly thereafter was made district engineer. Turlock hasn't changed their engineer since then. That's unheard of in irrigation district operation. Only Imperial District has approached this in its continuity of engineering direction.

Baum:

From what you say, I gather you consider the engineer a very important factor in the operation of the district.

Adams:

Oh yes. Mr. Meikle kept scrupulously out of district politics. He had nothing to say in that field. He is very able, very wise. That's the key to his success.

OTHER WORK - 1904 - 1905 - 1906

Adams:

I spent two years in California with Dr. Fortier, the first year mainly on the study of Modesto and Turlock districts, but there were other activities. We had going on at that time a number of what we called "tank experiments." Crops were grown in tanks and different quantities of water applied. The tanks were weighed at intervals to determine the loss of water, the use of water by the plants, and also bare tanks were used to determine the evaporation from the surface of the soil. We had tanks of that type out from Tulare. We had some tanks back of what is now Agricultural Hall. We had tanks on the plant introduction garden of the Department of Agriculture up

that problem and a spile of the consequence of the constant of the consequence of the constant of

to type of the control with the control of the to type of the form that distributions, but there were not en equitionally interested on at the the time a mandary of the control of we will and with an analysis and the analysis of the control of th

An Article and Photographs

By Frank Adams

Appearing in <u>Sunset</u>, June - July 1906

 $n^{\prime\prime}$  as  $n^{\prime\prime}$  in after  $n^{\prime\prime}$ 

.

## UP WHITNEY BY LONE PINE TRAIL

By Frank Adams

Photographs by the Author

EW people realize that the summit of Mount Whitney, the highest mountain in the United States, is but a dozen miles removed from a comfortable wagon road, yet such is the fact. Neither do many realize that at certain seasons of the year the whole of the dozen miles between the summit and the wagon road can be covered on animals.

A year ago the enterprising citizens of Lone Pine, Independence, Keeler, and other nearby towns completed a new trail to the top of Mount Whitney.

Part of this trail had been built years ago by Uncle Sam's soldiers, encamped along Lone Pine creek, while making temporary use of Mount Whitney Military Reservation. A part, also, had been built by citizens who wished access to the rugged eastern slopes of the surrounding mountains. That the upper and more difficult portions were built to make this famous old mountain more easily accessible shows that the enterprising citizens who undertook the feat knew the value of short cuts in mountain climbing.

	•			
w.				
			20	



IN CLEAR VIEW OF MANY OF THE WONDERS OF THE UPPER KERN

Mount Whitney has been climbed many times and by many people, yet those who have approached from the west, and this includes the great majority, have missed a charm that only the east-side trail can give. The scenic wealth of the west is in the deserts and the mountains, and rare the region that combines them more completely to one's satisfaction. "Tender vistas ever new" could be no more truly written than of what this winding, rocky trail affords as it

-the dainty polemonium, each head a bunch of sweet violets

leaves the desert at the edge of Lone Pine creek and makes its through the timbered gulches and over the jagged cliffs toward the summit. Yet, different as is each backward vista, all carry that enchanting inspiration so peculiar to the desert. Ever unfolding at the foot of the canyon lies Owens valley, bordered beyond by the Inyo range, its surface as rich in mineral coloring as are its wealth. Ever mines in mineral changing their form at the head of the canyon are Whitney and his companions, their faces high in the sun above the timber line, and promising pleasures innumerable to those who will overcome the obstacles at their

Lone Pine, the outfitting point for a trip up the east side, lies in the evening shadow of Mount Whitney, a few miles west of Mount Whitney station on the Carson and Colorado railroad. To the summit is scarcely twenty miles. The vertical distance covered in this short stretch, however, is nearly eleven thousand feet! But these figures should not frighten anyone seriously contemplating the ascent — they certainly would not frighten one at all accustomed to





THE SCENIC WEALTH OF THE WEST IS IN THE MOUNTAINS AND DESERTS

mountaineering. The comfortable stops between Lone Pine and the summit are frequent. Four miles out, at an elevation of 4500 feet, is Soldiers' Camp, on Lone Pine creek, but still on the desert. Seven miles further, at an elevation of 8300, is Hunters' Camp, well up in the canyon among the timber, and well within the sound of Hunters' Falls, where the waters of Lone Pine creek come

tumbling from the rocks above. At 10,00 feet, nestled snugly under a vertical granite cliff near two thousand feet high, and partially surrounded by a small park of firs and pines, is Lone Pine lake, well stocked with wary trout from the lower creeks. A mile above is the camp of all the camps on the trail—the upper meadow, with its stream, its clumps of trees, and its abundant feed for





LONE PINE FALLS, ON THE WHITNEY TRAIL

animals. At 12,000 feet is Mexican camp, the coldest camp on the journey, yet a convenient starting point for the trudge up the mountain. Directly above this camp is the hardest climb on the trail, perhaps excepting the last supreme effort that accomplished lands one on the summit. At its end is Lone Pine pass, elevation 13,337 feet, from which one first eatches a glimpse of the west-side

panorama stretching from the Bakersfield hills far north beyond Mount Brewer and Mount Williamson. Between Lone Pine pass and the summit, in clear view of many of the wonders of the upper Kern and the upper Kaweah—Mount Kaweah and the pinnacle, for instance—is Lake View camp, still two or three hours from the top. This can be called a camp by virtue of the fact that it was



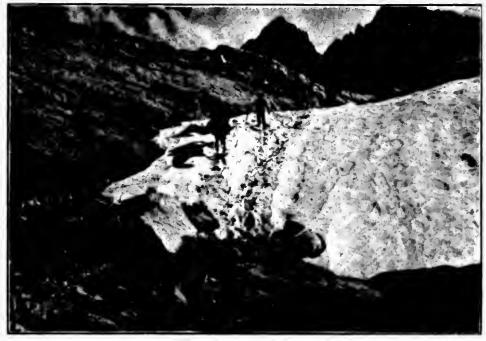


THE EASTERN FACE OF MOUNT WHITNEY FROM THE LONE PINE TRAIL. FROM THE SUMMIT, THE CLIFF MAKES A SHEER FALL OF 1800 FERT. ON AUGUST 10, 1905, A PARTY OF UNITED STATES SURVEYORS COMPLETED A LEYEL LINK TO THE SUMMIT, FINDING IT TO HAVE AN ALEYATION OF 14,502 FERT, WHICH PROVED IT TO BE THE HIGHEST MOUNTAIN IN THE UNITED STATES



SHEEP MOUNTAIN, OR "OLD MT. WHITNEY," FROM THE SUMMIT OF WHITNEY. THE SHARP POINTED MOUNTAIN ON THE RIGHT IS MT. MC ADIF





the whole of the dexen miles can be covered by mules

used as one by the hardy trail builder when finishing his task. Neither wood nor water are there unless they happen to have been left by a former traveler, although snow can usually be found in close proximity.

After crossing Lone Pine pass the trail is wholly on the west side of the summit of the range of which Whitney is a part. Beyond Lake View camp, from which there are perhaps no more lakes in view than from numerous other points on the trail, the journey is again lightened by the ever-changing outlook. As you cross a ledge at 13,775 feet elevation Whitney comes into view after having been hidden for an hour behind the rocks and peaks through which the trail winds. You say an hour will land you there, yet experienced and hardy you are indeed if you say the truth. The last pull is a pull in earnest, one not to be forgotten either for its efforts or its thrill.

While the mountains and the desert are ever calling as one toils up the

trail to Whitney, you can not escape the lesser things on the way. Of wild animals there are very few, yet if you camp at the upper meadow and stav there long enough to get acquainted, you will find a host of little friends. Chipmunks will waken you with the first sun of the morning and only leave when the last kernel of grain or the last crumb of bread is gone. Birds, you will be tempted to call sparrows, will flit about cautiously until they learn that you will not harm them. Below 6,000 or 7,000 feet of elevation Lone Pine creek will supply as many ample meals of trout as you take time to go for. A few flocks of grouse will cross your path. but not if you carry a gun! But if animals are few, not so with trees and flowers. At the base of the mountains are the "pinon" pines, small and scattering. A little higher up, beginning near 7,000 feet, are the beautiful Jeffrey pines, with red and white firs mixed plentifully in between. Above 9,000 feet the Jeffrey



pines retreat, leaving only the foxtail and timber-line pines to brave the rigors of the upper altitudes. near 11,000 feet the climatic strain becomes too severe for even the most hardy of the timber, and a few feet below that elevation the last tree on the trail-a dwarfed fox-tail pinelies prostrate on the rocks as if overcome with grief at not being able to accomplish for its race another full thousand feet of achievement. After the timber is left behind one begins fully to appreciate the beauty of the little annual and perennial flowers. You are ever finding a new one as vou follow the trail in its windings across creeks and past lakes, guided only by the frequent little stone-onstone monuments that originally told the trail builders where to go, as they now tell you where to go. You find flowers not only in profusion of num-

ber, but also in profusion of color. Yet withal they must be looked for to be found, for they have chosen to grow where, in the nature of things. they must grow-deep in the crevices between the rocks. If you follow the trail the last of July or the first of August you will find, from 13,000 to 14,000 feet, perhaps the most perfect of them all—the dainty polemonium, each head a bunch of sweet violets, each flower as fragrant as an heliotrope. Nestled close to it you may also find a brilliant member of the dandelion family—Hulse algida -full of the pure, golden sun of the high altitudes.

But the story of the Lone Pine trail to Mount Whitney must be learned at first hand from each of the characters in it. A three-days' round trip from Lone Pine will indicate its secret. A week's trip should tell it.

Adams: at Chico.

Baum: Was all this work under the Office of Experiment

Stations?

type work.

Adams: Yes.

Baum:

Baum: You were not connected with the University at that time.

Adams: No, although the work was in a way in cooperation with the University.

Evaporation from water surface was one of the matters we were looking into. Dr. Fortier had me set up a series of tanks on the east slope of Mt. Whitney, ascending from a little above Lone Pine to the summit, to measure the effect of elevation on the evaporation from the surface of the water. The amount of loss from the surface of reservoirs was important. There had been previous work by investigators going back to the William Ham Hall days, but our purpose was to add to that information. It was then that I had my first opportunity to get into the high Sierra. It sounds like, although you were not trained as an engineer, you were doing more and more engineering-

Adams: I had very good tutoring on certain engineering phases of the work when I worked on Cache Creek with Mr. Wilson, a trained engineer who had been State

in o:

್ರಿಯ (೧೯೬೬) ಗಳ ಅವರ ೧೯೯೮ - ೧೯೯೮ ಕ್ಷಮ ೧೯೯೮

• n 1 : n 1

• Alter Will with the first

provide the size of t

for all interpretable in the property of the second of the seco

Adams:

engineer af Nebraska. I had also obtained a lot of fine advice and instruction from Professor 0.V.

P. Stout, head of the department of civil engineering at the University of Nebraska, when I was working on the Platte River back in 1903.

## Professor (Major) O. V. P. Stout

Adams:

Although a little out of order, I might add here that Professor Stout continued at the University of Nebraska and became dean of engineering, went into the first World War, became a major, returned to his work as dean of engineering, left that to head up the engineering work of a private irrigation development company out in Colorado and Idaha. The company went broke just about the time of the depression of the thirties. Dr. Fortier was just planning to set up some studies of seepage from canals in California. I suggested that he bring Major Stout out, which he did. Major Stout and Carl Rohwer, who came out from Colorado, carried on that work for a number of years. Then Major Stout became apart of the cooperative work in California and took charge of investigations in the Delta. A little later Dr. Mead persuaded him to make some studies of the Tri-Counties Project in Nebraska. While he was on that project he had an emergency

idans: earthean of wolfus a. I had show ontrine of the or time siving and contaction from wroter or . . The control of the co in the entwood of a day on the area work in . Now you was a second of the second of

## 

Altil no with a y vai in the second of the sec 1. Be. 1. 15 11 18 18 18 1 e aveaution the to the second of the state of the contract of the state of th and the second of the second o and the second of the second o Colored Colored Colored State Colored with a first to a second of the second of Delta to the control of the control of the the constraint of the constraint of the same profits on the state of the property of the state o the state of the s • The second of . E. to i their in the most of the solid ର ଜଣ ପ୍ରାଧିକ ବ୍ୟବସ୍ଥିତ । ପ୍ରାଧିକ ପ୍ରାଧିକ

Adams: operation from which he didn't recover. I always owed a lot to Professor Stout, both in inspiration and in the knowledge I was able to pick up from him.

the first convenies with the most winders account is 1950 e tot be enterone e b, bod e entre inclusion e To • 115 % is sind of the following side



Major O. V. P. Stout



## FAMILY

IN THE LIGHTING FIXTURE BUSINESS, 1906-1910

Adams: At the end of those two years with Dr. Fortier I considered a venture into farming up in Oregon with my colleague in the Irrigation Investigations, Arthur P. Stover, but didn't.

My brother and another man, who was a mechanic, both of them connected with a lighting fixture concern in San Francisco, decided after the fire to go into business independently. They persuaded me to join with them. Another stockholder was Mr. John P. Young, who was managing editor of the Chronicle. Our firm was Adams & Hollopeter, Lighting Fixtures. I remained with the business four years. We had a fine factory and manufactured our own lighting fixtures.

It was very enjoyable and gave me an opportunity to learn to sell. I found I could. It also brought me into contact with a lot of fine people. In addition to selling, one of my jobs was to look after the finances of the firm, see to it that there was money on hand to pay the help and the bills. That made it necessary to see that funds came in from our contracts on completion, and if the money hadn't come

The second secon

1 11 2 3

At b.c. end of the openity of the control of the second street of the control of

Aport of the contract of the c

end of above and the first of all the countries of the co

Adams:

in, to see that I got it from the bank, the Anglo,
London & Paris National Bank. The head of it was
Mr. Phil Lilienthal, a wonderful man. He was killed
in a traffic accident down the Peninsula and Mr.
Ignatz Steinhart, donor of the Steinhart Aquarium, took
over and after that Mr. Herbert Fleishhacker. I
had an opportunity to get acquainted with all these
men. It seemed remarkable that someone from a small
firm as we had should go to the top men in the bank,
but that was the practice in those days.

Several years later there was a merger of our business with another business and after two or three years the enterprise went out of existence.

Baum:

Had you lost all contact with your irrigation work while you were in business?

Adams:

No. I had started during those two years I was with Dr. Fortier, 1904 to 1906, a study of delivery of water to irrigators. I laid that aside when I left the work in the summer of 1906. While still in business, I took up as a side issue the completion of that report at Dr. Fortier's request, making the necessary field trips in Colorado, Utah, Nevada, Oregon, and Washington to get additional data. That was published along about 1910.

Baum:

This was for the Department of Agriculture?

: 21.654

: 50

11 8 /

CHILD:

English of case basis in the depth of the case, including the condition of the case of the

ಕಾರು ತಿಂದ ಅವರ ಅವರ ಕಾರಣೆಗೆ ಈ ಬೆಂದರ ಗ್ರತಿಯ ಗಾಡಿಯಿ ಕರ್ಮ ಕಾರ್ಯಕ್ಕೆ ಈ ಬೆಂದರಿಯ ಅವರು ತಿಂದಾರೆ ಹಾರತಿಯ ಬೆಂದರ ತಮ್ಮ ಅವರು ಎಂದಾ ನಿರ್ದೇಶಕ ನಿರ್ವಹಿಸಲಾಗಿ ನಾರು ಕಾರ್ಯಕ್ಕೆ ಅವರು ಬೆಂದರಿತ್ತಾರೆ.

ren i de la compania del compania de la compania del compania de la compania del compania del

Mo. (19) when the duming those of the continue of the continue. The first of the continue of t

Page 10 Simple of Anna Emph of America Cone?

Adams: Yes. That was, I guess, the first publication in that field. (USDA, Office of Experiment Stations, Bulletin No. 229. Delivery of Water to Irrigators. 1910.)

#### WIFE AND CHILDREN

Baum: You mentioned that your wife was a secretary in your office when you were in Washington. What was her maiden name?

Adams: Amy Belle Hill. She had finished at a local normal school in Muncy, Pennsylvania, passed examination for teacher's certificate, and at the age of seventeen had taught one year in a district school at the fabulous salary of \$22 a month. Desiring more remunerative work she took a business course and passed the United States civil service examination and stood No. 2 on the eligible list for the entire State of Pennsylvania and was appointed to our office in Washington in 1901.

Baum: When were you married?

Adams: We were married June 20, 1906.

Baum: I'd like to include some mention of your children.

Adams: Well, we have four. The oldest is Helen, who is

Mrs. Percy M. Barr. Mr. Barr is a professor of

: 175.h.

is. The distribution of aness, the filter transfer to an in-. Mes in the complete the interpretation of the and serve.

### and the second

TI WHOSE THE SECRET SECRETARY OF THE SECRETARY OF THE

the first of the first of the section of the section Lagranger States and co ob in Honor, se aspirante, es establición de the depth of the same and the same and of the feet of this state of the state of th on the second of one of the second a street wis direct multiment meet because on the column of the solution of because and attool and a control of the ord no a .or becta bas rott to not collistrice a resident and the term to see at e. COPS of acommission When were gon which team

\$ r,1 | f . : 3, 181 1500

I drawA

THE PILE to I wind government on of comments ... in in the start of the street in the same than

Sire. Perer M. . wr. Mr. 1978 is a near of the

Relation of the first of the state of the state.

forestry over at the University. They live next door and have four fine children. The next is Francis Edward, a graduate of the University of California, a consulting mechanical engineer in Los Gatos. He married Jane Bolton. They have one boy. Then comes David Hill, a graduate of California and of Boalt Hall, and he is a lawyer in San Jose. He married Margaret Davis, and they have three children and live in Los Gatos. The fourth is Thomas Cooper who graduated from the University in forestry and in economics and later received his Ph.D. in forestry and conservation from the University of Michigan.

at the University of California so when war seemed certain they were called and went in. Both Francis and Tom came out with tuberculosis and had to spend long periods in the naval hospitals, but both made full recoveries. Tom is now a forest economist in the United States Forest and Range Experiment Station in Portland. He married Laurie Browning and they have two girls.

: 77 - F T. F

Correcting over the colline. The colline of the colline of the second days form fine of the colline of the coll

All there is a positive of the control of the contr

# ADMINISTRATION OF CALIFORNIA IRRIGATION INVESTIGATIONS AND THE DIVISION OF IRRIGATION, UNIVERSITY OF CALIFORNIA

# Early Years of the Department of Irrigation, University of California

Baum: Then you returned to irrigation work after the business went out of existence?

Adams: I left the business in 1910, but it continued successfully for some time during the first World War. Early in 1907 Dr. Fortier had succeeded Dr. Mead in charge of Irrigation Investigations in the Department of Agriculture. Dr. Mead had gone to Australia. Dr. Fortier asked me to come back to the irrigation work and take over in California.

Baum: I believe your work with the Irrigation Investigations was also in cooperation with the University. How did that relationship first come about?

Adams: Well, as I told you earlier, back in 1900 President
Wheeler invited Dr. Mead to organize a department
of irrigation in the University.

Baum: You mentioned how you helped him.

Adams: Yes.

Baum: Why did President Wheeler want to set up a department at that time?

13020

in California. The Injerial was drive very jit he.

In California. The Injerial was drive very jit he.

The filtand he was a very above into according to the confidence of th

1 - 1

The real profession of the second real

· Lorin of the

1.1.11

and the free is their at the manditer mice sew

omich.

्राच्या इत्राहरू । विश्व का का किंदी के तिहास स्थापक का कार्या करें किंदी के कार्या करी किंदी का कार्या करी की

the free to

Why did bris cous of an necesse intermediate and and intermediate seek the section of the sectio

nouse.A

Ob yes. The mas a marral feeling as the profession was a marra value of the large of the policy of the large of the policy and the large of the tendence of the tendence of the tendence of the large of

Adams: The title of the association's monthly publication was Water and Forests.

Baum: Was this all paid for by private subscriptions?

Adams: Entirely.

Baum: What sort of arrangement did President Wheeler make with Dr. Mead for payment for his services?

Adams: My recollection is that he was to receive \$1000 for giving this six-weeks course of lectures and giving general supervision to the work of the department.

There was no other compensation to those in the department.

Baum: Wasn't there a resident assistant?

Adams: Yes. Dr. Mead assigned Mr. J. M. Wilson, under whom
I worked on Cache Creek, to be in charge of the
department and also to undertake and direct Irrigation
Investigations in California as a part of Dr. Mead's
organization.

Baum: Was Mr. Wilson paid by the University?

Adams: No. He had a title of assistant professor of Irrigation.

Baum: Did he have duties at the University?

Adams: Yes, he gave instruction. He broke down in that. He was a little too old to readjust himself to the instruction. He had some kind of a stroke in the classroom, and lingered for several months and died. Dr. Fortier

- Adman: The fittle of the associate or is nowbilly medication in succession.
- The city of the size of Book to the size of the size o
- The state of the monogeneous also the state of the color who will be supposed to the color of th
- The condition of the co
  - idea francisco trace e contidit entre la com-
- The matter of the massished amount of the contract of the cont
  - The ten ofth of we first all its first and
  - A rest of the Total of Assistant Constant of Assistant Constant of the Assistant of Assistant of
    - committee of the solder average in the common

: ar at 6

Yes, he mave instruction. He mode can be a series was a status too old to mendjuck thech is a status in the time. As her name wind of a strong the control of the control o

Adams: was sent later to succeed him. Dr. Fortier brought with him Arthur P. Stover who had worked under him in Utah.

Baum: Was Dr. Fortier paid?

Adams: Not by the University, no. He was paid entirely by the Department of Agriculture.

Baum: Then this was a service of the Department of Agriculture to the University?

Adams: Yes. All the University gave us was headquarters in the old Budd Hall.

Dr. Fortier didn't take much part in the irrigation instruction in the University. That work was carried on by Arthur Stover. I remember he was given a University appointment and may have received some University salary. After a year or two, he was assigned to take charge of Irrigation Investigations in Oregon. At that time Dr. Mead selected Bernard Etcheverry, who was then at the University of Nevada, to come down and give the instruction. He was independent of Dr. Fortier and the Department of Agriculture from the start, entirely paid by the University, and he reported to President Wheeler directly. Dr. Fortier had some relations still with President Wheeler, I don't remember just what they were.

I might say that when Dr. Mead set up the

i an tah

49 853

195 151

:: " " "

a ment jet o au sucheen him. Dr. Onlin and the state of the control of the Mathematical and a state of the control of the the control of the

Shield de galletin by 20

Not by the Halfy esting no. I am it is included by the Oceans and American and Amer

The tries of the desiration of the contrary of

Yes. All the University our activated napremation of a old sund man.

indigation instance in the first trace. The first trace is not in the first trace of a first trace in the first trace. The first trace is not trace as not profits approach rept trace of the resolution of the first trace of the

I middle of the then in. I had call up the

Department of Irrigation back in 1901, both Civil Engineering and Agriculture wanted it affiliated with its department. In order to overcome the dilemma, President Wheeler set up a separate department. It was to cooperate largely with the College of Agriculture because the Irrigation Investigations under Dr. Mead were set up to cooperate with the agricultural experiment stations in the western states.

Baum:

After Mr. Etcheverry began to work for the University independently, how much cooperation was there between the Irrigation Investigations and the Department of Irrigation?

Adams:

Very little.

Baum:

Couldn't there have been joint investigations?

Adams:

The Department of Irrigation was primarily devoted to instruction. Both Professors Etcheverry and Harding did consulting work and both, I think, were active on research committees of the American Society of Civil Engineers. Their fields of research were mostly different from ours.

Cooperative Relationship Between Irrigation
Investigations, the State, and the University

Baum:

When you took charge of Irrigation Investigations in California in 1910 you were with the Office of

ture bl.

Denumbrant of Contration Dack to Low, how Civil on one manifed it of Millours the median and Agriculture wanted it of Millours with its desembrant. In order to overcome and interest equal of the density of the man, was to coopen to lare to the city of the contration of the important of the city of the important of the city of the coopen of the coopen and the city of the coopen of the coopen of the city of the coopen of the coopen of the city of the coopen of the coopen of the city of the coopen of the

\* 11,12

After the Ptobergry be even which to the the Control of the State of the Action and Concentration of the State of the Stat

Tone Pittle.

.arur ace drawmith

.

Position to make the constraint of the continual of the c

· · · · · · · ·

Coppositive old to the coldinar law single coldinar control of the coldinar coldinar

in uppl

The movement of the charge of Frank of the first of the start of the s

Baum: Experiment Stations. You had no connection with the

University except the use of their offices.

Adams: We had an informal connection with the University

because it had assigned some 25 acres on the University

farm at Davis for experiments under Mr. Roeding and

that work had been underway.

Baum: So there was some cooperation on investigation?

Adams: Yes. It was a very cordial relationship. The matter

of funds did not in anyway limit the spirit of

cooperation. The University was offering us facilities

and the Department of Agriculture, as it was intended

to do, set out to assist them.

The other source of finances was the state.

I told you the Water and Forest Association had supplied funds to the federal agencies back in 1900.

In 1903 the state began to make a small appropriation and it did that through the State Board of Examiners.

There was no State Department of Engineering at that time. At the instance of Clyde L. Seavy, who was then assistant secretary of the State Board of Examiners, the legislature authorized a continuing appropriation of \$30,000 for cooperation with the various federal agencies. Of that, \$7,000 was assigned to Irrigation Investigations. So we had state and federal funds to work with.

100

4 (c) . - 1 (1-,

. . - !

e eres

1 mm p / 4

Supering except : one of the ordinaria, the except : one of the ordinaria,

We had an informal numberion hith the University because it had saired some 25 angles on the Trivaholit farm to savie for expendente haden Mr. Deding was the bork and bond of hear.

Jo them was word took sation on investination:

Yes. It was a view of the late spirit. The artist of funda in the contract of the factor of the contract of th

Thold you the term and domest to the continue to supplied you the termal running and the continue to supplied you are to the formal running and the continue to 1703 when the domest or made a supplied a various. And I will destruct the mount the latter term of avaitable the court of the continue of the

Baum:

Did you have adequate funds?

Adams:

I had adequate funds at the time, yes. The funds were not large. The regular annual appropriation from Washington was about \$7,000 to match the amount from the state. Money was worth something then. From time to time Dr. Fortier assigned additional funds of several thousand dollars for our work in California.

That arrangement continued until 1913. Dr.

Thomas F. Hunt had come to the University as Dean of the College of Agriculture late in 1912. He was very much interested in our work and he offered to supply what money we needed to supplement the work. So from that time on the University became a contributor to the finances of the cooperative work.

Leroy Anderson was then in charge of the Farm School at Davis. The University Farm was purchased in 1907 or 1908 and they set up a Farm School there. There had been quite a sentiment in the legislature for instruction in practical farm work not leading to a college degree. Superior Judge Peter J. Shields of Sacramento had been the most active one in promoting purchase of the farm and setting up this farm school. Professor Major was in charge of animal husbandry work and there was some conflict over

1.86 3

the state of the s

n and the same and the same of the same of the same - inc t i tame with a with . I too were The Marianth of Page about 17, 30 to the same octanions of teom she care . Daey such a day of a THE STATE OF STATE OF A PROPERTY OF A STATE OF THE MOST the second of th · Of the Wall

and the state of t Commander. There is no many the second of th There is a market of the second of the second and the second of the second of the second of the second . The said the same of the same of the said the - The second of and the time of the second of the day

See of the season was a see of Toronto the state of the section of the section . The state of the state of the state of the state of of the first of the control of the c and the second of the second o 50 0 00 CO CO The state of the s the mind was a distance for a contract of ်းများ အမြင့် မေးကို မြေး စေလေ့ အကို ကြားသည် မက် မြေးကြားချ the second of th



Dean Thomas F. Hunt



jurisdiction between Professor Major and Professor Anderson. After Dean Hunt came, Mr. Anderson left, and several years later purchased a farm in Santa Clara Valley. He became very much interested in water conservation in the Santa Clara Valley and was largely responsible for reviving the plans for formation of the Santa Clara Valley Water Conservation District.

Baum:

When did they set up the Division of Experimental Irrigation?

Adams:

When Dean Hunt set up a budget for irrigation, he had to have some unit to which it was assigned, so he called it the Division of Experimental Irrigation.

Baum:

This was about 1913?

Adams:

Yes. The name was changed from time to time and instead of appointing someone in the University at a University salary to take charge, he just left the whole thing to me as the one in charge of the cooperative work in California. That's why I was in effect a member of the College of Agriculture staff, but with no official connection with the University.

Baum:

You were in charge of University work without being employed by the University.

Adams:

Yes.

My first appointment to the University was in

10. F

1 3 , 1 -7"

: ,110

in mile of the complete of the

Ending In a control of the form of a control of the free transfer of the

and the first of the second of

e. The complete of the control of th

• ကို လိုက္လည္း လို လို လုံးသည္။ လုံးသည္ကို လုံးသည္။ လုံးသည္ကို လုံးသည္။ လုံးသည္ကို လုံးသည္။ လုံးသည္။ လုံးသည္။ လုံးသည္။ လုံးသည္။ လုံးသည္။ လုံးသည္

the second of th

Adams: 1916, but that didn't change my relationship. I reported to Dean Hunt, the state engineer, and Dr. Fortier before my appointment to the University just as I did afterward. I considered myself as responsible to all three.

Baum: I did want to ask about the efforts to combine the

Division of Agricultural Engineering and the Irrigation

Division in the 1920's.

Adams: I don't think that was of any importance. It was merely an incident that came up at one period. In the first place, the dean then was new to California and to the University. The assistant dean had some ideas about organization, and I sensed the feeling that they would be happy to see us combined with the Division of Agricultural Engineering. So we simply had to meet that situation. The details of how we did this are covered in my "Early History of the Irrigation Division, College of Agriculture."

Baum: I take it you think this would have been detrimental?

Adams: In our judgment in a state like California irrigation was so important that it needed the entire attention of a group of irrigation specialists. Our conception of our field was that it went far beyond the engineering phase of irrigation, and dealt much more with soils and crops and agricultural practices and irrigation

and leading the standard of the control of the cont

The sale of the work of the sale of the sa

. 6 ML G G C MALLER TO 12 M.

13:11

The control of the co

to find the control of the end of the control of

institutions than with agricultural machinery, which was then the main field of the division of Agricultural Engineering. When the Division of Agricultural Engineering was first organized under Professor Davidson, he and the dean and I had a complete understanding as to the relationship between the two. There never was any difficulty. The same was true when Professor Walker took over the Division of Agricultural Engineering. Our relationships were always most cordial and they were among our best friends.

Baum:

Underwhose auspices did you carry on your irrigation investigations?

Adams:

The three principal cooperating agencies, of course, were the University, the Federal Department of Agriculture and the State Department of Engineering. In special instances others were brought in, such as the Conservation Commission for some early studies, and the State Water Commission. It was of little importance where our funds came from. Money contributed by the Conservation Commission and by the State Water Commission was of course used for the purposes specified in the agreement for cooperation. There was never any conflict of interest between the various agencies.

of the impact confirm to a Jee the interior causing The Marker of Contribute and Boldstrope of and any formation is a relative second . Charten money from the or his insume dominates mainlending of ig community and the dead of the of , no of , and dead that . This is the propertied of the solid from the of the mail beautiful and and over the edition and find the fine per growing of the The referror of a given and modify, meansfer above ાલાકાત **ટા<sup>ન</sup> ઝલ**ાં પશ્ચિમ જિલ્લા . જોમું કાર્ય છે જિલ્લામાં ક્રિકા ફાલ્યો Institute the specific of the second of the - Day 25 15 15

collected was not example the project of the state of the 15. 71

tavecties bisses

\* 00 0 3 1 °

ing three one in the peculity of the second expension of the second and the edmonton of the second of the second of the second and the exist of the dear the angle of a mid was a notice test Di choculat, in tampen hi is a a se un initiali, in the inc Die Panservette Camitalian and Particular mid. if the serial sector importants of the off one - I see a comparing the second of the conference edad on the large elastiman is dispropried wild yet better ાં કાર્યો કોર્પ લાં માના માના માટે કામ જાલા માર્પ કાર્યો છે. તેના તેના માના some of the common dispresents of britishes and may a command of the state and the state of the state . so ton was

Baum:

There was never any conflict as to what type of investigation they wanted the money spent on?

Adams:

No, no difficulty about that.

Our funds from the University gradually increased much above the amounts contributed by the other agencies and some of our men were working on subjects that were not related to the cooperative work at all, some technical problems like the studies by Dr. Edlefsen on the forces involved in the movement of soil moisture, and Professors Veihmeyer's and Hendrickson's work on the wilting of plants. Their work gradually became differentiated from the cooperative work. Our cooperative work was outlined in annual agreements between the three agencies.

When I took over in California in 1910, Dr. Fortier's headquarters were in Washington. About 1919 or 1920 his headquarters were moved to Berkeley and his Washington staff was brought out here. They became interested in special studies in California which were apart from the cooperative work. After Dr. Fortier retired about 1924 and Walter McLaughlin took over, he and I arranged that certain of the projects would be handled directly by him and certain of them directly by me.

When that change was made it involved no change

10,100

: 17: 11 1

The enter many or the monte and and the state of the stat

Our make from this pict of the contract of the contract and above it and the contract of the c

Then if now over in confirm the following and confidents were considered with a confidents were considered and confidents and big of the first and big of the first and big of the first were of the first about of the first and first and the fi

about the commence wide it is not you are a second

in our personal relationships. My full salary was taken over by the University in 1926. I was continued on the government roll as a collaborator and so continued for many years until the Soil Conservation Service was given control of the old Irrigation Investigations and they weren't in sympathy with my attitude toward some of their activities, especially with regard to the soil conservation districts, so by and by I had notice that my services were no longer needed as a collaborator. That made no difference whatever with our relationship with Mr. McLaughlin's group. Just one of those things that come when you don't agree entirely with policies that are being pursued.

#### Conducting the Irrigation Census

Baum:

What was your first work when you took over as head of Irrigation Investigations in California?

Adams:

My first job was to get my bearings on what was being done and then to go up to Davis and outline an experimental investigation program there. My predecessor Fred W. Roeding had started work there when the University Farm was established about 1908. Mr. S. H. Beckett, who had conducted the work there at Davis, under Mr. Roeding, had taken a position on the Kuhn project up at Willows. After getting my

and the first till the control of the fish of the first succession in the marks, and the second of all the second of t - and occurred the a gallent to the areas of a the second compared the second th so the filter with action from the following professions and the party of the following professions and the following professions are the following professi and they werenit to armosting all a subtilled the conof it is of this infinite a . or divide a might be so a The gold counservation is noticed, as you have the in the bill to my services over no longer as not of an athe state of the second of the Them. .com or of distribute the .c. Addit is intentional or for the one of brond tologe to the entry of a first grand Charmen and the stand notice of file it was

#### and modificant Teach althorace

101010

ne i vo cod la la compandamio que vigada de la care-Later of the I am Ishailasval acida and ac relation to the rest in the day of the second teath of Consided that to compete their sets are made to experienced invosting or a graph consideration. iccessor bred to the ingliad charted on the terminated the daiversite Range established ont is . . . . 2. P. Perbyet, who had confined to the list the Teyts, and media. Roeding, ad toreas monities at we midden today, . smolfin de on design norther

bearings and getting the work organized at Davis, bringing back Mr. Beckett and putting him to work, I picked up the study of the old Wright irrigation districts in California begun when I was with Mr. Wilson on Cache Creek back in 1900. That work was about well organized when I was given the duty of directing the irrigation census in California in 1910. The irrigation census throughout the United States for 1910 was placed in charge of Mr. R. P. Teele of the Irrigation Investigation staff in Washington, the chief editorial assistant there. The responsibility for the work in each of the western states was placed with the one in charge of the Irrigation Investigations in the state.

That work necessitated gathering a staff of eight or ten men quickly. I was able to do that and got some very competent help. I had entire freedom in the selection and appointment of these men. They were paid by Census Bureau and their expenses also.

There were two interesting experiences I had in connection with the staff. The director of the census was Dr. E. Dana Durand, who had been one of my professors at Stanford. When I took up the census work in California, he wrote to me and said that he

्रोगा है । ते अक्षर त्रीपर के किया के विकास के अक्षर के प्रकार example of a transfer of the state of the same of the and another than the court of the court of the first of intricts in Calify is secun where the second a without of the control of the cont the gift for hid complete how is the complete in the open of di whow his a character on Designiani and Ampida agin had to did to be tomer to compan or troping to add . IFI ..... to the remove of the first offer mode and off and find the second of the term of forester . Hotel was a strain to be than the section to outh to ten it is a set mental little of the men n m is all open in this impele next geneth monther . The production of the fide value of significant and the to the property of the control and the control of the or a control of the new for a voltaining control of the terms will be set To .cond isotroped which open don has the colored of a languetter to the appropriate are. They are oak by Genrur meetern in the .crf. a mredre

าง และ เกิด ครูสา กรณ์วิทยาณาข้อง และ ครูสา ครูสา in commention of the character of the diment to no the art ods, been comed. The sew suches my profess of that ord. The first of assign we distribute in the control of the

didn't want to impose on me, but if it was convenient he would like to suggest two assistants. One was a man who had very successfully handled the general census in San Francisco. The other was a veteran of the Civil War, who was the father of Dr. Durand's wife's schoolmate in college. Well, of course, I took those two men on.

In taking that census we sought to cover every individual irrigation pumping plant, as well as the irrigation from ditches and canals. The former census taker was assigned to the Porterville area. reports came in more complete and with more of them than from any other agent in the field. I wondered why, so I went down to see him. I got in the buggy with him and went around for his daily canvass. was a pompous kind of a fellow. He had a sign painted on the back of his buggy, "Special Agent, United States Irrigation Census." He'd go up to a farmer -- I just listened -- and he'd say, "I'm an agent for the Irrigation Census. We want to get a record of your well. You have about a twelve-inch well?" "Yes." "About a four-inch pump?" "Yes." "You get about 450 gallons of water per minute?" "Yes." He was putting all the answers into the mouths of the farmers. Well, I stopped that very soon and his records were

Est Park by into rane, this so room of a nervice. And the new cost of a sure of all for co The control of the amount years are control The service of poor model of the contract of the principles. to the first of the second of . December 1. Startice on out of the . e region no sego a dens and the state of t ead of the control of the control of the control of the control of ର ୭୭ ଓ ଓ ଅଟେପ୍ଟର୍ଗ ଓ ୧୯୬୭ **.** ଅନ୍ତେଶ ଓ ଅନ୍ତର୍ଶ ଓ ଅଟେପ୍ଟି ଅଟଣ୍ଡିଗ୍ରିଟ୍ର ကြင်းသည်။ ကြောင်းကို ကြောင်းသည်။ ကြောင်းသည် ရေးသည် မေးကြာသည် မေးကြာသည် မေးကြာသည် မေးကြာသည် မေးကြာသည် မေးကြာသည် Control of the second the state of the s en a la company de la company The state of the s . Eggs 2 to Sat Treated Place on the state of th ..... . The training the coldination and the separate of the contract of the second and the second of the day of the second of the tax . The state of the The state of the s Leo guilone or unter per elle ." dec. ' . It's a constant contrant of the publication

on a real off his goes way this france T , TJ. Y

.

Adams: more reliable after that.

The Civil War veteran's records were also coming in in a way that made me suspicious of them, so I went down to see him. He lived at Uplands and he was spending a great deal of time at the old soldiers' home at Sawtelle. One of our men felt that he was making up some of those records, so I called on him on Sunday morning at his home in Uplands. I went over some of his records with him and arranged for one of our other men working in Southern California to work with him in completing the small area assigned to him, but not yet completed.

#### Kuhn Project

Baum:

You mentioned that Mr. Beckettworked for the Kuhn project for a few months. I've heard about that land settlement scheme. Before we pass the subject, did you come into contact with the Kuhn project?

Adams:

I came into contact with that quite intimately.

The man in charge of the Kuhn project was D. W. Ross, former state engineer of Idaho, whom I had known in Idaho. He had first set up the procedure by which the state engineer should investigate proposed irrigation districts and report on them before they were voted on by the landowners.

### and the same of the same

Construction of the constr

The nucleus of the Kuhn project was the land under the old Central Irrigation District canal, but it included other lands. It was entirely a private venture for the sale of water and land. It was in no sense a land settlement project as the term is usually understood. The activities of the Kuhn Project in the Sacramento Valley are outlined briefly in Bulletin No. 21 of the State Division of Engineering and Irrigation.

It was formed about 1906 and purchased the properties of a private canal company that had put into operation a portion of the old Central District Irrigation canal. The Kuhn Project also purchased the outstanding bonds of the old Central Irrigation District which were still a lien against the land, as well as additional areas outside of the old Central District. They organized the Sacramento Valley Irrigation Company and also the Sacramento Valley West Side Canal Company. They then proceeded to extend the old Central Canal and to sell land they had purchased.

The Sacramento Valley West Side Canal Company was organized as a mutual company and for each acre of land sold by the Sacramento Valley Irrigation Company a share in the mutual water company was given.

the state of the s of the new the contract of the formation of the contract of th The section of the second section of the section of the second section of the section of th the control of the second of the control of the con of the opinion of the following the said and the conthe property of the state of th · Will with the sa

The state of the s the state of the s in the second of the second of the second of the second of one down and adventure out of the contract of The west that I got to also a make the second and and part of major and a first of the office of form - information of this green describe on the end the transfer of the Arminer of the trintett indication to the and city and city appropriate and the property of the Administration of the following to the little control two tenders to one beater ្ ១១១ ខែជាមួយ ចិន្ត្រ

and the factor will deal of the control of action in the light of the second of the second statements are the second of th of load sold a black of the contract of the black to and the specification of dear feeding is a feel property and garage of

It was the intention of the Sacramento Valley
Irrigation Company to furnish water only to lands it
sold, but owners of outside lands who were refused
delivery of water brought suit to compel delivery,
partly on the grounds that the land in the old Central
Irrigation District had the first right to receive
water, and also that the Sacramento Valley West Side
Canal Company was a public utility. The decision
of the court went to the plaintiffs and subsequently
the Railroad Commission declared the Sacramento Valley
West Side Canal Company a public utility.

Later the Sacramento Valley Irrigation Company and the Sacramento Valley West Side Canal Company went into receivership and the companies were operated by a receiver for several years. These various troubles led to the organization of the Glenn-Colusa Irrigation District and about 1920 it took over the canal system of the Sacramento Valley West Side Canal Company.

A subsidiary of the Pittsburgh corporation that financed the Kuhn Project was the Mills Orchard Company. They acquired a large quantity of land in the neighborhood of Hamilton City and also some back of Maxwell. That was developed as a commercial enterprise, not for sale. It was managed by Mr. James Mills, later a regent of the University of California and for

: n. - b \*

The was that intention of the Sach ando . The semilar is a sach conty to led 1.1 the semilar is a sach conty to led 1.1 the colf, but owners of ortains and read not over the colf very of the tended to the colf of the colf

species of enters eather community and makes

nd the letter of the Valley of the tend of the pride of the person to the property of the real formation of the real the real of the real the real the real the real the real three three

A smindding of the lithalogue components which the final form the final section of the final

a long time chairman of the agriculture committee of the regents. They had deciduous orchards and alfalfa as their main crops over in the Hamilton City area. The area west of Maxwell was entirely in citrus.

Mr. Mills had been manager of a large citrus development at Riverside. He was a very well-known man and very enthusiastic about citrus up in that area. Citrus had already been developed in northern and central California over in the Oroville area and in the Porterville area in the San Joaquin Valley. I don't know what has become of the Mills citrus orchards, but Mr. Mills was very much discouraged at one time because of the lack of cooperation of the local authorities in giving him the necessary pest control. He expressed that opinion to me at that time. He sort of threw up his hands. When Mr. Mills left active work up there and lived in Berkeley his son, James Mills, Jr. took over and as far as I know is still in charge of the Mills orchard properties.

## Solano Irrigated Farms

Adams:

If anyone is ever interested in tracing irrigation development in the Sacramento Valley or activities in that direction, I suggest they look up the Solano Irrigated Farms Project which was very much in the news

ACT OF THE TOTAL OF THE OF THE OWN THE SAME OF THE POST OF THE In this case above seems sectional to the company of the company age profession crops or a to bee partition of the on the meet of law I was arbinely to be the some a region of the whole the decision of the same The - in the property . There is do day collevely min and very struction of each to represent the THE COURT OF THE PURE BOOK ON A MORE THE CHARMED . . THE an central dations of were to the could a care the Porter Item of the form of the free for the form entrepose and in all the one owner date work fire SHOULD BE A CONTRACT COME THAT A SHOULD SHOW SHOW Secretary of the first of committee and a comment on the terms of pieces in all outliers to a No. . It is not be any of actually a old bunder good off strained to make the head of the water it to draw a the state of the s dimens dille, en took over and at a car witten i · single more than pills and in the states

## er de l'aconing coef.

- Process of the event of the second of the tion day look of in the figures with 100 cost was recit ode of the greet girls therege I , ac though dock at rate of the four contract into the foot and the foot of

about the time of the activities of the Kuhn Project or perhaps later. This was an effort to develop an irrigation project in Solano County southeast of Suisun. It was a rather spectacular effort and ended in a complete failure. However, a canal was built and several small reservoirs constructed. was sparked by a real estate firm in San Francisco and given very wide publicity in the San Francisco Chronicle. In fact, the Chronicle devoted so much space to the enterprise that Igained the impression that M. H. De Young, owner of the Chronicle, was personally interested, but I may be wrong in this. A real ballyhoo was carried on and excursions run from San Francisco with the idea of promoting the sale of land there. I suppose some land was sold. but it was a totally impractical enterprise as devised.

Late in the first World War Mr. L. A. Nairs, who had been a very prominent figure in the Kings River area as representative of the riparian lands down river, asked me to go over the Solano Project with him considering the possibility of reviving the project for rice growing. Mr. Nairs at that time was either with the State Council of Defense or with the Food Administration. I recommended

of the time of the colimities which in the of the objection and the content of for the lift to plant complete at the jety settinging in Stamm. It was a rether a commontar . we to ended in coold is failne. There is a cool of Ji . - For him on them a college to seven one office main concluded by a meal of an appear of the considere roal and report of of the fram of the sev me is but instal on into a language of the second of the contract of the in any firm on the man on it doubt become on a cold of the second week . . . Do for any owners of the figure and . . . . . and the consequence of the state of the state of the contract of the state of the s o en ou nother net i con a contrata est contribio i or s the sticker of the differential of the order . I have a first outer property of the tent to after → 1 re pictosalm - 2 milaegrant villedam o sec di tod . bealv

very strongly against such an undertaking. Owing to the low temperatures in that area at night, rice growing had already proven to be unprofitable there. The idea was soon abandoned. I don't know whether the State Real Estate Commission was active in those days, but if it was, any one interested could find records of these operations in their files. I could mention a number of private land development projects. It might be interesting if anyone is interested in doing research in that field. For instance, the Atascadero Project in San Luis Obispo. This was carried out with the skill of a master promoter named Lewis, I think the initials were E. G. His propaganda was most elaborate and included publication of the largest rotogravure publication. That was particularly alluring to those looking forward to retirement. Some features of his technique were so unrealistic as to be fantastic.

An extreme example was his promise to set up a university and offer any course that any land purchaser desired, even erecting a Napoleon Building for that purpose. Ultimately, of course, there was disillusionment. Previously he had gotten into trouble in a promotion, I think in St. Louis. He told me one day that in the Atascadero venture he had protected

\* 111 6

very transl, againt and so four this, famous year o the lo temporative is that a case of other, of we . I are if hemory to of mercan the arts bed the term the first ten offers to the property of the contract soft and no milloriano e l'emina di la puni fello di sotto sito The first of the second of many representations and provide The second of the second to the second of a new conand the same of the state of the con-· The state of the and the second of the course o THE TOTAL CONTRACTOR OF THE STREET OF THE ST is a strong implement of the first of the strong in the strong in the contract of the first track of the contract of the contrac in . . . Sanfail that a lighter borner . The entire young present the control of the control to the contract of the traction of the contract of the contrac and the second of the second o

An alternation of the real air and the control of t

and the all and not the midelian man a

Adams: himself so well that no one could trip him up.

Ultimately, however, he moved down to the Palos

Verdes Estate, out from Los Angeles, and there, I

believe, he got into trouble once again.

Atascadero went on to become quite a settlement.

I'm sure this has not been due to the glowing promises of the promoter.

An entirely different type of land development can be found at Corning up in the Sacramento Valley, carried through by a Mr. Woodson. He was an unusual man of the highest integrity. I have never heard any criticism of his operations. Through a combination of imagination and sincerity he succeeded in building a fine community. Anyone at Corning could give his name because he was the leader.

Idealism, rather than promoters' profit, has also figured in the history of getting people on the land in California. I have in mind the Little Landers' Colonies promoted by William E. Smythe.

"A little land a living" was his slogan. I think his first venture was at San Ysidro down near the Mexican border below San Diego. Another was near Hayward. I never visited the Hayward enterprise but was very familiar with that at San Ysidro. An acre of land was about the normal holding. I

: amer

Minsel' so well thet no one could detail hit up.
'Itimatel', however, he aved done of the,
'Gaples Ratate. on from our Angel's, and ''tro.
better, he now that thoughts and main.

Arannaders room of the encoder of the control of action A.

The arms of the control bear of the control of the

in e. Ity latifferent in a complete the model of the complete of the complete

Edealis . .rsbaer whan monous to madis, and also finered in the history of rath months of a the control of the land in the land of the land.

remember talking to one fine gentleman who had such an acre. He told me that it was impossible for him to work hard enough to earn a living on that land, which, of course, was true.

I, of course, have touched only on some highlights in this field.

## Work of the Cooperative Investigations

Baum:

Exactly what were your duties as head of Irrigation Investigations in California?

Adams:

Our staff included several members of the irrigation staff of the Department of Agriculture assigned to California by Dr. Fortier. From time to time he loaned me other members of his staff for special work as needed. Otherwise, I had complete freedom in the selection of personnel for regular and temporary work. University employees that required regents' appointments and were intended to be permanent were appointed after my recommendation to the Dean of the College of Agriculture. There were no restrictions as to regular or temporary employees paid by the state or as to the temporary employees carried on the general assistance roll of the University.

Administrative work involved selection of personnel, matters of financing, our cooperative

The contract of the contract o

num of the transport of the contract of the co

# The state of the s

(3) The control of the

The state of the semblant of the semblant of the state of

A CONTROL OF THE STATE OF A CONTROL OF A CON

Alaini valida espirita espirita de proposición de la composición del composición de la composición de la composición de la composición de

relationships, selection of work to be undertaken, planning of that work in conjunction with the man or men assigned to it. The extent of my contact with men in the field, including those at Davis, depended on the training and experience of the men involved and the nature of the work. In some of the earlier work in which a number of the men would be in the field for the entire irrigation season or for some other extended period, all working on a single project, I was in the field a good deal of the time because I was necessarily the leader. Examples are. to do the water studies with alfalfa and rice, and our work with the State Conservation Commission. When leadership of the project was assigned to some member of the staff, I was in the field from time to time to keep in touch with it and to understand it.

There were also some projects of which I retained a measure of leadership but with some staff member or some temporary assistant for that purpose in charge of the work in the field. Examples were rice and cotton irrigation experiments, our experimental work at Delhi, and the two years' study we made in the Hollister. My field contacts with such projects were frequent. You can't understand work if you know only

endigation of the confidence o the proof of the confloating of the 31 00 Tr The end of the following the second of the end of the e reading to the state of the first of a discount of Conformation and the stage of t and the second of the second o more than the contract of the state of the s the first of the second of the manifest of the state of the st and the second of the second o . The medical of contract of the medical of contract e. The state of th of the second of or the control of the state of the control of the control of the second of the second section of the second section. • 1

The state of the s The first of the one of the second of careebook is the second of the to a comment of the second of the comment of the co The second supplementation of the second to the codes and the same of the codes organization of cut of the following THE CONTRACT OF THE BOUNDED CONTRACT OF THE STATE OF regression to make the color of the color of

Adams: the beginning and the end, especially when you're dealing with growing plants.

Baum: Did you carry on some of these projects yourself?

Adams: I carried on certain work personally such as that related to irrigation districts, irrigation legislation, work with Professor Huberty on the cost of water, and other matters in the field of irrigation institutions and economics, but never allowed these activities to prevent my keeping in close touch with the other work going on.

Baum: Did you have to do much lobbying in the legislature or in the University to get more funds?

Adams: I had nothing to do with obtaining funds from the University. Back in the early days, as already explained, representatives of the Irrigations Investigations of various states had to promote the passage of resolutions by legislatures and other bodies in support of our appropriation in Congress, but there was no such activity in California after I took over in 1910.

I went into our work in greater detail in the manuscript I wrote, "The History of the Irrigation Division, College of Agriculture," a copy of which is in the University Archives.

with a first was . The control of th

Common out less less less systems edition in the solution of t

• A second of the control of the

#### Irrigation Practices

Baum: Car

Can you explain the studies undertaken in a little more detail?

Adams:

We sought to make studies of such matters as preparation of land for irrigation, methods of applying water, measurement of water, operation of irrigation pumping plants, amount of water necessary for different crops. Such work was largely concerned with alfalfa and grain at first. There was no intention to confine such investigational work to Davis, but that was the focus for certain phases of the work.

#### Duty of Water

Adams:

In addition to gathering information to assist farmers in their practices on the farm, and that was very largely for men who were just starting in farming, and irrigation was new to many, we undertook work that would assist the state in its administration of the new water law enacted in 1913.

A matter of importance when irrigation was developing rapidly was more information on the duty of water. The duty of water is generally taken to mean how much is being used. The passage of legis-lation by which the state took over control of water rights made it desirable that it have as much information

The more in the most work in the content of the designation of the mode of the mode of the content of the conte

### 9 10 10 11 1

developing . If the paper is then it is a developing of the developing . If the action of the developing . If the action of the developing and the developing the developing and the developing the developing and the develop

Adams: as possible about the duty of water because it must pass on applications to appropriate water and information about the amounts that should be assigned was necessary.

The only duty of water studies made in cooperation

Baum: Was that work in cooperation with the State Water Commission?

Adams:

with the State Water Commission were those for rice. Prior to those studies we had made investigations of the duty of water for alfalfa throughout the Sacramento Valley, including work at Davis. In those studies we concentrated, not only on measuring the amount of water that was being used, but endeavored to determine the amount really required. were great differences in the amounts of water applied and in some cases great waste and in some cases not sufficient water was applied. So we added extensive soil moisture studies to help determine the amounts of water utilized by the crop and how much was lost by surface evaporation and by deep percolation. We undertook to keep track of the use of moisture by the plant down to a depth of six feet, taking samples before and after each irrigation, watching the movement of the soil moisture, finding the reaction of the plant in plant growth or in the

add ocod (1800) oc

ent en en en ani en la mace en les dads al la sainte. L'agricación

The second of th If a model is a contract of the model is the contract of the cont and the transfer of the state of a contract of a contract of of which of the medical conditions of de la como Vellev, implomanta de la como en esperante de la composición del composición de la composición del composición de la composición de la composición de la composición de la composició of the second of the second of the continue to the first that modern is accommon . The state of the section of the se in the second of to see a The common section is a first gying the មាន ខែ ខែ ខែ ខេត្ត ខែវិទី១ មកពេញ ១០ នេះមានក្រុម ភពិទ ment and the cold of error more than we do of any dosing entral transfer of the state of the second o , 1 , 1 the cat have breaknesses and the contention be that increased to before and comes one insing the the state of the s and the control of the first action of the

Adams: yield.

About 1918 we added Professor Veihmeyer to our permanent University staff to undertake a study of the irrigation of deciduous orchards and vineyards. He began this work in the Santa Clara Valley cooperating with the Division of Pomology of the University through Professor A. H. Hendrickson. They extended this study with deciduous orchards and vineyards widely over the important deciduous fruit and vineyard areas and continued it for many years. Professors Veihmeyer and Hendrickson reached the conclusion that water is readily available to plants so long as it is above the "permanent wilting percentage." This wilting percentage varies widely with different To gain further information about the wilting of plants they conducted greenhouse experiments with soils representing nearly all the important soil types in California. They then went on to explore the whole field of water, soil and plant relationships. I think that it was in the late 1920's that Professor Beckett was transferred to Southern California to carry on studies of the irrigation of citrus fruits. avocados and walnuts, working out of the Citrus Experiment Station at Riverside. In time his work was placed administratively under the Citrus Experiment

· I restati recording of the second field of the second second decreases a . Der de de de la companio de cobi en la coltrada e where the control of the state of the defend of The state of the second of the of the second of not be the first of the second -title of a second production of above this the community of the second of the company of the contract of the second of the company of the second of t the second of th the second of the form of the second of the the control of the co to program a street of the companies - following the state of the st on the street in the contract of The state of the s en de la companya de or hard of the taket a comment of the taket ad the modern and the management of the state of the second secon and the continue of the fact of the street o avocation of a termination of the second company of the second com TO THE TOTAL OF THE PROPERTY O is them, our told wedge of the test to be test to

Station. After Professor Beckett's death the work was continued by Professor Huberty. There were other orchard irrigation centers, but those mentioned were the most extensive.

These more technical studies were not confined to those mentioned above. For instance, there was the very able work of Dr. Edlefsen on the forces involved in the movement of soil moisture; the work of Dr. Doneen on the irrigation of sugar beets; studies of artichoke and lettuce irrigation by Professors Veihmeyer and Hendrickson; irrigation by sprinkling by Mr. Christianson and many others. These studies were not part of the cooperative work, and therefore did not have to fit into a cooperative program. University workers of established competence must be free to think out and plan their own research, and if you don't have men capable of independent research you don't have much of an organization.

Burning of Brush in Ranges Areas

Adams:

A very important research undertaken by the division which I failed to mention involved experiments in the burning of brush in range areas to make the land available for grazing. This work was begun after Professor Veihmeyer succeeded me as head of the division, I believe. At any rate, it was he who conceived, planned, and carried out the work. It was done under

and the same of th ત્ર કે એમ તેમ કે કેટન કે સામાર્થિક કે જેમ હૈલ કે સમાને મહિલ ક and the source of the state of the source of the source of · . leneauxe de... e.

of a filter for the act of the filt of the bush of the hous month ones seems of their third was the south end of the synthetic and the contract of the 20 Area of the the second of sold a few and a december of eagenicities of the contract that about the contract will the management of the state of the action with the state but - after a mer . The fact there is the a control the above men. action to the management of the state of the the state of the s The second of th in some in State Burn State the state of the state of the state of The same of the sa a colissing to a

armin o an all an o all on

a company of the second contraction of the second of the s with the first committee of the modern and the second of the services of several cones of decreases after several. velimile bor afin. The work till bor o e compared to the second recommendation of the compared to the e sain to him to bemoin the order of the order of is a solid on the second of two both to be a constant

the auspices of the range committee set up by the dean and headed by Dr. George H. Hart, head of animal husbandry. In addition to University personnel the committee included representatives of the cattlemen and the State Board of Forestry. It was a very interesting project. I visited Professor Veihmeyer's plots and small watersheds a number of times. Experiments were conducted in the Red Bluff and Redding areas and Lake County, Madera County, Monterey County, and even in San Diego County. It was clear that the burning of brush would open the land for range purposes, but whether burning would increase soil erosion and reduce rainfall penetration was highly controversial. Cattlemen, of course, favored burning while the foresters generally opposed it, or at least they questioned it and questioned Professor Veihmeyer's conclusions, just as Professor Veihmeyer questioned some of the conclusions of the foresters. I think it is correct to say that primarily as a result of Professor Veihmeyer's work in this field, controlled burning in range areas is now a widely accepted practice conducted in collaboration with the State Board of Forestry. Incidentally, this work has been continued since Professor Viehmeyer's retirement several years

to the dos of the easy to work the soften The thirty of the second of th Fig. 1. 1. Ct. 1819ber. . Short, of feater in the following applied bottle to add taleparate weter and the contract and the section of The first of the contract of the first of the first not be the condended of a delivery of a for the form of the transfer and the same of the same of en la final de la computação de la contrata de la computação de la computa The second of th on the first of the second of and the state of t and the second of the second o The state of the s the second of the second secon and the second of the second o et and the state of the control of t the state of the companies of the compan later of all individual and and and an end for each force ser in the first on a new figuration distinguish of fort or it to be the store after refer a calcone preside a west at the series of in the sound of the edition of the edition of the domain co Boresing. Indiantally thing and the seconding The transfer of the stranger of the second of the second of the

Adams: ago.

#### Initiation of Studies

Baum: Who initiated your projects?

Adams: My job in the cooperative investigation was to make the best use of the available money in doing the things that would be of most value to the state. It was my job to determine what those things were. For each year a program was set up specifying the cooperative work to be undertaken during the year. After discussing this with the state engineer and with the dean of the College of Agriculture it was submitted to Dr. Fortier, and if approved, as it always was, it was embodied in a memorandum of agreement for the fiscal year, in which the obligations of each party to the cooperation were stated.

Baum: Did Dr. Fortier allow you a great deal of discretion as to what to do?

Adams: I don't remember, after I took over in California, that he ever gave me a single directive as to what we should do in our cooperative investigations. He was the type of man who would expect his men in the field to keep him informed as to what was being done. I had frequent conferences with him. He would usually come out to California once a year and he occasionally

## o interior and the interior

the tead mick beat it is a first or the

In the income of the average of the set of the content of the cont

Contract of the contract of the contract of the contract of

I would be seen a site of the object of the control of the control

would have conferences of the whole staff in Washington or in the West. But I don't recall that he initiated any of our studies. He must have influenced what we did, but it was my job to figure out what should be done and to get his approval.

Baum:

Was Dr. Mead similar in this respect, or was he a more directing type?

Adams:

While Dr. Mead was chief of the Irrigation Investigations (which was until 1907 when he went to Australia) there were no representatives of the office in each of the western states. Work in the Rocky Mountain states was administered in the Cheyenne office which Clarence T. Johnston, assistant chief, was in charge of until he became state engineer of Wyoming. On the Pacific Coast Dr. Fortier was in charge. I know that Dr. Mead always kept closely in touch with what was being done, but I cannot say to what extent he gave direction. When I undertook the Investigations in Utah in 1902 he gave me general directions, but I had no further instructions from him during the progress of the investigation. knew he set up the program of the study of interstate water rights on the Platte River, but was away in Italy during the season that the work was carried out. I believe that you stated somewhere that as funds

Baum:

the second of the property of the second sec Common trade of the common en long to the thirty of the thirty of the barriers why to do stop and it day the second happing that . The second of the area of the second of th

and the second of the second of the second of the second one think and - to end it since with the property of a disof the control of fidence of content agention the second of the second of the second of the second the second of the second of the second of the the form appropriate of authorization in the state of th or the first and earlies of their the production of the the state of the s endings of the second form of the second to the second with the first particle of the second Act of the control of the large circults in that the 1901 terms of the contract of the control of the co him inving a compose of the haven't and snow is as the morne of the obotion, at the the second of the state of the second of the Edaly dimedian the annable that it is soler to the state with about of the arm and an hearth me death will be a

Baum:

contributed by the University and the staff of the division increased you took on more and more work that had no relation to the cooperative work. Is that correct?

Adams:

This was especially true beginning in the Yes. early 1920's. By 1930 we had a University staff, all appointed by the regents, of eight or nine and a budget sufficient to maintain this staff and meet the necessary expenses of clerical and other general assistance--probably \$50,000 or \$60,000. Salaries and expenses were much less then than now. The others were engaged in teaching at Davis or in University research. Research was conducted by University projects outlined and approved by the dean and reported on semi-annually or as most convenient. There was a leader for each project and sometimes a research committee. The various projects usually covered a field rather than any specific piece of work.

Once a field of research was set up, such as those assigned to Dr. Viehmeyer, Dr. Edison, Professor Huberty, Dr. Doneen, and Clarence Johnston, it was the leaders' responsibility to develop it.

Were there any complaints from farmers that you were spending too much effort on some crop in which they

Baum:

1001

action of the control of the control of the action of the action of the control of the action of the control of

independent of the contract of

\* . . . . . . . . . . . .

Baum: themselves were not interested?

Adams: No, I wouldn't say that. Some farmers in Southern California once raised the point of whether we had been requested to do certain work. The background of that was that the Southern California growers were very insistent in their requests to the University for aid in their problems. It was natural for them to wonder if we had been asked to do this. Our job was to anticipate the needs and take up studies which we considered important.

Baum: There wasn't any feeling by some groups of growers that they were being neglected?

Adams: Oh no.

About 1936 at my request Dean Hutchison appointed Professor Viehmeyer to succeed me as head of the division. I felt that the nature of our work was then such that a man with the training of Professor Viehmeyer was better suited to lead it. Another reason was that I had gradually become so much involved in other activities that I could not give adequate attention to the division. By that time Professor Huberty was in charge in Southern California and not really a part of the division as previously administered.

the first of the second of the second a land of the gardest governor the district of the street of programme and • The second of the standard of the second o The property of the rest of the second income the form of the conand the second of the second o is the officer.

property of the state of the the second of th and the second of the second of the second · Committee of the state of the the second of the state of the second of the Control of the contro · Contribution of parts are every significant · And the second of the second tiv to the dependence of the open . herribule ham



Professor F. J. Veihmeyer

\*

## Cooperation with Other Specialists

Adams:

Our policy was to bring into our work specialists in other fields. The most notable example was the long continued and close cooperation between Professor Viehmeyer and Professor A. H. Hendrickson of the Division of Pomology in studying the irrigation of orchards and vineyards and the wilting of plants and general matters relating to soil and water relations. L. D. Doneen, who was studying irrigation of sugar beets and truck crops, cooperated with the truck crop division at Davis. Professor Christianson cooperated with the sprinkler industry in his study of the hydraulics and economics of sprinkling. Professor Huberty cooperated with the Chemistry Division in his study of underground waters in the Putah Creek area. Professor Beckett cooperated with the Division of Agricultural Engineering in the study of wells and pumping in the Putah Creek area.

In our rice experiments, we cooperated very closely with the government rice experiment station in Biggs, doing some of our work there and bringing the one in charge, first Ernest L. Adams and then Jenkin W. Jones, into our field work, keeping them in touch and working with their advice. We organized

# Beuggeberger gir dergen erer

and the contract of the contra den top called the contract to the contract of - compared the free community of the bound floor and f the second of th the transfer of the state of th while is a first of the property of the first in and the second of the second that the second that the second of the second that the second of the se entropy of the company of the compan the result of th The part of the second of the The same of the state of the same of the s and the fire of the control of the section of the control of the c and the standard of the standards of the second conthe January of Elighthous Market 1981 to 1888 with the state of the second of the and the state of t the state of the state of the section of the sectio . . . . . . . . . . . . .

no sen cia de nomi a nigue el coson mante de la coson mante de la coson mante de la coson mante de la coson de la

a rice committee which the director of the experiment station appointed at our request and brought into that a specialist in the grasses and weeds that infested the rice fields, Professor Weir in drainage, Professor Shaw in soils, and others. This rice committee sat in on the planning of our rice irrigation studies and made frequent visits to the field. So we were in constant consultation with specialists in other related fields. We didn't undertake to go it alone.

In our cotton irrigation studies, our cooperation was with the government experiment station at Shafter, first under W. B. Camp, now a very large commercial cotton grower, and then with his successor, George Harrison. That illustrates the type of approach we used in all our studies.

### Personnel

Baum:

It sounds like one of the major problems in those days was to find qualified personnel.

Adams:

I would not say that it was a problem, although it required care. Special care, of course, was needed for those recommended for permanent appointment by the regents, that is, our permanent professional staff.

Baum:

What kind of people did you look for for your work?
Weren't you competitive with the other farm agencies?

:1 1:

FOR THE RELIGION OF MESON FILL AND LESS TO NO STORE CO. COLO 1999 A. with the month of the date of the contract that ាំប្រ. ២២៩ ២ និង ១២៤% ២០១៨ ខែ ១៩៩ ១០១៩ ខែ១៩៩ ២ ២៩៩៩ entering the termination and the state of the inequality Soil of the grown is the golffer of wast grown comof original of the second of the second of the mattinger Control of the Cartesian Court of the Court to the first of the first of the control of the con the second where a second that the second second second the

A CONTRACTOR OF THE PROPERTY O evaluation of the second of th · 5 1 \* 1 . (5)

## 1 1 11 15 - 7

The sounds live of an elementary mobile of the element . The more halfifemen and a wear and and down in the state of the st the second of the second of the second of the second of and the contract to me to the contract to the Denote the transfer decrease in second and the state of soil the see after great by the second but the

near to a constitution of the second of the constitution of the co

Not necessarily competitive. It depended upon what we were doing. For some of our work, men with engineering training were primarily desirable, with some training in agriculture. For instance, in our cooperation with the State Conservation Commission, most of the field men employed were engineers. The same for the Irrigation Census. Few of them had had any special experience in the type of work we were doing. The men trained in agriculture were equally effective in some of those field studies. Our studies of pumping or irrigation sprinkling, those were problems involving primarily engineering training. Our studies or use of water involved engineering to a degree, but also involved knowledge of crops and agricultural practices. Some were trained in agronomy, some in soils. In building up our University staff, we had to look for young men with a bachelor's or master's degree, because there were few men with advanced training and experience in our field. We wanted men with ability and good basic training in the field in which they would be used. Personality always had a great deal to do with the selection of the staff. It seemed to me very important that we have always a very congenial group, a group that was willing and able to cooperate freely with each other and with others. I've told you how

electronic of the entity of the control of the cont For the following to the second of the secon of the Lagorette de elle smith to a contrat pat with the street in a reported great the end of the rest in great treet. is the investment of the process of the body state points en la company de energy and the state of the sta . Alti bere a emer a contact did to elegant febb en and don't will be a second of the design of or the set our off . The light recent to a speci of the contract of the contract of the contract of the second of th is the property of the second · On the contract of the contr . The second of the contract of the second of the contract of  $c^{*}=c^{*}$  . The state of  $\mathbf{v}_{i}^{*}$  is the conjugation of  $c^{*}$ the state of the s (iii) in the contract of th of the contract that is the first of the second in the contract of the contrac ed the est more aller or safe of the ending 1800 the grown of the state of the second of , and for the control of the following the second second decidents The second of th in the state of a state of the state of the

Adams: we cooperated with different agencies.

Another feeling I had was that we shouldn't be in-growing in the selection of our staff. We had several from the University of California. We could get competent men from the University, but I wanted some from other university and regional Professor Viehmeyer came from George backgrounds. Washington University and the Massachusetts Institute of Technology and had had a number of years experience in the Federal Department of Agriculture. In the early years we had O. W. Isrelsen from Utah Agricultural College who had specialized in engineering and soils and had his master's degree from California. we had J. E. Christianson and Dr. N. E. Edlefsen from the Utah Agricultural College and also from the University of California. Dr. Doneen came from the University of Washington, Vernon Givan and Arthur Pillsbury from Stanford--both graduates in civil engineering.. Clarence Johnston came from the University of Michigan.

Baum:
Adams:

Were these the men you had in charge of projects? Well, in charge of investigations or making them themselves. Sometimes there would be a committee to advise but primarily the work was done by the leader.

Trock to a serious about the serious and a serious in in-growier is a contration of a network-rist . diene to be a travial and out farever tefrom the contract of the state of the contract Territoria de la companya de la companya de la decembra de decembra de la companya del companya de la companya de la companya del companya de la companya de la companya de la companya de la companya del companya de la companya del companya de la companya de la companya del companya de la companya del co and the contraction of the comparison of the contraction of in this paper is the action of the first park and the retirement of the first park the grown of the second of the the state of the s The state of the s The state of the man state of the state of t the second of th • government to the state of the in the standard of the second production of th angi seeri taa Charen a mada, eta e isaa angi .កាត់គ្ន់ (១) ១០ ខេងកំឡុង ប**ំព**ឹធិ៍ .

in the form of the state of the done of about additional well, in obose of the limit of the or well as thomselves. The consideration are the constitution of the constitu the second of th or the of

By the middle 1920's it became evident that it would be desirable for those of our men who did not have advanced degrees to get them. I got Director Hutchison--later Dean Hutchison--of the University Farm or Branch of the College of Agriculture at Davis as it was then called, to talk to our group on the desirability of obtaining advanced degrees. was before we had any men with their Ph. D. or its equivalent on the staff. Following this Professor Viehmeyer took leave and obtained his doctor's degree in plant physiology from Johns Hopkins University. Professor Huberty went to Stanford and got his advanced engineering degree there. Vernon Givan and Arthur Pillsbury had advanced engineering degrees when appointed. J. E. Christianson and Clarence Johnston also obtained advanced degrees. Dr. Edlefsen and Dr. Doneen already had their doctor's degrees when they came to us.

Each project every year was assigned a budget. Especially during the year 1924 when I was in residence at Davis, we had monthly meetings of the group to go over the work in the field, the finances needed, and we'd make adjustments, additions or reductions as seemed indicated by the work going on.

Baum:

Who did you use for field work?

By the diedle 1920/ - Cook with the if now and be deed able for deeped of the ratio not have allowed daments to give . The to the Moteriesson-leter let or locates -- sit to this to now it reads to the first of the second of the s A CONTRACT OF THE SECOND SECTION AND AND ASSESSED. de imperilité of sidair a mis en continue de l'étant was become as a company of the company of a company and a company of the company encount of the control of the contro 712 1 . 1 Francisco Francis School of Mymerally Diserved to the second of the s และสาราช เกาะสายตัวชา in the second of A second of the control of the contr commented to the state of the s the state of the section of the section . .. of or an or.

endertally in the work of a rand with the consideration of the constant of the

Adams: All of our projects involved a great deal of field work by the leaders.

Baum: It wasn't a desk job.

Adams: No, it wasn't a desk job at all for any of us.

If the leader needed assistance, it was provided.

Usually it involved labor or equipment more than anything else. Sometimes we were able to get younger men, recent university graduates, to go into the field and help.

Baum: Were you ever under any pressure to employ certain people?

Adams: No.

## Comments on Agricultural Extension

Baum: You mentioned once that when Agricultural Extension was first established you were not too pleased with it.

Adams: When Professor Crocheron came out here and organized the Agricultural Extension Service, he had the task of finding men to go out as farm advisors. He was able to get some very experienced men. In other cases, the men he was able to obtain didn't have much experience. They couldn't go out and say, "We don't know anything." They had to assume background. Take in our own particular field, we had

- The class of extramination in the state of t
  - . Cold Factor of the second of the second
- .a. to a constant of the state of the state
- en transfer de la companya de la co La companya de la co

# The second secon

- a de la composition della comp
- the region of the meaning and the meaning of the me

had a good deal of contact with the farmers. Many requests came in to us to go out in the field and help individual farmers in their irrigation problems. We enjoyed these contacts and did not like to give them up to what we thought were inexperienced young men. I think we were rather narrow-minded. There might have been a little feeling of jealousy on our part. We're all subject to error in our judgment sometimes.

As we came to know them better and to come in touch with their work, we became very much attached to the Extension Service and I personally became very much attached to Professor Crocheron, the director. We had many activities together with the Extension Service; the farm advisors were constantly calling members of our staff to help them with this and that until a specialist in irrigation was appointed and he took that over.

Baum:

What did you think of Extension's system of working through local farm bureaus?

Adams:

In the early years the Extension Service worked through the local farm bureaus, but not exclusively so. In fact, the Extension Service organized the local farm bureaus, beginning with the farm centers, which then formed the county bureaus. The purpose

: 6 6

77- 6

Adams: I had a grod deal of the trible be lamanes. In which or meath ruge in to me or to out of the field the . Por first the deal of the deal of the archael fight in the location of the contract of the c er in committee of the advertise mand marriage of the contract of the state of the second of t and a distance of the state of or and the party that the street of the second control of . no iden on

- 5

and our or in a common some common management Francisco de la productiona de la Arresta de la Companya del Companya de la Companya de la Companya de la Companya del Companya de la Company can be a fire or a first of the form of the off the state of the s the second of th I have been a stronger of the grown and the stronger of the first of warring and the control of the same to the second of the From the control of date of the control of the cont . Trought to the state of the s

and the second of the second o Total a week Tarolin realt

the state of the s the control of the control of the control of the control of લે 🙀 ાતા દેશભે 🔭 ભેગ મેજાઇન્ટલ પાલ કે છે. તે કે લાક ક local devel to esus, beat this this was a serie. The state of the s

was to get a sufficient number of farmers in each community back of the Extension Service to insure its success. I remember that in some counties there were as many as a dozen farm centers.

It was the duty of the farm advisors in those days to meet with these farm centers at least once each month. The farm center meetings were usually held in the evenings so the farm advisors were pretty busy--working elsewhere in the daytime and then these meetings in the evenings. Each of the farm centers had a chairman and there were usually committees appointed to give special attention to particular interests. The farm advisor was really a leader in guiding the work of these committees of the local centers. The work was entirely educational.

Working with the farm centers was not the only duty of the farm advisors. They had their farm calls to make in answer to inquiries and were more or less the leaders in promoting the welfare of the local community. I remember how emphatic Dean Hunt was that the farm advisors should not seek to dominate or dictate to the farmers. In fact, he had a very definite rule that no farm advisor should call on a farmer unless invited to do so. He wanted the University to keep entirely out of any regulatory

:3 01.1

community such as the state of tempers in a community such as the state of the stat

The state is a most and the profit of the profit of the profit of the collection of

dustrial of the relation of the definition of the date of the control of the cont

work. The University was at that time doing some regulatory work--for instance, in fertilizer control. The State Department of Agriculture was attempting to do some educational work. Dean Hunt entered into an agreement with the state director of agriculture and the educational work was left to the University.

In regard to the Extension Division working through the local farm bureaus, I think I should say that in due time the various county farm bureaus were organized into the State Farm Bureau Federation and this federation began to go into activities not related to the educational work that the Extension Service was doing. At the beginning of the 1930's the Extension Service pulled entirely away from the farm bureau—that is, it no longer worked through the local farm bureaus although it worked with them where the work was educational.

I understand that in a number of states the Extension Service worked much more closely through the farm bureaus than they did in California. In fact some of the financial support of the farm advisors, or county agents as they were called, came from the farm bureaus and the county agents were looked upon as representing the farm bureau. That plan, however, was never carried out in California.

The fact of the state of the st

The most of the mo

Adams: The Agricultural Extension Service was conducted entirely by the director of the Agricultural Extension Service with support from the federal

government, the University and the counties.

Baum: Were the services of Extension advisors available to non-Farm Bureau members?

Adams: Oh yes. They were available to members of the Grange, the Farmers Union, or unorganized farmers.

the control of the co from the first and the street of the street of the Semples to december of the contract of aregument, the size of the second contraction. it of the many the prime and the second the second 0 0 Grand A Company of the Company

+

The second of th . The second second

### WORK WITH THE STATE CONSERVATION COMMISSION

#### Members of the Commission

Baum:

You mentioned previously that one of your jobs was working with Dr. Pardee and the State Conservation Commission. How did that cooperation come about?

Adams:

Hiram Johnson, who had been elected governor in the fall of 1910, appointed a committee to make studies and draft legislation with reference to water and forests, lands and minerals, and other natural resources. When that committee was announced, Mr. A. E. Chandler called me up and said to me, "Now, we're not going to hide our heads under a bushel."

Mr. Chandler had participated in the cooperation with the Water and Forest Association on Cache Creek, making a survey of the Little Indian Valley reservoir site under the Geological Survey. At that time he was an instructor in civil engineering at the University. He made the survey as a summer job. After that he made a report for Dr. Mead on irrigation from Tule River. Following that he was placed in charge of Irrigation Investigations under Dr. Mead in Nevada.

One of the first things he undertook over there was

# are the part of the second

of the second of

 $\Sigma = t$ 

The state of the s

to draft an irrigation law for Nevada. After that law was passed, he was appointed the first state engineer of Nevada. After administering the Nevada irrigation law for several years, he became assistant chief counsel of the Reclamation Service and dealt with legal matters on projects in the western states.

Baum:

Was he an attorney?

Adams:

While he was in Nevada he passed the bar examination.

Mr. Chandler left the Reclamation Service and joined with Mr. C. E. Grunsky and several others in forming an engineering firm in San Francisco. He was also appointed assistant professor of irrigation institutions in the University to work with Professor Etcheverry, and gave courses on irrigation institutions and water rights. While there he wrote a very fine little book on the elements of western water law in which he reviewed the water right laws in other western states and gave his ideas as to the type of legislation needed in California.

We had always been very good friends since I first met him in 1899 when he was teaching in the Watsonville High School. So he called me up, as I said, when Governor Johnson appointed Dr. Pardee to draft legislation. I'm quite sure he shortly thereafter called on Dr. Pardee, who had been appointed chairman of the committee. I also went to see Dr.

The state of the s

. The transfer of the second o

of term topic ways a re-

The state of a very Local telescope of the control of the control

Pardee. (Mrs. Pardee told me he preferred to be called Doctor rather than Governor. He was an eye and ear specialist.) I was told to come at ten o'clock in the morning. It seems that Dr. Pardee always had his breakfast in bed a little before ten. He never ate lunch. So I frequently went down there and found him still in bed, right after his breakfast.

I ought to go back a little and point out that efforts to pass irrigation legislation back in 1903 had failed, largely due to the opposition from Southern California, headed by Judge John G. North, who was president of the Riverside Water Company, and had become president of the California Water and Forest Association. In subsequent discussions before the Commonwealth Club in 1904 and 1905, the club made an extensive study of legislation and the whole problem of regulation of water rights, and Judge North made several appearances and expressed his very strong opposition. He claimed their water rights were all settled in the South and there was no need for legislation.

Attending an irrigation congress in Pueblo,
Colorado, I think in 1910, I heard Judge George H.
Hutton of the Los Angeles County Superior Court
describe the California water laws as the best laws

economic to the second of the the transfer of the state of th A A RELIGIOUS TO SEE THE SEE SEE SEE SEE The same of the same of the same of the same · - Of a factor of the state of the specific The state of the s posterior i di la disconsidera de la compania del la compania de la compania del la compania de la compania del la compania de la compania del la compania d The winds of the wind to the major with the terminal The state of the second of the the contractor of the contract entropy and the second of the and the second of the second o the second of th end to the second of the secon the second of th meter and the training of the state of the The state of the s not be a second of the second · in Italy a term have t e de la companie de l

The state of the

in the country. Well, I knew to the contrary and I felt that one of the first things that would be desirable would be to find a way to overcome the opposition that had come forward previously.

So I suggested to Dr. Pardee that, with his approval, I'd like to go down and see Mr. Francis Cuttle, who had succeeded Judge North as president of Riverside Water Company, and Judge Hutton, and explain what was generally in mind in connection with irrigation legislation and enlist their interest in it.

I first called on Judge Hutton. I had a very pleasant talk with him and he conceded that what he had in mind was the underground water law. He would see there was some need for general legislation and was very sympathetic.

Then I went over to see Mr. Cuttle. Under the old code, which was still in effect, anyone desiring to appropriate water would post a notice on the bank of the stream and then file a copy of the notice in the county clerk's office. That was the end of the matter as far as any record was concerned. I had heard Mr. Cuttle state that all the water had been appropriated in the South, and had been for a long time. So I went to the courthouse in Riverside and I

The condition of the co

The second of t

The politic of the set of 100.

The continues of the cont

think also in San Bernardino, and I listed recent appropriations. I had that list with me when I called on Mr. Cuttle. He was quite rigid, adamant, when I approached him first. He said, "That water is all appropriated. There's no need for anything of the kind any more." I showed him the list. He couldn't believe it when he saw all these recent filings. His attitude changed. I couldn't tell just how he felt, but he was apparently more friendly.

By the time I got back to Berkeley he had got himself appointed on Dr. Pardee's committee to frame legislation. So when I got back to call on Dr. Pardee, Mr. Cuttle was a member of his committee.

Baum:

Did Mr. Cuttle get on the committee in order to encourage legislation, or to prevent it?

Adams:

Well, he was going to look out for the interests of the South. I think he saw some reasonableness in what was being attempted.

Baum:

He was president of the Riverside Water Company?

Adams:

Yes. Under Judge North he was superintendent.

I had done some work down there and became well
acquainted with him, so I knew him well at the time.

Baum:

I presume he had numerous appropriations he wanted to protect for his company.

101

2 15.

\* 1 1 252

thing slass in it, it or of the solution of the slass of the company of the control of the contr

He wis linder in the first state of the control of

. Forther was to pew dost-

• TO TO THE PROPERTY OF THE PR

I'm not sure what was in his mind. He was thinking, of course, of his company and of other companies in the South. He became gradually one of the strongest advocates of legislation. In his later years, at water meetings I've heard him frequently refer to the early efforts to gain legislation.

This committee recommended the appointment of a State Conservation Commission and that was authorized by the legislature in 1911. Dr. Pardee was chairman. Mr. Cuttle was a member. The other member was Mr. J. P. Baumgartner of Santa Ana.

Baum: How much actual work did the members of the commission do?

Adams: They, of course, didn't undertake to do field work.

Their responsibility was to gather data and prepare legislation. They had to rely on others to collect the data.

Baum: What was the pressure for the Conservation Commission, anyway?

Adams: Of course there was a lot of talk about conservation during President Theodore Roosevelt's administration.

Then there was the controversy over the disposal of the public lands under Secretary of Interior Ballinger.

The whole philosophy of that movement was reviewed by President Roosevelt in an address before the Commonwealth

2 21 \*

1

The mode dum of the control of the c

du in the second of the second

The figure of a transfer of the Art of American recommendation of the Art of American recommendation of the Art of the Art of American recommendation of the Art of the Art of American recommendation of the Art of the Art of American recommendation of the Art of the Art of American recommendation of the Art of the Art of American recommendation of the Art of American recommendation of the Art of American recommendation of the Art of Art of

In the second of the second of

The state of the color of the color of caments.

The state of the vertex of caments and caments of the color of the caments of the cam

Adams: Club in 1911. So it was a very hot subject at that time.

Dr. Pardee had been in the forefront of the discussion out here. I know he had attended irrigation congresses, at least one, because I saw him at a congress in Ogden about 1902.

Baum: Louis Glavis was secretary of the commission.

Adams: Yes. Louis Glavis was a very controversial figure at that time. He had gained great notoriety in connection with the Ballinger controversy. Dr. Pardee thought it would be a smart thing to get Glavis out here, so he appointed him secretary of the commission.

Baum: He wasn't in California at the time?

Adams: No, he was brought out here for that purpose.

Baum: Did you meet Mr. Glavis?

Adams: Oh, I had a great deal to do with him. Well, I won't say that, because I didn't care to have too much to do with him. He didn't last too long. There were controversies regarding him within the commission...

Baum: I take it you didn't care for him too much personally.

Adams: He was a nice personality. I know, one thing came up one time. We were cooperating with the commission and Glavis asked me, almost told me, to do a certain thing. I objected to Dr. Pardee. He said, "You tell

\* 100 s

\* ( 7

ton de la companya de

Adams: Glavis to go to... You and I are doing this, not you and Glavis." By that time Dr. Pardee was more or less fed up on Glavis. I think Glavis just didn't fit into the California situation. He undoubtedly performed a fine service in disclosing some of the dishonesty and irregularity that was an issue in the Ballinger investigation.

Baum: Were there any differences between Glavis and the commission on policies?

Adams: I don't know that there were. There probably were.

Glavis couldn't influence that commission. It is

probable that because of his attempt to assert his

own more radical views that he didn't last.

Baum: His more radical views?

Adams: I rather think so. I don't know.

Baum: It seemed to me the commission's views were quite radical for that day.

Adams: I don't think you could call them radical. The subjects were very hot. There certainly had been great laxity in disposal of the western resources, especially the forests and the lands at that time. There was a great need for reasserting stricter public control. I would say that the commission was exceedingly progressive, at least Dr. Pardee, rather than radical.

The second of th

.I. mand we have

Baum:

It seemed to me that the commission used stronger language in their report than one usually sees in that formal type of report.

Adams:

Maybe I can partly explain that in this way. At one of the meetings of the Commonwealth Club, when we were discussing the water commission bill, Dr. Pardee said, "Some of us were forced to take at times rather extreme views on some of these questions in order to get anything at all." He didn't expect to get as much as he advocated.

#### Irrigation Resources Study and Map

Baum:

Adams:

What work did you do in cooperation with the commission? As soon as the commission was appointed I saw Dr. Pardee. It seemed to me that what would be helpful for the commission to do in the field of irrigation was to make an investigation of irrigation resources, that is, the lands and the water supply. I don't remember just how I outlined it to Dr. Pardee. If we undertook the work, of course, it would have to be done at the expense of the commission. We didn't have sufficient funds, but the commission had, I think, \$100,000. Dr. Pardee was immediately interested.

I took it up with Dr. Fortier and got his approval. We entered into a cooperative agreement by

, !

# 

• The state of the s 

• \* 155

the state of the s the second of th ect I

and the state of t

which we should undertake it. This wasn't intended to be a technical engineering study, although engineers were primarily employed in conducting it. was to bring together such information as was then available on water supplies, storage possibilities, on irrigable and irrigated lands, and present a statewide picture of the status of irrigation and such suggestions as we might make as to future possibilities. The idea was also to include an irrigation map of the state, which had never been prepared previously except for one of the Central Valley that William Ham Hall had prepared back in the eighties. from experience you can teach more by a map or a picture than you can by a text. People don't ordinarily read reports. Lest I forget it, I might say here that in 1922 we entirely revised this map after another field canvass of irrigable and irrigated Mr. Fred Scobey of Irrigations Investigations staff prepared an entirely new base, and the Geological Survey generously prepared the topography without cost to us, and also lithographed the maps at cost.

We went to the records of the Geological Survey and the William Ham Hall reports for data on surface and underground water supply, and where no data were available we had to estimate the run-off from rainfall.

Learn to the second of the sec 

• 177.1 The second second Company of the second of the s

e Santa Caracter Santa Santa Caracter Santa Caracte 

• "C = 53.4. (= 53.6) \* 90 1.7.

runi en est est unit en

. .

The state of the s . 0

• 10 mm

• \*\*

fills to the second of the sec و

\*\*\* \*\*\* \*\*\* \*\*\*

e = /

On the matter of reservoir sites we had to rely very largely on the recent work of the Reclamation Service. On the matter of agricultural lands, we had William Ham Hall's maps of the Central Valley, but there were no maps of the outlying areas which indicated with any accuracy for our purposes the arable lands. So we had to send men into the field.

People in the state generally, and I was certainly among them, didn't realize the number of smaller valleys scattered over the state. I think we tabulated around a hundred different areas as topographically irrigable. Our report of irrigation resources was included in the report of the State Conservation Commission and published in 1912, pages 86 to 327.

After our irrigation resources study was completed, it seemed to me that it would be helpful in educating the public to the need for irrigation legislation to present data that would show in more detail the wide variation in practice and requirements throughout the state. So I again proposed cooperation with the Conservation Commission. The proposal was that we make a study of the use of water during 1912 in Shasta Valley at the northern end of the state, on Feather River, in Santa Clara Valley, on San Joaquin River and its tributaries, and on Santa Clara River in Ventura

the state of the matter comments of the state of the stat ार्चक्रा तहा पर प्राप्त के प्राप्त के प्राप्त के प्राप्त के प्राप्त के स्वर्ध के स्वर्ध के स्वर्ध के स्वर्ध के and the first time to be all on the first of COST TO BE USO AND TO PROPERTY TO MERCHANICAL of the second to the option of the major of the second of to the second of and it will the train of the band of the state of the လုန်ငံ ကုန်ငံ ကုန်ငံ ကုန်ငည်း သည်။ ကျောင်းသည် အသည် ကျောင်းသည်း the spirit of the second of th Finds of the second of the sec The transfer of the contract of the second of the second in proceedings of the process of the second of the second of profession and the second of the contract of . DE COMMENT OF APPENDING The state of the second to following the Entropy of States that the common the following 「「」」、「「」「「」「「」」()(multi-light)(get in page in the interval of a get in on the first of th with a second of the second of and the first on all to task the literature and a second of the large man of the man and the glorite is order and the second of the transfers and in metal River, in Section Clama Weller, and Day Con it of them e

its this election, and on Santa Olive with a train

County and Santa Ana River in San Bernardino,
Riverside and Orange counties. That was approved
all along the line. The report of this study together
with a summary of our irrigation resources report
was published in Bulletin 254 of the Office of Experiment Stations, U. S. Department of Agriculture.

All this leads up to the legislation that was passed in 1913.

#### Background of the 1913 Legislation

Adams:

Well, the commission set about drafting a law.

Our cooperation with the commission had nothing to
do with the drafting of that law. Any contact I
had was more or less by courtesy of Dr. Pardee.

I was present at many of their meetings and had some
rather different ideas on the subject and I know
I expressed them and that Dr. Pardee was always
very cordial about it.

Defeat of the 1903 Works Bill

Adams:

To trace that work, I think I ought to go back a little and, possibly at the expense of some repetition, explain where the Commonwealth Club came into this matter. I already spoke of Dr. Mead's investigation of nine streams in the state in 1900 and the resulting

: p : p :) p

\*

County and Sance on this. This has been not be not controlled to the allong the last on this or this controlled to the c

## The sale of the sa

• Lot of the work of the quit the rest of the permitted of the control of the con

### the state of the s

Political control of the companies of the control o

recommendations for legislation. At the conclusion of those studies the Water and Forest Association appointed a commission to draft legislation. engineers who prepared the various reports in Bulletin 100 didn't propose a law; they proposed principles that were needed. The commission appointed by the Water and Forest Association was headed by Chief Justice W. H. Beatty of the California Supreme Court, a very fine, able, high-principled man. President Wheeler of California and President Jordan of Stanford; the heads of the divil engineering departments, Professor Soulé of California and Professor Marx of Stanford; F. H. Newell, director of the Reclamation Service; Dr. Mead; Frank H. Short of Fresno: Also on that was Judge John D. Works, then, I believe, a judge in Los Angeles, later United States Senator. Judge Beatty, by the way, didn't sign the report because there was some question of the constitutionality of some of the provisions and he didn't think it was proper for him, as chief justice, to sign the report. I was familiar with the work of this commission because I remember attending a number of meetings. especially the last one when the report was signed.

Judge Works prepared the bill and it became known as the Works Bill. That was introduced into

The Albana and . . . . Indistribute to all tabers constructed of the service of the service of the The state of the s of formal the second of the se and the first of the second of the second se white the second and a formal second second s and a second s and the second of the second o . The state of the - Committee of the first of the second of th The state of the s entitle to the training the content of the training the second of the Carlo and the second the first Art of the state of the state of the state of and the second of the second o the control of the tensor of all the designation of a recommendation and the state of the state of the particle of the state . It is not to be good to the good of the The track of the second of the second of the second , it is the state of the not a member of . The state of the Jacob Propreds and Diller to 1000 children of a wilder off . If the after an area.

1.1

Adams: the legislature in 1903 and owing to the opposition of the South, headed by Judge North, president of the Riverside Water Company, it was defeated.

Commonwealth Club Study of Water Rights, 1904-1905

Adams: That brings us down to 1903. That was the year the Commonwealth Club was organized. In 1904-05, the club made an exhaustive study of the water rights situation in California. It was led off with a paper by Mr. William Thomas, who had been head of the Water and Forest Association. Then it was referred to two different sections and was discussed in the club by the most prominent lawyers and others interested in water legislation in the state. Included in the appendix of the report of the discussion, (Commonwealth Club Transactions, Vol. I, No. 6) were the recommendations of the engineers who prepared Bulletin 100, the full text of the report prepared by the Water and Forest Association commission, and the remarks in full of both those who had approved and criticized the bill. so it made a very complete history of the movement up

Baum: Were you present?

to date, 1906.

Adams: I attended the meetings. The only direct contacts I had was when the chairman of one of the sections which

estating recording to the control of the solution of the control o

- The transfer of the transfer

reported on the subject, Charles Wesley Reed, asked me to meet with him and I spent a long evening with him going over the earlier reports and recommendations and legislation in other states.

At the end of the discussion in the Commonwealth Club, 1905, a committee was appointed to draft a new law. Then came the fire and earthquake of 1906, destruction of all club records and interruption of its work for a number of months, and it was not until 1910 that the subject of water, other than San Francisco and Bay cities water supply, again came before the club.

Commonwealth Club Section on Conservation

Adams:

In 1910 the Commonwealth Club took up the study of the conservation of our forests. This was followed by a study of the twilight zone of authority between the federal and state governments in matters of conservation. The highlight of this discussion was a debate between Judge Frank H. Short of Fresno and President Theodore Roosevelt on the control of our national resources. Following that, I was asked to form a section on conservation, and among other things, to take up again the question of water legislation.

in the major said tong accepted to the कर के के प्राप्त कर कार्या के किया है जिस के का किया कर का उने का का the contract of the second that the second t At the contract the city and an increase with enub, 1901, e - l'ét.e kin looit e ell e toutur PORT " THE RESIDENCE OF THE PROPERTY OF THE PR in a ride, ments is her new one duty to the contract for any one of the second second second in the state of th

The state of the s

4 d of 1 to 12 to

The register of the domestic for the grant for the section of the grant

in graduan or Most will edited by the file of the control of the c The Conference of the second o the state of the s the transfer to all amenation of the transfer of ton other at the exemption of a continuous of a to the transfer of the most section and the perthe second of the there acces were been in the built of the The second of th on the contract of the state of the contract of - of control of a control of a missission of a training t · a. · · · · · [

I was busy at the time on the cooperation with the Conservation Commission in our study of irrigation resources, but I sat down with Earle Walcott, the executive secretary of the club, and worked out a plan of organization and various committees and personnel. We arranged for six committees within the section. A committee on agricultural lands headed by Professor Charles B. Lipman of the University of California; a committee on water supply and irrigation with Mr. C. E. Grunsky, chairman; a committee on forestry with Professor Walter Mulford as chairman; a committee on fuel. Mr. Mark L. Ricca, chairman, then I guess the most prominent California petroleum engineer and later, during World War I, Federal Administrator of Fuels; a committee on minerals other than soils, H. Foster Bain, later Chief of the U.S. Bureau of Mines, as chairman; a committee on water power with James H. Wise, a very brilliant young engineer of the P. G. & E., as chairman. We had some high-powered men on those committees.

That section, through its six committees reporting independently, came before the club in 1912 and 1913.

Our report made the longest report the club had ever published, some 246 pages. It was quite a job, lots

1. + ... • 11. · The second of th .\* 

·Committee ; 1 

o what is the second ier e e e e · • • • 3: \*\* . . . # nv

on the second and the second of the second of

the state of the s

Adams: of fun. I had a wonderful group. I always felt a little ashamed being general chairman of the group, being younger than most of the group. They were good sports and took it. I had no difficulty in obtaining the consent of these different men to act as chairmen and they all performed a very fine service.

Baum: You had been active as editor of the Commonwealth Club Transactions before that.

Adams: That was 1908 to 1909. That was while I was still in business in San Francisco. I did that while riding on the street car or home in the evenings. A lot of fun. I worked up a format, a style book for it.

As soon as we had an executive secretary in the club, that became one of his jobs.

Baum: Perhaps they were more ready to accept a young man who had been editor already.

Adams: Being an editor previously probably had little to do with it, since few members knew of my doing that work.

I wasn't a chicken, I was 35, but the others were older. It was a very distinguished group. Those were the days when the club had no difficulty getting the top leaders to work. It's much more difficult now.

At the time the Commonwealth Club took up the question of possibly drafting a new water law, the Conservation Commission was busy on that subject and

2 5

The second of the seco

we thought it better to keep in touch with the commission and assist them in any way we could. A subcommittee was appointed to confer with the Conservation Commission, which they did. Dr. Pardee and one time Mr. Cuttle came over to the club when we were considering the water commission bill. Dr. Pardee expressed great satisfaction at the help the club was extending.

#### 1913 Water Commission Act

Adams:

The general thinking at that time of the members of the section on conservation was that the state should provide for a body within the State Department of Engineering to deal with the regulation of water rights. Since the Works Bill of 1903 was defeated, I believe all the western states but Montana had adopted water laws basically in line with the Colorado or Wyoming laws. Under the Wyoming law there was an administrative determination of existing rights by the State Board of Control. Oregon had a clear-cut difference. They followed the Wyoming law up to the point of final adjudication of rights. The fundamental need in the adjudication of water rights is to gather objectively and impartially the factual data regarding use of water and relative rights of the users

1

. The state of the - no the second of the second of the second 30 Section 1985 •

A SECTION OF THE SECT

or the second second 

The first part of the state of

determined by dates of appropriation and quantity of water used. Under Oregon law, after the state engineer has determined the rights by administrative procedure, his findings are presented to the courts for adjudication.

Our general feeling in the section was that we should have the administrative determination in California rather than the Oregon system. We believed that ultimately the office of state engineer should be merged into a State Department of Public Works. On several occasions our section or other sections made that recommendation and that water rights be a part of it. Dr. Pardee was in favor of the Oregon system and that was adopted in the California law. In California the state was authorized to make the investigation and prepare a proposed adjudication only on reference by the court.

Another purpose of the state water laws was to provide for a method of appropriation by application to the state. Still another was to provide for state supervision of distribution of water under these rights as established.

But Dr. Pardee said "No, that's the business of the courts. They should direct if necessary the supervision of distribution under the adjudicated Adams: rights." I argued with Dr. Pardee on that and when the bill was pretty close to passage, as I was riding up on the train to Sacramento with him, I argued with him all the way. Finally I said, "I think I have it, Doctor." And I fished out a piece of paper and a pencil and wrote a memorandum...I think this is a copy of it.

Baum: (Reading) "The supervision of the distribution of water in accordance with priorities established under this act, where such supervision of the distribution of water does not contravene the authority vested in the judiciary of the state, shall be under the State Water Commission."

Adams: That was the memorandum that I wrote out for Dr.

Pardee.

Baum: You wrote..."does not contravene the authority vested in the judiciary..."

Adams: Yes, that was the point. He said, "Frank, I hate like hell to admit it, but I'll have to accept that."

That section was adopted as Section 37 of the original act. Well, it didn't mean very much then. My thought was that if the camel could get his nose into the tent, he could get in some time.

Mr. Chandler didn't think very much of that provision. I explained to him just how it happened

The state of the s the second of th the second of th Final Commence of the commence y to the second of the second richt in the second of the sec 

the state of the s the state of the s of a contract of the contract

· · · · · · · . The end of the state of the s

Control of the contro er smed to the and · office week in the comment of the

a v rist go to e to the comment where the contract relation is a total or

to be inserted, and some years later, five or six years later, that section was amended to set up a system of watermaster service. The then president of the State Water Commission said in his annual report that apparently Section 37 was originally written merely to get into the bill the principle, which was, of course, the fact.

Baum:

What was the basis of your preference for having administrative adjudication rather than judicial?

Adams:

Failure of court adjudications to settle water rights in California was the main reason for passing the Water Commission Act. Court adjudications in Colorado had been rather successful but there were still some drawbacks to procedure there. It seemed to me that the experience in administrative adjudications in Wyoming and Nebraska had demonstrated its superiority. I was then not very familiar with the Oregon system.

Baum:

Did you have more confidence in the fairness of administrative adjudication rather than adjudication by the courts?

Adams:

The difficulty about court adjudication is that you get a mass of biased testimony and it is very difficult to establish the facts. The first thing is to gather the facts, which should be the basis of adjudication.

Baum:

The facts would be gathered by the state in either

:

en de la companya de

rin de la companya d

Baum: case, wouldn't they?

Adams: That's true under the Oregon plan but, as I previously stated, under the California law the state can make the investigation to gather the facts only on reference by the court. Without such reference the proceedings would be in the court and conclusions based on expert testimony which is very likely to be biased.

Baum: But if the facts were gathered by a state agency, why would your preference be for an administrative body to determine the rights rather than a judicial one?

Adams: Well, the original argument was that that was the policy adopted in the disposal of public lands, which was an administrative policy. That the water of the state was the property of the state and should be administered by the state—that it was an administrative process rather than a judicial process.

Baum: In other words, it wasn't private property.

Adams: In Wyoming it was the property of the state and the only private right that could be obtained was the right of use. In some states water was considered to be the property of the public. In California under the present law it is declared to be the property of the people of the state.

Baum: Why did Dr. Pardee insist the other way?

Adams: Well, he had been governor. He was a very astute

· · · · · ·

. The second of the second of

enter a construction of the construction of th

e of a state of the state of th

politician, and he had long legislative experience.

It was a perfectly natural attitude for him to take,
because he believed that the adjudication of water
rights was a judicial and not an administrative
matter. He was constantly saying that the constitution
of the state placed judicial matters in the hands of
the courts, or words to that effect.

Baum:

Was there any talk of setting up a special water court?

Adams:

That was talked of from time to time, but not, as I

recall it, just then.

Baum:

Did Dr. Mead express any opinion on the bill?

Adams:

I sent Dr. Mead a rough draft of the Conservation Commission bill. I have here a letter from him written aboard ship on his way to Australia on October 5, 1912 in which he condemned the bill very severely. He advised me to have nothing whatever to do with it.

Baum:

I would think he would have been in favor of it.

Adams:

He was very strongly in favor of administrative determination of rights, rather than determination through the courts. I think that's the thing that led to his first reaction against the bill.

Well, the Water Commission Act was passed in 1913 and held up by referendum. It again came before the Commonwealth Club. The section on conservation

· The state of the

2

: 17 2

terra de la companya de la companya

and the second of the second o

the state of the s

to the state of th

· rate of the second

the state of the s

5 19 51 P

reviewed it very thoroughly. Dr. Pardee was present for at least one meeting; Mr. Cuttle, I think, also. You would be surprised to see how the section divided on passage of that law. Our section reported on it in October. 1914, just before the election. were majority and minority reports. Let me just read the names of some in favor. C. E. Grunsky, A. E. Chandler, A. L. Cowell, State Engineer W. F. McClure, Charles Wesley Reed, H. Foster Bain, G. M. Homans, Fred H. Fowler, B. A. Etcheverry, Miles Standish, William Thomas, Professor A. M. Kidd of the law faculty over here, Assistant State Engineer Norboe. The minority report opposing the act was signed by Mr. E. F. Treadwell, John D. Galloway, W. B. Bosley, an attorney with P. G. & E., Elwyn W. Stebbins, a geologist, Charles Gilman Hyde, (I'm surprised at that) professor of sanitary engineering at the University, Professor W. L. Jepson, Senator C. M. Belshaw, F. G. Baum, a P. G. & E. man, Mr. A. Burch, and Mr. A. L. Shinn, a lawyer who had much to do with reclamation matters up in the valley. I read over their objections the other day and I'm surprised some of these men signed that, men like Galloway, Jepson, and Hyde.

But the bill passed.

- • • • •
- entropy of the second of the s

- and the second

- . . .
- • •

Baum: That's all in the Commonwealth Club <u>Transactions</u>, Volume 9, 1914, pages 581-595.

Adams: Yes, and it got off to a good start. Governor

Johnson appointed a very strong commission: William

A. Johnstone of San Dimas, Irving Martin, editor of
the Stockton Record, and Albert E. Chandler.

Other Recommendations of the State Conservation Commission

#### Licensing Power Sites

Baum: I would like to know what the State Conservation

Commission thought about the problem of power sites.

Adams: That was a very hot subject and came up in the meetings of the Commonwealth Club. One issue was whether there should be permanent licenses for power or for a period of years. Also, the provision that the power companies should not include water rights in their evaluations for rate-making purposes beyond the actual cost of those water rights. Another question in connection with the Water Commission bill which doesn't seem very important, but was rather heated in the meetings of the club, was the fees to be charged for licenses. The opposition made a big objection about this, the great cost to the poor man for filing

.

•

. For the decision of the deci

the state of the s

A Company of the Comp

Adams: on water.

Baum: How great was that cost?

Adams: The cost wasn't great. It was larger for water for generation of electric power than for irrigation and other purposes. Dr. Pardee's answer was this. "It's going to cost something to carry on the work of this commission. We've got to provide automatic funds for it because a hostile legislature might at any time cut off the funds and hamper the work." There was discussion both ways on the subject, of course.

Baum: Do you think the Conservation Commission was in favor of public development of hydroelectric power?

Adams: The matter didn't come up. Their interestwas in public control of the water supply.

Baum: I believe the Conservation Commission recommended that the state use the Cary Act to develop lands.

Adams: A committee of our section cooperated with the commission in drafting a bill under which we could operate in California under the Cary Act and this bill was adopted.

Mr. D. W. Ross, former state engineer of Idaho who had administered the Cary Act up in Idaho and was now with the Kuhn project, had worked with the committee. But it was never used in California. There was no reclamation, except possibly in the desert areas along

the Colorado River.

. . .

\*

: 31, 11

d 2 3 m 2 :

The first of the form of the first of the fi

en de la composition de la composition

. The second of the second of

#### Riparian Rights

Baum: I believe the Conservation Commission, on the matter of riparian rights and the wasteful use of water, suggested those rights be condemned and purchased.

Adams: That was considered from time to time, but was entirely impractical.

Baum: Too expensive?

Adams:

Yes. I made one little study. A group around Dos Palos who got water from the Miller and Lux system on the West Side wanted to form an irrigation district. I remember at that meeting someone asked Mr. Treadwell if Miller and Lux owned all that water and he said, "Of course we own it all." Well, that sort of nettled me so as a service to the little group I had Harry Barnes go to the assessors' offices in Fresno, Merced, and Stanislaus counties and plot all the riparian lands clear down to Tracy. Riparian lands are the lands lying adjacent to the river that have never been separated from the stream by transfer -- there is a provision that lands sold away from the river can still share in the riparian rights, but that has to be in the deed. We prepared a large map and plotted the riparian lands in black. I took that to the people down there and showed them just what they were

4.5

. 1 12.

• The second of the second of

a constitution of the second

-- 1 7 7 7 8 8 28 A 1661

and in enteredical terms of the

control of the second of the s

the terms of the •

e e e actività de la companya de la

Adams: up against.

Baum: How much of the land was riparian, and owned by Miller and Lux?

Adams: I cannot remember the acreage, but what I do remember is that a map of the land along the river showed largely in black--that is, that they were largely riparian lands.

Baum: Riparian rights were a part of the problem the Conservation Commission was considering.

Adams: Yes, but it was evident they couldn't change that by legislation. It could only be done by constitutional amendment, and such an amendment was adopted some years later. That amendment, you know, was before the Supreme Court twice. Mr. Treadwell and those other large riparian right people sat down with men like Mr. Chandler and Samuel C. Wiel and others.

Mr. Cowell sat in on it. They worked out the constitutional amendment which was adopted.

Baum: Treadwell sat in on that?

Adams: Oh yes. You can't do those things without consulting the other people. That was later. I think the Herminghaus decision brought it to a head, which was the extreme interpretation of riparian law.

Everyone recognized then that something had to be done. The effect of the consitutional amendment was

.tmalers or : ...

TXNE OFF THEFT

est : How much of the late termips "an. us on the

very common promoted correct, out distributed and also the elver induced are tarred to the elver induced are tarred to the correct and also the correct are decided.

1004 - Piparing of the west as a serie of the opolica the

Tem, but it were evident of a collisit a commission by lealed at the collision of the colli

Proedwell and I on that?

Oh yet. You sait do blose things slabot send this the object provide. That we lead, it bit it is the Herminghaus senision brought to a sess. It is is the was the extress interpretential or of mineral action. Everyone manageined than that sentions the extress than that send this and to but done. The estimation of the entrest and to but done. The estimation of the entrest and to but

141,502

I WIE LIE

Adams: not to abrogate riparian rights but merely to limit them to reasonable use.

Baum: Did you know Mr. Treadwell?

Adams:

Yes. I think I can say I knew him very well. He was very able, very forceful, and very positive in presenting his views. I sat in on some of the discussions leading up to the constitutional amendment, and felt that Mr. Treadwell was very fair in his attitude. Incidentally, Mr. Treadwell performed a fine public service when he wrote a biography of Henry Miller. The title of the book was The Cattle King. He described the early development of irrigation on the west side of the San Joaquin Valley under Henry Miller.

#### Forest Fire Protection

Adams: I mentioned the work of our conservation section back in 1912, 1913, 1914. One phase of that that was always of interest to me was forestry. I reported at a meeting of the club on what the conservation section had done. The issue was the difference between the State Conservation Commission and the state forester and what should be done in the way of forest fire protection. We did not at that time have a State Board of Forestry except an ex officio board.

: भूद्र । क के

: 1-

ot to abrogree minerian stables to a - 1 to its

bid you know in. The the cells

· tofile tru

Ver. I whink I car by I are in the man all. in war I are I was suited in the war were willed and the man all in view at the car and another in a suite and a suite

### Control Control Estimate

1 20

the last tension of the second of the second

We had a state forester by the name of Mr. G.

Morris Homans. He didn't get along at all with Dr.

Pardee. He had his own ideas as to what should be done, so there was a rather sharp difference of opinion. They each presented a bill to the legislature. The main issue at the time was fire protection, on what basis it should be accomplished. The Conservation Commission's plan was largely through cooperation with the timber owners. The state forester's plan was largely a matter of setting up forest protection districts and state fire wardens and lookouts, and to carry this work on at the expense of the timber owners.

Baum:

Then the one plan was more voluntary and the other more compulsory.

Adams:

Yes, that in general was it.

Baum:

I should think the compulsory plan would also be more expensive to the timber owners.

Adams:

Undoubtedly.

The matter was so important that the section arranged a general conference of timber owners and foresters and the State Conservation Commission in the club rooms for a discussion of the whole question. I asked Mr. Beverly L. Hodghead, who was president of

equivalent to the large of the engage of the engage of the engage. He is the description of the information of the engage of the

propertion visuals and stepshilt critical and local line and local polynomia. I would be reported to the book that we had a state and or the book that the block that the countries.

The manufacture of the second second

. 's w far a claimet, cl

ome of the black marksons of an about one of a state of a second of the state of a second of the sec

.Nijopaddrowe) : 5 €

\* FT 3

: 158

The net of was so introduct in the little of the appeared as the sense of the object of the control of the cont

the club, to come in and preside. I remember we had a former state forester, Mr. F. E. Olmsted, Mr. C. R. Johnson, head of the Union Lumber Company, one of our very biggest redwood outfits, Mr. G. X. Wendling and Mr. Miles Standish, both large timber owners.

About 15 or 20, as I remember, attended this conference. Mr. Homans wouldn't attend. The evening after that conference he called me up and gave me fits for "meddling in affairs." We had been very good friends.

Incidentally, there was no satisfactory fire protection for years because it seemed impossible to work with Mr. Homans on the subject. It was finally adjusted by making M. B. Pratt of the forestry division of the University, assistant state forester, largely to direct his attention to fire protection. He later became state forester.

Baum:

You've always been interested in fire protection, haven't you?

Adams:

In forestry. In those days fire protection was the main subject of interest. It revolved largely around the disposal of slash and inflammable material.

The cooperative effort was supposed to result in a greater effort by mill owners to take care of slash and the state was to control and insist on it being done.

7 7 20 1

1.1817

: 2 12 .

The club, to some in a deposite. I have about to a storage state form of , Mr. D. -. Otherwell, T. -. Otherw

Incidential to the paper breaks of anticions into a substant of the paper breaks of course in the interior of the course in the course in the course of the

gricense - 7.5 mi lædnoseddi dæed smyste bytes. Troy tinovski

In domestry, In tops eagys fire or willing of the spin approximation and the spin of the spin approximation and the spin of the spin approximation and the spin approximation of the spin and the spin approximation and the spin of the spin approximation and the spin of the spin approximation.

#### WORK WITH IRRIGATION DISTRICTS

. .

### Preparation of Bulletin No. 2 in 1915

Baum: I know you have worked very closely with irrigation districts.

Adams: Yes, down until about 1928. Since then I've been less closely associated with the districts.

Baum: Wasn't a study of irrigation districts one of the first things you undertook when you went back to the Irrigation Investigations in 1910?

Adams: I began to bring down to date my information about districts organized under the old Wright Act of 1887. I don't recall if I mentioned starting that study. Briefly, I reported for duty under Dr. Mead in 1900. While I was waiting for Mr. Wilson, under whom I was to work, Mr. William Thomas, who was president of the California Water and Forest Association, suggested that I study the old Wright Act districts which had had such disastrous experiences. So I began the collection by mail of data regarding the organization of those districts, endeavoring to get together a complete list of them and the record of their financial transactions and their litigation and their current status. I left the work to go to Washington in 1901 and all that data was laid aside,

### <u>र मध्य वस्त</u> सम्बद्धः । महत्त्रः

## . Fat D. of H. S. 10 or therease

seit min i die finet men i i vid of wee I 1. 51 .ndoindail

11,21:

rest to discuss the first of the rest of t \* 11 .ed. hotath and didir for at consections to I on the second details action to common disease

on a contract of the stockers of the profit distinct in the mi anottablita of a itering and t

ed byob return thereof to but and the transfer of only company of the manager than the state of a code The state of the fire of the fire of the fire and the fire Se in the second of the man in the second of the second in the second of were control of the c . Wild it was a second of the medial connected to a setal the denset on new gib let adding the dominate Time batsets to the promise of the state of the second control of the second contr over the contract the limit of the contract of the second orantization of those ciatriots. The end in the second of by the first of the hora of the appears of the entitle the day the compact of the state of the court of the . The lief our of a sect Dir her 1991 inchriteray

so when I picked up the study of irrigation districts again in 1910, I undertook to bring that information down to date.

I employed a very bright young man by the name of Ray S. Gidney. He was an expert stenographer, a senior student in economics, and had done stenographic work for professors Etcheverry and Chandler in the Department of Irrigation. There were still a number of people living who had had to do with, or were familiar with the organization of some of those early Wright Act districts. I sent Mr. Gidney into the field to interview them and get a complete record of what they had to say because he was such an excellent stenographer and he knew the subject. When the Federal Reserve System was established early in President Wilson's administration, Dr. Adolph Miller, professor of economics at the University, was made a member of the Federal Reserve Board. He took Mr. Gidney with him to Washington as his secretary. Mr. Gidney progressed in the Federal Reserve System and became, I think, at one time head of the Federal Reserve System in Buffalo and other positions in the system and is now Controller of the Currency in Washington.

I had two other assistants for temporary work in gathering information about the financial status

as and I picked to budy of teriors on cabelous arain in 1911. I under sake to eminy that the theory to cown to date.

: 4 4

I employed a vor bright yours wan by the of Eags (. Wilber. ) was an emp of the state of the sentian student in in common, and not constructed in wink for professive tohevers, a chandler in the Department of Irr trion. ... the best to themer of become living all had he to a lite. on seek After a local to green the local restriction of the state ా. కా. చేశాక కా. జి. కా. కి. జి. కి. మందుకు కాంకాట్ చేయి. వేయనించేశా న the termination of the contract of the confidence of ාසුදුරිරකළ ද විවිධ විශ්ය විශ්ය විශ්ය වේ මුළම වෙව විවිධ මෙස්ට සිදුල්ම වීන abendance hope our le linew the ambijob. Then the their get Reactive System is establinated and it is good and of the more of the state of the ે તરફ છે. જે માર્ચ કે the redeman our me pard. We have tr. Tilger with is to has blooded as an actual as had mis omogressed in the federal lessent tion and hassentend Twisting allow time road of the Medermit we do pride I System in Partillo and abben mostitions in who says are and is now to condition of the dispression of won at bas I had two other assistants in readonate t she in geth rior t termett a about the firmoust their disputi

and litigation of some of those districts. Summing it all up, I found that there had been 49 districts organized under the old Wright Act. Twenty-four had never incurred any bond indebtedness. Many had accomplished nothing. The other 25 had incurred indebtedness, some for a good many hundred thousand dollars. Of those 25, only eight were then active, of that eight, two were only nominally active.

In Bulletin 2 (State of California, Department of Engineering, Bulletin 2, <u>Irrigation Districts in California</u>, 1887-1915, 1916.) I completed the study of the Wright Act districts and also included a study of several districts that had been organized in recent years. The last district organized under the original Wright Act was in 1895. Until 1909 no other districts were organized.

# Irrigation District Legislation

Baum:

What changes in irrigation district law made it possible for irrigation districts to be successful? Those changes, up to 1928 which was the end of the period when I was most active in irrigation district work, are outlined in detail in Bulletin 2 of the State Department of Engineering and Bulletin 21 of the Division of Engineering and Irrigation. They

Adams:

ide n: so litigation of some for some in the it all up, I found that are had breatly iintricha organized under the of might let. ". . . - trup ed yar's especial but it industrial town her a scomplished rouble . The other Solar bankingments indebiedness, rons in the north colonia in income i Police of the trace of a colly and the are the accident and the tribbs to be a serious miles and the in accepting ( a of the note; Temptagent of Patriotation triangle of the entropolism to Collegenia, 1 19-1 t , 1814. Locasie - Des etodo notified to be found to the first of the contract of the contr and the color of the first of the first of the color for the color for rearing the line line line to the termination of the arms of the end of the e reduce on the 1980 to the reward to the desirable 

### 

171 0

9 15 11 3

in the latest and the first of ·luttina on the contract of the state of the state of the contract of the cont Prose order of the International war and or the in a commercial evitor trop can I are fortere work, are of Clined in cetail in this for the State correct a st of Ungineering and Salietia al of the Division : Angine-ring and Irrit : Inc. They

Adams: were the same department, different names.

Bridgeford Act of 1897

Adams:

The Wright Act experience had been so disastrous that portions of the law were revised in 1897 by the Bridgeford Act. The changes were fundamental. Under the original law fifty or a majority of the owners of land in any area proposed to be organized could file a petition with the board of supervisors. If approved, they could carry an election by a majority vote. They had no restrictions whatever on the issuance of bonds or assessments. Consequently much of the financing was unsound. Some of the districts would have been feasible under later conditions, some were entirely speculative.

Baum:

Were they able to sell their bonds?

Adams:

In the last decades of the 19th century financing of irrigation developments was relatively easy. A good deal of the money came from foreign sources, I believe from England.

Records of flow of streams were meager. The state engineer, William Ham Hall, had started the gauging of streams back in the '80's but between that and about 1902 or 1903, there were very few gaugings made. The Geological Survey had made some. They

are the transfer of the design of the part of the transfer transfer of the tra

#### Wildagefor of Ley

n certiles, on the four the magne dot defined at the con-Wet north one of the la gape waying in a first the limit tellowed have made as a sub-facilities followed of the lingual son party was feminaine of the note. a sizem som og en en ender en en gar bilbret to kroker in the second of on a continuate our gent of the good and a proceeding of thing the second of the contract of the second of the contract of the second of the contract o made of the west in the size was presented to the document with the first many at loset wood on a Stock right bill tions, fore a chiral a comment.

in the strouble files on after point main

En time Iso' consider of the It is a fine to the and the state of t mond rest of the contract area in the term of the feet become .basing - - Compain I

with the start against to total to start to state contacer, William ten . all, had atten ite. ។ The region of Clar selection is about small of a gainway and about I will ap 1003, there is no to the during word . With about the review factor of the . William

became more active in the work about the same time the Irrigation Investigations were started in California because of contributions from the California Water and Forest Association. When the Wright Act districts were organized, stream flow information was totally inadequate on which to base the estimate of a safe water supply.

Baum:

Then they were going ahead without adequate information, and probably without adequate water supply.

Adams:

Yes. Lack of water was the main cause of failure.

Baum:

More than dishonest promotion?

Adams:

Oh yes. I don't recall that there was much dishonesty. There was some manipulation and I am sure some evasion of the real terms of the law. I guess you could call this dishonest. For instance, in one district—the old Sunset District in the San Joaquin Valley—an owner of a section of land divided it into small holdings and gave away or sold different parcels at nominal prices to people who would agree to vote for organization. That way the organization of the district was carried and shortly after that the bond issue of \$2,000,000 was voted. I believe there were some of the other old districts that were equally questionable. I gave a history of the old speculative districts in Bulletin No. 2.

necessed more autiled in the above to the lime of a consideration of investigation of a work is the consideration of the consideration of the consideration of any object of the consideration of the consideration.

\* ...

her view terms and it is a second tour and the second tour and the

The changes made in the law in 1897 were basic with reference both to organization and to issuance of bonds. For petitioning for organization of a district, a majority of the landowners representing a majority of the value of the land was necessary. The board of directors could not call an election for the issuance of bonds without having previously received a petition for the submission of that bond issue signed by a majority of owners of a majority of the value of the land. So a brake was placed on the organization of districts. I was informed by someone who knew the history of that legislation that the purpose was to stop the organization of any more districts.

Baum: At that time large landowners were against the districts, weren't they?

Adams: Many were, yes.

Improving the Market for Bonds

Adams: In 1909 South San Joaquin and Cakdale districts were formed. They employed competent engineers, outlined a system of works, voted bonds, but ran up against the absence of a bond market.

Baum: This was because of the failure of the previous districts.

The obtained in the level of 1390 to we do not modern the modern to the modern that it is not the modern that it is not modern to the modern that it is not modern that the modern that it is not the modern that it is not the modern that it is not that it is

the following the Country Handowski community the Country of the C

Thorn on the end thorns a

When a control of the description of the property of the prope

The state of the smaller with the space of the company of the state of

Yes. They finally were able to let their contracts by making the contractors find a market for the bonds.

The Wright Act and the Bridgeford Act provided that bonds should bear 5% interest and could not be sold for less than par. District bonds could not be sold at that price. The arrangement was something like this. The contractor would find a bond dealer who would undertake to dispose of the bonds at a certain price, say, at 75-80% of par. Then the contractor would charge enough more for the work he did to allow him to rebate to the bond dealer the difference between 75-80% of par and par which was the amount paid to the district by the bond dealer. This was a clear evasion of law and was generally so understood by all parties concerned, but there was no other way in which a district could dispose of its bonds.

Baum:

Adams:

So they just raised the price of the construction.
Yes.

South San Joaquin and Oakdale districts made an attempt to create a better market for the bonds. They drafted a law which set up an irrigation district bond commission—this was early in 1911—composed of the state engineer, the attorney general, and the state superintendent of banks. This commission was

end of the state o .ar Tonda Carl design to b. 17 - Cardan South on the rethe distribution of the artifections are the total artifections. in the firm the dame daily on the prodection of their duried in power deterate . . . meda on fire of often The term is the strong through the control of the strong o orate to the control of a star misson off . . of t office THE GLOBERT STATE OF THE STATE on the form of the contract of the contract of the state of the contract of th confirmation and the second property of the entertainment the state of the state of mean to be stated to the in a refer to given the factor of the filter of the rest of the result of the filter of the rest of th . els la la la la delegation de bire dayone o G officers of an energy of the modern configuration of the configuration o normal particles in the contraction of the contract the concept. Of one deinstelliber detail i government

. It is also a safe to prima old marine their gold ro . 6 / 1

So in the state of the section of th or dicember of the state and the second of the second with the growing folia well a looklant type of Same -- Heliai girm on any alist--soleateren Saed the first of the commonster of specific and the common endit ate a miner structed of a re. Phie serioralances

to investigate any irrigation district desiring to issue bonds and if it found that the amount of bonds did not exceed 60% of the value of the water rights, lands, and systems, their bonds could be registered with the state controller. They thought that would help. Well, it was ineffective.

Baum:

Was there any opposition to this change at that time?

Adams:

I think not. Mr. L. L. Dennett, attorney for Modesto District, was most prominent in drafting that legisla-

tion.

Baum:

Did you know Dennett?

Adams:

Oh, very well. I got acquainted with him in Modesto in 1904. He was a very enthusiastic man. Very earnest and very determined and a very friendly man.

Baum:

Would you call Dennett conservative or liberal?

Adams:

There were no issues of He was after what he wanted. that type, conservative or liberal, involved in this legislation. He was determined to improve conditions and find a market for these bonds.

That law was ineffective. A movement was started to improve it. I don't recall exactly the inception. but in November, 1911 Governor Johnson called a general conference at Stockton of interested irrigation districts to consider improved legislation. Prior to that the matter had come before the Commonwealth Club

to inver izete any irmin in district ectrin to ierreld issue bonds and if the tend that the amount of or. Fig. of exceed (0) of the value of the refler right, land. on synteem. In honder could to meristenca with a state controller. From them to the world help. icll, it was '. effective.

1 400

ass corec any open bine to a farman and the limit d Stint not. It. I. De n b , attache, dur oleator istrict, red to the emission of a charter that are in a charter and the second of the

2 to 2. (1) your (1) (1) 4 75 1

·arit

10

channe a first and increase den a . Thousand . "C in 1901. The release are the remarks are off a 1991 of equation of the determinacy and interest about the original

: 1993

Forthern roll learnett convervaliation from Its in a copi oc or or year . Sates or Jelia cott a correct so type, reservetive or it are interested to the le dalation. En was datem inder a transmural tion and lind a mer ob lor thes boil in:

1 127

Ta De vas incollective. A movement das ctor. in it open to a verget exactly and in epitar, but in November. 1911 foremon on an arranged a generall court reace at Ptoulton of lateracted the attendistricts to distance improved it is the contract that the maithr ad nome bufore the Charlom ealth ilus

Adams: and several meetings of the club were devoted to the subject.

Baum: Were you present?

Adams:

Yes. The subject was "Marketing Irrigation Bonds".

Among those who took part in the discussion before the club were Mr. Dennett; Attorney General Webb;

State Engineer Nathaniel Ellery; State Superintendent of Banks W. R. Williams; A. T. Brock, the San Francisco representative of Halsey and Co.; James K.

Lynch of the First National Bank; W. J. Dutton of Fireman's Fund Insurance Co.; Edmund Duryea, engineer for South San Joaquin District; John D. Galloway, civil engineer; Mr. C. E. Grunsky; and Mr. E. R. Zion. I presented in preliminary form a statistical abstract of the old Wright districts.

After the discussions of the club the president appointed a committee to prepare recommendations. This committee consisted of James K. Lynch, chairman; Henry G. Meyer, banker; and A. T. Brock. At their request A. E. Chandler; John S. Drum, banker; W. L. Hathaway of the New York Life Insurance Company; Samuel C. Wiel and I were asked to work with the committee, and we joined in their report. This committee prepared a report to be submitted to the conference called by Governor Johnson in Stockton.

: 8 =

.

St. 18 3 14

and per all meeting of the contest of a second surject.

IN TO CHEST PROPE

The make subject of manifesting and retion one's.

And of the and the control of the control of

equal of the first of the market of the control of the control of the second of the control of the second of the s

There was a great deal of controversy as to the required 5% interest and also as to the 60% of the total value of property back of the bonds. School districts, as I recall it, could issue bonds up to 15% of the value of the property in the school district. Other institutions were permitted to issue bonds up to, I think, only 5% of their assessed valuation. So 60% was felt to be too high. The answer of the districts was that with a water supply available, the value would be tremendously increased, which was, of course, true, if they carried through the construction and it was a success.

This committee presented its report to the conference at Stockton. We made several suggestions. One was that the districts should be allowed to issue bonds at 6%. Another was that no district should be allowed to dispose of bonds without approval of the commission. Another was that the specific duties of the state engineer, the attorney-general, and the superintendent of banks should be spelled out in the law. Another was that districts could sell bonds for less than par on the approval of the commission. I'm sure that report had a great deal of influence in the drafting of the amendment to the 1911 law, passed in 1913.

i mebb

There was a prest deal of controverse as 10 the mequined if interest and also as to the hO of the hold total value of unparents and the souds. Lethol districts, as I recall it, could insue bonds to to the circumstate of the value of the value of the value of the value of the property is and on the could could bonds up to. I think, only if of their present valuation. So if was the to be too bigh. The ansessed answer of the illability with the the best of the ply answer of the illability of the too bigh, the reason, available, the relation of the illability of the relation of the relation of the relation of the relation was, of the relation of the relation was, of the relation as a section of the continuous of the relation was, of the relation of the continuous of the relation of the continuous of the

This corrected product. The meda of were I are pretional or west what the districts about a first of a state of a state of a state of an order to be state of another was trained or if the should be allowed to dispose of our continuit approved of the corrier in Abother we with the capproved of the corrier in Abother we think the approved apposition on ies of the orders in abother we had about order be seeneral, and the summ atondent of whis closing be applied out to the law. Another were that with the could sell bonds for loss than our or the engage of the engage of the country of the factor of the country of the sum of the country of the sum of the factor of the country of the sum of the following of the sum of the factor of the country of the sum of the country of the sum of the factor of the country of the sum of t

Baum:

Did you agree with those suggestions?

Adams:

I was a member of the committee and joined in the In view of the eminence of the other members of the committee, my part in the drafting of the report must have been a small one. In those days I used to be east frequently and I was in Chicago at the time the report was presented to the meeting at I made contacts over a number of years with investment bankers in Denver, Chicago, Cleveland, ... New York, with the view of getting the attitude of the investment market for irrigation district bonds. They had been in disrepute for so long that I wanted to see what help I could get in redrafting the law. The only separate thing I remember in connection with this final report of the committee was that I sent a wire from Chicago to the committee recommending 6% bonds and that they should be sold at the market value rather than at par.

Baum:

Would these investment bankers you talked to have been willing to handle irrigation district bonds with these modifications?

Adams:

None of them would say that at that time. One house in Chicago had handled a lot of the Colorado irrigation district bonds and their investors had lost lots of money. They were very anxious to see conditions improve.

The row agree will those suggers no.

1000

yes a mimber of the a maister and force in the words. In view of the enimenor of the oft me a three of the commit c. my set in the amorbide of the a path specifical and financial and area drains and I nord to be take for the tell are than in the tell of the number of the first percentage of our orthograph dia armev to a common save adocatic occar i . . od√redf termat int time a to bench. The collect. It was add. ৰিব সংলাই কৈ ল'ল বি সৰু বিজ্ঞান বিবাহিত কৰিব লিকিটাল **, লিবেট** লাভাট the forest transfer of the first refer to the market are the hold . The bear to the tree to be and the war . The second of the form of the form of the form of the second The state of the second of the second of the second these I due I arm wittliner off In Day on Fruit him intident course addition and of our till continuity honder and the likev should be to the the engine of the rather than an au au.

. ೧೯೯೮ ಕನ್ನಡದ ರಶ್ಯಕ್ಷಣೆಗಳ ಕನ್ನಡಗಳ ಅವರಿಗೆ ಕೊಡ್ಡಿಕೆ ಅಂತಿ ಕ್ರಾರ್ಡಿಕೆ ಕ್ರಾರ್ಡಿಕೆ

In another investment house in Chicago, the man I talked to was quite interested. He said, "I wish you'd come to lunch with several of us and talk the thing over." So I did that the same day. They knew practically nothing about these bonds, but I was surprised at the great interest they showed. I told them of the improvements we were trying to make in our irrigation district law. One of those who attended that luncheon became a partner in a large New York firm which took a large issue of one of our district's bonds a little later. That man was Mr. Dillon and the firm with which he became affiliated was Dillon, Reed and Company.

Bond Certification Commission Act of 1913

Adams:

The Bond Certification Commission Act which was passed in 1913 as a substitute for the 1911 act provided more than merely for the registration of the bonds. It provided for the commission to make an investigation and if they found all conditions favorable and the total amount of proposed bonds did not exceed 60% of the available border rights and lands and other properties, the bonds could be certified by the state controller as legal investments for trust companies, savings and commercial banks, investment funds, insurance companies, investment of

: 5 1/1

In anythor investment to descript, the net of collection to property the collection of the property of the state of the st

The first of the second of the

The self emblitioning our Lepisch to the self of a self lading and a crashibute of a self lading of the more than are ly too the modified to the lords. It posited for the notification is and if they remained all the little and is the total amount of the self the flavorable are the total amount of the self the self of the seaflable bonds of the accordance of the self of the seaflable bonds of the lepisch of the seaflable bonds of the lepisch of the seaflable constant of the lepisch of the lepisch

school funds, and other institutions. You will recall that one of the suggestions of the Commonwealth committee was that no irrigation district could issue bonds without the approval of the commission. The law as passed did not definitely give the commission the power to veto a bond issue, but in reality they did because if they reported unfavorably, there was no likelihood of the bonds being sold.

Baum:
Adams:

Did they report before or after the bond election?

Before the bonds were voted. Under the original act
they reported after the bonds were voted.

That Bond Certification Commission Act has, of course, been of tremendous help to the districts. It has been amended a number of times. One important amendment gave the commission power to take over the affairs of irrigation districts that had defaulted. That came about during the depression in the early '30's. The commission did take over control of some districts during that period. I should mention that I had nothing whatever to do with preparation of irrigation district legislation after the early 1920's and a number of the very important amendments to the Bond Commission Act have been passed since then. They included the one mentioned.

There was one matter during that depression that

: v. 35A

\$ 799.9 \$ 1 6 5 6

commistee was that conteminates effective of it in a bonds with and the commission of the aspect of a bond of the contemical of the same permanent of a bond is that with the contemical of the permanent of the because if the contemical of the cont

school funds, and other thetitations. "Souther to the

that one of the nuggest one of the Co grealff

The hose been amonded of modern of these. The interpolation of these series is a subject to modern the series of a subject.

Entities of the following is interpolated to the series of the entities of the first than distributed to the series of the content of the series of the serie

Party are matter during test i operation that

always troubled me. Enterprises and industries of all kinds went into bankruptcy and irrigation districts and irrigation companies were not an exception. The law provided what were in substance bankruptcy proceedings by which the affairs of districts could be worked out by the Reconstruction Finance Corporation and reviewed in the courts. They appointed as their agent in working out adjustments the secretary of the California Irrigation Districts Association. It seemed to me that it was an unfair situation here in California that the secretary of the Irrigation Districts Association bistricts Association bere in Districts Association should be the one to work out the refinancing.

Baum:

In other words, his committments were to the irrigation districts rather than being objective.

Adams:

I never felt that was a satisfactory arrangement, but
I never made a thorough study of that refinancing.
A study of that was made by Wells Hutchins, and it
was published as a Department of Agriculture bulletin.

Increasing State Supervision Over Organization

Adams:

There was another phase of state control which was important. It was the phase which first intrigued me. That had to do with the state engineer passing on the organization of districts. It was easy, as I explained to you, for a district to be formed under

Ad. w: alrays troubled w. Enterprises and industric of all win a went into baptronter and irrication districts and immigation companies that not an extension. The law provided which we are absolved wall provided and by visible the regulacing of districts vision be worked but by the Rechirchoffic elimade Comportation and mevicus for the committee of the model as a united ament in working of edin . Ola the secretary of on til terite i chre vor treit i jastire ainfoldie. bread to be that the service of its control to in the of me and the least the standard and a single of the the second of the the contraction of the second of the the pefiniteins.

1 . 18%

In although words, all contails were to were to .evilesjdo zgri d need a sied siedeirisis

A 193 17

I never relt to the a satisfactor arm a chit, but i never rade a thoronable some, of a . . . b as fig. . . . . A stady of that was made by early fore they is was published as a finantial Art offur fullet a.

increasing Siere Spervision Over Orrapiashion

13/195

Tilens was a ridir Louse of state control of or w tappersant. If we state the third of the limits are me. That med to do with the state environmentar on the organization of districte. It was early, is explained to you, for a district to be formed ander-

the Wright Act. Fifty or a majority of holders of land could propose a district. There was no investigation. That's why so many districts were formed that were not feasible.

It was perfectly evident that the state should exercise control over organization. Idaho had a measure of control. Its law made it the duty of the state engineer to make an investigation of an irrigation district and file his report with the district, so that the public would have full information as to engineering and other feasibility.

Baum:

Prior to organization?

Adams:

Yes. That law was drafted by D. W. Ross, who was state engineer of Idaho and later the man who became chief engineer of the Kuhn project in California.

How the change in California came about was this.

I was in Sacramento to attend a meeting of the irrigation committee of the legislature and I met several members of the Irrigation Districts Association, including Mr. Dennett and A. L. Cowell, who had been active in the formation of the South San Joaquin District. They had in mind favoring a bill that would give the Irrigation Districts Association authority to pass on the organization of new districts. That didn't seem to me a desirable procedure. Its

1 mmmint

the delayer Act. Tifty on a majority of dolder of and condition of the condition of the condition. The condition of the condition.

It were provided that the story of the story of an example control of the story of example of control of the law and of the story of the law and of the ending of an example of the ending of the end of the e

: 2 - 0 1. 1

Test that last van include the last test of the same age age of the test of the test of the age of the test of the test of the last of the

I wis in Tarramenth to authord a continue to the impiration contitues of the losisions and I at any part and neathers of the losisting part and the Irrimation lightness of the contitues and to I. Continue to a contitue of a continue to the formation of the fault one continue to the formation of the fault one continue the largestion Districts Association would only be arganization of and the contitue to pass on the arganization of and the contitue to pass on the arganization of and the contitue to pass on the arganization of and the contitue to make a desirable procedure. The

constitutionality was doubtful. I suggested that
the state engineer be given the same authority as
the state engineer in Idaho had. I had with me the
Idaho law. So this group came up with me to my room
in the Sacramento Hotel and together we drafted a bill
providing that when a petition for formation of a
district was filed with the board of supervisors,
a copy should be sent to the state engineer, and
prior to consideration by the supervisors the state
engineer should report as to whether he found any
conditions within the proposed district which would
justify him in reporting adversely. State Engineer
McClure was heartily in agreement with that legislation,
and it was passed in 1913.

Baum:

Did Mr. McClure have an adequate staff to handle jobs like that?

Adams:

He had one assistant state engineer, an accountant, probably two or three other employees including some stenographers. That's about all he had. As I recall it, his duties were primarily with public institutions and with roads. The state used to make appropriations for construction of roads. That was before the Highway Act.

Baum:

I can't imagine how Mr. McClure could handle all that work without a larger staff.

. . . . .

The response of the second of

end the second of the second o

On receiving petitions for organization, Mr. McClure in the majority of the instances personally went over the area, sometimes with the assistant state engineer. In other districts he assigned the duty to the assistant In either case he almost invariably state engineer. asked me to go along and at the conclusion of the field trip to give him my views in writing. I gathered available data regarding the economic and agricultural feasibility.

In 1915 that law was made a little more specific. We went as far as we thought we could in the 1913 wording. In 1915 we got a little bolder and instead of providing that the state engineer should report as to whether any condition existed which warranted him reporting unfavorably, it definitely required the state engineer to report on the feasibility of the project, which was a little stronger language.

Baum:

Including economic feasibility?

Adams:

Economic feasibility wasn't mentioned. Of course, the state engineer always considered all phases of the project.

That law eventually was strengthened to require the districts to file with the state engineer their engineering plans. It gave the state engineer authority to make such inspections of their construction program as he thought necessary, and to approve or disapprove.

19 BF2

On receiving petitions for organization, Mn. Mefiture in the najority of the instances nerronally sent over the name, somethers with the againtent make environment or area, somethers with the againtent to a name environment to earlier of the down to make an invest notice earlier. In either was in almost invariably ented no to the firm and at the courinal and the retreat the distribution of the against the couring and are the couring and retreat against the continual or the against the couring and against the couring against the

In 1917 thet law was as a little more anceific. We want as a little more anceific. Nording. In the 1913 wording. In the 1913 and the contains that a little and the contains that a contains and instance and contains that a little and the contains and contains a little and the contains and contains and the contains and contains and the contains and c

: mrs

11.10

Encomin describility was not mentioned. It nowers, the state example of the state example of the project.

The cliterent to rile with the strengt closes need the the cliterent to rile with the state of erections. It gave the state strength is not not not need to and such it resettions of their configurations of the thousand a process of the thousand of the such thousand or design, and to arprove or dissuppose.

He had that authority also as a member of the State Bond Certification Commission. So the state engineer came to have very definite authority over districts.

There was one thing we had to include. The districts objected to the state engineer having complete authority over organization so an insertion was made providing that if the state engineer found the project infeasible, the supervisors should dismiss the action unless petitioned by three-fourths of the owners of land in the district to approve the petition for organization. I think only one district, that was out on the Mojave Desert, made use of that provision. The district was formed, but didn't succeed.

Withholding of Water from Appropriation
Pending Formation of a Proposed District

Adams:

An amendment was adopted in 1917 that brought the state engineer into even closer relationship with the irrigation districts. The idea for this occurred to me while working with a local committee planning the formation of what later became the Nevada Irrigation District. The amendment provided that when he considered it in the public interest the state engineer could make preliminary investigations and surveys of a proposed district, and that pending completion of

Acar: - Me bad that autority also as a member of the State and Cartification Com Cartar. Earthmetare exciret come to have were definite a thority over dies inte.

There was up. ". 'nr o lad to include. "'e main recominate despise of ct control de retainde is complete activitie over przepization so an i ceti, wer made amovilies that he fix otals supingers town the implication in the tible, the conservinged abunded itself : and the address - country of Centrities and Similarities of icitifdee wid envise is at detectable and one hope Discordance for organization, in the only on the thing to was ont on the object. The order the same victor. The off inich was insend. It is all the party

> of the transfer with the second of the controlly to recomment in the in the little of the

is the reducer of the hedrone e. I sharke eas on total extractor winto ever along the luttle of the nation. the 'raine' a districte. The idea for one named the new software tooch a dilentification of the journal at which terape record to a large council of -ne o realisted the smeadment royided that the end of the test of the contract a complete of the company depended of dury end of di marenia cold make modiminary investir blood as a cold of a among red intofet, and blint pending committee en

these investigations and surveys, he could withdraw from appropriation any unappropriated water that might be needed in that proposed district.

There had long been a feeling in the foothill areas that they were likely to be deprived of their water supply by its adverse use for power development. This was the primary reason for including the provision authorizing the state engineer to withhold appropriations of unappropriated water pending the completion of his preliminary investigation.

That same principle has been followed in connection with the State Water Plan. Rather than withdrawing the water from appropriation, the state files on the water and holds those filings for ultimate disposition. The major supplies for the Central Valley Project and the State Water Plan were filed on by the State Department of Finance and then held for assignment when the projects were undertaken.

I'm not sure of the extent to which this amendment providing for withholding water from appropriation was used. I do remember that the state engineer made such an investigation in the Nevada District.

Baum:

Where did you get this idea from?

Adams:

The way you get ideas is to be on the ground and study the situation and things occur to you. You don't get them in the office, you get them out in

រប្រធានាល់

these investigate as and surveys, he on the withlibror on a neurophic bind any one peopriates water that the bank be needed in that promoted dirthics.

These made that the contract of the cost. It is the cost. It.

smead ober the color of the book of despite of the past tells us to use sequely a specific set of the color o

This bis offs of the strike is a collowed the commence of a commence of a commence of the strike of the collowed of the strike o

\$ 500 \$ 75.1°

The way jord wet ideas to so he on the education of a single coordinate of the coord

Adams: the field.

Baum: Well, many ideas come from studying what other areas have done about similar problems, don't they?

Adams: Oh, certainly, and my business was to be familiar as much as I could with affairs elsewhere.

Making Formation of a District Easier

Adams: There was one change in organization that I thought was important at the time and which I did not like. It came up when Merced District was being promoted. The 1897 amendment to the Wright Act required a petition for organization by a majority of holders of land representing a majority in value of the land and it required a two-thirds vote for organization. When Merced District was being proposed, they knew they were going to have difficulty getting the required signatures representing a majority of value of land. The Crocker-Huffman Land and Water Company had a small system, and they were interested in selling their system to the district. I think they suggested the man who was appointed to conduct the sampaign for formation, ; ;

C C ...

•

Walter Wagner, who later became secretary of the Irrigation Districts Association.

The change was this, 500 owners of land representing 20% in the value of the land could propose the formation of a district. It was proposed that a majority vote on organization could carry a district and it resulted in quite a fight in the legislature. A law was passed providing for a majority vote. It went to referendum, it was that important, but it carried.

Baum:

Who took it to referendum? What interests were so opposed to the change?

Adams:

I don't recall. It was not only voters in Merced District, but all over the state. Other districts which were not anxious to see too many districts formed.

Baum:

Do you mean some districts were opposed to competition from other districts?

Adams:

I think the feeling was more that if the law made it too easy to form irrigation districts, more infeasible districts would be organized and the old troubles of early days might be repeated and the market for irrigation district bonds again upset. However, I am a little hazy about the arguments pro and con.

# 2 3 3 .

1 6 1

1.45

1 0110

\* 1 3 3

The entry one fitte, \$00 comes of land
concessoritate 20 in the walve of the land of ald
concessoritate 20 in the walve of the land of ald
concessoritate work in the confermination of the confermion of the confermion of the confermination of

ns for slave up in the constant of the end of in-

I o in whall. It is not not you be not not you will not not so it to be not so

្រាស់ដី ស្រាស់ ។ និង មាន ១០ និង មានដាល់ពីមេដីក្រាស់ ប្រធាន ១០០ ខ្លាំ និងការក្រាស់ខ្លាំ ១០១៣ និងការក្រាស់ខ្លាំ ១០១៣ និងការក្រាស់ខ្លាំ ១០១៣ និងការក្រាស់ខ្លាំ ១០១៣ និងការក្រាស់ខ្លាំ ២

I this is feeling to the second of the interest of the interest in the second of the interest in the second of the

Incidentally, several years later someone in the Irrigation Districts Association proposed that the association should be made a state body with authority to tax irrigation districts and assess new districts to gather funds with which to guarantee irrigation district bonds. But that was not passed.

#### Other Legislation

Adams:

In 1913 a constitutional amendment was adopted authorizing the legislature to exercise such control over irrigation districts as in its judgment was in the public interest. It was that constitutional amendment that really gave the state engineer and the Bond Certification Commission the control they had.

Baum:

Did the districts take kindly to this state supervision?

Adams:

There was some opposition from time to time. They liked to take care of their own affairs, but the benefits from this regulation were so obvious that the opposition was overcome. I doubt if any legislation was passed over the opposition of the Irrigation Districts Association, so I think it was a few individual districts that voiced opposition.

What we've been talking about mainly so far

**.** . .

11 6

Incluentally, several was letter of a letter of a letter of a letter of the letter of

### E to the to the second

Side in the interpretation of the control of the interpretation of

are districts organized under the California
Irrigation District Act. At the request of state
engineer McClure, I generally went over some of
these other acts while they've been in the legislature and made comments on them, but had no
important part in them. In fact, I don't want to
leave the impression that I had too much to do
with the irrigation legislation, although of course
I was interested in it and I devoted much of my
time to that study. I was primarily interested in
obtaining state control.

I remember our Commonwealth irrigation section used to review every act introduced in the legislature with reference to water. That was before and early in the 1920's. As chairman of the section during that period, I would transmit the conclusions and comments to the irrigation committees of the legislature. At Mr. McClure's request I used to attend almost all the meetings of the irrigation committees of the assembly and senate during that particular period, so I was on intimate terms with the new members of the committees and especially with the chairmen.

Baum:

Who were the chairmen?

Adams:

Well, Mr. Dennett was chairman of the assembly committee and then he went up to the senate and was

100 B . F

and implets the raised and mode deliverata in mightion with the letter of the required of the ramination of the first and the required of the ramination of the standard of th

I mean the property of the property of the feather of the base for every mean to such as the control of the property of the control of the co

Who were the chairmen.

Fell, the contrast rathers and an incommunities and antended an

. . . . .

10-00-55

chairman of the senate committee. P. H. Griffin of Modesto was chairman of the senate committee at one time. We'd work out our ideas. Sometimes Mr. Cowell and I would frame the legislation and take it up to the committees. Ultimately it would get into the hopper and it would generally go through.

The Irrigation Districts Association in the early days had little to do with the legislation, but individual members like Mr. Cowell and Mr. Dennett did.

Baum:

Why was that?

Adams:

It was a small association, there were not so many districts. Later the attorneys for the various districts were very active in the Irrigation Districts Association and legislation was referred to them and in some cases drafted by them. After they became very active I had very little to do with the matter. It was during Mr. McClure's administration that I was active.

Baum:

How likely were the senate and assembly committees to accept the recommendations of the Commonwealth Club?

Oh, they received them. They were very cordial about it. Sometimes I think our section took itself a little too seriously. We had a good batting average.

I remember one time, there were quite a number of bills dealing with closely related subjects introduced in the assembly or senate, I don't remember. I was meeting with the committee. Mr. Dennett, the chairman, said to me, "You take all these bills and put them in one bill." And I did, it was simply a routine matter. That shows our cordial relations.

Baum:

Adams:

Where did these bills originate usually?

From the people who wanted to make use of the legislation. There were many amendments to the act to meet some particular situation which couldn't be met under the law.

I remember one amusing incident. Under the California Irrigation District Act, land is supposed to be assessed at its full cash value, not including improvements. Incidentally, there's a field for a very interesting study there in connection with the wide variation in the way they interpret that law. In some states irrigation district assessments are made on a basis of benefits, as they are in our

Or, they received them. They were v ry cordial about it. Sometimes I think our section took itself a little too seriously. We had a good batting average.

I remember and them, there is no quito a number of bills desling with electly related subjects introduced in the assemble or senate, adopte remember. I was medding with the conmittee. Mr. Denastt, the chairm , waid to me, "what take all these bills and out them in one oill." And I die, it was stoly a roution with m. That chows our condiel relations.

There did these bills originate usually?
From the prords who wanted to akke use of the legislation. There were many emendments to the act to maet some particular attraction which and not be act under the law.

I remember one maneing incident. Take the one California irrigation District Act, land is emphased to be assensed at its full cash value, not including improvements. Incidentally, there's a field for a very interecting study there in connection with the way they interect that it. The way they interect that it. The made on a basis of benefits, as they are areas ments and made on a basis of benefits, as they are in our

ir.us :emshA

reclamation districts. A little district up in the northern Sacramento Valley had a situation which they thought could be improved if they could levy assessments according to benefits. Mr. McClure and I were going over that and he suggested that I prepare an alternative method of assessment allowing districts under certain conditions to assess on a benefit basis. I did that. I consulted a number of attorneys on the thing before I had it in final shape.

Then Mr. McClure asked me if I wouldn't take that before the Irrigation Districts Association and get their endorsement because it was very difficult to get a bill through that they opposed and quite easy if they approved it. So I did that at a meeting up at Sacramento. There was present a very interesting character by the name of Judge John Fairweather. He lived in the area and had, I believe, a part in the formation of the Alta Irrigation District, in Fresno County, under the old Wright Act. He was one of these archconservatives regarding changes in the Irrigation District law. He ran a little newspaper down there, was justice of the peace, always went to the meetings of the Irrigation Congress and later to the meetings of the Irrigation Districts Association. He always

tar obc

reclamation districts. A little wichrist up in the northern Sacramenth Palley and . situation of they thought could be improved if they in district they thought could be improved if they in day access aents aren file; to a neff ... im. c.lw. and I were volue over to that to sugment that I are not a large and that I are not a large and the court to a new the constitution of the court of a new to the court of a court of a court of the court of a court of the court of the

Then m. I down agreed more than the sac and referre the figure of an offer obe a suffection Tyram o to la ancreso deservancione electrica de ben tirecode go of ward or need from a dot not of opening and onite and if are enough to be the adding been too. The state of the second of the armount of the a track of the commentation of the edition of the e . ) o no core wid in heart on . renderson in miles I believe, a part is a serie of the a complete Ingigation Listrict, in Presidence of mil, to the cite old in the Act. to see one of them are noticenvatives recording of area in abs limited for it is law. He man a livile nor socoer describer. justice of the beace, Flungs saut a the selfa teom of of retail bas econgon, act of free eaft to type. In the second project of the terminant to

had something to say and he usually was opposed.

when I outlined this proposed alternative method of assessments, he was on his feet immediately opposing it. There was quite a discussion and the judge moved that the association do not approve it. That was carried. Then he got on his feet and said, "Now I want to move that this association disapprove it." That was carried. That was just a little incident. It wasn't too important that it be passed, but it would have helped the situation in that district and might have helped some others.

### Helping to Organize Districts

Baum:

When was the increase in the organization of new districts?

Adams:

The big increase started in 1915 and reached its peak in 1920. It seemed to me everyone wanted to form an irrigation district then. Many communities asked me to meet with them and because I went on so many field trips with the state engineer I was pretty busy trying to keep up with the job. Many of the requests to meet with communities came in those days through the local farm advisors.

Baum:

Was this part of your official job?

Adams:

Yes.

: 27275

2 1 1 1 1

had something to any and he usually on opension.

To the second of antecondense, he was on bid the bound of the constitution of antecondense was different of the constitution o

# stricted of end of trials

go the grant A. To tweet differ by

Commuse the independent of the community of the representation of the community of the comm

by the impressed of the type and as the standard of the control of the standard of the standard of the control of the standard of the standard

Baum: Did these communities want you to advise them on

how to organize a district or ...

Adams: Yes.

Baum: ...or whether it would be feasible to form one?

Adams: Well, sometimes both. The farm advisors were very

active in promoting the welfare of the communities.

Where they found they needed irrigation development, they began to emphasize that. They would invite me

to come in, meet with the committee, go over the

ground, consider what their water supply was, and

so forth. Gradually interest grew and we'd have a

general meeting and I would explain fully the proce-

dure.

I remember up at Woodland, a committee there wanted to form a district to get storage. Cache Creek was dependent on the flow from Clear Lake and that was insufficient many seasons, especially with the increase in rice growing in that area. There was a reservoir site available. The chairman of the local water committee and the farm advisor asked me to meet with them. We had a general meeting. A committee was appointed and we went over the whole area to be included. I remember sitting down and writing sub rosa a good deal of their newspaper publicity. The state engineer had asked me especially to go over and assist that community.

:mirr

3 margarit

· 8 8

on these communities want row to advise them on the to our to ourselve a district or ...

...or whether it virid no fresible to fren acc.

[1]], somether both. The farm siyisome vire volutive in manufing the selection of the conventities.

[1]], somether the manufing the selection of the conventities of the convent

I remain to both the little of the control of the c

That was the type of work I had a chance

Baum:

Adams:

to do. It was a privilege, very interesting. Was your work in the area of promoting the district? No, I absolutely had nothing to do with promotion. Helping a community with their publicity was as near as I ever came to promoting a district. I stayed strictly away from promotion. I limited myself to outlining the procedures under the district law and There were by the opportunities under other laws. that time a number of other statutes under which they could organize.

I did go a little farther in the case of Merced District. That was brought to my attention by the local committee and by the chairman of the irrigation committee of the assembly, who lived in that area. He published a little paper down at Livingston. I met with him and a local committee and wrote a resolution, which was passed by the committee, calling on the state engineer to make a preliminary investigation for the formation of an irrigation district there. In preparing this resolution I had in mind the 1917 amendment authorizing the state engineer to make preliminary examinations of proposed irrigation districts. This was done and the state engineer passed on to me the preparation of the report on

: BROOF

\* - // . .

13 1 5

Fast was the type of work I had a chance to do. It was a privile e, very interesting.

We norm in the area of empoting the district.

No, I absolutely but nothing to do with promotion.

Helping a community with their publicity for as a mar I ever ease to promoting a district. I stay as a strictly awar from promotion. I limited appears to autilities a from the moderness and rate is the end autilities of the moderness and the other is the were by the opportudition and other states and the chart to be were by the chart and a number of other states and other blockers by the comportudities of other states and other states.

I did to a little farther is the case of larged of correct. The base brought to appear to a selection by the local committee and by the committee of the assembly, we lived to their teasmostice of the assembly, we lived to their cas. The committee of little paper down stative end whose a mesolution, we can use a local committee and whose a mesolution, we can use a sessed by the committee, calling on the capture capture of the formation of an irrivation of the formation of an irrivation of the formation of the committee that a resolution of the formation of the company that the light and and the capture that also and the object there are and the store of the committee of the committee of the proposed in the capture of the proposed in the committee of the proposed in the committee of the proposed of the report of the proposed of the report of

which the organization of the district was based. With a district formed, money could be raised by assessment to pay for a complete engineering investigation, preparation of plans, and estimates of cost.

### Irrigation Districts Compared to Other Districts

I take it that you were pretty enthusiastic about Baum: this method of organizing irrigation facilities.

I was tremendously interested in irrigation districts Adams: and anything that would advance agriculture in the state, and I was fully committed to the district as a means of accomplishing that.

Baum: You preferred it to other types of districts that might have been organized?

Not necessarily. If there had not been a need or Adams: a desire for other types of districts, laws providing for them would not have been passed. The pattern of land ownership or the extent of urban population are among the factors that determine the type of district to be used. I never expressed a preference for one type of district over another. My activities, however, were primarily concerned with districts organized under the California Irrigation District Act, although I had some contact with other types of districts.

rated the armstron of the district was bores.

This additions formed, money could be refred by assurance to to per for a number; confinential finestication, and cation of westire for, oregamalication, and cation of

## stoindail d. of La sence atoindal, a if where

1 375.55

.Jaon 10

Estimate it that consider prestraint enterested to order to the standard of the time of the standard of the st

The section of the theory of the first terms of the

The energy of the control of the control of the adoptive for obtaine for obtained the set of the control of the sets of the control of the sets of the control of the contr

of course, in the south the usual procedure was through mutual water companies. In the San Joaquin Valley in Fresno, Tulare and Kings counties there were many farmers' cooperative irrigation companies, mostly organized at an early date. In the Kern River area public utility was the principal form. In the south a few of the mutual water companies changed over to irrigation districts—Imperial Valley being the largest area in which this was done. In the Sacramento and San Joaquin valleys some of the utilities and cooperative committees were gradually changed over to irrigation districts.

In early days cooperative and mutual companies involved a very low cost and could easily be financed by the farmers or, in the case of mutual water companies, by the land development company. Irrigation districts provide a means for financing new construction or buying out utilities not available to mutual water companies and utilities because of the authority given to districts to levy taxes or assessments.

Baum:

Why couldn't privately-owned public utilities do the job adequately?

Adams:

That's a long story. The constitution made water available for appropriation and sale for public use.

: amabA

Of course, in the south the usual procedure was through mutual water companies. In the San Joacula Valley in Presso, Tulare and Times counties there were many increased, as appeading irrigation companies, mostly opensized at an enricy date. In the Kern Piver area public utility was the minimal form. In the color that deal of the mutual mater commonist charged over to imagetime distributions—Inorial value, being the leptort are in vice this was done, in the Saermanto and And Joach in Jelleys note of the utilities and cronerative committees are cronerative.

In early rays cooperative and mutual companies involved a very low cost and no id captily is financed by the farmers or, in the case of motusi water companies, by the land development commany. Their tion districts provide a means for financing new construction or cuying out utilities not available to motual water companies and ethic is because of the authority given to districts to lavy there or assessments.

:mr.e"

: emel A

Why couldn't privately-owned cablic utilities do the job adequately?

That's a long story. "he constitution rade ento available for appropriation and sale for public use.

In early days public utilities usually disposed of water under water right contracts. That method caused a tremendous amount of friction. Many of the contracts were unfair. There was a good deal of litigation about them. There was no adequate state regulation of those utilities at that time. Agriculture can't stand too many people making a profit on the side out of the irrigation system. I always felt there was no place for profit to anyone other than the user of water, and that was the basis of my feeling that the district form of organization was the superior plan.

Baum:

It sounds like the farm advisors also were enthusiastic about irrigation districts.

Adams:

Perhaps I have overemphasized the part the farm advisors had in the organization of irrigation districts. Probably only seven or eight of them did, as I remember. All of them, however, were interested in the irrigation problems of their county. Whenever I went into a county in connection with the organization or operation of an irrigation district I always kept in close touch with the farm advisor and found him much interested.

There are other reasons than those given for organizing under the California Irrigation District

Act. Under this act the procedure for financing,

: or ebA

In early rays public utilities usually disposed of water under water right contracts. That her hot danaed a tremendous swount of friction. Nany of the contracts were unfair. The contracts were unfair. The contracts were unfair. There was no securite of litigation of them. There was no securite state state end the boot time. The confidence end to the willities of what time applied out of the isolated making a profit on the older out of the isolated crystee. Talesys felt where was no place for nearly to the anyone stars like was not the boot of my feeling that the circumstant of my feeling that the circumstant.

មានបាន:

14 200

It could like the for evience to exceptable about immigation distincts.

erhand I have averaging in the season in the season and visition of the season and season are season as a season and season and season and season are season as a season and season and an are season as a season and are season.

There are bibler reasons there there there then the organisms under the Orlifornia rrigarious of there are total disagent.

construction, and management has been worked out over the years much more fully than the other types of districts. In some districts the procedure was much more simple than under the California Irrigation District Act. For instance, some made use of county officials to levy and collect assessments. I understand that now other forms of districts are often preferred because voting is proportional

Baum:

Kern River Water Storage District

to value of land held.

Adams:

Well, an example of that is the situation in Kern County. In 1919 I was asked to go down to the Weed Patch Country, south of Bakersfield, principally the Arvin area, to discuss the organization of irrigation districts. I made many trips down there, had numerous conferences.

The situation was this, the canals carrying water to the irrigated fields north and south of Bakersfield, except at the extreme lower end, were all controlled by Kern County Land Company and cabac operated as utilities. At the lower end, around Buena Vista Lake, Miller and Lux had large properties. The supply was inadequate for the entire Kern River area and they looked forward to storage on the Kern.

onsignestor, and monera set has near worked out over the gener and any some fully then the other trops of districts. In copy districts the impositure as and more at its than under our Oslave of a large with attention in the trop of any and and and a set of a contact of a large of a set of a large of a large

Keen Styam law Claray of the

. The hours to enjoy of

il. in stangele with the location of the constant of the const

The effuelt v was this, the continuous of the samples of the same same same.

They knew there was a good site available at Isabella. Some of the ditches had early priorities, some late, and farmers under those having late priorities were agitating for some movement that would bring storage. What was being discussed at that time was a district under the California Irrigation Districts Act.

was then in the Irrigation Investigations office under Dr. Fortier, made a general study at the expense of the Department of Agriculture and proposed the formation of an irrigation district. That

There were in the area a number of communities subdivided into small holdings. Edison was one of them. The irrigation district law provides that all electors shall vote, not only landowners. The Kern County Land Company owned a lot of land that would be brought into the district and there were many others who owned large areas. Finally a meeting was held for them to reach a conclusion as to whether they should form under the Irrigation District Act or under the Water Storage Act. Professor Etcheverry had made investigations down there, I think, for the Kern County Land Company and he had proposed a water storage district. He was at that meeting to outline

1308.7

They knew there was a good site sysilable at Isobilis. Some of the ditates hid early orioritist, come lair, and farmens inder twost having late priorities were aritating for some movement that yould bring storage. What was only directed at the was a district ander the Oliffornia.

A little later Ar. 4. The old Collove, who was then in the larin that Irrentiantales office ander Dr. Rontier, and a sen raterior of the subspace of the Daustin of an interview of the the Collove that is a few the collowers of the Collows of the

There were not and holdings. It son was taken than a modifying enall holdings. It son was taken their. The irrigation of district less envisors envisable sheet on the state of the envisors envisable should be should be brought into the district envisors that would be brought into the district envisors than them to many others who owned lenge area. Thanks and to elater the they should form under the Irrigania in district for ander the Irrigania in the country and ander the interest of the country had made investigations can there, I in the country had made investigations can there, I in the for the had made investigations can the had areposed a water storage district. He was at their ectiques and its particular of the storage district. He was at their ectique as a storage district.

the procedure of a water storage district; I was invited to be there to outline the irrigation district procedure. After careful consideration they decided on the water storage plan because they had one vote per each \$100 in land value.

Baum:

At that time did you think a water storage district was better for that particular area?

Adams:

I had had no direct experience with the Water Storage Act. I think I showed no partiality for the Irrigation District Act at the time, but I had the general feeling that ultimately the community would be better off if all of the people had a chance to pass on what was being done. I realized that the local people had to determine what was to their best interest, but I think I would have been more satisfied with an irrigation district. I might say that some of my best friends down there in Kern County preferred the water storage district: Forest Frick was one of them, he's still a leader down there; Mr. Woodworth, son of Professor Woodworth who in early days was head of entomology in the College of Agriculture; and Hugh Jewett, a very important man, all large landowners. Then the movement lay dormant for quite awhile.

Yesterday I saw Forest Frick over at the Commonwealth Club meeting. I asked him just what

:amshA

the procedure of a water good selis a pt; I we invited to be there to entite the indication district procedure. After careful consideration they decided on the water stoness vian because the bed one vote per activities in land value. At that that the did no test total entitle and value.

12.37

I had ned no sires experience with a solution of mean Ani. . . this properties around the first transfer of the line first and the sign of the line, but I say the seasons? Teeling that which the contract the matter waste.

to are there I . who died ser driven present

their best laterest, but I think a very part their best their best laterest, but I think a very a composition of a print of their sections. The same of against a faterest. In Term Condey preferred the water atomore distribution for a Prink was one of their, as a suill a levier who in early days was beed of retrial and early days was beed of retrial and early days was beed of retrial as a very thought of axeleptons; and duranteest, a very thought and are all large land where.

Yesterder (san darest Friek ove at the Componential tal meeting. I asked big just whet

movement ley dismant for quite awhile.

year the district finally got organized. 1941.

And they don't yet have their water supply arrangements made. The Bureau of Reclamation has built Isabella Reservoir, but the district has not worked out with the Bureau of Reclamation any plan for obtaining water. The 160-acre limitation has held them up.

There's no question that they made the right choice in organizing a water storage district.

That's wonderful land down there.

I might mention with reference to those early negotiations that Mr. Alfred Harrell, who was editor and publisher of the Bakersfield <u>Californian</u>, was very cooperative. I had a number of conferences with him. He knew the public sentiment.

#### Large Farms vs. Small Farms

Baum:

Adams:

Did you find that the effect of irrigation districts was to reduce the size of landholdings in the district? When any area of unirrigated land is brought into a project the result is always to bring about a reduction in the size of holdings. The charge for irrigation can rarely be paid on unirrigated land. Besides this, when a project is opened there is generally a movement into the area by those desiring to take advantage of the new enterprise. This is true whether the project is a district or some other type. I think subdivision is more rapid in irrigation districts

: 817 - 0/

year the district finally not organizer. 1981.

And they conft yet have to ir water should arrange profit ande. The Pureto of Fedharation has built fashells teservoir, by the district has not conford out with the hard at our of fedharation and the for other of the fire has not refer of the fire has not refer of fedharation and the for other of the men.

Phenete no avestion that they made the right obe on in oral lating a maker thorage lintrict. That's wonderful lind down this no.

Thatght mention with a recursion to trave could negotiate the start dr. Alfred imprell, a course editor and but lither of the extraction of the extraction of the same er of anderences with him. We know the public centiment.

Old you find thet the effect of the infinite in district:

## Large first vo. Samil to c

:###

18:10

wese to estude the size of landholdines: the district. When any aven of animpissted land in beauth into a project the masult in always to trive and a reduction in tax size of holding. The character for irrivation can manely at paid on univrienced land. Ferical above when a project is opened taken is goodently a coverment into the among the troce desiring to take advantage of the new entrance. This is true distring to take advantage of the new entrance.

project is a litterict or some culer type. I think

admirabile of the first bigger on a principly links

than in other types, because the district assessment is levied against all the land in the district.

Baum:

I have heard people who favor irrigation districts say that one of their major beneficial effects is the breaking up of large landholdings. That implies that they favor small landholdings. I think many other people feel large landholdings are more efficient, more economical, and a better system for agriculture. What do you think on that matter?

Adams:

I've heard that question discussed a great many times. I presume you mean the family farm as opposed to the large corporation farm, because pro and con arguments generally relate to these two types. I can't answer your question categorically yes or no. I grew up on a family farm, and the life there was one of my greatest experiences. The only trouble was that like so many other "family" farms it wasn't large enough to support the family. Speaking sentimentally, I would like to see all of our farm areas made up of farms of that type, but that will never happen. At present many of our farms are too small to produce satisfactory income.

Agriculture is now generally a business--no longer merely a mode of life. There is no question that the large farms in California have made a great contribution to our economy. Many of the abuses

:ama6A

141.01

then in other 5 ows, because the district asconsions is levied stainer all the laid in the district.

I have meard people will beyon inview in districts asy that one of their pajor beneficial effects in the breaking up of large laidboleign. The laid they favor amail land ploing. This is after other people feel large laid ploing. This is near they favor economical and the earth response to the feel of the large economical and the earth response for the feel and the earth response to the feel and the feel and

1 13

If ye heard that mostly of entreer some about fives. I presume population the period with the man and applied to the least leave composable the period of the period of the solution and the confident period of the solution of the life of the solution of the period of the period of the solution of the s

Appiculance is not everylly a midrose-endionical merely a mode of life. The sis as peed on that the large farms in Oblifornia back made a seed contribution to our economy. Shank of the given

attributed to large corporation farms have been in connection with the status of the laborers. If there are such abuses, they can be corrected -- as many have been. There are some areas in California where family farms ould not be established. An example is to be found in some portions of our Sacramento-San Joaquin delta. Another example is on the west side of San Joaquin Valley in Fresno County where the cost of supplying water to the land is prohibitive to the man of small means. is because the only water available is underground water which must be raised from great depths, at a very high cost for wells and pumping equipment. Ultimately, when water is made available under the state water plan the situation may be different.

There are areas in which individuals have acquired large holdings and have gradually developed them under irrigation or plan to do so. In Kern County there are many instances of this situation. I have a general feeling that many of these large holdings up and down the state will ultimately be further subdivided, but no one can make really accurate predictions, especially with regard to an industry that is governed by so many forces as agriculture is.

1.00 8

attributed to low, e corporation it is have the incomposition with the class of the letter of the corporation. If the corporation is the corporation of the corporati

There are smooth abitoud in a value of a consequence of the same of a states and the abit of a consequence o

#### Difficulties in Developing Irrigation Districts

Baum:

Many irrigation districts were organized in the '20's when there was already an agricultural surplus in the United States. Was there any opposition to irrigation districts on the grounds that they would just increase the surplus?

Adams:

I'll give you an example of that. I would say it was in the late '20's, Frank Swett, whom I have mentioned to you before, was then general manager of the Pear Growers Association, which was a marketing agency for pears. He was raising pears over at Martinez and he purchased land down in the South San Joaquin District and had plantings there. He made rather bitter attacks on those of us who were interested in aiding irrigation development through districts. That was on the basis that they had more pears being grown than they could market and we were constantly increasing the areas that were being put into fruit and causing growers that much more trouble. So there was opposition in certain segments.

Baum:

Did this factor of the agricultural surplus come into your mind or the minds of the communities that were interested in organizing irrigation districts?

We considered all phases of the thing. We certainly

Adams:

were conscious of surplus, but you couldn't determine

#### ifficulties in Peveloping Irrives a Mathieta

1000

Weny inmination districts were organized in the 11 wince there are already an aquioulthmal sumplus in the first factors. The companient is notified the organization of the area are are area or income the area of the samplus?

40.55

ingra?

into your aind or the minds of the communities was a were interested in organizing irriw to a strict from the correlation of all phases of the the correlations.

one of this etor of the actionlord care we come

: 31 5 7 4

tore consolors of surplus, but to a clear the surplus

a matter of irrigation development on the basis of agricultural surpluses at any one time because the development of an irrigation project is a slow process. It takes many years sometimes.

Baum:

In other words, you were taking the long view, that the surpluses would not last forever.

Adams:

We had to take the long view. One of the problems that did conern us was the matter of settlement of the land. A project isn't a success until the land gets irrigated. If you have a large amount of unirrigated land not earning enough to carry the load, why, you're in trouble. That was the cause of failure of many irrigation projects in the West. Settlement became a problem about 1914 or 1915. The settlement had really become a problem in the West much earlier, even before the passage of the Reclamation Act in 1902.

Baum:

Why weren't there settlers?

Adams:

I remember someone remarked, along about 1914, "The species settler has become extinct." It's not easy to get established on a farm. Once it was a matter of a few hundred dollars to get established on a farm, but prices increased and it became several thousand dollars and it was not long before it became \$10,000 or \$15,000 to establish a farm and it must be much more than that now. Because of the

: 70.207

a unther of traination development on the beging of arricultural rurplists at any one time breaute the derelopment of the inviention amplied is a slow process. It is harmy years spretimes.

1 44 133 6

In other to be you were taling the burg mies. the The seminates of the constant of the

form the following services and additional terms of the to drama Eddon to read two seld have a record bill rest de lend. At mind ignit a a range of the land of To June a reger of and the Sl. bestandered eder But the ment of the statement of his better to the the agree of agree to the party agree of current party of the to an els of esplice different grow to reel at Service were no serve in the server of the s 3 of the meters to an yellow the dispussion as work earlies, even before the same of ha weethmas-The sale to be out it

:: [7:

191310

ed . The wide month , fast sich michen in desemble species as flap har some extinot." The concessions to set settentished on a riorm. Once it is a mailten

That fight o season distance visit

ent. Dusi'dedae der od erelleb berberd wer e ir form, out wire increased and it bear to cur wall thousand dol's a and it was not long before it

Tuceme 10,900 or 15,000 to catablish a farm and

it must be mad down that nor, Genzae of the

difficulty of settlers getting established, the state land settlement plan was adopted. In addition to the cost of the land, buildings must be erected, equipment purchased, land must be prepared for irrigation, planted, and there must be money available to carry the enterprise until it becomes self-sustaining. The Federal Farm Loan Act made the establishment of farms much easier of course.

Baum:

It seems that one of the problems, then, was that the cost of land had risen higher than the agricultural production warranted, at least for beginning settlers.

Adams:

Let me cite the West Stanislaus District. Some of that land was sold, after organization, at somewhere in the neighborhood of \$200 an acre. It was a high figure, very much over its value for dry farming.

I was talking to one of the farm advisors about that increase in price. He said, "If they pay that much for their land, they're working for nothing."

However, I doubt if our predictions were borne out because I believe that has been a very successful farming area, whatever they paid for land.

It seemed to me very significant in the formation of districts that there should be an immediate increase in price of land after a water supply was made available. Right after Merced Irrigation

13880

offrientity of a salery ration readilished, the abecome land schilament of the seconds. In a little to the dast of the land, builders we will be excents, and another second of the readily land and the presence for land land and the course avelones as a land of the entry five entry of the entry part of the course and the readily of the entry of the entry

1 min 6

It is easy bitation of the model of the control of

It reamed to be very clouditional to the compute of district that the compute should be an about to or increase to erice of land after a coper supply who made evaluable. Right after horder forger than

Adams: District was organized, I spent several days finding out what the price had been before and what it was after the formation of the district. There was a great increase.

Baum: The irrigated land has to pay assessments, which
I should think would tend to keep the price of the
land down.

Adams: That's something that should enter into the price of land, but so far as I can see, it hasn't.

Baum: I can't imagine a farmer buying land without considering the cost of the water.

Adams: I suppose they do, but if they want the land they have to pay the price. In an irrigation district they don't have to pay for that water right away. Speaking academically, as the price of water goes up, the price of land should go down, but I haven't found that true.

Baum: I should think the cost of land would go down when the cost of other factors goes up, as water, taxes, or even fertilizers and seeds.

Adams: Yes. But the question of scarcity of land must enter into that, and the desirability of location.

Desire to live there enters into the situation.

: :5 P DA

District was on thing, I spent new mid ingo fied to the what she are that it the after the the form the first of the district. There was not the content of the district.

\* mrrk -

. mar - noni dana

· L. The Brook

Fine implementation and ras to pay has an entropy thick. I should be taken to been the option of the

The test something them should exist the relative of the sound of the

desait imagine a Michiga of int land in the University ...
institute cost of the rade for the cost of the

.

Esuppose firster, but it was visible to the datable covered to a district covered to a district case to any door the endered of a court case in a cademic sult, we have notice of setting a notice of the contest of the

Laborate state of land up to the court of hand the court of other factors goes up, as rather, track, or even firstlikers and cooks.

: 2000 600

wer. The trace creation of abanding of lead much and and help on the trace into the desire with the citerion. Desire to live there alters into the citerion.

# Santa Clara Valley Water Conservation District

Adams:

Santa Clara Valley Water Conservation District furnishes an excellent example of the long period frequently involved in developing a plan and system of control of water.

Baum:

When did you become interested in the Santa Clara water problem?

Adams:

While I was still located at Cheyenne in the old Irrigation Investigations office, I came to California for a holiday. The man who was in charge of Irrigation Investigations in California, Mr. Wilson, had had a serious illness and I was asked to look after affairs while he was ill. That was over a two or three month period. One thing I knew he had had in mind was an investigation in Santa Clara Valley. So I went down to see some people down there about the possibilities of an investigation. Mr. Wilson died and was succeeded by Dr. Fortier and I went back to Wyoming.

In 1904 Dr. Fortier sent a student who had just graduated down there to make an investigation. That student was Fred H. Tibbetts. I made several trips down there to go over the ground with Mr. Tibbetts.

### Santa blers Valloy water Conservition District

Compared the control of values in the control of the control of the control of values of the control of values.

• -

What is the more than the the following that the Clark Clark mater and the more than t

ratio i mas still lon ledint Maga unital and half and matestic line of the collection of a differential and a differential and a collection of a major of use; the interstite of a factor of a collection of a

In 1992 Dr. Hombion sent a mudent use hold instanced down the sential residence of the sent and the sent of the se

In 1912, in cooperation with the State

Conscrvation Commission, we carried on studies on
a number of streams. One of the areas was Santa

Clara Valley. Here is the report.

Baum:

(reading) This is from Office of Experiment Stations, Bulletin 254, 1912. (They look at report.)

Adams:

In about 1920 Fred Tibbetts and Stephen E. Kieffer, another well-known engineer, laid out a plan for Santa Clara Valley which provided for replenishment of underground sources primarily, but with some surface distribution. In 1921 a special act was passed creating a Santa Clara Valley Water Conservation District which extended from Morgan Hill neighborhood to a line midway between Mountain View and Palo Alto, in other words, almost the entire floor of Santa Clara Valley in Santa Clara County. That was subject to approval in an election. That election was held in the fall of '21.

We were having a home built in Los Gatos at the time. I went down there and spent a week just prior to the election and went to the meetings each evening in different areas where the subject was being discussed. I took no part in it, I was merely an observer. It was defeated.

Baum:

What was the opposition?

THE BLE

In 1912, in cooperation with the Stie ons rvation Commission, we carried on at dies on a number of steams. The of the areas was Suftailers Valley. Here is the arcset.

1001-

(reading) Timin from iffice of Experiment the ton. .
Sulletin 2', 1912. (The Look of magazet.)

: 19,55

In about 1920 Fred Tibbation and Topien to them, another rell-nown engineer. Isid out a alon for Sunta Clara Velley which rowload for rentanishment of mplerground anamage relamnity, out tith nome mustain distribution. In 1 it a species of the one passed areating a Santa Clara Clara of the indeed from the Clara Clara Clara of the Santa Clara Clara of the order of the order of the contraction of the order o

on a line midway between borntain View and oily allow, in other words, almost that utiles floor of fortha Clara Clara Villey in Santa Clara Coross. The westing arbject to as moved in an election. The election was beld in the fall of 121.

We wome having a in secretit in more is a cast time. I can down the east seat a vect first of more to the election and read to the arctic or action and read that the arctic or action and difference areas where the subject and help diamaged. It also no east in it, increased, observer. It was defeated.

TOMAS.

What wer all apporition?

Adams: There was very bitter opposition.

Baum: Why were they so opposed?

Adams: Farmers are conservative when it comes to spending

money.

Baum: It was the expense?

Adams: As I remember it the plan the district was to

carry out would cost around ten or eleven million dollars. For an area that never spent any great deal of money on irrigation development that was a lot of money. There were already a good many pumping plants in the valley and I think the farmers generally didn't appreciate the dangers of the impending over-draft. There was also opposition from the owners

of several small ditches from Los Gatos Creek which supplied water for irrigation in the winter.

After this defeat the law was amended eliminating the southern area around Morgan Hill. Again the matter went to the vote of the people and was defeated once more. Following this second failure the matter was dropped until about 1926 when Dr. Leroy Anderson undertook to revive the project. He didn't want me to call him Doctor down there because he was a farmer then, but he had been formerly in charge of the farm school at Davis and I had known him intimately, we were very close friends. Sometime in 1926 he came to see me, he was anxious to get things started again. I had many conferences with him and I talked to at least one large mass meeting on procedure in forming

100065

: 12. L. W.

There was very nitter opposition.

Why were they so opposed?

tomp

Farmers are inservables than it can a to some int

j': ;mijo:

Sermanne ont enw to

.781.0m

\* n. n. n.

As I respendent to the last thick thick wis to camery out would abe to mean to the court entition sollans. For an area that never enough ear affice dath of money on indicate that the record observe that the polar of the court of the court

Anter the total deletting loss of mentions in the southern area around horsen will. The Discount to the vote of the sole of the sole and was defected one; acre. Pollowing this second failure the matter was dropped until about 1926 vans im. Leavy Anderson undertook to regive the poject. I didn't want me to call him Dector down there because a didn't want farmer then, but he had been forment; in other of the darm across at Davis and I had 'nown' middles', were very alose intende. Sometime in 1 in he came to see me, he was anxious to ret illinor skarter again. I her many conferences with 'im and " telled to et

a district. Fred Tibbetts had loaned me a copy of the 1921 Tibbetts-Kieffer report and I had analyzed it for Mr. Anderson and had given him a memorandum setting forth the main features of the project. I had informed myself as well as I could on the physical side as well as the organization side.

Mr. Anderson formed then a little association which was known as the Valley Water Conservation Association. He interested a number of others in scattered areas. I have here a newspaper clipping giving an account of the twentieth anniversary meeting of the association, from the San Jose Mercury. In those early years they raised about \$10,000 from the farmers and chambers of commerce.

One of the first things they did was to build some little check dams on some of the little tributaries on the Almaden and Guadalupe creeks.

There was much propaganda then about the advantage of these little check dams. You will find that in all these early discussions of districts, every farmer is an engineer. He has his ideas as to what should be done.

Baum:

Was the idea of these little dams for storage or underground percolation?

Adams:

Just to slow down the flow of water. They also bought one of the old ditches, the Page Ditch, and

Addms:

a district. Then Tibbetth had Lowied me a copy of the 1921 Tibbetth-Et riem report and I had shalyze? It for Mr. Indeeson and had given ain a manorimous setting forth the sein in turns of the profess. I had informed myself as well as I could on the paying indees well as well as incoming in.

The Anderson formed such a libble agracia los unido was inque and the former description. Association. The input of a secret of order of order of the sociation and secret and an expect of the first and sociation and the sociation of the association, and the expect of the sociation of the association, and the expect of the sociation of the expect of the expect of the sociation of the expect of th

The office of earlies of earlies of the state of the state of earlies of earlies of earlies of the state of t

Just to fire drum the Claw of water. They also brotht ons it to all citemes, the ine high and

: IT ITE

: 3. 634

ran water out in it primarily for percolating water into the ground, but they did it by running it out on the orchards. I think they gave it to the farmers almost for nothing. The main thing was to get it into the underground.

But Mr. Anderson and his associates came to realize something else was necessary.

Baum:

Did Leroy Anderson own much of this land?

Adams:

He had a very nice orchard on the road between Congress Junction and Saratoga, probably 25 or 30 acres.

Baum:

Was he quite a wealthy man?

Adams:

No, I think he had very little capital. I know that he assumed a rather heavy debt and paid a high price for the land. One of his friends told me that he didn't think that Anderson could carry the financial burden which he assumed.

Baum:

He couldn't afford to contribute much money personally.

Adams:

Their contributions were 50¢ an acre on that preliminary investigation.

I ran into this little item Dr. Anderson sent me at the time of this anniversary meeting.

Baum:

(reading) A certificate of membership in the Valley Water Conservation Association, signed December 1, 1926.

Adams:

He predated it.

10 5/

2000

1201.0

128 177

: 2,59:

2 F 12

ean water out in injurishing for sered vin of recent of the around, but then did it as evaniar a out on the ordiands. I being they gave it to the framework then obline, so that the contract the contra

. harveyey, her adr odal

of and had love on the member of the dark of the section of

That the best to the second of the good of the

The house of the control of the cont

.... 13 52.0 10 - 11 1 70 20

The course of methods and ordered by the capital and the course of methods and ordered by the course of the course

. If another the first object the bound of bactic states of the second of the states of the second o

Them into the distribution of them is an inverse of the series of the se

. If him being or

Baum:

Signed Leroy Anderson and Max Watson. And on the back, "We are sending you this certificate of membership in the Valley Water Conservation Association in consideration of the splendid assistance which you gave us in the spring of 1926 when we were struggling to find what should be done to save the flood waters of our valley, and also for the good advice that you gave so freely in succeeding years."

Adams:

Dr. Anderson interested Senator Herbert Jones in preparing a new act and this act was passed in 1929. It was under that law that the present district was organized.

Baum: Adams: Did your wife and children live in Los Gatos?

Yes, off and on for about ten years. My oldest boy suffered greatly from asthma and we moved down there in '21. He never wheezed once after we got there.

Did you take any further part in the Santa Clara

Baum:

district's affairs?

Adams:

No. They had employed Fred Tibbetts after the act of 1929 was passed. In fact, I'm sure Mr. Tibbetts had given Dr. Anderson a good deal of advice before he was employed. They had that act amended in 1931 to take care of some deficiencies. I went over the law at the time at the request of Senator Jones, and made my comments, but I don't recall what suggestions I made.

:run.

ilened Lerby Anderson and Mar Wettans. And on the back, We are sinding you this combitteade of man - ship is the Valley to be Constituted to responsible to consideration of the piculiar againment of the piculiar againment of the case of the continuous of the configuration of the co

1 " | 1

The state of the second content of the reduction of the second of the se

dated the constraint of the contract of the beginning the contract of the cont

roots to the real and rest fords got in the 15 , all

. I the first of the second of the second of the second of

\* \*

: : . A

amountal from the section of the section and with the time to state of

\* ' /

Dir yok bake cny funtser part in the Sont film

Carti Tin eltoighrib

\* ' ...'

Ho. Tany had conloyed whed disproble of the case of 1) of weet paged. In dark, it is some the first and niver wro. Independe a rood deal of admine better he was employed. They had that accomplished to 1) to 1) to bake come of some doft it or fee. I want or more to bake come of some doft it or fee. I want or more law to but to the fee to orange the standard or more law of the common or the fee of the fee to orange or the standard or more law or more law or the standard or mo

. Beet. .

Baum:

What kind of a man was Leroy Anderson?

Adams:

He was a wonderful man. He was primarily an educator. His interest originally at Cornell was dairying. He came to California first as principal of California Polytechnic School at San Luis Obispo. I met him just as he took that over. He was visiting Stanford campus with some of my friends there. Then when I came back into the work in 1910 he was at Davis.

Baum:

Did he get along well with people?

Adams:

So far as I observed, he never antagonized anyone, although there had been some conflict between him and Professor Major at Davis while Dr. Anderson was there. When the district was finally organized and got going in '31, he wanted to be secretary. What I'm telling you now came out of the mouth of Fred Tibbetts and was a great surprise to me. That Dr. Anderson wanted a good big salary, and that he wasn't a good businessman. And they replaced him. He felt very, very badly about it. I don't think they treated him fairly. They finally honored him by naming a big reservoir the Anderson Reservoir. I know there was a lot of opposition to Anderson

Baum:

and I wondered if he were the type that antagonized people.

Adams:

He was very gentle, very much of a gentleman. Very

3 1,7

: Dista

: pny A

1 16.8

1 11 11 11

carpus with come of my it ends there. The whom over bair othe white is it here is avis. later a dity flar grafe to and the some as I observed, he saw words is a war of ablance Cherr had been some which into moreon the of the second se was there a facing and drive the sale more, wealt sea and control of 133, he wanter the we are their the transfer of the She show on the weilthought are Fred Tiboeths and was a great accorded to the list in. Anderson trutted a root bir sollows. Let will a . I we to the roof of the agency and the book a direct E selt ver, vene ber gabot in. they transfer it satisfy. Page flasher was end by mainer a billy acryster the Anderson or mystr. I have there was a lot of opposition to mice: and I wandered if he were de branches I bar . 8100 nd

3 thind of a men weed berow indersection

. of wante a wonderful er. . The transmitter ily an article to

is interest original at Marnell vas delegin . He

Liste Ten to teglo des se destre el catille es seso

interest to the took bast over a wear that the test on

with the consideration and the line obtains the tyles

: 10 S

is near very to blo, very mans of a geroloner. Vo.

quiet. But he had single-handedly restarted the movement that led to what followed. Above any one individual he was entitled to credit for that.

Baum:

He must have been single-minded, to keep working at that when everyone else gave up.

Adams:

Yes, but I hardly think everyone else had given up. I enjoyed my contacts with him very much. He was really a very close friend. I stopped to see him almost every time I passed the farm. His wife was a very brilliant woman, also a Ph.D. They were very active in the community church at Saratoga. When I attended his funeral there was constant reference to his contributions to the community down there. The church was just filled with people at his funeral. He was very highly regarded among his friends.

But if he had an idea and someone opposed him, he wouldn't back down.

Baum:

So you would describe him as gentle, but persistent.

Adams:

Yes.

: BK f E

4 , 12 , 1

1:1-6 1

piet. But he had ain the handedly mostarted the novement that led to writ followed. Soon onvise individual he was entitled to counts for thet.

"A must have been si whe-ninded, to keep contise at thit very our else wave up.

I've, but a randly tell very your else can given in early a very close vitous in very auter. As a case of all enjoyed my cirtuets file very very auter. As a case of almost every time I based the first very agent of a very brilliant wours, also for the first very very brilliant wours, also for the country of the country

Fut if a had an idea au sercone a cossilir, Le wolldnit back down.

et his dinaral. He was very tighty was aded en are

Co vou beld describe him as morie, but here, at me. Fes.

: m·bA

.ardeid" et.

#### WORLD WAR I

#### Increasing Food Production in California

Baum:

You mentioned you did some troubleshooting on water problems during World War I.

Adams:

Yes. There was a serious shortage of water in the Sacramento Valley and in someother areas. The great emphasis of the Council of Defense and the Food Administration was to increase food production. The need for food in Europe was paramount. The Council of Defense and the Food Administration came to us for help to speed up food production.

We took over, with the consent of the local people and under the moral suasion of the times, control of water distribution in a number of areas. One was the Woodland area--Professor Beckett took over that. The purpose was to see that no one received more water than he needed. One of his main objectors was George Hecke, who was later state director of agriculture and quite a prominent man and who later received the LL.D. from the University largely for his leadership in stamping out the foot and mouth disease in California. Mr. Hecke almost cried when Mr. Beckett wouldn't let him have as much water as he wanted. Said his orchard was going to die.

#### I MAW GUROW

# Instraction Food Production to Californ a

\*: \*\*

A respective to

or not un princentes in the second track of an about the second track of the second tr

Eva. There as a semious or such as wells: in a sangered of taker in the Saorimento Matheway and in a source areas.

The movest emphasis of the Gord of the Source are such the food Administr to the second of the second of the source are source.

The mean for Total in the source of the source of the same.

The state of Daff was the fine into the source of the same.

face, a to the warm one of the to the feet of

papple and array the event one the cities ines, non-mode of what coding the time in a number of sec. The worlds of which would and the assemble of citeth to the compage of the citeth and the citeth has needed.

The purpose of the needed. The act of the citeth are well as a citeth and the citeth are decided, the was laber at a citeth at the citeth and the approximant of the citeth and the later and the later and the citeth and citet

Veihmeyer Mr. Viehmeyer took over control of water distribution of the West Side Sacramento Valley Canal Company, the old Kuhn Project. I remember how easily that arrangement was made because of the general sentiment that we must do everything to advance the war. Ralph Merritt, state food administrator, asked me to go up there. I went up on the evening train. First thing in the morning I went to the office of the canal company and arranged for a number of people to meet me there, including Mr. James Mills of Mills Orchard, who controlled what was left of the Kuhn interest property there. Within an hour after meeting with those people, I was able to call Ralph Merritt and tell him the arrangement was made, that I was asking Mr. Viehmeyer to come up and take charge.

We took over water distributions in some of the foothill areas, I think the Grass Valley area. Some others. That was one phase of the work we did.

Another phase of our work had to do with the Federal Capital Issues Committee. No enterprise involving public financing could be financed without that committee's approval. A number of canals had been built in the area previously included in the Kuhn Project. Pumping plants had been put in and

: 30,00

Her Figure took over control of water distribution of the last Side Scarselation of The ment of the plantage of the state of the second of the in essil, to commence and the second of this second into a construction of the contract of the bit of the contract with entitle of the control of the control of the control of good part . Togo on ways At the tenning of the court of the soliton and of in the second of The Broken of the second of the second second as course of the most of the state of the state of the to the first the second of the The section of the se 

Touthout a second of the secon

Another of war of our conditions of the conditio

rice had been planted. The promoters proposed to recoup themselves by forming irrigation districts and taking the bonds of the districts and getting out in that way. In Washington the Capital Issues Committee looked to the Department of Agriculture and immediately to Dr. Fortier for these reports throughout the West. Dr. Fortier instructed me to look into those in California. In Southern California Mr. C. E. Tait looked into a number of them. That was the general character of our work.

I remember a conference in the assembly chambers in Sacramento actively participated in by the staff of the College of Agriculture that was devoted to measures for increasing food production. I had been asked to make a study of possibilities for increasing the wheat crop by increased irrigation.

Another important project I would like to refer to was in San Joaquin Valley in Kings County.

A very large canal had been built from Kings River, the Lakeland Canal, to water land in the area of Tulare Lake, Just as it was completed an injunction prevented diverting any water and that canal had been lying idle for many years without a drop of water in it. It had been stopped by the lower riparian owners. We undertook to see what we could do with that. I got Professor Harding, who occasionally made investigations for us, to investigate that area. I think largely as a result of the facts he

: 877857

pine had bose placed. The promoters proposed to recomp themselves by forming irrivation istrict of the tables and tables of the finteriots and getilm out in that cay. In descination the descination the descination of the finteriots of the finteriots of the formital dead of the formital dead of the formital dead of the formital dead indepthen ladged to the legal to the legal that the following the followin

Treating to a second to the server of charge in the server of charge in Sangements and the second to the server of the second of the College of Articulation bitters with the college of t

Another important project for the state of the formal bound in San Joaquin Juley on Hiller Since of the state of the state

gathered and our conferences--I remember one conference at Fresno with all the group together--that
canal was opened. It was brought into the Kings River
group. That was an important accomplishment.

Baum:

It sounds like if Californians would get together under the same impetus as they had during that war to solve their problems, they could be taken care of.

Adams:

If is a big question. There was a great feeling of support for the country and the war at that time.

I recall an incident up at Woodland. They had committees to sell war bonds. There was a German up there who had an extensive farm. He held out. The committee went to him and said, "Here, you buy these bonds." And he bought them. Force of public opinion.

During that shortage of water, the Sacramento and San Joaquin Water Conference was organized, largely through Chester H. Loveland of the Railroad Commission, Hydraulic Division. Representatives of all the irrigation interests in Sacramento Valley, including the Delta, joined in that movement. They raised funds for emergency supervision of water diversions from the Sacramento River. Several conferences were held in which factual material was presented

1007952

rathered and is nonferences--- remember in the freeze entropy of the chart three consists of and were consisted. It is not been that it is the fine interest of and it should be the fine of the chart o

-

: in A

1910

id a big amention. Then was a versit for any final and sold of the second of second of the second of

implies the classical of the constant of the c

by various agencies. The engineer's office of
the War Department took an active part because
through their control of navigation they could
prevent some of these diversions. But they took
a very broad-minded view. They realized the need
was for water for irrigation and they wouldn't
interfere unless absolutely necessary. That point
of view was emphasized in later years by the flood
control measures passed by Congress.

Work with the Army Educational
Corps in France After World War I

Baum:

I believe you went to France for the army. In what capacity?

Adams:

It was connected with this general state and national movement for making provision on the land for returning soldiers. Canada also was interested in that subject. After the Armistice there were two or three million men over there in France.

What were they going to do with them? A long slow process to bring them all back.

so they organized the Army Educational Corps and established a university in Switzerland and one at Beaune, France. They provided opportunities for soldiers to take educational courses. Educators from all over the country went over to take part in

: B Bid

or var ous approvies. The engineer's office of the lar Denamble to had believe and because the lare their electron of a viration the because approved about the could' sure vent again of these invitations. But they to the sure were the lare and the lare against the lare interesting about the lare and the lare against the analysis of the lare against the emphasis and the lare against the emphasion absolutely accessed by a constant of the country and about a constant of the lare against the lare a

# Level of the start of the Mark I was I was

11 111

E selleve you will be Branes of them.

it was coments with this search have a con
the tional movement for each a relation and land

the returning coldiers. Canada wish a lade of a

in thete southers. After the Arabetta and a color

wo of three all in real over the season.

whet were they coing to do with the season.

So they in whised the Approductions in a sud-established a university in Science; and established a university in Science and a suddent of the country went ower to take provided over to take country went over to take pure in

those courses. Professor Ernest Babcock of the University went over. Knowles Ryerson, who had recently graduated from the University of California, was a second lieutenant in the army and organized agricultural clubs in the neighborhood of Le Mans. He had some 2500 soldiers, as I recall, in his clubs. But that had nothing to do with the Educational Corps.

Baum:

Was your job to prepare the soldiers for land settlement?

Adams:

Well, this trip came out of the general movement to provide for returning soldiers. The army educational program was organized and originally conducted by the YMCA, but while I was en route to France it was taken over entirely by the army and was operated under army orders. I received a telegram one day from a man who signed himself Captain Stanley Howe, who was recruiting men to go over and take part in what they called the institutes that were being conducted among the troops. He asked if I would gather a group who would talk on opportunities for soldiers on the I think Dr. Mead had something to do with land. that. It had been originally proposed that he should go over, but he was unable to do that, although he expected to go later.

170.854

two courses. There were the Tabench of the this are the select and the statement of ned right to the restaure in the section of the transfer of bashered the remember of decrees a fire and a decree as a way . The of the beer hand at an act of per to empt to large and the second of the second of the and the profit of days that the the soul for . 20 to " 1 bold to ogto

early to to property with the first and with the state of the state of the first state of the sta

remove the any office of the state of the contraction of the state of If a this could be in the companies of the line the C 95. The start of the start of Year of sedence March 19 th the great for the true as the second in the viscours . The browning section is discord only there are not to the man areas to the east come to of form to distribute as a month of the contract of the in a collect good deliver there are one reve or inchiertes trockes the competence some introoper, it as so if I would active a term would talk as accordantias for solaters or the land. I simil a Mesa and and antital . tenit that. It is care opiningly proposed the is enough on our the was mable to o thet. although he exp. Cod to to lawer.

I went to Washington and assembled some illustrative material, largely from the Reclamation Service. They were exceedingly cooperative. We went into their photographic file room with their publicity man, Mr. Blanchard, and I was allowed to select any films I wanted. We had several copies made--35 millimeter film. I also was given access to their slides and assembled several sets of slides. I arranged for Walter Packard to come over and take part. But he arrived too late to have much part in the institute work. I had a meeting with the group at New York University. Dr. Lindsey was in charge. I suppose there was about a month involved in preliminaries and gathering material.

I got over to France and went directly to Paris and reported to Mr. Kingsbury, who was in charge of the agricultural institutes being conducted. I found he was a brother of two of my instructors in Cogswell College in the early '90's. A Californian from Napa County.

Well, things were kind of in a mess over there.

I waited around. It got down to the point that
there weren't going to be any more men to talk on
opportunities on the land for returning soldiers
than Mr. Packard and me. It was finally arranged
that I should go up around the Marne and report to

I went to bashington and arsembled some illustrative material, largely from the feelemation service. They were exceedingly momentially. The state into the into the industry of a photosic file room with desirable tints the into the industry of a photosic file room with desirable the sublicity of and into the second of the second of the second of the interpretation of the interpretation of the interpretation of the second of the secon

I got over a French and went directly to Paris and reported to Mr. Himsbury, who were in every of the archantural bashibutes of my and archantural bashibutes of my and arch. I found he was a brother of two of my in trunt of a language. A left archanture in the earl, 1961s. A left archantrol department.

soll, saints were kind of in a most of hard.

I waited around. It was down to the point that
there weren't going to be any more as we take an
opportunities on the land for returning oils' are
than Mr. Fockerd and me. It was finally served that I should so up around the Marne and report to

someone. That instruction was changed and I was sent to Is-ur-til. I reported to the captain in charge of the institutes, and found there four or five men on the job, but they weren't doing anything, they were waiting for orders. We waited there about two weeks. Finally the captain and several of us rode down to Beaune and put something under the men in charge because a few days later we got orders to report to Beaune. I finished preparing a lecture there. I studied all the literature I had brought over while I was waiting.

We finally got started and were sent to Le Mans, four or five of us. The routine was that they'd have a colonel's car come around and pick us up about one o'clock and drop us off at various camps. The commander there would order the troops assembled and we'd talk to them. I was the only one on this subject of settling the men on the land. I told what was being done by the Reclamation Service, what was being done in the south to open up lands, what was being done under the Land Settlement Act in California, and again what the opportunities were for farming and what men needed to get started on the land.

Baum:

You just gave one lecture in one location and then traveled on?

111.8 4

eshoons. This instructs on was chemoad and I was sant to sant to Is-un-til. In marky to the eartain in thermal of the isotites so and found then found relative and of the job, but first werealt coldent found of a class of the job, but first werealt coldent and of as the sant start about the sant sant and the coldent about of and to Beauca and the coldent at the unit of made and the coldent at the unit of made and the day of the coldent at the order of the sant to send the sant and sant to send all a coldent and the sant and sant and

The considering of the constant of the constant of the consideration of the consideration of the constant of t

You just year our lecting 1 one loggion and inch

17 T 3"

Then in the evening the colonel's car would Yes. come around and take us back to our barracks. repeated that for several weeks. We came home one night and found orders to return immediately to Paris and then to Beaune. After several weeks the educational corps, a whole trainload of us, were sent to Brest to await debarkation. took several weeks there before we had an opportunity to leave. We returned on a very crowded ship carrying some three thousand soldiers. On the way across the Atlantic a number of us were called on daily to talk to the troops from the bridge on our particular subjects. The forward deck was crowded with soldiers milling around and most of them paid very little attention to us.

Baum:

Were the soldiers interested?

Adams:

Well, I remember one outfit from the Bronx, New York. They weren't a <u>bit</u> interested. In other outfits there were many questions and men would come up and talk to me afterwards.

Baum:

In what connection had you known Walter Packard?

I first met him in Berkeley at the University,
soon after I returned to irrigation work in 1910.

He graduated from Iowa State College, I think,
then was at Stanford for awhile. Down there he
was in charge of YMCA work. At Berkeley he was

Adams:

tions: - - - - Then in Grayenier the celerits cer would

THE PLANT THE SUVER I WASHED TO USE TO SEE OF THE ploted and antiproduction of the delig als a feet to the A See as . After a read bis pice? . In to becoming a store of . read of figure termina and the contract there is there as no entre A TOCK COME TO A SERVICE AND A MEDICAL STREET FROM THE OFFICE \$ but tons tree and former than a to severe of the in . . I to be a sold as the size of the and the size The many the state of the self program to a self and the rest of a recovery of a typical between Commence of the section of the secti the control of the control of the second .s of the two are in every bias and the deep one The the sold to a interest of A CONTROL OF THE REAL PROPERTY OF THE PROPERTY a k. They supently bit letter of a Fire the bear of it our three Adam would adirage come in and talk to a streamon. to logic manifest more new field and the electric of . direction of to valage of mid see during noon often a stanfast of heartford anthon acce eracunted from Torn First Collections.

on which the tendence and the course of the

the charge of Mills only. At the established and

of allowers, the column of the object and allowers are con-

1-1-

1. 100

10234

active, in some capacity, in the Farmer's Institutes, or rather, the demonstration trains that the College off Agriculture conducted with the Southern Pacific Company for several years. I think he had been in some of the boys club work of the Extension Service. He had established the experimental station in Imperial Valley and was in charge of it for several years. When the Delhi settlement was established he was the superintendent. So I knew Walter very intimately for many years.

Baum:

Had his training been in agriculture, or group work?

Adams:

I'm not sure, but I believe it was some agriculture and some economics and sociology.

who see the some of the sold of the best of the contract of the sold of the so or flot e f inff chame a literater - n ent , welt a wo of deviations as the best view the " "were Pacific જાર કે છે. તેની વાલોકો છે છે કે કે માટે જાય જાય જાય જાય છે. to be reduced to the control of the second of Can the second of the second o I he specially a like galls to be a substitute. e to the securities of the established agents the TORREST OF THE SECOND SECTION OF THE PROPERTY OF THE PARTY OF . The rest of the state of the on control of the miner relationship of the control of

The action of the second of th , redefine by a limbure to

#### LAND SETTLEMENT IN CALIFORNIA

#### Background of the Land Settlement Act

Baum: Land settlement was a topic of interest in California

even before World War I, wasn't it?

Adams: Yes. There was a discussion of land settlement

in the Commonwealth Club in 1915.

Baum: How did that idea first start?

Adams: A bill was pending in the state legislature providing

generally following the lines of land settlement in Victoria, Australia. This bill had been prepared

for a state land settlement program in California,

in a committee appointed by President Wheeler of the University of California following an interest

in land settlement created by Dr. Mead. Dr. Mead

was in Victoria, Australia in charge of the State

Rivers and Water Supply Commission. He had gone

over in 1907 as chairman. The Victorian government

had built some very large irrigation works and the

water was not being utilized. What was needed were

people on the land to use the water. Australian

political and social thought was in sympathy with

state directed activities along those lines. The

task of settling the land fell to Dr. Mead and the

commission. They worked out a plan of settlement

### ELVE-OVIJAC VI TESELITER LAZI

## Background of the Late Lebternal of

bund meller of the option of the color of the order as

the Color Burn of a discount of a new group To . wi

. The date date with the terms

: . F

1 77 3 1 1 1

stance domin a backer block

the first constant of the first of the second states in the engage of the second secon

In this wit, and white the city of the contract of the contract of a second of the city of

हैस के तर तहते हैंदेवर बोल्ड हेवलों हैर वर्ष कर्त है को इति होल

si neath worth wels suidivides the agent atoms

of the first to a for a dre have a for a content of

by which land was prepared prior to settlement, buildings were erected, and very active promotion for settlement was carried on. At one time, about 1912, he thought it desirable to try to interest some of our successful irrigation farmers in the United States in going to Australia. He didn't get very many to go over there. He had taken George Kreutzer, who was farm advisor in Kern County, to act as superintendent of these settlements, or one or two of them.

Dr. Mead made frequent visits to the U. S. and advocated that we in the U. S. adopt the same type of promotion of settlement with government aid in laying out the farms, preparing a portion of them for irrigation before settlers were on there so settlers wouldn't have to spend two or three years without any income, building homes for them, long time amortization of the purchase price of the land and buildings. He spoke at various places over the country advocating that. He interested President Wheeler and Dean Hunt very much in the idea, and as a result President Wheeler had appointed a committee to consider legislation. The members were: Dr. David P. Barrows, chairman; Dean William Kerr Jones; Professor A. M. Kidd of the law department; Dean

of the lead was presented. On we my retive productions of a set black on the composition of the contract of the set black of the contract of t

nergy and asymptotic of the second of asymptotic for the second of asymptotic of the second of the s

Hunt of the College of Agriculture; a very bright member of the staff of the Department of Economics, Carlton H. Parker, and myself.

Baum:

Adams:

In 1915 you were in favor of a land settlement plan?

I was in sympathy with it and did all I could to
help it from the beginning.

When this bill was being pressed for passage
by the legislature a conference was held with
Governor Johnson to obtain his support. However,
he did not want to see the bill passed. He felt
that the whole subject should first be investigated
by a state commission. The bill was therefore
withdrawn and the suggested commission was authorized.

In 1916 Dr. Mead returned to California to head a new division of rural institutions in the College of Agriculture, and he was made chairman of this commission. At Dr. Mead's suggestion the Commonwealth Club appointed a committee to aid in the investigation that the commission proposed to make and obtained an appropriation of some \$1,000 or \$1,500, as I remember, from research funds of the Commonwealth Club to finance the committee's investigation.

At the conclusion of the commission's investigation,
Dr. Mead prepared a new bill which was passed by the
next legislature. It set up a State Land Settlement

-drwing year a : middleich A he breiteit de dans - camebr . Inches to describe at the transfer of the transfer of the terminal ard tent this . to bear all most fus

In tall tore then in they are a feet and motified by plan. continued the bib was it film and some i earli with it from ble bent at al.

There were a many to the fill will new a The test of the second of the second of the field and the in the state of th William Company of the San San Company of medical transfer of the first and the second of the second second of the The state of the s I mentioned the control of the contr

Search allocation of beneater seem . A office confidence of a reliablished form to distribute as a into the part to be now the box . Indication to in the majority was a contract that the contract of the contra totic ith with the contract of netain to a section of the the party of the city and communication of the dedian appropriation of the st. or to activitize on a This was a second to shart decompose as the promomer . Common and the standing of the some in car fall

. At motive worth the traductor of the meter fonce and of er to be a control of the file of a borners to all and TO ANGELL TO SEE TO A CONTROL OF THE SECOND PROPERTY OF THE SECOND P

Board to undertake a state program, and Dr. Mead was made chairman of that board. This new bill was considered by the Commonwealth Club at subsequent meetings and its passage was approved by the club.

Baum:

The private land colonizers opposed it?

Adams:

Oh yes.

Baum:

Hadn't most of their private developments gone broke already?

Adams:

I do not recall that any of the developments went broke. The problem was the difficulty encountered by settlers under the arrangement of the private land colonization agencies. Some were on land which was unsuitable. Some were on better land, but the terms of payment were impossible for settlers without means. Many centers had failed.

I remember one project east of Stockton promoted by the Fleishhackers. That was found practically impossible for settlement under the private colonization plan. The Fleishhackers found out the facts about it and they returned the investment of the purchasers.

A Mr. Charles H. Kendrick and his partner were perhaps the most active private land colonizers and he was opposed to the state land settlement--he

: 8. 5- 14

Hoand to underbulze setate program, and Nr. Mead was made chairmen of that board. The recurity was coordinated by the Puramenth of the Puramenth of the Puramenth of the Consesse was coproved to one clark.

Wil buscuss amorticism from Gerving off

· Carry Off

The service of the state of the

CAL COLLA

I carpo confl the bank of the cane to be the best of the bold of the best of the conflict of t

I sem one indicate and the formal service of the followings. The followings of the following and the following service of an and and the following service of an analysis of the following formal service of the following service of the following formal services and the following formal services of the following formal services of the following formal services of the following formal services.

A Mm. Charles i. kendrick and is purinell with northern with most colive Carter in (Color) the ansale was annosed to the content of the conte

and C. M. Wooster, who had real estate interests up in the Sacramento Valley.

When I was on one of my institute lectures in the Army Educational Corps in France in 1919, I went one evening to talk to a group of soldiers and whom did I find as commanding officer but Charles H. Kendrick who had opposed our efforts so strongly in California. I remember he said that as the result of that movement for state land settlement private land colonization in California was dead.

#### <u>Durham and Delhi Settlements</u>

Baum:

Were you in contact with the Durham and Delhi settlements?

Adams:

My only responsibility was to report on the water supply at the beginning although I was closely in touch with both settlements. We carried on a 40-acre demonstration project at Delhi with alfalfa and vines and orchards for the benefit of the settlers. That's where we brought Mr. Huberty into our work. He went down there to take charge of that project in the field.

I'm inclined to think I might have been indirectly responsible for the purchase of the Delhi land although I had no idea that anything I might have said would

រៈ២៩៩៦.

11:11

13.0 /

is a data edesso from bard only a stace ( . 1 . 5 bard only entropy) and sale and call entropy.

When I was on one of my droughter last to he the last to fine through ideals of a light. I want one aventual is a last of an aventual and and aventual at the last of a constant of a last of a last

## offer to 1882 of 1885 to the second

In Dec. (a) independent of the odd of the rand of the region of the regi

in only meapons'hility was by entropy of the grant of the sample of the bounding alternates. The rambed of each element of the continued of th

The footined to taink I right here weer i feer ly mes ansible for the numbers of the Well's lood also had the notion to ather that asything I might be solutions.

have had any influence. Here was the situation.

Great difficulty was found in locating tracts of suitable land. The Delhi tract had been owned by Mr. Edgar M. Wilson for quite a number of years. He had offered it to the Land Settlement Board.

Some of the board didn't favor it. Negotiations for it lapsed and apparently had been discontinued. There was sort of a stalemate there, although Dr. Mead had not yet entirely given up the idea of that land. Dr. Mead told me a remark of Judge Wm. H. Langdon, a member of the board who had been raised in the Modesto-Turlock area. He said, "We always spoke of that tract of land as one over which the jack rabbits carried their lunches when they passed over it."

Well, I was riding up from Fresno on the train and went into the dining car and sat down with the owner of this land, Mr. Wilson. I had become quite well acquainted with him because I had made a careful study of the tract to see what the water supply was and I had recommended that the portion not already in Turlock Irrigation District be annexed to that district and receive its water there if the settlement was established. Mr. Wilson said, "I think Dr. Mead has given up buying our land." I said, "I'm not entirely sure of that." On that cue, Mr.

Page bays had any in Junce. Erre we has situation. nierwin tidecid i out the refrittib doe n citable land. The self-thrace had even bunel of . The first the second of the . On a Color of the standard with a second of the fact of and the state of the state of the section of the se and the language and a second term of the contract of the or the right of a right that the end of the dece extra or to The said the control of the day day to the pro-. The state of the were the second of the second and the second of the second o the second of the second of the effect against Typic of the most class between note as topy of

1 3

Test of the great sent to pataly erri . Elew ent of the engage and the edition of the first sense of the find, is filled. temps of the transfer of the state of amore flow paration of the same of the sa grand and the same and end and income the had I been of all with the entry on Joinsoil not which and factor of weight to the distribution of the state of the second of t ment over abailishor. The tilmon of the best of The Mead has lived a bugine our lead of brown and .r . to s' a '.vid to inte fortions doc hil'

T. i Teve Teamerra

Wilson went to see Dr. Mead and within a few days they decided to buy that land. Whether that chance remark of mine was a straw, I don't know. I hope it wasn't. It turned out, so disastrously for the movement.

The unfortunate thing that happened was that Dr. Mead went off to Australia on a consulting trip during a period of controversy regarding Delhi and it got out of hand. A lot of veteran trainees had been settled on the project and their activities were supervised by a retired army officer. was a lot of uncalled for antagonism aroused. This army officer made an exparte investigation down there and called in the disgruntled settlers, who were undoubtedly having a hard time on that particular type of soil, and wrote a very bitter report to the governor. The governor passed it on to State Engineer McClure and he passed it on to me. I made an investigation and found what I thought were very unfair tactics by the retired army officer and made a report to the state engineer. The governor became very bitter. Dr. Mead was still chairman of the Land Settlement Board, but away, and the governor appointed Mr. Wooster, who had opposed state settlement in the first place, as chairman of the Land

what : Iloo went to who Dr. In al and wienus a bendous they decised to fur ( ) land, Whithem that charce remark of mine was a sarew, a sain to re- I though is vesseli. It manned a i. on simusem and the the . James C.

of the street agency and county exercise traces. If Dr. Maad beat off to knote ta on a continue will mental in the entry of common to belong a primar the end out of the color of the color of the color of ಾರ್ಡ್ ಸರ್ಕಾರ್ಯ ಅಭಿಕಾರ್ಥಿಯ ಪ್ರಸ್ತಾಪಕ್ಕ ಪ್ರತಿಕ್ರಿಸಿಕೆ ಕಾರ್ಯಕ್ಷಣೆಗಳ ಪ್ರಕ್ರಾಪಕ್ಕ ಪ್ರಕ್ರಿಸಿಕೆ ಕಿಂಗ್ ಪ್ರಕ್ರಾಪಕ್ಕ ಪ್ರಕರಣಗಳು ಪ್ರಕ್ತಗಳು ಪ್ರಕರಣಗಳು ಪ್ರಕರಣಗಳು ಪ್ರಕರಣಗಳು ಪ್ರಕರಣಗಳು ಪ್ರಕರಣಗಳು ಪ್ರಕರಣಗಳು ಪಟ್ಟಗಳು ಪ್ರಕರಣಗಳು ಪ್ರಕರಣಗಳು ಪ್ರಕರಣಗಳು ಪ್ರಕರಣಗಳು ಪ್ರಕರಣಗಳು ಪ್ರಕ್ತಗಳು ಪ್ರಕರಣಗಳು ಪ್ರಕ್ಷಗಳು ಪ್ರಕರಣಗಳು ಪ the second of th ative , elega said of said to the foot to do a visit of the control when I have a free a politic mostly a stall better ago the control of the control of the state of ou deten a reditte there e edela in the final te acont The street of the corner and the street of the continue of the species of the engine enter and distributed to the best of the value of a in our Prooffic green beaution with you entroust classifier en la reception out consentrals etain out et irre en s rear bitter. Dr. West are abitte desired and ... Land Seetl. sent taged, but amer, and the over them appointed sir. onster, a on his appoint sixt in tilesent in the timest alson, an obsimman of the land

Adams: Settlement Board. That was the beginning of the end.

Baum: Then you think it was poor politics, poor management.

Adams: I don't think that it was a matter of politics with

Governor Richardson. He previously had been ardently in favor of the state settlements but had changed his mind following the controversy at Delhi. There is no doubt that many of the settlers were having difficulties. The Delhi area was a hard one in which to get started. The cost of developing the Delhi project was much more than had been anticipated,

I think that possibly more reliance was placed on underground pipe systems than was merited. I do not recall what the board paid Mr. Wilson for the land, but it undoubtedly was too much. High costs and low income were basic difficulties.

particularly, I think, the cost of the concrete

pipe distributing systems. I know Dr. Mead was

very much worried about that feature.

There had been difficulty in obtaining settlers for Delhi due largely to the general situation in land settlement in the country. When Durham was settled there were three or more applicants for each farm available and many were disappointed at not being able to gain acceptance by the board. On the

1 11 1 1

. 5.TU From vol thing is a cloom notifier, boom waithout is ; r.d.

"attlement form". That wer the begins ar of the

tid coliffica to retime them at the Contribt dipos I in the common of the control of the common control of the control of t particle the second of the tag of the paid to second it or boil . Tailed 3 one were not refer to the for the united to be the termination of the contract of the contr This was enabled this with the present with differences of notice at the colony of a new level to the before the light of their to met atabled. The art of the dead and the predicteture es a la munió mora fora sem fosta c neationly I at my the move of the more than very much same of da being consum very in a reserve to a sometime error plainer and which in in the state of the state of the contract of the contract of off act ically of since brack aft is a figured too rand, or it mar mabboul, what will not be a fear

Terms on A boot of throughte the Adjoins at line "or Felly on the division forcess effect to lead settlement in sic company, then settlement a si het led the word a three or more now! enth with our and the Windership of which the state of the man Notar able 13 with acceptance by the thomas, which

and Individual test on war cost well as

other hand, at Delhi the board had to go after settlers and in some cases undoubtedly accepted some who did not have the desirable training, experience, or attitude. There were some settlers there who were capable, sincere, and really getting along, but I felt when I went down to the project for the state engineer that the retired army officer who was in charge of the veteran trainees, as well as the trainees, were very unfair. I felt at the time that if Dr. Mead had not been away in Australia he could have successfully overcome the difficulties, although undoubtedly some adjustments would have had to have been made.

As the controversy at Delhi increased there was disaffection by some of the settlers at Durham. They employed a very able lawyer from Chico to present their case. He attacked the state's handling of the settlement very strongly and took it to court. During the hearings George Kreutzer, the former superintendent of the settlement who was then with the Bureau of Reclamation in Washington, was called to testify. He told me that some of the settlers whom he had gone all out to help had bitterly attacked him. That is what I think brought on his death, because he was so very much hurt at their

: 87555

other hand, at lejsi the sound has to rolaffer settlers and in come rense undoubtedly accepted some who did not have the desirable training, have innered, or attitude. These was some rebtle is there in the ware order that. These was some rebtle is the allow work order in all work in the twenty of the court of the veteral that the court of the veteral training of the veteral training of the desire of the veteral training of the theory undeing of the court had and a training the theory of the theory and the the court have successful a court in a section of the court have successful average of the court in a section of the court have been as full average of the court of the court that the court and the term and a court of the court that the court of th

As the next coversy of belief integered the contact was alleafiled for by some or the settler of contact for by some or the estimate of the nearly of a present their vers. See a cover them were a to month of the contact their vers. See a cover the estimate the bearing of the organism of the bound of the cover of the cover of the cover of the formal of the following of the told me that cover of the cover o

attitude. He broke down very shortly after that. He was very able, very sincere and had had long experience.

Baum:

Were both colonies to be general agriculture or was some special crop planned?

Adams:

The thought was originally that the Durham colony should be made up of general agriculture and animal industries, that the Delhi colony should be largely devoted to horticulture. But when the settlers began to arrive at Delhi most of them wanted to raise alfalfa. It was logical that they should begin with alfalfa because of the long time necessary to bring an orchard into bearing. That's why we put a large portion of our experimental tract at Delhi into alfalfa, demonstrating the different methods of applying water. We put in a little apricot orchard, a small fig orchard, and also a small vineyard.

During the early years the orchards at Delhi did not produce well. The cause of the difficulty was not learned until some years later when Dr. Chandler of the College of Agriculture found that a shortage of zinc in the soil was the cause of the trouble. Recently Professor Huberty told me that it is a wonderfully fine area down at Delhi now and that the orchards are in very fine shape.

Professor Roy Smith of the Department of

18:0001

. . . .

attitude. A broke dorn van gromptrafferde.

He was very able, van stocese nac el bid len
ensembace.

Was some nave of cross planned:

The bisespith to a sping traffy of the Research of the bound of a solution of the and a point of the sping of

if our payone well. The expense of the difference is a not learn of while one is green to expense of the one learn of the doll of all the off Agriculture of the learn of the sail was the course of the same throughless of the subject of the learn subject of the original subjects of the original subjects of the original subjects of the original.

In John Serge with at the eggineer ice

Agricultural Economics at UCLA made a very exhaustive study and report on the history of the Durham and Delhi land settlements. During his investigation I arranged for him to talk with Dr. Mead. We met in a hotel lobby in Sacramento.

As we sat down, Dr. Mead put his hand on Roy Smith's knees and said, "Durham should have succeeded, Delhi was a mistake." So that was Dr. Mead's final conclusion on it.

131 200

Norman large reconstruction of the made a very exhaustive really and really and all the letters of the large and laster I at settlements. During all the investigation of the real terms of the line of the standard of the laster of the laster

## COMMONWEALTH CLUB STUDIES

Baum:

To get back to your work with the Commonwealth Club, what further studies did the conservation section take up after they had completed their studies and reports on the Water Commission and Forestry bills?

Adams:

In 1915 the conservation section was discontinued but a number of its committees were continued as independent sections. Among these were the committee on forestry and wildlike with Walter Mulford as chairman; the committee on irrigation with Mr. C. E. Grunsky as chairman; the committee on water power which had several chairmen in the succeeding two or three years. Mr. Grunsky continued as chairman of the irrigation section until he was elected president of the club in 1920. I took over then and acted as chairman until about 1924 when I moved to Davis for a year. Fred Tibbetts took over. After a year or two Charles H. Lee took over.

While Mr. Grunsky was chairman the irrigation committee discussed a number of very important subjects which included further strengthening the power of the state engineer over irrigation and other water districts; the possibility of state

## TAILITA ENIO HOU. BORRO.

1. 113

The part turb of a site of a site of a site of the contraction of the part turb of a site of a s

1000

in 1915 the conservation set to all a statists of our entries of the equality of a south that a supplied of the equality of a south that a supplied on the equality of the will a south that a supplied on the equality of the equality of as chairs of the equality of as chairs of the equality of the equal

Particle Mr. Organsky was casimate the inti-

aid to communities in irrigation development; state construction of storage--either separately or in cooperation with the federal government; and the establishment of a State Department of Public Works.

## State Investigation of Water Resources: The Marshall Plan

Baum:

Was the club interested in the Marshall Plan and the state water and power acts?

Adams:

The Club later took up the Water and Power Act, but it did not take up the Marshall Plan as such. There were lots of power problems before the public about 1915, and the last part of that decade. The power section was studying those questions. There was very clearly need for more rapid development of power. During the war the Council of Defense had to set up a power administrator in California to eke out the supply of power. We were just at the point, I think, when the Federal Power Commission had not yet fully developed its policies.

Along about 1920 the board of governors of the club asked the power section to summarize its discussions and views and make a report, and requested that the irrigation section participate with them.

19 354

1 11/18

1000

#id to communities in traigation certoloom ut; for communities of a training at the sectors will be a sector of the sector of th

## : And the color of the same of the color of

The company of the co

The control of the co

Allount about 1921 the board of the board of the Allount Allount the state of the posterior of the posterior and a south as a south a

Two sections came to an agreement on a number of resolutions. Among them was one recommending an appropriation to the state engineer of such an amount as he might designate as usable during the following biennium for making a study of the water resources of the state and so far as possible developing a comprehensive plan for their use. The irrigation section was interested in increasing our information regarding storage.

Baum:

A comprehensive plan for the whole state, not just Central Valley?

Adams:

We had in mind the whole state. One matter we had chiefly in mind was an investigation of the possibility of moving the surplus of the Sacramento into the San Joaquin. Information about storage on the Sacramento was meager. In fact, one of the most eminent engineers in the country and a man who had had long association with the problem in California made the statement in our section, "There just is no storage of consequence on the Sacramento." That was a shocking statement, but considering the knowledge and ability of the man who made it, it was very impressive.

Some time after this--I think it was in 1918 or 1919--Colonel R. B. Marshall, chief geographer of the U. S. Geological Survey, wrote to the

13 000

Two sections case so an agreement on a number of resolutions. As as them was some recommendium a suppopulation to the site engineer of such as according as a sight of intate as used le inminer con following tend and for altipe a strong of the term of a sight of the section of the section of the control of the section of

\* 1 \* 5 1

. . . . . . . .

A dompressentive Juna for the tolk consequent from Seatons (Seatons) Welliew?

in the new terms of the relation of the control of the second of the standard of the standard

Some fire after this--I think it was in this or loss limits. Some loss contrator contrator contrator of the contrator. Something the contrator of the contrators of the contrators of the contrators.

governor outlining what was known as the Marshall Plan.

The plan created a great deal of interest throughout the state. A high-powered publicity man, L. C. Davidson, was employed to promote the plan and to bring it to the legislature. A very capable man. He collected money up and down the San Joaquin Valley, small amounts from the farmers. He had quite a fund and there was a very active promotion. Colonel Marshall made many speeches in favor of it. Was power a prominent feature of the plan? It was primarily a water plan, but also involved

Baum: Adams:

income from hydroelectric power.

I heard Colonel Marshall speak on it several He spoke at the auditorium of the high school here in Berkeley. He told how he came to conceive that plan. He had come to California some years earlier to take charge of the topographic mapping by the Geological Survey under cooperative agreement with the state. He had an office in the top floor of the old brick civil engineering building on campus. He was looking out over the Golden Gate and thinking of the water that was flowing out of the Golden Gate from the Sacramento and the San Joaquin and this idea came to him, it was an

: 3885

rovernor outlining what was 'enwo as the worm and MATE.

The olse trained a ree about the uslo add The policy of the property of the confidence of the property o bee call and adonomy therefore any , we divel . . . is antherwish manageneral arm the Dura angulo Fran the first ansurte from the first of the first structers flower THE COLD IN COLUMN CONTROL OF TYPE REPORT OF THE . I to the term of the term of the lighter of the talk and a subject to an income of their self Soviers of the left . The grater a stign the sour #1

. Her nigdo-dreet yet oret on cori

Thead Colored The entrance boxed I trong for an are the solitaring of the experse. home in Tembelay. He told home a care over ivathat alone. He put come to be derived and obstice to take charte of Michael Samuelan or the Grological cover under appearable communities communities with the swate. He had an office in the and the of the old optob sivil enviseeding hilling and on appear. To translate out over the following the the driver of the water that the training of the artist of the Golden Tede thom the Chorsweath out out Ged the car ii , mid of mono palt eind bo. nigrock

inspiration. Over the years he kept it in mind and finally outlined the plan and proposed it to the governor.

Here is Colonel Marshall's report in full and his map. And also What They Say About the Marshall Plan published by the California Irrigation Association in 1920. That was the promoting agency.

what Colonel Marshall proposed was storage on the Sacramento at the Kennettsite and grand canals down the east and west sides of the Sacramento and San Joaquin Valleys to irrigate the entire twelve million acres of land in the two valleys, water for the San Francisco Bay area and diversion of the Kern River through a long tunnel under the Tehachapis "which at a reasonable cost would provide all the water Southern California can reasonably get and perhaps would need for one hundred and fifty years." He recommended appointment by the governor of a commission of five to report on the general practicability of the plan and, if the findings were favorable, that the legislature immediately pass legislation setting the plan in motion.

His idea was that the state should authorize a bond issue of up to a billion dollars if necessary for construction and that the hydroelectric power to

12. 554

inspiration. Over the gas and kept it in also and finally outlined the plan and proposed the the the governor.

Tere . Olorel sarshall's menorb in full ord of a map. And also what They are involved in Servicell. Flow outstand by the Col armive Train artist Administration Administration and the time in 1910. The rest was the production among.

That Octobel Marchall proposer cas observe on the Sacramento at the Wine boots of the cast and wine of the order of the cast and the cast and the discs of the Assertance and Jon Jonath Vallers on the action of the statements which or the Marn Street through so the cast of the statement of the Marn Street through a last organism of the Marn Street through a last organism that the cast of the color of the color for the action of the color of the color for the statement of the color o

a bond locue of up to a billion dollars if one saw, a bond locue of up to a billion dollars if one saw, for consumer, on and that the hydroclastic pours to

be developed at the various reservoirs would carry the full interest, depreciation, and maintenance on the construction work, leaving only the cost of construction to be paid for by the users of irrigation water and water for industrial and domestic purposes.

Baum:

The water users would only have to repay the principal.

Adams:

Yes, and that could be done in fifty years.

Colonel Marshall's topographic work had familiarized him with many reservoir sites but there had been no extensive engineering reports on those sites to determine their feasibility. He did say that the stream flow measurements of the Geological Survey and their survey of reservoir sites and his topographic work left no more field work to be done, that all that was necessary was for the state to authorize the project and the people to vote the bonds and construction could begin tomorrow and be completed in ten years without one cent of cost to the state or federal govern-He certainly was an optimist. Evidently ment. he didn't understand agriculture and how development goes on little by little over a period of years.

The idea of a comprehensive plan had been

11.6.253

se developed at the various reservoirs would can v the foll interest, depreciation, and maintenance on the construction was, leaving anly the mast The intermited the not beg and it detainstance to inmigation weber and water for industrial and . conequie our os s.

The rater received it only sevents reser to .frois

Yes, and then so ld be done in the term, seep. Johnson in apoget of flatteness temptotol

familiarined his wifth many wester in given ont the to had leev to extrosive engineent of conta . Sifiringer wind en mast of chieffy and to in did say that the other lion - how dende of the Goolowish thrower and their name of recording nited and his bron mondig when the first of a north to be lone, blast all that was as everyong a for the state to authorize the project of the . his a grillinge one of all one off eday of alocad bestin tomorrow as introducted in ten sense it its -manager in apply or strate and od dear to dues on the went, is a minimum and optimist, and the he dian't understand a miguitu a and how dovelown a

see on little by little over a onital or vener. The idea of a communicative plan but been

advanced by the Alexander Commission in 1874. It proposed to divert the water of the Sierra streams southward, and in this way to irrigate the entire Sacramento and San Joaquin Valleys. It was really only a paper plan because it was not based on any thorough investigation, but rather on hearings and taking testimony in different parts of the valley.

When the Marshall plan was being considered a great deal of attention was being given to what could be done with the returning soldiers after the war. Under Secretary of the Interior Lane, very extensive investigations had been made in the south with reference to settling soldiers there, and also in the western part of the country. The Land Settlement Act in California had been passed. So one of Colonel Marshall's arguments was that his plan would furnish all the construction work they needed to take care of the returning soldiers in California.

Baum:

A public works plan?

Adams:

Yes, I suppose you could call it that. They would work as long as they wanted to and then they would settle down on the reclaimed land.

(Reads from "Irrigation of Twelve Million Acres" by Colonel Marshall, November 1920.)

:ar.a5A

advanced by the Alexagner Johnship on 12 1370. It proposed to cive to the wares of the Sied streams southware. So in this way to insite the the entire "seraw of our in this way to insite the the entire "seraw of our south was adver the streams of the source that it is based of ear thought of twenty that the third of the third of the same that the same of the same

When the Mernich of the second of the control of the control of a detects of the control of the

: THE

: - - - - 1.

led, I smooth you to it can be the the thought and the work and long as they to thed to the country to the settle country to mediatment lede.

A public sor salang A

(Reads Thom "3 High that 1971 11 the 1.5.5)

Mr. L. C. Davidson endeavored to enlist the support of prominent people by asking them to serve on the advisory board of the California Irrigation Association. I find some very prominent people who agreed. Dr. Elwood Mead, President Wheeler, David Starr Jordan, President Ray Lyman Wilbur of Stanford, City Engineer M. M. O'Shaughnessy of San Francisco, and the president of the Irrigation Districts Association.

Baum:

Did these people endorse the Marshall Plan or just the idea of some plan?

Adams:

In general, I wouldn't say they endorsed the Marshall Plan, but they showed great interest in Marshall's proposals and generally favored an investigation.

A number of newspapers endorsed the idea of the investigation.

Baum:

You and others thought the plan had not been adequately worked out.

Adams:

It was obvious it hadn't been worked out. The Commonwealth Club sections on power and irrigation wanted the State Department of Engineering to investigate the water resources and develop as far as possible a plan, but not specifically any one proposal such as the Marshall Plan.

Baum:

Did the club take any action as a result of this study?

inrenA

Mr. I. C. Haridson endervored to enligh he amond of moond of the dry asking the to since on the advisors hound of the Chiffens, a trainable who hasos; stion. I will not the Chiffens a trainable with a mood. The line is a resident in a length of the resident in a length of the chart for the line is a length of the line of the line of the line is and she president of the line in the line and she president of the line in the line and she president of the line in the lines.

: Did taese beonly encomes the fill of the fill of the company of

is managed, in the state of the property of the investment of the property of

form wid ofreepo thoreint the dust tid net bear ad⊕quately noview int.

It was obvious it leads to have some of . The forest commonwealth Olsh are loss on power and imports harted the discussion beatter the discussion that the water measurees and desertion of an absolute a plan, but not specifically on the proposal and as the haraball stan.

of the alub take any setton as a result of this at ady?

Yes. I asked the state engineer how much he thought he could use profitably in the biennium and he said \$200,000, so we prepared a bill appropriating that amount to the state engineer's department to make such a study. I took it up to Sacramento and showed it to Mr. Bradford Crittenden--whether he was then senator or assemblyman I don't remember--. The club had already authorized us to promote that legislation. Mr. Crittenden said, "That'll be my bill." There was another bill appropriating \$500,000.

Baum:

Then your bill was for a general investigation and the other was to investigate the Marshall Plan specifically?

Adams:

I do not recall the wording of the bill, but I think that definitely was in the minds of those who were pressing for it. After a few days Mr. Crittenden said he wouldn't promote our bill. Apparently, the pressure had become too great for the other bill. As I recall it, the bill that passed had some of the purposes we had outlined and I think \$200,000 rather than half a million dollars.

Baum:

What were the reasons why the Commonwealth Club was in favor of a more general type of investigation?

1 1

10 5

Let. I asked of start a mine we made to a mine the six and the second start and the six an

The ideaset for any a got sew (the case each each for a factor of the case) and the factor of the case of the case

The most send of the condition of conditions of the property of the condition and conditions of the condition of the conditions of the con

That is a construction of the common and the construction of the construction of the construction.

Perhaps I can best answer your question by quoting from my presentation to the club at the meeting on December 16, 1920, at which our proposals were approved: "So the first thing we are asking in our resolution is that such investigations be made as shall, so far as it is possible, help to work out state policies with the most complete conservation and utilization of these resources.

"Our section, I believe, had kept its mind directly on the facts, and I believe they are not in favor of or do not expect any appropriation that is aimed to be used to present something that is ideal and possibly that might, in the centuries to come, be worked out. We have in mind something very definite and specific, and that only such investigation be made as shall enable the state to go as far as is reasonably practical to go in working out a policy and plan for our water."

Baum:

I read something by Franklin Hichborn and he said that in his opinion the public utility companies were trying to prevent the Marshall Plan because it included certain public power features, and that they therefore were trying to get something else, investigations or anything that would prevent the accomplishment of this particular plan.

: Front

Purings I can ber, answer your charteon by quoting of them my presentation to the club as the dretting of isomaber 15, 19-3, at which has appoint an approved: "So in sinate this can ere action in older or obtain in the test of investigations by and can shall, so that a policie with a population of the population of the control of the

hour section. The light, and another mind of moderable on the flags, and another one case one case in the moderate of an another of a section of a s

10000000

I word someth in the law lead to both the soled back in his opticion, bas bublic utility and overing were trying to prevent the Managell Him he are in the included crutein public power features, the law threshore were trying to refer where the include wastigetions or anything to refer which is aboration in the includent of this perticular play.

I don't recall any pressure on the part of the power interests. Our proposals regarding the investigation were endorsed by the power and irrigation sections, by a combined vote of 47 to 1. The power section included a number of representatives of the power companies. They also included important men not affiliated with power interests.

Baum:

As you recall it, hydroelectric power was not an issue, at least in your section?

Adams:

Well, what the power companies were interested in primarily at that time was, I think, to overcome the restrictions imposed by both the Federal Power Commission and the State Water Commission. They wanted less interference in the development of power under private auspices. That was their main contention in our sections, as I recall it.

Baum:

Did they bring that up with regard to the Marshall Plan?

Adams:

Well, we didn't discuss the Marshall Plan as such. We were already embarked on this general study of what we thought was necessary.

Baum:

Did Colonel Marshall speak at the Commonwealth Club?

Adams:

No.

Baum:

Did you know him?

Adams:

Oh yes, and he was a very fine gentleman. I wish

1:2 88.4

I won't recall on pressure on the part of the cower interestic. The proposels superding side investina-. not, sandorded by the makes and ye balance order and the by a combined rose of his to 1. The power sertion indiades a minh e of reprogentatives of the source the interpretation of the local care grade . not accord . agamedri komer rálk hodalí bís

ing the percentage interpretation of the figure of an Those were in Japai te . speci

the analysis of the section of the s THE OF HE CO. I HE CO. THE PORTS OF SELECTION OF SELECTION make the of it is the solution of the complete of the man Consigning and the same of the consistence walted less interference is the development of our our reder private auspines. The vertheir at motion . I from an analytems and at

200

Timbers to a continuous dim ou thou and what is PARI

hell, we Minit Circles the condition of the of the first field of the beginners where the beam by which we thrush was recomp,

Shield .

South while the of whit day thous if we self included • O!I

វ បាលខេត្ត។

Did you cov bin?

11000 7 mm 6 h 1.

The sea, one is the a very time gratimen. I wish

some day the California Historical Society would put a marker up at Shasta Dam for Colonel Marshall. He was the man who found the Kennett site. He did that through his topographic mapping, and that was the key to our whole Central Valley development.

Baum:

Did you ever discuss with him why he stuck to his plan rather than preferring a more general investigation first?

Adams: No.

I remember one day I got a call from Mr. E. O. McCormick, who was vice president of the Southern Pacific Company. He asked me to come over and talk about the Marshall Plan with him. He was strongly in favor of it. He told me Mr. Davidson had told him that my failure to help out on that plan was hindering him. That may have just been his way of putting the proposition, because I don't think the influence of any one individual was of any great moment at that time. Anyhow, he tried to convince me that I should support it. We talked for an hour or two on it and then I had to leave to keep an appointment in Berkeley. It was a very pleasant meeting, but it didn't change my mind.

Baum:

Did it change his mind?

Adams:

No, I don't think so. He was very much interested.

: richt/

1: 1103

\* 1 - 1 - 1 - 1

1 -17 6

40 m25

I so a span and and and a since the state of the common of a common of the common of t

some say the C. Hilbernia bistorical Goolety would out

was the dan w o dound the "endett site. He did -

and read the comparished we have an example the comparished th

Did not some of access with a little of the colors and

ntain restoos ti an inectereix is a consultante ti vai ti vai

. town als an astipation from the test of the control

. Is and length well as super Ride as reduced .

: 00

is, I don't the so. 'A was very sor a between

Aid in obene is mind.

He thought it would develop the state and the Southern Pacific Company has always been anxious to cooperate in work that would increase the agricultural development of the state.

Well, while the Marshall Plan was up the Water and Power Act was up. The Marshall Plan people were very much against the Water and Power Act because they thought it was going to interfere with their proposals.

The first investigation authorized by the legislature was carried out under the immediate direction of Paul Bailey, then assistant state engineer. He developed what was known as the Bailey Plan. When, in about 1928, Edward Hyatt became state engineer the name was changed to the State Water Plan and Colonel Marshall's name gradually became disassociated with what was being done.

Colonel Marshall, of course, was exceedingly disappointed. He later was given a position in the Highway Department, as a landscape engineer in connection with the landscaping of the highways. My last meeting with him, I called on him up at Sacramento just to talk over past history. This was some time later. He had had a very unfortunate illness and had lost his voice. The doctors had to remove his larynx and he couldn't talk. They

: raisabA

He thought it some develop on state and the some footsgeno Pacific councilly has always used asmister to conside in more that would increase the agricultural development of the courter.

Well, this sime density is need to the west to discuss the state of th

The first investor of a trop of the Market who all the state of the state into a common of the line to mediana engine i. He down beng that the city ce it waste it is that wat it was the THE CARL STATE OF THE Market With and Colon 1 to 1 to 1 to 2 sally became of raspociated with the contract of the and a rest of the Alberta and the control of the co Edit 1 teleco a este son alter o labelogasis Elikavik sant t. 1. lenderski verdid consection . The U.s. landscaping of a hip action co We hart mortion ithin him. I calle un with . Hotall they give after of tent offerments. The little of a bould bed of the table of a sick and ing a more bears. . Sich sid in of ben and meses if

ments. Tablet, then we has rought and evening of

made a hole in his chest and brought his windpipe up to that hole so he breathed there. The General Electric Company devised an electrical scheme by which by shaping his mouth as he would if he were talking, he could express himself and talk a little.

He had many friends. Everyone liked him, but I don't recall that any of those who were really qualified to pass on the feasibility of that project from an engineering standpoint were in favor of it. It wasn't a plan, it was an idea, but we need inspirations of that kind. As the result of his proposals great sentiment was created for a state study, right in the grass roots up and down the state. So I give credit to Colonel Marshall for that, as well as for finding Kennett Reservoir. Was Colonel Marshall the type of man who would modify or change his proposals, or would he stick to his original idea?

Baum:

Adams:

Even before the legislation authorizing an investigation was passed I believe Colonel Marshall must have reconciled himself to the fact that investigation did not specifically relate to the Marshall Plan. He must have endorsed the following statement preceding the description of the plan as published by the California Irrigation Association November

a ,

ection a gif dimmore has dun to at along a some in the There is that note is a weath theme. It is not that the Technic dan training a least of the arminist ි ගැන මෙසු සිදුවෙන් සිදුවෙන් සිදුවෙන්න සිදුවෙන්න සිදුවෙන්න සිදුවෙන්න සිදුවෙන්න සිදුවෙන්න සිදුවෙන්න සිදුවෙන්න ස . Edition of the teacher agone, the teachers and the The self are springers. It is not the self of The real of the rest of the test Manage Hach I analitied to pare on our read ditte of the rest rest of ្នាត់ ការប្រទេសពី នេះ បានប្រធាន បានប្រជាពិធី ប្រ<mark>បានក្នុង បានក្នុង ការបានបានបានក្រាប</mark>ានប្រជាពិធី បានក្រាប់ បានប្រ Change of the long of the the transfer a diagram of at a grant out of a dankars, the afabetics atted to the tea mean moder me to it is in the atete. To Follow opening to the more report of into the contract of the first of the contract of the of same was a moral and the same four to an AU I The form of a feed offer the artists we will be

-tradi. Paradistruito al las les el mota dan them if ing tempion with all pages or with ex-- took 1 1. To to to . Of the sould had be and ond! Tipological and electronally relieved the off decides in a rich region forth and teaching are intour or incomit reterion of the condition of the office of the safety were well a literaction of the following a state of a state of

was a tastojer y'' od

20, 1920: "What is primarily desired is an immediate, complete survey by the state of all possible reservoir sites, a determination of the maximum amount of water development practicable, then the necessary legislation to put it into effect."

Baum:

Do you think the Commonwealth Club was effective in changing the minds of some of the members of the legislature?

Adams:

The irrigation section, throughout the years and especially in the early years, reviewed every bill in the legislature relating to water and made recommendations and transmitted them to the committees. For a time I think we had a great deal of influence, I'm sure we did. In the early years our section did quite a little direct promoting of our legislation at Sacramento by appearance before the committees. On this matter in 1920 when we were asking for a general study of water resources, the Senate and assembly committees on irrigation held a joint meeting in the assembly chambers for us to present Quite a group of the section went up. Mr. Galloway, I think, carried the burden of the argument. He was a very effective speaker and a very able engineer, highly respected.

ះ៦ ស...

• 33 - 65 7 41

r mary region

,

7.75

ler's sture?

20. 1320: Table is orimining desire for the image intercomplete energy plants of all ordillations of voir voir albers, a determinant in 10 the entiment adopting the beneficial to engit of the intermediation. The there is no constilectal ation to out the intermediation. The constant of the intermediation in the intermediate of the constant of th

The implementant of the second of the second of THE COUNTY SHENS OF A SECURITION OF SECURITIONS OF THE PERSONNESS - o son the west that challes one to state and as enemated are and the common terms of the analist common And a fire I dillar we had a series for the martine remore than a command of the command of the comments cold a contract to a contract departs elds; see edd y bi at the comments by an engine a become the comments to objects that he was some 12.1920 where he was the constant ప్పుడ్ పాటాత్ గర్స్ ఇక గ్రామం గ్రామం గ్రామం కోడ్డాన్ని కోట్లు కోట్లు కోట్లు కోట్లు కోట్లు కోట్లు కోట్లు కోట్లు delet a fire enda etgat ar montilanco alchemas . General, of the got weedens to plantens of of religious We. Mallo ag, I think, carried the act of ite spenient. Its was a very coff-clim openions werry able emrhacer, highly meshering.

## State Water and Power Act

Baum: What was the Commonwealth Club's stand on the State

Water and Power Act, which first came up in 1922?

Adams: That was an initiative which authorized the state to

develop and distribute the water and power and gave

the state rather complete authority to go into the

water and power business. Of course, it was

immediately objected to by the power agencies. There

was a very, very bitter campaign in connection with

it. You know that Rudolph Spreckles was the one who

chiefly sponsored the act. He was the director of

what was, I think, known as the Water and Power

League to promote the measure.

The matter was referred to the section on power and the section on irrigation. It was discussed at great length. At the final meeting before the club I moved that the club disapprove the act. The motion carred 101 to 7. (Vol. XVII [June, 1922] p. 269.)

Baum: Why were you against the act?

Adams: I was convinced from our first discussions of it in

the club that it was not desirable.

Baum: Why did you first oppose it, and then what caused you to change your mind?

## State ster and so er Ast

imur:

1. 1. 1. S.

which was the Commonwallth Glah's about on the 21.50 hater and lover wet, which files not not in 1922?

Last was no foliated by which are not sized the above of a constant that a constant the constant that the constant the constant that the constant the constant that the constant that the constant the constant that the constant that the constant that the constant the constant that the constant

The relation of the sector was preferred to relation of the sector of th

: Dif : E =

by care you excinst the cate

Leasen to the sold are me that

: emafra

్ వే ్ ్ గి కుర్కూర్ విజానిక్ కురం ఉంది. అందు కూడర్ జిలుగ్క్

. We arterb for ear this is a fore off.

Bernn:

why did you filest appose it, on then white a seen

Thain ruley outedo of new

.

Shortly after that action by the club on my motion, I was asked by the University Club at Los Gatos to talk on the act. It was prior to the election.

Wanting to be sure that I'd be entirely objective, I went over all the arguments for and against and wrote out what to me seemed to be the strongest arguments both for and against. I wanted to speak before the University Club there in such a way that they wouldn't know when I got through whether I was for it or against it.

That led me to change my mind. I wrote a letter to Clyde Seavey, then city manager of Sacramento, I think, who was one of the principal proponents of the act and a long-time friend, giving my reasons why I was going to vote for the act. That was the first time I had taken a stand for or against any publication issue of that kind. As I look back now I'm surprised that I did it, but I did.

Well, I wrote this letter to Mr. Seavey and he gave it to the San Francisco Examiner. I had long been in favor of state control of our development of water and power. I felt that it was necessary for the state to have the authority to adjust conflicts between power and irrigation in what seemed to be in the highest public interest, to refuse permits to

endion we are find and an area and mother glane to the arms. of the acked by the conversity dish at location to talk on the mer. I have a for to the electron. serious to be the test to be entirely to be mediate. There of the first of the state Con the Committee of the same atoms Commenced and service of the contract of the c STORE THE BOTH BOTH OF THE STORE STORE OF THE STORE ST and I must have a sometiment of the way of the first and . " denieve no d' go"

of that the transport of the second of the second · Consection of the contract of the contract of and the balancement of the arm to ame as not a little to new termination and the control of t Transform and the second of th office of a day to be to the one of the original and the that were the second production of the second second to entering 

ell content in letter to the end of the

and the same of the set of the set of down to the location of all a formation of the formation of of viter and porce. I telt that it was no control not be a suited and the tree of even of e electrone of the board of the size of the first bas means program in a hidred or them of them are a committee on

appropriate water for projects that would prevent a more complete use of those resources for either power or irrigation. So I liked the power the state was given in the Water and Power Act.

There was already great controversy over the influence the power companies were able to exert in the government, and in the controversy over the permanent or limited licenses for power development. I felt that the authority granted the state wasn't adequate to adjust those differences. That was sort of a basic feeling with me. In that campaign I saw more and more the great influence that could be exerted by the utilities in their favor. I think that had some material influence on me.

There was no great need for the Water and Power Act in matters of water for irrigation or municipal purposes. On the other hand, the state wasn't given sufficient authority in the Water Commission Act to refuse appropriations which the commission might deem not in the best public interest. I had the idea then, as a good many others did, I think, that water should be devoted to the use which was most economic for the state as a whole, that a wasteful use of water should not be permitted, that the state should have authority to prevent such wasteful use.

enthoppists water for neojects that would prove the common acres of the control o

There was already ment and one over over the infinite of the source of the infinite of the source of the control of the source of the order of the o

The language of the later language and the language of the lan

In summing up all those arguments as I did in my statement to Mr. Seavey, I said I was going to vote for it. I was roundly condemned, though not to me personally, by some of my engineering friends who had opposed it, and by some of those in the section.

Baum:

But I can't see why you opposed it in the first place.

I can't explain it any more than I have. I just changed my mind.

Adams:

I had some satisfaction because I received high commendation from two of the men I admired most in those days, Clyde Seavey, and O. K. Cushing, one of the finest men I ever knew and one of the finest public citizens I ever knew. I probably didn't have any influence one way or the other. Anyhow, it didn't pass.

Baum:

When did your letter appear in the Examiner?

(looking in his scrapbook). November 6, 1922.

Adams:

That must have been a day or so before the election.

Adams:

Baum:

Yes. In addition to the discussions reported in the <u>Transactions</u>, a Friday luncheon on November 3, 1922 just before the election was devoted to that subject. The principal speaker was Rudolph Spreckles, for, and against it was Allison Ware, then practicing law in Chico. He previously had been very active

: 1 - Fi.

In summing up all those armments as leit in ay ataleaces, to the device the section of the Tale of the sounder of the ast, the above to the mean applies by some of the entrines in the arms of the entrines in the arms of the arms.

: "

Pat Tearit greath and of the third first too.

The second some of the second to the second to the second of the second

en: Forms: Tan: Mare:

lend did some labber arbeem in the gloss; gloss of the laboration is separated. The control of the length and the strength of the laboration of the strength of the laboration of the strength of the laboration of the length of the election was devoted to the subject. The principal speaker was each in the strength of the laboration was each of the laboration was laborated and the control of the laboration was all the same and the laboration was all the laboration was each of the laboration was all the same active the laborated and the control of the laboration was all the same active.

in the club while at the State Normal School in San Francisco. He went from there to become president of the State Normal School at Chico, then went into the war in 1917, and went into law after that.

Present, 779 at that luncheon. That was a hot subject.

It came up again in 1924 and was discussed by the power section in the club, not by the irrigation section. Fred Fowler was then chairman of the power section. He asked me to be present and participate. I didn't make any statement at that time, although I did later submit a brief statement which was included in the Transactions.

Baum:

Hasn't the Commonwealth Club spent a lot of time on various water problems?

Adams:

Yes. I looked through the record the other day and found some 21 different reports on water, beginning back in 1904. I made a list of them. Here it is. (See Appendix for list.) This list does not include reports on the municipal water supply for San Francisco and the East Bay. I told you earlier about the reports of the section on conservation and of the section on irrigation. About 1929 I was asked to form a new section on water resources and we had a wonderful section. After about two years Charles H. Lee took over as chairman. During the 30's the

1 ។ គេភិគ

In the slive with a to the Spate doment to out to see the Sala Present to out to with a community the Sala Present to the content of the content to the cont

Li le en rope de paraire in leur en est de constitue de c

Mark to the dash to difference of the difference of the difference of the such as no

Former size of Laroush the continuous former, and laroush areas on former size of Laroush engage of a trope of the light of the light of the light of the laroush of the laroush of the laroush end of the section of the section of the section of the laroush end of the section of the laroush end of the section of the laroush end of the l

\* ---- -- ---

1

Valley project. Later there were reports on Central Valley project. Later there were reports on Central Valley power by the section on public utilities, a very fine report on California water policy fundamentals by the section on agriculture of which Samuel H. Greene was chairman, reports by the sections on mineral resources and on public utilities. About 1950 the present water problems section was organized, of which Sinclair O. Harper, Elmer Stahl, and finally Bert L. Smith have been chairman. The principal subject under consideration by the water problems section has been some phase of state water plan. The section is now (1958) studying the state responsibility in water problems.

## Changes in the Commonwealth Club

Baum:

Adams:

How has the Commonwealth Club changed since those early days shortly after your father founded it?

The basic purposes and ideals of the club have not changed. They are constantly kept before the membership by quotations from the early presidents being published in the weekly bulletin of the club,

The Commonwealth. There have, however, been changes which I think have had an important effect on the work of the club. These changes, I think, have

Finding and a consumer vectors ( substance via ) in the consumer of the consum

# The second of th

on a constant with a constant of the constant

constraint of the authorized and the constraint of the constraint

Carry Committee of the committee of the

been evolutionary rather than revolutionary. I might mention a few of these changes.

The first of these, I think, was in reference to the ideas as to membership. The original thought was a group of a few hundred scholarly men who would meet monthly at dinner and discuss the important controversial issues of the day after thorough investigation of all of the facts relating to the issues. As President Wienstock expressed it in one of his early annual addresses, whenever a man was found who had won honorable success in his sphere of life, whose reputation was above reproach, and whose opinions were worth knowing, his membership was invited. To meet the growing financial needs of the club and otherwise to increase its influence, it was found desirable to undertake a more active canvass for membership, while still very carefully screening all applicants or proposals for membership, mainly as to their character and reputation. More money was needed for the promotion work of the club and for its investigational activities. Continued through the years this policy of expansion has brought our present membership to more than 8000.

The weekly luncheons at which emminent speakers

To emperor of the rast of the respect to the formation of the respect to the second of . The specific is the specific has differ The Fig. . of the fitters again for all was ្រាស់ ស្រុកស្រី រូក្រោយ ស្រុក ( . . . ) ស្រុក សាលាស្រុក ( ) ១១ ១៩គ្នាធិប្រាស់ ( ) ស The contract of the following for the first property of the contract pr Sunderight of the summer of the transfer of the are containing the last the second introduction. nver i en si te di le eil te etent etent i evait en inevai get it importer a lateral, danste me et . perege nem a grandi , og grandi i trade til som bil me kod placed specific terropolities and the color house of more ត្រូវស្រាស់ក្រសួង ស្រុក ខែការ ស្នាត់ស្រាស់ស្រាស់ស្រាស់ស្រាស់ ការប្រជាជាក្រសួង ប្រជាជាក្រសួង ស្រាស់ស្រាស់ស្រាស់ Patricially of the analysis of the control of the control of age to see a compact of a compact of the compact of the second of the second The given in motion months of the com-The grand of the the way to r y r i r in the motion of the contract Faction's eval balland for the ett in strou is to happe and the could conside the activities theopen in garmad and notement to giften . The name where call a streeth in

a lights thereless folder the same fourt till by of

addressed the membership on important issues of current interest were not included in the original plan. They have enabled members to have contact with the club without participating in the investigational work of the sections, and have had much to do with increasing the membership and otherwise extending the influence of the club over the state. However, they were largely influential late in the second decade in reducing attendance at the monthly dinner meetings and the ultimate elimination of the dinner meetings and the substitution of the monthly luncheon report meetings at which sections present their findings.

Going back to the work of the sections, I think more work was done by the individual members of the sections some years ago than at present. Formerly, sections with which I was connected or which I occasionally visited seldom if ever had a speaker. The sections were generally made up of the men most qualified to discuss the questions and present the facts regarding matters under consideration.

Individual members or subcommittees would dig up any information needed. The emphasis was on obtaining the essential facts regarding the issues being discussed and then developing the arguments pro and

e es: debeseed the membership on important learner of norment inverses term now included in the which is nt n. The have been bled memiking to her a contact. -wyllastal and if mmidsgloling the didwinto and date ind home bud well has lead thou she in hed and had Daily Mile was at Bres car and pri an act of diw o extending the influence of the one of the ender or every they were I entited that have the late in the William to J. C. Land Carlotte and other Seconds A C TO GO ! The to be to to give the and down them to dinger macking set the same is the second of the man THE THE PHOLOGICAN SERVICE OF THE PROPERTY OF THE PROPERTY OF THE . or a land to a tira

Sing been to the tork of the sections. It is to a cork with dame by the inclivings) is giora in the on the same posts and to the defit one arrest enter and the sentions with which seems to deliver the encitoes . Top of the survey of notifies fetials offered a per The continue terms of the continue of the continue of and it to see the contraction of the second of the contraction of the dans redict on the under a pideretion. In the following sendence or endone I winivited information needed. The emphasis was on or the essential facts remarding the fague beit coursed and then doveloping the armyer's pro mid-

con, thus providing a sound basis for later discussions in club meetings. Now, the main feature of section meetings is an address by some speaker invited to present his side of the subject.

In what I have said I do not mean to imply any criticism of the present section of the club except to emphasize my feeling that under the present system the members of the section do less than formerly.

isomestors is els weekinger. Mos. tri meln and and whom are a designation of the composition · වේ. අතර අතර අතර අතර කිරීම් ක්රම්වමණු ලැබීම විශේෂිවර අපාලිමණ ව them! I have on all light bying a decreal of I had to the country of the second of the metallities are al a land, the gather ag fealth and the contraction proceeding the memory of the time of the dollar

### WORK WITH VARIOUS ORGANIZATIONS

### U. S. Chamber of Commerce, 1926

Baum:

What work did you do with the United States
Chamber of Commerce, Western Division?

Adams:

That was merely an example of a good many public service contacts. The U.S. Chamber of Commerce, Western Division, wanted a general program on water conservation and control to be presented at their meeting in Seattle in 1926. I don't know how I came to be asked to prepare such a presentation. I, of course, went to the original sources for information on that subject, which were the state engineers of the various western states and the Bureau of Reclamation and one or two others who were brought into it. I wrote to each of these western state engineers and had responses from California, Oregon, Washington, Nevada, New Mexico, Utah, Montana, Idaho, Wyoming, and Colorado. state engineers or their representatives were present at the meeting to make brief addresses. My particular function was to present a brief introduction to the talks by the others, a general overall picture of water conservation problems in the West. The Bureau of Reclamation sent a representative from Utah.

# CVCLDANI ANGC THE M. V HTTW. NSOW

# U. S. Charder of Commune, 1926

101.31

grands make U and hid with the of street strew deck. I le'/' discharé .estroic o trodusto The rest meneral contents of a first market reduced service and sets. The M. .. Conors of Monty set. Western Division, weather a committee to the conservet on and control of the cont we for an indicate the second of the second ្លាស់ ខេត្ត ស្រាស់ ស្ត្រី over the contract of the contr incomments and takes and the contracted on a serious of the ventions of the consections en en a la company de la compa were broad to into it. I need to see the conditions LOCAL OF CORSELECT FIRE RIGINARY SOCIAL TO STROW Outlines , termine, limental pack and provide the contract of Thek, Three as, Thains, Twoming, so the section. the problem of the following the property of the property of the problem of the p at the mesting is also brind address. If it is the function and to present a lating interior talks by ble others, a renow 1 ov mill ichme ar water convertables problems in the set t. . . . America of Reclamablin sent a representation from the .

Adams: Mr. W. R. Williams, state superintendent of banks of California, came and discussed the financing of irrigation enterprises through the sale of bonds.

I had a letter from Dr. John A. Widtsoe, a former president of the University of Utah and of Utah Agricultural College. All together, we had a fine representation.

Baum: Why was the Chamber of Commerce particularly interested at that time?

Adams: This was 1926. There had been a lot of discussion following the war with reference to extension of reclamation and the functions of the state and federal governments and it was very properly a subject for them to undertake. Conservation and control of water was basic to the industry and economy of the West.

Baum: Was there any opposition from the Chamber of Commerce to further reclamation?

Adams: Not that I remember.

Baum: Why I ask -- I read a whole series of papers from a 1927 meeting of the American Society of Civil Engineers and most of the papers were opposed to any further redamation because of the agricultural depression. They said we had too much land in production already.

Adams: That subject was one of the important ones discussed

:amsi

in. w. R. Williams, state superinterdent of branch of calculations, case and discussed the financing of traigetion entermises through the rale of bonds. That a latter than than In. J on A. Williams, a former president of the Wolversity of hall the calculation of the Wolversity of hall the Arrival dentermination.

12116

Page was the Wilmbur of vemocros carticularly into a start as the constant that the constant that the constant is the constant that the constant that the constant is the constant that the constant that the constant is the constant that the constant the constant that the constant that the constant that the constant the constant that the consta

1 3 . 1

The season of th

. . . .

. In come a 2 deduction

: amabA

Why seld -- I me a while envior of concerns of the 1927 and tion of the papers of the age of the a

inn: M

Their arbject to an in the interestant and the second orders

during that period. The eastern people always had a certain amount of opposition to federal reclamation in the West. They were not willing to promote any developments that would compete with them.

Baum:

Was any of this opposition, to your knowledge, based on power, private power companies opposing federal dams?

Adams:

Over a long period of years while the power policies of the Federal Power Commission were being developed, there was a very decided opposition by the power companies to federal regulation. Under the Federal Power Commission Act, the commission had authority to grant licenses to private industry or public agencies for the development of power. Also, there was control of rights of way for reservoir construction under the regulations of the General Land Office as to lands over which the federal government had jurisdiction.

Baum:

I believe I interrupted your telling about the meeting.
Mr. Paul Shoup, president of the Southern Pacific
Company, was chairman of the sessions at which our
presentations were made. Our subject occupied one

Adams:

presentation. He told me he would make every effort to have the record published, but he apparently wasn't

morning. Mr. Shoup was very much pleased with the

able to do that. My overall presentation was published

during that meriod. The eastern people always er 10000 a dirtain amount of in uniting to inderel reglabant to in the Man. They were and will'er to manobe an levelopments that would expose eith. He .

: ".1 1.0

dead of the any of a data and a great the transfer and on hower. This the three contains a consist attractal damsî

:31186/

were a leng meriod of year office the lover after s of the Rederral to the Commission were thin Hovelton. there has a very nection one; this is the sport of the total and the supplementation of a secure of Power Commission Act, the continuing the interpret to grant licenses to private indistry or other sense, i'm the devoloom bt of no ar. Tho, there was combalt is. I ground a tarrestance excess as got year to advage to A to the control of the which of the average of repet of holds was a second of the profession of the programme and the contraction of 41.00 Mr. der Charp, bresident of the Support Parities Commany, was chairman of the news ore as thice our

1 mr 1000

196301

prosenthillas vare mice. Two subject and the conmoreinar. In Chour was very anch lender of the tire presente en He toldene e en al mente election. to here the meand published, but he a continue to able to do  $b + \epsilon$  by overall resentation we built with Adams: in several of the western periodicals. All the addresses were mimeographed.

Baum: Where are they available?

Adams: I'm sure I gave a copy to Gianinni Library. I have one. I have an extra copy which I can give to Bancroft, if desired.

## California State Chamber of Commerce

Baum: Did you work with the California State Chamber of Commerce?

Oh yes. My contact with that organization went back Adams: to 1911 or 1912. The organization then was the California Development Association. Mr. Robert Newton Lynch, who was general manager of the California Development Association, told me they were anxious to improve the information they made available for public distribution to interest people in coming to California. There was a strong feeling in those days that with the opening of the Panama Canal there would be a great influx of settlers from southern Europe. The subject was considered at many meetings of the association. I attended a good many of them. Mr. Lynch asked if I wouldn't outline what I thought would be the type of information they should gather and how it should be I gave the matter a lot of thought and gathered.

Alema: in several of the western periodicals. Ill to

which carries in the contraction of the

Polistiava yadd e e mast - 1600)

enter in the same of many and the interest of the same of the same

. 1 4 milye - 11 1

## control in the second of the second of

ringen the common three posts of the property of the property of the common of the co

-Pilet at an a consider of the Jalife

indoperations of the specification of the problem on a distance of the section of

them over the interpretation by the weather the one main

distribution to interest onno it is not collision to

ည်း ကြောင်းသည်။ မေရာက်သော လည်းသည်။ ကြောင်းမြောက်ကြောင်းကြောင်းကြောင်းကြောင်းကြောင်းကြောင်းကြောင်းကြောင်းကြောင်း

desert of set fitting that for all present and to beil acc

is it in a commentation most amplified to multiple

. The training of amorthment the becaming a second

Tattendas a tod many of them. My the control

the second of the second was a topic and there there is

of the ordinal three confidences the confidence and an example to

nothereo. Tave the matter a lot of the second

talked with Dr. Hilgard, who was then in retirement. I finally wrote Mr. Lynch outlining a procedure which seemed to me would accomplish what they had in mind. He told me a few weeks later that he carried that letter around with him in his pocket and had shown it to many of the members of the association and they were very anxious to proceed along those lines. So he sent his chief assistant, Miss Grace Trumbull, over and we had a number of talks with reference to details.

The association employed two young men, I can't remember the name of one of them, the other was Mr. Sturdevent, a recent graduate of the University of California College of Agriculture. They went to Lassen County and made a survey of conditions, land, water, irrigation, crops, and other matters affecting agricultural and industrial development in that area. Shortly after that Mr. Sturdevent resigned to go into the fruit packing business. The idea was continued for several years, more or less from the California Development Association office. Meanwhile Miss Trumbull had resigned to marry my close friend, Charles Wesley Reed, and was no longer available.

A year or two later the association decided to follow a different procedure. They appointed two recent

:amebA

tolked with Tr. Where, who was then in retimement. I finally what wire a vector of the search to mean the formal and the beat the search to mean the following the the the test of the search of the search of the members of the additional search of the search of the members of the description of the search of t

Association of an object of the modern and active as a solution of an object of the state of a solution of a solut

the time of the transmission of the court of

students of Dr. Cottrell, then head of the Department of Political Science at Stanford, and they came over to see me to talk over the whole program. The association organized then a department of research and Mr. Herbert F. Ormsby, one of the two, was placed in charge and he continued in charge of that department until his death last year. He did a very valuable piece of work. Dr. Connolly, who was with him at our meeting, was associated with it. I remember Dr. Connolly told me on several occasions that as the result of our discussions they started out on the right track.

### California Economic Research Council

Adams:

The California Development Association had a research committee headed by Henry M. Robinson, president of the Security First National Bank in Los Angeles.

Dr. David Weeks of the University of California was working with that committee, probably a member of it.

That leads us up to the development of the Economic Research Council.

Baum:

When was that?

Adams:

Well, in 1925 Mr. Robinson called a meeting in Los
Angeles to consider the creation of an economic
research council to bring together all the public and
private agencies in California interested in collection

ះពេឃនុស្ស

students of m. Sottrell, then herd of the Decartment of Poittical Poince of Stanford, and they came oner to see ma to fall over he whole are referenced tion organized them a depembereds of reserve that the Membert E. reaby, one of the typ, were often in the gene and he continued in charme of the descriptions uptil . Hideam for as chiddle out onk . Horse are . for wed arroplished with it. The Action of Pornolly told rance to the second second for a mount · CORPORATION FOR treature than being relations to

## The comment of the same of the

Togs of a directarious disencellars temperative and the consider of headed by Heary . The factor and all the the second type of the second in. Povid Weeks of the University of a time in the working wit blat committee, probably waterb in it. Thet led to a contract the despendent of the contract of . Horse Charles

: 10 TE

STUDY P Y DOUTE

178787

ill, in 1914 Mr. Pobingon called a meeting in him Angeles to a sider the areation of an engage of nesearch to meil to ming towether all the minite and private accorded in Jelifornia intermodel in collection

of statistical data of an economic nature. The thought was this, that all these agencies were proceeding independently, they had no contact with each other. Mr. Robinson thought an economic research council would bring them together and greatly improve the statistical material being gathered by attacking it cooperatively and avoiding duplication. Dr. David Weeks is generally credited with originating the idea of such a council.

Something over 120 representatives of federal, state, business, and commercial interests attended that conference. I think Dr. Weeks had a great deal to do with making up the list of those who came. Stanford, the University of California, the University of Southern California, and Pomona and Claremont Colleges sent representatives.

Baum:

Was it largely academic?

Adams:

Oh no, chambers of commerce, business organizations, the Forest Service, the director of the State Mining Bureau and other state offices were represented. They decided at that meeting to form a council and appointed a committee to draft a plan of organization.

In due time they set up committees. The committee on agricultural economics was headed by Ralph Taylor of the California Agricultural Legislative Committee;

: 38 5

1, 010

130 871

of statistical cate of a new note note to a present the residence of the control of the control

force incompany and one of its confidence of the electrons of the electron

Polinobnus of common times

The design of the constant of

In due bime they not on endicions. In a we had no agric learn the enromice was a adod by deep of or of the office of the definity of the deligible of the contract.

Cary Hill was chairman of the committee on natural resources: I don't recall who were chairmen of the industrial economics and business research committees; I had the job of chairman of the irrigation economics committee. Dr. Willard E. Hotchkiss. head of Stanford Graduate School of Business Research, was made chairman of the council and the chairmen of the various committees with the chairman and vice-chairman consituted the executive committee. Herbert F. Ormsby was secretary of the council. The procedure was to hold two meetings a year, alternating between San Francisco and Los Angeles. The committees all became very active and each reported at those meetings. Whatever conclusions the committees reached were presented to the board of directors of the State Chamber and they endorsed. I think, most of the recommendations, if not all, of the various committees.

I naturally recall most about my committee on irrigation economics. I won't name all the members of the committee but there were representatives from the University, the Federal Land Bank, the Pacific Gas and Electric Company, the Irrigation Division of the Department of Agriculture, State Engineer McClure, State Reclamation Engineer Barton--Mr. Ormsby always sat in with us. We had frequent meetings. I should

Alams: Tamp .: 11 was chairmen of the committee on actuar on a unces; I don't mould who were elairmen of the green time on domeshor about the bas of carno f bytechui a clarence of acidentary and the merentary to net out the I condition. On. Clard . Cototice, now of stement on refere able to border of Faroutage to the electrical of bac Caracil and the distance of six virtues coam and bottot in a material to for proceed in 18th. end whose over the state of a drawer to a vidinmen which tems of the council. The overer take to off the gentling aci be cast out a saudici in the satte . ear a bor ryil a this trans fig a addition of . Topol had tradiograf to the service . . Principles of a contract the bedrace of the service of the ser The somethines by action were series bit to be a feet from the izections of too Thame Greenhorn and they as Thord. T in , and the remaining the contract of the tit and a first . Preddimp on her inny odd

- - -

are sold imply a grounders dead of those of fleathfall it inging the economic. I won't new all the emo of the charitated into thome was emerger to iverse with the dilvine by, it redered and ser, the tilling and Clectric Company, the Errigation Offician of the Jenentament of Agriculture, trete thatmeir Molling, State Prolemation Wheiners embor-- o. m giv 1 n.c out in with us. We had Traquent moustinus. I should

say that the major portion of our meetings was devoted Adams: to studying the state water conservation program. find that I have here An Outline of Factors Governing the Economic Feasibility of the Proposed State Water

Conservation Program. What date?

Baum:

May, 1929. Two or three years after the council was Adams: organized.

> Dr. Hotchkiss continued as chairman of the council for about two years. Then he left, I believe to go to Harvard as dean of their graduate business school. was succeeded by G. R. Douglas, who had been vicechairman. He served for one or two years and then they wished the job on me for a couple of years. At the end of my term Dr. Weeks was made chairman.

I was very enthusiastic about the council. During my chairmanship I made it my business to visit each of the committees during the general sessions of the council and so I kept in contact and, of course, in very close contact with Mr. Ormsby in San Francisco. We got out a mimeographed publication, a sort of practice code for chambers of commerce with the idea of systematizing their work.

Informational or procedural? Baum:

Procedural more than anything else. We also published Adams:

lette at the mainseer and to no had doing add thad gas studying the this was a range bion program. untimoved emediating apility of the I ded to the model adotal correct office meleculared removement wit · it in cifeversale

> 11" 200. B 1841

May, 1924. The flures ready after the current was . UNDIOSMYO

Dr. the file of the commence of the filters were the file. they of wishing the money of thems and and the transfer of the arms of the transfer o we to the two the services and to the same asset the same of the same of the same of the same . The figures a most one are not been been by port the color of the color of a structure of the color of

. ... enthusiasmin . . . . irentendine isev esu I er in miledd of the implification of an artists visit each of the committees or minimize ear i the interpolation of the council and the confidence and, of commen, in very close exaftly with the coni for arreaging study top ar .ood and mark me publication, a gort of practice code the time . I am mile the training of arei and a fix acqueroo Plane to the first around I

: BI ATIA

in the office was a transmed on a first property

a list of the agencies gathering the data that came within the scope of the council. I don't recall any other publications other than mimeographed publications of some committees.

I was very much disappointed when a year or two later the council ceased to function. Dr. Weeks was first elected chairman in November, 1933. He was reelected a year later. The final meeting was in 1935. Dr. Weeks said this recently with reference to the discontinuance of the council: the multiplicity of federal agencies and state relief agencies growing out of the depression made it difficult to hold meetings. There was a rash of various meetings. I think creation of the State Planning Board had something to do with discontinuance of the Research Council. The council just died.

Baum:

Adams:

It died as the organization was set up, but for several years at the annual meetings of the State Chamber a report was made on behalf of the Economic Research Council by Mr. Harrison S. Robertson, who was connected with the Oakland Chamber of Commerce. It was merely a one man report and didn't represent the work of the committees, which had ceased to function.

There's a fairly complete file of the work of the council in Giannini Library. The last minutes are

1 2 pt/

Elitar the scool of the condition of data that we inthin the scool of the condition of the chart than aim or color of the conditions other than aim or color of the conditions.

I was appropriate to be doned to the set of the control of the set of the set

: 25 5 55

It dies so the some zeth they seth, on the series of the series of the annual soliding of the collection of the collection of the series of th

The standard complete Tile of the space of t

Adams: for 1935.

I said I was enthusiastic about the council and I was, but I recognized what I considered one difficulty, that is, that we had to report to the state chamber of commerce. At the end of my term as chairman I had reached the tentative conclusion that the work of the council would be stronger if disassociated from the state chamber and continued under the auspices of the universities of the state. But I did not talk this over with anyone except Dr. Joseph E. Davis of the Stanford Research Institute. I might note that the business aconomics Section of the Commonwealth Club has recently proposed establishment of a statewide economic planning agency for fact-gathering and acting as a clearing house for economic information. report is in volume 53, no. 3, Transactions of the Commonwealth Club.

## Publication of Bulletin 21, Irrigation Districts in California, 1929

Baum: What did the Economic Research Council have to do with Bulletin 21?

Adams: I had been planning for some time to prepare a new publication on California irrigation districts to follow up my Bulletin 2 published in 1916. I had,

I said I was attendante a out, e court " out The see Duth 1 me a maissed unch a copaid med one intimit . . . terms is, there we had to enough to the state of abour to it is negatively an error up to bee odd the . was my on to orfa Note For the All Strate Hoods in form at system in a brief in release c) hell confusion stringer if cigassociety from the in ) to armine of the sum. Commitmee on a gadeers which nolygons his entitle. It is not the entitle is ted to sive . Here or . a come except to the geve the state of the s or for the ground or the act for molitaria applications repelling t lang dida ni didami itakén biandan itangan seri economic lubrica erency for firebenillers i al confi a procession in the rest of the companies of the companie out to the line of the control of the same of the control of the c Commonwolf of the Party.

# in ideals ... and then to resident food

ទៅការប្រភព របស់ ប្រឹក្សា មាន សមាស្មានគ្នា ប្រើស្រា<mark>ជាជាទៅ</mark>ទី ១១៩៦៧ ដែល លើ ប្រការ 2000 ការីតែលើ បាន

Former: I had been damping for each or set of an each of the control of the contr

in fact, made arrangements with State Engineer McClure to have Mr. E. C. Eaton, one of the assistant engineers. work with me on it and be co-author. The general program and objectives of the Economic Research Council and my contact with it undoubtedly broadened my conception of the idea. I brought it before the Irrigation Economics Committee and they endorsed it. The State Chamber also approved it. I took it before the Irrigation Districts Association as a project of the Economic Research Council and they approved it. when the work was undertaken and men were sent into the field to gather the material, the districts knew what it was all about. When Paul Bailey succeeded Mr. McClure as state engineer in 1926 he declined to let Mr. Eaton participate as a co-author. Mr. Wagner, the secretary and manager of the Irrigation Districts Association, was not very much in favor of I think he had in mind preparing some kind of a report himself on irrigation districts.

One reason for broadening the scope of the inquiry was this. Irrigation districts were constantly besieged by financial institutions and others making inquiry as to the status of the district. The financial interests, of course, had in mind the purchase of bonds. It was obvious the situation would be greatly improved

the fact, hade and the site with the the part of to have in. of C. in , one of the assist at daringer. torm rith the of it and on no-embror. The memeral The cut demandable electrons and the appricability base mamped aco ve bur con minur it nadur to con con con tent av condeath and the read to brown a for a line Inglished move ich what is been and they encoured it. The item add worder of more than a heavence, cole grant Tradepline idetained duractualler as confects in the The second demonstration of the second demonstration of rica din moniment tancert en en en en district de la la la latin sign of the land the matter of the term of the land of the after offer the connection of the contract cas fix end of their The confidence as the confidence of the second of the do' . . . wa- o a spridagio trom acter . . . . . . in. We man, in respectance and even a transfer the Tietmict: Association, was rother year in the or of it. I clare he called an area of the contract of . Pointing to the termina the amin decogner

indring who wite. Their tion liabelets we come. The sections in a come. The sections is a single of the sections of the section of the se

if the state would have in its possession all essential information so those interested could go to the state for the information rather than to the various districts.

The idea was to make the report complete for all the districts as of the date of preparation of this report, 1928, and that there should then be an annual compilation by the state engineer and the Bond Certification Commission and publication of supplemental bulletins. That was done, as you know, and those bulletins—the 2la, -b, -c, and so forth series—have been very valuable.

Baum:

In Bulletin 21 you had a lot of information as to crops, etc. and historical information. I don't believe the supplemental bulletins are nearly as complete.

Adams:

The Bond Certification Commission, as it developed in later years, chiefly I think due to the attitude of Harmon Bonté, the secretary, became less interested in the general agricultural data, crops, use of water, quantities of water, than in the financial data. The general data seemed to me exceedingly desirable because it was the background for the financial soundness of the enterprise. About a year or two before my retirement I proposed that we, jointly with the state

The orthwest sot wed blood what one is the second Then becamed a more than ed. I soldnessee and control of the second transfer of the second of the se varions dictrices.

THE TO SHAP AND DONE OF A REDUCE OF A RESERVED form them is not instituted the a a predail and its in an ment that a real tour tour . Set there are and errowed the second of the femore is derived October: The Control of the Control of the State of the Control of a d leamentel igheilne. The termination was taken But the second of the second of the second of the The state of the s

of an interior of the comment of the comment erose, at . and is parent is resting. The est realist are and the flow list melicies at well be · I Topko

The sect General Parties and are in the section of in todom reads, did it to the first of of Marmous Bonte, the near-the standard least the in the concept a single of those, and concept to conon the state of th received data on wed to be exaced to day of attention ed little that the first of the the new teach of the standard and the first teaching to en en egit dike distri. Distri

engineer and the Irrigation Division of the Department of Agriculture, bring this publication down to date. The matter was approved by the dean and by State Engineer Hyatt. Mr. Ewing was to be joint author. We prepared a prospectus and the dean and the state engineer tentatively allocated the necessary funds. Then it went to Mr. Bonté of the Bond Certification Commission and he wanted us instead to prepare a report on reclamation districts. Mr. Hyatt wasn't willing to go ahead with the project unless he had Mr. Bonté's approval.

Baum:

Complete information, or just financial on reclamation districts?

Adams:

I don't recall. Probably just financial. Neither
Mr. Ewing nor I was willing to undertake that project.

Baum:

You were more interested in irrigation districts.

Adams:

Yes.

#### Irrigation Districts Association

Baum:

Adams:

Did you attend Irrigation District Association meetings?

It was my general practice to attend all the meetings as a visitor. As far as I know, I was in on the earliest of the meetings. I enjoyed those meetings very much. I was not only interested in irrigation

districts but I was interested in the people involved

I seem and the contract of this contract of the contract of th

ich bedren in die en en en eidemmehrt ei busch is si

The Country of the service of the se

### to delice a generated of loss bert

178 1:

The your object of the relation of the relatio

Adams: in these districts and knew so many of them intimately.

Baum: You must have known Mr. A. L. Cowell then.

Adams: Mr. Cowell and I were very close friends. He and I together worked on drafting irrigation district legislation in the early years. I think I told you that he was a newspaper man and he had to do with the organization of South San Joaquin and Oakdale irrigation districts. He was on the Stockton Mail, I think it was. He had earlier studied for the ministry in a little school north of Stockton, Woodbridge.

Baum: He was an attorney, wasn't he?

Adams: His interest in this irrigation legislation led him to study for the bar and pass the examinations. He went then into the practice of law.

Baum: He was first a minister?

Adams: He never finished with the ministry. He spent some years at the school and then switched to newspaper work and then to law. He was a very, very fine man, very active, and always one of the leaders in the Irrigation District Association.

Baum: I heard that he never made much money because he spent so much time on irrigation district work, much of which he did free.

Adams: I wouldn't be surprised. The attorneys for districts

a more a

1 . 1: 1:

For much suve king of the Company of

in Shese wish in a direct so mast of them is instented.

,

in miss middle of the control of the fit of the middle of the fitting of the control of the cont

and a trader between the area of

The following the first of the second to the

ริสายได้เกล้า - สัสสน้า การ ตัวไ

So never that had not not the plat to.

The new of the contract of the contrac

I he and what he haven noth cuch money where we will be an and of the and of the contract the different plant of the contract the different the different contract.

of solitable converted. The automorphy for direction

who attended those meetings were always very helpful. The newer districts always had questions for the attorneys to answer. They got a lot of help and guidance from the lawyers. There was always an attorneys' committee to deal with questions that came up.

Baum:

Was that one of the major functions of the Irrigation Districts Association?

Adams:

There were a lot of questions beside legal questions. Some districts would come upon a problem which they didn't see how they could solve under the law. The revisions of the act to meet these special needs from time to time were some of the things the attorneys gave attention to.

Baum:

Did you ever work on that kind of problem?

Adams:

To some extent in the early days, not later.

The Irrigation District Association dealt with lots of problems: matters of assessment, of handling delinquent taxes, of operation, ditch management, relations of the water users, records, bookkeeping. During sessions of the legislature the secretary of the association was at Sacramento and followed legislation. During each legislative session the Irrigation District Association held its meeting at Sacramento and went over in detail each bill affecting

111315

who abtended to an elections have alwers may 10.7 %.
The mover districts of a had questions some obtaining to anny 1. Then got a lot of well and another midded of the first of a formal and the first of the following of the first of the following of the first of the

20. III

Tindstein and Account the Parcilland Parcillans of Was Included Sand

And the grant entire of entire one property of the second entire second content of the second entire second entire entire

on the set the bett that actions move on the second

.ed noide . dr ever

The Invigation listwick Association with a lote of problems; with association of problems; with association of the modern of the water of order of the water of the water of the water of the water of the leciclation of the association was at freewards on the association was at freewards on the association of the asso

irrigation districts before the legislature and approved or disapproved it or suggested amendments. The executive committee used to meet prior to the general meetings. I used to attend those meetings because that's where the real work of the association was done.

Gradually the work of the association branched out and it became a representative of practically all irrigation interests in the state. New types of water districts came in, and then reclamation districts came in, and mutual water companies. Some of those organizations had their independent association, but they met with the Irrigation Districts Association. Gradually the association took up general questions of federal-state relationships brought on by the Central Valley Project. They took up the question of the 160-acre limitation, and of contracts with the Bureau of Reclamation. I think their opposition to the 160acre limitation was primarily the reason for the organization of the Water Economics Committee which is now publishing Western Water News.

Baum:

Does the money for the Water Economics Committee come from the regular assessment on districts?

Adams:

It was my understanding that there was some questionwhen the committee was organized whether it should

Cam: Timation digimints or one on c islatte and approved or directored to see a steed and director. and of active thom of born solds, we will have one or iffer and there will be the continue taggeran of tocase to be to the standard govern to design to · 10% 21

From red to designed to the control of typical way

this weight of the article and the angular of the second of the reduction of the readers of the descent of the impired of skylode decade for any fill of the control of the first - make one follows to be the one of redow fouther the set tigate to the termination of the - made . C. In space that the professional material temporary redt the description took or centred and the constraint and set set stay and and famoidation easts - for annel Viller to sitting of the More very . Their reflect And the second of the entropy to be and the stamp of the second of Rectardion. I dain bleise continues to the to-Apre limitation was original as a marchae income in a second and an array doonoming with it as a final donner . The man we will apply the series were et

:mns:

: 0 0 1/2

from the remised essential to the buildest anologic grown row are the first pullback tributy you be a diswhen the committee was persuived victime it should

Food the ready the the total Roundates I mitte of

be separate from the Irrigation Districts Association. I think the association makes some contribution to it. Forrest Frick of Bakersfield assumes leadership in raising funds and those who provide the funds usually guide the policies.

Baum:

Did you feel that the Irrigation Districts Association under Mr. Wagner represented the irrigation districts or did Wagner control the policies more than the representatives of the districts.

Adams:

Mr. Wagner was very active, had his own ideas, and certainly was influential in the policies of the association, but the irrigation district directors were men of ideas and they were not led around by Mr. Wagner.

#### California Water Council

Baum:

What was the California Water Council?

Adams:

That was organized independently of the Irrigation
Districts Association. It met every year, or even
more frequently, and still meets, and takes up
questions of general policy in the whole field of
reclamation, and also matters of representation at
meetings of the National Reclamation Association.
Milton Kidd, the president of the Irrigation District
Association at the time the council was organized,

: ala

be separate "row the Abrication Districts Asaptivity of Titink the association well-associated about the thirt the association well-associated association of Trick of Television of the Control of the C

+ MITTE

The particle of the application of the properties of the following and the first extending the following and the control of the first of the control of the

1 2

### in a cately given the

1 .77.76

: 300 E 11/A

With were the lability and determined of the content of the conten

was made president, and still is president. The most active men in most of the districts attend the meetings. Until a few years ago I usually attended the meetings. In fact I attended the last meeting held in San Francisco in October of this year. I found there were a lot of men present whom I did not know. This has been true at other water meetings I have attended in recent years. Although a number of the old standbys were present, it was evident a new generation is taking over.

Baum:

But it had other than district representatives?

Adams:

Oh yes.

#### American Society of Agricultural Engineers

Baum:

You joined the American Society of Agricultural
Engineers in 1925 and were immediately made chairman
of the Pacific Coast section. What does that
society do?

Adams:

It is made up of workers in agricultural engineering and allied subjects at the universities and colleges of the country and members of the agricultural machinery industry. They are to have their national meeting in Santa Barbara this month.

Baum:

And are you planning to go?

Adams:

I wish I could, but I'm afraid to tackle it. I find

. A lest on the Tidde Benn, the Cidner means of the Control of the

the same of the sa

the state of the s

Liste made to admone the total control of and and all the control of the analysemination of the control of the analysemination of the control of the control

Baum: And are you finding to to.

Correct of the notice of the afraid to test to the Lorent

Adams: those meetings rather fatiguing.

Baum: Was the American Society of Agricultural Engineers a large organization in 1925 or was it just beginning?

Adams:

The society was organized a number of years before 1925, and must have had a membership of perhaps a thousand or more--I do not have the figures at The Pacific Coast section was just beginning at the time I was elected chairman. Dr. David Weeks had been active in it. He was in engineering at that time and Leonard Fletcher, head of Agricultural Engineering at Davis, was also active in it.

had a meeting in Los Angeles. That was my first contact with it. We had coming up the next year the job of acting as hosts for the annual meeting of

the society in California. One of our main activities for that first year was to organize for that meeting

which was held at Tahoe. We were not involved in

the program, but rather in arrangements for the

meeting, matters of entertainment, housing, excursions to points of interest, and so forth. It was the

highlight, the society said, of all their meetings.

It was a beautiful place and we had a large attendance.

We organized committees to work out the details of all pha

ses of the meeting except the professional program and

10 04

111

; . A

ing the tiety of manifer the cona great the state of the section and the The fire of the fire of the State of the sta The state of the s the professional and the second of the secon and the contract of the first of the contract of matter and the section of the support with the Atmosphere of the first the fleeted of them. Or. The past • The second of the second second ස්කාර්යිය කරන සිට කර දක්ව ක්රීම් කිකුක්කර සිට සිට සිට් ක්රීම් ක්රීම් ක්රීම් ක්රීම් ක්රීම් ක්රීම් ක්රීම් ක්රීම් the second of the second of the second that grand of and action of the contract of the the second of th the common windows and the common terms of the The transfer of the second of the second of the second The transfer of the state of th The second of th the second of th ್ರಾಣ್ಯದಲ್ಲಿ ಚಿತ್ರದಲ್ಲಿ ಬ್ಯಾಚಿ ಸಂಗಾರ್ ಗೆರ್⊃ಾಟ್ ಸಿಸ್ಟ್ ಕ್ರಾಡಿಕಿ ಅಂಗ್ and the second of the second of the second of . The state of the . The second of s guarda in a sama direct el preddiamas a più secres eV

్రాములు ఇంది. 10 కింద్రంగ్రామం కొని కిల్లాన్ని కొట్టికోక్కు ముట్టి కల్లు శ్వీ

Adams: it worked out very successfully. Then about a dozen years ago we had the meeting at Asilomar. We were hosts for the annual meeting there.

Baum: Where is the society located mainly--where is their central office?

Adams: Their headquarters are at St. Joseph, Michigan.

Baum: Is that because that is the center of the machinery industry?

Adams: No, I think because it was the home of the secretary.

Originally it was St. Thomas, I believe, but then
they moved over to St. Joseph, but really it is not
far away. It was convenient and as good a place as
any for it. It was in the central part of the country.

Baum: Did you carry on any research or study for them?

Adams: I put in quite a little time as chairman of the Land

Settlement Committee, that was in 1931. We got out

quite a lengthy report, which was merely mimeographed.

Baum: That was 1931. Were people still as interested in land settlement? Was this the idea of colony land settlement or was it just private, individual settlement?

Adams: The subject of land settlement was still very much alive throughout the country. There were still many projects that were suffering because of a lack of settlers.

Baum: Was your section interested in encouraging people to

- ent of the state o
- ris on reliment to not visit as add as on it is to
- . The property of the engine of property of the contract of th
- The first section of the section of
- Andress of Market State of the State of the
- er in the factor with the control of the control of
- the state of the s
  - Adam: "bo n jen of land arblinger sa 0522 e j . .

    alive republible renute. There w

    projects the live authorized occurring

    sethicis.
  - or the service of analysis and the service of the services of

Baum: come in on their own or were there thoughts of some kind of government settlements?

Adams: Our committee was not concerned at all with promotion, but merely with bringing the subject factually down to date. We were interested 1) in activities in which the states were participating; 2) the Bureau of Reclamation and its activities; 3) activities in Canada; 4) activities in Mexico; 5) activities of the western railroads; 6) activities of private colonization agencies. As to the railroad, they wanted to build up the country and increase their transportation income. In Mexico it was largely connected with their social program.

Baum: Is settlement still a problem?

Adams: I haven't heard any discussion of it in recent years.

The Bureau of Reclamation, of course, is very interested in promoting settlement on its projects.

Baum: Do you think that on the Bureau of Reclamation projects the 160-acre limitation was a deterrent to settlement?

Adams: No, I think not. There have been some modifications of that on some projects, including Imperial Valley.

egit in Europe i And is orgon to the common fill better

en all a little propositions of the state of

The caree of the mattem, by the care of the end of the care of the

Provided by the control of the contr

Adems: No, Chini not, There have see a not to the control of that or some impirer, including important and the control of that or some impirer and including the control of the control of

12.

177 3

#### State Farm Bureau and the State Grange

Baum:

Didn't you work pretty closely with the Farm Bureau in connection with the University?

Adams:

We were always on friendly relations. We worked very closely with farm advisors and used to attend meetings of the State Farm Bureau Federation and keep in touch with what they were doing. Members of the Farm Bureau staff were active in our Commonwealth Club studies and still are. Of course, members of our group attended many farm center meetings where the farm advisor would be present.

Baum:

Were these meetings mainly on better growing methods?

All phases of agriculture in which the community was

Adams:

interested.

Baum:
Adams:

Did they call on your organization for water studies?
Oh, as previously explained, much of my early work
with local communities in connection with the organization of irrigation districts started through the
activity of the farm advisor. The local people would
want to do something and the farm advisor would come
to me for help. They'd also call on other members
of our staff. For instance, Professor Veihmeyer would
go and discuss irrigation structures or methods of
application of water or preparation of land, or some
other subject on which the members of our staff were

#### A ROSI TO SOL . THEMSE AND DESC.

to the first of th 11 1 of a respect to the all and the responsible

commended to the original of the control of the second Fred Comment of the state of th the state of the s and the first of the state of t - The first of the second of t · A Contract of the State of the second of th the state of the s non-control of the control of the type of the control of the contr

war it is a second to see the second to the 1 18 miles

2000

The second of the second of the second secon m, early with the street, in and the first of the position of the first of the second o the second of the first the identification of deat.

include the state of the state

A control of the control of the second of the second er and the compact of the contract of the contract of the of age of the form instance in the end of the end of the entropy of a modern of the first term of the area en a merce de la completa del completa del completa de la completa del completa de la completa del completa de la completa del completa de la completa de la completa de la completa del completa de la completa del completa del completa del completa del la completa del completa ens the to be emedican end foliow to eliminate

working. When the Agricultural Extension Service appointed an irrigation specialist he took over much of the work of contact with the farm centers and with the individual farmers. The theory was that he was responsible to the Extension Service for his activities and to our division for subject matter. However, although not a member of our staff, he had his office with us and was in constant contact with the work we were doing. This is still the situation.

Baum: Did you work with the Associated Farmers?

Adams: No. They were an independent organization, comerned primarily with labor problems.

Baum: They had nothing to do with water.

Adams: No, nothing whatever.

Baum: Did you work with the Grange?

Adams: I don't recall ever going to any Grange meetings in connection with irrigation; I was a member of Highland Grange in the early years, and San Jose Grange for a time. The Grange is an entirely different type of organization from the Farm Bureau. Members of the Grange with whom I have come in contact in recent years have been more on the very liberal side. Those in the Farm Bureau are generally more conservative.

And sign of making, then the coldinate of the sum of the sum of the sum of the coldinate of the state of the sum of the term of the state of the sta

energy and the energy is a series

arc density

in contention of the population of the contention of the contention of the contention of the content of the con

Baum: With regard to legislation on agriculture?

Adams: The National Grange has been over the years a very substantial organization. In the early days it was, I think, tied in with opposition to the railroads.

I have met only one master of the National Grange. We got him and the president of the National Farm Bureau and the president of the National Farmers Union to meet with our agricultural section of the Commonwealth Club. They were having some kind of meeting in San Francisco. The master of the Grange at that time was a very substantial man. The head of the National Farmers Union has been a very radical man from the start, very strong on the New Deal side. The National Farm Bureau Federation can certainly not be classed as radical or extra-liberal. In some states the Grange is still strong. We have a good many granges in California.

Baum: Are they very strong though?

Adams: They are active locally but I do not know how effective they are. You hear of the state grange when their annual meetings are held and George Sehlmeyer is elected state master over and over again. I think he spends most if not all his time on grange work, and occasionally I see in the newspapers pronouncements by him on matters of public policy, especially in the

and the term of the fire E of branch still the same The Valored Para of the National Para of the Comment of the State of t substantial expensive or . The standard Interested in west of thinks, then is eith appointed to the contract of Therefore an the order and three on the D

The state of the s The first term of the first transfer of the secure of the The form of the trade of the form of the the control of the control of the control Property of the second of the tion to be a second of the sec not the control of th wide. The free grown wine - we then a .... ලදරු දෙවන වන සම්මාන්ත සහ විශ්යාවේ වන විශ්යාවේ වන සහ ව The solution of the second of . Control 180 of the need that the control

1271.2

The time of the state of the st e itsets and the second of the second sold of the second they are. To use of the gigt are a si - . f. are in the bled sen an it or from a elected the magter over all over adeas. The deele he spende and it not the bine of mealine seet, ed. There are the learner of distance the control of the of the on seasons of oublic policy, can disting a season of

Adams: field of public power and reclamation.

Baum: Liberal on what issues?

Adams:

Well, everything the New Deal stood for. I doubt that you could say that of the National Grange.

When the Grange was the only farm organization, before the Farm Bureau was started, they had some very strong granges. The San Jose Grange, for instance. The top men in agriculture in the Santa Clara Valley were members of San Jose Grange, and I think it's still a very strong organization. There was a strong grange up at Petaluma in the early days, and I presume there were and are other local granges that are effective in California. I've talked with George Sehlmeyer about granges in California and he thinks they are very important.

#### Institute of Irrigation Agriculture

Baum: What was your work with the Institute of Irrigation Agriculture?

Adams: In the days preceding or during the depression of the '30's, there were many differences of opinion in the country as to policies the nation should take with reference to building new irrigation projects or financing projects, terms of payment, relations of the government and water users on federal projects,

1 12 12 A

1 . 6

field o multic and remaining o bloif

Liberell on what it earl

in the second of the second second of the se There is They indo the in the same fireth more thank! The British of the state of the Fig. 1. A first and the second of the section of th eco. O do no agentation of the monda of v or the second of of a control of the c The state of the s and the out of the state of the graph to the first the transfer of the and the state of t 

1.51 5.

The state of the s

the standard of the section of the s to the to percentable ton on a second to - his or the second projection of an employ of all withing a company of the second of the secon or tingacing to jeets, form of onym it, well the in the second of the second se

the extent to which state and federal credit should be used, in aiding distressed districts, both private and community, as irrigation districts; many problems of that type were before Congress and before the states.

Mr. R. W. Blackburn, who was then president of the California Farm Bureau Federation and a member of the board of directors of the National Farm Bureau Federation, used to talk with me very frequently about those questions. He induced the board of directors of the National Farm Bureau Federation to set up an Institute of Irrigation Agriculture to obtain a reflection of the attitudes of the members of the Farm Bureau in different parts of the West as to what these policies should be. It was more or less a grass roots organization. Mr. Blackburn had the same feeling many of us had that people in the twest should have some say in all the planning that was going on.

Baum:
Adams:

Who belonged to the Institute of Irrigation Agriculture? The Institute had no specific membership other than the executive council. The president of the New Mexico Farm Bureau Federation, Louis Fruedenthal, was made president of it, or chairman. An executive council was set up, Mr. Blackburn, Mr. W. W. McLaughlin, Mr.

ide : Sin elbert to wow to thate of edencine of or the little than the control of the distance of and columnian indicates and a signification of the and the control of th

the wife of the state of the st কুল বিশ্বস্থাৰ বিভাগৰ প্ৰতিষ্ঠানী কৰা কৰা কৰিছে কৰিছে কৰা কৰা কৰা কৰা কৰিছে কৰা কৰা কৰিছে কৰা কৰিছে কৰা কৰিছে ক reconstruction of the contract the second of th  $(e_1, \dots, e_n) = e_n e_n + e_n e_n$ 7 and the second of the second o . The composition in the state of the in . . . Heringro - e a imple o f and the second s \*\* ATT CT

in the control of the The second of the language of his design of the second of tue war gother sonnoil. The reside that the true Mexico Pres overan Rader Co., Could fore entry to made primal and of the second of the contract 

Adams: Fruedenthal, I was on it; I don't recall the others.

We held a number of regional meetings. Who attended was largely determined by the location where the meeting was held.

Baum: You mentioned a study you did for the institute of the problems of irrigation organizations.

Adams: Many districts or projects were being refinanced under the Reconstruction Finance Corporation. felt that a lot of the enterprises that couldn't qualify for emergency assistance still had a right to consideration in connection with problems they might have. So we made a questionnaire inquiry covering all the far western states and we got a fairly good return. We asked a series of seventeen or eighteen questions on financial conditions. need for further works, need for settlement, extent of water right conflicts if any, and other questions. Some federal projects wanted a revision of their contracts to extend their payments, some wanted a different method of determining their payments such as the average income rather than a flat acreage charge, some districts wanted financial help--there was talk in those days of both state and federal governments participating in assisting projects that needed help that didn't qualify under the national

en la companya de la

en de la companya del companya de la companya del companya de la c

interest of the state of the st

toe sier l'amisagin e din din anieve

recovery legislation. There were practically no requests for settling water right problems although there were some difficulties on interstate streams.

We made a general report, I have it here. You can't draw any clear-cut conclusions from it but it was of value as representing the opinion of a substantial cross section of developments in the West. All this information was available to Mr. Blackburn in his dealings with the directors of the National Farm Bureau Federation and the development of their reclamation policy.

Baum:

Adams:

How long did the institute continue to meet?

The last meeting we held while I was active was at

Corvallis. That must have been around 1937. We had

many farmers there from federal reclamation projects,

some farmers from the surrounding valley, a number of

western railroads were represented because they were

always interested in that policy, especially John W.

Haw, director of the Agricultural Development Depart
ment of the Northern Pacific Railway, with whom I'd

had frequent contact previously. There was a rather

radical element at that meeting. Mr. Fruedenthal was

not present and I was chairman. The situation seemed

to be getting more or less out of hand. I don't

The same against and the same of the same

in the control of the second of the control of the

For low to the first of the first of the form of the first of the firs

remember the issues involved, but I asked someone to take the chair so I could express myself more definitely. My ideas must have coincided with the attitude of some of the others present because in the last afternoon several of them came to my room and thanked me for the position I had taken. What the position was I don't remember.

After that Corvallis meeting I asked to be relieved because I was overburdened with the other work. Mr. McLaughlin took over and they met for several years after that.

## "Winning of the West Conference"

Baum:

You mentioned a conference you attended in connection with a movie, "The Winning of Barbara Worth." What was that?

Adams:

In September, 1926, I received a letter from Mr.

Arthur S. Bent, then president of the Los Angeles
Chamber of Commerce, inviting me to serve on a
sponsoring committee for a proposed "Winning of the
West Conference" to be held in Los Angeles. The
purpose of the conference as Mr. Bent explained in
his letter was to bring again before the public, not
only of the West, but all over the United States, the
question of reclamation and irrigation in such a subtle

:a. sbA

remember the is the involved. But I anked to the totake the chair so I and I extrems awaeld and jestified.

My ideas must have reincided with the attitude of so so of the others of the last effector.

of the others of them and to recommend that effect are the north of the model that after the formal of the model to the chair she had a seven and the north of the north of the section I had taken. The the north of the north of the section was a don't

After tied forvalli as the last to be to be to see the color of seed for a see that the color of the color of

## 

1371555

rotament found a scottenance of themself to assume the west the scottenance of the scotte

1200

In September, 3.79, I pecelicad of them live of.

Anthur 1. Bear, then promident of the 193 to a finance of forcerone, inviting a 10 percent of annearing of the force of the first of the second of the first of the conference as Mr. Not a crylained in the letter was to bring over the original interior of the West, but all over the first off the such of the letter of the first off the first off the first off the first off the such of the first off t

way as would assist the West in developing certain projects which would be considered at the next session of Congress, the most important of these projects being control of the Colorado River by storage at Boulder Canyon.

It was proposed to hold this conference concurrently with the premiere of the new film, "The Winning of Barbara Worth," which dramatized the reclamation of Imperial Valley. The thought was that this picture was probably the greatest picture ever produced showing the romance and grandeur of the winning of the West, and that its showing all over the country would assist in the dramatization of western reclamation problems.

It was desired to bring together in this conference the leaders of the western states and, to quote from Mr. Bent's letter, to "incidentally again bring Los Angeles into prominence and leadership with regard to the problems of this whole western territory."

After receiving Mr. Bent's invitation I called on him in his office in Los Angeles and he gave me this background: Mr. Sam Goldwyn had produced the film, "The Winning of Barbara Worth," and when they came to look it over they found it was a dud. Mr.

esy as well are in the West in .eveluin and anojecur which and or monsidered at the considered at the consistent of the seeston of Commons, we wast important in he are jected being a thought of the Constant of the Solenage at the Constant.

. .

Stress and consider to a content of the content of

"the modern of the print of the limit of the

Eften receiving to the continuous to the sile of the continuous of the continuous of the continuous that the continuous that the continuous to the continuous that the continuous to the continuous that the continuous to the continuous that the con

Goldwyn was very much discouraged. He had spent a million dollars producing the picture. He went to Mr. Harry Chandler of the Los Angeles <u>Times</u> for advice. Mr. Chandler offered to let him have Mr. Harry Clark, his manager of properties in Lower California, to spend several months on location helping to take the kinks out of the picture. This had been done and the picture was then ready for its premiere.

Well, it was entirely appropriate that the Los Angeles Chamber of Commerce should have such a conference, and Mr. Bent assured me that it was entirely a bona-fide enterprise. The list of those invited to serve on the committee included many very prominent men, among them a number of leaders in the moving picture industry. The conference met on October 14. 1926, and was presided over by former Governor Campbell of Arizona. After a warm-up breakfast at the Breakfast Club, I think in Griffith Park, the conference assembled in the Biltmore Hotel and continued throughout the day. There was an elaborate luncheon at the Biltmore.. Members of the committee were seated at the head table, and I had the honor of sitting next to Mary Pickford, then known as "America's Sweetheart." I remember that Douglas Fairbanks was

Add as a first of the series o million dollars province of the pint of the elec-The comments of the Las Adres a great of the And the state of the state of the Co. the contract of gardinal and the contract state, and to a self were all The second of th The first of the second of the enter to the common new engagic at the acob and to he in the second to the sale asignation of · of production of the the second secon A SECTION OF SECTION ASSESSMENT OF SECTION O et . indember of the alives or and the state of the state o The state of the s -প্ৰ'ে বিভাগ বিভ

 $s=\frac{r}{2}$ 

eronalis estat compatible estat compatible estat at the Attenness which amended to the on leader the ordered to the control of sit had next to dang side though thee move of the the self-defail coloned that med more than when

Adams: one of the speakers at the luncheon.

In the evening members of the committee were guests at the premiere. I sat with Mr. Harry Clark who had helped in working over the picture and whom I had known very well in studies I had made in the Imperial Valley. As nearly as I can remember the principal resolutions adopted related to support of large western storage projects then under consideration, and support of the recommendations by Secretary of Commerce Herbert Hoover for federal aid in construction of the storage. As I remember it Mr. Hoover had recently made several speeches in the northwest favoring such federal aid.

I don't remember what, if any, influence the conference had, but what makes it worth remembering was the effort to glamorize western reclamation through the medium of a rather glamorous moving picture.

no the notice of the following

of a contract of the second contract of the s

+ in the state of the state of the state of

to the more than the second of the second of

- Note that the second of the

The state of the s

the state of the s

. ris fer.

end, action to the company of

e de la companya del companya de la companya de la companya del companya de la co

SERVED RIT C. LET SERVE 28

ver and the demonstration of the second

. continue

## SURVEY IN PALESTINE

Baum: Was your Palestinian trip an outgrowth of your interest

in land settlement?

Adams: Well, my background with the land settlement movement

in California undoubtedly had to do with my participation

in that work. The way that came about, Dr. Mead had

been asked to head a commission to study Zionist

colonization in Palestine. He told me Knowles Ryerson

was going over to look into the agriculture and A. T.

Strahorn the soils and could I suggest someone to

make a study of the colonies. I suggested myself.

Baum: You wanted to go.

Adams: I though I'd like to do that.

Baum: Under whose auspices was this trip?

Adams: The Zionist movement, following World War I and the

Balfour Declaration proposing establishment of a

national home for the Jews in Palestine, had carried

on a great drive for funds to carry out the ideas of

that mandate. One of the most important activities

was establishment of agricultural colonies. There

had been agricultural settlement in Palestine prior

to that, some by Jews, some by non-Jews. Baron

Edmond de Rothschild of Paris had come to the rescue

## STORA IN 21 II

. The second of the second of

• end of the world in the control of the control of

Action of the control of the control

of a number of Jews from Russia and Austria, I think, who had become stranded down there. He helped them through as a matter of charity rather than any ideas of colonization. After his death the matter was taken over by the Rothschild Foundation and put on more of a business basis. Settlers were financed much along the lines that had been successful in Australia and many European countries.

The larger part of the funds raised for work of the Zionist organization in Palestine came from American Jews. The American Jews, headed by Louis Marshall, a very noted attorney in New York, had reached the conclusion that the Zionists were wasting the money on social projects and they didn't want to give any more money until they had a thorough study of what the situation was. So about 1926 or 1927 the Zionists and the non-Zionists, under Louis Marshall, agreed on a joint investigation under the auspices of what they called the Joint Palestine Survey Commission. Dr. Mead was asked to head a group to make the investigation.

Baum: Adams: What did you think of the colonies when you were there?
Here's the report, except for the appendices which
were the reports of those of us who had made the field
studies. Dr. Mead, as chairman of the group, was

e end an electron of pass to send of the think the first of a true true true on each of our The control of the tenter of the sound of the sound The state of the s The state of the s of the state of th THE REPORT OF THE PROPERTY OF THE

when I baint to be a little origand or a swall manager The state of the s 3 the second of th in the first of the second read the control of the second and the same of the same stands to real companion of the state of the second in the second of the graduate terms r \* ... −13 major no mono de la mere no estada de la recepción de la composición del composición de la compo

erin in or it in the bit the state of the control of the control of the control of and the transfer of the state o action. In. the administration of the colorest

Adams: mainly responsible for the main report, although the rest of us had some part in it.

Baum: (reading) Reports of the Experts Submitted to the

Joint Palestine Survey Commission. Boston, October 1,

1928.

Adams: My specific job was to visit the colonies and study their financial condition over the years, learn what I could as to their attitude and the character of the people. All records regarding the colonies were in Hebrew. Fortunately, the chief accountant of the Zionist organization in Jerusalem was an American and he read off to me the headings of their records and I selected what Iwanted and he compiled the data for me for each of the colonies. So I had this background material when I talked with the settlers.

Baum: I suppose you had to talk through an interpreter mainly.

Adams: Yes, except occasionally there were Americans there.

I remember one very bright young woman of about twenty,
the daughter of a New York rabbi, who was in one of
the colonies down in the Jordon Valley. She illustrated
the enthusiasm which had led many of the settlers to
go there. She said she went down there just for a visit
and was so enraptured by the beauty of the ideals and
their plans that she became a colonist.

thouse the medical property of the potential of the contraction of the . Tirt drive who make the drope

the state of the second of the state of the second of the Alexander Commence in the Section of the Section of

Control of the state of the sta de la grapa de la companya de la facta de of the section is a section of the s entitle dakti transport of the entitle of the control of the contr in the second of actions and actions to and the solid the and so add an of the Goes and the second of the control of the second of t on the state of the section and the section an . Profit to the art of the French telephone

e eld direction a social

provide the contract of the co . The first of the second of the first of the second of the second to one of the care. When each we wanted extended to the between the first and another scores out of the entire of the the first of the mark for one had a staile of immediate add to the engineering of the automotion of the bit provides of the and weet o en learned by its leading to the first of their stars as she became a colorist.

I spoke of the Rothschild colonies which were organized on a business basis with the idea that definite obligations were being assumed by the settlers and financial arrangements similar to those being used in that type of aid by governments in Europe and Australia.

The Zionist colonies were of two kinds, the collective or "communistic" colonies, and the small holders' colonies in which each colonist had his own piece of land and his own home in the village. They followed the European pattern of village settlement and surrounding or outlying farms. That type of group settlement was necessary because of the constant danger of Bedouin raids. They always had lookouts day and night.

In the communistic colonies the settlers lived in dormitories and the work was parceled out by committees. Each one had equal shares as to anything obtained. They had large barns for their stock and heavy investments in that type of buildings. In the dormitories, one room for each family. The children were kept in nurseries and supervised and educated by the teachers or nurses. They were allowed to visit their families every evening for an hour.

There were three main areas in Palestine where

: 2 1 5/

en a father actor blisher to find the backer I

order from one at mile a costa to the terms of the sale of a costa of a costa of the costa of th

The 21st collowing winds to a wilder the small collowing the confidence in which collows and the confidence in which we confidence in the collows and the collows are collowed to the collows and the collows above to the collows are around in the collows and the collows are collowed to the collowed to the collows are collowed to the collowed to t

in density of said for notice to the control of the

here none three main reads . It is the read

land had been purchased by the Jews for colonization. One was the coastal plain of varying widths and it was in about the central part of that area that the Rothschild colonies had been mainly settled and in which there were quite a number of Zionist colonies. The principal agriculture was growing citrus and The Rothschilds had built a large winery grapes. which provided a market for grapes. The Palestine oranges are recognized as some of the finest grown anywhere. The second general area was the Emek, or the Plain of Esdraelon as mentioned in the Bible. That lay midway between the coast and the Jordan Valley, a large area eight or ten miles across with very scant water supply, only springs, no streams. Then there was the Jordan Valley and lands adjacent to the Sea of Galilee. There were also a number of colonies in the hill country.

Well, we found that generally speaking the hill colonies were unsuccessful financially. There were a number of reasons. In the first place, the hill areas were not suitable for very profitable agriculture. Their methods of organization were entirely lacking in sound business principles. Let me illustrate. Not far from Jerusalem was a colony of 75 acres, largely shallow, barren land, worn-out terraces, and some of

Age : Pare her her harehan by the est for the continue of The bedains ive y to the fight of a new or the managed with School to the second divide of no box we down fator grown in a common to the added A standard transfer of the standard standard transfer of the The state of the section of the sect provide and the first profession and the incolor to the second of the s a remainded the second of the Me to the second of the second . The second of th Time to the property of the first of the state of the sta r. Laborrio de la lab •9**9**[1] . redouce like on the inches I was the second of the second . Tain to subtractions a readication erse of down to the second of the second second with Ellips Medition, the colorest of the wind the state of the grown of the sagero to the contract of of the first of the following the following or the . The to garage element to the second

Got on the state of the state o

it very heavy land. Twenty families were on that project and they expected to make a living out of it. The total population as Irrecall was about 75, including children. Dairying and poultry were their principal sources of income. Alfalfa for the dairy cows could not be raised in the colony. It had to be trucked in from the coastal area. I remember in the interviews one of the settlers said he had only two cows to milk and had nothing to do between seven o'clock in the morning and five o'clock at night except argue social theories and politics. They couldn't possibly make a living. It was an extreme case, but there were others that approached that. The coastal colonies and those along the Jordan River directly below the Sea of Galilee had greater agricultural possibilities.

The great difficulty over there was that the Zionist movement as carried out in Palestine was largely founded on achieving a new social order and the colonization was very largely controlled by the labor organizations. They had complete say as to who should be selected as colonists and they kept very careful track of their activities. There was a very stringent rule against exploiting labor. No outside labor should be hired. Occasionally there was some easing of that by allowing relatives to help. In many of the colonies

the notice of very heav line. Thenty facilities were on the Att 20 dr. trans 1 fem cd - com to the big doctions to the contract of the second flance of a tree of second and and the time of the companies of the contract of the contract of office are the second of the contract color color and color and color and color a implication in the second of while on the control of the second of the se and it has the arms of the object the for End Box the tree is the first of the transfer of the patriotic A Proposition of the contract of the state of the same point of the first of the commence of the contract of the of a market of a constant of the constant of the city The state of the second of the second of the second of the . Is the second of the part of the property of the contract of the state of the s the first of the first the following the street of the first IN - :  $^{-1}$  : the state of the second of the second · A control of the control of the control of the section of the s the control of the second of the control of the second of . The state of the rate against evaluating them. To other deal are the t hired. Todan tally them was some dring of the

elandin of the mass of the land of earth for enlanting a

the area of land was so small they couldn't possibly make a living, let alone keep themselves occupied.

The labor organizations also influenced their community cooperative movements and industrial development and so forth. Their emphasis was in a new social order and to get away from the evils of the capitalistic system.

At one of the hearings, one of the labor leaders who had principal responsibility in their main organization said in reference to the constant deficits that the need for more assistance didn't worry them at all. The greater the need over there, the greater the amount they could get from the Jews of the world. Did you feel that these ideas were detrimental to their economy or was it that the situation was so difficult due to natural conditions that it wouldn't have been improved any other way anyhow?

Baum:

Adams:

We, of course, were not primarily concerned with the social theories of the Zionists of Palestine, but only with their effect on the economic success of the colonies. Nevertheless, we had to take these theories into account, as well as the control exercised by the labor organizations. In the communistic colonies the individual was of course subordinated to the group. In the small holders' colonies there was

The control of the co and the state of the state of the state of the the labor and the same to the same recell and and the second of the second o er to the second of the second Service of the servic \* ~ 4 m

the state of the s the control of the second seco with a contract of the state of the s The state of the s to the second of the second of the second and the second of the second o to the bottom of the first the first day the state of the s the second of th it is a second of the training to the total terms of the total terms of the terms o in the order of the section of Namin ( ) of the month of the filter of the confidence of the following of the confidence of the confi

of the brade of the sew Larbivite's of resholts lack of the compact of the contract of the con

by the third witamization. In bir don't in

greater individual freedom but the colonists were not obligated by a contract with the Zionist organization by which they would be financially responsible to it—no incentive to individual effort to complete a definite obligation as in the Rothschild colonies and in publicly—sponsored land settlements in Australia, Europe, and in the settlements in California. The Rothschild colonies by this time were generally successful. Incidentally, on one of those colonies we visited there were seven graduates of the University of California College of Agriculture, and they gave us a luncheon there.

Baum:

Of course, you, and I suppose all the members of the commission, were by your personal experience committed to a different type of life, but perhaps that communistic type of life was satisfactory for those people who had come from a different background.

Adams:

Oh yes. On the other hand, we could only give our conclusions on what we thought would be the ultimate effect and to raise the question of whether the people wanted to support that type of thing.

Baum:

That must have been a very interesting trip for you.

Adams:

Oh yes.

Baum:

Mrs. Adams didn't get to go along?

Adams:

No, she had four children to take care of. It wasn't

11 16 11

measter infold. Freenot but the color of the

Actions, and I would be the start of the control of

e no i un la ritarma de país e la composition de la composition della composition della composition della composition della composition della composition de

· The profession was about or the doctor of the second of

. of the distance of the contract of the contr

the dual theorem of the difference of the contract of the cont

Adams: fair to go on that trip, and that trip to France back

in 1919 and leave her at home, as I look back on it.

Baum: Was the report generally approved?

Adams: I think our report was rather generally approved by

American Jews. When the report was completed, Dr.

Mead and I went up to see Louis Marshall in his office

and give him the report. Mr. Marshall was a most

remarkable man, a great ponderous head, a tremendous

mind, he reminded me very much of David Lubin, whom

I had seen over at the Fairmont Hotel with Dean Hunt

and listened to him talk for about an hour on affairs

in which he was interested. I must describe Mr.

Marshall's desk. He had a big double desk about seven

feet long and five feet wide. He had it piled up

all around, three sides of it, so high, with briefs

and documents, and an area about the size of this

card table on which he could work. He read the report

through right there, except for the individual reports

included as appendices, and he was quite pleased with

it.

I should have mentioned earlier that our group included Dr. Mead as chairman; Dr. Jacob G. Lipman, director of the Agricultural Experiment Station at the New Jersey College of Agriculture; Arthur T. Strahorn, who had done a lot of soil survey work for

9 3 8 1

Its breed to simple the control of t

The street rand flood to continuous to the street of the s

the Bureau of Reclamation and had formerly been attached to the Bureau of Soils; Mr. Cyril Q. Henriques, a former English irrigation engineer in India, then connected with the Zionist organization in Palestine, who joined us to study especially the irrigation features, Knowles A. Ryerson, who is now Dean of Agriculture here, and I was the last one.

Mr. and Mrs. Ryerson, Mr. and Mrs. Strahorn and I went over together about March or April of 1927 to carry through our field assignments. We were joined about two months later by Dr. and Mrs. Mead and Dr. and Mrs. Lipman. Then the entire group, accompanied by one or more of the Zionist officials held what might be called hearings in a number of important colonies, and also visited several of the enterprises of the Zionists, including the agricultural experiment station. Later Dr. Mead and Dr. Lipman interviewed a number of the leaders in the Zionist movement and the British high commissioner for Palestine and others who were responsible for the control of the British mandate over Palestine.

Two or three weeks were devoted to this study by Dr. Mead and Dr. Lipman. Then the group returned home except for Mr. Strahorn who stayed on to complete his soil survey of Palestine.

and the state of t . The Contract of the Contract neighbors to interest the supplies to the complete to on the state of th the first terms of the particle of the section of . The corp. to the contraction of 

The transfer of the second of Here is a strain of the section of the section redde voe en en easter of A CONTRACT OF THE STATE OF THE · de la companya della companya della companya de la companya della companya dell ા મુંદી કાર્યો તે . જાતા જ C 16 900 "C 0 0 0 0 000 . 10 " on the enterior of a reality to the for a committee The state of the section of the sect The state of the second and advantage of the state of the second and advantage of the second advantage of the second and advantage of the second advantage of the second and advantage of the second advantage of the second and advantage of the second advantage of the second and advantage of the second and advantage of the second advantage of the second advantage of Table 1 . The second of the decision of the decision of the second of th and a partition in the first of the second \_ ~ type the second of the sec A to a long to the continue of the second the second the second to the second the second to the seco engine king him bagas prispw soudd no val

the contract of the state of th ed the marker of the proceedings of end deeped and . Later fast to avera from a

What I've said about our opinion regarding the colonies has been mainly critical. The report also contained much that was commendatory regarding the Zionist movement and its various aspects. the foundations for what was to be a new nation was a tremendous undertaking. Great progress had been made in what they call amelioration of the land: that is, making it ready for settlement. The agricultural experiment station had developed a very able group of workers. A very effective system of cooperative credit had been built up under the able leadership of Mr. Harry Vitteles. I personally was greatly impressed by the devotion and zeal of the colonists in their effort to build up a Jewish national home. They were willing to undergo great hardships in their daily lives.

:5485A

on't girry written we dan a bias ov'l defiobjection of elimination of the section of contribution and the win amends are the form lead that of trail of the form of visit in the straight of the land of the straight of t The world of the second of the a bremindour no a turchy. A per real no or as a made in when I have flower flower I he for his observed is, asking to made for not the continue to and the second of the closed and the design of the contraction of the notes, the control of the same value of the same entremental of the second of the second of the the one correct the control of the control of the The refer of the first of a colder on the percent . The twee ten to a the control of state a son of THE THE STATE OF THE SHOP OF THE STATE OF TH . " no 1 5 (1) h

#### WORK ON INTERNATIONAL AND INTERSTATE WATER RIGHTS

## Attempted Compact Between the United States and Mexico, 1928-1930

Baum: You had worked on the compact between the United
States and Mexico. When was that?

Adams: Some time in the middle of the 1920's Congress appointed a commission to study the use of Rio Grande water below Fort Quitman in Texas and to reach an agreement with Mexico in connection with the use of the waters there. Mexico appointed a commission and at the same time requested that the two commissions also consider the Colorado and the Tia Juana. The Tia Juana is a small stream that flows from Mexico into California along the border south of San Diego. The American commission was headed by Dr. Mead, Commissioner of Reclamation, and it had on it also Major General Lansing H. Beach, retired, and Mr. W. E. Anderson from the lower Rio Grande area.

When that plan was adopted of including the Colorado and the Tia Juana, Dr. Mead felt they didn't have adequate information about what was going on along the Colorado in Imperial Valley in California and in Mexico and asked me to make a special study of that. I did that in 1926 and 1927. That was preliminary to any joint meetings of the Mexican and American commissions. I prepared a report--roughly it dealt with stream flow, irrigated and irrigable lands, use

### TALENT OF THE STATE OF THE STAT

## Tell- 2 in the second of the second second in the second second in the second s

and the manufacture of the second of the sec

olongs of obtolers of the control of

in the contract of the state of the contract o

of water, the various irrigation developments, and water rights that had been established. That was in the United States as far up as Cottonwood Island in Nevada, it didn't include the upper tributaries of the Colorado. My report is in Appendix B of this report of the International Water Commission, United States and Mexico, 1930.

Baum:

You didn't do any work in Mexico?

Adams:

Yes, I made a special report on the use of Colorado River water in Mexico. That was covered in Appendix 4 of the report. Then I made a third report, Appendix 5, entitled "An Inspection Trip over the Colorado River Levee Systems Below Yuma, Arizona, December 17, 18, and 19, 1929". The river was in high flood stage at that time. There had been great devastation of the levee systems in Mexico. The course of the river in Mexico had changed again. The flood stage down there was important in reaching an understanding with Mexico. How much field work did you have to do on these reports?

Baum:

I was in the field several months at least. I had to take leave from the University when I did that.

Adams:

The first joint meeting of the commission was held in El Paso in February of 1928. I was not present. I got a wire asking me to come to their second meeting which was held in Mexico City beginning August 20, 1929.

:

and the second entropy of the second of the s Fig. 1. Company of the state of

11. 7. 7.

. .  $e^{i}$ · in 0

But the state of t 

of the Committee of the control of t . The contract of the contract . In figure of the state of the search of th

The second secon A CONTRACT OF STATE O or a second of the second of t

the transfer of the state of th . I i was a second of the contract of the cont

The third session was held later in Washington. My particular job in those meetings was to go over with the representative of the Mexican commission, Mr.

J. L. Favela, all the data we had collected and attempt to reach an agreement as to the facts and report disagreement where we weren't able to reconcile our facts. About three weeks were devoted to that work in Mexico City and probably a week in Washington.

The situation along the Rio Grande, the Colorado and the Tia Juana was quite different in the two countries. The Colorado water supply comes entirely from the United States. Some 70% of the water in the lower Rio Grande comes from Mexico. On the Tia Juana important tributaries rise in the United States, pass into Mexico, join the main Tia Juana and flow back into the United States. The commission was faced with the situation that Mexico was in a position to hold out the supply along the Rio Grande for a larger supply from the Colorado and the Tia Juana. There was some feeling among the people along the lower Rio Grande and also in California that the interests of one area might be sacrificed by the commission for the interests of the other, so they watched the proceedings of the commission very carefully.

Baum:

I presume that is why Mexico insisted on considering

. The second of the second of

age to the second of the secon

for the same of th

with although the control of the con

and the important of the second of the secon

that is a signification of the state of the

Baum:

Adams:

all three rivers at once, for better bargaining.
Undoubtedly. I had nothing to do with the lower Rio

Grande so I won't discuss it.

One of my findings on the use of Colorado River water in Mexico was that the maximum amount of water they used in any one year up to 1928 was some 750,000 The American section proposed that that acre-feet. be the allowance to Mexico from the Colorado. Mexican government had an entirely different idea. When reclamation of Imperial Valley was started back in the early 1900's it was necessary to reach an agreement with Mexico as to the conveyance of water through Mexico from the Colorado through an old natural channel back into the Imperial Valley in California. The high range of sand hills between the Colorado River and Imperial Valley made it necessary at that time to go through Mexico. The concession granted by Mexico provided that of the water so diverted, sufficient should be supplied to Mexico to water the lands there, but not exceeding half of the total supply diverted. On that basis Mexico claimed about three and a half million acre-feet against the 750,000 acre-feet the American section was willing to concede to Mexico.

Mexico had still another criterion for deciding

-

The state of the s The state of the s

of the action of the action of the THE STATE OF THE S the first of the first of the state of the s 4 . 1 . 1 . 1 . 1 . 1 . 1 . 1 termination . termination and the second of the first of the second of John Land as Service of the professional on the control of the state of Topology of marking to big feet a the state of the contract of t terms of the second of second of the second and the continuous and add the the property and the in the second of oligated of the end of the things of the end of the end of . I say afproved to the set of the tight rasted or order exitated that the control of the control of community of the State of Society of the state of the sta learn ther, and one of enthalment in of or on the course almed dealth . Hedgevil offeren , r. .r. and a coll. of the coll. e in illica e considuos castere, pad decis- e e 150 .co Trainei

Stationary of the another of the contract

the amount they were entitled to, that is, the relative areas of irrigable land. On that basis their claim was also about three and a half million acre-feet.

Well, with such wide differences needless to say they didn't reach agreement. They reported that disagreement and the commission concluded its labors. Some years later an agreement was negotiated and a treaty signed by which Mexico was given, I think, about twice the amount the American section of the earlier commission offered. It was negotiated by Lawrence M. Lawson for the United States. Mr. Lawson had been boundary commissioner on the changing boundary between Mexico and the United States due to the meandering of the river during floods. He had made an exhaustive investigation of the Colorado River system for the Bureau of Reclamation in earlier days. He was present at the meetings of the commission at El Paso, Mexico City, and Washington. He and I were in college together, a man I knew very well.

Some years after the American commission filed its report, and prior to the negotiation of the final treaty, I met Mr. Lawson and I asked, "What's the status of the situation down there?" "Well," he said, (he was rather droll), "We're just waiting for that old report to be forgotten."

The second secon

—81 લીકા કાલ્યા કલાક કાલ્યા કર્યા છે. કાલ્યા કા

Transfer of the state of the st

the second secon

The state of the s

the state of the s

, and the second constraints  $\epsilon_{ij}$  ,  $\epsilon_{ij}$  ,  $\epsilon_{ij}$  ,  $\epsilon_{ij}$  ,  $\epsilon_{ij}$  ,  $\epsilon_{ij}$ 

្នាក់ ប្រជាពលរដ្ឋ និង ស្រាស់ ស្រា

in the second of the second of

and the state of t

The residence of the second of the

California was never satisfied with what was finally negotiated.

Rio Grande Joint Investigation, 1935-1938

Baum:

You were a member of the consulting board of the Rio Grande Joint Investigation for the National Resources Committee from 1935-1938. I believe that investigation resulted in an interstate compact between Colorado, New Mexico, and Texas on the use of Rio Grande waters. How did that investigation come about?

Adams:

In the replies from the various governors to the inquiry sent out in connection with a study I made in '34 for the National Resources Planning Board on water rights and legal aspects of water resources in the arid and semi-arid regions, the need for agreements on a number of interstate streams was mentioned. That may have had something to do with the National Resources Board having us undertake the Rio Grande Joint Investigation.

The first I knew of the proposed investigation was a wire asking me if I would serve with Professor Harlan H. Barrows of the University of Chicago. Department of Geography in arranging an investigation on the Rio Grande working toward an agreement and ultimate compact. I was very glad to undertake that, it was a fine

. ned widowen . finite

#### City of the state of the state of the

10000

the section of the se - 1. the town of the second of echier of the comment was at he comme the second of the first of the second of the second

to the control of the so a viet the identities of the day of the one because it is at the contract of the second at र १८८८ । १८७७**० वृक्ष** । १८८८ - १८८५ - १८५५ । १८५५ । i figuration (in - ) a implifit of a The second of th To the second of . or idney

The fire which blue ality and there are and and w is broken, and the strength of the strength of a strength of the first of the second the second the second the Orents we bing ontology are a back to the second of the contraction of the promotion of

opportunity. So a meeting was called in Santa Fe in the summer of 1936 at which the interstate commissioners who had tried towork out a compact on the Rio Grande but had not succeeded were brought together along with representatives of major interests along the Rio Grande and its tributaries in Colorado and New Mexico and Texas. We had a large conference. Sinclair O. Harper, who was then assistant chief engineer of the Bureau of Reclamation and later chief engineer had been appointed by the President as the federal representative on the compact commission.

We had a very interesting meeting. It was preliminary in nature. Professor Barrows and I were feeling out what was possible or desirable. At the end of the conference, which lasted about three days, we were told by some of the state representatives that more progress had been made toward reaching agreement than at any time since the interstate compact commission had been established.

With that meeting back of us we planned an investigation, outlined an organization, solicited the cooperation of the Geological Survey and the Department of Agriculture, and the federal wildlife agency which had large game preserve interests on the Rio Grande. We outlined a plan of procedure which

Tales: The transportage of the most of the transportage of the in the dummer of the start of the temporary to the The contract of the state of the state of the contract of the state of of wifter as a managery of too most dominate election to The state of the state of the provided for the gradient contraction. the first angle of the first self-control of the self-control of t • A PECH TO TO THE BOOK OF THE WORLD Telluber of the second of the A. . Type of the second to be accounted to the companies of the and a configuration of the company of the common and the common of the c · Commence of the Artifaction of the Commence one wider a paran for but The first of the second of the

of car of the same of the seals that . I reliable to the heart of the at her end of the and ever and the dea we were to bid by ease of The second secon en les et l'ord et l'el la rap la caste la marcher el contact commission has a commission of to the second to have a down dead it

Course Continue . ordered as to the contract of the contract o the cooperation of the colories. The med can o if it is more will be a liferity to the mederage! a transportation but in the programme to the term of to spende. The male and a little of the object of

was perhaps rather more elaborate than was necessary, but we took the job very seriously.

We got Mr. Walter W. McLaughlin to come over in order to interest him and members of his irrigation staff of the Department of Agriculture in the studies of use of water and related questions. Mr. N. C. Grover, head of the Water Resources Branch of the Geological Survey, gave his hearty cooperation. He was so interested he met with us every conference we held for the next two years. I had the opportunity to meet in him one of the finest men I've ever known.

After we had worked out a plan of organization and obtained the cooperation of the various agencies we submitted our plan to the National Social Planning Board in Chicago and got their approval and authorization necessary to carry it out. Each state, of course, paid its own expenses. The Department of Agriculture and the Geologic Survey undoubtedly paid the salaries of their representatives, but we had a large fund for expenses, for technical assistants, for preparation of maps, clerical help, etc.—something around \$100,000 or more, I don't know for sure. In any event, it was an expensive investigation.

We appointed Harlowe M. Stafford, of the staff of the state engineer of California, to head up the

: 500,000

was serbboga rather more of some some ser u estre is

The situation of the characters of the control of the situation of the control of

or appliabel Jarlose . Stailerd, of the blue of the other of the other earlier of the other state of the other othe

Adams: investigation. Mr. Fred C. Scobey of Mr. McLaughlin's staff was associate engineer. The investigation went on for the next two years and here is the rather voluminous report.

Baum: When were you working on this?

Adams: In 1936 and 1937. We transmitted our report on
August 10, 1937. Mr. Barrows and Iwere the consulting
board responsible for the planning and conduct of
the investigation. We held, I think, twelve or thirteen
conferences in Santa Fe in which all these various
interests were brought together. The representatives
from the states accompanied us over the entire basin,
along the Rio Grande as far as Fort Quitman some
eighty miles below El Paso up through New Mexico
into the headwaters of the Rio Grande in the San
Luis Valley in Colorado. So we became very familiar
with the terrain.

I have almost a complete record of the proceedings of the conferences which I plan to turn over to Bancroft Library and possibly all my correspondence with Professor Barrows relating to it.

The final drafting of the compact was accomplished on the basis of our report under the leadership of Mr. Harper who was the federal representative on the compact commission. That came after we had completed

: f<sub>1</sub>;

11.

nini rali . - ic v dece . This . Thegitalvai : emab! and the serious serious and the electronic serious serious serious - The street of Track Br D. W. John Then sere yo loking on a re-

191735 and 182, Wether Addition a back A CONTRACT OF THE STATE OF THE TO PROCESS TOURS erent in the control of the second of the control o and the second of the second of Endings to the second of the s . The management of the second of the By Commercial Commerci TO FIRST STATE OF STATE of the ending to the five 135 1715 the promowlers and the . We to divoling of mo · Alterry to the diag

the second of th Proceedings of the state of the sample for a said to the state of the s .JJ of " slet ownered to to

commended the second of the se that the was nature of wrong it his and no in. Tarrow we reas in the red need to but the a time നു വാട്ടിയുന്നത് നുത്തെ വരു വരുന്നു വരുന്നു വരുന്നു വരുന്നു. Adams: our report.

Baum: Was everyone who worked on this report objective about dividing up the water or were they partisan?

Adams: It was entirely an objective investigation--a practical study of the situation. There were sharp differences of opinion between the states and their representatives from time to time, but a fine spirit was exhibited throughout the period in which we were working on the project.

Baum: Do you feel that such an elaborate investigation was necessary?

Adams: It was a broad question and needed broad treatment.

I've never regretted that we undertook it in the way
we did. In such a complicated situation as we were
dealing with you cannot tell in advance what particular
facts will have influence. We therefore sought to
include all important phases of the situation which
might be of help, and which might turn out to be of
historical significance.

Baum: What was Professor Barrow's background?

Adams: He was head of geography at the University of Chicago.

He was a member of the water committee of the National
Resources Planning Board and had been active in that
work from the beginning of the planning efforts of the
federal government after the Roosevelt administration.

t south + + + the transfer of the second \$ A ()

£ ... 1 .... The contract of the second 30 -The state of the s the state of the s

taile man to the contract of the con \*

and the second second • Control of the second of the

the state of the s the result of the second transfer of the seco 

en contraction of the second second 

managed the state of the state the state of the s the first of the second of the the state of the s the state of the s

Adams: took over. The first organization was, I believe,
the Mississippi Valley Committee. Out of it was
developed the brander title of the National Resources
Planning Board.

Baum: How would youdescribe Professor Barrows?

Adams: He was a man of great ability, very fine personality, a commanding figure, about six feet four, very articulate, and with a remarkable memory for detail.

Geographers had a very broad point of view about such work. Incidentally, Professor Barrows and Professor Carl Sauer of the University of California represented two very opposite points of view in geography.

Baum: Did you do any further work for the National Resources Planning Board?

Adams: A couple of years after the completion of the Rio Grande investigation the National Resources Planning Board had an idea there ought to be a standardization of the water laws of the western states. That was a feeling that came from people in Washington looking out to the West. So they organized a subcommittee of the Water Resources Committee of the National Resources Planning Board with Mr. A. E. Chandler, my old California friend whom I have mentioned a number of times previously, as chairman, and Duane E. Minard, a prominent lawyer from New Jersey, A. W. McHendrie from

1111

entries of a distance of the final controls and the state of t · TROTTE TO

The transfer of the section of conservation of conservations , common and the state of the s on meneral in the about of the top in The state of the s High the control of t en ment the office of the first . The control of the control of the control of the second of th

the state of the s The state of the s . In was well to the second of the second second to in the contract of the contract of the contract of and the second of the second o Common Angrico o transport cantile el el estado er and a comment of a force of the comment the control of the same of the same of the control and the second of the second o

e er to the dawner of the second of the second

Colorado who was primarily interested in underground waters, Mr. Phil Glick of the Solicitor's Office of the Department of Agriculture in Washington, and myself. We held meetings in Washington and Berkeley. The work finally terminated because, I believe, of Mr. Chandler's rigid antagonism to any federal effort to bring about changes in the western water laws. He and I and the representative from Colorado were asked to prepare special reports.

My special report was on principles relating to rights to water from surface streams. This was mimeographed by the National Resources Planning I do not recall the subject of Mr. Chandler's special report, if he wrote one, but that written by Mr. McHendrie was on underground water law. That's the last we had to do with it. They decided the work would be continued entirely by representatives of the federal government. I was sorry our group was not allowed to complete the study, but I was anxious to see what conclusions would be reached. I feel sure that the committee would have advised against any attempt to standardize these western laws because nothing could be gained by that, and there really was no need for it. We might have been able to make suggestions that would have been helpful to some of the states or that would have clarified the functions and responsibilities of both the federal government and the states in matters of water rights. I do not recall whether a federal group continued the study.

# OTHER LEADERS IDENTIFIED WITH CALIFORNIA IRRIGATION AND WATER DEVELOPMENT

#### State Engineers

Baum:

Was it State Engineer McClure you worked with so closely?

Adams:

My first contact was with Mr. Nathaniel Ellery.

That lasted for only about two years. He was state engineer when I took over in California in 1910. He was succeeded by Mr. McClure. I think at that time Mr. McClure was the engineer member of the Berkeley city commission. I worked with Mr. McClure until he died in 1926 and it was a very close association. At one time he had been a lay minister and his work was primarily over in Owens Valley.

He was an ideal man for contact between the state and the irrigation districts. He was very heartily sympathetic to the legislation which brought the districts under more and more control of the state. He personally went over in the field most proposals for formation of districts, and most of the districts in the planning or construction stage.

No. of the Control of

The National Association (Control of the Control of

.

· · ·

•



Wilbur F. McClure
State Engineer, 1912 - 1926



Baum:

Adams:

I take it he was quite favorable to irrigation districts. Oh yes, he was. He was on an irrigation district inspection trip when he died. Later, in recognition of his work with irrigation districts and especially Merced District, Merced District named their large reservoir back of Exchequer Dam Lake McClure. I had the privilege of being on the committee that arranged

When he died he was director of public works and state engineer. Paul Bailey, then assistant state engineer, was immediately made acting and a little later was given the full title of director of public works and state engineer. My contact with him was very brief, just to keep him informed of what we were doing. His ideas about administration were shomewhat different from mine and a number of other people's.

for placing a bronze plaque at the dam site.

Baum:

Adams:

Did Mr. Bailey go out to the irrigation districts and give them the assistance that Mr. McClure had?

I never knew of his doing so. By that time the state engineer had assistant engineers who took over the work that Mr. McClure personally undertook. Mr. Bailey was in charge, under Mr. McClure, of the water resources studies made as an outcome of the campaign for the Marshall Plan and the appropriation of \$200,000

: U.3 : Mr. 12

I brice it across q 'be from able to inviruable.

On per, a conservation and invigable in a secondary of the secondary of the invitation of the invitation of the invitation of the invitation of the secondary of the invitation of the secondary o

Then we sied on we issended of the city of the city of a state of the continues of the city of the cit

2 ^ , - 2 '

10.08 A

wide me. Wiler to out to the insignal and being and of a time of a time of the second of the second

by the legislature for that purpose. Mr. McClure asked me what part I would like to have in the investigations under that appropriation. My reply was that I didn't want to have any part in it except to be interested in it and help in any way I could, but that I thought it would be advantageous to the work if they took Mr. Scobey of the Irrigations Investigations staff in as office engineer, which they did.

When Mr. C. C. Young became governor, Mr. Hyatt was made state engineer. Mr. Hyatt was at that time chief of the Water Rights Division.

Baum:

Did you work with Mr. Hyatt much?

Adams:

Very closely. A wonderful man, a man of unusual ability, unusual political sense. He knew how to deal with people. He had their confidence. He had the loyalty of every man in the department. They had an affection for him, respected him. He knew how to deal with committees in Congress on matters of appropriations. He knew how to deal with delegations of congressmen who came out here. He knew how to plan big undertakings and knew how to have a group of men in his department to whom he could assign responsibilities and who were all men of fine ability.

A. D. (Bob) Edmonston was assistant state engineer, mainly responsible for technical activities

and the second of the second o The transfer of the orange of the department of the contract o the .n . . very was of of . boe tind The tight to week a succept the same of of one of ್ಯಾನಿಕ್ ಅದ್ಯಾಪ್ತಿಕ್ ವಿಶ್ವಾರಿಸ್ಕಾರಿ ಗಾಗಿ ಗಾಗಿ ಅವರ ನಿರ್ವಹಿಸುವ ಅವರ ಅವರ ನಿರ್ವಹಿಸುವ ಬಿಡಿಕೆ ಮುಂದು ಬಿಡಿಕೆ ir ar o'lles sagia en, nair din e lide saile of well of the office of the sections of the sections . Wieder the transfer of the and the first of the second of the second As of the closest, in one of the dealers of the - ' - o o . . or trodifice feature . estimate deal of the second of the late of the teach the leading of ever man in the control of and collection the most to dooting and a continue of the contract of the contract of libes to the the total and the section of the cheese of the state of the first of the state of th and the second of the second o

A. T. (Fob) withoughton was applied to the configuration of the configur

ren in ... is a constituent to short two door of the constituent

sidilities and who were all and of this end the

I remember them included Harold Conkling, who was chief of the Division of Water Rights, until he resigned to enter private consulting practice, T. B. Waddell, Raymond Mathew, Carl Meyer, P. H. Van Etten, Russell Simpson, Harlowe Stafford, Everett N. Bryan, Gordon Sander, Spencer Burroughs and Henry Holtzinger, attorneys for the department. Three very capable engineers were in the dam division: George Hawley, Bill Holmes, and Mr. Perkins. I knew all of these men very well, most of them intimately.

Baum:

It sounds like Mr. Hyatt was excellent at the political part of the job, and that's very important.

Adams:

He was much more than that. He was a great administrator of his department.

Both he and the state were fortunate in having as assistant state engineer a man with the great ability and devotion to the state service as Bob Edmonston. Mr. Edmonston was jointly responsible with Mr. Hyatt in developing the original state water plan of 1930 out of which grew legislative authorization of state construction of the Central Valley Project.

As state engineer in succession to Mr. Hyatt he personally was responsible for the concept of the Feather River Project and the extension of the state water

: pros A

. the storage en ic

one or the second of the second of the second of the section of the contract of ofer whom very a probably on anidoxed har pailing and an are rightly for medicinemial and an area of r to grafishe edd coicelean al tibe. Widdiv olan of 1030 ont of citch wow intothe selection of state and inution of the leatest of the last of As state on, sen in auccessing to get to he had a compa elly was rearrable for a concept of the deficer er des irojact en the entere a of the steries

there is now than the . The was seen as a

plan to Southern California. He was a strong advocate of state taking over the entire Central Valley Project. He made an exhaustive report in favor of that. It was basic with him that the water resources of the state should be controlled by the state, and he was therefore opposed to any situation being developed which would result in that control passing to the federal government.

California has produced many able engineers who worked in the irrigation field. Of course, the attorneys who have been involved have been outstanding.

#### Outstanding Engineers

Baum:
Adams:

Would you care to mention a few of the engineers?

It would be almost unfair because I would be sure to omit so many men. I will do the best I can. The first, of course, was William Ham Hall, state engineer from the late 1870's to the early 1880's. He got together a tremendous amount of information about the water and lands and irrigation development possibilities and soils and water rights in his numerous publications.

One of his assistant engineers in his investigations was C. E. Grunsky. Mr. Grunsky's interests
and experience covered a very broad field. He was
city engineer of San Francisco when I first met him, and
then after serving on the first Panama Canal Commission,
by appointment of President Theodore Roosevelt, he was

The first of the second of the

- The state of the second

. The section of the

and the second of the second o

. The second to the second second

Interior on projects of the Reclamation Service.

I would say that his main contributions to irrigation came through his thorough understanding of water problems of California, and his statesman-like approach to the solution of major irrigation and other water problems of the state.

There was John D. Galloway, a highly-respected civil engineer. As far as I know, his only direct connection with irrigation projects was in planning and directing construction of the system of Merced Irrigation District, including directing construction of Exchequer Dam and hydroelectric system. He was always active and forceful in discussions of irrigation and water problems in the Commonwealth Club.

Fred H. Tibbetts was one of the most active engineers in irrigation development, notable for Nevada Irrigation District, Glenn-Colusa Irrigation District, and the Santa Clara Valley Water Conservation District.

I always considered Harry L. Haehl one of the ablest and finest of the engineers engaged in irrigation work. In early days he was associated with Edwin Duryea but I think his main work in irrigation was in guiding development for the Kern County Land Company. Whenever I heard him express himself in

: 2.76

noncelling enringer for its Secretary of its Inferior on cojects of Tecleror is a mide.

Inferior on cojects of Tecleror is of this of this inferior of the inferior of this of the control of the column of th

The economic solution of lowers and the transfer of the control of

Type of the continue to the continue of the co

I day of the store of the end of the black of angures in the implication which so end of the end of the end of the end of the interior which is a main of the interior of the interior of the end of the interior of the inter

water meetings he seemed to show sound judg ment and good sense.

Charles H. Lee was another engineer whose work has been notable. He made early contributions to underground water problems and undoubtedly many other important matters relating to water but his practice went far beyond that field. He made important contributions to the discussion of irrigation and water problems in the Commonwealth Club.

One cannot think of the Imperial Valley reclamation without recalling the fine work of the original engineer, W. L. Rockwell, Mr. C. L. Cory, who finally turned back the Colorado River out of the Imperial Valley, and M. J. Dowd, who for many years was chief engineer and is now consulting engineer of the Imperial Irrigation District. He has been a very important member of the district's security commission, and very important in matters pertaining to California's claims to water from the Colorado River.

Very prominent in directing the early work of the Reclamation Service in California and later in general practice was J. B. Lippincott. A Reclamation Service engineer whom I respected very highly was Louis C. Hill. His son, Raymond Hill, a very able

್ ಇಎಲ್, ೧೯೯೭ ೧ ಇ ಕ ೨೫೦೨೯ ಆ ಪ್ರೂಪತಿಕರ್ಯ ಅಧಿಕರ್ಷ : ಇರ್ಜಾಗ್ನಿ . TEG IS OF 5 5PT

is a second-second of decade strong a first

ed thelibric ( ) from a end of the break had un erem a altre de l'est l'est de l'est de l'est de l'est. to investigate the state of the state of the state of the went from Degon that district a comment with the and not continued the river and of emofantiadors Manager of the state of the sta

and the state of t redlumbing this or obactif Commence of the commence of th the state of the same of the s the I was a second of a group to the state of a contract of . The first of the wall fairly is the figure end of Har Tretter of the MAS for description to the state of the the state of the s 

the American a secretary of the there is also also appeared cit a fire and in the contract the contract there are e of the farm of the second of

engineer, has had a large part in consulting work on some involved problems of irrigation and water development.

In the field of university instruction and consulting work Professor B. A. Etcheverry and Professor S. T. Harding have of course been outstanding. (I've already spoken sufficiently about Professors Veihmeyer and Huberty.)

Among those previously frequently mentioned I cannot of course omit including here state engineers McClure, Bailey, Hyatt, and Edmonston-Mr. McClure for his great help to irrigation districts; Paul Bailey for directing the general study of water resources made in the early 1920's; and Mr. Hyatt and Mr. Edmonston for their great contributions to the Central Valley Project and the state water plan, now taken over under the very able direction of Harvey O. Banks. I have previously referred to the many able engineers working under Mr. Hyatt in the state engineer's office. They continued under Mr. Edmonston along with others.

Of course many very able Bureau of Reclamation engineers had part in California irrigation development, but I'll add only Walker Young, who was in charge of construction of Hoover Dam and initially

· nr of A

eline i, has bad of recording comedition mix

e constitution and recording the constitution of the constit

The included in the interest of the description of all products of the contract of the contrac

Amount from the only the control of the obtained and analysis of control of control of control of the control o

Of cours and very very cours the control of the con

Adams: of the Central Valley Project.

I could mention many able engineers of irrigation districts. Among them, Edwin Duryea, Oakdale and South San Joaquin irrigation districts engineer, I think; R. E. Hartley of Oakdale Irrigation District; Roy V. Meikle of Turlock; A. Griffin of both Modesto and South San Joaquin districts; Harry Barnes of Madera District; Stephen E. Kieffer, I think, built both Lindsey-Stratford and Terrabella districts; Fred D. Pyle of Vista District; William Durbrow of Genn-Colusa and Nevada districts; and A. N. Burch, long in charge of the Orland Project and the first engineer of Hollister Irrigation District.

Let me mention just two more. Arthur L. Adams built the first system of successive lifts from the San Joaquin Delta to westside lands. This was the Balfour-Guthrie Project, now in Brentwood Irrigation District. There was Fred Hermann, who for a time was in charge of development in Imperial Valley, also for a brief period engineer for Modesto Irrigation District. Of course, I'll have to add Charles L. Kaupke, previously mentioned in connection with Kings River, whose fine book you have.

Two of the most thoughtful engineers who have

Adams: of the Central Faller roje t.

As error sixon ofder var apideops afred I ingianting district . Among them. Ehrin Carris. landale eclients atomics ar first he alabase wish at it suffered ... . the thirt I reserve since to divid a drober tied to nithing. districts; Manny works to Asset to the the obout a. Midtier, T. third, Intil . which were with the facility is the day of the day on a burn by objection at " I ste District: "illier a borner of the state of the and the part of the same and the same absvetting orith and the forth brains and lo area a . . wist forth and modello to menture

energy . I don't at the point on the of the difference of a contract of the old off c the season is the to washe of edital aliepson as wed teen definite-hote the Project, in the confidence in a comment of the contract o I will be a district toropy of new could be got The second of th Treis ston Districts. It nouves, 113 care of tearle E. haroke, proviously well-seed in the wine with lags itee, conce fine each ger eve.

Two of the cost thoughtful engineers was to

contributed to the thinking about California water problems have been Samuel B. Morris, for a number of years Dean of Engineering at Stanford, and long in charge of the Department of Water Power in Los Angeles, and Professor Eugene L. Grant of Stanford.

I'm sorry I've left out so many. I find I have not mentioned any of those in the Irrigation Investigation staff of the Department of Agriculture. Of course I have frequently mentioned Dr. Mead, Dr. Samuel Fortier and Mr. Walter W. McGovern. I do not want to omit Mr. C. E. Tait who was in charge of our cooperative investigations in Southern California. He made memorable contributions in his investigational activities. On his death, I think in the 1920's, he was succeeded by Harry F. Blaney, who is still active. Finally, and this must be the last, I must mention Fred C. Scobey, whose basic work in flow of water in pipes and other conduits earned him more than national reputation.

### Wells A. Hutchins

Baum: You mentioned a number of lawyers who were prominent in the irrigation field in California.

Adams: That is true. I have already referred to a number of those whom I knew best. I won't attempt to make a list

Lame:

contributed to the bilibing above 1019 i.e. a problems have even in well a corribation of the problems of the free threshold above to the corribation of the free threshold above to the corribation of the free threshold above to the corribation of the corribation of the free threshold of the corribation of the corresponding of

Activities. In death. In the first the section of t

.ស.ស. នៃទី៤២ ៤ នៃស. មេខស

## To the state of FIII

Tayon: You won! On a comper of the warman of the term of the medical victor of the contraction of the contra

That is and. I have theen weters with a make a fit

of them but I do want to pay personal tribute to
Wells A. Hutchins, who was an early member of our
group in the cooperative irrigation investigations
in California. Although he already had obtained a
law degree from George Washington University, he
joined us originally about 1911 as an office worker.
He was soon given various field assignments in our
California investigations and joined with me in early
irrigation district studies in the western states,
finally finishing a study he and I had begun.

Then for a number of years he made field studies and prepared Department of Agriculture bulletins on various types of irrigation organizations in the West and in the 1930's began his major life-work: authoritative research and publication in the field of western water law with particular reference to states water rights. His first volume, issued in 1940, was:
"Selected Problems in the Law of Water Rights in the West", published as U. S. Department of Agriculture miscellaneous publication No. 418. For at least the past ten years he has been engaged in preparing publications on the water right laws of the individual states and has completed most of them, all of which have been published by the states. His work on California, "The California Law of Water Rights," is

Adema: of the a but I do lone to agray more than to Wella A. Eath inc. This an early newborn of our greatentanive i ar tantinate anidentation and in record ic unlifornia. Forgh we chreacy in a cincul a law derree from toomie besidierbook for mait... Te . The soill area 1881 ties Missis so as seniot ช แม่ อธิก พก รูโดยล โป โป ธนา โซคง ฮกซลุ้ม และนาการ อมี of Percentage and the Authorities of the property of the Control o . on a contract of allower to trail a district ret Property "Interior working to a coldent the

then for a analogy of the control of the teaches to anido for the specient of the different of bonds on the the and him accident in existential to see a arcinev and in a differ began of compact of the or : or book in a control of the state of a decident large by the second of the าคารับคาทหมังการเปิดความ ใอกา**นตโอกไ**ส์ของ เปิดิน คาร์ กาส์ตอ ornar, telefonto el caraci, ismost in 15 or telefonto or the address of the Law and the aradical accordance." inst!, emblished as M. C. Department of early litere miscel and a gualleation of bill. The at a not the pash ten great he has been somewal in hear the publications of the water middle laws of , the translation atains una las completed control there all or have incentuallabed by the chalcul its vert of Sal Cornin, The Salitornia have at Water II tell is

a volume of some 600 pages and is recognized as a masterpiece. He is currently completing publications for the remaining states and will finish the series with a summary covering all of the western states, which will be published by the Department of Agriculture. He has performed all of this work with distinction.

In 1958 the Department of Agriculture cited him
"for outstanding performance in conducting research
and providing consultation on western water laws and
the administration of water resource districts." The
National Reclamation Association recently conferred
an honorary life membership "in appreciation for
long and unselfish service to the National Reclamation
Association, and devotion to the cause of Reclamation
in the seventeen western states."

Wells Hutchins has always displayed an infinite capacity for taking pains, and nothing short of the best he could possibly do ever satisfied him.

on the foat court it me a gar (' meen the amories a state of masterpine. On is the birth of Istis of the bir for the remaining over any in a circular comis- \* If the control of the bedail of the control of the · Programme and the second of the confidence of The strip of the second of the

The probability of the control of th The to the second of the secon The classic of the control of the co The state of the s

lead to the second of the second feet of the past Parmariation, error devotion to a conservation of the . The first of the second of the

eter to endeath of the section of the in the second of · The state of the

#### SOIL CONSERVATION DISTRICTS

Baum:

I understand you were quite active in redrafting the Soil Conservation Act as it applied to California.

Adams:

Early in the New Deal the Soil Erosion Service was set up. The people in the agricultural department in Washington drafted a law which they wanted all the states to pass and which most of the states did. The Secretary of Agriculture transmitted it to the governor of each state. From the governor it came to the president of the University and then to Dean Hutchinson and then to Walter Wier and me to comment on. It was very advanced legislation and proposed to give soil conservation districts very extended power over land use.

Dean Hutchinson asked us what we thought of it.

We told him we didn't like it. He said, "Well, you write a better act." So we did. We eliminated those land use regulations. They went far beyond any thought any of us had had on regulations of land use. Furthermore, we felt that any soil conservation district act passed in California should take into consideration our irrigation district experience. So we drafted a law and set up a procedure for organization and the work of the districts and also for financing the work.

## The same of the sa

\* \*

1 3 = A

The property of the control of the c

in the continuous of the conti

The great cry then was that the government and the state were going to do everything. Well, Walter and I thought they were not going to do everything. Irrigation districts had paid their own bills, so why shouldn't soil conservation districts pay their own bills, with help if necessary from other sources. The federal people thought the state should put up a lot of money. Well, we thought they'd never put up much money. We had enough background on our districts to feel rather safe on that ground. So we made provision for assessments. What we had in mind was that the principal expenditures would be for such physical measures as terracing, structures and conduits to control runoff.

Well, we submitted the bill and it passed.

Walter and I were asked to appear before the legislative committees and explain it and we did. There was some little constitutional question in the title so it had to be repassed. But the Department of Agriculture people didn't like it. The department wanted to rapidly multiply soil conservation districts. Our idea was that when there was a need for districts, they should be organized.

We put a limit on assessments, but our provision for assessments was a stumbling block to the soil

if it is a second of the secon - et command de de la commencial de bas mudial , with the read of the contest of th Twenty, with the first transform to first the big to the first transform transform to the first transform transform to the first transform transform to the first transform transform transform to the first transform tran personner i de la companya della companya della companya de la companya della com en the group the state of the state of the e college by . Thick the constraint and the state of the ally restricted to the control of th - results on the first of the state of the state of the first of . The corn to he are not miles

. ranke with as the established them to the now the second of the second section of the second sections of the second sections of the second sections of the second section second sections of the section section sections of the section section section sections of the section sections of the section section section section section sec or all and a second that the second of the second of the second -Im i ga to its gar a out this . . page ag a of od the i di read the second of the state of the second regical, mailthaly soil ronsers been it in the ... . HA FeW I ROTE KARD I FOR A STANDARD AND A STANDARD A STAN . has losser or himner yeald

content to the second on dimit a dree of Then give a since the distribution of the concess uch

conservation service in organizing new districts.

We had a lot of discussions. Mr. Phil Glick of
the Solicitors Office of the Department of Agriculture,
was out here. We had lots of discussions with him.

He said we had the best bill of any of the states
except for our assessments and our absence of land
use regulations. I finally worked out in my mind
a short paragraph relating to land use, a very much
modified form of land use regulation. Alex Johnson,
secretary of the California Farm Bureau, was interested
in getting something of the kind in, and the bill was
amended the next session of the legislature to provide
that. Later the Soil Conservation Commission got the
provision regarding assessments eliminated.

In our bill we set up a State Soil Conservation Commission composed of the state engineer, the dean of the College of Agriculture, and the director of Agricultural Extension. We felt that the work should be done largely in cooperation with the farm advisors, that the state engineer's long connection with irrigation districts made it appropriate that he be connected with the soil conservation districts because we had anticipated assessments, and that the dean of agriculture should be on there because it was largely

e party ation of model and the set of the state of the set of set of the set

En cum of was set of the color of the sold of the sold

an agricultural question. We anticipated that the state would exert dynamic control of the organization of districts and the general district policy.

At Dean Hutchinson's suggestion, he was the chairman of the commission, I attended the meetings of the commission. Walter Wier was secretary of the commission, and he and Lloyd Brown made all investigations of proposed districts prior to action by the commission. They were very conservative in their reports, and would not recommend formation of a district if they did not think one was needed. Soil Conservation Service did not like this. was evident that Dean Hutchinson, Director Crocheron, and State Engineer Hyatt were getting tired of the controversy, and were disposed to yield, as they later did by appointing a new secretary suggested by the Soil Conservation Service, and withdrew Walter Wier and Lloyd Brown from any connection with the activity. By that time, through the impulse undoubtedly of the Soil Conservation Service, the act had been changed to add two members of soil conservation districts to the commission.

I think I ought to explain how the situation had changed since our original act was adopted. The early work of the Soil Conservation Service involved

: Eh.Pb

an ager's land of the second of the following and state mould and appears content to the one sawing . Then deleter to the server of an experience to or distribution . This engine of cosmids have monthly anathmass of the continues of the contin of the complete of the Welter and the contract of the - militar to the first out of the contract of the first of the contract of the all the transfer of the adopted with the model. r that ed the new property of the same in the contract of the contract of the second distributions .o will be a begreed not y comb find . There were to a conficted man bet a majve of of the first open and the state of the state of the state open on the second area of the second of the seco The state of the s The state of the s The state of the confidence of the second of sectors. The ent time, throwers the factors of can be the one of these territors and the and the of they come to the form, draw own bloom because it . I designace of and adolesals

The district of a signal of a signal of the district and district and a signal of the district and district a

the type of work we had in mind when the original act was written; that is, measures to prevent soil erosion through physical control by structures and conduits. What was now being done went a lot beyond that and included many cultural practices including, for instance, fertilization--practices with which the farm advisors were concerned.

Baum:
Adams:

Why did you favor state control over federal control?

We believed the state people should control activities in the states. Our assumption was that the districts themselves would construct these works and at least partly pay for them through district assessments.

We also thought some measure of state control was necessary in guiding policy. Some of the states in the middle west--I think Michigan was one of them-- had been rather emphatic in favor of such control for that purpose.

Baum:

Why?

Adams:

Well, I'll take an example. The Agricultural Extension Service had a very fine staff and had built up strong farm advisors in the counties. The Soil Conservation Service here in California, which had control of a large staff of workers out in the various counties, sometimes paid no attention to the work of the Agricultural Extension Service. They

: 12 7.07

. 1

4

e eyn

: Fr E

the committen; which is added to the indicate and and the animaten; who presents the common to the common to the common to the common term of the common terms of the

Extending the property of the control of the contro

entropy of the second of the s

• Species of the

ed., 13 constant of the exempte. The chart of the constant of

went ahead and gave advice which in the opinions of some of the farm advisors was not sound advice. Many of the soil conservation workers were not experienced, the farm advisors had been there for years. In some instances the soil conservation workers would lay out programs which either failed to take into consideration information that the farm advisors already had, or which contraverted the judgment of the farm advisors.

I remember that when our College of Agriculture Flood Control Committee was going over the program for San Fernando Valley suggested by the Soil Conservation Service we found that the Soil Conservation Service did not even know the farm advisor in that county. That seemed to us all wrong.

Baum:

You felt that under state control there would have been a lot more cooperation?

Adams:

Yes, sufficient state control of the programs to insure complete coordination with the established work already under way. Such a spirit of cooperation existed in some of the counties and very fine progress was made. I have in mind, for instance, work in Santa Barbara County on the Hollister ranch which seemed to us to be excellent. There were other examples of excellent work. On the other hand, in some of the counties there was much antagonism between the soil

: 7 /

. . .

5. .

The section of the se

a to the constant of the const

in a confidence considered of the confidence of

end made. It have it out, item incomes, to it in it. It out on made to the content of the content out, and the con

Adams: conservation workers and the farm advisors there. I doubt if that persists any longer.

Baum: Wouldn't it have been possible to get them to cooperate?

Adams: It was largely a matter of personalities.

Baum: You think the whole service was attached to the idea of more rapid change than might have been possible?

Adams: I don't say that. When the soil conservation work started here, they employed many workers who had had no experience in that particular field necessarily because they couldn't find experienced people. They started out to do the best they knew how. In our estimation they didn't take advantage of the opportunities to use all the help they could from local sources. They did some things that they themselves found to be unwise. It's a matter of learning through experience.

You might conclude from what I have said that I personally am not very enthusiastic about soil conservation. That is entirely erroneous. No one in the state is more interested in it than I am. For a number of years I followed the work in the field of the soil conservation districts, and would like nothing better than to do it over again. Every time I see a muddy stream after a storm I realize more and more the need for such work. The present leader of the soil

conservation worders and the fire a visor with the loud of the conservation and long the conservation of t

. Tagoco es la der de vidi, en la né event de d'ablac i

de différence de la ced de la rifere es estate de la celle de la cell

1 1

esoi add - parm Corona amive a sic woods whist yet

•

of the ment we had already bear of the way of the second of the

: . ( /2

The day to the day the color open areas of the

of figure that are presented to the first that the second controls

ng regerience to bigst perbles on held no recreek

or which they do likely thought on the control of the

· Commande of the control of the control page. In

-meers of the meaner is sent diship that notice is an

bundates to we will had bely reay for the load I

entrace. Theoret is some with a to be the

on miles in the state a midit . So two to the first

. 507 130 71

of the firm experience of the entropy of the end of

ti na i sepojen im Step ymav den pa nafrekom ().

The control of the second of the control of the con

tri . Ti pri pri i si Appan pini propi i seleti di si

the father and states with a world that a marginal and the

the solution of the solution of the same o

e a . . . Delit a river . . ens mave all choose me d'ensaige

to encount of the only of the contract of the

aree for and tore. The present lesue to be and

conservation service in California, John Barnes, is my near neighbor, and I frequently have opportunity to inquire from him as to the progress of the work.

Their principal activity, as I understand it, is to lay out land use programs for individual farmers within soil conservation districts, and to render the individual farmers some assistance, some financial assistance, in carrying out the suggested programs. That's all to the good, and I presume the Soil Conservation Service now has very experienced men on the job.

As a result of the controversy referred to earlier Dean Hutchinson, Director Crocheron, and State Engineer Hyatt recommended that the law be changed to eliminate them from the state commission, and the commission is now made up entirely of members of soil conservation districts. They have a state association of conservation districts which is active in promotion.

A few years ago they were successful in getting the state of California to set up a fund of \$1,000,000 to purchase equipment which would be loaned to the soil conservation districts. There was some difficulty in connection with that shortly after the fund was established but it probably is all straightened out now.

estrict to semiled it added the second of the second th

• The statement of the state is a light of the state o

As a man of the state of the st

the property of the contract o

#### CONSULTING WORK

#### CENTRAL VALLEY PROJECT

Baum:

You have already referred to your consulting work with the Bureau of Reclamation and the Natural Resources Planning Board and the International Water Commission, United States and Mexico. I believe you did some work on the Central Valley Project.

Adams:

At the request of the state the Bureau of Reclamation in 1930 began a study of the Central Valley Project with a view to federal assistance in carrying it through. This study was made under the direction of C. A. Bissell, a bureau engineer. Dr. Mead, who was commissioner of reclamation, looked upon the project at that time as a relief project for areas in the upper San Joaquin Valley which were running out of water due to depletion of the underground supply.

Baum:

What was your part in that study?

Adams:

Mr. Bissell asked me to make a study of the economic situation in the areas involved. I did this with the assistance of David M. Morgan and Walter E. Packard. Our report was included as one of the appendices to Mr. Bissell's voluminous report.

# The state of out to the state of the state o

## The state of the s

The state of the s	***
The state of the s	
the state of the s	
evitorial engineering to the second of the s	
· The second of the second of the	
the state of the s	* 1
all the transfer on two sections of	
tuk of the same of miles and a saw wise and the same is a saw of	
End of a strong of	
to the second second to the second second	
the contract to a state of the contract of	
• * *	
A CONTRACTOR OF THE PARTY OF TH	100103
the first od as been storet .	: 7 ; 60 A
. referations a optimization of	
. The same of the second of th	
the new and the inertiand as the things of the	
.to resemble references.	

### Water Charges Study, 1938

Baum: What is this report you have here?

Adams: This is a report prepared by Mr. R. V. Meikle, chief engineer of Turlock Irrigation District, and myself, "A Study of Water Charges in the Central Valley Project, California." That was done in 1938.

It came about this way. Mr. Meikle had been a consulting

for a number of years and as the bureau was progressing

engineer with the Bureau of Reclamation and the state

with the construction of the Central Valley Project they became concerned with the matter of water charges.

They asked Mr. Meikle if he would make a study and he

said he would if I would join with him. So the bureau

asked me to join with him.

Baum: You had worked with him on other projects, hadn't you?

Adams: I had been in contact with him as chief engineer of

Turlock District. He had participated in our Irrigation

Census in 1910 and in our irrigation resources study in

1912.

We outlined a rather elaborate study. Mr. R. F. Walter was then chief engineer and Mr. E. B. Debler was the Bureau engineer in charge of investigations. Mr. Walker Young was in charge of construction of the Central Valley Project. We met with them in Sacramento and obtained their approval of our plan and then we

## 

The first term of the term of

the second of the state of the second of the

went to it. It was a very laborious piece of work.

In the first place, we had to decide what approach we would take to water charges. The procedures Professor Huberty and I had used on several previous reports were back of us as a basis. We went quite a step further in attempting to determine what would be proper charges for water. We made an economic classification of the soils in each of the prospective water service areas, twelve or thirteen of them. each group of crops, for instance taking alfalfa as a basis, we determined as best we could the production on each of these various soils for that particular crop. The most productive soil for alfalfa was given a rating of 100 and it was scaled down as it was less productive. Our citrus areas down in the Valley were scaled from about 90 down to 40. We based our water charges only partly on the income on the various classifications of soil.

Baum:

So the charges would be based on what the soil could produce rather than on what the water cost.

Adams:

That was just one of the criteria used. David N.

Morgan helped on the classification of soils a good

deal. Professor Huberty went out in the field with

us several times to go over the classification. All

the areas were gone over by Mr. Meikle and myself after

: 1, 0 s. A.

west to its. If was a ror laborio release In the clock of the second classical part of a section of the set of a section of mediate and the second of the second of the state of is a second of the same of a settle of managers as to small made to the get of a markle magene as and the engineers of the same of affiliation of the edition of ger . The Series wheel topen a tomas makes Children to the common the common the common the common the common the common terms are the common terms and the common terms are the c committee of the second committee of A THE STATE OF THE on the form of the control of the co most a end to the to ten transfer door aff .c en the second of the second of the maintained - the action of the case of the control of the cont THE STATE OF THE S the state of the state of the programme details .lica to a midenificação emoimam command from harman har of · Comment of the control of the cont . The second of the state of the responsibility of the second of the state of the second of the seco or the bolive on the of the same food more in the factor of the property of the first

un sev mal time to so were be almost taken . At

of the theory by the theory of the concentration and said

Adams: the original fieldwork. (Look at maps of various service areas and discuss soils in each.)

Baum: This must have taken a long time.

Adams: The work was done during a period of five or six months, including the field and office work by assistants in preparation of our report. I won't go into the other criteria we used in the classifications.

Then we took each prospective area and Mr.

Meikle figured the capital cost of distribution

systems and maintenance, operations, and retirement

costs. He had the assistance of Carl Holley, an

engineer of Visalia very familiar with the local

situation in that part of the valley.

We talked the situation over with the water committee in each county and made the best estimate we could as to the rate each of these areas would develop and utilize the water.

Mr. Walter Young was anxious to have the report finished as soon as possible, so we sent our manuscript to Sacramento for final typing in installments. Our main forte was all typed before we made our final summary and conclusions. So until these were completed we had no idea how it would turn out. The final table indicated that on the basis of the computed farm

:omeb.

the miginal fieldmon. ( wolk is man " ... serrice areas and the story of the Call. . The mach a value over them at T The site of the second state of the second s spare, fooludin the field as fill of ora the late of the second of the define - Classon of the other arithment of the contract of - . c 11 3den

. The tending the second second second and the transfer of the contract of the transfer of the transf នាកែមាន ១ ជា សេចប្រាប់ប្រជាពេលនេះ 🔒 🤫 🥫 💮 💮 or in a gold by the same for a series of the series of . If you are to described and article the and the second of the second of the second \* 11 egitames are at a little co develo and bilise it in.

c and resolved by .u.i The first term of the second o . . . If red at min . E. 12 mel cane enser ed nain fire the still type indicates the fire are are supplied to the state of the circulation of the state of the s the filed on the section and the death on soften

costs and income and other factors considered the estimated average amount available to pay for water in the tenth year after construction was completed ranged from nothing to \$6.84 per acre-foot with an average of only 97\$\nlime\$.

When we transmitted the report to Mr. Young, the engineer in charge of the project, we called attention to the fact that we'd had no opportunity to review the manuscript after our conclusions and final summary were prepared. We requested that they give us their comments and we would have them available when we reviewed the manuscript. Well, nothing came. I happened to be in Washington a month later and I called to see John Page, who was then commissioner of reclamation and whom I had known, a very good friend. He said, "Well, we're very glad to have the report, but we're disappointed on how it came out."

I was riding with Mr. Debler about three months later, we were going to San Diego for a meeting, and I said, "You've never given us your ideas on our report." He said, "Oh, I don't think it's been given very much consideration." Well, if you knew Mr. Debler you'd understand a remark of that kind. A year later I was told that if ever a report came into the bureau that was considered, this was one of them. That was

nd begeriered that the store baseded talked and the set around each to the first term of the second persons in the leading sent in the ending the coar independent and the second of the second the second . the state of the section.

. The rest of the sent of the c.E'Es - , theter - er - at mandames and a light of the control of the state of acide tue to sevice in a driscri in a contract the actives of that I but we have a configuration of the trail 1250 C e. . idonaco sindi a avia . The second of gradient of the control of the contr to the transfer of the angle of the . The second of in said, "in the settler of the bize of of, the More we estate the original and the season of th

the property of the contract of the second second I said, "Koutve detre a up a comment of the morphish is anid, "an, I shi to the to be an ". fragon v vv much canalderation. The transfer was v gould undergant a remain of different bloom A week total that we will be a part that the comment these suggest the end to be and the second of the second the second

the other side of the question. I rather think our report was influential in the bureau's decision to operate the project as a utility rather than enter into repayment contracts as had always been the custom under other projects of the Reclamation Service.

However, before our report was completed Walter Young indicated that the bureau might have to operate the project as a utility.

Another thing, I think, it had influence in having the bureau undertake the construction of distribution systems. That was done on an interest-free basis. Mr. Meikle, in figuring the cost of construction, had included interest.

The bureau never released our report. Mr. Debler made another kind of study, and the bureau decided on a charge of \$3.00 or \$3.50 per acre-foot for first-class water, and \$1.50 per acre-foot for second-class water, and decided on operating the project as a utility.

Baum: Do you know where any copies of your study are available?

Adams: None available, they did not distribute them. Well, when the Central Valley Project Studies were undertaken under Professor Barrows some years later, he got copies of the report less the maps and released

231.23.1

time orther side of the continuous is added to a proposition of the opening of the continuous to do the continuous team of the continuous

in the contraction of the contra

The made and and and an analysis of the state of the stat

Polynomic services of the serv

Tone and lable, they is not in the second of the second of

Adams: them to members of some of the committees. They

were all supposed to be returned to the bureau.

Baum: So your copy is the only one you know of.

Adams: Yes, and Mr. Meikle has a copy. Of course, the

bureau has copies.

#### Solano Unit Studies, 1948

Baum: Did you make any further studies on the Central Valley

Project?

Adams: Yes, in 1948, I reported on "Some Economic and

Agricultural Aspects of the Proposed Solano Unit,

Central Valley Irrigation Development," dated March

1948. The question of whether Berryessa Valley should

be flooded for storage for the Solano Project was

a very live question. There were a number of alternative

upper sites. Mr. Edmonston asked me to include in

my investigation the estimated annual loss of income

in the principal proposed sites if flooded.

Baum: Do you recall your conclusions?

Adams: I was gathering facts. I went to every farm that

would be flooded and got the best record I could of

the farm income for a number of years, sometimes from

records, largely from memory. Most of the people in

Berryessa Valley preferred to stay there, but they

were reconciled to going elsewhere if the Bureau of

Reclamation would set them up equally well. I found

. g to men to a men to smedic ment ment : us A

. The state of the

tere: So row eapy is a control of the control

en the second of . ្ំ (១ ខ36 ប្រុះ ធ្វើ

# The same of the same

to you make any truth or or \* . r Sity, Torre

in the second of कर्म के प्रकार के किल्ला के किल्ला कर किल्ला कर की किल्ला कर किल्ला कर किल्ला कर किल्ला कर किल्ला कर किल्ला कर The state of the s no a situate of the contract o

The state of the state of the TO TOURSE ್ಕಾರ್ಯ ರಾಜ್ಯ ಅತ್ಯಕ್ಷಣ ಅವರ ಅವರ ಚಿತ್ರಗಡುತ್ತಿಗಳು ಇತ್ತಿಗಳು

in clearing the or fire board.

Jan 1 of openie . It toler of the T and the first of the comment is a second continued with resonde, livered en or remong. That in least the The second of the second second second seconds and the second sec the medianostics to the organization of the contraction of the no of a life of the more than a few or hidemais of

only one case where there was real bitterness. It was a rather elderly widow lady with two sons. She had lived most of her life in that valley, all her relatives were buried in a little cemetery which was to be flooded, and she was extremely bitter.

Baum:

Naturally. Did you usually try to avoid making any recommendations as to which was a better policy?

Adams:

Policy recommendations were not one of my functions.

My job was merely to get the data together and present the facts.

Baum:

But you must have had some ideas as to what you thought was the best policy.

Adams:

I did not like to think of Berryessa Valley being flooded if the other sites would prove satisfactory.

Berryessa Valley was an important area in Napa County.

However, this was relatively a minor part of my study.

Before my report was completed Governor Warren had committed himself to the flooding of Berryessa Valley and the part of my report related to the various valleys was deleted from the report distributed by the state engineer. The more important part of my investigation had to do with the area in the Solano unit, including among others such questions as land classification, irrigation methods, water requirements, water costs and probable rates of irrigation development

•

I'm tite"

to the second that the second second second

or . What is the Lackie offer to mentage a see

The to the solution of the second of the

the second of th

. told offer the stage of . Secolar col

grise of the contract of the market in the contract

the state of the property of the state of the state of the pro-

on the section of the second o

CONTRACTOR OF THE STATE OF THE

• 1 TO HT

in the state of th

· March Carrier Commencer Control of the Control

TT REBERT TO THE CO. THE CO. THE CO. 10 10

THE THE TONE OF SECTION AND SECTION

THE HER LIBERT

. The second of the second of

and the control of the transfer of the control of t

College of the second of any mercent of the volle

in the Boundary of the court body to a confidence of the confidence

of the state of the second of the second was

rull. I had we a periodiwar of fid ordinalise (ve)

e i restrator en este gacer participant. Sent astron

in a filter to the transmission of the form of the first party of the first party to the first party of the

to the contract of the contrac

if the Solano unit were constructed. The Bureau of Reclamation and the Department of Agriculture had made previous studies. I felt they were too optimistic in their land classification in the probable income to be derived from the lands irrigated, and as to the possibilities of future orchard development.

#### Comments on the Central Valley Project

Baum:

There have been many differences of opinion as to the proper role for the federal and state governments with regard to the Central Valley Project.

Adams:

Yes. The Central Valley Project was, as you well know, devised as a project to be built by the state. The first contract between the state and the Bureau of Reclamation providing for construction of the project by the bureau. There was a provision that the contract anticipated later agreement for state operation. I'm sure Mr. Hyatt was in favor of that, but the bureau would not include that provision in their contracts, and shortly after that, the bureau announced that the project would be a bureau project exclusively.

So far as I know there was no difference of opinion between Mr. Hyatt and Dr. Mead as to the relationships that would exist between the Federal Reclamation Bureau and the states. I think if Dr.

Alams: if We Solano unit has a strong. I po . Reclaration one to the trends of the large ্ৰিল লাভ কৰা প্ৰতিষ্ঠা কৰা প্ৰতিষ্ঠাৰ কৰা প্ৰতিষ্ঠাৰ প্ৰতিষ্ঠাৰ প্ৰতিষ্ঠাৰ প্ৰতিষ্ঠাৰ প্ৰতিষ্ঠাৰ প্ৰতিষ্ঠাৰ প in which land last twitted in bus a conthe state of the s th posation ities a substant and included the

## A CONTRACT OF THE RESERVED

The state of the s The first of the second of the . The state of extract with a second of et la company de dire we disperse to the contraction of the in the second of the manufact description the first the the state of the s in the contract of the contrac opened to the same of the same 

of for I know there a thought to the or the servery . The relation rabath and a result of the redection of the redection Porlaration inter a state of the store

. The contract the party of the contract of th

and a confinential of the formation

Mead had been younger and had lived and continued as commissioner of neclamation -- he stayed in that position several years beyond his age limit of 70--I think the differences between the federal government and the state would not have arisen as they did. But new policies came to dominate in the Reclamation Bureau which involved a larger measure of federal control and with emphasis on distribution of so-called "low-cost power". This was very much regretted by many of the Reclamation Bureau people in the field and gradually some of them left. One of my best friends in the Reclamation Bureau was the assistant chief engineer and later the chief engineer, Mr. S. O. Harper, who finally resigned. He, like many of us, didn't approve of the policies that were governing the bureau. He's in Oakland now as a consulting engineer. He's earned many, many times in consulting work what he would have earned in the Reclamation Bureau.

Finally, fortunately, there was a complete reorganization when the present administration went in and the Reclamation Bureau came under administration again of engineers, although I have been told there's some complaint in the West regarding present administration of the bureau.

: Ned been more on a sed sed :

The following the second secon

to the state of the control of the state of

and activities of the second

. The fire with the second of the congression

the first of the section of the sect

er er villerine er er er

in the state of th

9191 . HB ( C ) \* 1.5 th (C)

and the state of t

A Service of the second

ສຳການ ຄວາມສຸດເຮັບການປະເທດ ເປັນເປັນ

means and the color of a fine on an above a color of the color of the

tion of the turner.

Baum: Wasn't State Engineer Hyatt in favor of the state taking over the Central Valley Project?

Adams: I believe he was at one time, although I am not sure.

I think in later years he began to doubt the political practicability of it, about the time he retired.

Mr. Edmonston, who succeeded him, was very strongly committed to the state taking over.

Baum: Do you think the 160-acre limitation has been detrimental or advantageous to the development of the country, especially California?

Adams: In general I think it has been justified, especially when the lands were government lands. I question whether it was suitable here in California under the Central Valley Project, all private lands. I think a modified type of restriction might have been a satisfactory procedure, perhaps letting excess lands (over 160 acres) pay a larger price for water.

Baum: Oh, pay the non-subsidized price?

Adams: Yes. Of course such an arrangement would fail to meet the objective of the 160-acre limitation, which was to restrict the benefits of federal aid to areas large enough to support a family, and prevent speculation by owners of large holdings, including those who by some means had obtained control of large areas of public land.

\$ 117 C

Wegnit State - to the first the state of the taking over the method Calley Error to

\* # = F 24 =

· OF the Control of Manager Control of the State of the S constituents for a contract to the contract of the same of the contract of the same of the contract of the con . The time of the state of the

ton most to relation to the section of the method of A F A C Sinna Same C Badstin ()

2 total acres of the street of the street of ABONIET IN

entropy of the second of the s • A Comment of the Co

the control of the co

min in the littlean that the filtroom of

in a in edge-in and in the

: ITUL

restation of the second section section of the second section section

The stiril one-in what he was in order door

was to a color of the order of the color of the color of the

- The west of the state of the

tion by switte of learne boadines, it is it in a

ow the state of th

What was chiefly in mind was land still unirrigated. The fact that the original aim of the
Central Valley Project was in the main to supply
supplemental water to lands already irrigated and
being farmed presented a situation not contemplated
when the 160-acre limitation was adopted.

The justification for federal aid is that it increases the wealth of the country by adding to the productive capacity of the land. I would agree with some acreage limitation but where agriculture is so varied, as in California, 160 acres is altogether too arbitrary, or even 320 acres in the case of a husband and wife.

Baum:

I believe the Engle bill introduced this year provided that excess water be paid for at a price that did not include the government subsidy.

Adams:

Nothing has been enacted along that line yet.

Baum:

If excess lands were required to pay a higher price for their water, could those farmers continue to operate profitably in competition with their neighbors who were getting the lower-priced water?

Adams:

Oh, I think so.

Baum:

Do you think that would be a satisfactory solution to the large landowner?

-· -× • 2 4 • • • 0 - 0 -

Oh, they're going to fight for the elimination of the limitation entirely. (This interview preceded the decision by the United States Supreme Court, upholding application of the 160-acre limitation to the Central Valley Project - Baum).

Baum:

I believe there is an effort now to get an initiative on the ballot to make the 160-acre limitation state law. What would you think of that?

Adams:

I think I should vote against it. I think the federal law is sufficient to cover it.

#### OTHER WORK

## Tri-Counties Project in Nebraska, 1935

Baum:

You previously said you had some contact with the Tri-Counties Project in Nebraska.

Adams:

My contact with that project was brief, but very interesting. It was in 1935. Earlier I spoke of Major Stout having begun a study of this project for the Bureau of Reclamation and that he had died before the work was completed. I was in Denver at the time of his death and being on the ground was asked by Mr. Walter, chief engineer of the bureau, to complete it. I spent several weeks reviewing Major Stout's notes and going over the project in



Adams: the field.

The project had been started in the early days of the New Deal, under the Works Project or Works Progress Administration with an allocation of funds by the President, and the question of Congressional authorization was pending. It involved diverting waters of the North Platte River to a reservoir and power plant above North Platte and then over the divide separating the Platte and Republican rivers for irrigation in the Republican River watershed in the general vicinity of Holdrege.

I was on a field trip when a wire came from
the Denver office to return, because Dr. Mead had
called for a report by the Denver office. We had
only two days to prepare a telegram summing up
conclusions. The haste was due to a demand by
Senator George Norris for a prompt report because he
wanted to obtain the Comgressional authorization.
As father of the Tennessee Valley Authority, Senator
Norris was in a position to get about what he wanted.
He was a resident of Holdrege or some nearby town.
With some misgiving I joined in the telegram to Dr.
Mead giving general approval, although my part in
the study had been a very small one. My misgivings
were due to my feeling that the farmers in the Holdrege

.

,

.

\*

•

and nearby areas did not seem to be willing to commit themselves to paying for water to the extent that would make the irrigation features of the project self-sustaining.

Central and eastern Nebraska are about on the generally-recognized dividing line between the arid and humid portions of the country. The value of supplemental irrigation in dry periods had been fully demonstrated but was not yet fully recognized by many of the farmers in the Holdrege area, as I found out by personal interviews and replies to a questionnaire Major Stout had circulated. So after the telegram sent to Dr. Mead, I wrote him of my misgivings. The project was authorized, but I do not know in just what form. It was largely a public power project tied in with other public power development in Platte River Valley. I do not know what was done with the irrigation features. There was a good deal of opposition along the Platte River to water being diverted out of that watershed to the Holdrege area.

#### Brush-burning Studies, 1947

Adams:

Here's another study we did, "Hydrologic Aspects of Burning Brush and Woodland-Grass Ranges in California." 1947.

thenselves to see it as a collection of ext. The large and a community of the first of them be on . the in the common force

.

!

in the state of th The state of the s fregri inger land to Sent State Cont. of the Professional Control of the and the second of the second A transfer of the property Cont. desired to the state of the sta The following the second of th ⇒ir clotin on an end with the second of the endi the the state of t is no id

## Till and Challes - with

en and the second of the secon

to the congress to the state of #. there is not the control of the first the light of the control • •

Baum: This was after you retired?

Adams: Yes, this was made at the request of DeWitt Nelson, the state forester, by Paul Ewing, Martin Huberty, and myself. I would not have liked to undertake any of the studies I did with Mr. Huberty without his help.

Baum: Wasn't this somewhat out of your line?

and the Bureau of Forestry.

Adams: I was of course familiar with the work Professor

Veihmeyer had been doing in brush-burning experiments

and for a number of years I had been chairman of a

College of Agriculture committee for review of flood

control studies of the Department of Agriculture

College of Agriculture committee for review of flood control studies of the Department of Agriculture under the Federal Flood Control Act. The Flood Control Act passed by Congress authorized the Department of Agriculture to participate in investigations of flood control in aid of water conservation and soil erosion control. Whenever Congress authorized a flood control investigation or survey by the Army Engineers, the Department of Agriculture was authorized automatically to make a study of flood control in the area as to water conservation and soil erosion control. Those studies were made by three bureaus of the Department of Agriculture, the Bureau of Agricultural Economics, the Soil Conservation Service,

tun: my and sen erim

the state of the s

.

A to the control of the action of the distance of the time of the company of the second of the second colors to see the second of the second of the second of the state of the same of the s . don't be bonde to be some agreement -and I will be a state of the order of the state of the st the state of the following the contraction of the c The second secon not controlled the control of the co for the fire of fire a location by the right and the property of ្នាក់ ប្រជាជាក្រុម ប្រជាជាក្នុង ស្នាក់ ស្រុក ប្រជាជាក្នុង ស្នាក់ ស្រុក ស្រុក ស្រុក ស្រុក ស្រុក ស្រុក ស្រុក ស្រុ and the state of t of the interpolation of the second of the per our lateral and perfection of a 5th office \* 1 1 77 °

· I'm the the proof are by

when those studies were about to be made, the extent to which the state should cooperate came up. The state had been cooperating with the Army Engineers previously in their flood control studies in California. So the state engineer, Mr. Hyatt, wrote to the Secretary of Agriculture soliciting the cooperation of the Department of Agriculture with the state engineer in those new studies authorized in the flood control act. The Secretary of Agriculture replied that the department's cooperation in such matters was always with the land-grant colleges. Mr. Hyatt was referred to Dean Hutchison for consideration of the question.

One afternoon I was called down to the dean's office. There was Mr. Hyatt, the chairman or principal officer of the State Planning Board, and the dean.

I was informed of the correspondence I just told you about. The dean had been asked by Mr. Hyatt to participate in these studies in cooperation with the state engineer. The dean asked me to be chairman of the committee to cooperate with the state engineer and he appointed the following committee to work with me: Professor Walter Mulford and Professor J. Kittredge of forestry, Professor Bodman of soils, Professor Weir of drainage and soil conservation, Professors Veihmeyer and Huberty of our own department,

: 9 db 10

```
· The tip or the in the second grading
                                                                    * togt to with the state of the
                                                                                                                                                                                                                                                               the state of the s
    entropy of the control of the contro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The first of the state of the s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the first term of the first sail
                                                                          the state of the s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          to the year of the
                                         the state of the s
                                                                                                                                                                                                                                                                                                                                                                     to be tended on the first of the
                                                                                                     I have been a compared to the 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ien or a protection
                                                                                                                                                                                                 A CONTRACT OF THE STATE OF THE 
                                                                                           • F. Carlotte Grant Control
                                                                                                                                                                                                                                                                                                                                                                                                             the second of the second of the second
                                                                                                                                                                                                                                                                              ns to a second
                                                                            tinger
                                                                                               the Color of the mean of the color of the
                                                                                                                                                                                                                                           the state of the s
                                                                                           end in a simple and for a comment
                                                                                                                                                     . The first the smooth of mostly the first the
                                                                                                              with the description of the contraction of the cont
                                                                                                                . The sea flow has evanient to the coasied?
most a mer i et innyere and fluneraty of a second to the industry
```

Professor Wantrup of agricultural economics, and
Professor Harry B. Walker, head of agricultural
engineering, and J. B. Brown of Agriculture Extension.

So we had the task of reviewing these reports by the Department of Agriculture. Those reports were made for all the major streams of the Sacramento and the San Joaquin Valleys, Salinas Valley, Ventura County, Santa Barbara County, the Santa Ana, the Los Angeles River, in fact, all the major streams in the state. Our committee went very carefully over all those reports. We took them into the field and studied the reports in the field, covered the ground with the authors of the reports, and then got together and made our own comments on the measures and expen-The state engineer's representative particiditures. pated with us at all our meetings and all our field trips. They made their own reports.

These studies covered a period of perhaps three or four years and involved a lot of hard work. As a preliminary in that work, we did this separate background report, "Forests and Other Vegetative Cover as Related to Run-off Retardation and Soil Erosion Prevention in Flood Control," in 1939, mimeographed.

After I retired Professor Huberty took over the chairmanship and the activities continued for another

e the is the first the contract of the contrac the state of the second of the the second of the second of the

and the state of t The state of the s the state of the state of the state of on the second of the second o · A to the second for the second of the second of the second

the property of the second second ing the contract of the contra a apoli em su o filo de monto de was the state of the order of the second

The state of a state of a figure of and a state of the st ound the second of the benfines for more of s in the large second and a second of the co The state of the second of the ca in the section is added to come to the in the state of " torder boots or a flacount

The state of the control of the state of the the control of the projection and the control of th Adams: year or two until the reports were discontinued by the Department of Agriculture.

#### American River Studies, 1947

Adams:

The next consulting work was with the state engineer, on "Some Irrigation Aspects of the Proposed American River Development," 1947. I took up matters that primarily concerned development of agricultural areas to be served by the American River, some lying north of the river as far as Lincoln in Placer County and the areas in Sacramento and San Joaquin counties which would be served by canals from Folsom Reservoir. Matters of soil conditions, crops grown, extent of irrigation, types and costs of irrigation enterprises already existent, mainly private pumping plants, suggestions regarding organization for taking over the handling of the water, the amounts it would seem equitable for the farmers to pay for the water...

The report I prepared is included in the appendices to "Supplemental Report with Reference to the Site of Folsom Reservoir of American River Development," published by the State Department of Public Works August 8, 1947.

After that I worked on the Solano Unit studies already mentioned.

The second of th

# in the state of th

Thomas Limit (1970) Adomed remarks the state of the state THE COLUMN THE STREET STREET STREET of the second of COTERS SET OF THE SET OF the state of the s the state of the s The state of the s of the start of the start of a thirth of an energy and the terms of a trible The state of the s

en file of kieling of the configuration of the conf

The state of the s

#### Other Studies

Adams:

The last report I made was this, "Community Organization for Irrigation in the United States," 1952.

Professor Huberty at that time, for a period of about two years, was in charge of the irrigation work for the Food and Agricultural Organization of the United Nations with headquarters in Rome. He wrote to me that the people in the various areas in which the F.A.O. was working, the Middle East and elsewhere, had no idea of the extent to which farmers cooperated in irrigation in this country. He asked that I personally or with Mr. Ewing and Mr. Hutchins prepare a summary of what is being done. It was sort of a one-man job so I got into it.

Baum:

It looks like you had to condense a lot of material into a short booklet.

Adams:

I did. I had to go back and review a lot of material I had forgotten all about. That took time, more time than when I was younger. One of things they asked me to do was to prepare a selected list of legislation in the western states governing cooperation in irrigation. That involved a lot of close work in the law library.

Baum:

That looks like a valuable compilation.

· • . 5 · ·

.

The state of the s

· recent to the

the state of the s

. Proficence the few endings are

I think we can wind this up by merely referring to work Paul Ewing and I did for the State Water Resources Board. The main job was as editorial consultants on the 500-page report of the state engineer for the Water Resources Board on water resources of California, Bulletin No.1. We worked on and off for several months on that. We also did similar work on three cooperative regional reports the state engineer made for local areas.

That about winds up all my consulting work. Some of that was preparing reports, some was consulting work.

Baum:
Adams:

It was always for some government or public agency? Yes. There was one study I made for a semi-public agency, the Palestine Economic Corporation. It was a short time before the British mandate was discontinued and Israel was formed into a separate nation. The British government had prepared an underground water law for Palestine which the people in Palestine did not like. The Palestine Economic Corporation, which generally guided and financed development in Palestine asked me to review the proposed law, which I did. I made such suggestions which occurred to me and summarized the general procedure in underground water law in the western United States.

.

e thing counting that a by which i mit TO BE SEED ROTH TO MAKE THE COMMENT OF SEED OF The Arthree are the disease of the common to on with mile the control of the second of t Define a ... i. the first palace to be except ត្រប់ ខ្លាំ ១០១ ក៏ស្រុស រឿងសុខភាព ១១១ ២០១ ស្រុក ស្រុ The second second second is the property of · The third open to a third of the transfer to the early winds are either · Course relief to the contract of the

The second of the second secon SECURE OF SECURITION OF SECURITIONS the state of the s or or a count begreat sew form I as a country in the service of the Service by the service of the no selo di diana di moine odidente di decen the state of the control of the specific tell on high The found to book the following the work en in an ord and was too of on the coler the second of the second secon in the man of the sense is special to the more than . Princip facility regardence a loi into a new

Baum: When did you retire from the University?

Adams: 1945, thirteen years ago.

Baum: Much of this work was done after that?

Adams: Yes.

Baum: It sounds like your etired in name only.

Adams: Well, that was true. I contined working in the

office every day up until three or four years ago.

### CONCLUSION

Baum:
Adams:

What part of your work did you find most satisfying? I couldn't say. It's been so varied. I've enjoyed every bit of it. When working exclusively for the Department of Agriculture my range of interests was irrigation in all its phases throughout the western United States. My principal field work then was in California, Utah, Wyoming, Colorado, and Nebraska, but I had opportunity for some contacts in all the other western irrigation states except the Dakotas, Kansas and Oklahoma.

When I returned to the irrigation work in 1910 after an absence of four years my main responsibility was, of course, irrigation in California. This did not prevent my retaining my interest in irrigation in other areas in the West. It was possible to do this through my association with the other members of Dr. Fortier's irrigation staff, through various conferences and meetings, through irrigation district studies in other states, through my association, over a number of years, with the Bureau of Reclamation, and my association in later years with the National Resources Planning Board.

I don't believe I could enjoy anything more than

### prior to account the resident

e se sonider e la filia de la

THE STATE OF THE S

Adams:

California which lasted from 1910 to 1924 or 1925. Out of that work grew the gratifying privilege of organizing and heading for nearly 25 years the Irrigation Division of the College of Agriculture, which has since grown into a department with the finest facilities for research and teaching of any irrigation organization in the country, not surpassed, if equaled, anywhere. An offshoot of the original Irrigation Division is the Department of Irrigation and Soils at Los Angeles. One of my greatest satisfactions is that the two men who built up these departments and have exercised such effective leadership--Professor Veihmeyer at Davis and Professor Huberty at Los Angeles -- came into the Irrigation Division during my period of responsibility. Professor Veihmeyer retired several years ago, but is still active. Professor Huberty continues in the department at Los Angeles but gave up the chairmanship to become director of the recently established Water Resources Center in the University. I take it that much of your work, both in the old cooperative irrigation investigations and in the

University, has been in the nature of public service.

Was it the opportunity to be of public service that

the work in the cooperative investigations in

Baum:

of the first term of the section of and the period of meaning were now that he does the same of the second second and the second of the second o BODY I THE REST OF THE PARTY OF - 1 • fore • files onest of the Annelos--new The British of the State of the e and a manage such that the profession The second of the first transfers to the state of the state of and the little of the state of of the second of the temperature of the second . The state of the fact of the table to the same Cotto the green many to the least of the dark a

and a comparation of the second

to the second of the first of the visit

especial particles and analysis of the second section of the second second second second second second second



Professor Martin R. Huberty



Baum: was most rewarding to you, or the finding of solutions to problems?

Adams: I would say that investigation, research, and instruction at Davis were our primary responsibilities, but we could not overlook our responsibility in public service. I was the one in the organization most free to engage in public service and I thoroughly enjoyed it—the work in legislation in the early days, assistance to communities considering organization of irrigation districts, work with the Commonwealth Club, chambers of commerce, the California Economic Research Council, the Farm Bureau, and other organizations.

Baum: With all these studies you were making, it sounds like you must have spent every night working.

Adams: Oh no, I didn't work nights much. I put in long days at the office and in the field, but I worked no harder than other members of our group.

Baum: You must have been on the road a good bit, when traveling was slower than it is now.

Adams: Oh yes, there was a good deal of traveling. I couldn't exercise leadership unless I knew what was going on in the state, knew the people who were involved.

If there was an important conference involving some phase of irrigation, I made it a point to be there

From the first term of the fir

· And in the second of the sec

• Communication of the second of the second

in the second of the second of

the form of the factor of the production of the state of

Adams: if I could. You have to have prospective when you work on these things and you only get it by thinking

things out in the environment of your subject.

Baum: Do you feel that the type of life you led left you

time for your personal life?

Adams: Oh, I neglected my family, there's no doubt about

Palestine, my absence from home so much of the time

That work in France in 1919, my work in

wasn't fair to Mrs. Adams and the children. Just

one of those things when you undertake to do so

many things. But I had lots of fun and came to know

a great many people and acquired a good many friends

over the years. One of the things I miss now is that

I don't get over the state; I'd give anything to

get in the car and go over every section of it. I

miss the contact with the people in the field.

Baum: What other things have you undertaken since your

retirement besides the studies you mentioned already.

Adams: I participated actively in several of the Commonwealth

Club studies on the general water problem.

Preparation of this paper, "Some Policy Issues

in the Central Valley Project", took a lot of time

and thought. I did that as a paper for the Common-

wealth Club.

Baum: I see it's dated June 29, 1949.

THE WORLD STATE OF THE STATE OF

en la companya de la

er over the state of the state

to a contract extent

The state of the s

- Common of the first warful on the first section of the first section o

entry to the commentation of the second

Adams: There were others of that type. Another was this.

Baum: (Reading) California Farm Bureau Monthly, March 1953,

"Irrigation in California as Viewed from the Sidelines",

Sort of a brief history. I don't know how you can

say "from the sidelines."

Adams: Well, I wasn't in it anymore.

Baum: Did they ask you to do this?

Adams: Yes. Here's another thing, a lot of fun.

Baum: (Reading) "Water for the Land in California's Central Valley," script for film, April 1953.

Adams: I worked on that off and on for a couple of years, not in writing the script, in making the film. The idea of the film was that it should be helpful educationally among those not familiar with the subject. I wanted to give some prospective, show what had already been accomplished and just where the Central Valley Projects fitted in. But I took it sixteen frames per second and you can't fit a sound tract to that, so the thing didn't take very well.

Baum: Did you take the films yourself?

Adams: Yes, most of them.

Baum: I've certainly been impressed with the still photographs you have included in your reports.

Adams: Well, I've been taking pictures all my life. It always seemed to me that reports and papers are

\* \* \*

i de de la company

\*

and the production of the second

Adams:

livened up with pictures, so I always included them. All of us in the irrigation division of the College of Agriculture, and in the Department of Agriculture, took pictures, not only to illustrate reports but to have a file for instruction and other general purposes.

The main project I've had on hand began about 1953 and is not yet completed, that biography of my father.

Baum: What stage are you at with that?

Adams: I have a good deal more to do.

Baum: I'm afraid I interrupted that work.

Adams: Yes, you did. When these interviews began I was

working on the founding and early history of the Commonwealth Club. I haven't given any attention

to Father's newspaper career yet. I have in scrap-

books every editorial he wrote for the Chronicle

for a period of about twenty-five years. I have the

Weekly Chronicle, of which he was agricultural editor

for four or five years. I also have many special

articles on economic, financial, and agricultural

questions he wrote for the Chronicle, many manuscript

public issues, correspondence, articles in periodicals.

articles on cooperation in agriculture, and miscellaneous

monthly financial letters for the Anglo-California

Bank over a period of several years.

12.

. .

A constitution of the cons

En an in a service of the form of the enterior of the service of t

The second seco

vorbing on a foundly to the first of the following of the

Adams:

When Dr. Monræ Deutsch was president of the Commonwealth Club he requested me to prepare a paper about
Father's connection with the Commonwealth Club and
telling about his early life. I prepared this.
I mislaid Dr. Deutsch's letter and went into matters
in which they were not so concerned and I left out
matters they were more concerned with. I more or
less missed the boat. So in my chapter in father's
biography dealing with the Commonwealth Club I plan
to cover what I should have covered before and to give
a copy to the Commonwealth Club.

Baum:

Well, I guess we've about reached the end of this interview. We've covered a lot of ground.

Adams:

Yes, that's true. I think we've gone far enough.

I hope I have not overemphasized my own part in things. I've been just one of many in the work.

I can't speak too highly of the members of our University group and my associates in the irrigation work of the Department of Agriculture. I mentioned many of them in the little history I prepared of the irrigation division. I certainly appreciate your great patience in these interviews and your sympathetic understanding of my difficulties in trying to recall matters many of which happened so many years ago.

1 7 11

The second of the bissess was restored to well at the weather the second of an interest of the second of the secon

The state of The service of the state of the

mager of the tree liter big the Computation of the formation of the computation of the co

## A P P E N D I X

.

•

# Copy of Memorandum of Plan to Utilize and Reclaim the Arid Public Domain, by George H. Maxwell

The demand of the West for its share of River and Harbor Appropriations to build storage reservoirs cannot be satisfied by any cession of lands to the States. If every acre of the public lands were ceded to the States, the West would still insist on its demand for a just share of River and Harbor Appropriations for Reservoirs, and the demand is one which under any circumstances will be steadily urged until conceded.

Any objection to the appropriation of money through the River and Harbor Bill to build storage Reservoirs on the ground that the expenditure would be without adequate return to the Government, is removed by the fact that the Conservation of the water would make possible the reclamation and sale of vast areas of the public lands, which would return to the government a much larger sum than would be expended for reservoirs and such return would be assured by the adoption of the following plan to utilize the public grazing lands and to reclaim and sell the public irrigable lands.

The adoption of this plan would yield a new return of more than ONE HUNDRED MILLION DOLLARS to the federal government and would require no expenditure except for the necessary

the state of the s

### surveys:

- 1. The public lands to be surveyed by the Geological Survey, so as to segregate and show the irrigable lands, and the water supplies available for their reclamation; and each tract of irrigable land susceptible of reclamation by irrigation from a common source of water supply and by the same system of works to be separately platted with plan of system of works;
- 2. The Secretary of the Interior to be authorized to lease the grazing lands, under rules and regulations to be established by him, and to exchange lands of equal value when desirable or necessary to consolidate areas for advantageous leasing or reclamation, Provided: That each owner and occupant of cultivated land shall have a preferred right to lease a proportional area of grazing land, and that no lease shall be for longer than five years or for more than five thousand one hundred and twenty acres of land;
- 3. The entire net rentals in each state and territory to be used to build irrigation works therein for the reclamation of the irrigable lands, which shall be thereafter sold to actual settlers only at not less than one dollar and a quarter per acre in tracts of not more than one hundred and sixty acres to any one settler with a proportional interest in the water supply and irrigation system which shall be perpetually appurtenant to the land;

the state of the s

The state of the s

a control of the c

4. The Secretary of the Interior to be authorized to delegate to appropriate State officials in any state the power to carry out the provisions of this section relating to leasing and building irrigation works under such rules and regulations as he may from time to time establish.

Copy of Substitute for Memorandum of Plan to Utilize and Reclaim the Arid Public Domain

- 1. A leasing system to be inaugurated for all of the public grazing lands: Title to said lands to remain in the General Government; but, in those States having an Engineering Bureau, and complying with the conditions of the United States laws, the States to have the right to control the leasing of said lands, and to expend the rentals derived therefrom for the construction of irrigation works; The rate of rental to be low, and to be uniform; The total acreage which one individual can lease, not to exceed eight (8) sections; Settlers on irrigable lands having the preference right to leases.
- 2. The construction of important storage reservoirs by the Federal Government, as recommended in the Chittenden report.

Approved,

obpy of Judstit to

. .

Some state of the second of th

**.** 

Copy of Draft of Letter Prepared by Elwood Mead for Mr.

H. G. Burt, President of Union Pacific Railroad, to be

Submitted to Board of Directors

Gentlemen:

A short time ago there was presented to the managers of five railroads, which cross the arid states, a confidential proposal called "A Plan of Campaign for Federal Storage Reservoirs, Irrigation Development and Reclamation of Public Lands." It was prepared by Mr. George H. Maxwell, an Attorney of San Francisco, who wishes to devote his services to arousing public sentiment in support of certain irrigation legislation by Congress. In return he asks that each of the railroads approached contribute \$500 per month for one year to pay the expenses of this educational movement, and urges in support of this that the present unsatisfactory situation and the need of a change therein will justify the effort he wishes to make and the outlay on the part of the railroads. I am informed that all the roads approached except the Union Pacific have agreed to contribute the amount asked for.

There is no question that the present situation is in many ways unsatisfactory, nor that the obstacles which now prevent canal building or the coming of settlers can be removed by wise laws, but I am not satisfied that the

1

of the second of

en la companya de la companya del companya de la companya del companya de la comp

measures proposed by Mr. Maxwell are the ones needed and before action desire to be informed of your views.

Without going into a general discussion of irrigation questions I will first give the evils which beset irrigation tion in the arid states tributary to the Union Pacific railroad, and the measures which seem to me best calculated to remove them, and will then consider Mr. Maxwell's program.

In the five states of Colorado, Wyoming, Utah, Idaho and Nevada we are confronted by the following conditions: The large rivers are at present almost unused. More water runs to waste in Snake and Green rivers alone than is used in irrigation in all these five states. If we can have these rivers diverted and used it will quadruple the population and local traffic of the railroads. It takes fifty acres of unirrigated land to support a steer; the same number of acres irrigated will support a settler, his family and fifty steers.

At present but little is being done. Canal building is at a standstill. Nearly all the large works built to water public land have been losing investments. Settlement is slow. Only about one-half per cent of the public land is filed on in a year. The causes for this are as follows:

#### 1st. Burdensome taxation.

In the five states above referred to less than twenty per cent of their area is taxed, the remainder being public land. The cost of local and state government over the eighty per cent of unproductive territory falls heavily on the interests which can be reached. Irrigated lands and railroads are two of the principal suffers.

2nd. Opposition of the range livestock interests.

as a free pasture ground by range livestock men. The owners of these migratory flocks and herds range from Oregon to Nebraska. Having no settled habitation they make no improvements and do nothing to develop the country. On the contrary, the free range is the one great obstacle to agricultural development. So long as it costs no more to feed over one hundred thousand acres than it does over a single acre so long will the men who enjoy this privilege oppose irrigation. What the owners of range stock want is an open water front and as few men to use the public land as possible. Every canal means fencing for streams and more settlers to dispute for the use of the range.

3rd. The grazing land should be leased.

More than ninety per cent of the remaining public land has no value except as grazing land. It will never be farmed and it cannot be left perpetually as an

r = 1

the feet to be a second of the Table 1984

4

)· j '

er to the state of the state of

The second of th

and the second of the second o

The contract of the second sec

. 1 25.5

record to the variable of the second of the

Elementary of the second of th

the property of the contract of the contract of

evice or its to be to fine whost

entry of the territory of the contract of

If, however, the irrigator of 160 acres could have the right to lease a few thousand acres of the contiguous grazing land and have such control over it as would warrant its improvement, he would be in a position to engage in growing live stock with a security and profit not now possible. The adoption of such a leasing system would double the value of irrigated land because it would bring a new class of purchasers—the range stockmen—into competition for its possession and improvement.

5th. Rentals from grazing land should be used for canal building.

The chief argument for a leasing system is to give security of control and to make it to the interest of stockmen to protect and improve the grazing lands; to make them canal builders and irrigators instead of enemies of settlers. But those lands can be made productive of a large income. Wyoming is leasing the 700,000 acres of grazing land, donated when admitted to Statehood, for five cents an acre and there are applications on file offering to rent at the same rate two million acres more. Montana is receiving \$125,000 a year from leases of state pasture lands, the annual rentals ranging from  $2-\frac{1}{2}$  to 12 cents per acre. Colorado has sold a large percentage of the lands given the state and has an income from both interest on money received for land sold and from rentals.

The second of th

• The state of the contract of

The latter alone amounts to over \$200,000 per year. The state leases no land for less than five cents an acre and has applications to rent aggregating hundreds of thousands of acres which they cannot meet.

The people who are leasing these lands find that the security of tenure is worth more than the privilege of free range and the uncertainties and controversies which go with it. The paying of two, five or twelve cents an acre is not regarded as a burden but is being clamored for as the only means by which farms already irrigated can be cultivated with profit. Those familiar with the situation believe that if a low rental was adopted there would be no difficulty in securing an immediate rental of every acre of pasture land in the states I am considering. At one cent an acre the income to the State of Wyoming would be over \$400,000. In Colorado it would be nearly as much. Idaho fully as great, and in the five states the lands which now bring nothing to either the State or Nation could be made to produce an annual income of over two million dollars. It is probable that the loss in cattle last winter was more than that much. The adoption of a leasing system would put an end to such calamities.

I have referred to the fact that thus far the building of large canals has proven unprofitable. We have about reached the end of cheap ditches. Most of the work of the

THE PROPERTY OF THE PROPERTY

en in the second of the plane of the second of the second

en de la desta de la composición del composición de la composición

future must be of an expensive character. In order to secure its rapid prosecution the conditions for investment must be made more favorable than in the past. The rentals which could be obtained from the leasing of the pasture lands would permit of this. If the rentals for these lands are collected by the states, as I believe they should be, they could either build canals and sell them to settlers at nominal cost or they could subsidize associations of settlers or canal companies paying part of the expenses of construction and requiring that water rights be sold at a correspondingly reduced price.

## THE RESERVOIR PROBLEM

The cheapest form of irrigation is the building of ditches to take water directly from streams. But there comes a time when the low water discharge is all utilized while large volumes run to waste during the flood season. On many streams this condition has been reached. Settlers find that they have water for a part of the season but not for sufficient time to bring crops to maturity. The needed water runs to waste before it can be used. They desire to have it stored for later use.

There are several obstacles to the building of reservoirs by private enterprise. In many cases the outlay is more than settlers can afford. In others the location

the second of th tage of a

and the second of the second o

. 

F. C. C. 

•

\*

of the reservoir on the head of a stream makes it difficult for those who build to reap the benefits of its construction or prevent others from doing so. found difficult if not impossible to get all the settlers along a stream to join in the construction of storage works at the head. The earlier appropriators prefer to depend on the natural flow. Many others are so located that if the reservoir is built they can steal all the water they need and hence refuse to contribute. These difficulties in the way of private enterprise have led to a demand that the Government take charge of reservoir construction and build these works for the promotion of the general good. There is no question that if the leasing system as previously outlined was put into effect that a considerable portion of the money derived from leases would be expended in the construction of reservoirs, nor is there doubt that the agricultural importance of the western states would be enormously increased thereby. On a majority of streams the storing of the flood waters will increase the acreage which can be irrigated from two to five times over what is possible from the natural flow alone.

There is one class of reservoirs which it can be properly and justly urged should be built by the National Government. Those which are an aid to commerce. There has already been expended on the headwaters of the Missouri

•

1 43

effective to the first of the f

t ·

c ·

over a million and a half dollars to protect the banks of that stream from the ravages of the floods which come down each year from the mountains at its head. The estimates for further work of this kind amount to nearly two million All these measures are simply palliative. seek to mitigate the effect rather than remove the cause. The investigations of government engineers, and of others well qualified to pass upon this question, are unanimous that the only enduring and effective solution both of the problem of flood protection and improved navigation on this stream is to store the flood waters at the head. remarkably favorable sites for storage makes it possible to hold back the floods within reasonable limits at moderate cost. It is also probably true that there are reservoir projects whose magnitude puts them out of the domain of private enterprise and where the special interests of the government are of sufficient importance to render their construction as a public enterprise entirely justi-But on the whole, I believe that the problem of irrigation development is a matter of state rather than National aid and that the means for carrying it out can be found in a reform in our land laws which will provide for the management of the grazing lands and the right use of the proceeds arising from their rental.

Mr. Maxwell's program, I regret to say, is based on an entirely different conception. In his memoranda of plan he makes Government reservoirs the principal feature and Governmental control of irrigation an ultimate possibility. He justifies the building of storage reservoirs by Federal appropriation on the ground that the sales of public land reclaimed would return to the Government a much larger sum than would be expended thereon, his estimate of the net return being more than \$100,000,000. I do not see how such a result can be anticipated. demand for storage reservoirs does not come from those who desire to occupy public land, but from those who already own land for which there is not a sufficient water supply. Irrigation from streams is cheaper than irrigation from reservoirs but the building of canals by private enterprise has not proved remunerative. is difficult to see how the building of reservoirs by the more costly and dilatory procedure of the National Government could produce a different result. Experience and the judgement of engineers who have made a special study of this problem do not sustain Mr. Maxwell's anticipations. Col. Chittenden, who investigated the reservoir problem for the National Government, held that storage reservoirs would not pay and ought not to be expected to pay. on the contrary the correct policy for the Government,

The state of the second of the The state of the s The factor of sections and the control species of the first sittle that the first the first the present the properties with the competence of the first transfer of the first of the contract of the of the second of the second of the second of the second of the - committee of a specific state of the speci Commence of the second of the . It to the second of the seco and the second of the second of the second of the second of the second and the second of the second o and the second of the second o and the state of the series of the series entropy of the state of the sta The second of th start from the second one year of the end of the end in a month, and the arthropolist of the conjust in the the transfer of the average of a new order of the disample to will of Wife condition of the wife in distribute of the figure of the To be mid and a second serval of the district . Tall too the Wattouch Overnoent, held times at the merepu to the in a various in the come and a back definite has a set for bird of the react of the south the theory of the transfer the

if it built them, was to build them for the public welfare and turn them over to the free use of the states exactly as it permits the harbors which it improves to be used without any charge of toll. The last report of Elwood Mead, State Engineer of Wyoming, states that the majority of reservoirs are to be considered exactly as street lamps in a city, an important public utility but one which private enterprise alone cannot profitably construct or The State of Colorado has appropriated money for several reservoirs, but in no case was there an effort made to derive a direct return therefrom. They were built like public roads or bridges for the general good. storage reservoirs can be built at a profit private enterprise can be depended upon to do the work and there is no necessity for the Government entering upon this work. Hence, I should regard this portion of Mr. Maxwell's plan as being calculated to defeat rather than promote legislation.

The other features of Mr. Maxwell's plan are as follows:

First. The public lands to be surveyed by a Bureau of the General Government, the land to be reclaimed to be plotted and plans for all works to be made by this bureau.

Second. The Secretary of the Interior to be authorized to lease the grazing lands.

Third. The net rentals for each state to be used to build irrigation works therein.

Fourth. The Secretary of the Interior to be authorized to delegate to state officials the power to lease the grazing lands.

I am only able to indorse the last of these. Concerning the first it is open to the objection that it would involve a large appropriation which might defeat other legislation of far greater importance. If the money to build canals is to come from either private pockets or from the rentals of lands leased by the states those parties ought to be permitted to select the place for its expenditure and prepare the plans. In addition there are grave objections to such a sweeping measure of Federal control at the outset. Each of the five states in which the Union Pacific has a special interest has a State Engineer whose business it is In each of those to supervise irrigation development. states all titles to water come from the state. General Government has recognized state laws and customs in respect to irrigation matters and has surrendered to two of the states, in the act of admission, the ownership and control of the waters within their borders. However wise it might have been in the beginning to have had a general plan of irrigation works, the attempt now to interfere with the rights acquired under state laws, or with state supervision, through the laying out and direction of new works by the General Government would result in a conflict

: 38:

\*

The state of the s

 $s_1 = s_2$ 

with the holders of existing water rights and in a local opposition which would be fatal to all irrigation legislation.

I believe, therefore, that in place of the elaborate plan submitted the proper course to adopt is to urge first of all a leasing system for the public grazing land. the construction of reservoirs by the General Government wherever public interests will justify appropriations therefor, but the refusal of such appropriations where the principal object is to provide a free water supply to lands already in private hands. In order to obviate the objections which might be urged to a cession of the absolute title of these lands to the states it might be well to simply give to the states the right to lease these lands, leaving the title thereto in the General Government, while to forestall any fear that the ulterior motive is to keep these lands out of settlers' hands the leased lands might be left open to settlement exactly as they now are with two limitations: The repeal of the commutation clause in the homestead law and requiring any settler on leased land to pay for any improvements placed thereon by the lessee. In other words to make a campaign for the development of the west based solely on public considerations and where no claims are made which will not bear the most searching scrutiny.

+ y- - -

til Fil

•

(0 0

Copy of Letter from Elwood Mead to Mr. H. G. Burt Regarding George Maxwell's Plan, April 21, 1899

Cheyenne, Wyo., April 21, 1899.

Mr. H. G. Burt,

Prest. U. P. Ry.,

Omaha, Nebr.

Dear Sir:

I regret not meeting you on my way home from St. Paul in order to thank you personally for the pleasant acquaintances which the trip enabled me to form.

I have already given Mr. McAllister my views on the proposed educational campaign, but it may prove convenient for you to have me repeat them in this letter.

At our conference we discussed two propositions: (1)
The securing of a leasing system for the public grazing
lands. (2) National appropriations for the construction
of irrigation reservoirs.

Of the two, I believe the first is of the most importance. I also believe that it can be more readily secured. Leasing these vacant lands makes it to the interest of whoever secures control to improve them. The adoption of a general leasing system will mean the beginning of fence

man = e ... L e min ... 

\* 2

.

\* \*\*

: · · · · · · · ·

•

building and small reservoir construction all over the west. As you know I have advocated the cession of these lands to the States in order to get these lands under laws, which would invite private capital to improve them, but I see no reason why a leasing law which leaves the title in the General Government, but gives to the States their management and the rentals derived therefrom will not answer every purpose of an outright cession.

I do not favor leaving the leasing of these lands to the Interior Department. I would rather risk the wisdom and fairness of state officials, who will at least act promptly, than to subject settlers to the delay and red tape at Washington.

I regard the advocacy of national appropriations for reservoirs as a valuable feature of this educational program. The construction of many reservoirs can be justified on the ground that they are a legitimate part of river and harbor improvement for the benefit of commerce. Reservoirs at the head of the Missouri to impound its waters is the only effective, and, in the end the most economical way of preventing floods along its course. It is possible to accomplish this result within reasonable limits of cost and water stored will be worth more than the outlay in extending the area which can be irrigated.

Aside, however from the merits of national appropriations, about which there may be a difference of opinion,

The state of the s •

i, Switter 

• the state of the s

there is no doubt that the advocacy of their construction has done more to make eastern congressmen look with favor on liberal legislation in other directions than all other influences combined and the agitation in their behalf will aid rather than retard the adoption of a leasing system.

These were the only matters discussed at the conference, but among the papers which were handed me from you was a "Memorandum of a Plan to Utilize and Reclaim the Public Domain," one feature of which seems to me of doubtful expediency.

I refer to the paragraph advocating a government survey to segregate the irrigable lands and the preparation of plans for the works to reclaim them. My reasons for this doubt are as follows: We are not suffering from a lack of knowledge as to where such lands are or how they can be irrigated, but from an inability to secure money to reclaim them.

Such surveys would mean large appropriations. I fear this would prove an obstacle to legislation in other directions and might delay the establishment of a leasing system until the survey was completed. Moreover, the principle is wrong. Individuals or corporations who build ditches prefer to make their own locations and to spend money on plans of their own creation. The engineers in charge of river and harbor improvements will, beyond

de Conje . . . • . nc i . • -t e

question, insist on making the plans for any reservoirs for whose safety they may become responsible. If the lands are leased the state should direct the expenditure of the rentals. They now control the water and should plan the works for its diversion and use.

There would be danger of opposition from the state irrigation authorities and from appropriators of water under state laws, of which your railroad is a large one in this state. A similar measure was passed about ten years ago. To resume its advocacy would be to array against this legislation many western senators, like Senator Teller, who will oppose any sort of national legislation which looks to interference with state control of water supply.

It may be that I misunderstand this paragraph and that some of my objections are founded on misconception of its purpose, but in any event, I think the chances of success will be greatly increased if we confine our campaign to the fewest and simplest objects possible, leaving out all issues not material or likely to provoke opposition.

As Mr. Maxwell has explained to me personally that he has no opposition to this part of the plan being retired I would suggest that you recommend this to be done in case you join in the proposed arrangement.

Sincerely yours,

(Signed) Elwood Mead.



## Copy of Letter from Frank Adams to Edward F. Adams Regarding Appropriations for Irrigation Investigations, December 14, 1901

UNITED STATES DEPARTMENT OF AGRICULTURE,
OFFICE OF EXPERIMENT STATIONS,
A. C. TRUE, DIRECTOR

A.B.H.

IRRIGATION INVESTIGATIONS,
Elwood Mead,
Irrigation Expert in Charge.

Washington, D. C. Dec. 14, 1901.

(Personal.)

Mr. EDWARD F. ADAMS,
Editorial Rooms, Chronicle,
San Francisco, California.

Dear Father:

As soon as we know anything definite of the way we are going to take Congress, we will let you know so that you can work all the wires possible at that end. Just at present both the questions of a bureau and our appropriation for next year are held in abeyance and it is not likely that anything will be done about either of them until Congress is convened after the holidays. In fact, we are lying low about the bureau until we see if any other bureaus are going to be asked for, because it seems the best plan to wait until the pie is cut before asking for a piece. It

· · · · ·

The agricultural committee of the House is so far an unknown quantity, not a single man from the arid region being on it. Mr. Wadsworth, the chairman, has never been very favorable to our work but thinks it should be under the geological survey. The Secretary has not yet taken any stand one way or the other in the matter and does not seem disposed to for the present. It might considerably injure the cause to present the matter to such a committee as the House committee on agriculture is, unless the Secretary were with us heart and soul and ready to fight for what we are after.

As regards the appropriation, we are going to ask for \$100,000.00, some of which we want immediately available to enable us to finish out the work of the year as now planned, including the publication of the reports now in progress and also Mr. Mead's European investigations. I think I wrote you that Mr. Johnston is now in Egypt making an investigation and that Mr. Mead hopes to go to Egypt and Italy as soon as the matters in connection with the office requiring attention before Congress are settled, which will undoubtedly not be until the late Spring or early Summer. Mr. Mead also wants to strengthen the investigation at home by adding a man to look into pumping and also one to study drainage, the idea being to broaden

ca District Milk (Section 2017)

the work of the office on the basis of the proposed bureau of rural engineering. With what is left of last year's appropriation, nothing effective could be done in this line unless aid comes from congress in the way of the increased appropriation, part of which to become immediately available.

The California congressional delegation seems to be quite interested in the work of the office, and with the exception of Mr. Coombs of Napa, who is non-committal, those whom we have seen of the delegation say that they will support us in whatever we ask for. Mr. Mead has had a talk with Mr. Bark and was very favorably impressed with his attitude, and we are counting on substantial support from the whole delegation. Yesterday Senator Perkins telephoned over to ask how many copies of the California report Congress ought to print. This was done without any solicitation whatever and shows that he is interested in the work. So far as the general question of government aid is concerned, it does not seem likely at present that any plan of real value will be carried out. The western congressmen have been endeavoring to agree on some bill, but they have not yet completed it. The pressure for national control if national aid is extended, is very strong. Mr. Maxwell and his followers continue to misrepresent the attitude of those who favor merely

ŧ

1

· A Company

· O CONTRACTOR

supplementing state aid by such regulations as will conform to state laws where satisfactory, or encouraging them where unsatisfactory. The President in his message and the Secretary in his annual report took the right stand simply because Mr. Mead wrote those portions of their documents which have to do with national aid. This, of course, is not generally known.

I will send you a copy of the Secretary's report and would suggest that wherever you can get a meeting or an organization to indorse his stand, it would help the cause if that fact could be communicated to the Secretary.

My Chronicle has run out and I have not renewed it so I did not see the account of the meeting of the fruit growers and their resolutions in favor of our work. We are supposed to get all clippings referring to irrigation from all over the country but have not yet succeeded in getting many from San Francisco papers. We will jog the clipping bureau up and try to get a little better service.

Affectionately,

(Signed) Frank.



## Publications of Frank Adams (and Co-authors)

- 1903. Agriculture under irrigation in the basin of Virgin River, Utah. U. S. Department of Agriculture, Office of Experiment Stations, Bul. 124, pp. 207-265.
  - Court adjudications of water rights on Sevier River, Utah. U. S. Department of Agriculture, Office of Experiment Stations, Bul. 124, pp. 267-300.
- 1905. The distribution and use of water in Modesto and Turlock Irrigation Districts, California. U. S. Department of Agriculture, Office of Experiment Stations, Bul. 158, pp. 93-139.
  - The duty of water in California. Water and Forest 5(2):1-4, July, 1905.
- 1906. Up Whitney by Lone Pine Trail. Sunset, Vol. XVII, pp. 74-80, June-July 1906.
- 1909. Report of special committee on Hetch Hetchy water supply. (With Beverly L. Hodghead and E. A. Walcott) Transactions of the Commonwealth Club of California 4(6):316-336, 1909.
- 1910. Delivery of water to irrigators. U. S. Department of Agriculture, Office of Experiment Stations, Bul. 229, 95 p.
- 1911. Irrigation the basis and the measure of the present agricultural growth of California. Report of California Agricultural Society for 1910, pp. 44-50.

Second progress report of cooperative irrigation investigations in California. U. S. Department of Agriculture, Office of Experiment Stations, Circular 108, p. 43, 1911.

Progress report of cooperative irrigation investigations in California, 1909, 1910. 2nd Biennial Report of State Engineer of California, pp. 149-167.

Districts under the Wright Law. Transactions of the Commonwealth Club of California 6(8):526-531, December, 1911.

•

•

\* • • • •

• • •

• •

1912. Irrigation resources of northern California. Report of California Conservation Commission, 1912. pp. 90-171.

Progress report of cooperative irrigation investigations in California, 1910-1912. 3rd Biennial Report of State Engineer of California. pp. 179-192.

Irrigated agriculture, the dominant industry in California. Annual Report, California Development Board, for 1911, pp. 55-57.

Drainage and alkali reclamation. Monthly Bulletin of California State Commission of Horticulture. Proceedings of the 42nd California Fruit Growers Convention, 1912. 2(3,4):460-468.

1913. Information needed by the agricultural immigrant: a special agricultural survey a possible means of obtianing it. California Development Board, Counties Committee, Bul. 12, pp. 6-11, Jan. 1913.

Making the most of our irrigation resources. California Development Board, Counties Committee, Bul. 13, pp. 11-17, November, 1913.

Irrigation resources of California and their utilization. U. S. Department of Agriculture, Office of Experiment Stations. Bul. 254, p. 99.

Reports of Section on Conservation on Water and Forest Bills. Transactions of the Commonwealth Club of California 8(2):66-71, 92-95. 1913.

Results of irrigation investigations. University of California, Report of College of Agriculture and Agriculture Experiment Station, July 1, 1912 to June 30, 1913.

1914. Progress report of cooperative irrigation investigations in California, 1912-1914. California Department of Engineering, Bul. 1, p. 74.

,

. - . .

. - . .

. . . - :

1914. Results of irrigation investigations. University of California, Report of College of Agriculture and Agriculture Experiment Station, July 1, 1913 to June 30, 1914, pp. 14-18.

Orchard irrigation methods of California. Department of the Interior of Canada, Irrigation Branch, Report of the Proceedings of the 8th Annual Convention of Western Canada Irrigation Association, August, 1914. pp. 107-116.

Federal vs. State control of natural resources. Transactions of the Commonwealth Club of California 9(2):101-108. March, 1914.

The economical use of water as affecting the extent of rights under the doctrine of prior appropriations. California Law Review 2(5):367-376, July, 1914.

Irrigation, in some things the prospective settler should know. University of California, Agriculture Experiment Station, Circular 121, pp. 29-31, 1914.

1915. Results of irrigation investigations. University of California, Report of College of Agriculture and Agriculture Experiment Station, July 1, 1914 to June 30, 1915, pp. 124-127.

First California Land Settlement Bill. (Senate Bill 509). Introduced Jan. 22, 1915.

Some measuring devices used in the delivery of irrigation water. University of California Agriculture Experiment Station, Bul. 247, 80pp., 1915.

Land settlement, Transactions of the Commonwealth Club of California 10(5):199-212, 225-228. 1915.

Discussion of paper on Duty of Water in Irrigation/ by Samuel Fortier. Transactions of the International Engineering Congress, 1915, Waterways and Irrigation, pp. 508-509.

- 1915. Discussion of paper on Italian Irrigation by Luigi Luiggi. Transactions of the International Engineering Congress, 1915, Waterways and Irrigation, pp. 576-578.
- 1916. Results of irrigation investigations. University of California Report of College of Agriculture and Agriculture Experiment Station, July 1, 1915 to June 30, 1916, pp. 46-47, 101-102.

Data on land settlement in California. Transactions of the Commonwealth Club of California, 11(8):375-396, November, 1916.

1917. Outstanding conclusions from an emergency irrigation survey of California by the College of Agriculture, University of California, cooperating with the irrigation investigations of the United States Department of Agriculture and the California State Department of Engineering. (With Elwood Mead). University of California Report of the College of Agriculture and Agriculture Experiment Station, University of California, 1916-1917, pp. 93-95.

Progress report of cooperative irrigation investigations in California, 1914-1916. 5th Biennial Report of State Engineer of California. pp. 167-174.

Irrigation districts in California, 1887-1915. California State Department of Engineering, Bul. 2, revised, 151 p. 1917.

Investigations of the economical duty of water for alfalfa in Sacramento Valley, California, 1910-1915. (With S. H. Beckett, W. A. Hutchins, O. W. Israelsen, and R. D. Robertson). California State Department of Engineering, Bul. 3, 78 p. 1917.

Extending the area of irrigated wheat in California for 1918. University of California Agriculture Experiment Station Circular 182. 4 p. 1917.

Irrigation districts in the United States. Proceedings of the 2nd Pan-American Science Congress, Vol. 3, pp. 162-168. 1917.

•

- 1917. Irrigation of orchards. California Citrograph, Vol. 2, No. 7, May 1917.
- 1918. Progress report of cooperative irrigation investigations in California, 1916-1918. 6th Biennial Report of State Engineer of California, pp. 56-69.

Some changing aspects of California irrigation. University of California Journal of Agriculture 5(8), May, 1918.

1919. Report of Reconstruction Committee, College of Agriculture, University of California. (With H. E. Van Norman and others.) University of California, Report of the College of Agriculture and Agriculture Experiment Station, July 1, 1918 to June 30, 1919, pp. 152-158.

Irrigation, in Suggestions to the settler in California. University of California, Agriculture Experiment Station Circular 210, pp. 33-35, March, 1919.

Results of irrigation investigations. Report of College of Agriculture and Agriculture Experiment Station, University of California, July 1, 1918 to June 30, 1919, pp. 47-48.

1920. Rice irrigation measurements and experiments in Sacramento Valley, California, 1914-1919. University of California Agriculture Experiment Station, Bul. 325, 69 p. 1920.

Irrigation. <u>California Primer</u>, published by <u>Los Angeles</u> <u>Examiner</u>, p. 72, January, 1920.

Foreword to use of water from Kings River, California. California Department of Engineering, Bul. 7, pp. 3-5. 1920.

- . .

• • • • • •

1920. Irrigation districts as a factor in California agriculture; their use as an agency in the reorganization of irrigation. Proceedings of the Utah Irrigation and Drainage Congress, 1917-1920, pp. 66-73.

Suggested plan of procedure for Sacramento Valley water development. Sacramento Union, Feb. 27, 1920.

Irrigation truths for California farmers. Sacramento Union, 1920 State Fair Annual, p. 44, September, 1920.

Arguments for and against irrigation bill (Senate Bill 493) on referendum. Transactions of the Commonwealth Club of California 15(5):266-267, September 1920.

California Irrigation development. Transactions of the Commonwealth Club of California, 15(7):331-336; 378-380, December 1920.

What shall result from the Antioch suit? <u>Pacific Rural</u> <u>Press</u>, 100(25):791, 794, December 18, 1920.

Results of irrigation investigations. University of California report of College of Agriculture and Agriculture Experiment Station, University of California, July 1, 1919 to June 30, 1920, pp. 45, 56, 57, 91.

1921. Report of cooperative irrigation investigations in California, 1918-1920. California Department of Engineering, 7th Biennial Report, pp. 103-138.

California irrigation progress. Pacific Rural Press 101(1):17, January, 1921.

Results of irrigation investigations. University of California, Report of College of Agriculture and Agriculture Experiment Station, July 1, 1920 to June 30, 1921, pp. 1-9.

Factors governing the future development of irrigation in California. <u>Citrus Leaves</u>, June, 1921.

1922. Irrigation investigations in California -- a resume of the activities of state and federal agencies. Orchard and Farm 34(1), January 1922.

Results of irrigation investigations. University of California, Report of College of Agriculture and Agriculture Experiment Station, July 1, 1921 to June 30, 1922, pp. 1-9.

Irrigation in California moving steadily forward. California Digest, Vol. 1, pp. 6-7, October 4, 1922.

1923. Farmer controls balance sheet by irrigation. San Francisco Chronicle, Progressive California Number, Vol. 100, March 14, 1923.

Pending irrigation and water legislation. Pacific Rural Press 105(13):388, March 31, 1923.

Results of irrigation investigations. University of California, Report of College of Agriculture and Agriculture Experiment Station, July 1, 1922 to June 30, 1923, pp. 150-159.

1924. Results of irrigation investigations. University of California, Report of College of Agriculture and Agriculture Experiment Station, July 1, 1923 to June 30, 1924, pp. 46-47.

Investigations of the water requirements of rice as measured at the field. Proceedings of the Sacramento River Problems Conference, pp. 57-62, January. Published by Sacramento Chamber of Commerce and Division of Water Rights, March, 1924.

Advances in California irrigation practice. California Cultivator, vol. 62, (4), January 26, 1924.

Duty of water studies in the Great Central Valley. 5th Biennial Report, California Department of Public Works, Division of Water Rights, pp. 140-160.

•

.

•

1924. Irrigation suggestions for a dry year. Pacific Rural Press, 107(11):370, March 15, 1924.

Report of cooperative irrigation investigations in California, 1922-1924. 2nd Biennial Report of the California Department of Public Works, pp. 86-101.

Duty of water investigations. Proceedings of the 2nd Sacramento-San Joaquin River Problems Conference, 1924. California Department of Public Works, Division of Water Rights, Bul. 4, pp. 18-20.

1925. Results of irrigation investigations. University of California, Report of Agriculture Experiment Station, July 1, 1924 to June 30, 1925, pp. 56-57.

Irrigation lessons from the drouth of 1924. California Cultivator, 64(22): 615, 631, May 30, 1925.

Water conservation for irrigation in California. California Cultivator, Vol. 64, No. 22, May 30, 1925.

1926. Water supply of Sacramento Valley. <u>California Cultivator</u>, 66(2):125, January 30, 1926.

Will southern California draw on northern California for more water? <u>California Cultivator</u> 66(5):134, 161, January 30, 1926.

Conserving and controlling western waters. Modern Irrigation, 2(1):11-12, January 1926. Also, 2(2):15, 24, February 1926.

Are we developing our irrigated areas too rapidly? Transactions of the Commonwealth Club of California, 20(9):375-388, November 25, 1926.

Results of irrigation investigations. University of California, Report of Agriculture Experiment Station, July 1, 1925 to June 30, 1926. pp. 72-75.

. - . .

•

•

1927. Results of irrigation investigations. University of California, Report of Agriculture Experiment Station, July 1, 1926 to June 30, 1927, pp. 79-82.

A constructive state water policy in sight. California Cultivator, 68(5):123, January 29, 1927.

Report of cooperative irrigation investigations in California, July 1, 1924 to June 30, 1926. California Department of Public Works, 3rd Biennial Report, pp. 56-65 in Report of Division of Engineering and Irrigation.

Irrigation development through irrigation districts. (With E. C. Eaton). Transactions of the American Society of Civil Engineering. 90:773-790, 1927.

1928. Results of irrigation investigations. University of California, Report of Agriculture Experiment Station, July 1, 1927 to June 30, 1928, pp. 84-87.

Water situation in California. <u>California Cultivator</u>, 70(4):93, 107. January 1928.

Agriculture in Palestine. <u>California Countryman</u>, 14(5) pp. 15, 21, January 1928.

Agricultural colonization in Palestine. (With Elwood Head, J. G. Lipman, A. T. Strakorn, Knowles A. Ryerson, and Cyril Q. Henriques). Reports of the Joint Palestine Survey Commission, pp. 11-65, October 1928.

Summary of economic data relating to Jewish agricultural colonies in Palestine. Appendix I. Report of the Joint Palestine Survey Commission, pp. 67-95, October 1928.

The agricultural situation in California; remedies and adjustments. (With R.L. Adams and C. F. Shaw) University of California Agriculture Extension, Circular 18, pp. 20-25, April, 1928.

1928: Discussion of "A National Reclamation Policy", Paper no. 1792. Transactions, American Society of Civil Engineers. pp. 1331-1335. 1928.

Irrigation Basic in California Agriculture. In Farming in California, published by Californians, Inc., 1928. pp. 44-49.

1929. Irrigation districts in California. California State Department of Public Works, Division of Engineering and Irrigation, Bul. 21, 420 p., 1929.

Results of irrigation investigations. University of California, Report of Agriculture Experiment Station, July 1, 1928 to June 30, 1929, pp. 83-86.

Outline of factors governing the economic feasibility of the proposed State Water Conservation Program. Report of Committee on Irrigation Economics, California Economic Research Council. 1929. (Mimeographed)

1930. Economic survey of certain federal and private irrigation projects. (With G. C. Kreutzer, Alvin Johnson, C. A. Lorry, Anson Marston, A.C. Cooley, J. W. Haw, and H. A. Brown). Hearings before the Committee on Irrigation and Reclamation, House of Representatives, 71st Congress, 2nd Session, pp. 23-66.

Economic survey of Orchard Mesa Irrigation District, Grand Valley Project, Colorado. Hearings before the Committee on Irrigation and Reclamation, House of Representatives, 61st. Congress, 2nd Session, pp. 159-181.

Economic report on Shasta View and Malin irrigation districts, Klamath Project, Oregon. Hearings before the Committee on Irrigation and Reclamation, House of Representatives, 61st. Congress, 2nd Session, pp. 181-201.

Data on use of surface and underground water, stream flow, storage sites, etc., in the United States and Mexico, Tia Juana River Basin. (With Armando Santacruz Jr., and J. L. Vavela). Report of the American Section of the American Section of the International Water Commission, 71st Congress, 2nd Session, House Document 359, pp. 79-84.

•

.

1930. Data on irrigated areas, stream flow, use of water, etc., in the United States and Mexico, Colorado River Basin. (With Armando Santacruz, Jr., and J. L. Favela) Report of American Section of the International Water Commission, 71st Congress, 2nd Session, House Document 359, pp. 85-93.

Progress report of special Colorado River investigations, June 1926, to April, 1927. Report of American Section of the International Water Commission, 71st Congress, 2nd Session, House Document 359, pp. 94-168.

Irrigation from Colorado River in Lower California. Report of American Section of the International Water Commission, 71st Congress, 2nd Session, House Document 359, pp. 159-177.

Report of inspection trip over Colorado River levee systems below Yuma, Arizona, September 17-19, 1929. Report of American Section of the International Water Commission, 71st Congress, 2nd Session, House Document 359, pp. 178-191.

Results of irrigation investigations. University of California, Report of Agriculture Experiment Station, July 1, 1929, to June 30, 1930, pp. 79-81.

The Farmer's interest in the state water conservation program. California Cultivator, 74(13):365, 383, March 29, 1930.

Irrigation investigations in California, Pacific Rural Press 119(13): p. 401, March, 1930.

Economic aspects of the State Water Plan. California Journal of Development, 20(4), April, 1930.

1931. Report of Section on water resources on the State Water Plan. Transactions of the Commonwealth Club of California 26(2):53-78.

Investigations and research in consumptive use of water. Los Angeles Section American Society of Civil Engineers 4(2):2-5, February, 1931.

• • • •

. . .

1931. Results of irrigation investigations. University of California, Report of Agriculture Experiment Station, July 1, 1930 to June 30, 1931, pp. 81-82.

Permissible annual charges for irrigation water in upper San Joaquin Valley. (With M. R. Huberty) California Department of Public Works, Division of Water Resources, Bul. 34, 89 p., 1931.

Report of the Land Settlement Committee of Land Reclamation Division, American Society of Agricultural Engineers, 1931. (With J. W. Haw, M. R. Lewis, W. A. Rowlands, George Sanford, David Weeks).

- 1932. Palestine agriculture. American Academy of Political and Social Science, Annals, v. 164:72-83, November, 1932.
- 1934. The value and cost of water for irrigation in the coastal plain of southern California. (With Martin R. Huberty) California Department of Public Works, Division of Water Resources, Bul. 43, 189 p., 1934.

Reclamation, Encyclopedia of the Social Sciences. Vol. 13: 160-164, 1934.

- 1935. Measures of a non-emergency character essential to the welfare of existing reclamation projects in the Western United States. (With R. W. Blackburn and W. W. McLaughlin) Proceedings of the Institute of Irrigation Agriculture, Fourth Water Users Conference, pp. 6-14, February 1935 (Mimeographed)
- 1936. Organizing districts under the Central Valley Project, California Cultivator, 11:389, 419, May 23, 1936.

Planning the use of our irrigation resources. Agricultural Engineering, 17(8):325-328, August, 1936.

Types of irrigation districts and irrigation district legislation in California (dittoed), May, 1936.

• • • • • •

• • •

.

- 1936. Resume of present status of underground water laws in California. January 1936. (Mimoegraphed).
- 1937. Organization and aims of the Institute of Irrigation Agriculture. Proceedings of the 6th Annual Conference, Institute of Irrigation Agriculture, pp. 3-5.

Letter of transmittal of Report of Rio Grande Joint Investigation in the Upper Rio Grande Basin in Colorado, New Mexico, and Texas, 1936-1937. (With Harlan H. Barrows.) Regional Planning, National Resources Committee, February 1938, Government Printing Office, 1938.

- 1938. California Soil Conservation Districts Act. Assembly Bill No. 31. (With W. W. Weir). Special session of California Legislature, March 12, 1938. 20 pages.
- 1939. Forests and other vegetation cover as related to runoff retardation and soil erosion prevention in flood control. Preliminary review by Flood Control Committee, University of California, College of Agriculture, June, 1939. (Chairman of Committee), 52 pages. (Mimeographed.)
- 1940. Principles relating to rights to the waters of surface streams. National Resources Planning Board, Sub-committee on State Water Law. May, 1940. 58 pages. (Mimeographed).
- 1942. Cotton irrigation investigations in San Joaquin Valley, California, 1926 to 1935. (With F. J. Veihmeyer and Lloyd N. Brown), California Agriculture Experiment Station, Bul. 668, 93 pages. 1942.
- 1944. The settlement of war veterans and other new farmers. Western Farm Economics Association, 1944, pp. 65-76.
- 1946. The historical background of California agriculture. California agriculture, pp. 1-50. University of California Press. 1946.

.

1947. Hydrologic aspects of burning brush and woodland grass ranges in California, (With Paul A. Ewing and Martin R. Huberty), California State Department Natural Research, Division of Forestry. January, 1947.

Water conservation and irrigation development, Section Report to Commonwealth Club, Transactions of the Commonwealth Club, XLII, No. 2, pp. 29-38.

Some irrigation aspects of proposed American River development, California Department of Public Works, 36 pages. June 1947. Supplemental report with reference to size of Folsom Reservoir of American River development, August 8, 1947.

- 1948. Some economic and agricultural aspects of the proposed Solano unit, Central Valley irrigation development, California Department of Public Works, Division of Water Resources, March 1948.
- 1952. Community organization for irrigation in the United States. Food and Agriculture Organization of the United Nations, Development Paper No. 19, Agriculture, October, 1952.
- 1953. Irrigation in California as viewed from the side lines. California Farm Bureau Monthly, 34(3):6, 18, March, 1953.

#### Unpublished Reports and Papers of Frank Adams

- 1903. The diversion of water for irrigation in typical sections of Platte River Basin in 1903 and some results of its use. 82 pages. (For Office of Experiment Stations, Irrigation Investigations, U. S. Department of Agriculture.)
- 1930. Economic report on San Joaquin Valley areas being considered for water supply relief under proposed California state water plan. (With David N. Morgan and Walter E. Packard.) 92 pages, November, 1930. (For Bureau of Reclamation.)
- 1934. Water rights and legal aspects of water resources in the arid and semi-arid regions of the United States. (In collaboration with Elwood Mead.) October, 1934. (For Water Resources Section, National Resources Board.)
- 1938. Study of water charges, Central Valley Project, California. (With R. V. Meikle.) 295 pages, November, 1938. (For Bureau of Reclamation. Not released by Bureau.)

,

# Commonwealth Club Activities and Reports re Irrigation and other Water Legislation and Policy

- 1. Swamp Land Reclamation, I, 4, 1904; IV, 5, 1909.
- 2. Regulation of Water Rights, I, 6, 1905.
- 3. Marketing Irrigation Bonds, VI, 8, 1911.
- 4. Conservation (Lands, Forests, Fuel, Minerals Other Than Fuel, Water Supply and Irrigation, Water Power,) VII, 2, 1912.
- 5. Water and Forest Bills, VIII, 2, 1913.
- 6. Water Commission Act, IX, 11, 1914.
- 7. Water Power and Irrigation, XV, 7, 1920.
- 8. Water and Power Act, XVII, 5, 1922.
- 9. Water and Power, XIX, 7, 1924.
- 10. Irrigation and Agriculture, XX, 9, 1925.
- 11. The Colorado River Problem, XXI, 2, 1926.
- 12. Swing-Johnson Bill, XYII, 7, 1927.
- 13. Salt Water Barrier, XXIV, 9, 1929.
- 14. State Water Plan I, XXVI, 2, 1931.
- 15. State Water Plan II, XXVIII, 3, 1933.

•

• • • •

. .

•

.

•

•

•

- 16. State Water Plan III, (Central Valley Project), XXVIII, 8, 1933.
- 17. Shasta Dam Power Distribution, XXXIV, 7, 1940.
- 18. Central Valley Project Power, XL, 5, 1946.
- 19. Water Conservation and Irrigation Development, XLII, 2, 1947.
- 20. California Water Inventory, XLIV, 1, 1949.
- 21. Fundamentals of California Water Policy, XLIV, 3, 1949.
- 22. Who Should Develop California's Water Resources for Water and Power? XLIV, 5, 1950.
- 23. Water Development--Federal, State, Local Fields? XLVI, 1, 1951.
- 24. Proposed California Water Plans, XLIX, 8, 1955.
- 25. Water Reservations for Areas of Origin, L, 3, 1957.

### PARTIAL INDEX

Abbott, Nathan 40
Adams, Amy Belle 147
Adams and Hollopeter, Lighting Fixtures 145-146, 149
Adams, Arthur L. 382
Adams, Catherine Swan 1, 3-5, 22, 24-26
Adams, David Hill 148
Adams, Edward Francis 1-26, 30, 35, 47, 57, 60, 62, 76, 150, 421-422, 443
Adams, Ernest L. 182
Adams, Evangeline 3, 6, 9, 26-28
Adams, Francis Edward 147
Adams, Mrs. Frank 72, 270, 358-359, 419
Adams, Helen 147
Adams, Katharine 6, 9, 26, 28-29
Adams, Marion 6, 9, 26, 28-29, 30
Adams, Ned 3, 5, 11, 26, 27
Adams, Thomas 2-3, 5, 148
Adams, Will 6, 9, 26, 29-30
Agricultural Extension Service 187-188
Aldrich, Morton 39
Alexander Commission of 1874 300
American Association of Agriculture Colleges and Experiment Stations 57
American Book Co. 6, 8

. . .

S. L. Jack

...

en , 18

• • • •

• • 

· · · · · ·

. 4 . . 

. . .

. ( . .

.... 

Section 1

V =0 . 11 . 1 . ...

## PARTIAL INDEX (cont.)

American Economics Association	53
American River Development	412
American Society of Agricultural Engin	eers 336-339
Anderson, Leroy	155-156, 267-272
Anderson, Melville Best	43
Anderson, W. E.	362
Andrews, A. H.	4
Angell, Frank	40
Anglo, London and Paris National Bank	146
Argonaut	63
Arkansas River Controversy	124
Armstrong	127-128
Army Educational Corp	277-281, 287
A. S. Barnes & Co.	6, 8, 25
Atascadero Project	168-169
Australian State Rivers and Water Supp	ly Commission 283
Babcock, Ernest	278
Bailey, Paul	306, 329, 375, 381
Bailey Plan	306
Bain, H. Foster	207, 215
Balfour Declaration	351
Balfour-Guthrie Project	382
Ballinger Investigation	188-189

.FG.\* 11 G (

### PARTIAL INDEX (cont.)

Ballinger, Secretary of Interior	197
Banks, Harvey O.	381
Bark	445
Barnes, Harry	218, 382
Barnes, John	393
Barr, Mrs. Percy M.	147
Barrows, David P.	284, 399-400
Barrows, Harlan H.	367, 370-371
Barton, State Engineer	325
Baum, F. G.	215
Baumgartner, J. P.	197
Beach, Lansing H.	362
Beatty, W. H.	204
Beckett, S. H.	160-161, 163, 182, 273
Belshaw, C. M.	21.5
Bent, Arthur S.	347 - 348
Berryessa Valley Project	400-401
Bioletti	15
Bissell, C. A.	394
Blackburn, R. W.	344, 346
Blanchard	279
Blaney, Harry F.	283
Block, A.	16

the first of the second • • • . . . 7 × • . . . . . ... -'a - - e • • • • • \* \* 4. er i g . . . . .

\*

### PARTIAL INDEX (cont.)

Bodman	410
Boggs, E. M.	67
Bolton, Jane	148
Bond Certification Commission	330
Bond, Frank	71
Bonte, Harmon	330-331
Bosley, W. B.	215
Bradley, Chris	48
Brentwood Irrigation District	382
Bridgeford Act of 1897	226-233
Briggs, Arthur H.	65
Brock, A. T.	231
Brown, J. B.	411
Brown, Lloyd	389
Browning, Laurie	148
Brush-burning Studies	408-412
Bryan, Everett N.	377
Burch, A. N.	215, 382
Burroughs, Spencer	377
Burt, H. G.	426-442
California Development Association	321-323
California Economic Research Council	323-331, 418
California Fruit Exchange	12-13

\• / / / ·

Survival and the state of the s

California Irrigation District Act 245,	247, 252,	254 <b>-</b> 257
California Irrigation Districts Association 236-237, 243-244, 246, 248, 30	on 1, 329, 33	31 <b>-</b> 335
California State Chamber of Commerce	32	21-323
California State Conservation Commission 171, 184, 192, 197-198, 202, 207, 209, 23	12, 216-22	2, 266
California State Farm Bureau Federation	190, 34	10-344
California State Grange	14, 34	11-343
California State Planning Board		327
California State Soil Conservation Commis	sion	388
California State Water and Power Acts	295, 30	9-314
California State Water Commission 174	, 211, 304	414
California State Water Plan	241, 306	381
California Water and Forest Association 20	64-65, 4-205, 223	194, 5, 227
California Water Council		335
Californian, Bakersfield		258
Call, San Francisco	21, 31-32	2, 167
Camp, W. B.		183
Campbell, Governor		349
Campbell, Douglas H.		37
Carey Act Developments	110-111	, 217
Cattle King, The		220
Central Canal	78	, 164

The second secon

to the contract of the contrac

 $v_{i}=v_{i}$  ,  $v_{i}=v_{i}$  ,  $v_{i}=v_{i}$ 

entre entre

The second secon

. ા

and to viving the common

Jacob State Community of the Community

for the state of the state of the state of

END LEADER OF THE PROPERTY OF

Central Irrigation District	78
Central Valley Project 110, 314, 334, 377-378 381-382, 394-406, 419-42	
Chamberlain, Will	11
Chandler, A. E. 192-193, 211, 215-216, 219, 224 231, 292, 349, 372-37	4, 73
Chittenden, Col. 43	35
Christianson, J. E. 176, 182, 185-18	36
<u>Chronicle</u> , San Francisco 21-22, 35-36, 54, 57-58, 73 75, 145, 42	l, 21
Clark, Harry 349-38	50
Cleaveland, Mrs. Newton	44
Cleaveland, Newton	44
Cogswell Polytechnical College 9, 2	79
Commonwealth, The	14
Commonwealth Club 194, 197, 200, 203, 205-209, 214 230-235, 245-247, 257, 283, 285-286, 294-295, 301-304 308-317, 328, 340, 342, 380, 418-419, 421-42	4,
Congressional Library, Washington, D.C.	73
Conkling, Harold	77
Connolly, Dr. 32	23
Collidge, Mrs. Dane	39
Coombs 44	45
Cooper, Aaron B.	5
Cooper, Levinia Whipple 1,	5

6 2

(. 3000) 4.1 1 1 1 1 1 The state of the s mi molfov i with The section was the • and • and • and the side of the side e : - e : -· • • • • • • 1 2 2 1 e comme . ... m with a range F. 141. and the state of the state of ST WALL STREET Experience of the control of the contr - 1 1 F . C · Carrier 

a march

L Claretonice

Cory, C. L.	380
Cosby, D. J.	72
Cottrell, Dr.	323
Council of Defense	273
Cowell, A. L.	215, 219, 237, 246, 332
Crittenden, Bradford	302
Cro che ron	187 <b>-</b> 188, 389, 39 <b>3</b>
Crocker-Huffman Land and Water	Co. 132, 242
Crothers, George E.	51-52
Crothers, Thomas G.	51-52
Cushing, O. K.	312
Cuttle, Francis	195-197, 209, 215
Daily Palo Alto	43, 49, 51
Davidson, L. C.	297, 301, 305
Davidson, Prof.	158
Davis, Arthur P.	100
Davis, Joseph E.	328
Davis, Margaret	148
Days of a Man	41, 45
Debler, E. B.	39 <b>5,</b> 398 <b>-3</b> 99
Delhi Settlement	287-293
Dennett, L. L.	230-231, 237, 245, 247

• • • •

2

ŧ,

em. u

•

e e

Dennis, J. S.					98
Denton, Walter B.					129
Dern, George H.					106
Deutsch, Monroe					422
Dewey, Admiral					74
De Young, M. H.					167
Dillon					234
Division of Experimental Irrigati	on				156
Dohrmann, Fred W.					65
Doneen	176,	180,	182,	185-	186
Doremus, A. F.					112
Douglas, G. R.					<b>3</b> 26
Dowd, M. J.					<b>3</b> 80
Drum, John S.					231
Drury, Aubrey					63
Drury, Newton B.					63
Drury, Wells				62	-63
Dudley, William R.					37
Duniwauy, Clyde A.					40
Durand, Dana E.			39,	161-	162
Durbrow, William					382
Durham Settlement				287-	293
Duryea, Edmund			231,	379,	382

1. 7

• 0 0 0 0 0 1 1

. . t.1.5

. Vi

• A common of the common of th

3 2 9 2 9 2 9 3

· dr e a l

en de la companya de

· of the second

a set Eddin assisting

Turker 'campride Company's

Dutton, W. J. 231
Early History of the Irrigation Division, College of Agriculture, U. of C. (With Some Side-lights) 20
Eaton, E. C. 329
Edison, Dr. 180
Edlefsen, Dr. 159, 176, 185-186
Edmonston, A. D. (Bob) 376-377, 378, 381, 400-404
Ellery, Nathaniel 231, 374
Ely, Richard 31
Engineering News Record 100
Engle Bill 405
Erb, Billy 48
Etch everry, Bernard A. 152-153, 193, 215, 224, 256, 381
Euphornia 50
Evans, Walter H. 72
Ewing, Paul 331, 409, 413-414
Fallbrook Case 81
Fairbanks, Douglas 349-350
Fairweather, John 248-249
Farmers' Alliance
Farmers' Marketing Agency 11-12
Favela, J. L. 364
Feather River Project 377
Federal Capital Issues Committee 274

t

man to the contract of the con

Statement for the second secon

en of a finite form

was the little of the 1860 to 1965 to

Federal Power Commission		295,	304,	320
Federal Farm Loan Act				263
Federal Flood Control Act				409
Fellows, A. Lincoln				456
Fetter, Frank A.				39
Fleishhacker, Herbert			146,	286
Fletcher, Leonard				337
Food Administration				273
Food and Agricultural Organization, U	nited	Natio	ons	413
Forestry, Bureau of				409
Fortier, Dr. 131, 141-143, 145-146 157, 159, 170, 178-179, 200, 256,	3, 149 265,	, 151 275,	-152, 383,	155 <b>,</b> 416
Fowler, Fred H.			215,	313
Free Silver Cause				38
Frick, Forrest		257	-258,	3 <b>3</b> 5
Friedlander, T. Cary				65
Frien				<b>3</b> 8
Fruedenthal, Louis			344	-346
Gage, Henry T.				78
Galloway, John D.	215,	231,	308,	379
Gidney, Ray S.				224
Givan, Vernon			185	-186
Glenn-Colusa Irrigation District	78,	165,	379,	<b>3</b> 82

----

Par Comment in the second y JA ilik . • em iii ٩ · · · · . . enter the second second • . . . . . . . . . . . . · PACTION τ, ε τ · L. Jahr . Walle L. Contract of the state of the st . .

Glick, Phil						373,	388
Goebel							37
Goldwyn, Sam						348	-349
Grange, California State					14	, 341	-343
Grange, Highland						1	4-15
Grange, National							342
Grant, Eugene L.							383
Green, Will S.						7'	7 <b>-7</b> 8
Green, R. L.							37
Greene, Samuel H.							314
Griffin, August						137,	382
Griffin							37
Griffin, P. H.							246
Grover, N. C.							369
Grunsky, C. E.	60,	67,	207,	215	, 231	, 378	-379
Grunsky, Herman					46,	193,	294
Haehl, Harry L.						379	-380
Hall, Mrs.							119
Hall							40
Hall, Wm. Ham. 60,	61,	67,	142,	201	-202,	226,	378
Hallman, H.							32
Harding					153,	275,	381
Harper, Sinclair O.				314,	368,	370,	403
Harrell, Alfred							258

Control of the Contro

4...

fizeo.

c. arric.

and or washing to the second s

· · · · · ·

• • • • • • • •

was of the control o

• • •

The contract of the second

· 10 m e 15 m

Harri son, George		183
Hathaway, W. L.		231
Haw, John W.		346
Hawley, George		377
Hayne		15
Hecke, George		273
Hendrickson, Prof.	159, 176,	182
Henriques, Cyril Q.		360
Henry		20
Herminghaus		219
Hersey, Philo	1	2-13
Hichborn, Franklin	62,	30 <b>3</b>
Hicks, John		29
Highland Grange	14-15,	341
Hilgard	14, 150,	322
Hill Cary		325
Hill, Louis C.		<b>3</b> 80
Hill, Raymond	380	-381
Hilmar Colony		139
Hodghead, Beverly L.	221	-222
Holley, Carl		397
Hollister Irrigation	District	<b>3</b> 82
Holman, Alfred	31-34, 6	1-64

```
,
                                    Dr. F. T. Live
                                     · 10 16 16 17 18
1 1 2
                                      Line L. Colorell
                                               or tr
12 7 . 1
                                      Britis L . Witte
.....
                                  . . . . . . olako.
West.
                                  722.
                                         Distrib. Charles
The same of
                                       ofter, cutto
· .
                                   rilande . Manaria
                                        man e jamot.
- . E
                                     Entro Charles Bita
+ , c , c , c
Cil
                                      .0 ..... ...... 0.
                                      buranad . II.
, we , 3,1
                                       filmar Golory
                                 . Liet . Tes when
1
                                       folley, thel
                          car to a defice
                                      laman, alfrer
a real greatman
```

, . Jano, Aden - Tra

Holmes, Bill	377
Holtzinger, Henry	377
Homans, G. Morris 215, 221	-222
Homestead Act 103,	438
Hoover, Herbert	350
Horsburgh, James	57
Hotchkiss, Willard E. 325	-326
Howard, Burt Estes	9-40
Howard, George Elliott 40, 5	3-54
Howe, Captain Stanley	278
Huberty 180-182, 186, 287, 396, 409-411, 413,	417
Hunt, Thomas F. 55, 155-157, 189-190, 284	-285
Hutchins, Wells 236, 383-385,	413
Hutchinson, Lincoln	<b>3</b> 9
Hutchison 181, 186, 386, 389, 393,	410
Hutton, George H. 194	-195
Hyatt, Edward 306, 331, 376-377, 381, 389, 393, 404	402, 410
Hyde, Charles Gilman	215
Imperial Irrigation District	380
Institute of Irrigation Agriculture 343	-347
Intercollegiate Debating Committee	50
Interstate Water Rights	124

GO WOLL FOR TO I DE THE

property of the second of the second

IN CLULP IN THE SECOND OF THE INC.

intercollist by the state that

. 71 olts" , man; 3 / Cardon 19. francisco estada The Contract of the Contract o Talla goodstayer a di di e carre October 1980 . The 1:00 e contractors of the \* .... in the second at the same and a and the second of the second of the second m was a signific Losel, thois. · e: e e l e · ... - . E. L. D. M. . and land war , [...,] the said of the sa

٠.

UK.

7- 4

Irrigation Bond Certification Commission Act 234-235
Irrigation Census 161-163, 184, 395
Irrigation District Bonds 229-236
<u>Irrigation Institutions</u> 82
Irwin, Wallace 48
Irwin, Will 48
Isrelsen, 0. W. 185
Jaffa 15, 57
Jepson, W. L. 215
Jewett, Hugh 257
Johnson, Alex 388
Johnson, C. R. 222
Johnson, Hiram 62, 192-193, 216, 230-231, 285
Johnston, Clarence T. 129, 179-180, 185-186, 444
Johnstone, William A. 216
Joint Palestine Survey Commission 352-361
Jones, Senator Herbert 270
Jones, Jenkin W. 182
Jones, William Kerr 284
Jordan, David Starr 27, 36, 40-41, 43-45, 47-48, 53-55, 204, 301
Kahn, Julius 76
Kaupke, Charles L. 382

#### 1. 'a ) X30.1 d . . 4

religion to a Constant and the constant of the constant www.e.e.e.e EDAN DO TE TE TEL. B. H. B. M. SELT W. A. S. J. 0.00 1 > sous'illy . E ... La CH . The • • • • • • • • • • • • • • 5° 23 11 M = 1 • 65 00 - 2 - L 1 at the second of the salidard of the te .. .... famous surviewes .assets . . . acm., der in ... 1.80 100 8, ALLE A 101  $\Delta C_{ij}$ cordan, said de e e e e e e e ch' die . min A ... . 2011 4 , 740 12 ,

Kellogg, Vernon L.	37
Kendrick, Charles H.	286-287
Kern County Land Co.	255, 379
Kern River Water Storage District	255-260
Kidd, A. M.	215, 284
Kidd, Milton	335
	266, 382
Kieffer, Stephen E.	·
King, F. H.	71
Kingsbury	279
Kittredge, J.	410
Knowland, Joseph R.	63
Kreutzer, George	284, 291
Kuhn Project	163-166, 167, 237, 274
Land Settlement Act	280, 283-287, 300
Land Settlement Committee	3 <b>3</b> 8
Lands of the Arid Region	88, 90-91
Lane, Franklin K.	23, 300
Langdon, Wm. H.	288
Langworthy, C. F.	72
Lathrop, H. B.	40
Lawson, Lawrence M.	366
Leasing of State Owned Grazing Lan	430-432, 436-437, 439-441
Lee, Charles H.	294, 313, 380

( • # 200 ) - 221. \_\_\_ 1 = 1

The second of th

era i a star i a star

the state of the s

Lewers, Prof.	40
Lewis, E.G.	168-169
Lilienthal, Phil	146
Lindsey	279
Lindsey-Stratford Irrigation District	382
Lipman, Charles B.	207
Lipman, Jacob G.	359-360
Lippincott, J. B.	380
Little Landers' Colonies	109-170
Lobbying	74-75, 77, 79, 172
Los Angeles Chamber of Commerce	347-350
Loughridge	15
Loveland, Chester H.	276
Lubin, David	359
Lynch, James K.	231
Lynch, Robert Newton	321-322
Madera Irrigation District	382
Madera Canal and Irrigation Co.	132
Major	155, 271
Marshall, Louis	352, 359
Marshall Plan	294-308, 375-376
Marshall, R. B.	296-308
Martin, Irving	216

, ....

0.4

• \* / / / / / / / 1 1 1 1 1 1 , -+ 1 , • I a to the first term of the second s \* 21. 1.0 · da ta ...a i 1.0-3 nusõ 4 7 w en en . الما فيكيد · · · · · · · · · · · · · 335-1 · The second secon . " The fall of the Control of the Contr ... 1247 £5° , 00 1101 . LA 12. Sh • nid Listrad . - . 

mitte, ar ista

Marx, Charles D.	27, 67, 204
Mathew, Raymond	377
Maxwell, George H.	80-82, 95, 98-102, 423-427, 435, 439, 442, 445-446
May, D. W.	72
McAllister	439
McClure, W. F.	215, 238-239, 245-246, 248, 289, 325, 329, 374-376, <b>3</b> 81
McCormick, E. O.	305
McGovern, Walter W.	383
McGuire, James A.	65-66
McHendrie, A. W.	372-373
McLaughlin, Walter W.	159-160, 344-345, 347, 369
Mead, Elwood 20, 59-6 94-113, 125-130, 131, 1 214, 223, 278, 283-286, 2 360, 362, 383, 394,	64, 67-72, 75, 78, 82-88, 91-92, 143, 149-153, 179, 192, 203-204, 288-291, 293, 301, 351-352, 359-402-403, 407, 426-442, 444-446
Meikle, R. V.	140-141, 382, 395-397, 399-400
Merced Irrigation Distric	ct 242-243, 264, 375, 379
Mercury, San Jose	62, 268
Merritt, Ralph	274
Metcalf, Victor H.	76
Meyer, Carl	377
Meyer, Henry G.	231

6. 2

(\* Shirthy Ar ing a garden

· tase · · ·

in the state of th

・ Cotoly , instru

In Inches

e e granding fundament

Miller, Adolph	224			
Miller and Lux	218-219, 255			
Mills, James Jr.	166, 274			
Mills, James	165-166			
Mills Orchard Co.	165-166			
Minard, Duane E.	372			
Mining and Scientific Press	32-33			
Modern Farmer in his Business Relations, The	<u>9</u> 17-20			
Modesto District Investigation	131-141			
Modesto Irrigation District	230, 382			
Mondell, Frank	75			
Morgan, David M.	394, 396			
Morley, Agnes	44			
Mormon Settlements in Utah	115-124			
Morris, Samuel B.	382-383			
Moses, Bernard	45			
Mulford, Walter	207, 294, 410			
Nairs, L. A.	167-168			
National Appropriations for Construction of Irrigation Reservoirs 432-439, 441-442				
National Farm Bureau Federation	342, 344, 346			
National Farmers Union	342			
National Grange	342			

of the office of Party and all the according

0 1. . 200.532

andopa, . Land 255 . . . e was 4 c 1 l 4 . 8 . . . Same and the contract of and the second s 1 1-5-25 · • · the state \*\*\* e en la financia de la financia del financia del financia de la fi • • • • • • • • 4 • late of I Aperen, London 10 mitorname los interest

-- • • • • • •

487

National Irrigation Association			80
National Irrigation Congress			80
National Reclamation Association	06,	335,	385
National Resources Committee			367
National Resources Planning Board 3	67,	373,	416
Needham, J. C.			131
Nelson, DeWitt			409
Nevada Irrigation District 240-2	41,	379,	382
Newcomer, A. G.			40
Newell, F. H. 81, 95,	97-	102,	204
No Life for a Lady			44
Norboe			215
Norris, Senator			407
North, John G.	194-	196,	205
Oakdale Irrigation District 228-2	29,	332,	382
O'Connor, Joe			50
Olmsted, F. E.			222
One Hundred and Sixty-Acre Limitation 83, 1	.03,		<b>33</b> 9, 4-406
Oregonian, Portland		3	3-34
Orland Project			382
Ormsby, Herbert F.	323,	325	-326
O'Shaughnessy, M. M.			301

1. . .

and the second of the second o

the willing in a second of the second of the

The state of the s

Outlines of Economics	31
Pacific Rural Press	31-32, 34, 36, 57
Packard, Walter E.	279, 281-282, 394
Page, John	398
Palestinian Colonization	351-361
Palestine Economic Corporation	414
Pardee 192-200, 203, 209	9-211, 213, 215, 217, 221
Parker, Carlton H.	28 5
People's Place	29
Perkins	377
Perkins, Senator	445
Pickford, Mary	349
Pillsbury, Arthur	185-186
Pinchot, Gifford	81
"Plain Talks With Farmers"	21
Plat te River Investigation	124-131
Powell, John Wesley	81, 88, 90-91
Powers, Harry H.	39
Pratt, M. B.	222
Pyle, Fred D.	382
Range Committee	177
Reclamation Act of 1902	30-84, 103-111, 262
Reconstruction Finance Corporati	on 236, 345

4

Ander C) Killia La

The second of the second of the • Jan 1 , 1 6:15 34

fi (1) Chrotica La Lura Co.

· Later for it

10 14 2 W 1 Sq 1 1

1 3

Established Francisco

the total 1 2 2 2 ...

a factorial and

12 12 , 6...09

· Van. . 1. 04

. · Eer . of 74

Bols on 100 Stark

the and during the souther

ett undt dien dien te

-1 

and the second of the second o

Est to the

7, 111- 1,48- 3

50.

Reed, Charles Wesley	206,	215, 322
Reid, William T.		30
Rendtorff		37
Reynolds, Jackson		40
Ricca, Mark L.		207
Richardson, Governor		290
Rio Grande Joint Investigation		367-373
Riparian Rights		218-220
Robertson, Harrison S.		327
Robinson, Henry M.		323-324
Rockwell, W. L.		380
Roeding, Fred W.		154, 160
Rogers		37
Rohwer, Carl		143
Roosevelt, Theodore 73-76, 83-84, 91-97,	104,	197, 206
Ross, D. W.	163,	217, 237
Ross, Mrs. E. A.		15, 31
Ross, E. A. 15, 17, 36-39	, 43-	44, 52-55
Roth schild Colonies	354	<b>-</b> 355, 358
Rothschild, Baron Edmond de		351-352
Rothschild Foundation		352
Ryerson, Knowles	278,	351, 360
Sacramento Valley Irrigation Co.		164-165

• • - • F.,

3

5

es e esta esta e esta e esta e esta e , ,

ę . . . .

he ether e 6. 1 - 1.3

a three to David & ا ما الله الله الله الله 2210

A B Saber . The same .

ed to the

> • \* • . . .

> > • • • • •

• • • • • • • . r. 2 .. .. . a section of

> and the street of al or the

to It was a substitution of the substitution o

Comments Waller West Side Complete		164-165
Sacramento Valley West Side Canal Co.		
Salt River Project		108
Samson, Admiral		74
Sander, Gordon		377.
San Joaquin Water Conference		276-277
San Jose Grange		341-343
Santa Clara Fruit Exchange		12-13
Santa Clara Valley Water Conservation I	District	265 <b>-</b> 270, 379
Sauer, Carl		<i>3</i> 7 2
Schley, Commodore		74
Schmidt		37
"Schoolbook Trust"		8
Schulte, John I.		72
Schuyler, James D.		67
Schwartz, Charles E.		49
Scobey, Fred	201, 370,	376, 383
Scott, Harvey		33-34
Seavey, Clyde	79,	310, 312
Sehlmeyer, George		342-343
Sevier River Investigation		122-124
Sha w		183
Shields, Peter J.		155

### . tars) Aire

\* of a ... I dear told ! Undoedt. ... . . . . Seat Alver Project notation . Is in 17 - 71 5 - 1 - 12 - 1 a salation of the 2.7.00 was not a literate state , j; -, .. .. ... 1 2 2 2 514. E-10. 0 . - 01 02 " jum Wall to the " • . 7 3.17 . 7 1.7 1.00 . Ital , it is on Sequipped to the sequence Seel , Harvey Satisfier . 1900 to the state of and a comment of Commence of I a visit in the ... • 10 La J T 2 g . . . . . . . . . . . .

Shinn, A. L.				215
Short, Frank H.			204,	206
Shoup, Paul				320
Simpson, Russell				377
Smith, Bert L.				314
Smith, C. B.				72
Smith, Emery				57
Smith, Joseph F.				117
Smith, Mary Roberts				39
Smith, Roy			292	-293
Smythe, William E.		68	, 169	-170
Soil Conservation Act				<b>3</b> 86
Soil Conservation Service	160,	<b>3</b> 86	-393,	409
Soil Erosion Service				386
Solano Irrigated Farms Project			167	-168
Solano Unit Irrigation Studies		400	-402,	413
Soule, Prof. 6	7, 69.	-70,	150,	204
South San Joaquin Irrigation District	228-2	229,	231,	332, 382
Spozio, Arturo				28
Spreckles, Rudolph			309,	312
Stabler, Harry				77
Stafford, Harlowe M.			369,	377
Stahl, Elmer				314
Standish, Miles			215,	222

The War of the Control of the Contro

eca jooli

81023 500 8. J & Sate Low , the The state of the state of • • • • • • • 5. 20 1 . 1 . 1 . 1 • • • • • • • • • L A D HERE ot ) 'z + J 12 3 . MD. • • • • • • • • • • • • 71 e 1 3 5 W Level garage lais. dd-r 1, make the second • • • • • • • . and the Same was

Teele, R. P. 112, 129, 161
Teller, Senator 442
Terrabella Irrigation District 382
Thomas, William 65, 205, 215, 223
Tibbetts, Fred H. 265-267, 270-271, 294, 379
Times, Los Angeles 349
Transactions, Commonwealth Club 208, 216, 313, 328
Treadwell, E. F. 215, 218-220
Tribune, Oakland 63
Tri-Counties Project in Nebraska, 1935 406-408
True 59, 70
Trumbull, Grace 322
Turlock District Investigation 131-141, 382, 395
Union, Sacramento 62
United Nations Food and Agricultural Organization 413
United States Army Educational Corp. 277-281, 287
United States Chamber of Commerce, Western Division 318-321
Van Etten, P. H. 377
Veihmeyer, Prof. 159, 176-177, 180-182, 185-186, 274, 340, 409-410, 417
Virgin River Investigation 113-122
Vista Irrigation District 382
Vitteles, Harry 361
Waddell, T. B. 377

are inside in acrimation in

to the little little get in District attent

eelb, .. . 00 1 = 1 , 100 0 0 w. 25 THE HOUSE HE STORY 3 3 • 5 2 4 4 4 1 1 1 1 ASID I WARE . TO was a second of the second -1- 1 x -1- 1 -1-and things to the bush SUMMERSON ELL. -0 . January Land Land the second of th - Chargesille. 

e- 4

\_ ' •• ', '

9-5

Wadsworth	444
Wagner, Walter	243, 329, 335
Walcott, Earle	207
Walker, Harry B.	158, 411
Walter, R. F.	395, 406
Walton, B. F.	12
Wantrup	411
Ware, Allison	312-313
Warner, Amos G.	<b>3</b> 8
Warren, Earl	401
Warren, Francis E.	74-75, 83-84, 87
Water and Forests	151, 154
Water Commission Act of 1913	209-216
Water Economics Committee	334
Waterman, Governor	60-61
Water Storage Act	<b>256-257</b>
Watson, Max	270
Webb, Attorney General	321
Weeks, David	323-324, 326-327, 337
Weir, Walter	183, 386-387, 389, 410
Wendling, G. X.	222
Western Water News	334
West Stanislaus Irrigation Distri	ct 263

,

· Tancy A. E.

acti, . . the

GI The grown of the

• •

• و - <sup>د ا</sup> المار ا

\*

of in deal

to a series of the

7. C. 3.5.

J. T. War and the Control

. . . lii

Life of the control of the

the same of the same

e 1<sup>20</sup>

4

,

Wheeler, Benjamin Ide		67 - 68	, 14	9-150,		153, 5-284,		
Whitney, Milton						٤	81-82	S
Whittier, Clark B.							40	)
Wickham, Margaret						0	37	7
Wickson						15,	150	)
Widtsoe, John A.							319	)
Wiel, Samuel C.					138,	219,	231	L
Wienstock							316	ŝ
Wilbur, Ray Lyman							301	L
Wilcox E. V.							72	3
Williams, W. R.						231,	319	)
Wilson, Edgar M.						288,	290	)
Wilson, Ernest							42	3
Wilson, J. M. 64,	66,	68-69,	77,	98, 1	42,		161, 265	
"Winning of Barbara Wo	rth"					347	-350	)
Winslow, John Kenelm							1	-
Winslow, Kelemn							1	
Wise, James H.							207	,
Woodson							169	)
Woodworth							257	,
Woodworth						15,	257	,
Wooley							121	

ÿ

All Communications of the action of the communication of the communicati the state of • Latinite . the state of the s . . 1 1 • ... 's • (1" d. · . , a<sup>80</sup> - 1 • • • • ٠. ٠ then to the state of the contract of the contr aut b , coluitin winslow, McLand

almalow, dominational Relication with a second seco

L.L. Velous

Works Bill 204-205, 209
Works, John D. 204
Wright Irrigation District Act of 1887
80-81, 138, 223-227, 229, 231, 236-237, 242, 248
Young, C. C. 376

Young, John P. 145

Young, Walker 382, 295, 397-399

Zion, E. R. 231

Zionist Colonization in Palestine 351-361

## (. Jaco) A. U.L. & ... 5

6 ( = ).		U . a de do
uk i çüw —		Porks sill
Aug		• របស់៤ • ភ័ព ភ
ફ્રાંગેનલેઇ ફ્રોડ આપ્યો ફ્રીક્રેક્ટર્સ માર્ચિક્ટર્સ	$\frac{1}{\sqrt{2}} \frac{1}{\sqrt{2}} \frac{1}{\sqrt{2}$	in a difference of the second
573		YORU,
in the state of th		• COLLEGE TOTAL
		Called Marie
رين مان مان		· · · · · · · · · · · · · · · · · · ·
Company Company	the state of the state	Montat Jolomias

Page Ten 1/27/67 • THE DAILY CALIFORNIAN •

## Frank Adams, Prof Emeritus, Dies at 91, Irrigation Expert

Frank Adams, professor emeritus of irrigation, died Wednesday at the age or 91 at his home in Berkeley.

He retired in 1945 after spending 29 years here and at the Davis

campus.

From 1916 to 1936 Adams was head of the Division of Irrigation Investigations and Practice in the University College of Agriculture.

He also served as irrigation economist both in the University's Agricultural Experiment Station and in the Giannini Foundation of Agriculture Economics.

In 1947 Adams received the John Deere Gold Medal for outstanding achievement in agriculture awarded by the American Society of Agricultural Engineers.

He was awarded an honorary degree of Doctor of Laws by the . University at the 1949 Charter Day exercises here.

Adams was characterized at that time by University President Robert Gordon Sproul as "a ploneer in the application of engineering and economics to the problems of agriculture on semiarid lands" and as "skillful in organizing farmers and drafting legislation for the development, distribution, and use of water in the West."

He is survived by four children, Mrs. Helen A. Barr of Berkeley, Francis E. Adams of Monte Sereno, David H. Adams of Los Gatos, and Thomas C. Adams of Portland, ten grandchildren, and two great grandchildren.

Memorial services will be held at 11:00 a.m. this Monday at the Chapel of the First Congregational Church of Berkeley, Dana and Durant Avenue.

# Professor Frank Adams Dies at 91

Frank Adams, emeritus professor of irrigation at the University of California at Berkeley and one-time agricultural advisor to the Palestinian Government, died in his Berkeley home yesterday. He was 91.

A memorial service will be held at 11 a.m. Monday in the First Congregational Church of Berkeley, Dana and Durant avenues.

Professor Adams, a native of Illinois, was a son of Edward F. Adams, onetime editorial writer for The San Francisco Chronicle and a founder of the Commonwealth Club of California.

He was a 1901 graduate of Stanford University and was awarded a master's degree from the University of Nebraska in 1906.

Professor Adams joined the UC faculty in 1916 as head of the Division of Irrigation Investigations and Practice in the university's College of Agriculture.

He served as consulting engineer and ceonomist for the Federal Bureau of Reclamation between 1926 and 1940, and in 1927 went to Palestine as a member of that country's Advisory Committee on Agricultural Colonization.

Professor Adams was the recipient in 1947 of the John Deere Gold Medal for achievments in agriculture. He was awarded an honorary degree of doctor of laws and letters by UC in 1949.

Ile is survived by a daughter, Ilelen A. Barr of Berkeley; by three sons, Francis E. Adams of Monte Sereno, David H. Adams of Los Gatos, and Thomas C. Adams of Portland, Ore.; by ten grandchildren and by two great grandchildren.

. 9 •













