
APPENDIX

Document No. 1.

IN THE ASSEMBLY.]

[SESSION OF 1854.

ANNUAL REPORT

OF THE

TREASURER

OF THE

STATE OF CALIFORNIA.

[GEORGE KERR, STATE PRINTER.

REPORT.

STATE TREASURER'S OFFICE, }
Benicia, Dec. 15, 1853. }

To His Excellency, JOHN BIGLER,
Governor of the State of California—

SIR :

In conformity with "An Act concerning the office of State Treasurer," approved January 24, 1850, the following Annual Report for the Fiscal Year, ending June 30, 1853, is herewith respectfully submitted.

Your obedient servant,

RICHARD ROMAN,
State Treasurer

RECEIPTS INTO THE STATE TREASURY DURING THE FISCAL YEAR ENDING JUNE 30, 1853.

FROM WHOM RECEIVED.	3 PER CENT. BONDS.	INTEREST.	WARRANTS.	CASH.
1852, June 30, Balance in the Treasury, - - - -	\$9,900 00			\$32,198 81
July 2, Treasurer of Yuba county, - - - -				1,691 84
" 5, " Santa Cruz county, - - - -				146 30
" 7, " San Francisco " - - - -	10,575 00	\$8,274 00		15,544 62
" 7, " Santa Barbara " - - - -				401 80
" 7, " Sacramento, " - - - -				2,578 89
" 8, " Placer " - - - -				2,152 32
" 10, Commissioner of Emigrants, - - - -				12,008 00
" 12, Treasurer of Siskiyou county, - - - -				459 25
" 22, " Placer " - - - -				1,446 41
" 23, " El Dorado " - - - -				3,030 25
" 23, " San Luis Obispo county, - - - -				583 50
" 26, " Sutter " - - - -				737 01
Aug. 4, Commissioners of Emigrants, - - - -				24,177 50
" 11, Treasurer of Los Angeles county, - - - -				1,728 00
" 24, " Monterey " - - - -				422 27
Sept. 1, " Placer " - - - -				2,308 25
" 8, Commissioners of Emigrants, - - - -				12,996 00
" 16, Treasurer of San Joaquin county, - - - -				3,040 79
" 17, " Solano " - - - -				570 26
" 20, Secretary of State, - - - -				310 00
" " Comptroller of State, - - - -			\$235 00	
Oct. 4, Treasurer of Yuba county, - - - -				3,164 83
" 8, Commissioner of Emigrants, - - - -				1,977 90

RECEIPTS INTO THE STATE TREASURY—CONTINUED.

FROM WHOM RECEIVED.				3 PER CENT. BONDS.	INTEREST.	WARRANTS.	CASH.
1852, Oct. 9,	Treasurer of Santa Clara county,	-	-	\$100 00	\$93 80		\$1,890 09
" 15,	" San Francisco county,	-	-				4,178 67
" 16,	" Colusi "	-	-				38 93
" 16,	" Colusi "	-	-				1,139 93
" 18,	" Tuolumne "	-	-	100 00	36 00	600 00	4,460 12
" 18,	" Tuolumne "	-	-				3,024 40
" 20,	" Contra Costa "	-	-				2,480 00
Nov. 1,	" Sutter "	-	-				500 00
" 8,	Commissioner of Emigrants	-	-				5,049 25
" 16,	Treasurer of El Dorado county,	-	-				10,395 50
" 18,	" Placer "	-	-				10,584 89
" 20,	" Trinity "	-	-				766 65
Dec. 9,	" Sacramento "	-	-				12,078 40
" 10,	Commissioner of Emigrants,	-	-				1,258 75
" 15,	Treasurer of San Joaquin county,	-	-				10,398 09
" 15,	" San Francisco "	-	-	1,025 00	975 57		27,480 30
" 15,	" Tuolumne "	-	-				3,250 00
" 21,	" Contra Costa "	-	-				6,679 40
" 22,	" Monterey "	-	-				5,399 28
" 22,	" Shasta "	-	-				429 27
" 24,	" Placer "	-	-				1,307 08
" 28,	" Klamath "	-	-				549 62
" 29,	" Nevada "	-	-				8,405 99
" 31,	Secretary of State	-	-				200 00

1853, Jan.	3,	Treasurer of Sutter county,	-	-			\$1,514 00
"	3,	" El Dorado county	-	-			6,427 11
"	4,	" San Luis Obispo county	-	-			769 63
"	5,	District Attorney of Sonoma,					3,782 95
"	6,	Treasurer of Butte county,		-	100 00	99 00	3,092 73
"	6,	Commissioner of Emigrants,		-			612 75
"	10,	Secretary of State,	-	-			302 00
"	10,	Treasurer of Santa Barbara county,	-	-			3,028 54
"	17,	" Sonoma "					4,665 58
"	17,	" Marin "					3,014 68
"	20,	" Yolo "					780 48
"	20,	" Yolo "					3,795 53
"	20,	" Calaveras "					4,000 00
"	25,	" Tuolumne "		-			2,000 00
"	28,	" San Diego "	-	-			595 11
Feb.	1,	City of San Francisco, per Commissioners Funded Debt,					10,000 00
"	3,	Commissioner of Emigrants,					2,403 50
"	3,	Treasurer of Mariposa county,	-	-			6,091 28
"	4,	" Napa "		-			1,725 00
"	14,	" Los Angeles "	-	-			7,626 53
"	14,	" Calaveras "	-	-			5,870 96
"	16,	" Siskiyou "					2,943 02
"	28,	" San Francisco city,			3,575 00	3,424 19	5,113 31
"	19,	" El Dorado county,	-	-			3,682 66
March	3,	Commissioner of Emigrants,	-				4,916 25
"	4,	Treasurer of Solano county,			100 00	96 20	3,963 49
"	5,	" Napa "	-	-			760 00
"	11,	" Yuba "					8,084 68
"	11,	Secretary of State,					180 00
"	14,	" "					65 00

RECEIPTS INTO THE STATE TREASURY—CONTINUED.

FROM WHOM RECEIVED.				3 PER CENT. BONDS.	INTEREST.	WARRANTS.	CASH.
1853, Mar. 15,	Treasurer of Tuolumne county,	-	-				\$5,600 00
" 15,	Comptroller of State,	-	-			\$265 00	
" 22,	Treasurer of San Joaquin county,	-	-				1,746 15
" 26,	City of San Francisco, per Hiram Pearson,	-	-				1,312 50
" 29,	Treasurer of Sacramento county,	-	-				3,320 07
" 31,	" Trinity "	-	-				436 93
April 2,	" Calaveras "	-	-				800 00
" 5,	Commissioner of Emigrants,	-	-				3,595 50
" 7,	City of San Francisco, per D. W. Conelly,	-	-				212 50
" 8,	" " " " Commis'rs of Funded Debt,	-	-				7,000 00
" 13,	Treasurer of El Dorado county,	-	-				3,500 00
" 22,	" Solano "	-	-	\$225 00	\$254 68		2,312 56
" 29,	City of San Francisco per Commis'rs of Funded Debt,	-	-				8,267 95
May 5,	Commissioner of Emigrants,	-	-				6,718 50
" 10,	Treasurer of San Francisco county,	-	-	600 00	624 00		17,195 88
" 20,	" Placer "	-	-				9,000 00
" 20,	City of San Francisco per Commis'rs of Funded Debt,	-	-				2,300 00
June 1,	Treasurer of Napa county,	-	-				841 47
" 1,	Commissioner of Emigrants,	-	-				4,834 80
" 9,	Treasurer of Marin county,	-	-				283 70
" 10,	" Contra Costa county,	-	-				600 20
" 13,	Secretary of State,	-	-				99 20
" 20,	Treasurer of Sonoma county,	-	-				806 66
" 20,	" Nevada "	-	-			186 00	7,230 99

1853, June 21, Treasurer of Shasta county, -	-	-				\$2,178 88
" 21, " San Joaquin county, -	-	-				935 22
" 22, " Yuba " -	-	-			\$1,279 00	3,892 32
" 23, " Tuolumne " -	-	-				1,400 00
" 23, " Butte " -	-	-	\$100 00	\$106 30		3,153 39
" 29, " Siskiyou " -	-	-				1,599 18
" 29, Commissioner of Emigrants, -	-	-				5,337 00
" 30, Treasurer of San Diego county, -	-	-				3 80
Received for Bonds issued Act April 29, 1851, -	\$41,500 00					
Issued Act May 1, 1852, -	-	1,052,500 00				
Land Warrants issued, -	-	337,120 00				
Treasurer's Certificates issued, -	-	22,529 08				
Small Balances due on Warrants for which no Certificates were issued, -	-	92.				
		\$1,353,050 00	\$26,400 00	\$18,984 04	\$2,565 00	\$454,135 61
Total, \$1,850,734 65.						

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PAYMENTS OUT OF THE STATE TREASURY DURING THE
FISCAL YEAR ENDING JUNE 30, 1853,

Paid out of the General Fund, Warrants Redeemed,	\$1,378,991 98	
Temporary State Loan Bonds Redeemed, Principal,	72,200 00	
Temporary State Loan Bonds Redeemed, Interest,	68,195 85	
Treasurer's Certificates Redeemed,	20,515 93	
	<hr/>	\$1,539,903 76
Paid out of Interest Fund of 1851, \$34,500. Bonds redeemed,	33,912 50	
Interest,	34,587 06	
	<hr/>	58,499 56
Paid out of Interest Fund of 1852, Interest,		56,439 44
Paid out of School Fund, Temporary State Loan Bonds redeemed, Principal,	1,950 00	
Paid out of School Fund, Temporary State Loan Bonds redeemed, Interest,	1,950 45	
	<hr/>	3,900 45
Paid out of Sacramento State Hospital Fund, Warrants on the Hospital Fund paid	29,384 61	
Temporary State Loan Bonds redeemed, Principal	2,475 00	
Temporary State Loan Bonds redeemed, Interest,	1,940 77	
	<hr/>	33,800 38
Paid out of Stockton State Hospital Fund, Warrants on the Hospital Fund,	21,521 30	
Temporary State Loan Bonds Redeemed, Principal,	2,500 00	
Temporary State Loan Bonds Redeemed, Interest,	1,953 85	
	<hr/>	25,975 15
Paid out of San Francisco State Marine Hospital Fund, Warrants on Hospital Fund,		66,166 97
Paid out of State Library Fund, Warrants on Fund,		755 00

PAYMENTS OUT OF STATE TREASURY—CONTINUED.

Paid out of Military Fund, Warrants on Fund,		60 20
Balance in the Treasury, Temporary State Loan Bonds,	9,900 00	
Cash,	55,333 74	
	<hr/>	65,233 74
In General Fund Temporary State Loan Bonds,	9,900 00	
Cash,	21,167 41	
In Interest Fund of 1851, Cash,	23,535 04	
In School Fund, Cash,	17,812 68	
In Stockton State Hospital Fund, Cash,	3,037 09	
In Insane Fund, cash,	776 96	
In State Prison Interest Fund, Cash,	203 03	
	<hr/>	76,432 21
Less Amount due by Interest Fund of 1852,	11,198 47	
	<hr/>	65,233 74
	<hr/>	\$1,850,734 65

GENERAL FUND RECEIPTS.

FROM WHOM RECEIVED.					3 PER CENT. BONDS.	INTEREST.	WARRANTS.	CASH.
1852	June	30,	Amount in Fund,	.	\$9,884 00			\$6,169 56
	July	2,	Treasurer of Yuba county,	.				169 71
	"	5,	" Santa Cruz county,	.				68 36
	"	7,	" San Francisco county,	.	5,600 00	\$4,379 68		13,201 69
	"	7,	" Sacramento	"				644 73
	"	7,	" Santa Barbara	"				308 85
	"	8,	" Placer	"				2,152 32
	"	12,	" Siskiyou	"				170 69
	"	22,	" Placer	"				1,017 38
	"	23,	" San Luis Obispo	"				437 62
	"	23,	" El Dorado	"				3,030 25
	"	26,	" Sutter	"				506 94
	Aug.	11,	" Los Angeles	"				1,514 16
	"	24,	" Monterey	"				113 69
	Sept.	1,	" Placer	"				2,308 25
	"	16,	" San Joaquin	"				2,452 41
	"	17,	" Solano	"				517 64
	Oct.	4,	" Yuba	"				3,013 41
	"	9,	" Santa Clara	"	100 00	93 80		1,020 98
	"	15,	" San Francisco	"				4,027 37
	"	16,	" Colusi	"				887 66
	"	18,	" Tuolumne	"	100 00	36 00	\$600 00	4,460 12
	"	18,	" Tuolumne	"				1,553 94
	Nov.	1,	" Sutter	"				365 00

1852, Nov.	16,	Treasurer of El Dorado	"	.	.	.			\$10,395 50
"	18,	" Placer	"	.	.	.			9,359 32
"	29,	" Trinity	"	.	.	.			732 71
Dec.	9,	" Sacramento	"	.	.	.			120 40
"	15,	" San Joaquin	"	.	.	.			2,594 58
"	15,	" San Francisco	"	.	.	.			253 90
"	15,	" Tuolumne	"	.	.	.			3,250 00
"	18,	" School Fund,		.	.	.			405 72
"	21,	" Contra Costa county,		.	.	.			891 00
"	22,	" Monterey	"	.	.	.			597 43
"	22,	" Shasta	"	.	.	.			157 34
"	24,	" Placer	"	.	.	.			140 98
"	28,	" Klamath	"	.	.	.			544 44
"	29,	" Nevada	"	.	.	.			6,787 23
1553, Jan.	3,	" Sutter	"	.	.	.			518 12
"	3,	" El Dorado	"	.	.	.			3,989 66
"	4,	" San Luis Obispo	"	.	.	.			87 12
"	5,	" Sonoma	"	.	.	.			2,909 95
"	6,	" Butte	"	.	.	.	100 00	99 00	2,225 52
"	10,	Secretary of State,		.	.	.			302 00
"	14,	Treasurer of Santa Barbara county,		.	.	.			401 92
"	17,	" Sonoma	"	.	.	.			1,179 91
"	18,	" Marin	"	.	.	.			676 60
"	20,	" Yolo	"	.	.	.			597 62
"	20,	" Yolo	"	.	.	.			1,147 12
"	20,	" Calaveras	"	.	.	.			4,000 00
"	25,	" Tuolumne	"	.	.	.			2,000 00
"	29,	" San Diego	"	.	.	.			191 33
Feb.	1,	City of San Francisco per Commis'rs of Funded Debt,		.	.	.			10,000 00
"	4,	Treasurer of Mariposa county,		.	.	.			5,107 98

GENERAL FUND RECEIPTS—CONTINUED.

FROM WHOM RECEIVED.					8 PER CENT. BONDS.	INTEREST.	WARRANTS.	CASH.
1853, Feb.	4,	Treasurer of Napa county,	.	.				\$360 00
"	14,	Los Angeles "	.	.				1,166 33
"	14,	Calaveras "	.	.				4,156 58
"	16,	Siskiyou "	.	.				2,048 63
"	19,	El Dorado "	.	.				2,682 66
"	28,	San Francisco city,	.	.	\$3,575 00	\$3,424 19		
March	4,	Solano county,	.	.				135 04
"	11,	Yuba "	.	.				2,744 82
"	15,	Tuolumne "	.	.				3,762 40
"	22,	San Joaquin county	.	.				242 30
"	26,	City of San Francisco per Hiram Pearson,	.	.				1,312 50
"	29,	Treasurer of Sacramento county,	.	.				928 36
"	31,	Trinity "	.	.				147 20
April	2,	Calaveras "	.	.				800 00
"	7,	City of San Francisco per D. W. Connely,	.	.				212 50
"	8,	" " " per Commis'rs of Funded Debt,	.	.				7,000 00
"	13,	Treasurer of El Dorado county,	.	.				3,500 00
"	29,	City of San Francisco per Commis'rs of Funded Debt,	.	.				8,267 95
May	10,	Treasurer of San Francisco county,	.	.				99 03
"	20,	Placer "	.	.				7,380 50
"	20,	City of San Francisco per Commis'rs of Funded Debt,	.	.				2,300 00
June	1,	Treasurer of Napa county,	.	.				289 55
"	9,	Marin "	.	.				78 46
"	10,	Contra Costa county,	.	.				66 62

1853, June 13, Secretary of State,					\$99 20
" 20, Treasurer of Sonoma county,					128 30
" 20, " Nevada "			\$186 00		6,221 00
" 21, " Shasta "					1,874 20
" 21, " San Joaquin "					193 56
" 22, " Yuba "			1,279 00		2,979 37
" 23, " Tuolumne "					114 89
" 23, " Butte "	\$100 00	\$100 00			2,155 62
" 29, " Siskiyou "					922 51
" 30, " San Diego "					3 80
Senate Contingent of 1850,	16 00				
State Library Fund,			500 00		
Received for Bonds issued, Act April 29, 1851,	11,500 00				
" " " " May 1, 1852,	1,052,500 00				
Land Warrants issued,	237,120 00				
Treasurer's Certificates issued,	22,529 08				
Small Balances due on Warrants for which no Certificates were issued,	92				
	<u>\$1,551,650 00</u>	<u>\$19,475 00</u>	<u>\$3,168 97</u>	<u>\$2,565 00</u>	<u>\$187,142 20</u>
Total, \$1,570,971 17.					

GENERAL FUND—PAYMENTS.

Per diem and mileage of Members of the Legislature, Contestants, and President of the Senate, . . .	\$240,844 00
Pay of Officers, Clerk, Porters, Pages and Witnesses of the Legislature, . . .	106,521 00
Contingent Expenses of the Legislature, Fuel, Postage, Furniture, &c., . . .	15,670 11
Newspapers for the Legislature, . . .	4,144 47
Public Printing, . . .	224,809 63
Transportation and subsistence of Prisoners and Criminal Prosecutions, . . .	78,025 67
Sacramento State Hospital, support and maintenance, . .	46,490 90
Stockton State Hospital, support and maintenance, . .	37,492 64
Erection of Stockton State Hospital, . . .	32,500 00
Purchase of Sacramento State Hospital, . . .	25,000 00
Transportation of the Insane from Sacramento to Stockton, do do do do Siskiyou county to Insane Asylum, . . .	1,000 00 640 00
Relief of sick in San Diego city, . . .	2,000 00
Relief of Overland Emigrants, . . .	20,000 00
Purchase of Site for State Prison, . . .	10,000 00
Pay of Census Agents, . . .	65,172 00
Indexing and appendixing Laws and Journals, . . .	5,567 38
Distribution of the Laws, . . .	1,090 00
Presidential Elections, . . .	744 40
Messengers of Election Returns, . . .	1,080 30
Materials &c., for erection of State Prison, paid F. Vassault, . . .	18,315 00
State Library, . . .	500 00
Plans and drawings prepared for the State Prison in Marin county, . . .	300 00
Pay of State Translator, . . .	4,116 00
Relief of Elean Heydenfeldt, . . .	950 00
“ W. J. Whitney, . . .	12,531 82
“ Lovett & Co., . . .	365 90
“ Soule & Page, . . .	1,522 38
“ J. Hammond, . . .	369 96
“ W. H. Endicott, . . .	380 00
“ E. Barry, . . .	1,500 00
“ C. H. Veeder, . . .	205 00
“ Hinkley & Davis, . . .	39 00
“ Thomas J. Green, . . .	253 80
“ M. Dougherty, . . .	125 00
“ J. K. Shaffer, . . .	400 00
“ A. G. Kimbell, . . .	187 00
“ R. Palmer, . . .	90 00
“ W. E. P. Hartnell, . . .	690 00
“ William Rogers, . . .	250 00

GENERAL FUND PAYMENTS—CONTINUED.

Relief of James S. Raines,	100 00
“ Captain Carl,	790 00
“ E. J. C. Kewen	1,150 00
“ Taffé & McCahill,	2,056 00
“ Cooke & LeCount,	472 50
“ R. N. Wood,	100 00
“ S. A. McMeans,	100 00
“ Helen Lount,	463 00
“ Cronin & Markley,	900 00
“ A. A. Brinsmade,	290 00
“ Benjamin Chapman,	781 25
“ Taffé & McCahill,	5,503 00
“ J. D. Monnett,	1,000 00
“ Soule & Page,	534 36
“ A. A. Moss,	200 00
“ John Furber,	80 00
“ P. McGill,	104 00
“ F. M. Hudson,	150 00
“ William Reed,	110 00
“ M. C. Dougherty,	1,062 75
“ F. J. Goforth,	122 00
“ James McCranston,	224 43
“ E. G. Baker,	850 00
“ Shirley & Bailey,	818 75
“ Thomas Green,	1,000 00
“ Albert G. Hart,	596 00
“ George Dingley,	500 00
“ William Waldo,	27,000 00
“ Charles E. Pickett,	9,500 00
Thomas & Morse as Attorneys for State in conducting suits against owners of Vessels	2,000 00
Morse & Thomas for prosecuting delinquent tax payers in San Francisco,	1,500 00
E. Randolph for services as Attorney in the suit of Fowler vs. Pierce, in Supreme Court,	3,000 00
Isaac Thomas and P. A. Morse for legal services rendered the State in San Francisco,	3,500 00
Removal of Archives from Sacramento City to Vallejo as per contract,	1,100 00
Wharfage and labor removing Archives from Vallejo to San José and Sacramento,	130 00
Freight on Archives from San Francisco to Sacramento City,	591 00
Fitting up rooms in Capitol at Sacramento,	517 62
Pay of Commissioners in laying off Public Grounds at Vallejo,	300 00
B. F. Butler for lithographing State Bonds,	1,500 00

GENERAL FUND PAYMENTS—CONTINUED.

Cooke & LeCount for engraving and preparing School Land Warrants,	500 00
LeCount & Strong for engraving new issue of Comptroller's Warrants,	215 00
R. W. Fishbourn for lithographing War Bonds,	900 00
E. A Theller for lithographing and printing the Chinese translation of the Foreign Miner's Law,	150 00
Blank books, furniture and stationery furnished Clerk of the District Court, Monterey county in 1850,	703 00
Printing blank forms and binding books by order of County Treasurer, San Francisco county,	526 00
Stationery and printing blanks for Treasurer of San Francisco county,	73 50
Fees paid Clerks of Supreme and District Courts in State cases,	4,343 68
Costs of suit in case of State vs. Woodlief decreed against the State,	620 00
Nathaniel Bennett for 150 copies Supreme Court Reports, Vol. 1,	2,400 00
Fred. A. Snyder. amount appropriated for compilation and publication of Laws,	4,000 00
Translating into Spanish the Governor's Message and Comptroller's Report,	1,280 00
McBride & Colburn for furnishing blocks of marble for Washington Monument,	9,000 00
Wm. G. Marcy for going to Monterey after State Archives in 1850,	95 00
Nicholas Blair for apprehending John Thornby under Governor's Proclamation,	500 00
J. H. Bean for apprehending and delivery to Sheriff, of Edward Hines, a murderer,	1,000 00
A. D. Patterson for amount allowed for self and posse for pursuing H. B. Heatherby, charged with murder,	1,148 00
Marshal of San Francisco for subsistence of 3 slaves in San Francisco,	450 00
J. R. Hardenbough for traveling expenses after fugitive from Justice, under Executive orders,	76 00
Transmitting Census Forms,	18 00
Albert Rowe for surveying the boundary of Sacramento County. in 1852,	2,268 00
Compiling Census for Secretary of State per appropriation,	405 00
John B. Thask appropriation for survey of the State,	2,000 00
Military Fund,	82 60
Special Contingent Senate Fund of 1850,	16 00
Illegal Warrant,	812 50
Salary of Governor,	14,609 98
“ Secretary of State,	10,732 66

GENERAL FUND PAYMENTS—CONTINUED.

Salary of Comptroller of State,	9,281 28
“ Treasurer of State,	13,310 00
“ Attorney General,	6,083 32
“ Superintendent of Public Instruction,	7,790 00
“ Quarter Master General,	3,399 98
“ Surveyor General,	8,768 00
“ State Prison Inspectors and Commissioners,	6,967 79
“ Superintendent Public Buildings,	6,722 21
“ District Attorneys	37,561 07
“ Judges of the Supreme Court,	33,612 48
“ Judges of the District Court,	98,416 34
“ Governor's Private Secretary,	1,520 00
“ Clerks to Secretary of State,	3,504 93
“ Clerks to Comptroller of State,	6,324 60
“ Clerks to Treasurer of State and Board of Examiners of War Claims,	7,649 30
Pay of Clerk to Superintendent Public Instruction,	600 00
Governor's Contingent Fund,	6,041 80
Incidental expenses of Governor's Office,	1,322 29
“ “ Secretary of State's Office	4,457 58
“ “ Comptroller of State's Office,	3,722 40
“ “ State Treasurer's “	2,086 45
“ “ Attorney General's “	5,159 50
“ “ Supt. Pub. Instruction's “	2,124 42
“ “ Quarter Master General's Office,	922 50
“ “ Surveyor General's “	1,840 23
“ “ Supreme Court,	6,163 57
“ “ Making Map of the State,	2,214 00
Temporary State Loan Bonds redeemed, Principal,	\$72,200 00
Temporary State Loan Bonds redeemed, Interest,	68,195 85
	140,395 85
Treasurer's Certificates redeemed,	20,515 92
Balance due Fund, Cash,	21,167 41
Temporary State Loan Bonds	9,900 00
	31,067 41
	<u>\$1,570,971 17</u>

INTEREST FUND OF 1851—RECEIPTS.

1852, June 30,	Amount in fund,		\$9,833 86
July 2,	Treasurer of Yuba county,		761 06
5,	" Santa Cruz county,		52 99
7,	" San Francisco county,		2,281 25
7,	" Santa Barbara "		92 95
22,	" Placer "		158 71
23,	" San Luis Obispo "		145 88
26,	" Sutter "		170 07
Aug. 11,	" Los Angeles "		183 84
24,	" Monterey "		97 49
Oct. 4,	" Yuba "		60 00
9,	" Santa Clara "		390 49
15,	" San Francisco "		143 80
16,	" Colusa "		150 10
20,	" Contra Costa "		1,240 00
Nov. 1,	" Sutter "		135 00
18,	" Placer "		367 76
Dec. 9,	" Sacramento "		5,979 00
15,	" San Joaquin "		3,716 04
15,	" San Francisco "		14,613 48
18,	" School Fund,		232 74
18,	Interest Fund of 1852,		466 47
21,	Treasurer of Contra Costa county,		2,894 20
22,	" Monterey "		2,345 41
22,	" Shasta "		68 11
Dec. 24,	" Placer "		365 41
28,	" Klamath "		2 59
29,	" Nevada "		306 62
1853, Jan. 3,	" Sutter "		535 10
3,	" El Dorado "		878 14
4,	" San Luis Obispo "		341 26
5,	" Sonoma "		873 00
6,	" Butte "		367 94
14,	" Santa Barbara "		1,314 66
17,	" Sonoma "		1,731 00
18,	" Marin "		1,169 04
20,	" Yolo "		138 31
20,	" " "		1,268 51
29,	" San Diego "		150 43
Feb. 4,	" Mariposa "		491 65
4,	" Napa "		682 50
14,	" Los Angeles "		3,285 11
14,	" Calaveras "		166 72
16,	" Siskiyou "		297 39
March 4,	" Solano "		2,012 33
5,	" Napa "		380 00

INTEREST FUND OF 1851—RECEIPTS CONTINUED.

1853, March 11, Treasurer of Yuba County, . . .	2,586 99
15, " Tuolumne " . . .	918 80
22, " San Joaquin " . . .	377 83
29, " Sacramento " . . .	1,156 90
31, " Trinity " . . .	85 58
April 22, " Solano " . . .	1,387 53
May 10, " San Francisco " . . .	9,110 11
20, " Placer " . . .	350 27
June 1, " Napa " . . .	275 96
9, " Marin " . . .	102 62
10, " Contra Costa, " . . .	260 46
20, " Sonoma " . . .	385 54
20, " Nevada " . . .	224 68
21, " Shasta " . . .	48 10
21, " San Joaquin " . . .	167 95
22, " Yuba, " . . .	60 38
23, " Tuolumne " . . .	484 29
23, " Butte " . . .	598 88
29, " Siskiyou " . . .	204 34
	<hr/>
	\$82,034 60

INTEREST FUND OF 1851—PAYMENTS.

1852, July 5, Paid John Perry, Jr. for \$1,000 Seven per cent. Bonds, at 89 cents,	\$890 00
July 20, Paid John Perry, Jr. for \$2,500 Seven per cent. Bonds, at 89 cents,	2,225 00
July 20, Paid John Perry, Jr. for \$1,000 Seven per cent Bonds, at 99 cents,	990 00
July 20, Paid B. F. Pinkham for five coupons due July 1, 1852,	87 50
Oct. 14, Paid A. G. Kimball for two coupons due January 1, 1852,	31 50
Oct. 15, Paid Palmer, Cook & Co. for interest due in New York January 1, 1853,	12,594 70
1853, Feb. 26, Paid for three coupons due Jan. 1, 1852,	52 50
Feb. 26, Paid for six coupons due July 1, 1853,	105 50
March 1, Paid John Perry, Jr., for \$24,000 Seven per cent. Bonds, at 99 $\frac{1}{2}$ cents,	23,970 00
March 3, Paid Wm. M. Smith for \$500 Seven per ct. Bonds, at 98 cents,	490 00

INTEREST FUND OF 1851—PAYMENTS CONTINUED.

1853, March 4, Paid W. Walker for \$4,500 Seven ¹ / ₂ per ct. Bonds, at 97 ¹ / ₂ cents,	4,387 50
March 7, Paid Stephen C. Foster for \$1,000 Seven per cent. Bonds, at 96 cents,	960 00
April 25, Paid Palmer, Cook & Co. for interest due in New York, July 1. 1853,	11,715 86
Balance due,	23,535 04
	<hr/>
	\$82,034 60

INTEREST FUND OF 1852—RECEIPTS.

1852, June 30, Amount in Fund, -	-	-	\$1,000 61
July 2, Treasurer of Yuba County,	-	-	507 43
" 5, " Santa Cruz County,	-	-	24 95
" 22, " Placer " -	-	-	112 48
Oct. 9, " Santa Clara " -	-	-	260 33
" 16, " Colusi " -	-	-	94 06
" 20, " Contra Costa " -	-	-	826 66
Nov. 18, " Placer " -	-	-	245 18
Dec. 9, " Sacramento " -	-	-	3,986 00
" 15, " San Joaquin " -	-	-	2,091 49
" 15, " San Francisco " -	-	-	9,742 32
" 21, " Contra Costa " -	-	-	1,929 47
" 22, " Monterey " -	-	-	1,563 60
" 22, " Shasta " -	-	-	45 41
" 24, " Placer " -	-	-	213 62
" 28, " Klamath " -	-	-	1 73
" 29, " Nevada " -	-	-	204 41
1853, Jan. 3, " Sutter " -	-	-	327 19
" 3, " El Dorado " -	-	-	585 42
" 4, " San Luis Obispo " -	-	-	227 50
" 6, " Butte " -	-	-	233 68
" 14, " Santa Barbara " -	-	-	861 71
" 17, " Sonoma " -	-	-	1,154 00
" 18, " Marin " -	-	-	779 36
" 20, " Yolo " -	-	-	845 68
" 29, " San Diego " -	-	-	100 28
Feb. 4, " Mariposa " -	-	-	327 77
" 4, " Napa " -	-	-	455 00
" 14, " Los Angeles, " -	-	-	2,067 33
" 14, " Calaveras " -	-	-	111 15
" 16, " Siskiyou " -	-	-	198 26

INTEREST FUND OF 1852—RECEIPTS CONTINUED.

1852, March 4,	Treasurer of Solano County,	-	-	1,341	55
" 5,	" Napa	"	-	253	33
" 11,	" Yuba	"	-	1,724	67
" 15,	" Tuolumne	"	-	612	53
" 22,	" San Joaquin	"	-	247	12
" 29,	" Sacramento	"	-	771	26
" 31,	" Trinity	"	-	57	06
April 22,	" Solano	"	-	925	03
May 10,	" San Francisco	"	-	6,063	22
" 20,	" Placer	"	-	467	02
June 1,	" Napa	"	-	183	97
" 9,	" Marin	"	-	68	41
" 10,	" Contra Costa	"	-	173	64
" 20,	" Sonoma	"	-	257	03
" 20,	" Nevada	"	-	312	90
" 21,	" Shasta	"	-	32	97
" 21,	" San Joaquin	"	-	111	67
" 22,	" Yuba	"	-	40	26
" 23,	" Tuolumne	"	-	322	86
" 23,	" Butte	"	-	332	60
" 29,	" Siskiyou	"	-	253	86
	Balance Due,	-	-	11,198	47
					<hr/>
					\$56,904 91

INTEREST FUND OF 1852—PAYMENTS.

1852, Oct. 15,	Paid Palmer, Cooke & Co. for interest due	
	January 1, 1853, in New York,	\$21,905 30
Dec. 18,	Transferred to Interest Fund of 1851,	465 47
1853, April 25,	Paid Palmer, Cook & Co. for interest due	
	July 1, 1853, in New York,	34,534 14
		<hr/>
		\$56,904 91

STATE PRISON INTEREST FUND—RECEIPTS. •

1853, May 20,	Received from Treasurer of Placer county,	\$93 40
June 20,	" " Nevada	62 58
June 29,	" " Siskiyou	47 05
		<hr/>
		\$203 03

No payments.

SCHOOL FUND RECEIPTS.

FROM WHOM RECEIVED.						3 PER CENT. BONDS.	INTEREST.	CASH.
1852, June 30,	Amount in Fund,	.	.	.	.			\$499 83
July 2,	Treasurer of Yuba County,	.	.	.	.			253 64
" 22,	" Placer "	.	.	.	.			58 05
Oct. 9,	" Santa Clara "	.	.	.	.			130 17
" 16,	" Colusi "	.	.	.	.			47 04
" 20,	" Contra Costa County,	.	.	.	.			413 34
Nov. 18,	" Placer "	.	.	.	.			122 58
Dec. 9,	" Sacramento "	.	.	.	.			1,993 00
" 15,	" San Joaquin "	.	.	.	.			1,045 75
" 15,	" San Francisco "	.	.	.	.	\$1,025 00	975 57	2,870 60
" 21,	" Contra Costa "	.	.	.	.			964 73
" 22,	" Monterey "	.	.	.	.			731 80
" 22,	" Shasta "	.	.	.	.			22 70
" 24,	" Placer "	.	.	.	.			121 82
" 28,	" Klamath "	.	.	.	.			86
" 29,	" Nevada "	.	.	.	.			102 21
1853, Jan. 3,	" Sutter "	.	.	.	.			163 59
" 3,	" El Dorado "	.	.	.	.			292 71
" 4,	" San Luis Obispo "	.	.	.	.			113 75
" 6,	" Butte "	.	.	.	.			116 84
" 14,	" Santa Barbara "	.	.	.	.			430 89
" 17,	" Sonoma "	.	.	.	.			577 00
" 18,	" Marin "	.	.	.	.			389 68
" 20,	" Yolo "	.	.	.	.			422 84

1853, Jan. 29,	Treasurer of San Diego County	.	.	.	.			50 15
Feb. 4,	" Mariposa	"	.	.	.			163 88
" 4,	" Napa	"	.	.	.			227 50
" 14,	" Los Angeles	"	.	.	.			1,033 06
" 14,	" Calaveras	"	.	.	.			55 57
" 16,	" Siskiyou	"	.	.	.			99 13
March 4,	" Solano	"	.	.	.	100 00	96 20	474 57
" 5,	" Napa	"	.	.	.			126 67
" 11,	" Yuba	"	.	.	.			862 32
" 15,	" Tuolumne	"	.	.	.			306 27
" 22,	" San Joaquin	"	.	.	.			123 57
" 29,	" Sacramento	"	.	.	.			385 64
" 31,	" Trinity	"	.	.	.			28 52
April 22,	" Solano	"	.	.	.	225 00	254 68	
May 10,	" San Francisco	"	.	.	.	600 00	624 00	1,807 61
June 1,	" Napa	"	.	.	.			91 99
" 9,	" Marin	"	.	.	.			34 21
" 10,	" Contra Costa	"	.	.	.			86 81
" 20,	" Sonoma	"	.	.	.			128 51
" 21,	" Shasta	"	.	.	.			16 04
" 21,	" San Joaquin	"	.	.	.			55 98
" 22,	" Yuba	"	.	.	.			20 13
" 23,	" Tuolumne	"	.	.	.			161 43
" 23,	" Butte	"	.	.	.			166 29
" 29,	" Siskiyou	"	.	.	.			9 30
Total, \$22,351 59.						\$1,950 00	\$1,950 45	\$18,451 14

SCHOOL FUND—PAYMENTS.

1852, Dec. 18, Transferred to General Fund,		\$405 72
“ Interest Fund of 1851,		232 74
Balance due Temporary State Loan—		
Bonds, principal,	\$1,950 00	
interest,	1,950 45	
cash,	17,812 68	
	<hr/>	\$21,713 13
		<hr/>
		\$22,351 59

SACRAMENTO STATE HOSPITAL FUND RECEIPTS.

FROM WHOM RECEIVED.					8 PER CENT. BONDS.	INTEREST.	WARRANTS.	CASH.
1852,	June 30,	Amount in fund,	.	.	\$3,000 00	\$1,824 14	\$3,251 00	
	July 7,	Treasurer of San Francisco county,	.	.	2,475 00	1,940 00		\$49 88
	" 7,	" Sacramento "	.	.				1,289 44
	" 10,	Commissioner of Emigrants,	.	.				2,401 60
	" 12,	Treasurer of Siskiyou county,	.	.				192 37
	" 22,	" Placer "	.	.				71 37
	Aug. 4,	Commissioner of Emigrants,	.	.				4,835 50
	" 24,	Treasurer of Monterey county,	.	.				105 57
	Sept. 8,	Commissioner of Emigrants,	.	.				2,599 20
	" 16,	Treasurer of San Joaquin county,	.	.				392 25
	" 17,	" Solano "	.	.				35 08
	Oct. 4,	" Yuba "	.	.				55 95
	" 8,	Commissioner of Emigrants,	.	.				395 58
	" 9,	Treasurer of Santa Clara county,	.	.				65 62
	" 18,	" Tuolumne "	.	.				980 31
	Nov. 8,	Commissioner of Emigrants,	.	.				1,009 85
	" 18,	Treasurer of Placer county,	.	.				326 70
	" 20,	" Trinity "	.	.				12 73
	Dec. 10,	Commissioner of Emigrants,	.	.				251 75
	" 15,	Treasurer of San Joaquin county,	.	.				593 88
	" 22,	" Monterey "	.	.				111 04
	" 22,	" Shasta "	.	.				135 71
	" 24,	" Placer "	.	.				207 90
	" 29,	" Nevada "	.	.				660 45

SACRAMENTO STATE HOSPITAL FUND RECEIPTS—(CONTINUED.)

FROM WHOM RECEIVED.					3 PER CENT. BONDS.	INTEREST.	WARRANTS.	CASH.
1553, Jan.	3,	Treasurer of El Dorado county,	.	.				419 16
"	6,	" Butte "	.	.				99 17
"	6,	Commissioner of Emigrants,	.	.				122 55
"	14,	Treasurer of Santa Barbara county,	.	.				12 93
"	17,	" Sonoma "	.	.				16 45
"	29,	" San Diego "	.	.				68 61
Feb.	3,	Commissioner of Emigrants,	.	.				480 70
"	14,	Treasurer of Los Angeles county,	.	.				49 40
"	14,	" Calaveras "	.	.				860 62
"	16,	" Siskiyou "	.	.				185 55
"	23,	" San Francisco city,	.	.				2,556 65
March	3,	Commissioner of Emigrants,	.	.				983 25
"	11,	Treasurer of Yuba county,	.	.				110 59
"	22,	" San Joaquin county,	.	.				444 15
"	29,	" Sacramento "	.	.				12 34
"	31,	" Trinity, "	.	.				49 35
April	5,	Commissioner of Emigrants,	.	.				719 10
May	5,	" "	.	.				1,343 70
"	10,	Treasurer of San Francisco county,	.	.				69 37
"	20,	" Placer "	.	.				462 84
June	1,	Commissioner of Emigrants,	.	.				966 96
"	20,	Treasurer of Nevada county,	.	.				251 68
"	21,	" Shasta "	.	.				129 15
"	21,	" San Joaquin county,	.	.				268 81

1852, June 22, Treasurer of Yuba county,
 " 23, " Tuolumne "
 " 29, " Siskiyou "
 " Commissioner of Emigrants,

. . .
 . . .
 . . .

			\$523 27
			211 02
			98 51
			1,067 00
	\$5,475 00	\$3,764 91	\$3,251 00
			\$29,384 61
Total,	\$41,875 00		

No. 1.

SACRAMENTO STATE HOSPITAL FUND—PAYMENTS.

1852, July 8,	Cash paid,	-	-	-	-	\$1,339 32
“ 10,	do	-	-	-	-	2,401 60
“ 12,	Warrant on the General Fund,	-	-	-	-	8,075 14
Aug. 17,	do do do do	-	-	-	-	4,415 77
“ 17,	Cash paid,	-	-	-	-	5,099 24
Sept. 10,	do	-	-	-	-	2,599 20
Oct. 11,	do	-	-	-	-	1,050 05
Nov. 8,	do	-	-	-	-	1,990 16
1853, Jan. 13,	do	-	-	-	-	2,971 04
March 3,	do	-	-	-	-	5,214 16
“ 28,	do	-	-	-	-	554 74
April 21,	do	-	-	-	-	780 79
May 6,	do	-	-	-	-	1,343 70
June 29,	do	-	-	-	-	4,040 61
						<hr/>
						\$41,875 52

STOCKTON STATE HOSPITAL FUND—RECEIPTS.

FROM WHOM RECEIVED.					3 PER CENT. BONDS.	INTEREST.	WARRANTS	CASH.
1852, June	10.	Amount in Fund,	.	.	\$3,000 00	\$1,824 14	\$3,251 00	\$11 80
July	7.	Treasurer of San Francisco county,	.	.	2,500 00	1,953 85		644 72
"	7,	" Sacramento "	.	.				2,401 60
"	10,	Commissioner of Emigrants,	.	.				96 19
"	12.	Treasurer of Siskiyou county,	.	.				28 42
"	22,	" Placer "	.	.				4,835 50
Aug.	4,	Commissioner of Emigrants,	.	.				105 57
"	24,	Treasurer of Monterey county,	.	.				2,599 20
Sept.	8,	Commissioner of Emigrants,	.	.				196 18
"	16,	Treasurer of San Joaquin county,	.	.				17 54
"	17,	" Solano "	.	.				27 97
Oct.	4,	" Yuba "	.	.				395 58
"	8,	Commissioner of Emigrants,	.	.				490 15
"	18,	Treasurer of Tuolumne county,	.	.				1,009 85
Nov.	8,	Commissioner of Emigrants,	.	.				163 35
"	18,	Treasurer of Placer county	.	.				6 36
"	20,	" Trinity "	.	.				251 75
Dec.	10,	Commissioner of Emigrants,	.	.				296 95
"	15,	Treasurer of San Joaquin county,	.	.				227 32
"	24,	" Placer "	.	.				330 22
"	29,	" Nevada "	.	.				24 59
1853, Jan.	3,	" El Dorado "	.	.				49 58
"	6,	" Butte "	.	.				122 55
"	6,	Commissioner of Emigrants	.	.				6 46
"	14,	Treasurer of Santa Barbara county,	.	.				

STOCKTON STATE HOSPITAL FUND—RECEIPTS CONTINUED.

FROM WHOM RECEIVED.		PER CENT. BONDS.	INT+REST.	WARRANTS.	CASH.
1853, Jan.	17, Treasurer of Sonoma county, . . .				\$8 22
"	29, " San Diego " . . .				34 31
Feb.	3, Commissioner of Emigrants, . . .				480 70
"	14, Treasurer of Los Angeles county, . . .				24 70
"	14, " Cataverias " . . .				430 32
"	16, " Siskiyou " . . .				92 78
"	27, " San Francisco city, . . .				2,556 66
March	3, Commissioner of Emigrants, . . .				983 25
"	11, Treasurer of Yuba county, . . .				55 29
"	22, " San Joaquin county, . . .				222 03
"	29, " Sacramento " . . .				6 17
"	31, " Trinity " . . .				24 67
April	5, Commissioner of Emigrants, . . .				719 10
May	5, " " . . .				1,343 70
"	10, Treasurer of San Francisco county, . . .				34 69
"	20, " Placer " . . .				231 42
June	1, Commissioner of Emigrants, . . .				966 96
"	20, Treasurer of Nevada county, . . .				125 84
"	21, " Shasta " . . .				64 58
"	21, " San Joaquin " . . .				130 40
"	22, " Yuba " . . .				261 63
"	23, " Tuolumne " . . .				105 51
"	29, " Siskiyou " . . .				49 06
"	29, Commissioner of Emigrants, . . .				1,067 00
Total, \$37,087 88.		\$5,500 00	\$3,777 99	3,251 00	\$24,558 39

STOCKTON STATE HOSPITAL FUND—PAYMENTS.

1853, Aug. 11,	Cash paid,	.	.	.	\$5,000 00
“ 21,	“	.	.	.	2,000 00
Sept. 30,	“	.	.	.	2,627 00
Oct. 16,	“	.	.	.	1,733 22
Nov. 16,	“	.	.	.	1,500 00
Dec. 14,	“	.	.	.	421 46
1853, Jan. 14,	“	.	.	.	1,251 21
Feb. 17,	“	.	.	.	1,077 49
March 17,	“	.	.	.	3,595 20
April 16,	“	.	.	.	972 02
May 6,	“	.	.	.	1,343 70

Balance due Temporary State Loan Bonds—

Principal,	\$5,500 00
Interest,	3,777 99
Warrants,	3,251 00
Cash,	3,037 09

15,566 08

\$37,087 38

SAN FRANCISCO STATE M. HOSPITAL FUND—RECEIPTS.

1852, June 30,	Amount in fund,	\$14,634 75
July 10,	Received from Commissioner of Emigrants,	7,204 80
Aug. 4,	“ “ “	14,506 50
Sept. 8,	“ “ “	7,797 60
Oct. 8,	“ “ “	1,186 74
Nov. 8,	“ “ “	3,029 55
Dec. 10,	“ “ “	755 25
1853, Jan. 6,	“ “ “	307 65
Feb. 3,	“ “ “	1,442 10
March 3,	“ “ “	2,949 75
April 5,	“ “ “	2,157 30
May 5,	“ “ “	4,031 10
June 1,	“ “ “	2,900 88
“ 29,	“ “ “	3,203 00
		<hr/>
		\$66,166 97

SAN FRANCISCO STATE M. HOSPITAL FUNDS—PAYMENTS.

1852, July 7,	Cash paid,	.	.	.	\$14,634 75
Sept. 21,	"	.	.	.	10,846 39
" 27,	"	.	.	.	10,864 91
Oct. 23,	"	.	.	.	8,984 34
Nov. 10,	"	.	.	.	3,029 55
1853, March 5,	"	.	.	.	5,514 75
May 5,	"	.	.	.	6,188 40
June 1,	"	.	.	.	2,900 88
" 30,	"	.	.	.	3,203 00
					<hr/>
					\$66,166 00

INSANE FUND—RECEIPTS.

1852,	Oct. 4,	Treasurer of Yuba county,	.	.	\$7 50
	" 9,	" Santa Clara county,	.	.	22 50
	" 15,	" San Francisco "	.	.	7 50
	Nov. 20,	" Trinity "	.	.	14 85
	Dec. 15,	" San Joaquin "	.	.	59 40
	" 29,	" Nevada "	.	.	14 85
1853,	Jan. 3,	" El Dorado "	.	.	7 43
	" 20,	" Yolo "	.	.	44 55
	" 20,	" " "	.	.	111 38
	Feb. 14,	" Colveras "	.	.	90 00
	" 16,	" Siskiyou "	.	.	21 28
March	22,	" San Joaquin "	.	.	89 10
	" 29,	" Sacramento "	.	.	59 40
	" 31,	" Trinity "	.	.	44 55
	May 10,	" San Francisco "	.	.	14 85
	" 20,	" Placer "	.	.	14 55
	June 10,	" Contra Costa "	.	.	72 75
	" 20,	" Sonoma "	.	.	7 28
	" 20,	" Nevada "	.	.	22 31
	" 21,	" Shasta "	.	.	14 55
	" 21,	" San Joaquin "	.	.	14 55
	" 22,	" Yuba "	.	.	7 28
	" 29,	" Siskiyou "	.	.	14 55

\$776 96

No payments.

STATE LIBRARY FUND—RECEIPTS.

FROM WHOM RECEIVED.	WARRANTS.	CASH.
1852, Sept. 20, Comptroller of State, . . .	\$235 00	
“ 20, Secretary of State, . . .		310 00
Dec. 31, “ “ “ . . .		20 00
1853, March 11, “ “ “ . . .		180 00
“ 14, “ “ “ . . .		65 00
“ 15, Comptroller of State . . .	205 00	
	<u>\$500 00</u>	<u>\$755 00</u>

STATE LIBRARY FUND—PAYMENTS.

1853, March 14, Cash paid, . . .	\$755 00
“ 15, Seven per cent. Bond issued for war- rant, . . .	\$500 00
	<u>\$500 00</u> <u>\$755 00</u>

MILITARY FUND—RECEIPTS

FROM WHOM RECEIVED.	3 PER CENT BONDS.	INTEREST.	CASH.
1852, June 30, Amount in Fund, . . .	\$200 00	\$139 80	\$60 20
Total, \$400 00			

MILITARY FUND—PAYMENTS.

Paid by General Fund, . . .	\$82 60
1853, Jan. 27, Cash paid, . . .	60 20
Balance due Temporary State Loan Bonds and interest . . .	257 20
	<u>\$400 00</u>

Document No 2.

IN THE ASSEMBLY]

[SESSION OF 1854.

ANNUAL REPORT

OF THE

COMPTROLLER

OF THE

STATE OF CALIFORNIA.

[GEORGE KERR, STATE PRINTER.

ANNUAL REPORT
OF THE
STATE COMPTROLLER.

COMPTROLLER'S OFFICE, }
Benicia, December 15, 1853. }

*To His Excellency, John Bigler,
Governor of California,*

SIR :

I herewith submit a Report on the fiscal condition of the State for the year ending June 30th, 1853, and arranged as follows:—

1st.—A general statement of the Revenues and Expenditures.

2d.—A tabular statement showing, separately, the whole amount of each appropriation made by law, the amount paid under the same, and the balance unexpended on the 30th of June, 1853.

3d.—A tabular statement showing the amount of revenue chargeable to each county for the preceding year, the aggregate amount of each object of taxation, together with the tax on the same and assessed thereon.

4th.—A statement exhibiting the condition of the several Funds on June 30th, 1853.

5th.—An estimate of the Revenues and Expenditures for the fiscal year ending June 30th, 1854—with abstract of property thus far returned for this year.

6th.—A detailed statement of the public debt at the close of the last fiscal year, June 30th, 1853, and also statement of the same Dec. 20th, 1853.

7th.—General Remarks “upon matters deemed expedient for the support of the public credit for promoting frugality and economy in the public expenses, and for the better management and more perfect understanding of the fiscal affairs of the State.”

[I.]

TABLE OF RECEIPTS INTO THE STATE TREASURY DURING THE FOURTH FISCAL YEAR, ENDING JUNE 30, A.D. 1853,
EXCLUSIVE OF AMOUNT RECEIVED FROM SALES OF SCHOOL LAND WARRANTS.

Property Tax of 1851.	Property Tax of 1852.	Property Tax of 1853.	Poll Tax of 1851	Poll Tax of 1852.	Poll Tax of 1853.	Communtion Tax.	Foreign Miners' License	Gaming License	Merchants' License.	Pedlers' License	Bankers' License	Billiards and Tennis	Consigned Goods	Express License.	Auction Duties.	Forfeited Recognizances,	Commiss'ns from Sec retary of State.	Fees from Secretary of State.	Proceeds from Sales of Water Lots.	Tax on Possessory Claims.	Warrants from members of the Legislature	Total
75 49	1,698 81			2 935 07	1,189 98		260 45		491 62													6,651 42
586 65	333 44			771 00			7,735 27	1,721 25	46 53											90 60		10,670 96
38 98	8,102 05			911 09			846 15													72 75		9,819 68
	279 38																				500 00	1,164 76
	1,736 27			3,757 67			19,870 32	803 33	736 50											7 43		27,435 52
777 40	184 18		131 73	530 81			11 88								2 22							549 62
	6 201 97			1,135 93				93 80	5 70													9 354 58
	2 079 30			2,167 11			1,844 87		14 10													6,091 28
208 70	2 513 92			710 96																		3,208 38
	1,640 81		938 71	186 30				333 22		7 13					100 00							5,821 55
	613 24			3,188 18	1,212 70			1,753 73	1,137 59						70 51					37 16		1,622 08
905 60	2,076 92			619 55																		3,328 47
631 07	1 408 49	1,101 36	784 52	1,794 22	3,850 70			2,136 21						25 00						14 55		26,798 05
	47,416 63		066 02	9,971 47		83,845 70	12,100 15	29,975 10				301 25	66 20							22 35		213,567 49
	300 86			157 02				191 09														598 91
503 50	682 51			47 12																		1,353 13
592 77	7,294 52			1,359 72				3,245 19		13 00						1,350 00				163 05		16,130 22
773 18				1,003 30				123 97	69 35	7 50										22 50		2,083 00
197 58	2,585 13		41 30	316 14				36 00	5 61	9 00					25 85							3,430 34
60 00																						146 30
129 78	14 271 80			120 40			922 19	1,463 57							1,110 00					59 40		17,977 56
667 73	981 57			369 67					14 10													2,795 12
	6,618 83			836 30					35 00						34 00							7,522 10
	650 58	705 77		1,196 89				32 90	183 09					25 00	98 27					7 28		9,356 19
				1,825 25	401 52		59 28	353 82	345 13											36 83		5,001 45
	232 43			12 91	970 00		582 00	518 18	242 90		23 00				11 56					14 55		2,608 15
344 38	2,806 19			8,121 75			1,808 39	6,594 82												59 40		20,470 32
344 02	171 16			801 87				121 15	17 00											14 78		1,203 58
599 31	5,143 57			2,948 05	901 70		1,331 08	761 40	2,687 00		1,819 58				611 40					155 93		18,112 67
	2,537 03		136 62	1,147 12																		4,576 01
																	755 00	101 20				1,156 20
061 11	\$128,686 81	\$3,045 78	\$1,713 19	\$53,589 36	\$8,526 60	\$85,885 70	\$53,121 01	\$50,711 67	\$6,033 34	\$39 93	\$1,843 08	\$501 25	\$506 20	\$50 00	\$2,332 68	\$1,350 00	\$715 00	\$101 20	\$20,092 95	\$777 96	\$500 00	\$454 185 85

STATEMENT OF EXPENDITURES

FOR THE FOURTH FISCAL YEAR ENDING JUNE 30, 1853.

EXECUTIVE DEPARTMENT.

SALARIES.

Salary of Governor,	.	.	.	.	\$9,999 98
“ Comptroller of State,	.	.	.	.	7,333 30
“ Treasurer	“	.	.	.	8,250 00
“ Secretary	“	.	.	.	8,615 99
“ Attorney General,	.	.	.	.	6,416 65
“ Surveyor General,	.	.	.	.	6,875 00
“ Quarter Master General,	.	.	.	.	1,893 50
“ Superintendent of Public Instruction,	.	.	.	.	4,125 00
“ “ “ Buildings,	.	.	.	.	4,055 53
“ State Prison Inspectors and Commissioners,	.	.	.	.	7,283 45
Total,					<u>\$64,848 40</u>

CLERKS OF DEPARTMENTS.

Salary of Clerks to Comptroller of State,	.	.	.	\$7,182 43
“ “ Treasurer of State,	.	.	.	6,364 65
“ “ Secretary of State,	.	.	.	4,047 55
Total,				<u>\$17,594 63</u>

CONTINGENT EXPENSES OF DEPARTMENT, INCLUDING FURNITURE, FUEL,
LIGHTS, BOOKS, STATIONERY, &C.

Contingents of Governor's office,	.	.	.	.	\$1,713 06
“ Comptroller's “	.	.	.	.	3,701 37
“ Treasurer's “	.	.	.	.	2,772 58
“ Secretary's “	.	.	.	.	4,693 36
“ Attorney General's office,	.	.	.	.	4,159 50
“ Surveyor “ “	.	.	.	.	1,000 18
“ Superintendent of Public Instruction's office,	.	.	.	.	2,123 96
Total,					<u>\$20,164 01</u>

JUDICIAL DEPARTMENT.

SALARIES.

Salaries of Justices of Supreme Court, . . .	\$32,361 13
“ District Judges, . . .	64,669 09
“ “ Attorneys, . . .	26,934 21
Total, . . .	<u>\$123,964 34</u>

CONTINGENTS.

Contingent Expenses of Supreme Court, . . .	\$2,732 75
---	------------

LEGISLATIVE DEPARTMENT.

Per diem of Senators,	\$58,305 00
“ Assemblymen,	108,042 00
Total,	<u>\$166,347 00</u>

MILEAGE.

Mileage of Senators,	\$8,595 60
“ Assemblymen,	12,233 40
Total,	<u>\$20,829 00</u>

OFFICERS AND CLERKS.

Of the Senate,	\$54,324 10
“ Assembly,	51,769 60
Total,	<u>\$106,093 70</u>

CONTINGENTS.

Contingent Expenses of the Legislature,	\$19,031 91
---	-------------

EXPENSE OF HOSPITALS.

Of State Marine Hospital,	\$66,166 97
Of Sacramento State Hospital,	61,875 51
Of Stockton " "	82,263 94
Total,	<u>\$210,306 42</u>

EXPENDITURES, CONTINUED.

Site for State Prison,	\$10,000 00
State Prison Building,	18,315 00
Transportation of Prisoners,	25,691 00
Census Agents	66,352 00
Presidential Election Returns,	1,294 80
Indigent sick at San Diego,	2,000 00
Washington Monument,	12,000 00
Map of the State,	1,637 75
Relief of Immigrants,	6,939 23
Witnesses before Legislature,	3,763 90
Suits against Vessels,—Attorney's Fees,	8,000 00
Copying Laws in office of Secretary of State,	158 78
Governor's Contingent Fund,	5,337 20
Total,	<u>\$161,489 66</u>

MISCELLANEOUS EXPENSES.

Paid H. G. Langley for copying, marginal noting laws, and for appendix and index to Journals of Session of 1852,	\$4,201 72
" H. G. Langley for marginal noting laws, and for appendix and index to Journals of the Session of 1853,	1,826 38
" H. G. Langley for making table of contents	76 00
" H. G. Langley for assistance in removing Archives,	75 00
" H. G. Langley for copying census returns,	40 00
" Jas. Langley " " " "	505 00
" Jas. Langley for distributing and packing Journals of Session of 1852,	600 00

MISCELLANEOUS EXPENSES—CONTINUED.

Paid Cook & LeCount for book binding and stationery for Treasurer of San Francisco County,	73 50
" W. H. Ford for fees as Clerk of Court, Tuolumne County,	135 50
" Jas. L. Trask " " " " Calaveras County,	126 00
" Presley Dunlap " " " " Sacramento County	80 50
" A. C. Bradford " " " " San Joaquin County	100 00
" E. D. Wheeler " " " " Yuba County,	86 40
" A. D. Patterson for expenses incurred in attempting to arrest H. B. Beatherly,	1,148 00
" R. Roman for traveling expenses incurred by removal of Seat of Government,	150 00
" B. Seguin for repairing State Arms,	100 00
" W. C. Kibbe for repairing State Arms,	200 00
" W. C. Kibbe for cleaning " "	432 50
" W. C. Kibbe for securing " "	40 00
" W. C. Kibbe for carrying " "	201 60
" Fishborne & Co. for lithographing War Bonds,	900 00
" B. F. Butler for lithographing Civil Bonds,	1,500 00
" A. C. Bradford for recording Senate Journals of 1852,	1,650 00
" A. C. Bradford for copying same for printer,	760 00
" Harris & Dougherty for removing Archives from Sacramento to Vallejo,	1,100 00
" John Walton for services as Member of Committee appointed to examine books of Comptroller and Treasurer of State,	2,000 00
" H. E. Robinson for services as Member of Committee appointed to examine books of Comptroller and Treasurer of State,	2,000 00
" Cook & LeCount for engraving School Land Warrants,	500 00
" A. G. Kimbell for recording Assembly Journals of 1852,	558 00
" J. J. Hand for examining Printer's Accounts,	25 00
" M. B. Lewis for transmitting Census Blanks,	18 00
" J. B. Devoe for examining Printer's Accounts,	50 00
" Bryant & Co. for distributing Laws of 1852,	400 00
" E. Randolph for services as Attorney in case, entitled Fowler vs. Comptroller of State,	3,000 00
" J. W. McKamey for Express charges on Census Blanks,	12 00
" D. W. Thompson for expense of keeping Fugitive Slaves,	450 00
" John P. Buckley for materials for fitting up the Capitol and State Offices at Vallejo,	141 25
" A. A. Brinsmade, appropriation for relief of Stockton Town Council,	200 00
" Stephen Cooper for Express charges on Census Blanks,	10 00
" W. G. Marcy, expenses in going to Monterey for State Archives,	96 00
" Clark & Crane for preparing plans and specifications for State Prison,	300 00
" John Younts for postage on Census Blanks,	10 00

MISCELLANEOUS EXPENSES—CONTINUED.

Paid E. H. Tharp for costs of suits in San Francisco County,	498 50
“ J. E. Wainwright “ “ “ “ “	2,636 18
“ P. Dunlap for “ “ Sacramento . . .	714 00
“ R. M. Anderson for expenses in going to El Dorado County by order of Comptroller of State, . . .	100 00
“ LeCount & Strong for engraving Comptroller's Warrants,	485 00
“ J. C. Smith for costs of suit, entitled “State of California vs. Woodlief et. al.,” . . .	620 00
“ Fern & Hodges for engraving seal for Superintendent of Public Instruction, . . .	37 00
“ W. E. P. Hartnell for translating Laws of 1852 in Spanish, . . .	1,050 00
“ J. R. Hardenburg for traveling expense in attempting to arrest Fugitive from Justice, . . .	76 00
“ J. H. Dupaix for hauling State Arms from Benicia to Vallejo, . . .	60 00
“ J. R. L. Smith for services as Astronomer, . . .	852 00
“ W. W. O. Dwyer for “ “ “ and Draftsman,	2,340 00
“ Directors of Library for purchase of books. . .	1,255 00
“ N. Bennett for 150 copies Reports of Supreme Court Decisions, . . .	2,400 00
“ Cornwall & Clyde for preparing abstract of Foreign Inhabitants in the State, . . .	80 00
“ E. L. Stetson for preparing abstract of Foreign Inhabitants in the State, . . .	40 00
“ Charles E. Pickett for copying Census Returns, . . .	100 00
“ James Miller “ “ “ “ . . .	90 00
“ E. L. Stetson “ “ “ “ . . .	60 00
“ R. Clyde “ “ “ “ . . .	60 00
“ J. S. Dungan “ “ “ “ . . .	83 00
“ C. L. Lamb for recovering papers belonging to Comptroller's Office, . . .	23 00
“ Albert Rowe for surveying boundary of Sacramento County, . . .	2,268 00
“ George Fisher for translating in Spanish the Governor's Message and Comptroller's Report, . . .	1,280 00
Paid E. A. Sheller for Lithographing F. M. Licenses, . . .	600 00
“ F. A. Snyder for Statutes of California, . . .	4,000 00
“ John B. Trask for Geological Survey, . . .	2,000 00
“ D. D. Colton for transporting Insane to Stockton, . . .	640 00
“ W. H. Lyons for services as member of committee to examine Books of Treasurer and Comptroller of State, . . .	516 00
“ M. M. Wambough, do do do, . . .	672 00
“ P. T. Herbert, do do do, . . .	432 00
“ G. W. Ten Broeck, services as Clerk to committee, . . .	576 00

MISCELLANEOUS EXPENSES—CONTINUED.

Paid J. W. Gregorv, pay as Presidential Elector,	.	.	.	44 00
“ W. S. Sherwood,	do	do,	.	172 00
“ Andres Pico,	do	do,	.	436 00
“ T. J. Henley,	do	do,	.	92 40
“ S. B. Wheeler, relief appropriation,	.	.	.	125 00
“ Taaffe & McCahill, do	do,	.	.	5,503 00
“ J. D. Monnett,	do	do,	.	1,000 00
“ M. C. Dougherty, do	do,	.	.	1,062 75
“ F. W. Hudson, do	do,	.	.	150 00
“ Patrick McGill, do	do,	.	.	104 00
“ Wm Reed, do	do,	.	.	110 00
“ E. G. Baker, do	do,	.	.	850 00
“ J. Bickerstaff, do	do,	.	.	192 00
“ John Furber, do	do,	.	.	80 00
“ J. R. Walker, do	do,	.	.	500 00
“ A. A. Mass, do	do,	.	.	200 00
“ A. H. Hart, do	do,	.	.	596 00
“ Thos. Green, do	do,	.	.	1,100 00
“ Shirley & Bailey, do	do,	.	.	818 75
“ E. Poppe, do	do,	.	.	2,112 70
“ Soule & Page, do	do,	.	.	5 14 36
“ B. F. Forsythe, do	do,	.	.	180 00
“ Jas. M. Cranston, do	do,	.	.	224 43
“ Henry Hook, do	do,	.	.	24 50
“ Sam'l C. Grav, do	do,	.	.	48 00
“ Neville & Derby, do	do,	.	.	70 00
“ J. J. Neff, do	do,	.	.	50 00
“ Jas. Taylor, do	do,	.	.	10 00
“ Steamer Senator, do	do,	.	.	100 00
“ George Dingley, do	do,	.	.	500 00
“ John Tierney, do	do,	.	.	50 00
“ L. McMahon, do	do,	.	.	25 00
“ John Taylor, do	do,	.	.	100 00
“ Calvin Valprey, do	do,	.	.	160 00
“ Clark and Crane, do	do,	.	.	620 00
“ Chas. E. Pickett, do	do,	.	.	9,500 00
“ J. W. Goforth, do	do,	.	.	180 00
“ J. C. Cremony, do	do,	.	.	50 00
“ William Waldo, do	do,	.	.	27,000 00
Total,	.	.	.	\$107,221 92

EXPENSE OF KEEPING AND GUARDING PRISONERS, CRIMINAL PROSECUTIONS, AND FOR ENFORCING LAW CONCERNING FOREIGN MINERS.

Paid John C. Hayes for San Francisco County,	-	-	\$6,062 00
“ R. B. Buchanan for Yuba do,	-	-	20,000 00
“ Presley Dunlap for Sacramento do,	-	-	14,000 00
“ George Work for Tuolumne do,	-	-	3,200 00
“ James Burney for Mariposa do,	-	-	2,769 00
Total,			<u>\$46,031 00</u>

EXPENSE OF PRINTING.

Printing for Legislature,	-	-	-	\$58,411 65
“ Laws and Journals of 1852,	-	-	-	29,296 17
“ Laws and Journals of 1853,	-	-	-	18,906 22
“ Census Returns,	-	-	-	33,633 50
“ Census Blanks,	-	-	-	7,513 60
“ Laws of 1851 in Spanish,	-	-	-	1,719 00
“ Laws of 1852 do,	-	-	-	1,673 27
“ Poll Tax Receipts,	-	-	-	5,135 00
“ Foreign Miners' Licenses,	-	-	-	9,989 00
“ Governor's Proclamations,	-	-	-	1,700 75
“ Circulars for Governor,	-	-	-	60 00
“ Notice of School Land Warrants,	-	-	-	369 00
“ Blank affidavits for same,	-	-	-	35 00
“ Notice of proposals for Fuel and Stationery for Legislature,	-	-	-	508 50
“ Blanks for County Officers,	-	-	-	1,052 00
“ “ Comptroller of State,	-	-	-	290 00
“ “ Treasurer of State,	-	-	-	95 00
“ “ Secretary of State,	-	-	-	260 00
“ “ Attorney General,	-	-	-	339 38
“ “ Surveyor General,	-	-	-	12 50
“ “ Superintendent of Public Instruction,	-	-	-	160 00
“ Notice of removal of Seat of Government,	-	-	-	24 00
“ “ proposals for building State Prison,	-	-	-	669 50
“ Rules for Supreme Court,	-	-	-	37 50
“ Revenue Law of 1852 in Spanish,	-	-	-	204 98
“ Notice of proposals for State Printing,	-	-	-	98 00
“ “ redemption of State Bonds,	-	-	-	429 50
“ “ proposals for printing Laws in Spanish,	-	-	-	91 50

EXPENSE OF PRINTING—CONTINUED.

Printing Law concerning F. M. License and redemption of					
Comptroller's Warrants,	-	-	-	-	295 05
“ Correspondence between Comptroller and Attorney					
General,	-	-	-	-	20 00
“ Governor's Message,	-	-	-	-	247 85
“ Report of Comptroller of State,	-	-	-	-	1,644 75
“ “ Surveyor General,	-	-	-	-	824 35
“ “ Superintendent of Public Instruction,					242 00
“ “ State Prison Committee,	-	-	-	-	715 05
“ “ Sacramento Hospital,	-	-	-	-	150 28
“ “ Stockton do,	-	-	-	-	746 41
“ Sundry Reports by order of Secretary of State,					7,190 36
“ Copies of Census Documents,	-	-	-	-	740 97
					<hr/>
					\$185,532 19
Paid for paper for Public Printing,	-	-	-	-	16,962 20
					<hr/>
Total for fourth fiscal year,	-	-	-	-	\$202,494 39

RECAPITULATION OF EXPENDITURES.

Executive Department,	-	-	-	-	-	\$102,607 04
Judicial do,	-	-	-	-	-	126,697 09
Legislative do,	-	-	-	-	-	312,301 61
Hospitals,	-	-	-	-	-	210,306 42
Site for State Prison,	-	-	-	-	-	10,000 00
State Prison Building,	-	-	-	-	-	18,315 00
Transportation of Prisoners,	-	-	-	-	-	25,691 00
Census Agents,	-	-	-	-	-	66,352 00
Presidential Election Returns,	-	-	-	-	-	1,294 80
Indigent Sick at San Diego,	-	-	-	-	-	2,000 00
Washington Monument,	-	-	-	-	-	12,000 00
Maps of the State,	-	-	-	-	-	1,637 75
Relief of Immigrants,	-	-	-	-	-	6,939 23
Witnesses before Legislature,	-	-	-	-	-	3,763 90
Suits against Vessels, Attorneys' fees	-	-	-	-	-	8,000 00
Copying Laws in Office of Secretary of State,					-	158 78
Governor's Contingent Fund,	-	-	-	-	-	5,337 20
Miscellaneous Expenses,	-	-	-	-	-	107,221 92
Keeping and Guarding Prisoners, &c.,	-	-	-	-	-	46,031 00
Printing,	-	-	-	-	-	185,532 19
Paper for State Printing,	-	-	-	-	-	16,962 20
						<hr/>
Grand Total,	-	-	-	-	-	\$1,269,149 13

EXHIBIT OF RECEIPTS AND EXPENDITURES

For the Four preceding Fiscal Years.

CIVIL DEBT.

		RECEIPTS.	EXPENDITURES.
First Fiscal Year,	- - - -	\$3,156 27	\$348,165 26
Second Fiscal Year,	- - - -	230,796 45	585,702 83
Third Fiscal Year,	- - - -	366,825 07	925,694 56
Fourth Fiscal Year,	- - - -	454,185 85	1,269,149 13
		<hr/>	<hr/>
		\$1,154,963 64	\$3,128,711 78
Total Expenditures to June 30th, 1853,	- - - -		\$3,128,711 78
Total Receipts to June 30th, 1853,	- - - -		1,154,963 64
			<hr/>
Excess of Expenditures over Receipts from Taxation			
during Four Fiscal Years, ending June 30, 1853,			\$1,973,748 14

II.

TABULAR STATEMENT of the amount of each appropriation of money made by law, the amount paid under the same, and the balance remaining unexpended at the close of the Fourth Fiscal Year.

ACTS.	DATE OF AP- PROVAL	AMOUNT OF AP- PROPRIA- TION.	AMOUNT OF WARRANTS DRAWN.	BALANCE UNEX- PENDED.
An Act appropriating moneys to meet the contingent expenses of Government,	Jan 27 1853	600,000 00	600,000 00	
An Act providing for the erection of State Prison,	May 7 1853	153,315 00	18,315 00	135,000 00
An Act providing for the codification of the Laws of California,		4,000 00	4,000 00	
An Act to provide for Map of State of California, balance unexpended,		1,637 75	1,637 75	
An Act to provide for removal of Archives from Sacramento to Vallejo, balance unexpended,	April 30 1852	1,200 00	1,100 00	100 00
An Act making appropriation for site of State Prison,		10,000 00	10,000 00	
An Act for Indigent Sick at San Diego,		2,000 00	2,000 00	
An Act for collection of certain Tax from Vessels, &c ,	May 3 1852	10,000 00	8,000 00	2,000 00
An Act erecting San Francisco State Marine Hospital,	May 19 1853	100,000 00	66,166 97	33 833 03
An Act creating Insane Asylum,		50,000 00	31,251 33	15,748 67
An Act providing for the payment of the contingent expenses of the Executive and Judiciary Department,		4,800 00	4,800 00	
An Act for the payment of Soule & Page,	April 5 1853	534 36	534 36	
" " A. A. Voss,	"	200 00	200 00	
" " F. W. Hudson,	"	150 00	150 00	
" " Wm. Read,	"	110 00	110 00	
" " T. J. Gortoth,	"	180 00	180 00	
" " James Brawley,	"	330 00	330 00	
" " P. Magill,	April 2 1853	104 00	104 00	
" " J. Bickersstaff,	"	192 00	192 00	
" " B. F. Forsyth,	"	180 00	180 00	
" " J. Tierney,	"	50 00	50 00	
" " J. Furber,	"	80 00	80 00	
" " M. C. Dougherty,	"	1,062 75	1,062 75	

ACTS.	DATE OF AP- PROVAL.	AMOUNT OF AMOUNT OF		BALANCE UNEX- PENDED.
		APPROPRIA- TION.	WARRANTS DRAWN.	
An Act for the payment of H Hook,	April 2 1853	24 50	24 50	
" " J. M. Cranston,	April 6 1853	221 43	221 43	
" " E. S. Baker.	"	850 30	850 30	
" " Shalev & Baily,	April 19 1853	818 75	818 75	
" " Thos Green,	"	1,100 00	1,100 00	
" " Ernest Poppe,	"	2,112 70	2,112 00	
" " George Dingley,	April 30 1853	500 00	500 00	
" " L McMahon,	"	25 00	25 00	
" " J Taylor,	"	100 00	100 00	
" " Calvin Valprey,	May 7 1853	160 00	160 00	
" " S. C. Gray,	May 11 1853	48 00	48 00	
" " Neville & Derby,	"	70 00	70 00	
" " J. J. Neff,	"	50 00	50 00	
" " J. S. Taylor,	"	30 00	30 00	
" " Steamr Senator.	"	100 00	100 00	
" " Maj Jas Birney.	May 13 1853	8,648 00	8,648 00	
An Act for Relief of steamer S B Wheeler.	Feb 25 1853	125 00	125 00	
" " Tuflee, McCahill & Co	Mar 12 1853	5,503 00	5,503 00	
" " J. D. Mounett, M. D.	Mar 25 1853	1,000 00	1,000 00	
" " Capt. Joseph Walker.	April 1 1853	500 00	500 00	
" " Thos A Hilton,	April 2 1853	590 50		
" " Orin Bailey,	May 7 1853	120 00		
" " Wm Corbet,	"	120 00		
" " Arsina Miramontez,	"	43 50		
" " Francisco Sanchez,	"	39 00		
" " John Cole	"	24 00		
" " Charles Ridout,	"	6 50		
" " F. W. Sibert,	"	5 50		
" " Wm. Lampman,	"	6 50		
" " Jno. S. Lee,	"	16 50		
" " Thos Hises.	"	73 50		
" " Henry Vandewater,	"	60 00		
" " Roman DeZaldo,	"	20 00		
" " Thos Fitzgerald,	"	40 00		
" " Ruben Clark and }	"			
" " Wm Crune. }	"	620 00	620 00	
" " Wm. Waldo,	May 13 1853	27,000 00	27,000 00	
" " Charles E. Pickett,	May 17 1853	9,500 00	9,500 00	
" " Jno. Brown,	"	1,150 00	1,150 00	
" " C. H. Veeder,	May 18 1853	100 00		
" " Jno. C Cremony,	"	50 00	50 00	
" " Stockton Town Coun- cil, balance,	June 30 1852	280 40	200 00	80 40
An Act for Relief of Over Land Immi- grants, balance unexpended,	"	6,939 23	6,939 23	
An Act to compensate Dr. J. B. Trask for Report,	May 7 1853	2,000 00	2,000 00	

TABULAR STATEMENT,

Showing the amount of Revenue chargeable to each County, for the preceding year, 1852, the aggregate amount of each object of taxation, together with the tax due on same.

Number.	COUNTIES.	No. of acts of Real Estate other than City and Town Lots.	Value of Real Estate.	Value of Improvements thereon.	Value of City and Town Lots.	Value of Improvements thereon.	Value of Personal Property, except improvements on Real Estate.	Total value of Property.	State Tax thereon at 30c on each \$100 worth.	County Tax thereon.	Poll Tax for State purposes.	P. II Tax for county purposes.	Incident Tax for previous years.	Total Tax.
1	Butte,	250,516	2,241,282	\$65,227			6,547,418	8,851,955	\$2,762 92	\$1,262 71	\$8,312 78	\$1180 92		\$19,448 11
2	Colusa,	248,543	277,822	41,212	827,535	674,550	689,846	906,816	2,941 90	4,903 16	157 50	427 75	\$4,026 97	11,375 72
3	Colaveras,	15 7	4,775	5,079	31,600	23,675	568,725	168,450	2,425 32	2,021 12	3,118 00	1,559 69		9,123 47
4	Contra Costa,	407,490	1,885,105	114,250	105,904	71,325	1,609,644	3,231,198	9,768 57	16,180 99	1,717 20	738 89	3,694 11	31,389 68
5	El Dorado,	1321	21,258	165,507			1,611,626	1,891,801	5,435 46	9,156 91	6,442 05	1,116 79	5,733 51	32,658 02
6	Los Angeles,	1,546,669	47,143,9	279,111	51,202	250,71	1,187,098	2,256,125	6,767 60	11,239 51	1,131 73	678 8	826 36	29,937 10
7	Marin,						12,779	52,47	1,61 10	326 92	781 50	137 30		1,678 17
8	Monterey,	793,091	470,364	82,634	90,111	201,450	609,154	1,516,920	4,49 90	7,731 64	491 30	245 6	6,650 16	18,439 12
9	Mariposa,		553,760	38,890			51,27	1,126,577	3,678 83	9,931 91	3,443 67	1,872 5		18,79 81
10	Martin,	319,802	498,976	91,653	12,026	92,71	501,021	932,192	2,799 77	1,665 20	821 13	344 9	91 87	7,557 10
11	Napa,	272,309	722,669	133,953	17,555	35,89	381,281	1,880,098	5,867 14	6,145 21	940 10	365 4	680 70	12,298 58
12	Nevada,							86,625	2,870 77	4,781 6	9,830 29	1,129 71	2,231	17,546 71
13	San Joaquin,	102,771	253,100	27,377	631,577	417,600	1,27,652	2,813,104	8,167 21	11,062 02	1,053 20	605 7	2,123 05	26,911 38
14	San Diego,	462,563	109,174	6,930	76,619	74,856	187,914	424,637	1,273 90	2,123 17	158 60	59 16	3,997 09	
15	Santa Clara,	282,348	1,523,914	506,271	118,148	194,130	990,200	3,221,153	9,876 4	17,628 17			6,336 11	33,928 89
16	San Luis Obispo,	537,457	200,945	4,700	4,4951	20,725	316,918	512,324	1,537 38	2,589 78	63 90	26 10		1,22 17
17	San Francisco,	95, 35	583,465	96,900	7,577,651	6,811,015	3,415,716	18,461,77	55,415 20	307,719 91	10,773 1		36,4165 11	
18	Sacramento,	200,021	569,620	171,850	2,691,311	1,364,079	2,491,238	7,232,021	21,696 08	26,180 13	6,258 06	2,666 28	23,213 67	84,013 97
19	Sonoma,	561,616	710,395	137,050	119,721	70,195	562,910	1,677,001	4,914 34	12,39 80	9,29 29	3,07 8	4,060 26	22,519 89
20	Santa Cruz,		659,473				4,5621	1,095,091	3,255 28	5,155 47	121 65	395 1	197 63	1,368 86
21	Shasta,	36,097	67,850	68,125	47,397	101,565	300,708	645,515	1,946 63	3,227 75	1,304 40	597 6		7,704 37
22	Sutter,	117,717	372,600	19,095	11,996	19,190	201,801	617,591	1,755 68	3,089 47	428 60	183 6	3,069 91	8,513 83
23	Solano,	196,369	683,817	51,550	532,311	191,569	1,117,465	2,860,795	8,690 37	14,183 98	426 90	390 2	2,175 78	26,608 65
24	Sierra,						657,976	657,976	1,973 4	3,289 88	2,220 00	14,10 00	2,235 61	4,263 81
25	Santa Barbara,	840,273	220,330	77,670	16,913	112,930	621,323	989,686	2,969 06	7,922 60	268 00	131 6	1,170 61	17,027 87
26	Siskiyou,			13,155			23,422	442,131	1,365,985	4,097 95	6,829 92	6,465 91	2,771 16	16,552 91
27	Placer,													10,927 87
28	Trinity,		31,212				202,661	2,63,874	701 61	1,169 6	2,210 70	360 38		3,071 98
29	Columne,	6,644	193,542	417,000			1,061,320	1,620,911	4,862 73	8,154 55	8,507 00		1,061 30	17,017 28
30	Yolo,	652,909	367,981	172,115			871,873	1,331,509	3,965 80	6,609 82	1,414 00	712 00	1,729 23	14,130 94
31	Yuba,	99,819	512,533	51,000	387,595	208,975	1,300,005	2,259,906	6,869 71	17,174 30	3,717 00		702 66	21,716 66
		18,021,382	\$11,014,902	\$3,207,811	\$12,565,999	\$10,432,700	\$14,213,305	\$61,388,375	\$193,767 23	\$553,103 27	\$81,846,60	\$90,232 0	\$68,121 17	\$872,104 49

IV.

STATEMENT OF THE CONDITION OF THE SEVERAL FUNDS,
JUNE 30, 1853.

The General Fund.

Balance in Fund, June 30th, 1852,	-	-	\$16,053 81
Receipts during Fiscal Year,	-	-	171,119 62
			<hr/>
			\$187,173 43
Amount expended,	-	-	166,005 94
			<hr/>
Balance in Fund,	-	-	\$21,167 49

The Interest Tax Fund of 1851.

Balance in Fund, June 30th, 1852,	-	-	\$9,833 86
Receipts during Fiscal Year,	-	-	72,200 75
			<hr/>
			\$82,034 61
Amount expended,	-	-	58,499 56
			<hr/>
Balance in Fund,	-	-	\$23,535 05

The Interest Fund of 1852.

Balance in Fund, June 30th, 1852,	-	-	\$1,000 62
Receipts during Fiscal Year,	-	-	44,705 83
			<hr/>
			\$45,706 45
Amount expended,	-	-	56,904 91
			<hr/>
Amount overdrawn,	-	-	\$11,198 46

The School Fund.

Balance in Fund, June 30th, 1852,	-	-	-	\$499 82
Receipts during Fiscal Year,	-	-	-	21,213 31
				<hr/>
In Fund,	-	-	-	\$21,713 13

Sacramento Hospital Fund.

Balance in Fund, June 30th, 1852,	-	-	-	\$8,075 13
Receipts during Fiscal Year,	-	-	-	33,810 38
				<hr/>
Amount expended,	-	-	-	\$41,885 51
				41,885 51

Stockton Hospital Fund.

Balance in Fund, June 30th, 1852,	-	-	-	\$8,075 13
Receipts during Fiscal Year,	-	-	-	29,012 25
				<hr/>
Amount expended,	-	-	-	37,087 38
				21,521 30
				<hr/>
Balance in Fund,	-	-	-	\$15,566 08

San Francisco Marine Hospital Fund.

Balance in Fund, June 30th, 1852,	-	-	-	\$14,634 75
Receipts during Fiscal Year,	-	-	-	51,532 22
				<hr/>
Amount expended,	-	-	-	66,166 97
				\$66,166 97

The Insane Fund.

Amount received in Fund,	-	-	-	\$776 96
Total unexpended.				

State Prison Interest Fund.

Amount received in Fund,	-	-	-	\$203 03
Total unexpended.				

State Library Fund.

Receipts in Fund during Fiscal Year,	-	-	-	\$1,255 00
Amount expended,	-	-	-	1,255 00

Military Fund.

Balance in Fund, June 30, 1853,	-	-	-	\$339 50
Amount expended,	-	-	-	60 20
Balance in Fund,	-	-	-	\$279 30

V.

An estimate of Receipts Expenditures for the Fifth Fiscal Year ending June 30th, 1854, with abstract of property thus far received for the present year.

RECEIPTS.

Proceeds of State Taxes upon Real and Personal Property, on a Duplicate of \$100,000,000 of assessments, at 60 cents on the \$100 of valuation, (rate fixed by law) amounts to \$600,000 : deduct for delinquencies and cost of collection, say \$160,000, leaves an estimated balance, which it is believed will be fully realized, of	-	-	-	-	\$440,000
Tax on Foreign Miners,	-	-	-	-	125,000
Poll Tax,	-	-	-	-	60,000
Consigned Goods, (on sales of)	-	-	-	-	50,000
Licenses, Auction Duties, -	-	-	-	-	75,000
Passengers Tax,	-	-	-	-	26,000
Fees in Secretary of State's Office for Library Fund,	-	-	-	-	2,000
Possessory Claims,	-	-	-	-	2,000
Total,	-	-	-	-	<u>\$789,000</u>

The above is an estimate of Receipts exclusive of amounts to be realized from sales of State property.

ESTIMATED EXPENDITURES FIFTH FISCAL YEAR.

EXECUTIVE DEPARTMENT.

Salary of Governor.	-	-	-	-	\$10,000 00
“ Comptroller,	-	-	-	-	4,500 00
“ Treasurer,	-	-	-	-	4,500 00
“ Secretary of State,	-	-	-	-	3,500 00
“ Attorney General,	-	-	-	-	2,000 00
“ Surveyor General,	-	-	-	-	2,000 00
“ Superintendent Public Instruction,	-	-	-	-	4,500 00
“ Quartermaster General,	-	-	-	-	2,000 00
“ Clerks in State Offices,	-	-	-	-	19,444 00
“ Private Secretary to Governor,	-	-	-	-	1,800 00
Contingent Expenses of Public Offices,	-	-	-	-	20,000 00
Printing for Public Offices,	-	-	-	-	5,000 00
Total,	-	-	-	-	<u>\$79,244 00</u>

JUDICIAL DEPARTMENT.

Salary of 3 Justices Supreme Court,	-	-	\$28,000 00
“ 11 District Judges,	-	-	59,000 00
“ District Attorney, San Francisco,	-	-	5,000 00
Contingent Expenses of Supreme Court,	-	-	2,500 00
Total,	-	-	<u>\$94,500 00</u>

LEGISLATIVE DEPARTMENT.

Per diem of 33 Senators, session of three months,	-	\$35,640 00
Mileage “ “ “ “ “ -	-	9,000 00
Per diem of 80 Assemblymen, session of three months,	-	86,000 00
Mileage “ “ “ “ “ -	-	23,000 00
Per diem of Officers and Clerks of the Senate,	-	50,000 00
“ “ “ “ Assembly,	-	55,000 00
Contingent Expenses of both Houses,	-	20,000 00
Total,	-	<u>\$278,840 00</u>

MISCELLANEOUS EXPENDITURES.

State Printing, Laws and Journals of 1853,	-	\$29,000 00
“ “ Stationery for same,	-	5,000 00
Copying, Indexing and Marginal Noting Laws and Journals,	-	5,500 00
Recording and Copying Journals and Laws of Senate and Assembly,	-	3,000 00
Distributing Laws and Journals,	-	1,000 00
Translating Laws and Governor's Message into Spanish,	-	2,500 00
San Francisco Marine Hospital,	-	100,000 00
Stockton Insane Asylum, 2-5th Passenger Tax and appropriations,	-	90,000 00
Erection of State Prison, balance unexpended,	-	135,000 00
Legislative Printing,	-	50,000 00
Transportation of Prisoners to State Prison,	-	25,000 00
Sacramento State Hospital,	-	61,866 51
Total,	-	<u>\$507,866 51</u>

RECAPITULATION OF ESTIMATED EXPENSES.

Executive Department,	. . . . .	\$79,244 00
Judicial “	. . . . .	94 500 00
Legislative “	. . . . .	278,840 00
Miscellaneous,	. . . . .	507,866 50
		<u>\$960,450 51</u>

**ABSTRACT OF PROPERTY OF ALL KINDS ASSESSED, THE AMOUNT OF STATE TAX ON THE
SAME, AND THE AMOUNT OF POLL TAX FOR 1853.**

COUNTIES.	Number of acres of land.	Value of same	Value of im- provements thereon	Value of city and town lots.	Value of im- provements thereon.	Value of per- sonal prop- erty.	Total value of Property	State tax thereon at 60 cents on \$100.	State poll tax assessed.
Alameda,	253,260 ² / ₅	\$1,060,362	2,637,892	\$175,720	\$11,070	\$954,903	\$4,472,837	\$2,683,37 00	\$3,185 25
Butte,	316,311						2,021,112	12,144 85	
Colusa,	210,657	903,101	33,460	4,175	25,065	502,727	1,470,131	8,820 79	
Contra Costa,	171,548	928,752	182,615	77,071	49,485	767,273	1,995,192	11,951 14	1,032 00
Calaveras,	32,767	141,750	119,560	102,845	335,960	1,126,861	2,129,063	12,779 80	2,413 50
El Dorado,			1,502,487			2,157,882	3,660,369	11,651 98	13,085 50
Los Angeles,									
Monterey,	746,887	526,098	79,116	43,649	159,125	792,586	1,607,168	9,613 00	
Mariposa,	119,064	609,082	31,795		2,100	1,933,115	1,681,122	10,090 41	2,941 20
Martinez,									
Yapco,	251,313	715,587	167,185	17,870	36,120	508,736	1,527,962	9,167 41	914 54
Nevada,									
Placer,									
San Francisco,									
Sacramento,		519,239	326,800	3,037,352	1,267,295	3,042,324	32,377,291	191,267 26	5,171 40
Santa Clara,	376,834	1,901,917	896,748	141,706	269,425	1,219,280	8,552,929	49,317 52	7,014 03
San Joaquin,	399,072	1,301,334	258,149	245,800	629,250	2,015,296	1,443,207	29,653 82	4,438 89
Santa Cruz,		717,750				367,665	1,085,409	6,514 63	301 68
San Luis Obispo,	403,650	152,220	39,280	1,800	2,650	225,030	421,750	2,688 86	1,935 00
Sierra,							777,784	4,600 70	
Sierrita,			190,613			725,577	917,190	5,503 11	
San Barbara,	1,297,807	322,758	27,155	21,699	117,614	617,308	1,356,654	8,119 92	1,292 60
Sonoma,	539,261 ² / ₅	1,112,509	347,880	71,739	146,726	1,184,351	2,880,309	17,271 98	450 00
Solano,		950,617	59,761	636,950	421,005	1,782,915	3,851,948	23,106 20	1,142 30
San Diego,									477 00
Sutter,	122,184	290,457	66,105	3,720	9,550	285,472	755,204	4,540 24	
Yuba,	69,936	119,961	81,385	31,272	93,399	639,573	968,586	5,811 50	1,974 00
Tulare,									
Tuolumne,	26,501 ² / ₅	316,875	2,900			2,025,086	2,374,861	14,249 16	
Trinity,	160	8,700	83,300		72,480	362,135	529,615	3,159 69	
Yolo,	161,450	199,471	169,909			808,245	1,177,625	7,065 75	2,121 29
Yuba,		255,318	429,036	865,745	398,700	1,746,468	3,995,387	23,171 60	
Klamath,									
San Bernardino,									
Mexicana,									
Humboldt,									
Total	5,429,330	\$11,119,599	\$5,459,535	\$6,084,179	\$4,000,240	\$16,015,504	\$91,332,175	\$536,717 54	\$48,920 72

The Comptroller has estimated the taxable property of the State at one hundred million dollars. The returns already received warrant the belief that the grand list of assessments will not be short of that sum, when fully rendered. The total amount must, however, be far less than the actual amount of taxable property in the State. This is an increase of fifty-seven million dollars over the assessments of 1851-2, and thirty-five million dollars over the assessments of 1852-3. Under our present revenue law, sixty cents on the one hundred dollars valuation, is assessed and collected—thirty-nine cents of interest tax and twenty one cents for the general fund. It is believed that four hundred and forty thousand dollars will be collected from real and personal property, which will give two hundred and ninety-two thousand five hundred dollars to the interest funds and one hundred and forty seven thousand five hundred dollars to the General Fund.

The estimated revenue from Foreign Miners, it is confidently believed, will be fully realized, as also that to be derived from polls.

Should the decisions of our courts result in sustaining the suits directed by the State for the collection of the tax upon the sales of Consigned Goods, the estimate of revenue from that source may be too low.

As will be seen, there has been a large falling off in the amount derived from Gaming Licenses, and the indications are, that this source of revenue will soon be nearly, if not wholly, cut off, such has been and must be, hereafter, the decrease of the mere business of gaming in our State.

The revenue derived from the passenger tax, has also fallen off very considerably, and it is thought that the estimate of the same, for the present year, is full as large as will be realized.

It is believed that, at least, seventy five thousand dollars will be received from Auction Duties and Licenses, should the decisions of our courts sustain suits now pending for their collection.

The expenditures for the Executive and Judicial Departments have been materially lessened, also the expenditures for Hospitals.

The Comptroller has not estimated the amount which will be required for the payment of interest on our seven per cent (Civil) Bonds, as it is impossible, at the present time, to know the amount of this class of indebtedness, so much is now being redeemed in payment for State property. It is probable also, that these redemptions may continue, and that the whole will be absorbed during the coming year.

VI.

PUBLIC DEBT.

STATEMENT—Three Per Cent Bonds issued under Act approved February 1st 1850. The amount redeemed during each Fiscal Year, with the Interest paid thereon, and amount outstanding at the close of the Fourth Fiscal Year ending June 30th, 1853.

Bonds Issued \$290,100.	Principal amount redeemed.	Interest paid on amount re- deemed.	Total principal and interest paid in re- demption.	Principal out- standing.	Interest due thereon.	Total principal and interest outstanding, June 30th, 1853.
First fiscal year ending June 30, 1850.	\$2,950 00	\$206 27	\$3,156 27	\$287,150 00		
Second fiscal year ending June 30, 1851,	122,150 00	34,419 18	156,569 18	165,000 00		
Third fiscal year ending June 30, 1852,	47,675 00	27,369 16	75,044 16	117,325 00		
Fourth fiscal year ending June 30, 1853,	79,125 00	74,040 92	153,165 92	\$38,200 00	\$44,694 00	\$82,894 00
Total,	\$251,900 00	\$136,035 53	\$387,935 53			

Seven per cent. Civil Bonds, issued under Act of April 23th, 1851.

Amount issued up to June 30th, 1852,	\$117,000 00
Redeemed to that date,	19,500 00
Principal outstanding, June 30th, 1852,	\$397,500 00
Amount issued from June 30th, 1852, to June 30th, 1853,	41,500 00
	439,000 00
Redeemed during Fourth Fiscal Year,	34,500 00
Principal outstanding, June 30th, 1853,	\$404,500 00
Interest due to that date,	4,433 72
Total outstanding,	\$408,933 72

Seven per cent. Civil Bonds, issued under Act of May 1st, 1852.

Amount issued to June 30th, 1852,	\$156,500 00
“ issued from June 30th, 1852, to June 30th, 1853,	1,052,500 00
Principal outstanding,	1,209,000 00
Interest due thereon,	11,198 47
Total outstanding, June 30th, 1853,	\$1,220,198 47

STATEMENT

Showing the amount of Comptroller's Warrants outstanding at the close of the Third Fiscal Year ; the issue and redemption during the Fourth Fiscal Year, and the amount outstanding at the close of the year, ending June 30th, A. D., 1853.

Balance outstanding at the close of the Third Fiscal Year, ending June 30th, 1852,	\$500,449 46
Amount issued during Fourth Fiscal Year,	1,269,149 13
	\$1,769,598 59
Amount brought forward,	\$1,769,598 50

Amount brought forward,	.	.	\$1,769,598 59
REDEEMED AT TREASURY—			
In Cash,	.	.	\$162,251 18
For Taxes,	.	.	2,565 00
School Lands,	.	.	237,089 50
Funded under Act of 1851,	.	.	40,500 00
Funded under Act of 1852,	.	.	1,052,500 23
			<hr/> 1,494,905 91
Total outstanding, June 30th, 1853,			<hr/> \$274,692 68

An Exhibit of the entire Civil Debt of the State, at the close of the 4th Fiscal Year, ending June 0th, 1853.

1st. Three per cent. Bonds outstanding,	\$33,200 00	
Interest thereon,	44,694 00	
	<hr/> \$82,894 00	
2d. Seven per cent. Bonds issued under Act		
1851, payable in 1855,	\$175,500 00	
Do. do. payable in 1861,	229,000 00	
Interest thereon,	4,433 72	
	<hr/> \$408,933 72	
3d. Seven per cent. Bonds issued under Act		
of 1852,	\$1,209,000 00	
Interest thereon,	11,198 47	
	<hr/> \$1,220,198 47	
4th. Comptroller's Warrants outstanding,		\$274,692 68
5th. Due School Fund for Interest on am't		
received for School Lands,	\$15,205 40	
Amount received for Taxes,	21,713 13	
	<hr/> \$36,918 53	
6th. Due for School Lands sold,		\$330,560 00
		<hr/> \$2,354,197 40
7th. Deduct balance cash in General Fund,	\$21,157 49	
Amount in Interest Tax Fund of 1851,	23,555 04	
" School Fund,	17,812 68	
	<hr/> \$62,515 21	
Total of Civil Debt, June 30th, 1853,		<hr/> \$2,291,682 19

WAR DEBT.

At the close of the Fourth Fiscal Year.

Twelve per cent. Bonds issued under Act of 1851, outstanding June 30, 1852,	\$200,000 00
Interest accrued thereon, and unpaid June 30, 1853,	51,812 20
	<hr/>
Total Principal and Interest outstanding June 30, 1853,	\$251,812 20
Seven per cent. Bonds issued under Act of 1852, to June 30, 1852,	\$144,000 00
Seven per cent. Bonds issued during the Fourth Fiscal Year, ending June 30, 1853,	427,200 00
Interest due thereon on the 1st day of January, 1854,	51,080 42
	<hr/>
Total Principal outstanding June 30, 1853, and interest due thereon Jan. 1, 1854,	\$622,280 42
Warrants outstanding at close of Third Fiscal Year, June 30, 1852,	\$140,087 93
Warrants issued during the Fourth Fiscal year, June 30, 1853,	314,418 56
	<hr/>
	\$454,506 49
Warrants funded during Fourth Fiscal year, as above,	427,200 00
	<hr/>
Total amount of Warrants outstanding, June 30, 1853,	\$27,306 49
	<hr/>
Total debt to June 30, 1853,	\$901,399 11

STATEMENT

Exhibiting the condition of the several appropriations, made for the purpose of liquidating War Claims on the 29th November, for which Seven per cent. Bonds have been issued: Also, the amount of Twelve per cent. Bonds issued to date.

Amount audited to the San Diego Campaign, to Nov. 29, 1853,	\$17 532
Appropriation,	\$23,000
	17,532
	<hr/>
To be audited,	\$5,468

Amount audited to the Siskiyou Campaign, to Nov 29, 1853.	\$10,615
Appropriation	\$23,000
	10,615

To be audited,	\$12,385
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Amounts audited to the Gila, 1st El Dorado 2d El Dorado, Los Angeles, Monterey, Mariposa, Clear Lake, Klamath, San Diego and Siskiyou as per Warrant Register,	\$619,642 12
Deduct \$17,532 and \$10,615,	28,147 00

	\$591,495 12
Appropriation,	\$600,000 00
	591,495 12
To be audited,	\$8,504 88

Twelve per cent Bonds issued to Wm. Foster,	\$99,000 00
" " " " Wm Rogne,	100,000 00
" " " " James L. Boling,	1,000 00

EXHIBIT OF THE ENTIRE DEBT OF THE STATE TO DECEMBER 20, A. D., 1853.

Three per cent. Bonds outstanding,	\$4,075 00
Interest thereon,	5,501 25
	\$9,576 25
Seven per cent. Bonds issued under Act, 1851, principal outstanding,	384,000 00
Seven per cent. Bonds issued under Act, 1852,	1,422,000 00
State Prison Bonds issued under Act, 1853, principal out- standing,	100,000 00
Comptroller's Warrants outstanding,	161,619 80
Total Civil indebtedness outstanding,	\$2,077,196 05
War Debt to date,	924,259 65
	\$3,001,455 70
Due School Fund for School Lands sold to date,	463,360 00
	\$3,464,815 70

The entire Civil, School and War Debt of the State, existing at the close of the Fiscal Year, June 30th, 1853, was \$3,193,081 30—and up to Dec. 20th is \$3,461 815 70

The debt to the School Fund (\$463,360) is, however, owned by the State, and does not constitute a real demand for which she is to provide, other than for the payment of seven per cent. interest on the amount accruing from sales of School Lands—\$9,576 25 of three per cent. per month bonds remain unredeemed at this date, noth aving been presented for payment at the Treasury.

It is confidently believed that our War Debt will be assumed by the General Government (See article on "Indian War Claims" in a subsequent part of this report.)

The State Prison Bonds will be nearly absorbed for State property by the 1st of January, 1854.

The joint proceeds of the Interest Tax of 1851 and 1852, (35 cents on the one hundred dollars valuation of real and personal property,) is not only paying our interest on our seven per cent. Civil Bonds issued in 1851 and 1852, and payable in 1855, 1861, and 1870—but has redeemed (as will be seen by the subjoined table) \$96,000 to this date. Although the interest tax would afford a surplus, annually, in amount sufficient to redeem these bonds at or before maturity; still it is not probable that it will be required for this purpose much longer, as the sales of State property, pledged to their redemption under the Act authorizing their issue will, from present indications, redeem the whole of these outstanding liabilities at no very distant period. Up to date of December 29th, sales of State property in the City of San Francisco, the results of which accrue to the "Sinking Funds" of 1851 and 1852, amounted to four hundred and ninety four thousand one hundred and seventy five dollars, sufficient to cancel all the seven per cent. Civil Bonds due in 1855, 1861, and a portion of those due in 1870. Other sales, it is believed, will, in the course of a few months, absorb the remainder of these obligations.

The large revenues derived from taxation, and the 25 per cent. of amounts received from sales made by the City of San Francisco, on the 26th of December, giving the State about three hundred thousand dollars in addition to the sales of State property, must, it is confidently believed, defray current expenses hereafter.

STATEMENT

Of Seven Per Cent Bonds issued under Act of 1851, redeemed to date.

Date	Name of Holder.	Amount redeemed		Price	Amount Paid.	
		Dolls.	Ct		Dolls.	Ct
June 24, 1852	J. Perry, Jr.,	12,500	00	84	10,500	00
" "	B. Chapman,	500	00	90	450	00
" 25, "	H. E. Robinson,	1,000	00	85	850	00
" 28, "	C. B. Young,	1,500	00	88½	1,331	35
" 29, "	J. Perry, Jr.,	500	00	84	420	00
" 29, "	Same.	1,500	00	89	1,335	00
" 29, "	Moulton & Co.,	2,000	00	90	1,800	00
July 5, "	J. Perry, Jr.,	1,000	00	89	890	00
" 20, "	Same,	2,500	00	89	2,225	00
" " "	Same,	1,000	00	99	990	00
March 1, 1853	Same,	24,000	00	99½	23,970	00
" 3, "	Wm. M. Smith,	500	00	98	490	00
" 4, "	W. Walker,	4,500	00	97½	4,837	50
" 7, "	Stephen C. Foster,	1,000	00	96	960	00
July 5, "	Elam Brown,	1,000	00	98	980	00
" 7, "	Charles K. Smith,	4,000	00	93½	3,750	00
" 8, "	Theo. Payne & Co.,	12,500	00	94	11,750	00
" 26, "	E M Howison,	1,000	00	98	980	00
December 24, 1853	Tallant & Wilde,	1,500	00	97½	1,462	50
" " "	H. W. Carpentier.	500	00	98	490	00
" " "	P. K. Hubbs,	500	00	99¼	499	38
" " "	Wm. M. Smith,	5,000	00	97½	4,875	00
" " "	Jno F. Hayes,	1,500	00	99	1,485	00
" " "	Chauncy & Moore,	5,500	00	98	5,490	00
" " "	John Perry, Jr.,	9,000	00		9,000	00
		96,000	00		91,360	73

RECEIPTS INTO THE STATE TREASURY FROM JULY 1st,
TO DECEMBER 31st, 1853.

From Attorney General,	.	.	.	.	\$15,581 62
“ Alameda County,	.	.	.	.	694 17
“ Calaveras do,	.	.	.	.	28,123 96
“ Contra Costa County,	.	.	.	.	7,878 19
“ Colusi do,	.	.	.	.	3,662 96
“ Comptroller of State,	.	.	.	.	268 00
“ El Dorado County,	.	.	.	.	41,445 80
“ Estate of W. W. Scott, deceased,	.	.	.	.	4,240 31
“ Humboldt County,	.	.	.	.	3,645 63
“ Los Angeles do,	.	.	.	.	17,051 07
“ Monterey do,	.	.	.	.	9,607 00
“ Nevada do,	.	.	.	.	14,630 98
“ Napa do,	.	.	.	.	6,697 60
“ Placer do,	.	.	.	.	13,577 05
“ Pacific Mail S. S. Co.,	.	.	.	.	12,500 00
“ San Francisco County and City,	.	.	.	.	166,025 84
“ San Joaquin do,	.	.	.	.	16,040 46
“ Sierra do,	.	.	.	.	2,756 45
“ Sutter do,	.	.	.	.	2,596 33
“ Santa Clara do,	.	.	.	.	15,137 07
“ Sacramento do,	.	.	.	.	17,244 95
“ Solano do,	.	.	.	.	5,447 45
“ Santa Cruz do,	.	.	.	.	7,288 40
“ Shasta do,	.	.	.	.	8,318 46
“ Sonoma do,	.	.	.	.	11,415 95
“ Siskiyou do,	.	.	.	.	2,228 83
“ Secretary of State,	.	.	.	.	1,510 20
“ Trinity County,	.	.	.	.	5,664 13
“ Yuba do,	.	.	.	.	20,597 29
“ Tuolumne County,	.	.	.	.	1,500 00
Total,					<hr/> \$467,475 14

DELINQUENCIES.

The sum due the State from L. A. Besançon, and Robert Semple, surety, has not been collected. Mr. Besançon, died in the State of Louisiana some months since.

The judgment against D. J. Woodlief, has not yet been satisfied.

The suit against the absconded treasurer of Calaveras county and sureties, instituted in 1851, also remains unsatisfied.

The above suits were for defalcations occurring in 1850 and 1851, and it is not probable that the State will ever realize any thing therefrom. For particulars with regard to each of the foregoing suits and defalcations, see report of the Comptroller, dated December 1852.

The whole amount due the State by A. C. McDonald, treasurer of Sonoma county, has been paid over by his sureties, and the judgment satisfied.

On the 10th of December, 1852, the Comptroller directed a suit upon the official bond of John H. Philips, deceased, late treasurer of El Dorado county, after full trial, it has been decided against the State. On the 5th of December, 1853, a letter stating the history and progress of said suit was received at this office from the District Attorney of that county, which is now on file. In view of the facts therein disclosed, the Comptroller directed a suspension of further proceedings in said suit, unless ordered by the Legislature. The case was before the District Court at three several terms, and having been decided against the State, it was believed unnecessary and oppressive to prosecute it any further.

I am informed by the District Attorney of Shasta county, that the whole amount due from William Bonfield, treasurer of that county, has been collected and paid to the present treasurer, for the State.

GENERAL REMARKS.

During the past year large accessions have been made to the general wealth of our State. And its resources, agricultural and commercial, especially agricultural, have been much more fully developed than in any former year. The product of gold has also increased over the preceding year, many millions.

Property has acquired a more stable and fixed value, not only in our cities and towns, but throughout the State. Although our assessments show an increase over any former year, still it is certain that the *grand list* of assessments is, in amount, far below the actual valuation of real and personal property, which should legitimately be embraced among the objects of taxation.

Could the titles to lands meet with a speedy adjudication and settlement,

much property now paying little into the State treasury, would be reached, and afford the basis of a large and constantly increasing revenue.

Collecting Officers.

Partly from the fact that Collecting Officers have this year been better paid than heretofore, it is expected that the revenue will not only be greatly increased over any former year, but will be much more uniformly and promptly collected and paid over. In past years the remuneration to this class of officers was so small that in the mountain regions, they were unable in many cases to pay even their ordinary current expenses, while engaged in the performance of their duties—consequently no uniformity existed in collections. The change made in this particular, in the revenue law of the last session, was salutary and has been attended with beneficial results.

State Credit and Increase of Revenue.

The indications of a yearly increase of revenue gives future promise of success and credit to our Finances, provided, proper, prudent and economical legislation shall hereafter diminish the heavy draughts upon the Treasury which has to this period characterised our legislation, thereby enabling the State to practice a rule equally as necessary in public as in private policy of meeting expenditures with a certain income.

The financial embarrassments and debts which have been so burthensome and humiliating to other States, carrying them in some instances to the verge of repudiation, have generally been the result of using their credit for obtaining the means to carry on systems, or perfect schemes of internal improvements, and the agents who were instrumental in their creation, claimed the credit of having contemplated the construction of some great work having permanency, and from which they anticipated such income and profits, as would not only reimburse the expenditure, but eventually lighten the burthen of taxation. Our debt, however, has accumulated for ordinary expenses and temporary purposes, with few exceptions, such as for for an Insane Asylum, State Prison, &c.

As has been shown in the preceding statements, our Civil, War and School Debt amounted, in the aggregate, to \$3,193,981 31. on the 30th of June, 1853, and although a large sum to have accrued within the period of four years, still no cause of alarm exists with regard to our ability to meet it, provided it is not increased by further funding—requiring additional interest tax for its security and payment.

Chief causes of our indebtedness.

Notwithstanding the errors which may have occurred, as a State we are entitled to the just and charitable inferences which must be drawn from an examination of the various causes which, in the main, have created our indebtedness.

We had no territorial existence, but organized a State government with the

advent and appearance of a hundred thousand men, bringing with them little else than that contained about their persons, and coming together like a heterogeneous mass, from almost every nation or community, with no views or prejudices, or feelings in common, resembling a mighty army of wanderers more than a body of emigrants, who usually go to a new country with their families and their property, with the intention of making a permanent location and settlement, thus adding immediately to the general wealth of a state, rather than to possess themselves of its rich resources and return to their former homes.

In the anomalous condition of the country at that time our Constitution was adopted. Immediately after its adoption the first Legislature commenced its session, charged with the duty of giving form and character to the government, and adopting and applying the same to the chaotic elements surrounding them, and for which there had never been a precedent in the history of republican governments, to guide, or control their action so as to provide for the unforeseen contingencies which subsequently impaired the efficacy and value of the revenue laws, or involved a greater expenditure than any one had reason to anticipate.

With an empty treasury, they were forced to provide for the immediate demands of the government, by an issue of bonds bearing three per cent. per month, a rate of interest less than that ruling in private transactions at the time, and although they confidently supposed that their redemption was provided for by the law authorizing their issue, and that by virtue of collections to be made, they would soon be liquidated, still the result has proved that they have remained outstanding with interest fast accumulating, and not until recently has the bulk of the whole issue been taken up by cash payments from the treasury, the State having been forced to defer cash payments to other objects, until bonds bearing such a ruinous rate of interest were cancelled. Unfortunately too, our constitution was not one which would secure an economical government, but provided for a large number of officers, and annual, instead of bi-ennial sessions of the Legislature. The prices of labor, and of every article, was, at the time, at a high standard; consequently, prices corresponding were required for every object within the range of State necessity, so that a large outlay immediately became necessary for compensation to all persons in the service of the State for contingents, &c. Without public buildings for its General Assembly, its Officers or its Courts, large appropriations were requisite for rents.

Destitute of prisons for the security of the large number of criminals that had infested the community, they were not only pursued, brought into custody, kept and prosecuted at great expense to the State, but guarded, secured and supported, while undergoing punishment for their crimes.

This expense has continued to the present time, and large claims are still pending for expenses incurred by ministerial and other officers, who, at an early day, in several instances, embarrassed themselves, having been compelled to use their own resources to bear their expenses, and those of their attendants while engaged in enforcing the laws, which expenditure they contend has not been reimbursed.

Nor was security and protection to our citizens, who had arrived within our borders, the only object of expenditure; for in the years 1850 and 1851, the intelligence was early conveyed to the State that a large number of our

countryman were on their way hither from the Atlantic States, wearied—exhausted—or borne down and in a helpless condition from the fatigues of the journey and sickness when the calls for relief could not but be responded to, not only by individual philanthropy and aid, but the State itself made liberal appropriations, both years, for these objects, by sending out to meet the needy and destitute relief parties, or repaying private individuals for their advances and aid.

Arrived within our State, thousands immediately became a charge upon our charities. From exposure and depressing journeys, either by land or in crowded ships, through climates for which they were unsuited and unprepared, with the anxiety attending the enterprise in which they had embarked, and other depressing causes, many became the victims of obstinate and protracted disease. The larger proportion being destitute of friends or relatives to aid them, and without the means to secure for themselves proper care and treatment, became a public charge. For these objects the State exercised a laudable humanity, by either making those ample provisions for their relief demanded in the creation and support of hospitals, or by appropriations to be distributed among the different counties, and also to repay the expenditures incurred by individuals who had used their own funds for that purpose.

In this connection it may not be improper to remark, that the city of Sacramento has presented to past Legislatures a claim for expenditures of this character, estimated by Mayor Hutchinson in his message, dated 10th January, 1853, to amount to \$150,000, exclusive of interest, for expenses actually incurred, and which, it is urged, should be borne by the State. A claim so equitable in its character, that if free from debt, and with the means of payment, it would in all probability be recognised and assumed by the State.

Our Indian wars have also involved the State in what now constitutes one-third of her outstanding indebtedness, the necessity of which, with other considerations pertaining thereto, will be treated under the head of "Indian War Claims," in a subsequent part of this report.

Destitute of money at the outset, by which to support the government, and thereby compelled to adopt a credit system, our bonds and warrants, from the high rate of interest and other causes, depreciated in value, and not until the past year or eighteen months, have they commanded in the market over fifty cents on the dollar as the average price. As a consequent a large loss has been sustained in payment for extraordinary services, for rents, contingents, &c.

The foregoing constituting some of the chief causes of our indebtedness having involved large annual expenditures, when justly considered it will be seen were almost unavoidable. They grew out of our peculiar condition at the time, a condition equally as fruitful for emergencies requiring an outlay of money or use of our credit, as unpropitious for realizing the necessary income from taxation.

Our Revenue laws, with the exception of the last, (see Article "Revenue Laws,") have fallen far short of attaining the objects sought in their enactment, and disappointed their framers. That passed by the first Legislature was wholly repealed by the second, and so on, each subsequent Legislature repealing the enactments of a former one, creating much confusion and embarrassment with the officers engaged in acting under them, and the public who were affected thereby. These periodical changes in our revenue sys-

tem were believed necessary, for notwithstanding that each of the bodies creating them exercised their wisdom and best judgment in attempting to improve upon a former one, our population and property were so changeable and unstable in their character, and some of our objects for revenue so new and novel, that endeavors to realize therefrom were in a great measure, futile.

During the three first years of our existence as a State, the mining portions of the country paid comparatively little into the Treasury. Although assessments were made in these localities, the collecting officers were in many instances unable, a few months after, to find the parties or property assessed, so migratory and changing was the population.

Laws thought at the time of their passage to be uniform in their application, were not unfrequently so changing and inconstant were all the subjects to which they were applied, found either inoperative or were resisted when the officers charged with collections attempted to enforce them. Thus, in many instances the total amount realized was insufficient to pay the cost of their enforcement, and the expenses of litigation incident thereto.

The devastating conflagrations that so frequently visited our cities and towns, at an early period in our history, contributed much towards abridging our revenue.

Being compelled to draw from other states or foreign countries our staples, constituting the necessities of life, a constant afflux of gold was required in payment. It being our only product, and no means having been devised to reach it by taxation, no tenure existing in the soil from which it was obtained, it was shipped from the country without contributing its share for the support of Government. Thus it would seem to be a matter of no surprise that our revenue, during former years, was inadequate to defray even ordinary or temporary expenses, nor that the credit of the state was of necessity called in requisition to its fullest extent for this purpose.

The whole amount collected and paid into the Treasury since the organization of the Government, up to the 30th of June last, was \$1,154,963 64.

The Comptroller has deemed it proper for a "better understanding of the fiscal affairs of the State," thus to enumerate and present in the foregoing summary, some of the causes of our present debt, resulting, as it has, from heavy draughts upon our credit and limited income, believing it equally required to secure just consideration, both at home and abroad, and for the purpose also of serving as a guide in future for attempts at retrenchment, or a change in the system from which our indebtedness has accumulated.

Our present necessities and indications of larger revenue contrast favorably with those heretofore existing.

It can hardly be expected that in our more advanced condition as a State, that unusual and uncommon expenditures will be required. The incoming immigration hereafter, probably will not need relief.

The expense of Hospitals will be abridged, permanent buildings having been provided for the Insane Asylum, and all other Hospitals, save that in the city of San Francisco, abolished. A Prison has been constructed for the security of criminals.

Land titles are in a fair way of settlement, so that permanent and valuable improvements will be made on our lands. Agriculture has become a leading object and business in our State, already supplying many of our

wants, and enabling us to retain the money heretofore required for this supply, thus giving value to our lands and favoring an accumulation of property for taxation. Those now arriving, come with the intention of becoming permanent citizens, bringing more generally their families and their means to be added to our general wealth. Our active and extending commerce is attracting capital to our borders. From these as well as other causes, our assessments must be immeasurably increased, and a better revenue law will probably reach all and secure the income to be derived therefrom.

Our three per cent. per month bonds are substantially redeemed, and by the first of January, \$96,000 of our seven per cent. civil bonds due in 1855, will be redeemed; while the sales of property in the City of San Francisco by the State, pledged to their redemption, is already quite sufficient to cancel the rest due that year, those due in 1861—as well as a part due in 1870.

Our floating indebtedness absorbed by funding and redemption, cash payments, it is hoped, will commence. Our credit abroad has improved so that investments are made in our securities. Under these circumstances it may be assumed that the credit of the State has now reached a point as extended as demanded by her wants or necessities, and that hereafter, having now ample means of sustenance from judicious revenue laws properly enforced, appropriations should be made to come within her income derived from taxation alone, leaving the proceeds of the sales of the property of the State, to apply to the redemption of our funded debt, for the liquidation of which they have been pledged.

At the meeting of the ensuing Legislature, our financial condition will be such (having but a small amount of floating indebtedness) as will enable that body to direct its measures for greater economy in public expenses, and for securing income to meet those which may be deemed indispensable. An opportunity so propitious, it is hoped, will not be passed by without securing cash payments for all the objects of expenditure. Every one is too familiar with the scrip system, either to advocate or tolerate it longer. Unavoidable as the practice of issuing scrip has been heretofore, the foregoing, it is believed, is sufficient to show, that a necessity of this sort no longer exists.

REVENUE LAWS.

The revenue law passed the last session has, in the main, operated well, with the exception of that portion pertaining to Licenses.

Under its provision, the tax on real and personal property has been much more promptly and uniformly collected than under any previous act of the kind. Although, a few amendments might be made which would lead to improvement in some of its details ; still as it has been found, as far as relates to assessments and collections on property, so much better than any previously enacted, it seems desirable that it should remain without essential change.

CONSIGNED GOODS.

That portion, however, relating to a tax on sales of consigned goods, should be amended with a view to securing greater efficacy. More compulsory provisions are needed to enforce it in case of resistance on the part of persons on whom the tax is levied. As it is, it lacks stringency and force in its application to those, who, by subterfuge or open resistance refuse to submit to its requirements. With a change of this character, it is thought that the State could not fail to receive from a class of persons shipping goods to this market, the share of revenue justly due.

They have, heretofore, been able to compete with, and undersell our own merchants at their own doors, the latter having been compelled to pay taxes, rents and charges, from which the shipper residing abroad has enjoyed almost entire immunity.

As the law passed at the last session levying a per centage on sales of consigned goods was resisted, Messrs. Thomas, Hoge & Wilson, and Magraw & Tilford. Attorneys, were selected on the part of the State to conduct the suits instituted to enforce its payment, and it is believed, that a tax so just, notwithstanding the defects in the law, will be secured by judicial decisions in favor of, at least, its constitutionality, if not its policy.

Should the decision of our courts be in its favor, it would be a matter of congratulation, opposed as it has been by public meetings denouncing its provisions, and other voluntary expressions, as well as written arguments and opinions against it, and resisted by a resort to the usual subterfuge, that of protracted and vexatious litigation, sustained and supported by united capital and able influences. These unworthy endeavors to wring from the State its just proportion of revenue, due from a class of property equally protected with that belonging to, held or sold in the market by our own citizens, should the decisions be now in favor of the State, will hardly be repeated.

The mere fact that that *every* person, after a revenue law has been passed by a body who are the rightful judges of its "uniformity," cannot think it perfectly uniform, or that some may hold abstract views against the princi-

ple of licensing by our laws, it is hoped, will not be sufficient to allow the treasury to be cheated out of this tax, and to permit a real want of uniformity in taxation to exist, as would be the case, provided the property, goods, &c. of our own citizens (who are fully identified with the State,) can be reached by every species of taxation levied by State, County or City, and from which they ask no immunity, and the goods of citizens abroad, when sold here, should be exempt therefrom.

Consignors have not only thrown large amounts of goods into our markets, to be sold from the vessels on which they were shipped, or from "hulks" in our bays, without contributing their share for the support of the government, but have, in some instances, procured at home the *printed bills*, advertising them for sale, to be used here after their arrival.

The policy of licensing the ordinary resident merchant or trader, engaged in selling goods or merchandize may be questioned, and it is contended with much force and propriety that, as the State levies a tax of 60 cents on the valuation of their goods and property, it should not impose an additional burden in the form of a license tax, leaving them as free as the farmer or mechanic to pursue their occupations without further charges. But it cannot be contended with justice, that the agent or consignee of foreign or non-resident owners should escape the same measure of taxation which is imposed by law upon our own merchant or trader.

The assessor can reach all that is owned or possessed by the resident owner; while the goods and merchandize of the non-resident owner can only be reached when they are sold, and come in competition in the market with the goods held and owned here, mingling with them and becoming subject to the operation and protection of the same laws which govern all.

In order that taxation should be uniform, and that it should be equally borne, it is but just and proper that 60 cents on the \$100 of sales of consigned goods, should be levied, thereby subjecting consignees or agents of non-resident owners to the same tax that is borne by our own traders or merchants, otherwise the one class would be benefitted at the expense of the other, and the State fail to protect her own citizens, discriminating in favor of foreign capital and enterprise.

BANKERS' LICENSES.

But an insignificant sum has as yet been received from licenses to bankers, brokers, and those engaged in dealing in money and printed, or written, evidences of indebtedness. Although the law designed to reach by taxation this class was drawn with much care, and at the time thought fully adequate to attain the end desired, still experience has shown that a better and more uniform system could be devised which would obviate some of the principal objections which have rendered the enforcement of the present one, if not impossible, subject to delays and embarrassment, amounting to a failure to realize anything therefrom.

The Comptroller believes that a more simple, uniform, and less objectionable system can be devised. On this point he has endeavored to avail himself of all the benefits derived from experience in endeavors to collect under

the present system, or to enforce by law its provisions, and is of the opinion that a license law reaching this class, could be drawn, and should early be passed by the coming Legislature—a law which could not be successfully resisted, but would realise to the Treasury at least \$75,000 or \$100,000 a year, from the date of its enactment.

We have not been able to tax the great product of the country, either directly or indirectly, by taxing the lands, there being as yet no tenure or right existing in them. but left open to all, and it would seem but just that at least a moiety should be received into the Treasury from the millions of gold monthly produced and sent abroad. This object can in some degree be reached, by requiring those who deal and traffic in the article, or its fair equivalent, to procure a license for so doing, as the gold itself would then of course be indirectly subject to the per centage, levied in the form of a license to the persons engaged in these branches of business.

The suggestions and facts alluded to will be submitted by the Comptroller to an appropriate committee of the Legislature, if thought to merit an examination.

LEGISLATIVE EXPENDITURES.

The total amount of the expenditures paid at the last session, for officers, members, clerks and contingents, reached in the aggregate the sum of \$389,619 48.

The article on Legislative retrenchment, in the last annual report of the Comptroller, is as applicable now as then, and as urgently called for.

The subjoined table will exhibit the annual expenses of this body since the organization of the Government :

EXHIBIT

Of the Expenses of the Legislature, since the organization of the State Government.

LEGISLATURE OF 1850.

Per diem of Members and Officers, and	
Mileage,	\$170,749 60
Contingents,	15,057 34
Legislative Printing,	74,114 37
Laws and Journals of same,	30,222 85
	<hr/>
	\$320,144 16
Amount carried forward,	\$320,144 16

Amount brought forward, \$320,144 16

LEGISLATURE OF 1851.

Per diem of Members and Officers, and	
Mileage,	\$188,639 40
Contingents,	24,285 08
Legislative Printing,	70,700 66
Laws and Journals of same,	43,358 08
Printing Laws in Newspapers	48,946 01
	<hr/>
	\$375,929 23

LEGISLATURE OF 1852.

Per diem of Members and Officers, and	
Mileage,	\$301,247 28
Contingents,	5,532 97
Legislative Printing,	43,481 26
Laws and Journals,	28,802 45
Furniture, &c. for same,	29,944 83
	<hr/>
	\$409,008 82

LEGISLATURE OF 1853.

Per diem of Members and Officers, and	
Mileage,	\$293,269 70
Contingents,	19,031 91
Printing Laws and Journals,	18,906 22
Legislative Printing,	58,411 65
	<hr/>
	\$389,619 48
	<hr/>
Total,	\$1,494,701 69

HOSPITALS.

The Insane Asylum demands the attention of the Legislature at an early day. The income from the passenger tax set apart and designed for the support of that institution, has been found almost wholly inadequate, such has been the falling off in the numbers of persons arriving by ocean emigration, from foreign countries, paying the tax. No longer able to sustain themselves from the means provided, and the State officers unable to advance from any fund for their relief, a united application was made by the officers of that institution and the Treasurer and Comptroller of State, to the Commissioners of the Funded Debt of the city of San

Francisco, who with a commendable liberality, advanced the sum required to meet the immediate and pressing wants of the Hospital. This amount was advanced by them, at the low rate of 10 per cent. interest per annum, payable on payment of the demand by the Legislature. It is suggested that a Hospital tax, for the support of the insane, be levied and collected with the ordinary revenue of the State. No one in the State would be found, it is believed, to object to a tax of 5 cents on the \$100 of assessed property (real and personal) for the purpose of ameliorating the deplorable condition of a class of persons who have such claims on our charity. A State Prison tax of 4 cents on the \$100, of property is now levied and collected, and the policy of a tax, payable in cash, for the support of the Insane, is undoubtedly preferable to the practice of paying warrants to be sold at depreciated rates, for their security and support. Most of the time there are over one hundred persons in that institution, and every prompting of humanity and sympathy, require that those more fortunate should provide for their wants, by placing ample means in the hands of those who have them in charge, for the purpose of bettering their condition, if possible.

The Insane Asylum building at Stockton has been completed by the enterprising contractor, J. M. Warner, Esq., during the past year. It is hoped that donations will hereafter aid much in the support of its unfortunate inmates.

The State Marine Hospital at San Francisco has been filled with the sick during the past summer, and the whole of the passenger tax would not be sufficient for its support.

STATE PRISON.

Under the present system of management, this Institution has proved adequate to the wants of the State. The appropriation made last year for its erection, has resulted by a creditable and judicious expenditure thereof, in providing permanent security for criminals. Should farther appropriations be required for the increasing number of its inmates, it is believed that a small per cent tax for this purpose could be as willingly borne as heretofore.

TRANSPORTATION OF PRISONERS.

This item of expenditure is not only constantly increasing, but the aggregate during the fiscal year, formed a heavy item in our State expenses. It is believed that it should be borne by the several counties of the State, as is the practice in most of the other States.

The counties are generally rapidly reaching a healthy financial condition. Many are already free from debt, and it is suggested that they could not only pay this compensation better than the State, but could better judge of the amount necessary and proper to be paid as a fair compensation in each case, to the Sheriff or officer performing that duty.

The Sheriff now receives one dollar each mile for the transportation of each prisoner. In some cases, with a single prisoner, it may not be too high a compensation; but when several are taken, a less sum would be fully adequate, and of this the counties could be the best informed as to the amount deemed necessary

STATE PRINTING.

The expenditure for Printing the last year was much larger than estimated by the Comptroller in his last annual report. This, in a great degree, is attributable to the fact, that the session of the last Legislature continued much longer than was expected—and that the amount of printing ordered by that body was also larger than anticipated.

Could two-thirds of the amount of printing heretofore done, be avoided hereafter, and cash payments be made to parties performing that service, at fair remunerative prices, the whole limited by a special appropriation, a remedy would at once be found to the present system, which is now not only burthensome to the State but fails to pay those who do the work, when compelled to dispose of their warrants received therefor at depreciated rates.

It should be borne in mind that the bulk of the expenditure for printing is usually incurred during the session of the Legislature, and any substantial reduction in the same hereafter, must follow a reduction in the amount of printing ordered by that body, each branch of which has the right by law to incur expense for this object.

The saving and benefits which it had been supposed would result from the contract system, have not been realised, and it is believed by the Comptroller that a State Printer should be appointed, with a view of insuring that responsibility necessary, and leaving a better opportunity of defining his duties and changing compensation when advisable, than is the case under the present system.

An appropriate committee of the Legislature could readily ascertain the cost of the various kinds of printing required by law, and the rates of compensation for each, could be fixed and paid in cash instead of warrants on the treasury, to be sold in the market as has been the case heretofore, during the period when most of the printing is required, at from fifty to sixty cents on the dollar—a price which has often been inadequate to pay in cash the parties performing the service, when compelled to sell at such depreciated rates.

The Comptroller suggests that the paper used for printing be purchased or contracted for at the same time, and in the same manner as is now practiced by the State, in the purchase of stationery, &c., for the Legislature.

A large saving could also be made by a change in prices for appendixing and indexing the Laws and Journals.

CLAIMS OF THE STATE ON THE GENERAL GOVERNMENT.

The claim of the State upon the General Government, for the "Civil Fund," so long pending before Congress, it is hoped, will speedily be obtained, and the proceeds thereof received into our Treasury. Nearly two millions of dollars was levied and collected in California, by the officers of the General Government, while we were under military rule, and it would seem that we were certainly entitled to a portion of the same, or at least, a sufficient sum to defray the expenses of our State Government from its organization, on Dec. 15th, 1849, until the date of its admission, Sept. 9th, 1850. This expense amounted to \$436,804 36, and was paid for the support of our State Government during that period. It was liquidated mainly by an issue of bonds, bearing three per cent. per month, interest, the redemption of which, with interest, has cost the State the sum of \$462,682 25, leaving outstanding, in principal and interest, \$9,576,25. This drain upon the Treasury for current expenses, while we were constructively a Territory, and like other Territories of the United States, entitled to aid and sustenance from the parent Government, should be reimbursed. This claim, then, founded as it is, in "justice and equity," ought to be pressed until recognized, and an appropriation, adequate to the demand is made by the General Government.

INDIAN WAR CLAIMS.

The total amount of our "War Debt" on the 30th of June, 1853, with interest to the 1st of January 1854, was \$1,01,309 11. Nearly all the claims which constituted the basis of our war debt, have been examined and allowances made thereon, by the Board of Examiners of Military Claims. These Claims were the result of the various expeditions called out by the State to defend our frontier, and protect the incoming immigration in the years 1850, 1851 and 1852.

Pressing demands were made by the citizens of the State for relief and protection. These demands were not responded to by the agents of the General Government, then in Military Command in the State, as fully as the emergency required, from the fact that their forces were inadequate, and their supplies and munitions insufficient. The State was therefore impelled to call out, arm, equip and provision forces at great expense, or suffer her unprotected citizens, and the emigration on their way hither, to fall a sacrifice to the ruthless savage.

It was believed that this expense would be assumed and paid by the General Government, established as this practice had formerly been, by numerous precedents in its history. Congressional legislation in other cases of like character, has recognized and paid debts contracted in the prosecution of Indian Wars, by the States themselves, when obliged to undertake the duties of the nation in the suppression of these hostilities. The emergency which made it necessary for the State to interpose her

authority, was such as rendered any delay hazardous. The distance of the authority of the General Government from the scene of operations, was so great also, as rendered any application to the Home Government for assistance, impracticable, so imminent was the danger, and so immediate were the requirements of our people, exposed to the depredations of the several tribes of Indians, whose hostilities required a prompt and sudden check, or, emboldened by success at the outset, no limit could be made to the sacrifice of life and property which would follow. The responsibilities thus incurred by the State, must be met by the General Government, as the State is unable, at this time, to do more than she has done by pledging her faith and credit to those who have performed services and furnished means for these objects.

This State has over eight hundred miles of frontier. The various Indian tribes that inhabit our border for that distance, early commenced depredations upon our people. Inhabiting a mountainous country, and enabled to retreat to their fastnesses after acts of violence or theft, it was impossible to pursue them with success at the time, with a small force, when single instances occurred of the kind. It therefore became necessary to adopt means ample and to raise a force sufficient to make a decided impression, and to convince them by a summary process, of our strength, and our determination that they should expiate their crimes.

Had the State delayed action until the General Government could have been informed with regard to the necessity which existed at the time, the result would have been disastrous to the defenceless emigration and frontier settlements. Leaving wholly out of consideration the effect that delay would have produced upon the State, the cost to the General Government in the end would have been greater than that incurred by the State and which constitutes the claim upon which it is based.

The Indians, emboldened and rendered formidable by uninterrupted success, would have by the time the Government could have given protection, been far less readily brought into subjection, and a much larger force and greater expenditure would have been required to subdue them. It is also believed (and even admitted by Government officers then in the State,) that army soldiers could not have been retained in the service at that time, in numbers sufficient for the emergency.

The compensation paid to soldiers by the United States, was much less for a month's service, than the price of a single days labor in the mines. Desertions therefore, would probably have left the officers without adequate force. This was foreseen, and State forces composed of effective men, it was believed indispensably necessary to accomplish the ends demanded.

The cost of supplies, transportation, &c., were procured by the State at as reasonable rates as they could have been by the General Government.

A rigid and careful scrutiny has been exercised by the Board of Examiners, (consisting of the Comptroller, Treasurer and Secretary of State,) in the auditing of War Claims, and in the allowances made therefor. Full vouchers, satisfactory proofs, and evidence of the authenticity of each was required, and in the settlements, the Board, (as required by law,) endeavored to be guided by the "Rules and Regulations of the United States Army," prescribing the mode and manner of such settlements.

Nearly all of the appropriations made for the purpose of liquidating these claims by an issue of Bonds have been exhausted, and it is also ascertained

that there are few claims outstanding. The State as yet has made no provision for paying the accruing interest on this class of bonds.

It is hoped that, as the General Government was bound to protect us and was unable to do so, that the debt incurred by the State for that purpose, in the absence of such protection, will soon be assumed and paid by the United States.

PROVISIONS MADE BY LAW AND REVENUE FOR COMMON SCHOOLS.

Amount collected under Revenue law of 1852	\$22,253 93
Interest due on School Fund, (from sales of lands,)	29,957 56
From Escheated Estates, - -	1,014 79

Total on hand at date, \$53,220 29

The laws of our State provide that the income arising from our School Fund shall be distributed pro rata to the children of the State, in organised school districts.

Already there has been received for the sale of school lands, \$463,360. This, and all amounts arising from the sale of the 500,000 acres of land donated to new States, by Act of Congress in 1841, (and by our Constitution devoted to school purposes,) is subject to an annual interest at the rate of seven per cent., collected in the ordinary manner, and with the interest tax of the State for the purpose of paying the interest on all our seven per cent. Civil Bonds. The whole amount of these lands will probably be sold, at no very distant day, giving to the School Fund a million dollars from this source, and seventy thousand dollars interest each year, to be distributed in the same manner. Add to this the proceeds of the sales of the 16th and 32d sections of all public lands within the State received by virtue of the legislation of Congress, together with escheated estates set apart by our State for the same purpose, and it will be seen that there has been already made full and permanent provisions for the education of the children of our State, provisions alike creditable and liberal.

The following statement exhibits the sales of school lands to date:

STATEMENT

Of the total number of School Land Warrants sold, and the proceeds thereof, up to the 30th of June, 1853, inclusive, under the act, approved May 3, 1852.

Number of Land Warrants for 160 acres,	595
“ “ 320 “	219
Total number of acres,	165,280
Amount of proceeds in cash,	\$65 04
“ “ Comptroller's Warrants.	\$330,494 96
Total amount of proceeds,	\$330,560 00

STATE LIBRARY.

Although a very considerable revenue has already been provided for the purpose of procuring a State Library, it is believed that a tax should be laid on each suit appealed to the Supreme Court, to be applied to this purpose and for the purpose of obtaining a Library for that Court, in conjunction with the State Library, giving the discretion of the purchase of books to the Supreme Judges. A moderate tax would soon secure a library, alike useful and necessary.

APPROPRIATIONS.

The policy of adopting hereafter the practice of appropriating moneys separately and distinctly for each item of State expenditure, is again earnestly recommended, and the practice of setting apart a gross amount, to be drawn upon when the law requires, or when in the discretion of an officer it may be thought necessary, discontinued.

This change is urgently demanded, for many important reasons. Were appropriations special and limited for every object of outlay, the auditing officer would be able to better discharge his duty, and never would be permitted to exceed the amount of expenditure intended, while under the present system where certificates of other officers are not unfrequently his only guide, or his own discretion can only be exercised, he is often charged on the one hand with injustice to claimants in not recognizing their claims, and on the other, if paid, with exercising that discretion improperly.

Should the plan suggested be adopted, the amount of expenditure required could be better known, and the amount requisite to support Government could also be approximated and provided with greater certainty. At the close of each session, no doubts would exist as to the amount of outlay authorized for the succeeding year. The immediate saving which would be the result, is readily perceived, as no one would expect more than what had been provided, and no officer would have any discretion to exercise, or certificates to guide him in making farther payments. I beg leave also to repeat in this connection, the recommendation heretofore made with regard to the repeal of all laws authorizing the receipt of any moneys, or redemptions, or any drafts from the Treasury, without the "printed or written order or warrant" of the Comptroller, obtained after a settlement had been made, and the fact had become a matter of record, where by law all "accounts are to be kept. The laws organizing the Comptroller's and Treasurer's Office, make them distinct; and contemplate that settlement should be made by the Comptroller with any and every party with whom the State may have dealings, as well as with the Treasurer.

The Comptroller also is required to report annually and specifically, the fiscal affairs of the State to the Governor, to be submitted to the Legislature. This he cannot do if moneys are authorized to be paid "To the Treasurer," or "By the Treasurer," instead of "Into the Treasury," or "From the Treasury," as the law contemplated originally.

Inadvertently many acts appropriating monies, and providing for the manner of redemption or reception of monies, have substituted the first expressions for the latter, causing no little embarrassment on final settlement, and rendering it impossible for the accounting and collecting officer of the State, to keep such an account with the disbursing officer, and others making payment into the Treasury, or "with whom the State may have dealings," as it is by law his duty.

Confusion must be the result of these inroads upon the duties of those officers, if such irregularities in the modes of settlement and payment by the State, are persisted in much longer. The business of both of these Departments has, and will rapidly increase, and in order to an intelligent and proper understanding and condition of them, at all times hereafter, they should remain as distinct as they were made by law when organized.

CONCLUSION.

The Comptroller deems it his duty to call to the attention of yourself and the Legislature, the fact of the insecurity, and want of protection which now exists, for important papers, and the various kinds of blanks, or evidences of indebtedness, either wholly or partially finished which of necessity must remain for a time in the hands of the officers of the several departments either awaiting delivery or final completion. As yet, the means of security afforded, have been wholly inadequate. The result has been, that in two instances, partially prepared warrants have been perloined from his office. This could not have been avoided by all the caution and prudence he was capable of exercising, so exposed were necessarily all his papers, and so insufficient were the means of security and protection.

If proper safes or vaults had been provided, and the business apartments had been so arranged as to separate the clerks while engaged in their vocations, from those who not unfrequently intrude upon them at times when pressed with business; such misfortunes could have been avoided. It is also suggested that stated periods should be named in the law providing for payment of officers, members, clerks, and attachés of the Legislature, and that the accounts and bills for each person should be certified by the proper officers of the body to which they are connected, and sent to the Comptroller, at least two days before time of payment. This precaution is demanded for the reason that it has not unfrequently happened, that a large number of bills requiring further authentication were presented in a single day, and the claimants, impatient and importunate, for payment at once, waiting settlement and delivery, to the great annoyance of the officers and clerks—subjecting them to hasty action and mis-

takes, which if more time were allowed, they would be enabled to avoid. In canceling the warrants which have been drawn and redeemed at the Treasury, it has recently been ascertained that only three warrants issued during the past two years, were erroneously issued and redeemed. One warrant drawn in favor of C. C. Hornsby, Sergeant at-Arms of the Legislature of 1852, for \$20. One in favor of H. A. DeCoursey for \$80, Clerk in the Legislature of 1852; and one in favor of Wm. Patterson for \$812 50, also issued in 1852. The Comptroller recollects the facts connected with the two first-named warrants which led to the error, occurring at the time, when from the want of sufficient clerical force in his office, and from a great press of business at the close of the Legislature, he was unable to keep up his books so as to balance all accounts. On one occasion, (the last day of the session of that Legislature) over nine hundred warrants were issued in a single day.

The warrant drawn payable to Wm. Patterson, appears to have been one that was purloined when partially finished and put into circulation. The day on which it appears to have been in process of formation in the office, was occupied in issuing warrants of the same character, and the loss of it escaped the vigilance of the Clerk. It was not registered by the Treasurer, and was inadvertently redeemed at that office.

The Comptroller and Treasurer regret even that these errors have occurred, although, taking into consideration the imperfect security afforded them, the exposed condition of the offices, and the large amount of business passing through their hands, they congratulate themselves, in view of the fact that no errors of a greater magnitude have occurred. Many millions have passed through their hands, in the collections and disbursements required by law to be made. Also, in the redemptions which have been made during two years past, in the issuing of the different classes of Bonds, School Warrants, &c., and those are the only errors found in the settlement of these accounts by themselves, and the Committee of the last Legislature, appointed to examine said accounts, and vouchers of these officers. Should, however, the ensuing Legislature require it, these officers will jointly reimburse the amount lost by the errors pointed out.

With respect, I have the honor to be

Your ob't serv't,

WINSLOW S. PIERCE,

Comptroller of State.

Document No. 4.

IN THE ASSEMBLY.]

[SESSION OF 1854

O P I N I O N

OF THE

A T T O R N E Y G E N E R A L

IN RELATION TO

THE LEGAL LOCATION OF SCHOOL LAND WARRANTS.

[GEORGE KERR, STATE PRINTER.

O P I N I O N
OF THE
ATTORNEY GENERAL.

*To the Hon. the Senate and Assembly of the
State of California :*

In accordance with your concurrent resolution of the 19th instant, directing "the Attorney General to prepare and present to the Legislature now in session, an *opinion* on the legality of the location of School Land Warrants as now practiced in this State," I beg leave to submit the following :—

1st. I do not think School Land Warrants can be legally located on public lands before they are surveyed, because the Act of Congress of September 4th, 1841, donating to each of the new States, five hundred thousand acres of land, directs that the same "may be located after it shall have been surveyed according to existing laws."

2d. After survey, there can be no doubt that School Land Warrants can be legally located on public lands, for the Act of Congress above referred to, provides that the land granted to the State may be selected in such manner as the State Legislature "shall direct;" and our Legislature has, by the Act of May 3, 1852, "directed" such lands to be located by the holders of School Land Warrants, whom, for this purpose, it has made the agents of the State.

3d. I consider that a location under our Act of May 3d upon unsurveyed land, can confer no right of possession or property in such land as against

a subsequent purchaser or settler under the General Government, unless it be followed up by an actual possession of the land so located, but such a naked location without possession, will be valid as against a subsequent location under the same Act, or any other State law.

4th. A School Land Warrant for one hundred and sixty acres only, cannot be located alone, but two or more warrants, each for one hundred and sixty acres, may be located at the same time, and if the whole number of acres located under the two, are in a compact body, and conform to the "sectional divisions" and "subdivisions" the location will be valid.

J. R. McCONNELL,
Attorney General.

January 26th, 1854.

Document No. 5.

IN THE ASSEMBLY.]

[SESSION OF 1854.

GOVERNOR'S SPECIAL MESSAGE

AND

REPORT OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION.

[GEORGE KERR, STATE PRINTER.

GOVERNOR'S SPECIAL MESSAGE.

EXECUTIVE DEPARTMENT, }
Benicia, Jan. 31st, 1854. }

To the Senate and Assembly of California :

I have the honor herewith to transmit a copy of an important report, received on the 24th inst., from the Superintendent of Public Instruction ; the suggestions therein contained are worthy of immediate and careful consideration.

In this connection, I deem it a duty again to urge upon you the great importance of legislative action, in order to secure to the State all the lands donated by Congress for educational purposes.

The Act of 1852, which authorized School Land Warrants to be issued, was passed to secure the proceeds of the sales of the five hundred thousand acres for the great object designed by the framers of the Constitution—the education of the children of the State.

These lands, donated by Act of Congress, approved Sept. 4th, 1841, were originally granted for purposes of internal improvement, but were diverted by our Constitution to the support of Common Schools. As yet, but a small portion has been surveyed : and it is held by agents of the General Government, that, under the provisions of the Act of Congress, approved March 3d, 1853, School Land Warrants, issued by the State, cannot be located on unsurveyed lands. Under this construction, the State will be delayed in her selections, perhaps, for many years, and, indeed, may eventually lose the greater part of the fund.

Is the State to be deprived of this fund, at a time when a general and comprehensive system of Public Instruction is so much needed ? Is the education of the children of the State, now numbering tens of thousands, to be subject to the delays and uncertainties incident to the action of the Federal Government ?

These are questions of vital importance to the people of California, intimately connected, as they are, with their present interests and future welfare. I hope, therefore, that the Legislature will, at an early day, memorialize Congress to confirm, by special act, the past legislation of the State,

in relation to the selection of the five hundred thousand acres of school lands, and to remove the restrictions which, at present, retard her progress, and are inimical to her interests and the future welfare of her people.

Such a policy can work no injury or hardship to the actual settler, for the reason, that the lands selected can be disposed of by the State, under your direction, on the same terms as now exacted by the General Government, and with less actual expense to the purchaser, than under the existing laws of the United States. If the price be fixed at one dollar and twenty-five cents per acre, the school land *unsold*, including the 16th and 36th sections will yield six million eight hundred and forty-six thousand nine hundred and fifty-five dollars, which at seven per cent. will afford an annual interest of four hundred and seventy-nine thousand two hundred and eighty six dollars and eighty-five cents; a sum quite sufficient to sustain a system of popular education superior to that of any of the older States of the Confederacy.

The plan proposed by the Superintendent would give to persons of small means, an opportunity to secure homes at a trifling amount of annual interest, until prepared, at some future day, to pay the principal.

This plan, it is believed, would favor the interests of the actual settler, and is consistent with the requirements of the Constitution; which direct that the interest, only, shall be annually applied for the benefit of Common Schools: leaving the principal intact, and a perpetual fund for their support.

Should, however, the present Legislature fail, or neglect to adopt proper measures, in reference to these lands, there is great reason to fear that the State will be deprived of the greater part of them, and the cause of education within the State, be seriously retarded. The proceeds of these lands, unless immediate action be taken to secure their selection, instead of constituting a fund for the education of the children of the State, as designed by the Constitution, will accumulate in the treasury of the nation, now full to overflowing, and be forever lost to the rising generation.

To secure the selection of these lands and preserve the educational fund, is the object of this communication, and it is hoped that it will incite you to give the subject immediate and favorable consideration.

JOHN BIGLER.

REPORT OF THE
SUPERINTENDENT OF PUBLIC INSTRUCTION.

HIS EXCELLENCY THE GOVERNOR:—

Under article 4, section 6 of the Act in relation to Public Schools, it is made my duty to suggest to the Legislature, “Ways and Means for raising funds for the support of Common Schools,” and for the promotion of the general interest of education throughout the State,” I desire to do this through your Excellency the chief executive officer.

The capital of the school fund arising solely as yet from the sales of school land warrants is \$463,360.

The interest arising from the bonds of the State thus set apart, is the only revenue, as yet provided for sustaining the schools of the present year, viz: \$32,435 20, with a reasonable prospect of support from the State, the number of pupils in the schools of this year can be at least trebled from that of the report of my predecessor for the last school year—will the Legislature withhold that support? or, will the people, under the existing excitement, *expect* it?

The sales of school land warrants has almost entirely ceased. It is unnecessary here to advert to the causes—the fact suffices our purpose.

There remain by consequence 268,320 acres of the 500,000 acres of school lands unsold and not yet located. This with the 16th and 36th sections, and the lands donated by Congress for a seminary of learning, “46,080 acres comprise the entire school property in lands.”

Energetic action toward an early location of the 268,320 acres, and of such of the 16th and 32d sections, as by pre-emptor settlement have become liable to “float” location; will be apparent to every one desirous of husbanding all proper resources in aid of our schools.

It is evidently the desire of Congress and of the whole people of our common country to sustain, by all proper aid, the energies of the settler, and the means of educating the rising generation—soon to succeed them in the halls of Congress, and in the varied positions peculiar to the republic.

There can be no clashing of these great movements ; they step in harmonious concert toward the goal of their great destiny.

So careful was the 26th Congress of the integrity of common school and seminary lands ; that they provided that settlements made on the 16th sections four months prior to survey. (then necessary to pre-emption) should have the privilege to enter any *other* quarter section within the district "in lieu thereof"—and likewise that any settler upon "seminary lands, *having settled before selection* by the State," should have the privilege to enter a quarter section "within the land district *in lieu thereof*." Statutes at large, vol. 5, page 382.

By subsequent action of Congress, the settler on the 16th and 36th sections, is permitted to enter at the minimum rates ; to exercise in other words, the same pre-emption right as though he had been located elsewhere—and this is evidently the exercise of an equitable right.

If we were to say that the settler was compelled to pre-empt—we should utter a silly thought ; no settler is compelled to pre-empt. It is a privilege that he may, or may not use. He may, or may not pre-empt the 16th and 36th sections. If he does not pre-empt, where do the lands (the 16th and 36th sections set apart for school purposes) belong ? certainly no where else than to the school property ! if he pre-empt in his own name, he must pay in *cash* to the General Government. If he makes his entry at the Registers, *as the agent of the State*, under the 500,000 acre law, he does so now after having paid \$2 in State securities for his land, and this realizes to the school fund 14 cents per acre per annum, being 7 per cent. interest of \$2 of State indebtedness, and the township, in either case, then locate their two sections elsewhere.

The *interest only* of the school fund can be used—hence, I suggest that the settlers on the 16th and 36th sections, who choose to decline the exercise of their pre-emption rights with the U. S. government, be permitted, with consent of the township School Commissioners, to file their bonds to the township with lien upon the lands, providing for the payment of \$1 25 per acre after ——— years, and paying *in advance* each year, the interest upon the same at the rate of 10 per cent. per annum to the proper officer for township school purposes.

Thus, if the whole of the school lands in each township of 36 sections be settled upon, they would produce to the township (6 miles square) the annual interest (on best security) of \$160 on \$1600 of capital.

Each township of six miles square may be expected to maintain a school, and this sum, though small, would be sensibly felt in the rural districts of the State, being applied only to cases where the town School Commissioners deem it preferable to locating elsewhere their two sections. It must be borne always in mind, that the 16th and 36th sections belong peculiarly to purposes of education, *within* the township, and cannot properly go to the State fund. An Act to regulate the manner of proceeding in this relation becomes imperatively necessary. It may be expected that the people of the township, immediately interested, will better than any body else, husband the small means provided, and they should be sustained by the necessary enactments of law.

Provision should be made in every township now established ; and in every township of six miles square as soon as surveyed, not only for the

election of School Commissioners, but also for the levying of such rates of taxation as they may deem necessary to support one or more schools, *free of charge to all the children within the township*. This should be made imperative: and in the event of any township failing to take such action, it should be made the duty of the County Superintendent to recommend, and the Court of Sessions, or the County Supervisors to confirm, subject to their modification, the rate of taxation for school purposes within the township so neglecting the duty.

An Act amendatory to the existing law, comprising the above named, as well as an amendment to section 4 of article 3 of the Act of 1852, providing that the school moneys shall be distributed in proportion to the *average attendance*, instead of the number resident, I deem of pressing importance to the success of the system. Under existing law, it is made the interest of the schools established within a district, to prevent the establishment of others, to share the funds. Some districts have large sums now lying idle, by reason of this clause in the law, whilst others, with a larger attendance of pupils, are suffering, if not discontinued, for lack of funds.

The inquiry, what shall be done in respect to the remaining 268,320 acres of the 500,000 acres, I should answer in this way. I would suggest that the Act of 1852 for the disposition of these lands be so modified as to reduce the price to \$1 25 the acre, payable within ——— years to all actual settlers; payment to be secured to the school fund; and the failure to pay 10 per cent. per annum interest, *in advance*, to the County Treasurer of the county wherein the land may be situated; and the forwarding of the Treasurers duplicate receipt therefor to the Comptroller of State, to be charged against him; should work a forfeiture, and subject the land to sale for the use of the school fund, to highest bidder. I would further suggest, that parties locating and not occupying, should pay \$—— the acre, in cash or State securities, or within ——— years: and that upon the payment of the interest of 10 per cent. one year in advance, or cash or State securities, they receive certificates of ownership, entitling them to register as the agents of the State, and providing therein for a forfeiture of title by non-payment of the subsequent annual interest, in advance, as before suggested.

The seminary lands awaiting only the U. S. surveys to be fully and conclusively located, I recommended to be placed, at once, under the entire title, control, and management of the Board of Regents of University, which I cannot doubt the Legislature will provide for at an early day, in "An Act to establish the California State University."

It may be expected that the regents will be selected by the Legislature from the several judicial districts, of gentlemen of distinguished ability and integrity of character, and that their disposition of this boon from the General Government, will be worthy themselves and the great object of the paternal donation. I know of no impediment to the organization of the State University, upon such basis as to meet the peculiar merits of our State, throwing aside *all distinctions of birth, or wealth, or sect, or section*, giving opportunity to *all* to prepare themselves and their children, by the *power* of knowledge, for those high positions ever earned and won by industry.

This Institution should embrace, beside the collegiate departments, primary, secondary, and grammar departments, to which could be sent, at comparatively small expense, children from districts now so sparsely settled as

not to be able to support a school, and also a *military department*, sustaining the mental labors by healthful and cheering exercises.

I repeat the hope of seeing, within two years, in successful organization, after proper legislative enactments, schools of learning, not only in our cities, towns and villages, but within every "six miles square" of the settled portions of the State, and that they be conducted with that ability that belongs to the energy and intelligence of this people. Not as in some States, fighting at shadows, passing the substance; not quibbling in a school house about that, *that don't belong there*, but educating the youth of our State; preparing them to succeed you in these halls—to equal and to excel you—to replace the ermined judges—and last, not least, to form the cohort forces of the State, in that great struggle that awaits our common country.

This great State is not the propagandist of any *creed*—nor the factionist of any *section*; to elevate the general intelligence of man, and to disseminate and extend republican influences, is her more exalted destiny.

I have the honor to remain your Excellency's obedient servant.

PAUL K. HUBBS,

Superintendent of Public Instruction.

Department of Public Instruction, Jan. 24, 1854.

Document No. 6.

[SESSION OF 1854.]

GOVERNOR'S SPECIAL MESSAGE

AND

COMMUNICATION FROM

S. A. M'MEANS, STATE TREASURER,

IN RELATION TO THE

PROMPT PAYMENT OF THE INTEREST AND PRINCIPAL
OF THE CIVIL DEBT OF THE STATE.

[GEORGE KERR, STATE PRINTER.]

GOVERNOR'S SPECIAL MESSAGE

AND

COMMUNICATION FROM HON. S. A. M'MEANS, STATE TREASURER.

EXECUTIVE DEPARTMENT, }
Benicia, Feb. 4, 1854. }

To the Senate and Assembly :

I have the honor herewith to transmit a copy of a communication from the Hon. S. A. McMeans, State Treasurer. The suggestions it contains are cordially approved, and I trust will receive your early and favorable consideration.

JOHN BIGLER.

STATE TREASURY DEPARTMENT, }
Benicia, February 3, 1854 }

TO HIS EXCELLENCY GOVERNOR JOHN BIGLER:—

SIR:—The time is rapidly approaching when the Legislature should proceed to consider such revenue measures as they may deem necessary to secure the prompt payment of the interest and principal of the Civil Debt of the State.

As the late Treasurer's Annual Report only extends to the conclusion of

the fiscal year ending June 30th, 1853, and I am not aware that a supplementary report has been submitted to your Excellency; and as some important changes have taken place in the condition of the State indebtedness since that period, I desire to submit to you, a brief statement of facts which may aid the Legislature, to some extent in determining the alterations necessary to be made in the present revenue laws.

It is deemed necessary to state that the sinking fund now on hand, which has been provided by law, to liquidate the principal and interest on the three per cent. bonds, or bonds issued under the provisions of an act, entitled "An Act creating a Temporary State Loan," passed February 1st, 1850, is ample for that purpose, and therefore any further provision for these will be unnecessary. There is at present a sufficient amount in the Treasury, to meet the interest falling due in July next, on the seven per cent. civil bonds, issued under the provision of the funding act of 1851, and leave a surplus of \$39,476 22 for the redemption of the principal.

On the 9th of January, 1854, I proceeded to advertise for the redemption of \$32,000 00 of the principal of said bonds, agreeably to the provisions of an act, entitled, "An Act supplementary to an Act to fund the debt of the State," &c., approved May 4th, 1852.

The total amount of Civil Bonds issued under the provisions of the funding act of 1851, according to the records in this office, was,		\$458,500 00
Total amount redeemed to date,		98,000 00
Amount now outstanding exclusive of interest,		<hr/> \$360,500 00
Of this amount there will fall due on the 1st of March, 1855,		\$131,500 00
Deduct from this amount, the sinking fund now on hand, exclusive of interest,		39,476 22
Balance due 1st of March, 1853, exclusive of interest,		<hr/> \$92,023 78

To meet this, we may reasonably calculate upon whatever cash may be received hereafter in payment for State property, sold under the provisions of "An Act to provide for the sale of the interest of the State of California in the property within the water line front of the City of San Francisco, &c." approved May 18th, 1853, together with the proceeds of the fifteen cents property tax provided by the present revenue law.

But it should be remembered, that while the last Legislature had but sixty-five millions of taxable property as a source of revenue, to base their calculation upon, the present will have near one hundred millions; therefore, without taking into consideration the *cash* proceeds of the sales of the State property in San Francisco, but little doubt could be entertained of our ability to pay the entire interest accruing on the seven per cent. bonds of 1851, up to January 1st, 1855, and of promptly meeting so much of the *principal* on the same as will fall due the 1st March, 1855. Hence, I infer that the assessment of fifteen cents might be reduced with safety, at least one-third; thus lessening the burden of taxation on the people. This opinion is strength-

ened by the fact, that \$327,000 of the bonds issued in 1851, will not fall due until the year 1861.

Presuming that a considerable amount of cash will be received on the sales of the property above mentioned, which will be turned over to the sinking fund of 1851, a reasonable calculation may be made on a speedy liquidation of the funded debt of 1851.

The seven per cent. civil bonds issued under the provision of an Act approved May 1st, 1852, and the supplementary Act, approved May 17th, 1853, constitute the only portion of our civil indebtedness which would appear to require additional provisions for its payment.

The total amount of these bonds issued, as appears by the records of this office, is	\$1,419,000 00
Total amount redeemed to date,	24,500 00
Balance outstanding, exclusive of interest, .	\$1,394,500 00

To meet the interest which will fall due the 1st of July next, on this amount, we have on hand, \$10,758 27. To this, if authorised by law, might be added the unemployed 20,000 now on hand, and set apart for the redemption of the principal of the State Prison bonds, without prejudice to their present holders, and would leave but little to do on the part of the Legislature, to enable me to make the July payment.

The necessary means for the support of Common Schools, in which all must feel a deep interest, will not of course be overlooked by the Legislature.

The interest arising from the sales which have been made of a portion of the five hundred thousand acres of school lands, donated to the State for school purposes, has proved to be inadequate to meet the public demands, now that the free school policy adopted at the last session of the Legislature, is beginning to be fully carried out. The partial experiment already made, has had the effect to reveal the fact, that California now has thousands within her limits, whose tender ages disqualify them for active participation in the affairs of Government, but to whom ere long, must be entrusted, to an important extent, the defence and preservation of her republican institutions ; a reflection, which doubtless inspires every philanthropic and patriotic bosom, with a sincere desire, that they to whom this great trust is to be committed, should be fully prepared to protect it understandingly. With a due regard to the dictates of prudence and wisdom, these great ends can be accomplished, and all reasonable assurance given of the willingness and ability of the State to promptly fulfil all her pecuniary obligations,

I have the honor to be,

Your Ob't Servant,

S. A. McMEANS,

State Treasurer.

Document No. 7.

IN THE ASSEMBLY.]

[SESSION OF 1854.

REPORT
OF
SPECIAL COMMITTEE
APPOINTED 1853, TO
EXAMINE THE BOOKS AND PAPERS
OF THE
STATE OFFICERS.

B. B. REDDING, STATE PRINTER.]

REPORT OF SPECIAL COMMITTEE.

His Excellency JOHN BIGLER :

Esteemed Sir :

Your uniform anxiety in relation to the financial condition of the State, induces me to send you a copy of the report of the Senate Committee on Public Expenditures, acting in connection with the Committee of the Assembly, instructed to examine the accounts and vouchers of the Comptroller and Treasurer of State.

Your obedient servant,

PAUL K. HUBBS.

Benicia, October 31, 1853.

To the Hon. SAMUEL PURDY,

President of the Senate.

Mr. President :

Your Committee on Public Expenditures, directed to examine the accounts of the Comptroller and Treasurer of State, having fulfilled their duties, in connection with the Committee of the Assembly, appointed for that purpose, respectfully report as follows :

The accounts of the Comptroller of State having received but limited examination from the Committee of the preceding year, your Committee have deemed it necessary to commence with the organization of the State, and have given the accounts and vouchers a more thorough examination than would have been called for, had the books of either Department, especially those of the first, second and third fiscal years, been kept with proper system. The duties of your Committee have been, so far as practicable, subdivided, and your Committee have not acted precisely as a Board, inasmuch as such action would have required much longer time without results proportionately material. The examination has been made with great care of these books of accounts for the *four fiscal years* preceding the first day of July last ; as also of more than thirty thousand vouchers necessarily traced from the original transaction to final settlement.

In view of greater simplicity in the accounts, and of having every account to present upon the Ledger, the actual amount due from or to the party, your Committee recommend to the Comptroller's department, an entire change in the manner of keeping the books. That all suspended accounts, such as amount of assessment charged to the Treasurer of the County upon the return of the duplicate, and others of similar character, be kept in a separate account, and especially, that the accounts of County Treasurers, and other officers, be kept in the *name* of the responsible officer. Some very able reforms in relation to these matters have recently been made by Mr. Hushton, of the Comptroller's office.

Your Committee do not think it important to notice here many small errors, further than to say, that with a different system, requiring monthly or quarterly "balance sheets," which necessarily test all the postings from the original entry, a recurrence of these errors would not be possible. The aggregate of the errors detected by your Committee, and the amount of which are sure to be repaid to the State, amount to more than ten thousand dollars during the four fiscal years, notwithstanding the very *great care* exercised by the ex and present Comptroller of State.

COUNTY OFFICERS.

In testing the settlements by county officers, your Committee regret to notice, that with few exceptions, *their accounts have not been accompanied by the proper vouchers*, required by law. Seldom has a County Treasurer had his accounts attested by the Auditor, nor has any check appeared, by which, in most cases, the Comptroller, nor your Committee, can know (by legal vouchers) whether the actual receipts for the State, by the County Treasurer, have been paid to the State Treasury. Conflicting statutes, with many general provisions impracticable of execution, have added much to this confusion. Considerable progress towards reformation of these evils, has been made by the present energetic Comptroller, aided by the revenue system enacted the past session; but a *more rigid enforcement of the law* is eminently called for.

CASH PAYMENTS FROM THE TREASURY.

The question as to the proper manner of making payments in "coin" from the Treasury, is, and will be, very embarrassing to the Treasurer, unless promptly defined by legislative action. As the condition of the Treasury at the opening of the session will be very similar to that of the session of 1852, your Committee report herewith an abstract from the Cash Book, showing the amount of cash received, and the manner of disposing of it, from July 1, 1851, to April 1, 1852. (*See Appendix "A."*) A large amount of money appears to have been withdrawn by some of the County Treasurers, in private capacity, immediately after their payments to the State in official capacity, at a time when Warrants were readily purchased at forty to fifty cents on the dollar. From January 1 to March 1, 1852, there was paid into the Treasury in coin \$98,556 29, nearly one-half of which belonged to the "General Fund;" during this time, members of the Legislature receiving \$10 per diem, and \$5, after sixty days' session, as was then supposed. Many of them were obliged to sell their warrants at forty to forty-five cents on the dollar. *The whole amount paid to members before the 2d of March of this large receipt, was \$938!*

On the 8th of March, 1852, the Legislature passed an Act, requiring, substantially, that the members should each be paid \$300 in cash. A similar Act passed at the session of 1853, included the officers of the two Houses. Believing that neither *State officers*, their *employees*, nor members of the Legislature, should take a preference over other creditors of the State, your Committee recommend as a means to prevent anything of this sort in the future, that an Act be passed requiring the

warrants of the Comptroller to be so drawn as to permit and direct the Treasurer of State to pay them in the order of their presentation for registry, and that when, after notice posted in the office for one month, the warrant is not produced, it be placed at the foot of the succeeding list.

SCHOOL FUND.

The interest has not been paid in to the School Fund, as provided by the Act of 1852, for the disposal of the 500,000 acres of School Lands, although a large amount of 7 per cent. bonds have been redeemed out of monies collected as interest tax.—The School Fund is undoubtedly entitled to receive the ratio of interest tax for the funded debt of 1851 on so much of Comptroller's warrants paid in for school lands as were fundable under Act of 1851; and those received fundable under Act of 1852, and the Act of 1853, are entitled to their proportion of the interest tax receipts for that fund.

The interest to be credited to this fund to	
July 1, 1852, is	\$351 34
January 1, 1853, is	5,062 83
July 1, 1853, is	9,791 23
To January 1, 1854, will be about	14,069 60
The cash now on hand from taxation under revenue act of 1852, is in	
3 per cent. bonds	3,900 45
(Since redeemed) coin	18,353 49
<hr/>	
There will be to credit of School Fund in the Treasury, January 1, 1854,	\$51,528 94

THREE PER CENT BONDS.

Redeemed and cancelled after examination by committee, principal,	\$285,825 00
Outstanding, subject to redemption on call,	4,275 00
In hands of the Treasurer, never issued,	9,900 00
<hr/>	
	\$300,000 00
There has been paid <i>interest</i> on the above named	
bonds redeemed,	\$176,394 21
And will be paid on \$4,275 outstanding, about,	6,000 00
<hr/>	
	\$182,394 21
There remains in the office of the Treasurer \$9,000 of the bonds ready for issue. Your committee see no reason why they should not be cancelled, the Comptroller crediting the Treasurer therewith.	
Three per cents and interest unpaid,	\$10,275 00

BONDS OF 1851.

The issue and the redemption (in part) of these bonds, as of those of 1852, has been thoroughly examined by your committee, and the bonds and the warrants, redeemed, have, as examined, been cancelled. At the time of redemption they had

been, by Mr. Hays, of the Treasurer's office, carefully endorsed, to prevent circulation.

There has been issued to 5th July last, of these bonds, No 1 to No. 917,	
at \$500 each,	\$458,500
Of the bonds due in 1855, redeemed to 5th July,	72,500
Outstanding July 5th, 1853, payable in 1855,	\$156,500
“ “ “ in 1860,	229,500
	<hr/>
	\$386,000

BONDS OF 1852 PAYABLE IN 1870.

Issued to October 10, 1853, of the denomination of \$1,000,	
No. 1 to 1,145, is	\$1,145,000
Of \$500, No. 1 to 554,	277,000
	<hr/>
	\$1,422,000
School land sales to October 10, 1853—	
757 warrants for 160 acres each, 121,120 a \$2,	242,240
321 warrants for 320 acres each, 102,720 a \$2,	205,540
Civil bonds for sale of school lands to be registered by Treasurer in accordance with the Act of 1852.	
	<hr/>
	\$447,780

STATE PRISON DEBT.

Of which \$55,000 is now drawing 7 per cent. interest	\$135,000 00
Civil indebtedness of the State, exclusive of outstanding Comptroller's Warrants issued and not redeemed since July 1, and exclusive of \$4,275 principal and \$6,000 interest 3 per cent. bonds	2,390,780 00
Interest to be raised annually by taxation,	\$167,354 60
Add interest on War Debt,	
Now 12 per cent. on \$200,000,	\$24,000
Now 7 do 579,400,	40,558
	<hr/>
	64,558 00
	<hr/>
	\$231,912 60

WAR DEBT.

No progress has been made by the Board of Examiners towards compliance with the joint resolution of the Legislature, requiring their statement in relation to this debt; nor have your committee made such examination as these accounts should have in order to develop the extent of our claim upon the General Government.

The accounts of pay-master Foster remain unsettled. Warrant 778 for \$400, lost by John L. Smith, (to whom by order of Legislature of 1852, a duplicate was issued on filing the proper bond,) has, with the duplicate, also been redeemed. The original appears to have been redeemed on the 28th of September, 1852, the duplicate on the 7th of August, 1852; both to John Perry, Jr., broker, San Francisco.

There has been issued of bonds bearing 12 per cent. interest,	\$200,000 00
Of bonds bearing 7 per cent. of the denomination of \$1,000,	
No. 1 to No. 341,	\$341,000
Of the denomination of \$500, No. 1 to No. 369,	184,500
do do 250, No. 1 to No. 102,	25,500
do do 100, No. 1 to No. 284,	28,400
	<hr/>
	\$579,400 00
War Warrants issued, convertible into 7 per cent. Bonds,	27,508 41
	<hr/>
Total amount of War Debt, exclusive of accrued interest,	806,908 41
Civil Debt,	2,390,780 00
	<hr/>
Total liabilities of the State, exclusive of Civil Warrants issued and not redeemed since July 1, 1853, and of outstanding three per cent. Bonds,	\$3,197,687 41

The extraordinary total of expenditures heretofore incurred, by legislative action, must in the future be greatly reduced, or the most serious consequences will ensue. The large amount raised by taxation is unequal to the expenditures provided by law. The debt of the State is constantly increasing. The funding system, if carried any further, will not only make the evidences of indebtedness worthless, but will increase the *interest tax* beyond endurance by the people. If the present State debt were to be paid to-morrow, the continued excess of expenditures would very soon replace it in larger amount.

LEGISLATIVE EXPENSES.

In the auditing of these accounts the Comptroller cannot go behind the orders for payment, directed severally by the two Houses. We find these expenditures audited in accordance with the orders attested by the clerks or Sergeant-at-Arms, and approved by the presiding officer for the time.

The amount paid for officers and clerks of the Assembly of 1853, has been \$57,769 60.

This includes \$2,413 50, paid to the Sergeant-at-Arms, over and above his per diem, for arrests, mileage and subpoenas.

This custom being no longer tolerated by Congress, your committee suggest a rule, allowing beyond per diem, actual expenses only.

The amount paid for officers and clerks of the Senate for the session of 1853, has been \$54,324 00.

Total legislative expenses for officers and clerks session 1853, \$106,093 60.

EXECUTIVE.

The salaries audited for Executive and State officers, including State Prison Inspectors and Commissioners for fourth fiscal year, \$64,848 40

Will be reduced in the present fiscal year by course of law to the extent of \$32,783 43.

There has been examined and found correctly audited for 1853, *contingent expenses* of the Legislature, \$19,031 91.

The salaries paid from the State Treasury to *Judges* for 1852-3, amount to \$123,964 34.

There has also been examined and found to have been paid in accordance with

law, for *hospital* purposes during the third fiscal year, \$90,939 75, and during the fourth, \$210,306 42—together, \$301,246 17.

Your committee have examined with great care and labor, the vouchers and accounts for

PUBLIC PRINTING.

The expenditure for public printing prior to that incurred under the contract system of 1852, was as follows, viz :

Paid H. H. Robinson, on vouchers dated March 16th; to May 15th, 1850,	\$53,132 79
To J. Winchester, up to Jan 28, 1851,	117,490 69
To J. B. Devoe, (mostly legislative) from Jan. 28, to May 2, 1851,	8,687 13
To Evening Picayune and other newspapers for publication of Laws of 1851,	48,946 01
To Eugene Casserly, Laws and Journals of 1851, and legislative and other printing in 1852,	85,246 74
To George Kerr, in 1852,	282 00
To V. E. Geiger & Co., in 1852,	16,657 90
From March 16, 1850, to July 1, 1852, total,	<u>\$330,443 26</u>

There has been paid for printing since the adoption of the contract system, from July 1, 1852, to July 1, 1853, including the Laws and Journals of both years, viz :

Legislative,	\$58,411 65
Census blanks and returns,	41,147 00
Paper,	16,962 20
Laws and Journals, 1852,	29,296 17
Ditto of 1853, (in part)	18,906 22
Miscellaneous,	37,771 05
	<u>202,494 39</u>

Total expenditure for printing since the organization of the State, - \$532,937 65

By section 2 of the Act of March 9, 1850, it is required of the Secretary of State to "aid the Comptroller in the examination of all accounts rendered by the State Printer."

Your Committee find upon none of the vouchers, (or rather bills of account unaccompanied in most cases by the printed vouchers whereby to measure the amount of work,) any evidence of the rendition of such aid or examination on the part of the Secretary of State, nor prior to the year 1852, of any computation by disinterested practical printers to test the accuracy of the accounts. With the passage of the Act of 1852, that of 1850 was repealed, and the Secretary of State released from that duty. The custom since then has been for the Secretary of State to certify to the receipt of the document, when not ordered by the Legislature; and in the latter case for the Clerk of the Assembly or the Secretary of the Senate, to certify that the printing has been ordered, and with the Sergeant-at-Arms, that it has been delivered. The present Comptroller has used great care in all these matters; has had the printed vouchers filed away, and in most cases called in "experts" before final settlement. With this loose manner of settling accounts rendered under first printing law, before them, your Committee were stimulated to examine with severity the

vouchers within their reach, and with the aid of a practical printer, estimated the work upon the Laws and Journals of 1850. See Appendix B.

Mr. Winchester had been paid	-	-	-	-	\$30,222 85
The estimate of work as made by Mr. Shepherd, and calculated by the Committee, including the binding, amounted to	-	-	-	-	30,325 46
Apparently underpaid,	-	-	-	-	<u>\$102 61</u>

Laws and Journals of 1851. Your Committee are of opinion that it was the intention of the Legislature [see Section 12 of the Act of April 22, 1850, page 341,] that when printing was done out of the State to the prejudice and injury of our own mechanics, a reduction of one half from California prices should be made. The Comptroller, on consultation with counsel, found a strict construction of the law to be adverse to this view, and audited the account for printing as presented. The Laws and Journals of 1851, were printed in New York, [see Appendix C.] that of the Laws badly executed, and were delivered in 1852, sometime after the meeting of the Legislature, having been purchased by Mr. Casserly from Mr. Fitch for about twenty-two thousand dollars in Comptroller's Warrants, and immediately turned over to the State and bills presented, audited and paid for thirty-nine thousand five hundred and fifty seven dollars and eight cents. Your Committee had the work on these Laws and Journals estimated at California prices. See Appendix B.

Estimate of work on Journals of 1851,	-	-	-	-	\$14,193 41
Add binding 800 volumes, 1868 pages each, 1,494,400, at	-	-	-	-	
1 cent*	-	-	-	-	14,944 00
Less 40 per cent.,	-	-	-	-	<u>5,977 60</u>
					8,966 40

					\$23,159 81
Warrants drawn for	-	-	-	-	<u>26,812 72</u>

To Eugene Casserly, estimated as overpaid on Journals of 1851,	-	-	-	-	\$4,652 91
Estimate of work on Laws of 1851,	-	-	-	-	\$5,507 29
Add full binding at 1 1-4 cents per page,	-	7,318	50		
Less 40 per cent.,	-	2,927	40		
		<u></u>			4,391 10
					\$6,898 39
Warrants drawn for	-	-	-	-	<u>11,744 36</u>

To Eugene Casserly, estimated as overpaid on Laws of 1851,	-	1,845	97
Total estimates to have been overpaid to Eugene Casserly, for printing Laws and Journals of 1851,	-	-	\$6,498 88

By voucher No. 3134 it appears that \$9,834 was paid to E. Casserly for 1400 quires poll-tax receipts and 90 quires Comptroller's orders, paid in accordance with law; but by same voucher a bill for paper \$3,297 and \$180 is not certified by the Secretary of State as required by section 5 of the Act of 1850, (page 84 of Statutes

*The bill of Mr. Casserly charges this binding at 1 1/4 cents per page. See prices fixed by Section 12, of Act of March 9, 1850, page 84, Statutes of 1850. "Note" It is due to the Comptroller and to Mr. Casserly to remark here that all the printing accounts of Mr. Casserly were certified to be correct by two practical printers.

of 1850,) under which this amount was paid. The paper upon which legislative reports and other documents were printed is charged at \$16 the ream, and that for bills at \$10 the ream.

CONTRACT PRINTING FOR 1852 AND 1853.

Some errors were discovered in the manner of executing the printing under the contract system of 1852 and 1853. The fault was ascertained and acknowledged by the sub-contractors to be theirs, and the contractors had the error immediately rectified. The promptitude with which the printing of 1852 and 1853 has been executed, contrasts greatly to the credit of the contractors, as compared with the printing of previous years. The cost of *noting, indexing and appendixing* the Laws and Journals has been the subject of examination by your committee. The accounts have been paid in accordance with law, and the rates not exorbitant if we except that for appendixing, which is clearly the solace of the office.

FOLDING AND STITCHING.

The cost of folding and stitching, and putting up in blue paper covers the *Journals* only of the two last sessions, will amount to something more than twenty-five thousand dollars; the rate paid under the contract system being one and one-quarter cents per page, and this bid being below that of the *Alta California*, which was one and one-half cents per page, or over thirty thousand dollars for this work. The cost of folding, stitching and putting up in blue paper covers of each Journal of the Assembly for 1852 was eleven dollars; of each Journal of the Senate, nine dollars and ninety-two cents. And the Journals for 1853, at an estimate of twenty-five thousand pages, (far below the number,) will cost, if in one Journal, thirty-one dollars and twenty-five cents *each, for folding, stitching and putting up in blue paper covers*. Four hundred and eighty per session are printed under the Act of 1852.

THE ANNUAL APPROPRIATIONS.

By Act of February 12, 1850, there was appropriated to defray the ex-	
pense of Government,	\$1,000,000
Act of May 1, 1851,	500,000
Act of May 4, 1852,	600,000
Act of May 11, 1853, for expenses of Government to close of fiscal	
year, 1852--3,	300,000
Total,	\$2,400,000

Your committee have examined with severality the warrants to pay expenses of Government drawn upon the Treasury, together with the vouchers, and find them to amount for

First and second fiscal years, eighteen months,	\$933,869 09
Third fiscal year,	925,694 56
Fourth fiscal year,	1,151,301 04
Total.	\$3,010,864 86
Expended beyond appropriation.	\$610,864 89

The Comptroller of State, in view of the fact that most of the statutes providing for expenditures of money, have directed the warrants for payment to be drawn by the Comptroller, has considered the statute as clearly pointing out the line of his duty, and has by consequence drawn warrants, as above stated, far beyond the appropriations

The custom of most of the States of the Union, as well as of Congress, require *specific* appropriations to be named in the annual appropriation bill; and where a failure in this respect is had to provide for any just account, it must nevertheless await subsequent legislative action. Your committee deem it important that this principle be properly defined by legislative action, for the guidance of the officers of State. The duties of the Comptroller of State especially, so arduous and responsible, should as far as possible, be clearly defined. Few men could have been found to wade through so large an amount of very intricate cases for adjudication with the same clearness of perception and ability of judgment as Comptroller Pierce. The matter of surprise rests with your committee that so few errors have occurred in such an extent of labor.

Your committee, in addition to recommendations under their appropriate heads, would in conclusion further recommend,

First, That the prices of the public printing be generally reduced, and be made to include the folding and stitching—that a fixed rate *per volume* be adopted for binding.

Second, That a Public Printer be annually elected by the Legislature.

Third, That the printing of reports of committees be made in limited quantity, and no bill be printed until after specific order of the Senate or Assembly, as the case may be.

Fourth, Provide for indexing and noting separately from appendixing; the former being now fairly and the latter extravagantly paid for.

Fifth, Direct by Joint Resolution that an attested copy of the Journals of the two Houses be made by the Secretary of the Senate and by the Clerk of the Assembly respectively, and deposited in the State Library for public examination. Your committee submit that this would be fulfilling the requirement of the Constitution in relation to the Journals, that they be published. A written document, open to the inspection of all citizens, is as clearly a publication as though it were a printed document open alike to inspection. The extract from the record is now as it then would be, attested by the Secretary from the written record.

Sixth, As the Comptroller cannot go behind the audit of the officers of either House, where errors sometimes occur despite the greatest care, your committee recommend that a *joint committee on legislative expenses* be raised, to examine every account for legislative expenses, and that the account, after being so audited, be approved by the President or Speaker, as the case may be, if he find it correct.

Seventh, Provide that the census of 1855 be taken by the Assessors of the various counties, embracing merely the constitutional requirement of enumeration of the inhabitants, and that it be done at a nominal rate per head.

The enormous amount of annual expenditures now provided by law and usage, contrasted with the position of the finances of the State, has induced your committee to go more thoroughly than they would otherwise have done, into recommendations for reform in our public expenditures. Unless the experience of the past be

lies the future, these recommendations will receive little attention from the Legislature or from the people. By and by, however, when a continuous *funding system* will have saddled upon the people a rate of taxation of European character, and that too *merely to pay interest*, without one or scarcely one visible monument of value in return: there will, when too late, be some waking up from this prosperous dream. Not a building save the Insane Asylum and the Prison—not a place where a State officer can leave a paper with safety, belongs to the State.

After an expenditure of more than three millions of dollars, and after *seven removals of the archives of State*, they are subject to be burned or stolen by any one sufficiently industrious to take the trouble.

All of which is respectfully submitted.

(Signed)

WM. H. LYONS, Chairman.

PAUL K. HUBBS,

M. M. WOMBOUGH,

JOHN Y. LIND,

Senate Com. on Pub. Expenditures.

PHIL. T. HERBERT,

Com. of the Assembly.

BENICIA, October 31, 1853.

APPENDIX "A."

DR.	<i>Cash Receipts, July 1st, 1851, to April 1st, 1852, into State Treasury.</i>		CR.
1851.	1851.		
Aug. 18. El Dorado county,	381 17	Sept. 15. Paid to Sacramento State Hospital,	4,680 66
21. Tuolumne county,	315 40	Divers dates paid Sacramento and Stockton	
Sept. 9. Santa Cruz county,	817 67	State Hospitals to March, 1852, inclusive,	9,258 62
15. Sacramento county,	4,680 66	Sept. 20. Paid Stockton State Hospital,	1,017 32
15. San Francisco county,	4 65	Nov. 8. and 19. Judge Hester,	1,500 00
15. " city,	29 25	11. Richard Roman,	1,168 00
20. San Joaquin county,	1,017 32	19. Paid Richard Roman,	200 00
Nov. 8. Santa Clara county,	500 00	11. to 19. E. D. Hammond, Clerk to Treasurer,	
11. El Dorado county,	1,850 00	1,314 50, 400, 100,	1,814 50
19. San Francisco county,	30,000 00	Nov. 11. J. S. Houston, 600, 2,000,	2,600 00
		11. W. M. Smith, Clerk to Comptroller, 600, 100,	700 00
		19. R. Roman, to pay interest,	9,000 00
Nov. 28. Contra Costa county,	1,750 00	19. For Gold Scales and Wood,	265 63
29. Sacramento county,	14,600 00	19. E. Buckingham, Treasurer S. F. Co.,	7,476 00
		19. John C. Hays,	2,130 00
		19. T. W. Sutherland,	1,065 00
		19. E. W. Thorp,	1,043 35
		19. J. W. Pierce,	1,250 00
		19. A. G. Kemble, Clerk to Secretary of State,	3,008 00
		28. Richard Roman,	1,000 00
		28. Judge Hester,	375 00
		29. E. D. Hammond,	300 00
		29. J. S. Houston,	2,000 00
		29. Lewis B. Harris, Sac.,	12,121 18
		29. Jacob Lefebre,	12 00

APPENDIX "A."—CONTINUED.

Dr.

Cr.

1851.

1851.

Dec. 1.	Santa Clara county, per J. Murphy,	5,000	00
9	Yuba county,	48	82
10	Solano county,	2,718	50
15	Contra Costa county,	5,011	40
15	Nevada county,	6,626	00
15	Contra Costa county,	2,280	89
17	Sacramento county,	3,000	00
18	Placer county,	3,518	66
18	Marin county,	4,402	03
19	Butte county,	2,549	30
19	Shasta county,	3,338	43
19	Monterey county,	7,108	37
19	El Dorado county,	3,991	84

Dec. 1.	John Murphy, 2,120, 2,000,	4,120	00
1.	Carriere & Abano,	200	00
1.	Jacob Lefebre,	12	00
1.	Wainwright, Byrne & Co.,	131	50
1.	C. J. Whiting,	400	00
1.	E. D. Hammond, 350, 131,	481	00
10.	E. D. Hammond,	500	00
10.	W M Smith,	700	00
10.	W Van Voorhies,	500	00
15.	Joseph Winston, Solano,	1,120	00
15.	" " "	3,061	79
15.	John E. Addison,	2,476	00
15.	W. Van Voorhies,	1,150	00
15.	E. D. Hammond,	246	00
15.	W. M. Smith,	1,926	00
15.	J. F. Howe,	143	80
15.	B. F. Pinkham,	515	00
18.	W. M. Smith,	260	00
18.	A. G. Kimble,	1,240	00
19.	" "	3,050	00
20.	" "	3,033	00
18.	John E Addison,	451	10
18.	G. K. Fitch, 2,410 10		
10.	" " 2,200, 375,	4,885	10

APPENDIX "A."—CONTINUED

Dr.		Cr.	
1851.		1851.	
		10. W. M. Smith, 2,284, 98 and 1,533,	3,817 98
		10. J. S. Houston,	875 00
		10. W. M. Smith,	47 50
		15, 18 and 20. B. Chapman, three payments,	482 79
		19. T. J. M. Smith, two payments,	896 00
		19. W. S. Sherwood,	500 00
		19. John E. Addison,	1,300 00
		20. " "	1,280 39
		20. Souris fans,	70 00
Dec. 25. Yuba county,	7,531 54	Dec. 26. E. D. Hammond,	300 00
25. Sutter county,	1,000 00	25. W. M. Smith,	1,260 00
29. El Dorado county,	160 00	26. W. Van Voorhies,	250 00
		24. B. F. Pinkham,	500 00
		25. " "	500 00
		24. John Reddick,	8 00
		25. J. Perry, jr.,	2,950 00
		31. J. S. Houston,	48 00
1852		29. W. M. Smith,	160 00
Jan. 2. San Joaquin county,	445 50	28. Thomas Addis,	51 00
2. Santa Cruz county,	7,085 56	28. Bassham & Wilson,	16 00
2. San Joaquin county,	8,961 86	15. V. Staley,	119 00
5. San Francisco county,	25,203 57	29. H. P. Dorsey,	21 00
7. Yolo county,	2,501 60	Jan. 3. Richard Roman,	500 00
		6. " "	1,000 00

APPENDIX "A."—CONTINUED.

Dr		Cr.	
1852.		1852.	
Jan. 23. Napa county,	4,790 70	Jan. 10. Richard Roman, paid E. D. Hammond,	250 00
24. San Francisco county,	8 34	8. E. D. Hammond,	140 00
26. Los Angeles county,	9,893 32	3. J. S. Houston,	1,137 60 }
26. Santa Barbara county,	2,450 00	250 00 }	1,387 60
26. Fund Commissioners, San Francisco,	1,000 00	6. " "	1,200 00
26. San Diego,	1,296 00	10. " "	153 00
		2. W. M. Smith,	100 00
		8. " "	3,090 00
		6. " "	5,675 00
		8. " "	860 95
		5. C. E. Buckingham,	4,000 00
		6. and 8. J. Perry, two payments,	4,957 17
		1. Frank Perry,	5 00
		1. Jacob Lefebvre,	6 00
		1. S. B. Farwell,	1,400 00
		1. W. T. Barbour, three payments,	2,303 00
		6. " "	839 00
		3. Moulthrop,	1,800 }
		2,401 }	4,201 00
		3. H. T. Boeram,	575 00
		3. Joshua Smith,	6 00
		3. John Cook, interest fund,	45 20
		8. Eli Jones,	5 00
		9. Ham & Flourney,	9 00
		10. John R. Wilson,	9 50

APPENDIX "A."—CONTINUED.

Dr		Cr.	
1852	1852.		
	Jan. 24 E. D Hammond,	102 00	
	24. W. M. Smith,	2,030 00	
	24 A. G. Kemble,	1,496 00	
	23. R. A. Eades,	15 00	
Feb. 11. Sacramento county,	16,756 32	Feb. 13. Richard Roman,	500 00
11. Santa Clara county,	2,692 58	13. W. M. Smith,	6,200 00
17. Colusi county,	1,594 09	13. W. Van Voorhies,	750 00
21 Tuolumne county,	3,578 63	13. John McDougal,	1,220 00
23. Yuba county,	2,900 87	14. F. Foreman,	393 00
26 Solano county,	2,597 35	17. S. B. Farwell,	591 04
Mar. 1. Sonoma county,	4,800 00	27. H. A. Lyons,	250 00
Nothing more received from March 1st to April 1st, 1852.		27. W. R. Hopkins,	20 00
Total received from January 1st to April 1st, 1852,	\$98,556 29	27. W. W. Gift, freight, legislative order.	616 50
		13. E. Covington,	145 00
		From February 13th to March 2d, to thirteen members a total of	938 00
		From March 1st to April 1st, under special act, to ninety-three members, average of \$155 each member,	14,438 00

The above contains all the entries on the cash book between the date mentioned, in consolidated form.

APPENDIX C.

The Report of Senate Committee on Public Expenditures, acting with Assembly Committee in the examination of accounts and vouchers of Comptroller and Treasurer of State, October 31, 1853.

TESTIMONY OF G. K. FITCH, AUGUST 2, 1853.

Question.—Were you appointed State Printer by Governor McDougal, and if so, when?

Answer.—I was appointed State Printer by Governor McDougal, on the 2d of May, 1851.

Ques.—Did you cause to be printed, the “Laws and Journals” of the session of 1851, in book form, in accordance with the law directing the manner of printing the same?

Ans.—I caused the “Laws and Journals” for 1851 to be printed in accordance with the directions of the Secretary of State and the Constitution of California. There was no law or statute especially directing the manner of printing the “Laws and Journals” of the session of 1851.

Ques.—Where was the printing done?

Ans.—In New York.

Ques.—What disposition did you make with the volumes so printed?

Ans.—I delivered them to Eugene Casserly. The Secretary of State refused to receive them from me, in consequence of a decision of the Supreme Court, declaring my appointment null and void, and sustaining the validity of the election of said Casserly to the office of State Printer.

Ques.—Did you, on the order of Eugene Casserly, make any printed alterations; if so, what were they?

Ans.—At the request of Casserly, I had the title page of the Laws and Journals so altered, that his name appeared thereon as State Printer instead of my own. I also supplied an “errata” to be inserted in each volume of the Laws.

Ques.—Are the Laws and Journals before spoken of, the same that were delivered by Eugene Casserly to the Secretary of State, and which are now in general use?

Ans.—Yes.

Ques.—When you undertook to print the Laws and Journals, what was your understanding of the law in respect to printing done out of the State?

Ans.—It was my opinion when I first investigated the subject, that the law referred to, applied only to the Laws and Journals of 1850, and could not affect the printing of any subsequent year. At the time of my appointment, however, before making this investigation, it was my impression that a law remained in force, requiring a reduction of fifty per cent on the statute price, for any printing done out of the State, and allowing the State Printer to charge for transportation of books, &c, should he avail himself of the privileges of the law. With this understanding I accepted the office, and such also being the understanding of Gov. McDougal, I felt bound to make out my bill accordingly; which would have been my course had I retained the office till the Laws and Journals were delivered to the State officers.

Ques.—What amount of money did you receive from Eugene Casserly in pay-

ment for the printed Laws and Journals, by you delivered to him; and how many of the Statutes and how many of the Journals did you so deliver?

Ans.—As near as I can recollect, I received from Casserly \$22,000, in Comptroller's warrants; varying, perhaps, a few hundred dollars from that amount. I think the number of Statutes delivered was 1050, and 750 Journals.

Subscribed and sworn to before me, this 3d day of August, 1853.

WILLIAM H. LYONS,
Chairman Committee.

Document, No. 8.

IN THE ASSEMBLY.]

[SESSION OF 1854.]

REPORT
OF
COMMITTEE ON AGRICULTURE,
RELATIVE TO THE
INCORPORATION OF THE AGRICULTURAL SOCIETY.

[GEORGE KERR, STATE PRINTER.]

REPORT OF COMMITTEE ON AGRICULTURE.

Mr. Speaker :

The Committee on Agriculture to which was referred a Bill, to “incorporate a State Agricultural Society,” have had the same under consideration, and beg leave to report :

Your committee, appreciating the vast importance of the subject, would be wanting in the discharge of a high and imperious duty to the State and the people, were it to permit the occasion to pass, without making use of it, to commend the subject to the earnest and favorable consideration of the House.

This is not merely a Bill to create an incorporate society whose influence only affect those immediately interested, and has no bearing upon the State, or upon the great masses of the people—but it is a bill, the provisions of which will act upon every interest, affect all classes of our citizens and touch with electric power every branch of industry throughout the entire State.

Four years ago the agricultural resources of this State, were comparatively unknown. Prior to that time, so little attention had been given to the subject, that much of the soil which experience has demonstrated to be highly productive, was deemed almost valueless. A crude and miserable process of agriculture had induced the impression that but a limited portion of our soil would justify cultivation, without irrigation, and consequently immense tracts of our highlands and mountain slopes, were regarded as fit only for pastoral purposes. This error has given way before the speeding plow, and it is now found that the cultivation of those lands in grain, will yield as rich returns as the cultivation of the valley lands, and instead of the agricultural resources of the country being circumscribed, and confined to a few valleys, limited in extent, and requiring irrigation, highlands and mountain sides are found to be equally productive, and valuable.

It is a pleasant and cheering picture, to see hundreds of pleasant homes and wide spreading fields laden with rich abundant harvest, on lands which but a few years ago were deemed almost unfit for cultivation.

Thus, has the experience of a very brief period of time demonstrated the great fact, that the agricultural resources of California are vast and almost incalculable—not only capable of abundantly supplying the millions destined

to inhabit the great Pacific empire now springing up with magic rapidity, with all of the necessities and luxuries grown in the most favored regions of the world, but of producing a large surplus for external commerce.

It is conceded that agriculture is the basis of the wealth, and prosperity of all civilized nations, and that the condition of agriculture in a country, furnishes a true and unerring index of its moral, mental, and scientific progress. It is indeed impossible in the nature of things, for a people, or a nation to attain any degree of eminence without pursuing an enlightened system of agriculture.

Advanced agriculture and its kindred branches of horticulture and floriculture are pursuits peculiar alone to civilized life. The barbarian never plants a tree, nor flower; his coarser taste has no appreciation of the value and magnificence of the one, nor the beauty of the other. These pursuits, congenial alone to the cultivated man, constitute the foundation upon which the social system rests, and bind the citizen to his country by the strongest of all ties.

Give men land to own, to cultivate; let them adorn and surround their homes with the comforts, and the various forms of beauty which result from advanced and scientific agriculture, and you build up in the country fortresses more impregnable than can be devised in any other way.

Then to protect, to foster and encourage by every legitimate means this vast department of industry, appears to your committee, to be one of first and most imperative duties of the Legislature of this State. California in its relations to agriculture, is a peculiarly interesting country.

We are now in our infancy. We have the lights of experience to guide us; we are cognizant of the fatal errors other States and other people have committed; we see and know how to avoid those errors. Then, let us while we have a virgin soil, unparalleled in variety and richness of production, at once introduce a system of agriculture which will secure to us and to the State the highest degree of prosperity for the time being, and enable us to transmit—unimpaired by our negligence or folly—the great advantages which we now enjoy, to those who will succeed us. Let us establish a system which experience has demonstrated to be productive of the most beneficent results in other States, and lay now, the sure and enduring foundations of future prosperity and greatness.

It is believed by those well informed on this subject, that the immense sum of twenty-five millions of dollars is annually employed in the import provision trade of California.

Is it not important to arrest this vast drain upon the country? We have also reliable information that within the past year there has been imported more than half a million barrels of flour, making from five to ten millions of dollars for this single article. The latter sum will now, and hereafter, in all probability, be retained in the country, as the home production will fully supply the home demand.

Now in view of the general importance of the subject, other States are moving in the matter, and stretching forth the hand of encouragement and protection; why should not California do so likewise?

A much greater necessity exist here than in other States.

At present our staples consist of very limited variety, and of these a surplus will soon be produced, hence the vast importance—the overruling

necessity of encouraging the cultivation of new products, and before the extensive cultivation of new products can be with prudence engaged in, experiments must demonstrate the adaptation of our soil and climate to their production. It must be ascertained that such new products can be successfully and profitably cultivated. Your committee believe that the surest and speediest mode of attaining the great ends in view, is the immediate organization of a State Agricultural Society, with liberal appropriations for its support. This appropriation is not asked for merely to support an institution as such, but to enable it to perform duties, the accomplishment of which shall give back to the State, the richest returns—to build up, make permanent and perpetuate the most vital interests of the State—to open those fountains from which issue streams that will refresh forever the hills and valleys of this “bright land.” This interest is receiving liberal encouragement in other States, and California now presents features in agriculture, that shall, if properly regarded, be as momentous as any the world ever saw. Our vast tule lands can be reclaimed, and fields of rice, cotton and tobacco can be made to flourish and add their untold value to the wealth of our people and State. Tea, coffee and sugar will also be numbered among the rich products of California, if that wise care so much needed, be given to nourish the germ which is now in embryo.

The opening of China and Japan reveals sources of wealth in the forms of new and varied productions of the Celestial world; and shall California avail itself of these offerings that progress holds out to us?

The sheep and the goat can feed upon our thousand hills, yielding their fleeces for our manufactories. Our sunny slopes will be adorned by fruitful vineyards, and beautified by groves of the mulberry, affording food for the worm that shall clothe our people with the costly silks that now draw our treasures to other nations. The people, too, of the Celestial kingdom will bring their knowledge, both of agriculture—of which they possess vast stores—and of the manufacturing of those costly fabrics, adding all these to our own sources of wealth.

To accomplish these great objects, a stimulus must be given; the State must extend the hand of encouragement and protection. We therefore recommend the establishment of a “State Board of Agriculture,” and the passage of the Bill referred to us, providing for the Incorporation of a State Agricultural Society,” with liberal appropriations in land and money for its support.

All of which is respectfully submitted by order of the Committee.

W. S. LETCHER.

Document No. 9.

IN THE ASSEMBLY.]

[SESSION 1854.

REPORT OF COMMITTEE

ON

SALES OF WATER LOT PROPERTY.

[B. B. REDDING, STATE PRINTER.

REPORT OF COMMITTEE.

Mr. Speaker :

The Special Committee, appointed "to take into consideration the communication of the Treasurer of the State to ascertain the amount of property sold by the City of San Francisco under the Act of March 26, 1851, and to ascertain the amount of such sales to which the State is entitled to 25 per cent.," and "also the amount otherwise disposed of under the provisions of said Act," have had the same under consideration and beg leave to make the following report:

Before giving a statement of the different sales, which have been made of Beach and Water lot property, under the provisions of said Act, by the City of San Francisco and other parties, we would say that to comply fully with the requisitions of the resolution, under which we were appointed, demands more time than we, with other duties claiming our attention, could possibly appropriate exclusively to this subject; but being sensible of the magnitude of the interests entrusted to our care, we have labored assiduously to a correct completion of our task, and most respectfully recommend to the consideration of the Assembly the following estimates of sales of Beach and Water lot property.

That the amount of Beach and Water Lot Property sold by Peter Smith, on different executions against the City of San Francisco, included within the present water front, since the passage of the Law of March 26, 1851, amounts, as appears from schedule A, herewith submitted, to the sum of fifty-eight thousand, eight hundred and sixty-five dollars, exclusive of property sold under same judgment on the 30th January, 1852, and which is claimed by the city by redemption.

That the amount of Beach and Water Lot Property, sold by others on different executions against the City, as appears from schedule B, herewith submitted, amounts to the sum of eleven thousand and eighty-nine dollars.

That the sum realized to the City of San Francisco, by the sale of the above property, amounts to sixty-nine thousand nine hundred and fifty-four dollars.

That the sales of property made by the Fund Commissioners, amounts to the sum of one hundred and nineteen thousand, four hundred and forty dollars, as appears by reference to schedule C.

That the sales of property made by the Joint Committee on Land Claims, appointed by the Common Council of the City of San Francisco, under an ordinance approved December 5th, 1853, amounts to the sum of one million, one hundred and ninety-three thousand, seven hundred and fifty dollars, which will appear by reference to schedule D, hereto annexed, that the sum of five hundred and twelve thousand, four hundred and eighty-eight dollars and sixty-seven cents, has been received by the Committee from purchasers, on account of payments, leaving a balance due from said sales of six hundred and eighty-one thousand, two hundred and sixty-one dollars, and thirty-three cents. The chairman of said Joint Committee further adds, that notes were made by purchasers of portions of said property and delivered to them, amounting to the sum of three hundred and thirty-seven thousand, three hundred and eighteen dollars and forty-eight cents; but that property, amounting to three hundred and forty-three thousand, nine hundred and forty-two dollars and eighty-five cents, was sold; for which the City has no security, and which will probably never be called for, but remain in the same condition, as if the same had never been offered for sale. Thus it will be seen that property, in which the State of California is interested has been disposed of to the amount of:—

By Peter Smith Judgments,	.	.	\$58,865
Other Judgments,	.	.	11,089
Joint Land Committee,	.	.	1,193,750
Fund Commissioners,	.	.	119,440
			<hr/>
			\$1,383,144

In addition to the above, your Committee would further report, that on the 30th January, 1852, a large amount of Beach and Water Lot Property was sold under a judgment rendered against said City of San Francisco, in favor of Peter Smith, for three thousand, five hundred and sixty dollars, which said property, so sold, is specified in schedule E, hereto annexed: that said property was sought to be recovered by redemption, by the City of San Francisco, subsequent to said sale, but that your committee are advised, (unofficially) that the Supreme Court have decided against the claim of the redemptionists.

That the amount of property sold, and the manner of such sale, as well as the amount due the State of California is set forth, in schedule G, hereto annexed.

That the entire sum of money paid into the State Treasury by the City of San Francisco, under the Act of 26th March, 1851, amounts to the sum of seventy-eight thousand, five hundred and sixty-seven dollars and ninety-five cents.

That the sum of five thousand one hundred and sixty dollars and fifty cents has been paid into the State Treasurer at different times, by purchasers under judgments against the City of San Francisco, in favor of Peter Smith and others, but that there is no evidence before the Com-

mittee going to show that they were authorized by the City to make such payments, and in the opinion of the Committee, the said payments were made without any authority of law, and hence no rights were vested or created in consequence of such payments.

Your Committee, although not required by the Resolution under which they are acting, to report upon those matters which do not effect the disposition of the Beach and Water Lot Property, under the act of March 26, 1851, yet will refer incidentally to those sales which have been made by the Board of California Land Commissioners.

From a report made by the State Treasurer, it seems that property to the amount of seven hundred and nine thousand four hundred and seventy-five dollars has been disposed of at public sale; that on the 3d April, 1854, at which time said report was made out, the sum of two hundred and thirty four thousand nine hundred and five dollars and eighteen cents had been paid in to the State Treasurer, said sum being exclusive of the payments made in States Prison Bonds.

That the sum of ninety-two thousand dollars in State Prison Bonds, was received on account of said sales, making in all the sum of three hundred and twenty-six thousand nine hundred and five dollars and eighteen cents.

That there has been paid to the Fund Commissioners, by the lessees of the California and Market Street Wharf, the sum of \$11,936 69; by the lessees of Broadway Wharf, \$3,222 74; and by the lessees of Pacific Street Wharf, the sum of \$16,159 56, making in the aggregate \$31,318 99.

That the sum of seven thousand six hundred and eighty-five dollars has been received by the Comptroller of the City of San Francisco for the rent of certain other wharves, and which is more particularly set forth in schedule G hereto an exed.

By reference to the report of the Joint Committee on Land Claims, (see schedule D) it will be seen that the sum of five hundred and twelve thousand four hundred and eighty-eight dollars and sixty-seven cents (\$512,488 67) has long since been paid to them, and that notes to the amount of one hundred and fifty-one thousand and forty-three dollars and forty-eight cents, (\$151,043 48) matured on the 28th Feb., 1854; and also four month notes falling due on the 27th April, 1854, for the sum of one hundred and eighty-six thousand two hundred and seventy-five dollars, (\$186,275 00), which if paid at the time they fall due would show in the hands of the Joint Committee the sum of eight hundred and forty nine thousand eight hundred and seven dollars and fifteen cents (\$849,807 15) of which sum the State is entitled to two hundred and twelve thousand four hundred and fifty-one dollars and seventy-eight cents, (\$212,451 78), (less the amount heretofore paid,) that being twenty-five per cent. of the receipts arising from sales of the Beach and Water Lot Property.

Until the time shall have expired for the purchasers to make their final settlements, according to the terms of sale it will be impossible for this Committee to report the precise amount the State is entitled to, as a large amount of property will, no doubt, remain uncalled for, and must be resold, but as near as can be ascertained, a balance of one hundred and sixty-three thousand seven hundred and forty-three dollars and

eighty-four cents, (\$163,743 84) is shown to exist in favor of the State from San Francisco.

Your Committee make up the amount as follows:

Payments made as per schedule D.....	\$512,488 67
Notes which became due 28th February, 1854, ..	151,043 48
Notes which became due 27th April, 1854,.....	186,275 00
Sales made by Fund Commissioners,.....	119,440 00
	<hr/>
	\$969,247 15
Of which sum the State is entitled to twenty-five per cent.	
amounting to.....	\$242,311 78
Deduct payment heretofore made,.....	78,567 95
	<hr/>
Balance due the State from San Francisco,.....	\$163,743 83

As has been already remarked we have not had sufficient time to devote to this subject, which its importance demands, and with increased powers we respectfully ask leave to sit again. We therefore submit the following resolution for your approval:

Resolved, That the Special Committee appointed "to take into consideration the communication of the Treasurer of the State, to ascertain the amount of property sold by the City of San Francisco under the act of March 26th, 1851, and to ascertain the amount of such sales to which the State is entitled to twenty-five per cent.;" and "also the amount otherwise disposed of under the provisions of said act," have power to send for persons and papers, and to take testimony.

J. C. JONES, Chairman,
F. A. PARK,
GEO. H. VAN CLEFT,
JOHN J. HOFF.

SCHEDULE A.

Water Lot, Number 20, for.....	\$105 00
" " " 21, for.....	60 00
" " " 22, for.....	55 00
" " " 23, for.....	55 00
" " " 25, for.....	135 00
" " " 27, for.....	65 00
" " " 28, for.....	90 00
" " " 29, for.....	85 00
" " " 30, for.....	250 00

SCHEDULE A.—CONTINUED.

Water Lot, Number	31, for.....	620 00
" " "	32, for.....	350 00
" " "	33, for.....	290 00
" " "	34, for.....	70 00
" " "	35, for.....	125 00
" " "	36, for.....	75 00
" " "	37, for.....	355 00
" " "	38, for.....	210 00
" " "	39, for.....	260 00
" " "	64, for.....	100 00
" " "	65, for.....	210 00
" " "	66, for.....	60 00
" " "	67, for.....	50 00
" " "	68, for.....	115 00
" " "	69, for.....	180 00
" " "	71, for.....	185 00
" " "	72, for.....	210 00
" " "	73, for.....	205 00
" " "	74, for.....	50 00
" " "	75, for.....	80 00
" " "	78, for.....	55 00
" " "	89, for.....	65 00
" " "	90, for.....	210 00
" " "	91, for.....	230 00
" " "	92, for.....	230 00
" " "	94, for.....	105 00
" " "	95, for.....	50 00
" " "	96, for.....	125 00
" " "	97, for.....	50 00
" " "	98, for.....	90 00
" " "	99, for.....	120 00
" " "	100, for.....	110 00
" " "	101, for.....	50 00
" " "	102, for.....	85 00
" " "	103, for.....	110 00
" " "	104, for.....	90 00
" " "	105, for.....	95 00
" " "	106, for.....	105 00
" " "	107, for.....	95 00
" " "	108, for.....	105 00
" " "	109, for.....	85 00
" " "	110, for.....	110 00
" " "	111, for.....	90 00
" " "	273, for.....	510 00
" " "	294, for.....	625 00
" " "	301, for.....	315 00
" " "	312, for.....	510 00
" " "	313, for.....	490 00

SCHEDULE A.—CONTINUED.

Water Lot, Number 315, for.....	655 00
“ “ “ 316, for.....	550 00
“ “ “ 319, for.....	610 00
“ “ “ 320, for.....	535 00
“ “ “ 321, for.....	200 00
“ “ “ 322, for.....	310 00
“ “ “ 326, for.....	560 00
“ “ “ 352, for.....	310 00
“ “ “ 371, for.....	300 00
“ “ “ 372, for.....	240 00
“ “ “ 309, for.....	225 00
“ “ “ 420, for.....	255 00
“ “ “ 421, for.....	215 00
“ “ “ 422, for.....	505 00
“ “ “ 424, for.....	240 00
“ “ “ 457, for.....	250 00
“ “ “ 459, for.....	630 00
“ “ “ 463, for.....	150 00
“ “ “ 505, for.....	410 00
“ “ “ 506, for.....	940 00
“ “ “ 507, for.....	500 00
“ “ “ 508, for.....	1,025 00
“ “ “ 509, for.....	900 00
“ “ “ 510, for.....	300 00
“ “ “ 511, for.....	850 00
“ “ “ 514, for.....	1,265 00
“ “ “ 515, for.....	1,305 00
“ “ “ 516, for.....	1,020 00
“ “ “ 517, for.....	1,190 00
“ “ “ 534, for.....	320 00
“ “ “ 580, for.....	970 00
“ “ “ 588, for.....	1,375 00
“ “ “ 606, for.....	725 00
“ “ “ 618, for.....	670 00
“ “ “ 678, for.....	510 00
“ “ “ 679, for.....	510 00
“ “ “ 682, for.....	405 00
“ “ “ 687, for.....	400 00
“ “ “ 688, for.....	370 00
“ “ “ 689, for.....	370 00
“ “ “ 690, for.....	330 00
“ “ “ 721, for.....	260 00
“ “ “ 724, for.....	285 00
“ “ “ 726, for.....	285 00
“ “ “ 731, for.....	360 00
“ “ “ 767, for.....	380 00

SCHEDULE A.—CONTINUED.

Water Lot, Number 770, for.....	\$215 00
“ “ “ 772, for.....	335 00
	<hr/>
	\$35,130 00

Water Blocks in Southern portion of City of San Francisco.

Amount brought forward,.....	\$35,130 00
Block No. 1,.....	1,250 00
“ 2,.....	920 00
“ 4,.....	480 00
“ 5,.....	640 00
“ 6,.....	600 00
“ 7,.....	600 00
“ 8,.....	610 00
“ 9,.....	2,700 00
“ 10,.....	825 00
“ 13,.....	100 00
“ 14,.....	100 00
“ 15,.....	80 00
“ 16,.....	130 00
“ 17,.....	125 00
“ 18,.....	160 00
“ 19,.....	130 00
“ 20,.....	145 00
“ 21,.....	140 00
“ 22,.....	200 00
“ 23,.....	145 00
“ 24,.....	65 00
“ 26,.....	75 00
“ 27,.....	150 00
“ 28,.....	135 00
“ 29,.....	130 00
“ 30,.....	60 00
“ 31,.....	50 00
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	\$45,865 00

All that fractional tract of ground covered with water, bounded on the westerly side by a line 100 varas east of the eastern line of Davis street, when extended and running parallel to Davis street, on north by Pacific street, on the south by Jackson street, and on the east by the eastern boundary of the beach and water lots of said city, as defined by Legislature for the sum of

2,850 00

SCHEDULE A.—CONTINUED.

All that tract of ground covered with water, bounded on the west by Davis street, on the north by Jackson street, on the south by Washington street, and on the east by the boundary of the beach and water lots of the aforesaid City, as defined by the Legislature of the State, for the sum of	1,350 00
All that tract of ground covered with water, being 100 varas bounded on the west by Front street, on the east by Davis street, on the north by Jackson street, and on the south by Washington street,	4,000 00
All that tract of ground covered with water, bounded on the north by Sacramento street, on the southeasterly side by Market street, and on the westerly side by the four beach and water lots numbered on the official map of said City from 571 to 574 for	1,750 00
All that tract of ground covered with water, being 100 varas square, bounded on the south side by Pacific street, on the north by Broadway, on the west by Front street, and on the east by the extension of Davis street for	3,050 00
	<hr/> \$58,865 00

SCHEDULE B.

Sold on Execution of Morrow vs. City of San Francisco, Aug. 18, 1851.

That certain tract of land bounded on the easterly side by the extension of Drum street, on the northerly by Pacific street, on the southerly side by Jackson street, and on the westerly side by Davis street, being 100 varas square for	\$3,000 00
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Sold on Execution of Winter & Latimer vs. City of San Francisco, Sept. 18, 1851.

Water Lot 229, sold for (Nov. 10, 1851.)	40 00
That tract of land bounded on the westerly side by Drum street, on southerly side by Clay street, and on easterly side by the eastern boundary line of city, as defined by Legislature, for	1,125 00
Also the 100 vara square, bounded on the northerly side by Vallejo street, southerly side by Broadway street, and westerly side by Front street, and on easterly by the extension of Davis street,	1,125 00

SCHEDULE B.—CONTINUED.

Also Beach and Water Lots No. 290,	980 00
Also Beach and Water Lots No. 291,	1,640 00

Sold on Execution of Morrison vs. City, Oct. 23, 1851.

All that piece of ground bounded on the northwesterly side by Harrison street, on the southwesterly side by Spear street, on the southeasterly side by a line 50 varas south of the southerly line of Harrison street, and running parallel to Harrison street in an easterly direction to the water lot boundary, and on the easterly side by the easterly boundary of the beach and water lots as defined by the Legislature, for	450 00
Also 50 vara lot commencing at a point where the southerly line of Folsom street intersects the westerly line of Spear street, thence running southwestwardly on Folsom street, 50 varas, thence southeastwardly at right angles, 50 varas, thence northeastwardly 50 varas to Spear street, thence along the westerly line of Spear street 50 varas to point of beginning	425 00

Sold on Execution of Morrison vs. City of San Francisco, Oct. 23, 1851.

Also 40 vara lot commencing at the southeasterly intersection of Folsom and Front streets, thence running southeastwardly on Front street 50 varas, thence northeastwardly 50, thence northwestwardly 50 varas, to Folsom street, thence along the line of Folsom street 50 varas, to place of beginning,	460 00
Also 50 vara lot commencing at a point 50 varas southeastwardly from the southwesterly intersection of Folsom and Spear street, thence running southwestwardly parallel to Folsom street 50 varas, thence southeastwardly 50 varas, thence 50 varas to Spear street, thence along the line of Spear street, northwestwardly 50 varas to beginning,	250 00
That 50 vara lot commencing 50 varas southeastwardly from the southeastwardly intersection of Folsom and Front streets, running northeastwardly parallel to Folsom street 50 varas, thence southeastwardly parallel to Front street 50 varas, thence northeastwardly 50 varas to Front street, thence northwestwardly 50 varas to place of beginning,	150 00
That 50 vara lot commencing at the southwesterly intersection of Folsom and Front streets, running southwestwardly on Folsom street 50 varas, thence southeastwardly 50 varas, thence northeastwardly 50 varas to Front street, thence northwestwardly 50 varas, to beginning,	575 00
That 50 varas lot commencing at the southeasterly intersection of Folsom and Beal streets, running southeastwardly	

SCHEDULE B.—CONTINUED.

on Beal street 50 varas, thence northeastwardly 50 varas, thence northwestwardly 50 varas to Folsom street, thence southwestwardly along Folsom street 50 varas, to begin- ning,	575 00
Also block number eleven (11) between King and Channel streets, for	270 00
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	\$11,089 00

SCHEDULE C.

Sale of City Property by Theodore Payne & Co., at their Sales Room, Sept. 17, 1852, at Public Auction, for cash, by order of the Commissioners of the Funded Debt.

WATER PROPERTY, NORTH BEACH.

	LOCATION.	PRICE	NAMES OF PURCHASERS.	NAME INSERTED IN DEED.	
No. 1	150 Vara Lot No. 1, corner of Larkin and Beach streets,	\$100	Henry Meigs, President.		
	250 " " " 2, on Beach street,	115	Moses Hoyt.	Moses Hoyt.	115
	350 " " " 3, corner of Hyde and Beach streets,	135	William Smith.	Ex-Governor Wm. Smith.	135
	450 " " " 4, " " and Jefferson streets,	150	Lambert.	Henry Lambert.	150
	550 " " " 5, on Jefferson street,	140	do.	do.	140
	650 " " " 6, corner of Jefferson and Larkin streets,	170	do.	do.	170
10	1950 " " " 1, corner of Mason and North Point,	600	Henry Meigs, President.		
	20 " " " 2, on North Point street,	500	do. do.		
	21 " " " 3, N. W. corner Powell and North Point streets, ..	800	do. do.		
	22 " " " 4, S. W. corner Powell and Beach streets,	850	do. do.		
	23 " " " 5, on Beach street,	600	do. do.		
	24 " " " 6, S. E. corner Mason and Beach streets, ..	900	do. do.		
16	49 " " " 1, N. E. corner Mason and Bay streets,	950	George C. Potter.	Geo. C. Potter.	950
	50 " " " 2, on Bay street,	900	Henry Meigs, President.		
	51 " " " 3, N. W. corner Powell and Bay streets,	1100	David C. McCarty.	David D. McCarty.	1100
	52 " " " 4, S. W. corner Powell and North Point streets, ..	950	George C. Potter.	Geo. C. Potter.	950
	53 " " " 5, on North Point street,	900	Henry Meigs, President.		
	54 " " " 6, S. E. corner Mason and North Point streets, ..	950	George C. Potter.	Royal H. Waller & H. S. Dodge.	950

SCHEDULE C.—CONTINUED.

Water Lot Property—South Beach, Subdivided into 100 vara Lots.

		LOCATION.	PRICE.	NAMES OF PURCHASERS.	NAME INSERTED IN DEED.	
No. 12	61	100 Vara Lot No. 1, corner Bay, Third and Channel streets.....	1200	J. W. Dwinelle.	Lewis Peck.	1200
	62	100 " " " 2 Nos. 1 and 3, and Berry and Channel,	1175	do.	do.	1175
	63	100 " " " 3, corner Berry, Fourth and Channel streets, . .	1175	do	do.	1175
31	64	100 " " " 1, corner Irwin, Simmons and Hubbard streets,	450	James Blair.	Mrs M. J. Blair.	450
	65	100 " " " 2, between Irwin and Hubbard streets, No. 1 & 3.	400	C. C. Bowman.	S. Heydenteldt & S. Bowman,	400
	66	100 " " " 3, corner Irwin, Harris and Hubbard streets, ..	500	A. Merrill.	Henry Lambert.	500
33	67	100 " " " 1, corner Hubbard, Simons and South streets,...	500	H. Lambert.	George Gordon.	
	68	100 " " " 2, between Hubbard and South streets, No. 1 & 2.	420	George Gordon.	do.	420
	69	100 " " " 3, corner Hubbard, Harris and South streets,...	525	do.		525
			17 155			

Water Lots on the East Front of the City.

611	70	on East street, between Market and Mission,....	\$5050	J. W. Dwinelle.	Lewis Peck.	\$5050
619	71	" " " Folsom and Howard,....	4600	George Gordon.	Geo. Gordon.	4500

SCHEDULE C.—CONTINUED.

Sale of City Property, Continued—September 20, 1852.

WATER PROPERTY, NORTH BEACH.

		LOCATION	PRICE.	NAMES OF PURCHASERS	NAME INSERTED IN DEED.	
No 6	7	50 vara lot, No. 1, N. E. corner Mason and Beach streets,.....	250	Henry Meigs, President.		
	8	50 " " 2, on Beach street,.....	270	do. do		
	9	50 " " 3, N. W. corner Powell and Beach streets,.....	420	do. do.		
	10	50 " " 4, S. W. corner Powell and Jefferson streets,.....	750	do. do.		
	11	50 " " 5, on Jefferson street,.....	500	do. do.		
	12	50 " " 6, S. E. corner Jefferson and Mason streets,.....	700	do. do.		
8	13	50 " " 1, N. E. corner Jones and North Point streets,	240	J. T. McDougal	James T. McDougal.	240
	14	50 " " 2, North Point street,	360	J. Hitherington.	Joseph Hitherington.	360
	15	50 " " 3, N. W. corner Taylor and North Point streets, ..	625	C. G. Carter.	Charles G. Carter.	624
	16	50 " " 4, S. W. corner Taylor and Beach streets,	675	B. Philips.	Francis A. Holman.	675
	17	50 " " 5, on Beach street,.....	420	do.	do.	420
	18	50 " " 6, S. E. corner Jones and Beach streets,	475	do.	do.	475
11	25	50 " " 1, N. E. corner Powell and North Point,.....	875	Geo. C. Potter.	S. Merritt, G. C. Potter, H. P. Hoyt	875
	26	50 " " 2, on North Point street,.....	650	B. Philips.	Francis A. Holman.	650
	27	50 " " 3, N. W. corner Stockton and North Point,.....	1400	C. G. Carter.	Charles G. Carter.	1400
	28	50 " " 4, S. W. corner Stockton and Beach streets,.....	1800	Dr. Merritt	S. Merritt, G. A. Potter, H. P. Hoyt	1800
	29	50 " " 5, on Beach street,.....	1400	George C. Potter	do. do. do	1400
	30	50 " " 6, S. E. corner Powell and Beach streets,	2000	Dr. Merritt	do. do. do.	2000
12	31	50 " " 1, N. E. corner Stockton and North Point streets, ..	1950	C. H. McClelland.	Charles H. McClelland.	1950
	32	50 " " 2, on North Point street,.....	975	do.	do.	975
	33	50 " " 3, N. W. corner Dupont street and North Point, ..	2125	do.	do.	2125
	34	50 " " 4, S. W. corner Dupont and Beach streets,.....	2825	do.	do.	2825
	35	50 " " 5, on Beach street,	1450	do.	do.	1450
	36	50 " " 6, S. W. corner Stockton and Beach streets,.....	5000	Moses Hoyt.	Moses Hoyt.	5000
14	37	50 " " 1, N. E. corner Jones and Bay streets,.....	1025	Joshua Norton.	Joshua Norton.	1050

SCHEDULE C.—CONTINUED.

Sale of City Property, Continued—September 20, 1852.

WATER PROPERTY, NORTH BEACH.

	LOCATION.	PRICE.	NAMES OF PURCHASERS.	NAME INSERTED IN DEED.	
	38 50 vara lot No. 2, on Bay street,.....	850	Joshua Norton.	Joshua Norton.	850
	39 50 " " 3, N. W. corner Taylor and Bay streets,.....	1350	B. Richardson.	Benjamin Richardson.	1350
	40 50 " " 4, S. W. corner Taylor and North Point,.....	900	James Philen	James and Michael Philan.	900
	41 50 " " 5, on North Point street,.....	825	B. Richardson.	Benjamin Richardson.	825
	42 50 " " 6, S. E. corner Jones and North Point,.....	825	Joshua Norton.	Joshua Norton.	825
15	43 50 " " 1, N. E. corner Taylor and Bay streets,.....	675	James Philan.	James and Michael Philan.	675
	44 50 " " 2, on Bay street,.....	925	Hoyt.	Henry P. Hoyt	925
	45 50 " " 3, N. W. corner Mason and Bay streets,.....	1200	C. D. Carter.	Charles D. Carter.	1200
	46 50 " " 4, S. W. corner Mason and North Point streets,...	1100	William Hesel.	William Hesel.	1100
	47 50 " " 5, on North Point street,.....	675	S. H. Bowman.	Joshua Soule Bowman.	675
	48 50 " " 6, S. E. corner Taylor and North Point streets,...	1250	T. Schulthers.	John Frederick Schulthers.	1250
17	55 50 " " 1, N. E. corner Powell and Bay streets,.....	1625	Geo. C. Potter.	S. Merritt, G. C. Potter, H.P. Hoyt	1625
	56 50 " " 2, on Bay street,.....	1000	Dr. Gautier.	Leon P. Gautier.	1000
	57 50 " " 3, N. E. corner Stockton and Bay streets,.....	2300	C. D. Carter	Charles D. Carter.	2300
	58 50 " " 4, S. W. corner Stockton and North Point streets,...	2125	William Thompson.	W. Thompson, jr., S. B. Whipple	2400
	59 50 " " 5, on North Point street,.....	1025	D. L. Ross.	Daniel L. Ross.	1025
	60 50 " " 6, S. E. corner Powell and North Point streets,....	2150	Dr. Merritt,	S. Merritt, G. C. Potter, H.P. Hoyt	2450
		50560			

SCHEDULE C.—CONTINUED.
WATER PROPERTY, SOUTH BEACH.

November 5, 1852.

	LOCATION.	PRICE	NAMES OF PURCHASERS.	NAME INSERTED IN DEED.	
1	100 vara lot, No 3, in Block corner Irwin, Harris and Hubbard, ...	275	Dr Hitchcock.	Eliza Hyche Hitchcock.	275

Sale of City Property, Continued, November 5, 1852.

302	Easterly side of Beach street, near Market Wharf.		M Reese.	Michael Reese.	4550
311	" " adjoining above.		do.	do.	4300
652	On East street, between Mission and Howard streets.		Nagle.	H M. Nagle.	7400
653	" " " "		Musson.	Eugene Musson.	7350
654	" " " "		Pope.	A. J. Pope.	7150
655	" " " "		Casserty.	Eugene Casserty.	7050
					<u>37,800</u>

January 13, 1852.

Water Lot 534, Lawrence, \$4,000

SCHEDULE D.

MAYOR'S OFFICE, SAN FRANCISCO, }
 March 29, 1854. }

to Special Committee of Assembly—

Gentlemen:

I yesterday had the honor to present to you a statement showing that the amount of money bid for the property sold by Selover & Sinton, under order of the joint Committee on Land Claims, as authorized by ordinance of the Common Council, approved December 5th, 1853, was

\$1,193,750 00

That there had been received by the Committee, from purchases on account of payments

512,488 67

\$681,261 21

I beg leave now to add for your information that the committee have in their possession, notes of the purchasers, given by them on settlement amounting to

60 day notes matured Feb. 28, \$151,043 48

4 months notes falling due April 27, 186,275 00

337,318 48

That amount will in all probability be collected, although the parties owing may require time.

There then remains unpaid, for which the city has no security, and which property will probably never be called for, but remain in the same condition, as if the same had never been offered for sale, the sum of

343,942 85

In the present state of the money market, and in view of the known great depreciation in the value of real estate, I deem it advisable not to offer at this time the uncalled-for lots at public sale; but shall take occasion to do so when a more prosperous state of the money market shall justify a hope that prices may be obtained, approximating to those received at the last sale.

In the mean time, all efforts shall be employed by me, not only to collect the notes already matured and about to mature, but also to make the parties responsible for the balance due on purchases, on which the first payment alone was made, and for which no notes were given, which sum will amount to, in round numbers, thirty-five thousand dollars, (\$35,000.)

I have the honor to be, gentlemen, very respectfully, your obedient servant,

Signed, C. K. GARRISON, Mayor,
 and Chairman Joint Committee on Land Claims,
 by SMYTH CLARK.

SCHEDULE E.

The following Water Lot Property was sold under execution of Peter Smith, against City of San Francisco, Jan. 30, 1852, and is claimed by the City by redemption.

All that piece or parcel of ground, 100 varas square, bounded on the northwestwardly side by Harrison street, on the north easterly side by Front street, on the southeasterly side by Block No. 3, and on the southwesterly side by Beale street.				\$230 00
Also that tract of ground covered with water, 100x50 varas, bounded on the west by Kearney street, north by Francisco street, east by Montgomery street, and south by Chestnut street,				75 00
All that piece or parcel of ground commencing in the northwest corner of Front and Harrison streets, running thence along Front street in a northwesterly direction 150 varas, thence at right angles 100 to Beale street, thence along Beale street, 150 to corner of Beale and Harrison streets, thence in a northeasterly direction, along Harrison street, 100 varas to place of beginning,				220 00
North Beach, block No. 1 sold for.....				125 00
"	"	"	" 2 sold for.....	55 00
"	"	"	" 3 sold for.....	115 00
"	"	"	" 4 sold for.....	110 00
"	"	"	" 5 sold for.....	110 00
"	"	"	" 7 sold for.....	125 00
"	"	"	" 8 sold for.....	85 00
"	"	"	" 9 sold for.....	120 00
"	"	"	" 11 sold for.....	160 00
"	"	"	" 12 sold for.....	305 00
"	"	"	" 13 sold for.....	300 00
"	"	"	" 14 sold for.....	215 00
"	"	"	" 15 sold for.....	220 00
"	"	"	" 17 sold for.....	650 00
"	"	"	" 19 sold for.....	340 00
				<hr/>
				\$3,560 00

SCHEDULE F.

Account of Moneys paid in by City of San Francisco on sales of Beach and Water Lots, sold under Act of March 26, 1851.

1852.					
January	26.—	Cash from Fund Commissioners,.....	\$1,000	00	
1853.					
February	1.—	“ “ “ “	10,000	00	
March	26.—	“ “ Hiram Pierson,.....	1,312	50	
April	7.—	“ “ D. W. Connelly,.....	212	50	
“	8.—	“ “ Fund Commissioners,.....	7,000	00	
“	29.—	“ “ “ “	8,267	95	
May	20.—	“ “ “ “	2,300	00	
August	4.—	“ “ C. W. Grinnell,.....	287	50	
September	1.—	“ “ H. S. Fitch, per R. H. Sinton,....	43	75	
“	1.—	“ “ James Krug of Wm.....	127	50	
December	2.—	“ “ Robert Rankin,.....	452	50	
“	6.—	“ “ J. W. Leonard,.....	231	50	
“	6.—	“ “ M. Matison,.....	27	50	
“	6.—	“ “ H. C. Beals,.....	32	50	
“	13.—	“ “ Charles Horner,.....	106	25	
“	13.—	“ “ C. R. Sanders and S. W. Holliday,	112	50	
“	13.—	“ “ S. W. Holliday and D. G. Perkins,	37	50	
“	16.—	“ “ H. D. Cogswell,....	83	75	
“	24.—	“ “ Levi Parsons,.....	32	50	
“	24.—	“ “ A. J. Ellis,.....	410	00	
“	24.—	“ “ J. M. Moss,.....	712	50	
“	29.—	“ “ Dexter Brigham, Jr.....	593	00	
1854.					
January	2.—	“ “ G. W. Kelsey,.....	343	75	
“	14.—	“ “ Fund Commissioners,	50,000	00	
				<hr/>	
				\$83,728 45	

SCHEDULE G.

	Total amount of Sales.	Amount due the State, be- ing 25 per cent.
Property sold by Joint Committee on Land Claims,	\$1,193,750 00	\$298,437 50
Property sold by Fund Commissioners, Amount received by Fund Commis- sioners—	119,440 00	29,860 00
From lessees of California and Market street Wharf,	11,936 69	
From lessees of Broadway Wharf,	3,222 74	
“ “ of Pacific street Wharf,	16,159 56	
	<hr/>	
	\$31,318 99	7,829 74
Amount received by City Comptroller of San Francisco—		
From Washington street Wharf,	2,550 00	
“ Clay street Wharf,	2,525 00	
“ Jackson street Wharf,	1,290 00	
“ Vallejo street Wharf,	620 00	
“ Adams & Co.'s Wharf,	600 00	
“ Wilson's, Flint's Wharf,	100 00	
	<hr/>	
	\$7,685 00	\$1,921 50

ACCOUNT OF PROPERTY

Sold in the city of San Francisco by the California Land Commissioners under authority of the Legislature, approved May 18, 1853.

NO. OF LOT.	WHERE SITUATED.	SIZE OF LOT.	DATE 1853	PURCHASERS NAMES.	AMOUNT SALE.	Interest, 10 per cent.	REMARKS.
64	cor. Jackson & Frt,	45 ft. 10 in. by 137 ft	Sept. 12.	Wm. Arrington,	12,350	1,235	
69	cor. Wash. & Front,	"	" 5	H. E. Sweitzer,	20,000		
65	On Front street,	"	Oct. 20.	Wm. Arrington,	8,100		
66	"	"	"	Wm. Heeser,	9,150		
67	"	"	"	Rodgers Friedman,	8,700		
68	"	"	"	Chas. D. Carter,	9,050		
70	cor. Wash. & Bat.,	"	"	B. Graffarty,	18,500		
71	On Battery street,	"	"	Chas. S. Compton,	9,250		
72	"	"	"	do	9,100		
73	"	"	"	Henry S. Dana,	9,100		
73	"	"	"	do	10,100		

Amount of Sales, \$123,800

Amount of expenses audited by the board for which certificates have issued, \$11,603 75
 1853, Nov. 26, Amount received by State Treasurer, 37, 324 33
 Dated 25th November, 1853

REPORT

Of Board of California Land Commissioners for State Property sold in the City of San Francisco, December 28, 1853, under and by virtue of an Act of the Legislature, approved May 18, 1853.

NO OF LOT	HOW SITUATED.	DIMENSIONS.	DATE, 1853	TO WHOM SOLD	AMOUNT SALE.	REMARKS.
19	S. W. cor. Front & Broadway	45 10-12 by 137 6-12	Dec. 28.	H. B. Platt,	12,250	Transferred by purchase to Hyam Joseph,
20	On Front street,	"	"	"	7,000	" " " "
21	"	"	"	"	7,500	" " " "
22	"	"	"	H. C. Worth,	7,750	" " Palmer Cook & Co.
23	"	"	"	"	8,000	" " " "
24	N. W. cor. Front & Pacific,	"	"	"	13,750	" " " "
25	N. E. cor. Pacific & Battery,	"	"	C. H. Swain,	19,500	
26	On Battery,	"	"	H. C. Worth.	12,500	
27	"	"	"	C. H. Swain,	9,500	
28	"	"	"	J. H. Ray,	10,000	" " Hall McAllister,
29	"	"	"	"	8,000	" " " "
30	S. E. cor. Battery & Broadway,	"	"	"	6,900	" " " "
1	S. W. cor. Broadway & Davis	"	"	Chas. Wood,	12,750	" " Palmer Cook & Co.
2	On Davis street.	"	"	Geo. Reed,	8,600	" " " "
3	"	"	"	C. H. Stanton,	8,500	" " " "
4	"	"	"	"	8,750	" " " "
5	"	"	"	T. Place,	9,250	" " " "
6	N. W. cor. Davis & Pacific,	"	"	"	14,500	" " " "
7	N. E. cor. Pacific & Front,	"	"	Chas. Wood,	14,200	" " " "
8	On Front street,	"	"	H. C. Worth,	8,750	" " " "
9	"	"	"	T. Place,	9,250	" " " "
10	"	"	"	H. C. Perry,	9,400	" " " "
11	"	"	"	"	9,600	" " " "
12	S. E. cor. Broadway & Front,	"	"	"	12,200	" " " "
33	On Battery street,	"	"	D. C. Broderick,	650	
34	"	"	"	H. C. Worth,	1,375	

REPORT CONTINUED:

NO. OF LOT.	HOW SITUATED.	DIMENSIONS.	DATE 1853.	TO WHOM SOLD.	AMOUNT SALE.	REMARKS.
35	On Battery street.	45 10-12 by 137 6-12	Dec. 28.	H. B. Platt,	4,250	Transferred by purchase to Hyam Joseph,
36	N. W. cor. Battery & Pacific	"	"	"	15,100	
75	S. E. cor. Jackson & Battery	"	"	Chas. S. Cusle,	12,250	Lot 75 sold by W. H. White at sale Oct. 20, 1853, for \$20,000, failing to comply with terms of sale was resold on his acct and suit has been ordered to recover deficiency
1	N.E. cor. Front & Washington	" by 60	"	John A. Monroe,	4,250	
2	On Front street,	30 ft. by 60	"	Bowman,	4,600	Transferred by purchaser to S Heydenfeldt,
3	"	20 ft. by 60	"	W. H. Middleton,	2,600	
4	"	"	"	"	3,000	
5	S. E. cor. Front & Oregon,	"	"	"	3,200	
6	On Oregon street,	30 ft. by 55	"	Bowman,	2,200	" " "
7	"	22 ft. by 55	"	John Rockfort,	1,600	
8	"	"	"	W. H. Talmadge,	1,500	
9	"	"	"	"	1,800	
10	"	"	"	H. Casement,	1,650	
11	"	"	"	"	1,600	
12	S. E. cor. Davis & Oregon,	24 ft. by 75	"	"	4,350	
13	On Davis Street,	"	"	Capt. Roberts,	3,500	" " "
14	"	"	"	Bowman,	3,500	" " "
15	"	"	"	W. H. Talmadge,	3,400	
16	N.E. cor. Davis & Washington	"	"	"	5,500	
17	On Washington,	22 ft. by 65	"	"	3,900	
18	"	"	"	"	2,750	
19	"	"	"	H. Casement,	3,000	
20	"	36 "	"	Bowman,	4,750	
21	"	18 "	"	S. C. Hastings,	2,700	
22	"	20 "	"	John A. Monroe,	3,100	

Total amount of sales, \$350,475

Amount received on above sales, as per receipt Richard Roman, Treasurer of State, on file in this office, \$72,622 44
 Total expenses of this board since report of Nov. 1, ult., to date as per vouchers on file in your office, \$11,193 16.

LIST

Of Purchasers and Amount paid by them in Sale of March 9th, and 10th 1854.

IN BLOCK BOUNDED BY OREGON, DAVIS AND FRONT STREETS.

LOT	PURCHASERS.	AM'T.	AM'T.
23	Solomon Heydenfelt,	\$1,200	\$215 00
24	J. Neefus,	850	490 00
25	Solomon Heydenfelt,	950	
26	Imene'k Tams & Co.	2,800	280 00
27	Charles E. Bowman,	1,550	
28	" " "	1,350	
29	" " "	1,300	636 00
30	" " "	1,250	
31	R. H. Middleton,	1,350	140 00
32	John Satterlee,	1,900	1,127 25
33	W. H. Talmadge,	1,550	1,051 00
34	" " "	1,550	
35	" " "	1,700	
36	Henry Casement,	1,600	300 00
37	Eug. Crowell,	4,500	450 00
38	S. C. Hastings,	2,000	
39	" " "	2,000	
40	W. Probasco,	1,850	228 00
41	Pollock,	1,700	
42	" " "	3,000	528 00
43	H. Casement,	1,225	
44	W. H. Talmadge,	1,125	
45	" " "	1,050	
46	" " "	900	
47	John Satterlee	1,500	
48	Jas Clinton,	1,900	190 00
49	J. S. Higgins,	2,025	200 00

BLOCK BOUNDED BY JACKSON, OREGON, DRUM AND DAVIS STREETS.

12	Palmer, Cook & Co.	2,800	
13	" " "	2,000	
14	" " "	2,200	
15	Charles Wheeler, (not taken)	3,000	
16	" " " "	5,200	
17	Nefus,	2,500	
18	R. Buck,	2,550	
19	E. H. Tharp and E. J. Ramsdell,	2,100	
20	" " " "	2,100	
21	R. Buck,	2,700	
22	Isaac N. Thorn,	4,000	1,000 00
23	" " "	2,500	
24	Sharp & Broadie,	2,200	220 00
25	A. J. Ellis,	3,000	300 00
26	R. Buck,	2,000	
27	E. H. Tharp and A. J. Ramsdell,	1,800	766 00
28	" " " "	1,700	
29	John C. Hayes and Ira Monson,	1,700	176 00
30	Nefus,	1,550	

LIST OF PURCHASERS.—CONTINUED.

BOUNDED BY OREGON, WASHINGTON, DRUM AND DAVIS STREETS.

LOT	PURCHASERS.	AM'T.	AM'T.
1	Messrs Beard & Hopkins,	\$5,350	\$8,508 32
2	" " "	2,900	
3	" " "	2,600	
4	" " "	2,400	
5	" " "	2,450	
6	" " "	2,300	
7	" " "	2,200	
8	" " "	2,300	
9	" " "	2,300	
10	" " "	4,300	
11	" " "	5,000	

JACKSON, OREGON, DRUM AND EAST STREETS.

1	W. H. Talmadge,	2,600	
2	J. A. Woerber,	2,000	200 00
3	S. C. Hastings and E. J. Moore,	2,050	205 00
4	" " " "	3,000	1,257 40
5	" " " "	2,400	
6	" " " "	1,300	
7	" " " "	1,350	
8	J. A. Woerber,	1,600	340 00
9	" " "	1,800	
10	Rider,	1,500	
11	H. O. Dinnell,	1,200	132 00
12	T. R. Johnson, (not taken)	1,525	
13	" " "	7,800	
14	" " "	9,200	

OREGON, WASHINGTON, DRUM AND EAST STREETS.

1	Beard & Hopkins,	2,700	
2	" " "	2,100	
3	" " "	2,500	
4	" " "	4,500	
5	" " "	1,800	
6	" " "	1,900	
7	" " "	1,900	
8	" " "	1,500	
9	" " "	1,400	
10	" " "	1,900	
11	" " "	2,000	
12	" " "	1,300	
13	" " "	1,400	
14	" " "	1,900	
15	" " "	2,100	
16	" " "	1,750	
17	" " "	2,300	
18	" " "	2,800	
19	" " "	2,200	
20	" " "	2,200	
21	Geo. Stider, (not taken)	4,000	
22	" " " "	6,100	

BROADWAY, PACIFIC, SANSOME AND BATTERY STREETS.

32	Mr. Wheeler, (not taken)	1,300
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LIST OF PURCHASERS.—CONTINUED.

BOUNDED BY BROADWAY, PACIFIC, FRONT AND BATTERY STREETS.

LOT	PURCHASERS.	AM'T.	AM'T.
25	Palmer, Cook & Co.	6,500	
26	" " "	3,700	
27	" " "	3,800	

S. E. CORNER BATTERY AND BROADWAY.

30	Hall McAllister	1,000	
	Sum Total,	\$235,3000	\$13,939 97

R E P O R T

ON THE

GEOLOGY OF THE COAST MOUNTAINS,

AND PART OF THE

SIERRA NEVADA :

EMBRACING THEIR INDUSTRIAL

RESOURCES IN AGRICULTURE AND MINING,

~~~~~

BY DR. JOHN B. TRASK.



TO HIS EXCELLENCY,

JOHN BIGLER,

*Governor of the State of California.*

Pursuant to resolution of Assembly, passed Feb. —, 1854, I have the honor herewith to submit the accompanying report on the Geology of that portion of the State, authorized by Joint Resolution of Senate and Assembly of the fourth session, all of which, with accompanying plates, is respectfully submitted.

Yours, &c.

JOHN B. TRASK.



TO THE SENATE AND ASSEMBLY

OF THE STATE OF CALIFORNIA.

Under the Joint Resolution, passed May 6. 1853, by the Senate and Assembly of the State of California, authorizing a farther Geological examination of some parts of the Sierra Nevada and Coast Mountains, and report the results of the same to the ensuing Legislature, I have the honor of submitting the following report in relation thereto, and in conformity to the above requisitions.

JOHN B. TRASK.



## P R E F A C E .

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The examinations authorized were entered upon soon after the passage of the resolution, and continued until the 28th of November, comprising a period in the field of about six months. The first five weeks were occupied in examinations of the more elevated and western portions of the Counties of Butte, Sierra, Yuba, Nevada and Placer, in determining, as far as possible, the position of an ancient water course in this section of the State, and its peculiarities—the description of which will be found in the body of this report.

On the 23d June, the southern portion of the tour was commenced, and carried on almost uninterruptedly for four months. The route south was carried through the Counties of San Francisco, Santa Clara, Santa Cruz, Monterey, and the north part of Luis Obispo; on the west, and returning on the east, (or through that range denominated the *Monte Diablo* Range) by the west part of Tulare County, Mariposa, Tuolumne, Alameda, Contra Costa and San Joaquin.

The range of country bounded on the north by the Straits Carquinez, and south by the Nacismiento, was divided into four sections, formed by lines running nearly east and west from the great valley to the coast. On the first of October, the country north of the Straits Carquinez was entered, and preliminary examinations only were made in the counties of Solano, Napa and Sonoma. From the County of Napa a section was carried across the basin of the Sacramento, and connected with examinations made two years previous on its eastern edge. A similar section was also made, passing eighteen miles south of *Monte Diablo* and continued across the San Joaquin.

The remainder of the months of October and November was employed in investigations of the middle mining sections of the County of Nevada and those intermediate between the former and the middle and western parts of Calaveras county. This range leads through that section in which the principal gold mines of the middle portions of the State are located, and was selected, with the view of conducting those examinations which will be found in the appendix of this report, under the head of Quartz Mining. As those mines have of late presented many interesting facts connected with their ultimate prospects, a set of sketches

representing the positions of the views and investing rocks has been given for illustrating their present features.

Doing the tour in the agricultural sections of the State, the modifications of the soils in different sections has been noted, and the natural productions arising as resultants, where they seemed of a general character, and extending over any considerable area. The "Saline lands" have been observed, and the opportunities that were offered for their reclamation, whed at any time demanded. The extent of cropping and resultant crops in some parts of the State, are of peculiar interest, and the facts developed in this particular will prove of much value to our agricultural interests, being an exhibition of the capabilities of some our soils for the production of the necessities of life, unexcelled in the history of the world.

The temperature of the mountainous and valley sections of both branches of the coast mountains, was noted as far as the nature of attending circumstances would permit, for the purpose of ascertaining as far as possible the peculiar adaptation of the different sections to the culture of exotic fruits and trees, and where no opportunity of personal examination offered, a careful inquiry of persons long resident in different sections, was made, by which many interesting facts have been obtained, relating to this subject.

This report will embrace the examination of a district of country, included within  $120^{\circ} 16'$  and  $122^{\circ} 32'$  west longitude, and from the thirty-fifth parallel to the thirty-ninth degree of north latitude, inclusive of the coast mountains and mineral districts.

The coast mountains are watered by thirty-two streams, the most of which are small, their names and the counties in which they are located will be found below.

| COUNTY.       | RIVER.          |
|---------------|-----------------|
| Sonoma.       | Sonoma.—        |
| Napa.         | Napa.—          |
| Contra Costa. | Merced.—        |
| Alameda.      | San Antonio.—   |
|               | San Leandro.—   |
|               | San Lorenzo.—   |
|               | Alameda.—       |
| Santa Clara.  | Coyote.—        |
|               | Aguagos.        |
|               | San Felipe.—    |
|               | Gaudalupe.—     |
|               | Los Gatos.—     |
|               | Camels.—        |
|               | Llagos.         |
|               | Carnadero.—     |
|               | Pescadero.—     |
|               | La Brae.—       |
| Santa Cruz.   | San Lorenzo.—   |
|               | Lougell.—       |
|               | Syante.—        |
|               | San Augustine.— |



| COUNTY.          | RIVER.                                                                                                                                                               |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Monterey.        | Corallitos.<br>Pajaro.<br>San Benito.<br>Carmello.—<br>Berjeles.—<br>San Antonio.<br>Salinas.—<br>Francisquito.—<br>Nacismiento.<br>San Mateo.<br>San Francisquito.— |
| San Luis Obispo. |                                                                                                                                                                      |
| San Francisco.   |                                                                                                                                                                      |

There are twenty-three of these streams which furnish a sufficient quantity of water for milling purposes, and are marked with a dash, (—) the above list does not include many small arroyas that course through these sections.



# R E P O R T.

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The coast range of mountains, and its included valleys, which form the principle subject of this report, extend from the 42nd paralel north latitude to the southern boundary of the State. Their general features present much more diversity of character than is usually to be found in the eastern chain of mountains, which forms the Sierra Nevada; from the occurrence of a greater variety of rocks constituting their mass, and the much greater area of covered by the sedimentary formations, the principle of which are sandstones, interspersed occasionally with calcareous rocks, and more rarely slates; this latter class of rocks forming but a small proportion of the sedimentary formations, of which later extensive portions of the coast line of mountains is composed.

The eastern belt of the coast range presents a repulsive aspect to the traveller as he approaches it from either hand, from its naked and barren appearance, producing but little of forest growth in any part of it, while those portions of the coast line of hills proper, are covered to a great extent with forest trees, consisting principally of the redwood, pine, and spruce, with groves of oak near their base, all of which are well adapted to the wants of the settler and usually easy of access.

This peculiarity in the two principal ridges of this chain was general for near three hundred miles of their course, the eastern ridge presenting no traces of timber except here and there an isolated patch of the pine on some one of its higher points; and for miles in extent even low shrubs are almost entirely absent.

Notwithstanding the barren aspect of the eastern belt of the coast mountains, it is not to be inferred that their slopes or valleys are unproductive, for it is found to be otherwise, being covered with a luxuriant growth of native grains and grasses, with herbaceous plants, affording extensive pasturage for flocks and herds. The lower foothills of the range, and the immediate banks of the small streams that meander through them, afford a few scattering oaks and other trees, but not sufficient in extent to furnish more than a very small local demand, to so extensive a population as the valley sections at the base of these hills must in a few years require. The oak groves found on the plains are

not adapted to any other uses than that of fencing and for fuel. The western or coast line of mountains must become the principal source of supply, in lumber for building purposes, except that which may be obtained by importation.

The coast range consists of two principal and distinct lines of ridges for a distance of nearly two hundred miles of their length; these are separated from each other by wide and long valleys that continue almost uninterrupted through their whole course, and should be considered as distinct ranges of one system both from their geographical position as relates to the mountains in which they are situated. The valleys have received different names, as the Santa Clara and Salinas; and these again are subdivided and receive local names even on the same line of plain; they can be considered strictly but one valley, the line of continuity being broken by the interposition of a range of hills, not exceeding in altitude three hundred feet, and even below these figures.

This division of the Salinas from the Santa Clara is caused by a low spur putting in from the Gabilan range, in a direction nearly north-west. Across the northern part of this spur the Pajaro River, an inconsiderable stream, holds its course, discharging its waters into the Bay of Monterey. The extent and geographical position of these two valleys would seem to warrant a different arrangement than that at present existing in reference to the coast range; as they form a line as distinct and clear in the separation of the two principal ridges, as the valleys Sacramento and San Joaquin in the separation of the coast range on the west from the Sierra Nevada on the east.

The division of the coast range proposed will be bounded as follows: commencing at a point due east of Monte Diablo on the valley San Joaquin, the latter and the Tulare valley to form the east line to the intersection of both ranges with the San Bernardino Mountains, near the thirty-fifth degree north latitude, thence running west to a point that shall cut the west base of this range, and lying on the north-western border of the Salinas, thence north along the west border of the latter, and also the west border of the valley Santa Clara to the south-east terminus of the bay San Francisco, following the east coast of that bay to the point San Pablo. This range inclusive to be denominated the Monte Diablo, and all mountains to the west of these lines to be still termed the "Coast Mountains." This division in the mountains now bearing the latter name, will become the more necessary when it is understood that much difficulty now exists in localizing phenomena and transactions that have from time to time occurred, as well also as another distinctive feature which marks them, viz: their relative age, the one being of comparative recent date to the other. The term "Coast Range" implies a line of mountains following the coast only, but which, as it is used at the present time, includes a chain whose eastern base is as far removed from the coast, as the foothills of the Sierra Nevada are from Bodega Bay on a line cutting through the City of Sacramento to the ocean. This chain, it will be seen, is separated by broad and long valleys, as distinct in their characteristics as the Sacramento and San Joaquin, while their length, including the bay San Francisco, equals the latter and has nearly half its average breadth. The geological and mineral characteristics of the two ranges are equally

as marked and distinct as their geographical position and vegetable productions, while the courses which both pursue are widely variant, forming an angle of thirty-six degrees in ninety-one miles. For local convenience of description this division should be made, if for no other reason.

A division, or rather a new arrangement, is to be introduced in relation to the entire mountain chains that lie upon the west side of the continent, which will give more uniformity and a much better classification than that now existing. It is not proposed however to change local names in the arrangement, but to name those parts of the mountains, which, as yet, have received none, except "Sierras," as they are termed. Through Mr. Blake, of the U. S. R. R. Survey, I am informed that it is now proposed to term the entire chain of mountains, extending through to the northern part of Oregon, and running south into lower California, "Cordilleras or Western America," and all those portions south of the thirty-fifth parallel of north latitude, [which, as yet, have received no name,] are to be termed the "Peninsula range" in order to separate them from the coast mountains with which they are now often confounded, and again as often termed Sierra Nevada, by persons who have occasion to describe them, or any part of them.

The terms "Sierra Nevada," and "Cascade Range," will thus be retained as local names, with their boundaries the same as before. The coast mountains will comprise the entire chain lying to the west of the above, and which are found to have an age more recent than the tertiary rocks, which rest upon them, and such local changes as may be necessary will be applied, but so far only as will be required in order to elucidate any peculiar characteristics they may possess.

This arrangement is one much needed, and is founded on strictly scientific principles, and this proposition of Mr. Blake will meet the universal concurrence of the country, as it will reduce the mountain chains of the western part of the continent, to a more perfect system than they have heretofore possessed.

A more specific classification of these mountains has before been proposed by different persons, among them that of Lieut. Wilkes, who proposed the term of "California Range of the Cascades;" for the Sierra Nevada being but a continuation of the former, all of them heretofore have been objectionable on the ground that old and established names would be changed by the arrangement; notwithstanding those names conveyed erroneous impressions. No such objection can be urged against the present proposition of the gentleman above named, as it affords a convenience of arrangement not heretofore suggested or presented to the public for their consideration. With these remarks on this part of our subject, we will proceed to the examination of the chain termed the Monte Diabolo Range.

## GEOLOGY OF THE MONTE DIABOLO RANGE.

This chain of mountains forms the south shore of the Straits Carquinez and part of the bay of Suissun. The rocks bordering the bay and straits

are mostly a sandstone, which belongs to a similar range occurring on the opposite shore. On the western flank of this portion of these mountains, or on the east shores of the bay San Pablo, and north part of San Francisco, a range of sharp Peaks are seen; their slopes are abrupt from the summit for a considerable way down toward their base, and in the latter part of winter and through the spring are covered with wild oats and grasses.

For several miles these mountains are made up of trapean rocks, which have forced themselves through the sedimentary rocks, and are in all respects similar to the volcanic series that has protruded through the older and also more recent formations in the Sierra Nevada. These rocks are cut through and disturbed by a suite of igneous rocks of still more recent origin, causing material change in the structure of the rocks that preceded them, both sedimentary and plutonic. Among the latter we find the pitchstone and obsidian, showing conclusively that they belong to that class known as recent volcanic rocks. These rocks may be conveniently observed in some of the lower hills about two miles east of the house of Victor Castro, in the County of Alameda. The more recent volcanic rocks form the first summit of the high ridge east of the bay, and the frequently isolated conical peaks to which they give rise, and which are known among the native inhabitants as (Peaches) stretch to the north for six miles, when they are replaced by the older trap rocks, and followed by the softer sandstones, which form the smooth rounded summits of the hills to the Bay San Pablo and Straits of Carquinez.

The sandstones on the shores present many marks of disturbance and change, by the intrusion of the late igneous rocks, and it is not unfrequent to find fine threads of quartz ramifying through them in every direction; when this is the case, or when they are in contact with the more recent of the igneous group, their former structure is usually found materially changed, a conchoidal fracture in these rocks is often the result of this contact either in large or small masses.

There are considerable areas of the sandstone in these mountains, that present little or no traces of change, subsequent to their deposition, except that of uplift; thus proving that they must have been deposited on the trap rocks after the latter had become firm, and parted with their heat: but where the sedimentary rocks are found in close proximity with the later igneous rocks the change indeed in them is clear and decisive: thus demonstrating the fact that volcanic action has occurred at a date long subsequent to the period in which these rocks were deposited, and probably after their emergence above the surface of the sea, in which they had their origin. It was found, in examining the sandstones lying upon the older trapean rocks of this part of the range, that the fine threads of quartz before noticed, gradually increased in dimensions as they approximated the inferior strata of the sedimentary rocks, and where the igneous rocks were exposed to view beneath them, in favorable situations, they often exhibited true well and defined, though small veins of quartz passing through them.

These general characteristics continue south untill a point nearly east of the town of Oakland is obtained, and here the trapean group of rocks are interrupted to a certain extent. East of this town we find the

primitive rocks occurring, and an outcrop of serpentine makes its appearance, together with some of its subordinate members, among which the Shales and some of the cherty rocks appear. These are flanked to the east with rocks of the trapean group, forming the high ridge in that direction, and are surmounted with the fossiliferous sandstones. The serpentine rocks of this district contain considerable quantities of chromic iron, but its extent is not accurately known. South of Oakland to San Antonio, the country is of the same character as that immediately preceding it. The mountains were not examined, but the creek was followed four or five miles, and its bed showed nothing to indicate a change in the structure of the country from which it has its rise, with the exception, perhaps, that the sandstone pebbles exhibited no marks of fossils.

These features were general for the entire distance to the San Leandro, being about eight miles: but after crossing this stream, the fossiliferous rocks become more fully developed and continue to gradually increase to the arroyo of the Alameda. The sedimentary rocks of this district rest on the older trap formations, with frequent small threads of quartz passing through them, but no material change of structure was observed in these at the points of contact. The sandstone of these hills is much coarser in its texture than that forming the shores of the Bay San Pablo and Straits Carquinez, and its fossils exceedingly fragile and imperfect.

Crossing the Alameda and entering the hills in which the Mission of San Jose is situated, a distance of four miles, no change in the general character of the rocks is noticeable, with the exception that the sedimentary rocks have suffered more from disintegration than at any point north of the arroyo Alameda, and the contour of the country being such as to retain a large part of the detritus of these rocks, the result has been the production of a soil, throughout the hilly and rolling districts, of almost unequalled richness and fertility.

Following the west side of the Central Range we pass into the county Santa Clara, a short distance south of the Mission San Jose. The sedimentary rocks containing fossils continue to cap the summit of the ridge for the distance of twenty-five miles south of this point, all of which appear to be of the same age as those above described. South of the *Hot Springs* (a point defining the boundary between the counties Alameda and Santa Clara) the trachytes crop out in two or three localities, leaving but little room for doubt that the more recent of the volcanic rocks underlie this entire section. At the distance of sixteen miles south of the Spring, the chlorite slate flanks the west base of the ridge, and at short intervals along this distance fragments of these rocks are frequently met; on the Rancho del Palo this rock again occurs at a distance of three miles east of San Jose, here it crops out on the hills three hundred feet above the valley, and appears to have been much disturbed and broken up; immediately west of this an aluminous slate appears dipping south-west and corresponding to the inclination of the chlorites.

In the hills of this district there is considerable quantities of quartz, some of which has proved auriferous.

Traveling parallel with the ridge and south of the Pueblo San Jose, the fossiliferous rocks become less developed, and at the distance of

thirteen miles very few sandstones containing fossils were to be seen. In the arroya Caoti the first specimens of scoriaceous lava were met with, this induced a more critical examination of the mountains to the east of the valley than would otherwise have been made. The hills were entered a short distance south of Laguna Seca, and followed thence southerly for eighteen miles. Small patches of fossiliferous rocks are sparingly distributed over the route, the predominating rocks being igneous and composed principally of trachytes and lavas; from Laguna Seca an almost continuous dike of the latter extends along the western base of the ridge for a distance of near twenty miles.

As you approach the Rancho Cantine it becomes more cellular than farther north at any point where it was observed. In the vicinity of Gilroy's it has been used for milling purposes, to which it seems admirably adapted, being unequalled in hardness to the best French Buhr. I saw at Gilroy's three sets of these stones which have been in use at that place for several years in flouring wheat. These stones are capable of being split out to the diameter of four feet and the requisite thickness that may be required for the uses of the mill.

The principal rocks forming the east ridge of the Monte Diablo range, and continuing southeasterly from Gilroy's, are composed of the more recent volcanic series, and are but a part of those above alluded to. At the distance of eight miles from this town, the ridge attains an elevation near three thousand feet, and shoots up into a series of jagged, conical peaks, which maintain this character for sixteen miles south of San Felipe; the pass known as "Pacheco Pass," leading from the Valley Santa Clara to the San Joaquin, is situated among these latter hills and near their northern terminus.

Nine miles northeast from San Felipe is the well known landmark known as "Pacheco's Peak;" it is visible for a long distance from the east, west and south, but not from the north owing to the hills between having a considerable altitude and their close proximity on the principle line of travel; it is formed of trachyte and scoriaceous lavas, and is evidently the remains of an extinct volcano.

The Santa Anna mountains stretch in a south-east direction from San Felipe a distance of twelve miles, and from this point sink gradually into an uneven ridge having an altitude varying from one thousand to fifteen hundred feet, but far more rugged than its equivalent north of the Alameda Creek. The section inclusive from the vicinity of Pacheco's to the extreme southeast part of the Santa Anna mountains, has been one of the grand centres of the more recent volcanic disturbances which has imparted to the mountains their present contour; the greatest amount of local disturbance is confined within a line of distance comprising about eight miles north and south, exerting a considerable elevatory force on the sedimentary rocks of recent date to the west and south-west.

The disturbance among the latter rocks is manifested in a striking manner on the south-east portion of the "Loma Muertas," (a range of hills extending from the south-east part of the Santa Clara Valley across its upper end, dividing this from the Valley San Juan) which extends also to the fossiliferous rocks near the Mission San Juan, they all have a dip to the west, which is continuous for miles.

The Rancho Tres Pinos, eight miles south-west of Santa Anna, may



be said to be the southern terminus of the Valley Santa Clara, though south of the "Loma Muertas" it is called San Juan; at this point it narrows to a cañon and continues thus forty miles to the south-east; after passing the Tres Pinos it becomes rough and irregular, though attaining no great altitude for most of this distance, and from the appearance of the cañada beyond, obtained from an elevation of eight hundred feet, it is probably connected with the Tulare plain some forty miles south, and from its appearance the elevation must be very moderate, as no hills were visible along the axis of the cañon to obstruct the view to a horizon beyond.

The stream that courses this cañada is termed San Benito as far south as the Arroya los Muertos, and eight miles south of the Rancho Tres Pinos, after which it takes the name of San Juan; it discharges its waters into the Pajaro fourteen miles north of the Rancho Santa Anna; the latter river forming the boundary of the counties Santa Clara, Santa Cruz and Monterey.

The pass Santa Anna is situated in the Monte Diablo Range and enters these mountains from the west, two leagues south of the Tres Pinos, and from the cañada San Benito; it was extremely rocky so far as examined though attaining no great altitude, the mean of its course was fifteen degrees north of east. This cañon appears to have formed the banks of an ancient stream, and it is not improbable that the San Joaquin might have flowed through this section, and discharged its waters into the bay of Monterey; I did not pass through the entire length of the cañon and am therefore unable to form an opinion on this point that would be satisfactory in this particular. The features observed on which this supposition is founded, are that a series of outliers, or rather narrow terraces are traceable for nine or ten miles up the cañada, such as occur on streams whose beds have been drained from successive elevations from subterranean forces. These peculiar features are not uncommon in the more elevated portions of the Sierra Nevada or Coast Mountains, and in the middle and northern parts of the former they may be traced for long distances.

The Monte Diablo Range is connected with the line of mountains which separate the Tulare and Salinas Valleys; and constitute in fact but one range, having their terminus within the thirty-fourth parallel, when they are intercepted by the San Bernardino mountains, which it appears from the U. S. R. R. Survey, pursue a course nearly at right angles to the trend of the former; while the low mountains forming the east border of the Salinas from the Mission San Miguel on the south to the Pajaro River on the north, can be considered nothing but a spur of the Monte Diablo Range.

The principle part is of this spur of granitic and other primitive rocks, on which the tertiaries rest; the granite is first developed in and about the Omega del Cablan, this mountain being made up for the most part of these rocks; at the next highest peak twelve miles south of the above known as the Chupadero, the granite passes into a coarse sienite much disintegrated and loose on the surface; the sienite continues to the cañada Solza a distance of six miles, beyond which it was not examined for twenty miles. It is doubtful if the granite rocks extend to any considerable distance beyond this locality, as the general aspect of the country

changes materially after passing this point, and the magnesian rocks begin to be gradually developed.

The mountains were again entered fourteen miles above the canada Solza, and followed for eleven miles, the magnesian rocks were met at short intervals throughout the entire distance. Chlorite and talcose slates with beds of impure serpentine occur, containing actinolite, and in the ravines fragments of chromic iron; at one locality this mineral was found in considerable quantities. No chromic iron was found in place in any of these rocks, but the detached masses in the ravines indicate deposits to a considerable extent.

The Panoches were visible from this point and distant about seven miles, bearing per compass south-east by east, and the entire range of hills intervening leads to the belief that the same class of rocks as those above alluded to, compose the principal rock of this section. This opinion was subsequently corroborated by the results of an exploring party from the Mission San Juan, who were out in search of what had been supposed an argentiferous vein, up the cañada of that San Juan, the ore brought in by this company proved to be an excellent quality of the chromic mineral, containing considerable quantities of the emerald nickel, which is far more valuable than the mineral with which it is associated.

A line from the cañada Solza carried east to the Arroya San Juan terminates at a point four miles north of a sandstone formation lying upon the east declivity of these mountains which contains marine fossils; those that were sufficiently firm for examination were found to be of present existing species of the Pacific Coast, consisting of *Mytilus* and *Cytherea*: in one part of these tertiary sandstones some fragments of *Purpura* were found, which are identical with those on the Arroya Pescadero, county of Santa Clara, and the littoral sea beaches on the Straits Carquinez. This was the only deposit of sedimentary rocks found on this spur of the Monte Diablo Range, and points to a period remote, when the waters of the ocean washed those shores, and furnishes corroborative testimony of the recession of the sea from those places by uplift from volcanic agencies below the surface.

On the west flank of the Gabilan (which is the most prominent peak on this spur) a bed of primitive limestone occurs, extending from the cañada Vergeles on the north nearly to the Sierra Chapadero on the south, a distance of twelve miles; it was observed on the lower hills of this part of these mountains only, and at no elevation exceeding five hundred feet above the level of the Salinas Plains.

At one locality these rocks have been cut through by two dikes of trap, and also a heavy dike of quartz is found on its eastern edge, which runs parallel with the course of the calcareous rocks; the quartz has cut both the granite and limestone, and *thrown* both to the west, it is heavily charged with iron, and contains in addition the blue and green carbonate of copper with a little gold. The limestone passes under the Salinas Valley and has a considerable inclination in contact with the intrusive veins above noted; it contains silver and lead (*Argentiferous Galena*) in small veins in several places. As the calcareous formation does not show itself on the opposite side of the valley, opposite this locality, the presumption is that it underlies the plain at a considerable depth, and should

it carry those veins throughout which is found upon its surface it is not improbable that valuable deposits of ores may be found within it.

### SALINAS VALLEY.

This extensive plain will follow as next in order, in the description of its general features, previous to the consideration of the Coast Mountains.

The valley is about ninety miles in length, and has a varying breadth from eight to fourteen miles; it is situated between the Coast Mountains and those denominated the Monte Diablo Range, and is bounded on the east by that spur of this range in which the Gabilan is situated.

The Salinas River flows through this plain from the Cadesal Pass in which it has its rise, to the bay of Monterey. The stream for fifty miles of its course follows the western margin of the valley, and crosses the plain for the first time eight miles south-east of the Mission Solidad, after which it becomes more irregular. Three observations were taken at different points, by which it was estimated that the river had a fall of eighteen inches in one and three-fourths of a mile for seventy miles of its course. The bed of the stream is composed of a loose micaceous sand, derived from the granite rocks to the east, and also from the tertiary rocks on its western border, the latter, however, do not enter largely into its composition.

The plain of the Salinas consists of three terraces running through nearly its entire length, thus making three different positions which the river has occupied since the formation of the valley, and its recession from the eastern to its western border where it at present holds its course. These terraces are very regular in their general outline, and impart to the mind an idea that the plain has a uniform grade for its entire breadth, when the point viewed is one or two miles distant. Commencing on the western side of the valley, the lower terrace is found to occupy a breadth of about four miles, and is composed of a rich alluvium; at this point the second terrace rises abruptly to the height of eleven feet, its average width being nearly that of the former; this is also composed of a similar soil as the first, though not in so fine a state of disintegration, or containing so large an amount of vegetable mould. Both terraces support a dense growth of indigenous grasses and plants, thus furnishing an abundant supply of pasturage for stock of all kinds.

The third and upper terrace rises nearly as abrupt as the second, and has a varying breadth from one to six miles, it is more irregular upon its surface than the two former, and attains a higher grading as it approaches the hills to the east; the irregularities of the surface are not sufficient to produce any sensible effect in destroying that uniformity which a view of four miles will give on any part of the plain, and would not be noticeable except in passing over it.

South of the Alisal Ranch, and situated on this upper terrace, are a series of little elevations that continue at intervals of half a mile or a mile through a distance of twenty-seven miles, on the eastern side of the valley. They are symmetrical in form and rise on every side to heights varying from six to ten feet above the level on which they stand; their surface is smooth and even, covering an area from fifty to one

hundred yards square. They appear to be composed of the valley and neither rocks or small stones were to be found on any part of them. The first impression received by the traveler on coming up to them, is that they were the work of art, perhaps thrown up by the aborigines to secure themselves from inundation; but when we consider their extent and number, it will be found rather inconsistent with the habits of these people to erect works of this extent: there are no traditions among the Indians of this part of the country respecting the origin of these singularly formed hills.

The causes of their production must remain a secret which future time alone, and the art of man, will eventually unravel. Their irregular dispersion and general uniformity of character indicates an origin from natural causes than otherwise, though it must be confessed that the agents that are active in producing them are not very apparent.

The upper terrace or "Mesa" of the Salinas, exhibits more distinctly the sources from which the superficial covering of the plain has been derived; the soil is harsh and gravelly, and retains moisture but a short time after the rains cease; it much resembles the soils derived from the granitic rocks of some parts of the mining counties; but notwithstanding the sterile features of this "Mesa," it produces the wild oat in sufficient abundance to furnish extensive grazing land, and in the "Encinal" the natural crop is heavy.

The slopes of the hills on the eastern side produce the same grain, but here it is frequently replaced by the indigenous grasses; these latter do not become so general until after passing above the limestone range, and these rocks seem to favor in an eminent degree the growth of the cereal to that of the grasses in this section and south beyond the Chupadero; beyond this the grasses form the principle covering of the hills on the east side of the plain to the southern extremity of the range.

The Salinas has an inclination of eight degrees in twelve miles transversely to its course. The line was projected from the Chupadero and carried through the Carmel Mountains to the sea, and connected with another line which was carried through the Monte Diablo Range and cañada San Juan at a distance of two miles south of Los Muertos, thereby obtaining a sectional profile from the western edge of the San Joaquin to the ocean.

The section thus formed will give the following series, and the order in which they occur. First, alluvium of the San Joaquin, tertiary sandstone containing no fossils, and resting on trachytes; 1200 feet on east ridge, the trap rocks are found, same altitude on west ridge, porous and compact lavas, on the west slope 400 feet above the level of the Arroya San Juan, mountain limestone. Valley half a mile in breadth flanked by calcareous rocks, resting on granite, 1600 feet through to the Chupadero granitic and trapean rocks, 400 feet above Salinas Valley crystalline limestone, valley twelve miles in breadth, ascend one high plateau of sixty-four feet of gravelly alluvium, thence over a high ridge trapean rocks, which are followed by coarse granitic rocks to the sea. The highest ridge is the granitic mountains toward the ocean, and the highest point crossed 2900 feet.

## FROM POINT PINOS TO THE NACISMIENTO RIVER.●

The Coast Mountains extending from Point Pinos, Monterey, to the northern line of Luis Obispo are mostly primitive; the character of the rocks which form the principle basis of these mountains are best observed about Point Pinos and the town of Monterey; they are composed of a coarse-grained but apparently firm granite, having a bluish grey color where the solid masses have been recently fractured. In some places this granite contains imbedded translucent crystals of felspar, (Adularia) in others it is close grained, and contains but little mica, its disintegration forming a fine white sand but little discolored by iron, and from its brilliancy below the surface of the ocean, produces a most pleasing effect on its waters at considerable distance from the shore. The light-house at Point Pinos is constructed of this rock, and from the appearance of the stone when properly dressed, it is highly probable that if the ledges were properly opened, a good material for building purposes may be obtained and in sufficient quantities to supply all the local demands of this country.

The granite shows itself as an underlying rock for four miles into the interior, from the coast, where it becomes covered with the debris of the sedimentary rocks resting upon it and alluvium, but there is but little difficulty in tracing its course for forty-five miles easterly of Monterey; it becomes more largely developed after crossing the Carmello and entering the mountains on its southern side.

The trend of the Coast Mountains south of Monterey for fifty miles is south 50 degrees east, while the strike of the granite rocks is at an angle of nearly 18 degrees to the line of trend, or in other words cutting the course of the ridge at an angle of eighteen degrees. The granite rocks at Point Pinos are of the same series as those occurring in the vicinity of the Rancho Pajo, and south of the Estella, thirty miles distant from the latter in a southerly direction; the texture of these rocks in these southern localities is more compact than in the vicinity of Monterey, and in some cases are hornblendic in their character. On the east the granite is flanked by an extensive group of the Serpentine formations, which continue south as far as the Mission San Antonio; they constitute the principle part of a ridge running parallel with the granite, and situated between the latter and the Salinas Valley. The country over which the magnesian rocks predominate is easily distinguished from that in which granitic or trapcan group is found, by the vegetation incident to both—the serpentine hills being generally destitute of the larger forest trees, and covered with a thick “Chamisa” and stunted varieties of the oak; this peculiarity of these hills is very striking, and cannot fail to arrest the attention of the traveler, either among the Coast Mountains or Sierra Nevada, in passing over them. The talcose and chlorits slates of these mountains were found to be auriferous in several localities, and mining to a considerable extent was conducted in some parts of these mountains during the past summer.

The magnesian rocks cross the Nacismiento River fourteen miles above its junction with the Salinas; on the banks of this stream they appear in the form of massive Serpentine, but assume a schistose structure three

miles beyond to the south, and at the distance of six miles the chlorite slates abound. These mountains were not followed beyond this point to the south, but it became evident that the trapean rocks prevailed at the distance of ten or twelve miles farther on, the sharp outline of the higher hills corresponding with those of a similar character observed in other localities.

To the south-east and south-west the mountains were less rugged in their appearance, a considerable extent of a white micaceous granite was found, on which detached masses of sandstone were met with, containing marine shells, also a conglomerate apparently of the same age. The fossiliferous rocks were much disintegrated, and their fossils very imperfect; the species observed were *Pectinca* and *Terredina*, and evidently were of the same age as those in the immediate vicinity of Monte Diablo; all the other shells were so imperfect that nothing reliable was to be obtained from their examination, being merely fragmentary in their character.

To return again to the northern part of this range of mountains, and in the vicinity of Monterey, we shall find that the fossiliferous sandstones of this district do not compare in any degree with those above noticed, but, to the contrary, all of the marine fossils of the northern part of the range are found to differ in their character and relative age. On the Carmello this interesting fact may be conveniently observed: the fossils are found in an argillaceous sandstone, about nine feet in thickness, and rests alike on both serpentine and granitic, and has a dip of seven degrees west. It is found at intervals through eleven miles of distance on a course east southeast, and for a breadth of about four miles; this formation, which must be regarded as the *Post Pliocene* of this country contains imbedded fossils of the genus *cancer*, with casts of *Cytherea*, *maetra* and *tellina*, all of living species in the adjoining Bay and Bay of Monterey.

From the delicacy of the preservation of these small animals, and the character of the rock in which they are imbedded, it appears evident that it must have been deposited in still water, and was probably an estero into which the tide ebbed and flowed regularly, with sufficient protection to break the violence of the surf upon the coast. After its deposition it had been gradually elevated above the surface of the waters, and subsequently tilted from its horizontal position by the intrusion of igneous rocks in its vicinity.

The cause of its disturbance and inclination is found in the intrusion of a trapean dike which has cut through the granite and clay slate, which latter passes into a micaceous schist, and near the contact of the igneous intrusion small but imperfect garnets are found imbedded. The fossiliferous rocks are regularly stratified, and cleave easily in one direction; they are much twisted and contorted nearest the points at which the trapean mass broke through, but become much less curved as the distance increases from that centre. A clay of fine texture and creamy color is found resting on the argillaceous sandstone, and covers a large extent of country stretching to the east of Monterey as far as the Toro Hills; this clay is composed almost exclusively of *infusoria*, apparently of marine origin; five distinct species have been observed, four of which are dis-coid. It is probable that they have been described either by Professor Bayley, of West Point, or Ehrenberg, as both these gentlemen have had

opportunities for the examination of the infusorial formations of this State—and until access may be had to their descriptions, it will be impossible to determine this fact. Specimens have been secured for the State collection, and will be described at the earliest opportunity.

My route next followed a northeast direction across the Toro Hills and Cañada; the first range of high hills on the north side of the Carmello, and which divide the Toro from the Carmel valley, have an altitude of about seven hundred feet; they are composed of a coarse sandstone, containing a few indistinct impressions of shells of marine species; an out-crop of trap was observed among the latter rocks, flanked by granite of the same specific character as that found at Point Pinos, and may be seen four miles southwest of the Toro Ranch. On the south side of the valley an extensive bed of calcareous travertine occurs, and also a breccia of the same character, they cover about one mile of area; no limestone rocks were found *in situ* in this vicinity; the travertine here observed, evidently had its origin from springs highly charged with calcareous matter, and which were undoubtedly formed in the limestone described on the east side of the Salinas valley, and which dip under the same as described in the preceding pages. From the intrusion of the more recent volcanic rocks in the immediate vicinity of these springs, it is probable they were diverted into another channel, and thus ceased to flow in places in which the calcareous tufa is now found. Similar springs now exist a short distance from Santa Cruz, around which the calcareous deposits are very extensive.

Crossing the Toro Valley or Cañada, and following the course of the bay of Monterey, there is little else to be seen than the tertiary rocks for fifty miles, and extending easterly in elevated plateaus and hills for eighteen miles from the coast; among the Chamaul hills frequent intrusions of trap rocks are met, and in nearly every case where this occurs the granite is also seen broken through by the same igneous intrusions. The sandstone is generally of a buff colour, and yellow-brown, having a greater or less abundance of fossils, in some instances, firm and compact, and again loose and friable; it is almost continuous in a northwest direction, being broken through only by small streams, and is found north of the mission of Santa Cruz, from whence it gradually narrows out, being found immediately on the coast at the base of the mountains.

Beyond this point the principal rocks on the coast are primitive and volcanic, forming sharp, high hills and low mountains with a bold coast line.

### SANTA CRUZ MOUNTAINS.

These mountains approach the coast a short distance northwest of the Mission and town of Santa Cruz. They extend from the head of the Santa Clara Valley and Pajaro river to Mount Bruno and Presidio Point west of the city of San Francisco; they are separated from the mountain forming the coast line to the northern terminus of the State, by the Golden Gate or entrance to the bay of San Francisco. The greatest altitude attained in these mountains, is the Black Hill, (Loma Prieta or

Umhumín,) the latter being the original Indian name applied to this hill.

The entire range is composed, principally of the primitive rocks, among which the serpentine formations play an important part; this suite was traced from near the Rancho La Brac on both flanks of the mountains, to the Francisquito on the east side, and Anno Nuevo on the west, and belong to the same series as those occurring at Point Lobos and the Presidio. In several instances throughout the range, the trapean rocks have broken through, as detailed of the mountains south of Monterey.

On the west flank of these mountains, and in the central and northern parts of the County of Santa Cruz, there are views of quartz cutting through the serpentine and other rocks in other places; and is particularly observable on the upper portions of the arroyos Sogell, Syant, and Rio San Augustine. The general rule heretofore laid down respecting the contact of these two groups of rocks in this country is found good in the present case. "That when the two series are found in contact, either as dikes of great length, or smaller views, one, or both is *always* auriferous." And such has proved to be the fact in the case before us; from all appearances the quartz has been one of the most recent disturbing agents here, as well as elsewhere.

The mineral characteristics of these mountains will be noticed more in detail when speaking of that subject hereafter.

The south-east spur of these mountains terminates at the Pajaro River, thirty-six miles east of Santa Cruz, and fourteen from Watsonville. On the southern extremity are found extensive beds of fossils finely preserved. The arroyo Pescadero and la Brac cut their way through these hills, and their beds abound with boulders containing these organic remains. The fossil sandstone at this point rests on the Serpentine and trapean intrusions, being changed in its texture near the points of contact with the latter rocks. On these streams are to be found several bituminous springs, which discharge large quantities of the fluid bitumen, at times covering several acres of ground. The occurrence of these springs has led to the belief that bituminous coal existed in this section, such, I think, is not the fact in the present case, though it might be a tenable supposition in parts of the world where coal measures exist, or where any of the superior groups of the secondary rocks may be found.

The position of these springs, geologically considered, would render it impossible for coal to abound, as they make their appearance among a mass of rocks having an igneous origin, where not even a lignite is likely to exist. There is but a possibility that the tertiary rocks in the vicinity may overlie some members of the secondary group, from which these springs have their origin, but no outcrop or other indications are to be found which will warrant such a conclusion. There is every evidence that the tertiaries above rest on the primitive and volcanic rocks with no intermediate series between them. The origin of bituminous springs is but little understood; in the present state of our knowledge they are found to arise from the newer as well as the older formations, and alone are not reliable evidences of the existence of coal, except when found among the carboniferous rocks.

Following the east flank of the Santa Cruz mountains, we find small patches of the tertiary sandstones among the lower portions of the hills,



from La Brae to the Llagos Creek; after which they are not again seen for several miles. Near the last named creek, the more recent volcanic rocks make their appearance and continue, at short intervals, for sixteen miles, when we again pass into the primitive formations, which become more metaliferous and particularly in the region about New Almaden in the county of Santa Clara.

North of Almaden, and near the Los Gatos Creek, a bed of recent conglomerate, loose and friable in texture, is found occupying an elevation of four hundred feet above the level of the valley, and having a thickness of about seventy feet, it occurs on both sides of the Los Gatos, and is found, at short intervals, for ten miles, crossing Camels Creek and following its banks for two or three miles; it has been considerably disturbed and large masses have been thrown down. West of McCartyville the mountain limestone occurs in large masses and is continuous for several miles to the west, north and north-west. Extensive operations are now conducted in the manufacture of lime for the market, for which purpose it is admirably adapted. This group of calcareous rocks cannot be less than thirty miles in length from east to west, and has a strike transverse to the line of the mountain range, appearing on the coast at Santa Cruz, at this point it is highly crystalline. These rocks extend north of Camel's Creek about four miles; and a calcareous rock of an amorphous character is found as far north as Sanchez Ranch, in the County of San Francisco. The west flank of the mountains, lying between the San Mateo and a point nearly west of Mission Dolores, was not examined personally, but from the specimens of rocks from that section, which I have seen, their geological characters appear identical with the rocks at the Presidio, which are mostly serpentine.

On Presidio point are to be found beds of a Jaspersy rock having a riband-like appearance, and colors from a greenish hue through red-brown to red and yellow; this rock has been considered by Mr. Dana as a variety of the Prasoid rocks, and as he says—"the graduation of prase into jaspersy rocks exhibits a close relation of both." These transitions were met with in other parts of the country over which he had travelled. In relation to this subject he further says—"From the transitions that occur, it also appears that the jasper and prase rocks are closely connected with the talcose series, and that the translucent jasper and bloodstones of this section are only different varieties of its condition." The jaspersy rocks of San Francisco are worthy of description; the green, red and yellow varieties occur in the same vicinity, they form a series of layers averaging two inches in thickness, and varying from half an inch to four inches; the layers are distinct and separated by open seams, and on the front of bluffs or ledges the rock has a riband-like appearance, the layers coalesce and sub-divide without regularity though uniformly parallel, they are often twisted, and thus change at short intervals from a vertical position to a dip of twenty degrees."

The colors red and yellow are often mingled and sometimes appear as parallel bands; in some instances, the surface is red while the rock is yellow beneath, this may have resulted from the burning of a tree on the spot, for by heat the yellow varieties readily change to red; a small specimen had an agate-like structure as though formed from an aqueous solution.

An impure talcose rock occurs at Point Lobos, which extends east for one and a half miles. The works of the "Mountain Lake Water Company" have been carried through a portion of these rocks, and the masses of serpentine that have been elevated to the surface from the depth of one hundred and sixty feet have exhibited an interesting feature in the history of these rocks. It was found, on examination, that the strong odor given off from these stones was composed of free Bromine and Iodine; it is very persistent, and specimens which have been exposed to the air for nearly three months have not lost their odor.

From the Presidio on the bluffs near the bay, slates and sandstones are found in a much disturbed condition from intrusions of trap; the strata are much contorted and twisted, and tilted in every direction, the inclination varying from five degrees to verticality in very short distances. These rocks, as yet, have presented no fossils in the immediate vicinity of the city, but pass into tertiary sandstone, containing organic remains one mile west of Montgomery Street, San Francisco, where they may be found forming the west point of the North Beach.

South of the city and near Rincon Point, the trachytes appear with small veins of quartz running through them and the adjoining slates; the latter having suffered considerable change in structure near the point of contact with the igneous rocks. Traces of carbonate of copper are observable in this vicinity.

Crossing the Bay of San Francisco from Presidio Point, the rocks on the Saucelito side correspond with the primitive formations above described. The serpentine series continue for several miles up the bay, varying in its mineral characters at short distances. At San Quentin the rocks are schistose, and half a mile beyond, again passes into a massive form, and contains actinolite in fan-like groups of crystals; a mile beyond this, the rock becomes hornblendic, and thence gradually passes into a trap formation, containing well defined crystals of the latter mineral.

On reaching the northern shores of the Bay San Pablo the hills to the north appeared rugged and conical, indicating a preponderance of the volcanic rocks.

The route traveled next, lay through the Counties of Solano and Napa. It has been before remarked that the sand-stone on one side of the Straits Carquinez was identical with that on the other, and the line of dip in both will be found to correspond. These rocks are permeated by minute threads of quartz, and contain considerable quantities of magnetic sand; in some cases the quartz veins acquire a thickness of one or two inches, and have in several instances been found to contain gold, while the sand-stone itself possesses this character in a limited degree; it is contained mechanically in these latter rocks, and in general will be found as a local deposit only. Small quantities of this metal have been found in the stone used for building in San Francisco, which were taken from the quarries in the vicinity of Benecia. It is doubtful whether these rocks would ever warrant mining explorations, except in those locations where the quartz has intruded to a considerable extent. In this case they would prove of sufficient value probably, for mining in the rocks below the sand-stone, and would be governed by the same

natural laws that are found to prevail in other parts of the country in relation to auriferous veins.

These sand-stones are found to extend into the interior in a northwest direction, a distance of about eight miles, when they are succeeded by volcanic rocks of recent date for thirty miles in the same direction; the points of contact in the igneous and sedimentary rocks exhibit distinct and striking marks of change in structure among the latter in many places, and it is not uncommon to find trachytic injections into the sand-stone along the line of coast on the bay and straits.

Where these veins are large, the sandstone in contact is often nearly as hard as the trepan rock itself, a true conchoidal fracture, having quite sharp or roughened edges, with a semi-earthly surface, is the result of this metamorphosis. Above this sandstone and resting directly upon it, is a littoral sea-beach, having an elevation of about thirty feet above high tides, and extending for several miles along the coast of the bay. It is composed of fragmentary and entire shells, mixed with a little sand and clay; its thickness varies from one to three feet. Its position is immediately below the alluvium.

It forms a distant white line along the bay coast of San Pablo on its north side for eight miles, and may be seen at the town of Benicia in the vicinity of the sandstone quarries at that place. The shells of which this beach is composed consist of a small species of *ostrea*, *purpura*, and other small shells now inhabiting these waters. The elevation of this beach points to a period comparatively recent, when subterranean forces were in operation in elevating the lands adjoining the coasts and bays, which part of our subject will be considered more in detail when reviewing the geological changes which have occurred in the different portions of the coast-line followed.

Among the sandstones of this region is a bed of limestone having an average thickness of two feet; it is found one mile north of the town. This limestone was traced in a northeast direction for two miles, and is probably the same range as observed by Mr. Tyson on the east side of the hills on Suisun Bay.

The foot of the ridge lying between Suisun and Napa Valleys, was followed for twenty miles. At this distance from the bays it attains an altitude of about twelve hundred feet. The rocks composing this ridge are mostly volcanic, with sandstone on their eastern flanks dipping east towards the Sacramento Valley; a few very imperfect casts of marine shells were observed, but none sufficiently perfect for preservation.

The ridge on the west border of Napa Valley presents much the same characteristics as those on the east. These two ridges unite about eighteen miles north of Napa City, at which place they become extremely rugged and elevated.

The highest and most conspicuous peak in this range is Mount Helen; its sharply defined outline and truncated summit shows most conclusively its volcanic origin. A section cutting Napa Valley nine miles south of the town was made, and carried across the Sacramento Valley to the foot-hills on its eastern side, by which the grade of both valleys and the altitude of the hills were obtained.

Before reviewing the geological changes that have occurred in the Sierra Nevada, Monte Diablo and Coast Mountains, a view of that part

of the great basin separating the Coast Mountains from the Sierras will be given; and in speaking of the Sacramento Valley, that of the San Joaquin will also be included, and the physical characters of both briefly explained.

## STRUCTURE OF THE VALLEYS OF SACRAMENTO AND SAN JOAQUIN.

These valleys form a "single geographical formation,"\* stretching from the terminal spurs of the Cascade Mountains at the north, to the junction of the Sierra Nevada with the southern terminus of the Monte Diablo range with the thirty-fourth parallel of north latitude. The length of the valley is about three hundred and eighty miles in length on an air line, with a breadth of fifty miles at its widest point.

The general appearance of the valley is that of an extended plain composed of alluvium, and this opinion would obtain in the mind of any person whose line of travel should lead him over the lower terraces of the plain, or what is denominated its bottom lands. It is only by making a transverse section of this plain that we should be able to arrive at any correct conclusions of its structure, and peculiarities of its formation; by pursuing this course, very distinctive and marked features are observable of different periods of elevation to which this portion of the country has been subjected subsequent to its emergence above the level of the sea.

To arrive at a correct understanding of the formation of the "California Basin,"† we must first observe the rocks which form its borders, their character, position and relative age; and in doing this it will be necessary to pass beyond either of its margins to ascertain the facts on which an opinion may be founded.

On the east side of the basin and at the distance of fourteen miles from its border, we find the first out-crop of the primitive rocks, (granite) on hills attaining an elevation of about one thousand feet above the sea. Resting upon this, we find detached masses of sand-stone, which increase to a well defined formation a few miles to the west; immediately below the latter a bed of slate makes its appearance, having a dip varying from thirty degrees to nearly a vertical position, but as the lower hills are approached, the inclination of these rocks become much less. Below the slate, a conglomerate having an argelaceous cement is found, firm in its texture, with a dip corresponding to the other rocks with which it is associated; the pebbles composing the conglomerate are quartz, jasper, granite and trap; at times this rock is highly ferruginous. The components of the rock are made up from rocks found in the mountains to the east, and must have been formed subsequent to the appearance of the older trapean formations of this part of the country.

Succeeding the conglomerate,‡ which by way of distinction, we will denominate *Eocene*, another bed of fissile clay slate and aluminous clay

\* Col. J. C. Fremont.

† Being similar to the London and Paris Basins, this name will be adopted.

‡ This suite of rocks are often confounded with another group, of the same character which appear of more recent date, and are found south of Consummes river only.

occurs, having a thickness of about one hundred feet; these rocks comport in position with the other sedimentary rocks above them, and are found resting directly on the granite, and other igneous rocks far into the interior; in the lower hills their structure is fissile, cleaving with ease over considerable surfaces, while in the eastern parts of the mountains they have often acquired a crystalline structure from contact with other and more recent volcanic rocks, and such as have broken through and disturbed the primitive formation.

On the western side of the valley or basin, the series do not follow in precisely the same order as occurs on the east; the sandstone and slate of the same age is found, but the conglomerate is wanting; if it exists, it is completely obscured from view, except on the west slope of the coast mountains towards the sea, and its occurrence there is a reason for the supposition that it does exist below the other stratified rocks on their eastern slope. Above all the others, the miocene rocks are found disturbed and cut through by the recent volcanic intrusions of that period.

The following then will be the arrangement of the rocks from below upward:

| EAST OF THE SACRAMENTO RIVER. |                   | WEST OF THE SACRAMENTO RIVER.       |                           |
|-------------------------------|-------------------|-------------------------------------|---------------------------|
| <i>Primary Rocks.</i>         | <i>Granite.</i>   | <i>Primary Rocks.</i>               | <i>Granite.</i>           |
|                               | Slates.           |                                     | Slates.                   |
|                               | Conglomerate.     | Uncertain.                          | Conglomerate.             |
| <i>Sedimentary.</i>           | Slates.           | <i>Sedimentary.</i>                 | Sandstone, Eocene.        |
|                               | <i>Sandstone.</i> |                                     | <i>Sandstone Miocene.</i> |
|                               |                   | Recent volcanic cutting the latter. |                           |

With this arrangement of the stratified rocks which pass under the California Basin, it is obvious, that the waters flowing at the line of junction between the sandstone and the slate-rocks below them, must pass under the sides and central parts of the valley, varying in depth at the distance from either of its borders increases.

It must be remembered that the dip of the sedimentary rocks on which the alluvium of the valley reposes, will increase or diminish the distance that may be necessary to bore for obtaining water, as the inclination of these rocks is greater or less; and with the view to demonstrate if possible, (or at least approximately) the depth that it might be necessary to sink in order to obtain a plentiful supply of water for agriculture or other purposes, an examination of both borders of the basin was made of fifty miles in length, and the mean of all the dips taken.

It was found by measurement that the surface of the basin rises at the average rate of six feet per mile from the river to either of its borders. Taking the grade of the surface with the lowest average dip of the rocks where they pass under it, (being equal to twelve degrees,) and assuming that the sedimentary rocks decrease in inclination, as the distance increases, which is probably the case, it will be found necessary to

reach the depth of 775 feet at the City of Sacramento, in order to obtain a permanent supply of water.

This presumption is based upon the fact that a constant source does not exist above the conglomerate, and this point is selected more for the purpose of exhibiting the greatest probable depth at which a permanent supply of water would be found; the probabilities of obtaining water at much less depths is strong, and amounts to almost a certainty, that water would be found immediately below the sandstone, and above the first slates; in that case the depth would be diminished about two hundred and fifty feet.

If a correct idea of the inclination of the sedimentary rocks is presented in the diagram, we shall have the following depths at different distances from the centre of the basin, on both sides.

| ON THE WEST SIDE OF THE RIVER. |                | ON THE EAST SIDE OF THE RIVER. |                |
|--------------------------------|----------------|--------------------------------|----------------|
| 11 miles,                      | .....700 feet. | Sacramento City,               | .....775 feet. |
| 15 "                           | .....650 "     | 12 miles,                      | .....700 "     |
| 22 "                           | .....550 "     | 17 "                           | .....650 "     |
|                                |                | 20 "                           | .....625 "     |

At the distance of twenty miles the rolling hills are entered in which springs usually abound.

The rocks on both sides of the valley are arranged in the order in which they occur, as observed by the outcrop.

|                   |         |                              |
|-------------------|---------|------------------------------|
| Sandstone,        | Eocene, | Sandstones and upper Slates, |
| Slates,           |         | Conglomerate, Eocene.        |
| Fossil Sandstone, |         | Lower clay Slates.           |
| Trap,             |         | Granite.                     |
| Granite,          |         |                              |

These rocks included within the Eocene lines are classed by Mr. Dana, as the early sandstone, slates, and conglomerates, to distinguish them from the more recent tertiaries among the Coast Mountains.

The geological structure of this basin was noticed by Mr. Tyson in 1849. He examined it with a view to ascertain whether a deposit of coal might not exist below the surface; and also whether its structure would indicate the means of supplying water for agricultural and mechanical purposes.

In regard to the first question he says: "The first query is answered by the fact of finding the comparatively recent strata of a formation, not older than the eocene and miocene periods, resting immediately on the metamorphic or hypogene rocks of ancient origin, the remaining members with all the sedimentary rocks of older date being entirely wanting, and the the coal formation, which belongs to the lower of the secondary series." A coal formation under the basin is therefore out of the

question, unless deeply seated, and entirely covered, edges and all, by the sedimentary rocks above noticed.

The character of the soil in many parts of this valley will render it of little importance as an agricultural district, unless water in ample quantities for irrigation can be obtained. (These remarks apply particularly to the upper terrace of the valley on each side of the river.) And we hope that attention may be called to this very important subject of making the extensive areas of the arid districts of the basin available for market and agricultural purposes."

Experience has demonstrated the almost certainty of obtaining water and in sufficient quantities for agricultural and other purposes, in all valleys resting upon sedimentary formations and having a basin-shaped structure, and where the different beds have a degree of uniformity or regularity in their position, and are of a texture that will admit the free percolation of water through the superior beds and sufficiently firm to prevent its escape in those below.

These conditions are all fulfilled in the basin of the Sacramento, and from the united testimony of different observers, we have ample evidence that the sedimentary formations of one side are the same as those upon the other, with the exception, perhaps, of the conglomerate.

The absence of the conglomerate on the west side of the basin, will not affect the result of obtaining water by the means proposed. The clays and clay-slate, below the sandstone, appear on both sides and are sufficiently impervious and firm to prevent the escape of any water that may rest upon them.\*

## REVIEW OF THE GEOLOGICAL CHANGES IN THE COAST MOUNTAINS AND MONTE DIABLO RANGE.

Having briefly detailed the more general characteristics of the geology of the above mountains, it will become necessary to review in a measure the geological changes that have been instrumental in producing the peculiar features noticed in the preceeding pages; in doing this the same lines will be followed as in the outset.

Starting from the Straits of Carquinez, it has been stated that the rocks forming the borders of those Straits and part of the adjoining bays, were composed of a recent sandstone; in following up these in a southerly direction for a few miles, we find the sedimentary rocks thinning out, and are succeeded by high hills and low mountains of volcanic rocks, composed of trochytes and other intrusive rocks of recent date. These are followed by the primitive rocks, composed of the older trap, and in the vicinity of Oakland, consist in a great measure of serpentine.

The latter rocks form the western side of this part of the *Monte*

\* Since October last, there have been three Artesian borings, carried to depths within one hundred feet, on the valley of Santa Clara, and in the vicinity of San Jose. The result of each has been successful, and a head of water from four to nine feet has been obtained. These indications of water so near the surface and in such quantities, will much enhance the value of agricultural land throughout this valley and render available much that would otherwise have laid unoccupied and unimproved for years.

Diablo Range for thirty-five miles, where a district of the recent volcanic rocks is again entered, which continue to the head of the Cañada San Benito and San Juan, for a distance of about eighty miles.

Returning on the Gabilan spur of these mountains, and which form the eastern boundary of the Salinas Plains, the primitive rocks are met with for twenty-eight miles, flanked on the east by the recent igneous rocks of the same age as those appearing at the Santa Anna peaks, twelve miles to the east; (during one of the convulsions that agitated this part of the country, about four hundred feet of the Galiban Peak, on its northeast side, was fractured and thrown down into a deep ravine at its base,) intrusive dikes have had the effect to change the sedimentary rocks when found in contact with the same.

In the Coast Mountains to the west, the granite and serpentine series are predominant, and on these rest the sedimentary rocks, of early and recent date, unchanged generally, except in local position.

Crossing the Pajaro Valley and entering the Santa Cruz Mountains, the main ridge is composed of the granite and serpentine rocks on which rest the fossiliferous formations as those above mentioned. The primitive series extend north into the County of San Francisco, but unlike the formations in the County of Santa Cruz; no tertiaries, containing fossils, are to be found, except in the sandstone forming the point to the west of the North Beach, and here the *Pholas* and some other shells of present existing species are found. South of the city the trachytes have intruded through the slates, producing considerable disturbance both by uplift and change of structure in the latter; on the north side of the city, similar features are to be seen, but on a more extensive scale; among the deep excavations which have been made about Clark's Point, it is found that the stratified rocks have been tilted from the horizontal position, and in some cases twisted and contorted into every conceivable position; at one time presenting a wave-like form, and in the distance of a few yards, passing from this to high angles or verticality.

Northwest of the Telegraph Hill the active causes of this diversity in the appearance of the rocks is seen. Nearly on a line with Dupont street, and fronting the bay, is a dike of the trap rock, passing up through the sedimentary rocks above. A change of structure in the sandstone in contact with the dike is observed.

This class of rocks (the volcanic) occur at frequent intervals along the bay coast on the west side, and thence into the valley of the Santa Clara. At the distance of four miles south of San Jose they form the low hills that protrude into this valley from the western side, and which are continued at intervals to the arroyo Llagos, a distance of thirty miles beyond.

In none of the lower hills on this side of the valley are the volcanic rocks found in contact with the sedimentary formations, until after passing the above arroyo, and then only after first breaking through fissures in the primitive rocks after reaching the Pescadero.

The intrusion of these rocks among the primitive series is marked by a discoloration of the rock through which the dike has passed, sometimes of several inches in breadth on each side of the volcanic vein; this is more particularly observable where the disturbed rock is of the granite class; in that case it usually presents a brown, or reddish brown color, and is decidedly more given to decomposition than at a short dis-



tance from the intrusive material. The slates and sandstones when thus acted upon assume either a sub-crystalline or completely metamorphosed structure, and comport themselves in this particular much in the same manner as similar formations on the west slope of the Sierra Nevada.

The area covered by the metamorphic rocks in the Coast Mountains is not as extensive as those of the mining sections, but the changes, when they do occur, are equally as perfect and complete. The most extensive change of this character noticed among these mountains was that on the Alameda Creek in Sunol Valley, eight miles north-east of the Mission San Jose, and again after crossing this valley on the road to Livermore's. The slates on the creek were changed into a hard, compact rock, for the distance of one mile, and three-fourths of a mile beyond they had assumed a porphyritic character.

Following this series to the right of the road, among the hills which divide Sunol's from Livermore's Valley, the greenstone-trap became largely developed, with basaltic fragments among the drift of the arroyas. On the east side of Livermore's valley the fossiliferous rocks again made their appearance, and continued south for eight miles, beyond which to the south the mountains were not examined.

The classification of the rocks in these mountains according to their relative ages will follow as next in order.

#### CLASSIFICATION OF THE ROCKS OF THE COAST MOUNTAINS AND MONTE DIABLO RANGE.

Our most northern point in this case will be Bodega Head and a line forty-three miles north of Napa City, and in this case shall avail myself of that part of Mr. Tyson's report on this part of the country, and which is contained in Senate Doc. No 47, 1st Sess. 31st Cong., this being the most northern geological section yet made.

By reference to his section, we find that the primitive rocks occur as far north in the Coast Mountains as the above locality named, and that the rocks of sedimentary origin are found to rest directly on the primitive rocks for a considerable distance east from the coast line.

After reaching eight or nine miles from the coast, the recent volcanic group succeeds the primitive, when the latter is again replaced in the hills bordering the western edge of the basin; from this view of the case it appears that all the rocks of this section are similar in their positions with those detailed farther south.

Commencing with the lowest in order we find :

FIRST.—The granite series and serpentines; on these rest the older sedimentary rocks.

SECOND.—The more recent volcanic rocks. These are more largely distributed through the Monte Diablo Range. They consist of trachytes and lavas, and have protruded through all other formations that preceded them. These rocks form at least three-fourths of the mountain range extending from Point San Pablo to the head of the Cañada San Juan,

beyond which the primitive rocks again occur, and continue to the extreme southern point visited.

THIRD.—THE TERTIARIES. These complete the formations found in these mountains. For convenience of description, this class will be sub-divided into the different periods to which they belong. They will occur as follows:

| PERIOD.        | GROUP.  | WHERE FOUND.                                                                                                                              |
|----------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Eocene.        | Middle. | Calaveras County, at Murphy's, and other localities<br>Bones of extinct animals, &c.                                                      |
| Miocene.       |         | North and south of San Francisco in the Coast and Monte Diablo Mountains<br>Consisting of marine shells with most of the species extinct. |
| Pliocene.      | Lower.  | Coast Mountains and Gabilan Spur. Also in cavern deposits in Calaveras County.                                                            |
| Post Pliocene. |         | Southwest of Monterey.<br>Marine shells, all of existing species.                                                                         |

#### POSITION AND RELATION OF THE VOLCANIC ROCKS TO THE TERTIARIES.

Before entering upon a description of the relations of the recent volcanic group with the primitive rocks, it is thought best to examine their positions and effects, among the sedimentary formations, both ancient and modern; in order to elucidate more distinctly the difference in age, of another group of the volcanic series, which have been described as having been cotemporaneous with those under consideration, and of which there is some question.

The examination of the Coast Mountains has shown us the fact, that those forces on the west side of the basin, which have been instrumental in elevating the range, have had the effect to produce a series of continuous and nearly parallel ridges, throughout the greatest portion of their length; this peculiarity will force itself upon the observation of the traveler if they are crossed at almost any point transversely to their course.

In many parts of this range, the ridges are narrow, and the declivities steep, and the higher isolated peaks are conical. On the summits of these ridges, there are often to be found nothing but bare volcanic rocks which are mostly of a trachytic character; on the sides of some of the hills, which are less abrupt, are to be met beds of sandstones and at times a few slates which from their nature modify and soften the rugged contour of the surrounding country, by their easy disintegration from natural causes.

The sedimentary rocks, as far as observed in this part of the State, are, without exception, of marine origin—the fossils they contain being

of that character exclusively.\* In some parts of the country they form beds of considerable thickness, and are rich in organic remains. In some parts of the mountains, the shells are of present existing species, not found upon the coast at the present time; these consist of three or four species of the *Arca*, and one or two of the *Pectinea*; these rocks are commonly found resting upon the primitive series, though at times on some of the more recent igneous intrusions. It is considered very doubtful by our conchologists in this part of the world, whether the living shells of the above species now inhabit these waters; and yet these imbedded remains are found in abundance on the summits of our hills, removed many miles inland from the element they formerly inhabited.

The fossils of this part of the Coast Mountains, and which now appear to be extinct, consist of three species of the *gryphae*, two at least, of *Pectinea*, *Astarte* and *Cytherea*, the species of which will be noticed more in detail in another part of this report.

The position of the miocene rocks in the northern part of these mountains, appears to be directly succeeding the primitive; yet it is found often that they rest upon the trachytes; in all cases that have met my observation, the latter rocks when thus found in contact with the sedimentary group of this period, have broken through fissures in the primitive formations, subsequent to the elevations which occurred during the miocene and middle pliocene periods, or perhaps during the deposition of the latter. The trachytic rocks north of Napa, where they leave the sedimentary group, gradually pass into vesicular lavas, and in these sections considerable quantities of obsidian are to be met with; the Indians in the vicinity of Clear Lake use it for the manufacture of their arrow-heads.

Again, on the shores of Suisun and San Pablo bays, and on the Straits Carquinez, these igneous rocks are found injected into the seams of the sandstone, contorting the strata to a considerable degree. West of these bays the primitive rocks occur at intervals for several miles, and the fossiliferous rocks are found holding the same position as those further north. These alternate intrusions of the trachytic rocks continue south among the mountains on the east side of the Bay San Francisco, and for thirty-five miles beyond its southern extremity; after this they pass into porous lava, and compact masses, ceasing to present any traces of fossiliferous deposits resting upon them for forty miles on this western ridge; after this they again (the fossiliferous) make their appearance in small detached masses, which gradually increase to a well defined formation beyond.

These rocks in many instances are found to rest upon the recent volcanic series direct, and in these cases we find, as may be expected, a corresponding change in their structure, often to an extent that has obliterated every trace of organic remains; while in other cases, where the fossiliferous group has been protected from the more direct influence of the later igneous series by the intervention of any of the primitive

\* The lacustrine deposits discovered during the past summer by Mr. W. P. Blake, on the desert of the Colorado are the first fresh-water formations found in this country.

formation, the fossils remain very entire and no change in structure is observable, except where the trachitic masses have broken through both.

Among the hills south of Monterey, other evidences of recent elevation from the intrusion of recent igneous rocks are found; and these occur among that group of sedimentary formations which have been denominated as the *post Pliocene*; (see Table,) these are found on the Carmello Creek, three miles above Meadow's Ranch, where the fine grained sandstone, containing impressions of existing crustacea are found resting upon the granite, but tilted from their former horizontal position by intrusion of recent trap rocks from beneath. This same feature is noticeable north of Monterey, and into the Santa Cruz Mountains, where the marine formations of the Pliocene period are found elevated to different heights above the sea, for miles interior from the present coast line. With these facts before us, it will be impossible to arrive at any other conclusion than that the volcanic series of which we have been speaking, has been continued into a period comparatively recent, and was the active agent in producing those disturbances so manifest throughout those portions of these mountains under our consideration.

An interesting feature in the geology of the eastern part of the Monte Diablo range has been developed during the past season, by the officers of the United States Land Survey, which is worthy of note, as illustrating the mutations which have been going on in different parts of the country, and has served also to fix the age of districts hundreds of miles remote from each other; the marine shells brought into the Survey office by Mr. Von Schmidt, from the hills bordering the west side of the Tulare Lake are found to be identical with those obtained from the Buttes on the Sacramento Valley; among the fossils are found the *Arca*, of which there are three species, with two species of *Cardium*, differing from any found in our waters at the present time.

The surveys of the United States Rail Road Exploring Expedition, under command of Lieutenant Stoneman and Williamson, on the desert of the Colorado has been the means of eliciting much valuable information of that almost unknown and desert waste. The personal and attentive examinations of Mr. W. P. Blake, geologist of the exploring party has opened a new field for investigation in addition to those already existing in other parts of the State. The old water line of the Gulf of California has been traced with unerring certainty for a long distance into the interior, and the fossil remains of marine animals and shells are found promiscuously mingled with those of fresh-water origin, which subsequently occupied the place where the waters of the Pacific formerly held undisputed sway. The discovery and demonstrations of those interesting changes in the elevation of the interior of this part of the State above the level of the sea, with its recession from natural causes, reflects much credit on the discrimination, and careful judgment of Mr. Blake, and must be regarded as a great acquisition to our very limited stock of knowledge respecting the absolute condition of that extensive portion of the interior. Among all those who have preceded him in crossing this "Jornada" at different points, not a word of information has been elicited from which not even a probability of its true condition could be gleaned; until the present time it was a blank in the geological history of this part of our continent; how

far beyond the line of travel to the east, of where this expedition left it, it may extend, is equally as uncertain as was that portion of the ancient sea-beach, and bottom, over which the United States exploring party traveled the past season. The facts which have been gleaned from this interesting region will appear in the forthcoming report of the expedition, and from what little is now known of their operations, the parties in charge of its several departments have manifested a determination of purpose and assiduity in collating reliable testimony of this hitherto unexplored and unknown waste.

Our present information of this remote section of the State, exhibits in a still stronger light, the mutations to which the surface of the country has been subjected, and which are probably persistent at the present time; to what period the changes of this district are particularly referable will not be known probably until the following year, but enough has already been developed which leads to the inference that the sea has receded since the commencement of the tertiary era.

### VOLCANIC ROCKS PRECEDING THE TERTIARY ERA.

On a preceding page it was observed that a suite of rocks which are often confounded with the recent volcanic group, existed in the Coast Mountains, these rocks and their peculiar position will be noticed at the present time.

Following the west side of the Valley of Santa Clara, from the arroya Francisquito in a southerly direction, a range of low hills, generally barren in their appearance, is found, which protrude themselves into the valley nearly at right angles to its course. The range of hills were examined for the distance of forty miles, and in no instance, I believe, was there a trace of any one of the sedimentary formations to be found upon them. In this particular they differ much from the other volcanic series, either north or south of them, with the exception of those of the Santa Anna range.

Their naked and rugged aspect on the west side of these hills with their peculiar local position leaves but little room for doubt, but that they are the remains of the summit of ancient craters, elevated above the surface of the then existing sea, prior to the deposition of the marine formations which occur in other parts of the mountain range.

This suite of rocks have evidently found their way to the surface through the primitive rocks of this district, as it is found that they cut the latter in several places in the form of dikes, while the debris of both are found to enter largely into the components of the valley in which they are situated. Another evidence, which lends confirmation to this belief, is the fact, that had the emergence occurred at any time subsequent to the tertiary era, we should have seen *some* traces of such a fact in the elevation of those rocks of aqueous origin. The gradency of the entire northern portion of the valley Santa Clara will also be found incommensurate with such an extensive series of disturbance as must have occurred at the period when these hills were elevated above the surface. The narrow limits within which they are situated, would have received an inclination much greater than that which the surface now presents,

had their intrusion corresponded with those of a similar character found among the sedimentary rocks on every side of them. Our evidence that these rocks hold an age anterior to the tertiaries, rests in part on this fact; that if the change of position, which the latter rocks have suffered in adjoining districts bear any testimony of the maximum of disturbance among them, we should find *some* corresponding changes of similar character had this volcanic group been of the same age.

In all other parts of the coast mountains, wherever volcanic rocks occur, in masses or dikes, cutting either sedimentary or primitive groups, the evidences of uplift are conspicuous, and either a high uniform grade, distinct undulations, or a terraced form of the valley sections, mark the extent and character of the forces exerted over such areas: while in the case before us, we find the valley adjoining these igneous outbursts maintaining its level to the very base of these volcanic hills. Were there any differences observable in the inclination of the surface of the plain, taken from its northern to its extreme southern point, there would be some reason to suppose that the group under consideration was more recent than the tertiary era.

Passing to the west of these hills, we find the same undisturbed condition of the surface, extending to the base of the Santa Cruz, and you meet with nothing that would in the least indicate any subsequent alteration in the general level until you reach their eastern base; and here, for the first time, a narrow terrace is found, its face rising rather abruptly for twelve feet, and then very gradually for eight feet more, being nearly level from thence to the mountains, a distance of one-fourth of a mile. So little disturbance is manifest in the half formed conglomerate, of which it is formed, that it must be looked upon as having been gradually elevated by forces that have acted equally, and at the same time, on both the older igneous, and recent formations of this section, and the forces that thus gradually operated in producing these phenomena are unquestionably persistent at the present time.

### MOST RECENT VOLCANIC ROCKS OF THE COAST MOUNTAINS.

Under this head, a brief description of a class of rocks differing essentially in relative position, lithological character, and general effects on the surrounding country in which they are situated, from those noticed in the preceding chapter, will be given. The section of the country through which they may be observed, has been stated to extend through about forty miles in length of the Monte Diablo Range, and make their appearance in the Santa Anna Picaches, on the south-east border of the Santa Clara valley.

In examining this group it was found, that they consisted principally of compact and vespicular lavas, having different degrees of firmness and texture.

A conspicuous and striking feature of these rocks is found in their connection with other formations, both igneous and sedimentary, and in the case of the latter class they are seen to have acted directly upon them, elevating the same to different altitudes above the sea level. The

former rocks form the principal ridge, separating the Pass of Pacheco from that of Santa Anna Pass, (or Cañada Las Muertas), and present a very rugged and conical outline at a short distance. They were probably the grand centre of those recent volcanic disturbances that were in action during the elevation of this part of that mountain range. The higher peaks are composed of trachytic masses, while the lower hills contain immense quantities of the vesicular lavas above noted; from the position which the latter occupy to the former, it appears that during the later periods, when these fires were in action, fissures had been formed in the sides of the two principal craters, through which has flowed large quantities of the fluid masses: one of these dikes cannot be less than eight miles in length and ran in a northerly direction.

At the Santa Anna peaks, the principal crater has, apparently, fallen in during some period of its eruption, and subsequent to this, a large fissure has been formed, probably from the effects of an earthquake, and, perhaps, at the time when the north side of the Gabilan was precipitated into the deep ravine at its base.

North of the latter mountains at the distance of eight or nine miles, is the elevated peak known as "Pacheco Peak," which is a true volcanic cone, and in the ravines to the north of this crater, the Indians of this section of the country obtain obsidian for the manufacture of their arrow heads; to the north-east of the mountain a large dike of lava, similar to that noticed above is found, which appears to have flowed through a fissure very nearly down to the base.

South of the Santa Anna, the tertiary sandstones of recent date appear, resting directly on this class of volcanic rocks, and bear every evidence of having suffered their principal disturbance from these agencies; the almost complete metamorphosis of the sedimentary group is a proof of this; and the evidences of comparative recent action is found in the fact, that the organic remains found imbedded in these rocks contain a large per centage of present existing species on the coast.

It will be apparent that a difference in the age of that group found in the preceding chapter, and the one under consideration will be manifest, from the fact that in the present case the most recent of the aqueous rocks have been disturbed and elevated since their formation, while in the former group of igneous origin, no features of this character are observable. The vesicular character of the group under consideration and the trapean character of the others, is also a distinctive point that would place each in a different period as regards their age; the older group have every appearance of what has been termed the "primitive trapean rocks" found in some parts of the Sierra Nevada, and which could not have held an age but little posterior to the older rocks of the Eocene, as they are found not to have disturbed the middle group of that period.

The tertiary groups of the Coast Mountains consist of the miocene, pliocene, and post-pliocene periods; the eocene rocks being entirely absent as far as yet examined; it is also found that the miocene rocks do not extend on the coast line beyond a point sixteen miles north of Santa Cruz, and that south of this point the pliocene series predominate. This fact then once established affords a clue by which we are able to

determine to a certain extent the age of the volcanic series which has disturbed them, and fixes that age posterior to the formation of the latest of the groups.

### CHANGES OF LEVEL AND RIVER TERRACES.

The valley sections of this State present a general uniformity of character in their superficial structure, wherever found; their surfaces are distinctly marked by a regular series of minor elevations, which give them the terraced form so peculiar to those sections. The face of these terraces are of different heights, and the surface of each is found to have a gentle inclination toward the streams that flow through them. In some parts of the "great valley" there are to be seen a range of hills having flat summits, which on examination are proved to have been the shores of an inland sea; these usually arise from the higher portions of the upper terraces, and where they are found near the borders of the plain, they present often trifling evidences of excessive subterranean action. These "tables" when found on the immediate borders of the plains, do not appear to have participated in the more violent disturbing forces found in the interior; they are usually from four to five hundred feet in height, while those farther to the east attain an altitude frequently of more than two thousand.

Immediately succeeding these, the first terraces of the valleys appear, and from the observations of different travelers, we learn that they are continuous into the Territory of Oregon, and probably beyond that point; while south of California their existence is known to the northern boundary of the Province of Sinaloa in the Republic of Mexico. In these we see the evidences of gradual and probably persistent elevation over an extent of country nearly two thousand miles in length, and in the present state of our knowledge, must be regarded as part of one of those great continental elevations that has occurred during the comparatively recent history of the world. This State is situated nearly in the centre of this line, and from its position must partake to a greater or less extent in all the general changes of level that may occur on either side of it; and all observations which have been made within the last ten years have only tended to confirm this fact.

Mr. Dana who has given more attention to the formations of the valley sections of the Pacific Coast, and who probably had better opportunities for observation from San Francisco to the north, in speaking of them, says: "We traced these terraces from the Cowlitz to the mouth of the Sacramento, along many of the smaller streams as well as the rivers. There appears to be but two ways of accounting for these terraces, either lakes have existed along the rivers, which have burst their barriers, or the rivers have excavated the country in consequence of an elevation. The existence of lakes throughout a whole country, connected with all its rivers, is highly improbable, and requires for its proof the strongest evidence. Rivers cut out their channels by a gradual process, as a country is raised above the ocean, forming with few exception a complete drainage for the land. Lakes could not exist, therefore, to the universal



extent implied by the facts, except, perhaps, as a sudden rise of the land from the ocean.

"The formation of such lakes by an abrupt elevation in a region having the ranges of heights parallel with the coast, is certainly a possibility. But the water to make the alluvial accumulations, must be running water, and be in operation in its channels a long period. And how long would such lakes exist after an elevation? If the violence attending a change of level did not open for them at once a passage, the accumulation of water during a single flood would break a passage through such soft sandstone beds as occur at the mouth of the Sacramento."

These terraces occur on the Sacramento to the distance of one hundred and fifty miles from the sea and at this point they were as high above the level of the river as at any point lower down, and have nearly the same elevation in all parts examined above the existing level of the stream.

The flats are several miles in width, and until reaching Carquinez Straits, no other place for a barrier could have existed. In this place a permanent barrier of at least four hundred feet in height would have been required, to set the water back so as to cover the upper terrace one hundred and fifty miles above the mouth of the river, and in the second place, the lake should have a surface slope like the present bed of the river, for this is the fact with the land of the terrace—of course an impossibility. Wherever the bed of the stream was four hundred feet above the level of the sea, there the terrace should disappear; in place of which they attain an altitude of seven hundred feet at the distance of two hundred and twelve miles from the head of Suisun Bay.\*

It is therefore impossible that one or many lakes should accomplish the results we have before us: it is the proper effect of river floods, and the terraces must be received as indicating a change of level in the country.

Was this change of level an abrupt one, or was it slow and gradual? This seems at first, a question easily answered. We may best understand it by considering the changes that would take place during the elevation of a region of alluvial flats. If a country rise abruptly, the river will commence to work itself to a lower level, and proceed with rapidity, ending finally the very gradual slope of ordinary rivers, having a descent of one or two feet per mile. At the same time, in the season of floods the river would wear into the former alluvium (now its banks) and widen its surface; and this widening would go on at each succeeding freshet till the river had a new lower plain on its borders.

But would not the effect be the same during a gradual rise. As the country rose slowly, the excavation of the rivers bed, and lateral widening during freshets would go on gradually with the same results, producing a deeper bed and a new lower flat, both of which would change as the change of level progressed, and in case the lower flat resisted removal in any part, the portion left standing would form a subordinate

\*I have in my possession at this time, specimens from this highest terrace, which is found on Weaver Creek, Trinity County. They were taken from different depths of a shaft which has been sunk through the alluvial deposit *eight hundred feet*; the different strata found though are composed of clay, gravel and sand, in nearly all of which, gold has been found throughout.

terrace between the upper level, or that of the plain before the rise began.

A terrace slope may thus be formed by a gradual elevation, and also without any intermission in the process, there might be intermediate terraces in some parts of the same region. A river terrace then, in an alluvial district cannot be considered an evidence of abrupt elevation of country in which it is found, the more especially if a uniform slope is found upon its surface.

The district south of San Francisco in which extensive valleys are to be found comport themselves in all general features with those found on the Sacramento and thence into Oregon. On the south part of the Santa Clara Valley, beyond the ranch of Cruz Cervantes, the terraced form of the valley is clear and distinct; in this place there were but two of these flats observable—that through which the San Benito flowed, had a rise of nine feet above the level of the creek, while the higher terrace to the east rose very abruptly eighty-five feet above the former. The surface level had an inclination of twelve degrees from the base of the Santa Anna Mountains towards the west; the river flowed upon the western side of the valley entirely.

Two successive terraces were found on the Pajaro, the upper one still retains the marks of tide water upon its surface.

The Salinas Valley exhibits the terraced form in a marked degree, and its inclination of surface from the east toward the west corresponds very closely with that just noticed as occurring on the south part of the Santa Clara and San Juan. The number of terraces on this valley are three, and have a varying width of three to five miles, the slope of each surface is gentle and smooth throughout the entire length of the plain. It differs from the Sacramento or San Joaquin in having but one line of inclination or dip, the others have a dip from each border toward their centre, thus giving them their basin-shaped structure. The slope of the Salinas appears to have been acquired from the recent volcanic agency that formed the Santa Anna Mountains, and those to the north as far as Pacheco's Peak; on examination it is found that the dip of all the sedimentary or stratified rocks of this part of the country correspond in direction, and that the dip decreases as the distance from that centre increases. The Post Pliocene rocks of the Carmello were disturbed at this time, and the entire range of sedimentary rocks of recent date, throughout the Coast Mountains in this section of the country have suffered in a similar manner, and undoubtedly from the same cause.

From the peculiar features manifested in the formation composing the Coast Mountains, as noted in the preceding pages, and the more recent causes of disturbance which have acted in this part of the range, as is found in the modifications of level extending through the valleys above noted, and the intervening mountains between these valleys; it will appear very doubtful that any formation containing mineral coal will be found. The forces that have acted on this part of the country and have elevated the different rocks found on the mountain sides, have as yet developed no member of the secondary series, in which the coal formations are found; but like the mountains to the north, both in the Sierra Nevada and Coast Mountains, nothing above the primitive is to be seen,

except the tertiaries, in which no coal beds of extent have yet been discovered.

From a careful examination of this part of the country, with this object in view, I feel no hesitation in saying that coal will not be found in any part of the Coast Mountains south of the thirty-fifth parallel of north latitude; what there may be south of this point, I know nothing having never visited it.

It is not unfrequent in passing over the country to hear of *beds of mineral coal*; during the past season I have visited four such localities, and, as was anticipated, each of them proved to be merely small beds of lignite, and two of them hardly deserving that name. One of these deposits proved to be but a bed of leaves, having a thickness of about three inches, resting upon a tertiary sandstone containing marine shells, and covered with twelve feet of a sandy alluvium. This is one of those coal beds which has figured so largely in the public prints of the State during the past year, and has induced several gentlemen to pay the locality a visit, and to return as deeply disappointed as their previous anticipations were elevated.

The report of coal veins in the Coast Mountains must be received with many grains of allowance, and at the best, none but tertiary deposits will be found, and these, even should they exist, would be capable of supplying but a limited demand, and that usually of an inferior quality.

#### SOILS OF THE VALLEY SANTA LARA AND SHORES OF THE BAY SAN FRANCISCO.

The character of mountains on the borders of valleys, afford a good criterion to judge of the capabilities of the soils found at their base. It is therefore not difficult to form a correct opinion of the constituents of a soil, once knowing the nature of the rocks in adjoining sections, and consequently their adaptation to the various purposes of agriculture.

The more rapid disintegration of some classes of rocks compared to others, will form a striking feature in the productiveness of the soil with which they enter as a component part, their chemical constituents, adapting them to agricultural employment, or rendering them totally unfit for these purposes, without the addition of some agent not found as an integral of their composition. It is therefore not surprising that in passing over a range of valley, or mountainous district, to find so many and diversified features presenting themselves often in adjoining localities; it is not unfrequent to find a perfect transition in the indigenous productions of the soil, occurring in the distance of a few hundred yards.

These peculiar features are best exhibited among the native grains and grasses, and occur alike, on the valley bottoms or on ascending a hill-side. Thus, on ascending a hill, at whose base may be found a calcareous rock, resting on any one of the plutonic series, the native product at the base, and within the direct range of the limestone, may be the wild oat, almost as soon as these rocks are passed, and you enter the granite or trapean group, the cereal ceases to grow, and is replaced by the native grasses in some of their varieties, or if the rocks succeeding

the former, should belong to the serpentine group, a useless shrub will often be the resulting growth.

Equally as perfect and marked are the phases presented on the valley bottoms alone; passing through the same transitions as above, and on an examination of the sources from which the soil has been derived, it will be found that the mineral constituents of both sections presenting those changes, will differ in a material degree. Take the upper terrace of any one of our large valleys, and by following this to a lower terrace, the first principal change occurring will be found near the junction of the former, with the latter, and thus as it recedes from the former, will be found productive of a widely different and greater variety of plants than the hill-side or upper terrace preceding it, and the native productions of these, not unfrequently disappear entirely.

Another feature equally interesting and instructive, is found in transitions of the varieties of production on the same line of valley, which has derived its soils from the same suite of rocks, thus might easily be mistaken for a change in the mineral constituents of such soil, which is not the case, but the modification of growths in this instance are attributable to the more uniform and equal distribution and communication of the material composing the soil, thus rendering its chemical constituents better adapted to assimilation, and the consequent production of variety as well as quality and quantity.

The soils on the Bay San Francisco differ much on its eastern and western sides; both borders of the Bay present the tertiary series, but both do not present the trapean rocks to the same degree of development; this, then, of course, will cause a distinctive and marked difference in the productive capabilities of either shore. It will be found that in all the soils which have been derived, in whole, or in part, from rocks more recent than the tertiary group, that a more extensive and varied adaptation to agricultural purposes will be present; this will be particularly manifest in those sections where the tertiaries, containing organic remains, enter somewhat largely into the components of the soil produced from such sources.

We often meet an extensive and even tract of country lying at the base of a range of hills of the character named above, which are found not to possess so high a degree of fertility as an adjoining section, yet both have derived their soil from the same sources; it becomes not only interesting but important to ascertain the cause of such a discrepancy, and an attentive examination will often point out a natural obstruction of a mechanical nature which has thus been the cause of the impoverishment which may be present. In this case a barrier will often be found among the foothills which has prevented the uniform distribution of the disintegrated rocks above, rendering the plain within its line less productive, rather than the introduction of any new agent, except, perhaps, that derived from the rocks forming that barrier, the amount of which would be inconsiderable, compared to the mass of alluvium beyond.

In illustration of this a single case only will be mentioned. On the Valley Santa Clara a few miles east of San Jose, the mountains are capped with fossiliferous sandstone for miles in extent, north and south.—On examining the slopes of these hills and the broad ravines among them, a rich and deep soil was found to cover the whole, and the veg-

tation growing upon them bore a just relation to the character of the ground on which they flourished. Passing to the westward toward the valley it was found that the same character of soil continued to the first hills rising from the plain, these bearing an altitude of one hundred feet above its level. On reaching the summit of these hills, the rich, mellow soil to the east instantly gave out, and in its place a heavy, clayey covering was found upon the surface for a considerable distance into the valley; this transition occurred within so short a distance that I was led to examine more particularly the cause producing it, and accordingly followed the line of these hills until an outcrop of these rocks were found; they consisted of aluminous and chloritic slates, having a high inclination and dipping to the west; from their position they presented a perfect barrier to the passage of the richer soil of the hills passing on to the valley in any other junction than north and south. As far as this line of slates extended, the valley beyond partook, in a greater or less degree, of the character that would be produced by their disintegration, and ill adapted generally to purposes of agriculture unless by artificial application of reclaiming agents and tillage. As soon as the slates began to disappear in the foothills, the character of the soil on the plain beyond assumed a different appearance, and a marked and corresponding change in its vegetable productions.

A mechanical impediment simply is the cause of unproductiveness in such cases, and in instances of this kind, the remedy usually abounds in abundant quantities and at short distances from the points where it may be required.

On the south-east shores of the Bay San Francisco, there are large areas of land that at the present time are considered useless for agricultural purposes, from their low position and semi-argillaceous character; they have often been denominated "mud flats," and heretofore have been considered unadapted even to grazing for sheep. These flats generally extend (toward the bay) one or two miles from what are considered available and good agricultural lands. Their general appearance to the passer-by is such as would not be likely to impress a person very strongly in their favor, as lands retaining much fertility, but from their superficial appearance would be regarded as a poor representation only of a salt meadow, productive of little else than the common samphire. But such is not the fact and if experience and experiment have any value or weight, they will be thrown in the balance to the favor of those lands; experiments have been made during the past season on these sections, which cannot fail to convince us of the fact, that the opinions heretofore entertained respecting the available character of a large portion of these districts, are entirely erroneous. A single experiment illustrating their capacity for production if properly tilled, will be given.

Near Uniontown, in the County of Alameda, several acres of land, producing the *samphire* on their flats, was broken up and planted to corn; in one case it was sowed in drills; the corn continued to flourish until September which was the last time I saw it; and at this time the stalk of that in the drills had acquired an average height of about nine feet. On the south side of the arroyo Alameda another field was planted in hills, which was equal, if not superior in height. The soil, when broken up, is rich and highly productive in other grains, notwith-

standing the meagre appearance it presents prior to tillage, and will in a few years be as successfully and largely cultivated as any other of the valley sections. The *saline lands* of the interior sections are also of the same character, to a certain extent, and if properly tilled are equally productive. Near the rancho San Felipe, Santa Clara County, a similar circumstance was met with; the corn grown upon these lands was being harvested in September and produced a full and well-formed ear, proving not only adaptation of soil, but climate—for the production of this staple in California. The latter case, the lands were 225 feet above the sea, and the field on every side except the south-east was covered with a thick growth of the salt grasses and other kindred plants (sammphire) and when free from water the lands were covered with a saline incrustation.

Under a proper course of treatment these lands will be made available for the purposes of the agriculturalist, and our already large domain of arable lands thus much increased. The situation of these lands in the interior is such, that they may be easily reclaimed should they ever fall within the jurisdiction of the State, which undoubtedly they will under the law regulating "saline lands." In the counties of San Francisco, Santa Clara and Alameda the wet land that may be made available by drainage is about seventy square miles, exclusive of the "saline lands" at the southern part of the County of Santa Clara.

Most of the valley sections of this range of country is arable land, and that which is not can easily be made so when required; the agents for bringing this about being found in the adjoining hills to the east.—The character of the soil and climate adapts it to all the productions of temperate climates, and where local position modifies the climate of any section, it is found capable of producing plants of the tropical latitudes.

The extreme south-eastern part of this valley would be adapted to the growth of foreign fruits and other products, but it must be beyond the influence of the cold sea-wind that passes inland across the range of lower hills which divide the Salinas, Pajaro, and Santa Clara Valleys, the effect of which would be to blight the fruit, though the plant or tree might continue to thrive.

The low hills that flank the east side of the valley contain all the elements required for the culture of tropical plants and fruits; the climate and soil will be found adapted, and the only agent that appears in the least to be wanting is water sufficient to supply the demands of those plants. From the appearance of small lagoons and rivulets at different elevations it is presumable that a sufficient quantity of this agent may be found a short distance below the surface.

As a general rule the mountains lying upon the east border of the valley Santa Clara are covered with a soil superior to that of the plains, and of much greater depth. I have measured the depths of these soils in many places, and where it is well developed have found it varying from four to eleven feet for miles continuous; its extreme fertility produces heavy crops of the native grains and grasses which annually contribute to its increase by their decomposition.

Although these lands are situated within the reach of the sea-breeze from the Bay of San Francisco, they are protected from its cold by the

slope of the hills and the modifications of its temperature acquired in its passage down the bay before reaching the northern portion of the valley. So much is the temperature increased that an addition of ten degrees is often acquired in its transit from San Francisco to the head of the valley, a distance little rising fifty miles. This increase of temperature in the air is accompanied with an increase in its capacity for moisture, hence it is usual to find a slight aqueous haze, which results from the condensation of its moisture, hanging about this entire range of hills during the summer months, and is usually seen early in the morning.

At this time and for a short time after sun-rise the leaves of plants in these hills are covered with moisture, when no trace of this deposit is observable on the plains. The foreign horticulturist seems to have seized upon the natural advantages which these mountains present for the culture of the vine and other fruits, preferring these elevated situations to the lower plain lands, the climate and soil being more congenial to their growth. The altitude at which the first qualities of the grape will flourish in these mountains (Monte Diablo Range) is seventeen hundred feet above the sea, the fruit produced equals that grown in lower situations; the temperature at this elevation through the night is higher than on the plains at their base and sufficiently comfortable to sleep without shelter.

But a very few years will elapse before these "barren" mountains will yield a handsome income to the planter, and a large revenue to the State, from the taxable property that will be found in these mountains, arising from the production of the vine alone; some idea of the extent to which it is now being propagated may be obtained when it is stated that nearly two hundred thousand sets have been put into the ground during the past year, and on one ranch alone over twelve thousand new sets were placed in the ground last season, in addition to those already in bearing condition on the same farm.

The absence of timber in these mountains is one of the most serious objections to the settler, if this objection can be removed there is no reason to doubt but that large tracts of this fertile district would command a population that would soon approximate that on the plains. It would not be difficult to produce a forest growth of trees upon these mountains, one that would prove useful as well as ornamental, conducing to health, comfort and luxury, as well as profit. The history of the Guava furnishes us with some facts on this point that are well worthy of notice; the tree is of rapid growth, spreading itself over large districts in a very few years. In Mexico it attains a height of forty feet, and grows at elevations of five thousand feet; its wood is used for fuel and many other purposes, and from its fruit the guava jelly is manufactured, and forms an extensive article of commerce.

Fifty years ago this tree was introduced at the Sandwich and Society Islands; it has in that short period of time formed one of the principal forest trees of those islands, and reaches the summit of their highest hills. A tree of this kind introduced into our timberless hills would in a short time render the barren aspect they now present, more pleasing and profitable as well as useful. There can be but little doubt that this tree will flourish in this country, as it is found so to do in a climate

equally cool as that in which it would be required here. Other varieties of fruit bearing trees of foreign climates will flourish in these mountain; among them may be mentioned the date, prune and fig, and in this country we possess an advantage in the preparation of the two latter fruits for the market, which is seldom found even in countries where they flourish best, viz: a clear, dry air, or containing but a small degree of moisture, a most essential requisite in forming a good commercial article. Often the entire fruit crop is ruined in the drying process in countries where these fruits abound, (and where all conditions for their propagation are not more fully developed than in this country,) from the presence of too great a quantity of moisture in the air, a circumstance that cannot exist in this country south of the county of San Francisco.

We have the most ample proofs of the capabilities of our soils in the interior, in the production of the foreign fruits. In addition to the above, the olive and the almond flourish and produce plentifully, and though the latter is not indigenous, the luxuriance with which it grows and its plentiful production of fruit, must be received only as another evidence of the fact above stated. The value of these fruits as regards their quality, suffers no deterioration from having been naturalized to our climate, but in the case of the latter named fruit, it is found to be materially benefitted by the change, for as it loses none of its flavor it becomes the more valuable from its increase of size, being nearly double that of the ordinary fruit of the market.

Respecting the main body of lands on the valley and shores of the bay, but very little of which is not adapted to agricultural purposes, it may be said to cover an area little short of six hundred square miles, nearly all of which is well adapted to the cultivation of the cereals and root crops. The higher table of the valley produces excellent corn, and the season though dry permits this crop to mature well. I observed several corn fields on the high terrace of the valley last season, flourishing well at altitudes of three hundred and sixty to four hundred and ten feet, and in localities where it would hardly be supposed from its external appearance, that moisture sufficient to rear a blade of grass could be found. The cause of this productiveness in these localities, is in a great measure attributable to the existence of a small quantity of sulphate of lime in these apparently dry soils, derived from a limestone formation in these mountains, and which extends south beyond the Almaden district. The detritus of this rock is found mingled with fragments of other rocks containing ferruginous pyrites in a decomposing state, hence the key to its appearance in this locality, and in the case before it serves the purpose of an absorbent of moisture, thus materially facilitating the growth of crops in these sections.

### VALLEY OF THE SALINAS.

This valley is situated south of the Pajaro River, and is separated from the Santa Clara by a spur of the Monte Diablo Range which sink into a range of low hills forming a divide between the former and the Pajaro Valley also. The length of the Salinas is about ninety-five miles. The main course of the valley is about south-east by east; and is coursed



by one river (the Salinas) for its entire length. The stream is situated on the west side of the valley for the first fifty miles of its course, after which it crosses the valley a short distance above the Soledad Mission, at an angle of forty degrees to the main axis of the plain. The physical appearance of this large plain differs much from that of the Santa Clara or the Pajero: when viewed from its centre it has a gentle slope from the east toward the west: but more minute examination exhibits a terraced form to the plain, similar to those observed on the Sacramento, and are three in number, and each possessing a soil of different degrees of fertility and value. The river has a fall of about two feet to the mile, and has acquired its present position within a very recent period, running as it does amongst the most recent tertiary rocks, and alluvium in its more northern portions. Near its sources there are several small streams putting into it, which furnish water throughout the year. The bed of the stream is composed of a fine whitish quicksand, which renders it dangerous to ford at times, and it is seldom attempted, except at localities which are used for this purpose. A large portion of the valley, within eight or ten miles of the coast, and on its south-east border and centre, is made up of low wet lands, covered with willows and tule, these terminate in lagoons and sloughs as they approach the coast, and contain a sufficient depth of water to float a medium sized vessel to the Bay of Monterey. The only obstacle that renders these waters innavigable for some distance into the interior of the valley, are the bars of drift sand which are thrown up by the surf on the coast: a good and substantial breakwater, constructed at some one of these points, would render navigation safe, and materially enhance the value of the public and private property of this section of country, and be the means of affording not only much needed facilities of transportation in the productions of the interior to market, but afford inducements for the permanent settlement of this immense tract of country (now almost, it might be said, uninhabited and unimproved,) which thus, or some other equally efficient measure would be the means of consummating in a short period of time. The extent of land in the interior that would be affected by a measure of this kind would be very great; it being not less than one hundred and fifty miles in length, and possessing capacities for agricultural production equal to any in the State. This will appear the more evident and necessary, when we find that the lower bottoms above the Salinas Valley are capable of producing a wheat crop, (at thirty-two bushels per acre) sufficient to meet the demands of a population numbering three times that of the present within this State:—say nine hundred thousand.

A district of our State presenting capacity and advantages of this character, and crippled as it is for the means of transporting its productions to our markets, should command some attention, and such, at least, as would have a tendency to induce an early and permanent settlement of such lands, if nothing more; and this the more especially as a considerable area of the over-flowed and saline lands of these plains must ultimately fall within the jurisdiction of the State.

## SOILS OF THE SALINAS.

The soils of this valley have been derived from the primitive formations on both sides of the plains: that derived from the granite series on the coast side is coarse and easily permeable to water; this obtains more particularly in the vicinity of the Gabilan mountains, and this variety of soil does not extend beyond the high "mesa" on the eastern side. The trapean rocks and limestone of this range exert an important influence in modifying the sterility usually attendant on soils derived from the detritus of the granites, and in this case they exist in sufficient quantities to render those soils productive on the upper terrace of the valley. The productions of each of these terraces differs in a material degree, arising principally from two immediate causes; the first moisture, the second, the finer disintegration of the material composing the soils; to these may be added a third, which sometimes exerts a wide influence on the lower bottom. The upper terrace produces the native wild oat for the most part, or a wiry tough grass; the oat flourishes to the exclusion of the latter on a brown red soil composed of loam mixed with the harsher material derived from the granite, and wherever this loamy matter is found to diminish in quantity, a corresponding increase in the native wire grass is found. This rule was found to hold good in the entire length of the plain on its eastern border.

Passing to the second terrace, plants of a different character are found. The oat is found to a considerable extent on some parts of this, but is usually succeeded by another variety of grass which seems much better adapted for feed to animals, and usually grows very thick and matted; among this the common burgrass, which increases in quantity as the lower terrace is approached, and which animals are extremely fond of eating, in preference to the oat when placed side by side; on the western edge of the second terrace, the wild mustard abounds, covering thousands of acres, and growing to the height of ten to fourteen feet, forming an impenetrable jungle to man or beast for miles in extent; wherever the settler has succeeded in eradicating this article from the soil, it has been found to produce abundant crops of grains or roots, and if anything superior in some cases to the lands of the lower bottom. The lower part of the terrace on which the mustard is usually found in greatest quantities, is sufficiently moist for the propagation of any crops that may be necessary to be placed upon them. Water is obtainable within a few feet of the surface on any part of it.

Passing to the lower terrace, we find the principal native productions to be the burgrass and a variety of the rumex, mingled with a much greater variety of others than is to be found on any other part of these bottoms. On the higher positions the mustard also abounds in considerable quantities. Some parts of this terrace are arenaceous, being covered to the depth of two feet with a loose, fine sand, usually the result of a heavy freshet, and not otherwise. In this is found a third cause for the varieties which these bottoms produce. An interesting exhibition of this occurred from the freshet of last winter, on the Castro Ranch, adjoining the Wacional. At this place about three hundred acres were covered with this sand to the depth of two and a-half feet; on a portion

of it a fine field of corn had been raised the previous year, also wheat and barley. The land formerly produced a heavy growth of mustard, but was reclaimed from this in part by tillage. The effect of the overflow was to destroy every vestige of former vegetation, and in its place a thick growth of willows had sprung up that were equally impenetrable with the mustard on the plains. At the time I visited them they had attained a height of about four feet. This immense deposit of sand on the arable land of this part the lower bottom is covered by the obstructions on the beach of the coast to the free egress of the waters from the interior during freshets, and until they shall be removed, some of the best lands of this valley will be constantly subjected to this ruinous result in all coming time.

The amount of land liable to be thus buried beneath this arenaceous deposit is great, and as it comprises a large part of the most valuable property in this section of country, it demands consideration.

The quantity of arable lands contained within the Salina Plains, is estimated at about seven hundred and eighty square miles, this being comprised in the lower terraces only; the upper terrace cannot strictly be considered as available for agriculture, but it more properly a grazing country with very few exceptions. The above quantities are divided as follows: the lower terrace or river bottom contains three hundred, twenty miles, and the second terrace about four hundred and sixty, and enjoying a climate in its different sections which will be found adapted to the growths of the extremes of temperate zones.

### PAJARO VALLEY.

This valley is situated on the coast, and is bounded on the north and east by the southern part of the Santa Cruz Mountains, and on the south by the low hills forming spur of the Gabilan Range, and which divide it from the Salinas Plains. The valley is about eight miles in length, and about four in breadth on an average, exclusive of the foot hills, or low, table hills, on its west border; the Pajaro River forming the boundary of the counties Monterey, Santa Cruz, Santa Clara, has its rise near San Felipe, and flows in a westerly direction through the low hills at the base of the mountains, thence along the northwest border of the valley for about two miles, where crosses the latter within about a quarter of a mile of the town of Watsonville, and reaches the sea at a point south ten degrees west of the latter locality, four miles distant.

This plain is of comparatively recent formation, and formerly was a well-sheltered bay of the sea; the sandstone formation in the hills to the north and east are of the same age as that now forming the coast line between it and the town of Santa Cruz, the fossils of which of present existing species; the forces that were instrumental in elevating this section have been gradual, as is evinced in the highly disturbed position of the sedimentary rocks along the coast for thirty-five miles; in these localities, it is difficult, in some instances to detect any inclination of the strata whatever, and it is only in the mountain sections that this disturbance becomes markedly manifest; the uplift of this entire section has taken place since the rocks on which the tertiaries rest assumed

assumed the solid state, as no instance of change in the structure of any of these rocks is apparent at the points of contact. The under-lying rock is primitive and of the granite class, and this continues for eighteen miles north of Santa Cruz. In this valley and also in the vicinity of Santa Cruz the soils are made up of a mixture of the primitive and sedimentary formations, thus rendering them fertile and easily tilled. In the lower lands the soils are much better developed, yet the hilly lands are capable of producing abundant root crops and grains. The cause that render these hill-sides adapted to agriculture is the same as that found on the high terrace of the Santa Clara, viz.: a quantity of sulphate of lime acting as an absorbent, and retaining sufficient moisture to support a healthy nutrition in the plant.

The entire range of hills lying between the Pajaro and south part of the Santa Clara, and also a large portion of that range between the Salinas and Pajaro are well adapted to cropping, particularly for winter grains, and in some instances they are preferable to the valley lands, and would, if brought under cultivation, produce better crops than the plains; they are also much better adapted to the culture of fruit-trees than valley sections, possessing all the elements of which the valleys are composed, and which render them fertile, they possess the advantage of sheltering the young tree from the effects of the strong winds that pass over these sections from the sea, and also its chilling effects on the young blossoms and fruit.

There is no part of this State that I have visited, which possesses the same natural advantages for fruit culture as are to be found in the district above alluded to; while artificial irrigation is necessary in other parts of the State, in order to sustain the vitality of the tree; this is furnished regularly each night by aqueous exhalation from the ocean, and extending some thirty miles into the interior: during the months of July and August, last summer, an opportunity to observe this part was offered, and I found that over this entire section a sufficient amount of moisture was deposited each night to wet the leaves of plants very sensibly, and during the heavier fogs, a quantity sufficient to keep the ground wet under medium sized trees until near mid-day; a person entering this section of country in the morning would suppose from the appearance of the ground that a light rain had occurred during the night, and it was not infrequent that I was obliged to dry my blankets in the morning previous to saddling my horse.

The soil is equally adapted to their propagation being of texture that will permit the expansion of the roots below the surface without the necessity of sinking deep into the earth, as is the case in many parts of the country, where even the most hardy indigenous trees are found to send their roots to great depths in order to obtain nourishment and support for the trunk. It is surprising that with the advantages presented for the cultivation of American fruit-trees in this section of the State, that so little attention has been given to this subject in this vicinity; heavy losses have been sustained by individuals in attempting to rear trees in many parts of the country, and this has, in a great measure, prevented others from embarking in this enterprise; but in most of those cases where failures have followed the attempt, it has been from a soil ill-

adapted to their propagation, or in localities where floods have had the effect to destroy them.

These injurious influences are absent here, and there is every thing that can be desired to invite the pomologist in this ornamental and useful enterprise.

Fruit culture is to form an important branch in the industrial pursuits of this country; the lands best adapted these purposes in other localities than those mentioned, are to be found in the south and middle portions of the County San Francisco, from the San Mateo to the Francisquito and toward the foot of the mountains to the west. North of San Francisco, the upper portions of Napa Valley and Sonoma are equally as good as those of some parts of the county of Santa Cruz, affording much the same general characteristics as those of the latter county.

### LIVERMORE VALLEY.

This valley is situated in the central portion of mountains lying east of the bay San Francisco and valley Santa Clara; it divides these mountains into two distinct lines of ridges, and runs rather obliquely to their course. The different names that are applied to this valley convey the idea that there are as many distinct valleys, but such is not the case, as no hills intervene to destroy the general level throughout its entire extent. From its extreme north to its extreme southern terminus the valley is about sixteen miles in length and from five to seven in breadth. On the north it is bounded by Monte Diablo and its adjoining hills, separating it from Pacheco Valley; on the east by a single high ridge separating it from the plains of the San Joaquin; on the south by the hills near the northern part of the Cañada Corral, and on the west by the high ridge separating it from the Bay San Francisco. A large portion of the northern centre of this valley is occupied by a lagoon filled with tule, and the latter extend for a considerable distance from its borders.

The soil of the valley is generally good on the borders, but toward the centre it is either wet and heavy and withal somewhat saline, on the higher parts dry and gravelly. The entire district appears much better adapted to grazing lands than to agriculture, unless water for irrigation is obtained through artesian borings, and from the appearance of the valley there is but little question that an abundant supply is obtainable from these sources. The altitude of the valley is four hundred and thirty feet above the sea: and derives the principal portion of its supplies of water from the slopes connecting with Monte Diablo. On the south and southwest sides, among the hills, considerable masses of the metamorphic rocks are to be seen, and the appearance of quartz veins is more frequent in this vicinity than in any other section of these mountains that were observed.

On all the hills that surround this basin, are to be found fossiliferous sandstones, and among the alluvium, in some localities, are to be found considerable quantities of fragmentary shells, among which a large Gryphea has heretofore existed in considerable quantities. Some specimens of the latter fossil are to be found in the office of the U. S. Land Survey,

but none that were sufficiently perfect for cabinet specimens could be obtained at the time I visited the locality from which the above specimens were taken. These monstrous bivalves retain the animal in a petrified state most perfectly preserved, and it is evident from their distribution and appearance that they must have been elevated above the surface of the waters during life: the evidence of this exists in the fact that nearly every shell contains the animal, which if they had been raised above the surface after life had been destroyed the probabilities are that very few animals would be found.

The route from this valley to the San Joaquin plains lays through a narrow pass emerging from the southwestern side of the valley. The pass retains the name of the valley into which it enters, and is about sixteen miles (inclusive of that part of the valley through which it passes,) in length: at this point you enter the San Joaquin Valley at a point known as the Elk Horn. The house at this place is two hundred and twenty feet above the sea. A gentle rise of the land occurs here for about half a mile, and then the valley slopes gently towards the river. The road to the river follows the course of the tule bottoms for about twelve miles, and then enters an Encinal of oaks, which continue to the river.

One of the chief points of interest in this vicinity is the extensive area covered by tule; they commence near the junction of the river and Suisun bay, and extend to a point about eighteen miles south of Castoria on the west side of the river; having an average breadth of about twelve miles. From the appearance of the country in which they are situated, I had formed an opinion that a large proportion of these lands might be easily reclaimed, and if so, they must ultimately become valuable property. With this view the altitude above the sea was taken in several places, on my return to the mountains to the west, and the average of those results gave the sum of eighty feet above tide level. Should it prove that this level is maintained to any considerable distance and the general character of those lands favor this presumption, or should there be a depression to the amount of twenty-five feet from their border to their centre, which is rather improbable, there will still remain fifty-five feet fall to reclaim them by drainage.

If properly drained, these lands could be applied to the culture of rice or other vegetable productions, and judging from the character of the soils immediately about them, they would prove highly prolific. And here in passing I will mention one incident in relation to the capacity of the soil for production, that may prove not only interesting but useful, in illustration of erroneous opinions heretofore expressed relative to lands on the San Joaquin Valley, and which perhaps has exerted as great an influence in preventing the permanent settlement of these plains as perhaps anything that has been urged against them. Toward the foot-hills of the mountains to the west, is a low table of the valley apparently destitute of water, either for the support of vegetation or animal life, in some parts this land has a slight gravelly appearance, but this is not general; on one ranch situated on this plateau there has been two full crops of barley harvested from the same piece of ground, and when I visited this place in October the third crop was then being har-

rowed in; the whole having occurred within the term of *two hundred and seventy-three days*.

As soon as this fact became known, settlers were soon found to be on their way thither, and at that time there was not a farm to be found vacant for a considerable distance around. There is no reason for the supposition that land on the west side of the river and toward the mountains is unsuited for cultivation, for the fact before us is a sufficient proof to the contrary.

Having noticed the more general characteristics of the geology of that part of the country embraced in the examinations of the past season, and also their more general adaptation to the industrial departments of agriculture, it now remains to speak of their resources and the uses to which they may be applied.

### MINERAL RESOURCES OF THE COAST MOUNTAINS.

The minerals of these mountains are widely dispersed throughout their entire extent; they consist principally of copper, iron, lead, silver, gold, nickel, and antimony, with agates, calcedony, and many others too numerous to mention here, but will be found under their proper head.

The metallic minerals are widely distributed; the ores of copper are found in the form of carbonate, sulphuret, and silicate, among the Santa Cruz Mountains; in the vicinity of Rincon Point, south of San Francisco, it is found sparingly disseminated among the trap and metamorphosed rocks of that section. In the mountains, south of Monterey, it is also found over a limited area, and again in the lower hills on the east side of the Salinas Valley, near the Rancho Alisal. At this locality it occurs in an extensive quartz dike that has forced its way through all the other rocks both igneous and sedimentary; the forms in which it appears are the blue and green carbonate, in crystals, the sulphuret, the latter found in small masses detached from the gangue. In the same rocks is to be found considerable quantities of iron pyrites, generally disseminated and containing a small quantity of gold. The above ores of copper are often met with in these mountains, their occurrence over so wide a range and the trapean rocks with which they are so often associated leads to the belief that at a future day they may be found in sufficient quantity to be profitably worked.

**SILVER.**—In the county Monterey, this metal occurs in the form of argentiferous galena (or lead and silver) this mineral is found in the primitive and transition limestone abounding in this section; it is found in small veins and disseminated: the range in which it occurs, extends from the Gabilan Peak to the Chapedero on the south, a distance of twelve miles inclusive. The limestone in which it is found, and the granitic rocks adjoining have been disturbed by the intrusion of trapean rocks to the east, and from the opportunity that was offered for its examination it dips under the valley of the west at a considerable angle. A cross-cut has been driven from the west side of the hill for the purpose of intersecting the line of the view, but was abandoned before

reaching the limestone. A shaft has also been sunk on the vein to the depth of fifty-five feet, and at the bottom the granite had been reached, an opportunity was presented in the level from the bottom of the shaft to make an examination on its line of strike, and from all that could be seen, (as there had been much caving in of the walls) it is evident that the metallic vein is confined to the calcareous rock, as no vestige of it was to be found in any part of the granite below it.

At one point the decomposed vein showed a power of four or five inches for two feet in depth, this was followed down to the granite, and at its junction all traces of the vein ceased to exist. It is not improbable that a well defined sett may be found under the valley, but it will require much exploration and expenditure of capital to determine that point, as mining operations cannot be entered upon with small means and ultimate prospects of success.

Traces of this mineral are to be met with for several miles north and south of this locality, and its distribution over so wide a range of country induces a belief that a profitable vein may yet be found in these mountains.

IRON.—This metal is found in almost every variety of form, from one end of the Coast Mountains to the other, the prevailing mineral however, is the peroxide and protoxide of this metal; the latter is often found in the form of hydrate, and when occurring in proximity to serpentine rocks often found to be more or less auriferous. This mineral is largely developed in some parts of the auriferous district of Mariposa county, and from one of the most valuable receptacles of gold among the gold-bearing rocks of that section.

SULPHATE IRON.—This article known in commerce under the name of "Copperas," is found native in large quantities near the town of Santa Cruz. Its principle had occurred a short distance west of the house of Mr. Melor in a gulch running from the mountains through the low hills to the coast. I followed the course of the ravine from where it enters the high hill near the crossing of the road north-west of the town to near the sea, the average depth of its banks varies from fifteen to thirty feet, its length from the hill to the coast being about two miles.

The copperas formed an efflorescence on the sides and bottom of the ravine covering entirely the earth and stones, on which a great quantity had crystalized; it was not difficult to scoop up a pound or more, at any one of these places; the banks of the ravine above the water were covered with the effloresced salt to such a thickness that a white and green color was given for several yards in length, the ground being entirely obscured. The depth of the earth that was thoroughly impregnated with the salt, would average ten feet for the whole length of the ravine the depth to which this descends below the surface is unknown, but it is probably considerable: the rocks at the bottom are a micaceous schist and were broken into for two or three feet and at that depth seemed as strongly charged with the ferruginous salt as at the surface. A small stream of water runs through the gulch which is permanent throughout the year, and carries a sufficient quantity to answer all the purposes of



an extensive manufacture of this article for commerce. It would be difficult to find a locality that combines the same advantages that this does for the manufacture of sulphate of iron; all that is necessary to be done has been performed by nature, and to extract the salt it is only necessary to erect vats upon the coast and shovel the earth, to be leached, directly into them. An area of several square miles is highly charged with the mineral and the day is not far distant when Santa Cruz will become as celebrated for the manufacture of this article as it has been heretofore for its vegetable productions.

**MAGNETIC IRON.**—At the distance of two miles north-west of the above locality, an extensive bed of magnetic iron occurs, running down to the coast, at which point it crops out and exhibits a depth of several feet. Toward the mountains I have been informed that it again shows itself above the surface in several places; there is every reason to believe that it underlies an extensive district, as much difficulty has been experienced in obtaining correct courses by the compass; in one instance the needle was deflected to thirty-one degrees on approaching its southern edge.

**GYPSUM.**—Sulphate of lime is reported to abound in the northern part of Santa Cruz, and in the vicinity of the Palo de los Yesca, some six miles from the Mission; it was frequently spoken of by the inhabitants of this place but I was unable to learn its precise locality. It is not improbable that it does abound in this vicinity, as ample material for its formation exists in this section of country. An extensive bed of mountain limestone occurs in close proximity to the native sulphate of iron alluded to in the former paragraph.

**CINNABAR.**—It has also been reported to have occurred in this vicinity. I found one small piece east of the San Lorenzo on the side of a hill, but it is not impossible that it might have been carried there by human means, as no other mineral of the same character was observed; the occurrence of small detached pieces of cinnabar in these places is not sufficient evidence to found a belief that it occurs *in situ*, or that a deposit may occur there.

**NIKL.**—The ores of this metal are found from Contra Costa on the north to the utmost southern limit reached in the Coast Mountains. It occurs in the primitive rocks, associated with chromic iron in almost every case where the latter may be obtained. It appears as a bright green mineral on the fractured surface of the other ores, and is known in technical language as "nickel green." The scarcity of this metal renders the discovery of its ores in this country an object of some importance, and its wide distribution leads to the belief that it exists in sufficient quantities to warrant investment for its extraction from other ores, at no distant day. It is extensively used in the manufacture of German Silver for wares and household utensils. When reduced, the metal is white, much resembling silver in its general appearance, and for which it has been mistaken in this country. The principal localities where it has been observed this season are at Contra Costa, in the ser-

pentine rocks south of Tulecita and near San Antonio in the county Monterey, among the large beds of chronic iron from the San Benito, and the Panoches, of the Gabilan range. These localities afford the largest amounts yet found in this State, and it is to be hoped that those explorations which are now in progress in this part of the country may result in the development of this mineral to a much greater extent than yet known.

**GOLD.**—This metal has been found in the Coast Mountains, from the County San Francisco on the north to Luis Obispo on the south. The slates and serpentine formations which have been noticed in the preceding pages of this report are found to be receptacles of gold here as in the Sierra Nevada; these rocks are extensive in the Coast Mountains, often comprising an entire ridge for miles, they are usually flanked by the granite. During the past summer, the placers in the County Santa Cruz were much worked; the gold found here was principally on the San Lorenzo and its tributaries; it was fine, and much resembled that found in the Caoti Hill, near Nevada; under the glass it had all the appearance of having suffered but little from attrition by water, the surface of the grains being rough, as though just detached from their original matrix. The slates and serpentine rocks occur on both sides of this creek, with small veins of quartz running through them, and from what we know of auriferous districts of this and other countries, the presumption that gold *in situ* exists here, amounts nearly to a certainty.

On the upper portions of the Carmello, in the county Monterey, gold is also found, in the immediate vicinity of the Rancho Tulecita. Farther to the southeast, near the head waters of the creek, it is also found on the tributaries of the main stream, that flow from the western ridge of these mountains. On the Francisquito, a tributary of the Carmello, coming from the southwest, and twelve miles from the coast it is also found near the house of Barondo. Three or four Mexicans were working with the battaya at the time I passed that ranche. The serpentine rocks are largely developed on the east flanks of the granite ridges, and from their course they may be considered as forming the northern part of a series which occurs at the Mission San Antonio fifty miles south.

I was informed by Mr. Meadows, who has traversed the interior of these mountains probably more than any other man in this part of the country, that the same class of rocks are found throughout the distance inclusive between the Carmello and the above Mission. Near San Antonio there were several persons at work during the past summer, in the placers in this vicinity. This was no new discovery, for the existence of gold at this locality has been known since 1850. Those at work at this place were mostly Mexicans, and while traveling on the Salinas I frequently met companies of five or six, with their camp material and tools, wending their way to this section.

On the Pescadero Creek, a tributary of the Pajaro River, gold was found during the past summer; it was first observed a short distance above the bituminous springs lying on the north bank of this stream; the serpentine rocks abound in this vicinity, and also some of its subordinate members; at this place the Magnesian Group of the Santa Cruz Mountains, which run north into San Francisco, have their southern terminus.

On the Rancho La Brue, near the Pescadero, and into the very edge of the Valley Santa Clara the talcose series and gold is found; on crossing the Pajaro, these rocks and with them the gold closes; not a trace of this metal, or rock that would indicate its existence was to be found in any of the hills east of the Gabilan.

The district of country in the Coast Mountains in which the auriferous deposits are now known to occur is about eighty miles in length, and thus far is confined to the counties of Santa Clara, Monterey and the north part of Luis Obispo. This is a material addition to the already known area in which this metal is found, and its location in what has heretofore been considered the agricultural districts of the State, will in time exert a beneficial influence in the permanent settlement of those sections.

**ANTIMONY.**—The common sulphuret of this metal is very abundant in the Monte Diablo Range; at Mount Oso it is found in large masses, also at various other points throughout these mountains; it occurs in considerable quantities in some parts of the County of Santa Barbara. This mineral is deserving of attention as it often contains a notable quantity of silver, though as yet no specimens which have been found in this country contain a large per centage of this metal. That variety of the antimonial ores which is argentiferous, has a lively steel-gray color, cuts easily with the knife and is brittle, while the common gray antimony, which is the principal yet found, has a lead-gray color, its fractured surface, easily tarnishes and scales of the mineral are slightly flexible.

**BITUMEN.**—Bituminous springs abound through the Coast Mountains, and in some places is much used in the construction of buildings, and walks in front of buildings; for the latter purposes it is admirably adapted in situations where the sun will not have too powerful an effect upon it, as in such cases it is apt to become soft. In the counties of Santa Clara, Santa Cruz and Monterey, several of these springs occur, and further south are found more abundant. Information has been received of an extensive deposit of bitumen in Contra Costa, some six miles from the shores of the bay, but at what point I have as yet been unable to learn. This article has been used of late in the manufacture of gas, for illumination, and it possesses some advantages over the common oil or resin gas in general use; a sufficient quantity for the illumination of the country may be easily obtained and at low rates when required for this purpose.

**CINNABAR.**—This mineral is well known, and the principal mine now opened in this country is at New Almaden in the County of Santa Clara and situated twelve miles from San José. The town of Almaden is situated four hundred and eighty feet above the sea and the mine is eight hundred and sixty feet above the town, making the elevation of the mine thirteen hundred forty-five above tide level. The ore at this mine is found in bunches or deposits in a clay highly charged with peroxide iron. The cinnabar contains considerable arsenic generally disseminated through the ore, small veins of calcareous spar are found running

through the mineral giving it at times a fanciful appearance. The magnesian rocks are largely developed in this section, both at the mine and in the mountains to the south-west. The rocks in the immediate vicinity of the mine are talcose in their character, much decomposed and broken up; at the base of the hill on which the mine is located there is to be found native magnesia on the surfaces of the rocks.

The deposit of ore at this locality is very large, and will require many years to exhaust it. As the mine consists of deposits simply, there is no certainty of its continuance beyond the surface that may be exposed: it has been supposed generally that the ores of this mine occurred in the form of veins, but such is not the fact, and so far as I could learn from the superintendents at the mine, no well defined vein had been found since its opening. The principal adit of the mine is one thousand feet in length, and at the end of this a body of ore fifteen feet square had been exposed in one place; other similar masses, and even larger ones, were laid bare in different parts of the mine. An inclined winze had been driven to the depth of about one hundred feet below the level of the adit, at the bottom of which immense bodies of ore had been found. From the quantity of ore on hand, and that exposed in the mine, the prospects of the company are highly flattering for a handsome return for the heavy outlays of capital which have heretofore been made. At the date of my visit, the company were erecting twelve new furnaces in addition to those already in operation, having a capacity for working of twelve thousand pounds per week each, with an abundance of ore in the hacienda for their supply. The construction of their adit and the interior of the mine, with their reduction works, are of a character for permanency, workmanship and scientific skill to be found only among large mining operations. The ease and regularity with which everything connected with the mine argues well for its administrator, and exhibits a thorough understanding of the requisites necessary to insure success in extensive operations.

A better regulated, or more systematic method of mining, is not to be found in this or any other country, and is well worthy a visit from any who may wish to obtain an idea of what practical mining is in a large way. At the distance of three miles, another mine of the same character has been opened, but is not in operation at present, this latter is called the Gaudulupe; it has not proved extensive up to the present time.

In the lists of minerals, appended to this report, will be found more specific detail respecting their distribution among the rocks of the coast mountains. A description of the fossils will also accompany the latter, as far as the nature of circumstances will permit. The scarcity of books of reference in this country, at the present time, will render it impossible to define all the species that have been secured the past season; the genera will be nearly complete, and in the course of the ensuing season, the species of those genera will be described, as ample works for that purpose will be at hand within that time: there appears to be many that are undescribed in any of the works on hand at present.

## MINERAL DISTRICT.

After completing the examination of the coast mountains within the parallels alluded to, a visit was made to the mineral districts, embracing parts of the counties Nevada, Placer, El Dorado, and Calaveras, the object of which, was to connect a line of travel commenced in May and June last, in the counties of Butte, Yuba, and Sierra; and to obtain, if possible, some information respecting the general character of placer and quartz mining at the present time, compared with its earlier prospects.

Two years having elapsed since I had visited this section of the country, and having in my possession the original notes of travel and maps made at that time, with a general acquaintance of their former condition, it was deemed advisable to make this particular examination, in order to form some estimate on their future prospects.

With this view, the more central portions of the mining districts were selected, as these may be considered a fair example of the extremes, and from the lateness of the season and distance were more accessible.

## PLACER MINING.

The extensive excavations, which have been made within the last two years, in this branch of mining has afforded an opportunity of examining the different mountain formations not heretofore obtained, and has been the means of eliciting much valuable and interesting information, relative to the early condition and mutations, which have taken place in the superficial coverings of our hills. The rapid progress of advancement in the methods of conducting mining operations in this branch particularly, has opened a door for scientific research, which it seems impossible to have accomplished in so short a period as that in which they have been occupied; they have the appearance of having been in operation for half a century rather than the short space of *four years*.

It is now ascertained to a certainty that the placer ranges extend to the east, within ten or fifteen miles of the "summit ridge" so called of the Sierra Nevada; and the condition in which it is found at these points are similar in all respects to that in the older or more western sections, with perhaps one exception, and that the relative age of both. There are evidences which clearly indicate a deposit of gold older than the diluvial drift of the lower or western diggings, (which latter is often confounded with the drift deposits of the tertiary periods in this country) the character of which differs in almost every respect from any other deposit yet observed in this country, except in this particular range.\*

Its direction has been traced for about seventy miles, and is found to extend through the counties of Butte, the eastern part of Yuba, Sierra, Nevada, Placer, and El Dorado; it appears to have an average breadth

\* This deposit appears to hold a position and age below the tertiaries, and may be considered intermediate between the latter and the primitive formations in this State, its fossils differ from any thus far found in any formation within the State, and I am disposed to refer it to the Brandon group of Vermont, discovered by Prof Hitchcock, vide Silliman's Journal of Science.

of about four miles, with an elevation of four thousand feet above the sea for the greatest part of its length.

From the examinations that were made upon this range, there are abundant evidences that an ancient stream flowed through this section of the country, and in a direction parallel with its then existing mountain ridges, and the extensive mining operations conducted in the south-east part of Sierra county on this range, has been the means of demonstrating this fact, which had heretofore been strongly suspected only. The outliers of its banks are very definitely marked throughout the entire length of the formation under consideration, and its former bed filled in many places with a volcanic sand and ashes, which probably accompanied its displacement.

In the county Sierra these peculiarities are best observed; in the vicinity, and for ten miles west of Downieville, the hills are covered with a volcanic breccia and tufa, which may be conveniently studied between the Negro Tent and Galloway's Ranch, also on all the hills and ravines surrounding Yumana on Oregon Creek. On the creek the tufaceous deposit is found to the depth of sixty feet.

The exact point from which these immense quantities of volcanic materials were ejected, is somewhat obscure: yet there are reasons for the supposition that they had their origin in the truncated cones which lie a few miles to the north-east, and of which the Pilot Peak forms one of the principal points or centres of this rugged and forbidding district. This presumption is based on the grounds that between Pilot Peak and Yumana there are ample evidences of a direct connection with these larger centres of disturbance; an extensive dike of black scoriaceous and vesicular lava is traceable throughout the entire distance between Yumana and the Pilot Peak, passing through the hill north-west of Downieville, and within two hundred yards of the town, it crosses the river at this point and appears at Durgan's Flat on the opposite side of the stream, from thence it is again met near Galloway's Ranch, and continues from there to the high bluff which overhangs the town of Yumana, on Oregon Creek. There are no other true volcanic cones in this section that would seem commensurate with so large a scale of operations, except those above noted, though the minor peaks undoubtedly added much to the general result.

The displacement of this ancient stream and the subsequent filling of its bed has opened a new and rich field for scientific research in this State, but its more direct and economical bearings are that it affords an equally new and extensive field for the operations of the placer miner, and that thus far has proved itself equal to that of any range yet discovered in this country. Besides being equally abundant in its produce of gold as far as opened, with the best placers of the State, it possesses the advantage of being the most extensive of any one system which has yet been found. The peculiarities which characterize this formation and which distinguishes it from all others in the State, are the following:—the boulders found throughout its entire extent are very uniform in their characters, and are composed of quartz exclusively, (or nearly so) this has a bluish-watery color in the mass, highly translucent and vitreous when fractured, constituting ninety-seven per cent. of all the stones found in the deeper diggings, they are invested by a dull but deep blue earthy

material highly charged with pyrites, which in most cases is as firm as the rocks themselves, making it extremely laborious and difficult in driving shafts or adits. The gold is contained in this matrix for a distance of six or eight feet above the "bed-rock," and resting directly on the latter, it is coarse and generally rough, and its external appearance is that of a poor quality, though it assays high and brings the first prices; its pale and dirty appearance is due to a small quantity of arsenical pyrites which adheres to its surface and which is found in considerable quantities in the matrix containing the gold.

The underlying rocks are serpentine and talcose slates; on Oregon Creek they are found to contain small veins of mundic (arsenical pyrites) one or two inches in thickness, this has a clear and lively grayish-white color, when recently fractured, but soon tarnishes on exposure, becoming a dirty lead gray, and even quite dark; this mineral is rich in gold, it is difficult to find a small piece that does not present this metal to the naked eye on some part of its surface.

The mineral was first observed in the Johnson Shaft, half a mile north of the town of Yumanna, and occurs at a depth of fifty feet below the level of the creek, at the edge of which the shaft was driven, the strike of these veins was north-west by west, and is found on both sides of the stream on that line. There were four other shafts in this vicinity in which the mundic was found under the same circumstances; and there can be scarcely a question but that it exists in true veins among the serpentine rocks throughout this part of the country. These veins have been found to penetrate the rocks in which they occur to the depth of six feet from the surface, and should it ultimately be found that the area is in any way considerable through which they run, they offer sufficient inducement to erect works for the reduction of this ore.

The blue color of the drift in this range has been found to pervade all parts of this peculiar deposit wherever it occurs, its boulders maintain their character and per centage, its extent over so large a district, its dissimilarity in these respects with all other placers yet known, has suggested the propriety of adopting a name which shall at once separate it from other sections, in order to designate more particularly its course and extent in the future; by this means we shall in a short time be able to acquire additional information relative to its extent that we do not now possess, and as its developments at the present time are of so flattering a nature, that any information of its present undiscovered boundaries, would add but another link to the great chain of our mineral resources, equally as important and productive as the best now known.

I would, therefore, suggest, that the term "*Eastern Blue Range*," be applied to this district; this will separate it from those lower down having the same color, but not possessing any one of its other peculiarities.

To define more particularly the position of this formation, both geographically and geologically, we will follow more particularly the outline of the ancient stream, and some few of the localities now situated upon it. On the south fork of Feather River, opposite to Sailor Bar, and east of this locality for three miles it is found in the form of small flats on the sides of hills declining to the east; passing to the south, it is met with a short distance from Goodyear's Bar, again at Yumanna, on Oregon Creek, still farther south at Minesota, at Chipseg's, Smith's and

Kanaka Flats ; crossing the Middle Yuba, it is found at Orleans Flat, Moore's Flat, New Flats, thence across the south Yuba, by the towns of Eureka, Washington, and Poor Man's Creek, and at Mule Springs. This vicinity has presented an area of nine miles in which this formation has been found. Crossing Bear River, it is again met at each side of the American Forks, and is particularly well developed in the vicinity of Sarahsville, extending from thence to Georgetown. South of this, but very little is known of its location.

Within the extremes of north and south named above, the banks of an ancient stream are distinctly marked out, and can be as easily traced as if the waters were still flowing in their original bed. It must have existed at a date when the adjacent country maintained a much less elevation than that now existing ; this is proven from the fact that, even at this time a terraced form is observable in many places, in each of which the same peculiarities abound. The organic matters deposited are perfect in their forms, the most delicate parts of leaves are truthfully preserved to nature ; the material in which they are imbedded is that usually found suspended in waters that were but slightly disturbed, and when disintegrated yields an almost unpalpable powder—not a pebble, nor even coarse sand is to be found in any part of it. In fact every feature that would indicate a quiet state of waters is fulfilled in the section under consideration. Had it been otherwise, the leaves and other tender parts of plants would have exhibited a different appearance from that they now present.

The remains of plants found in these localities are extinct on this part of the coast at the present date, the fruit, leaf, and structure of the sapvessels, differ from those of every other section of the country, either fossil or living. I have been enabled to obtain six varieties of leaves, and two varieties of fruits, which will be described as soon as opportunity shall offer. The depth at which these specimens were obtained from the surface was one hundred seventy feet, and near the end of an adit whose length was five hundred eighty feet, the principal bed was found in the Arcana Tunnel, at the town of Minesota.

The position of this formation has been stated in the preceding pages, to be below the tertiary groups and diluvial drift of the other placers. It will be unnecessary to roam over the entire State to illustrate or prove this point, as we have an adjacent district where both may be studied with ease and facility in an hour's ride between them. This locality is found at Chipseg's and Smith's Flats, about midway between Minesota and Oregon Creek. The different formations will be given as they occur at Smith's Flat and Minesota, which will fully illustrate the existing differences.

At Minesota we find the following in the descending order : First, volcanic tufa ; second, diluvial drift, containing no gold and having a depth of seventy feet ; below this is found a bed of clay and imperfectly formed slates beneath which a boulder formation of thirty-eight feet composed almost exclusively of quartz ; succeeding this the formation in question, containing the silicified woods, and leaves and fruits, the latter in the form of lignites, and in abundance. Following a direct line from this locality to Smith's Flat and at the distance of half a mile from the latter we meet an outcrop of the slates, above these slates the drift



and gold of this latter locality is found, and contains petrifications of present existing species of plants and trees, which still flourish in the adjoining neighborhood ; among these the pine and oak are very prominent. The structure of these silicified woods are as perfectly delineated as in the trees of similar character growing above them. The drift deposit at this locality is composed of every variety of rock found in the adjoining countries, being composed of trap, granite, porphyries and quartz, forming no well defined order of position.

The drift deposit of Minnesota being almost exclusively of quartz, such as has been described as occurring at Yumanna, forms a wide contrast with the above, and beneath the boulder formation the lignites, consisting of six species none of which are identical with any living species, or with the deposits of the section north of this locality. It will be seen from the peculiarities thus briefly enumerated in relation to the main features of both deposits, the widely dissimilar character of the minerals composing both, their relative position, and the difference in the organic deposits found in both, there is sufficient reason for assigning to each a different age.

How correct this conclusion may be, it yet remains to be proved, if additional testimony is required ; and this can only be known when this particular section shall have been more fully explored. Certain it is, however, that its present appearance favors this classification ; and should it prove as productive in its auriferous deposits as the partial explorations upon it now indicate, the amount of gold which it capable of producing would be unequalled in any district heretofore or at present known. There is not an instance known, where the lead in this range has been found, but that large sums of gold have been the result ; this might be saying more, perhaps, than prudence would dictate, but such are the facts in the case, let opinion be what they may.

### QUARTZ MINING.

For two years past this branch of industry has engrossed much of public attention, and speculation on the future success and prospects of these mines has been as diversified and fluctuating as upon any subject ever presented to public consideration ; this has resulted from an incorrect appreciation of their intrinsic value, and want of information respecting their position, geologically considered, coupled with disappointments resulting in too high anticipations of abundant products from these sources in too short periods of time ; the hasty and inconsiderate manner in which persons entered into these speculations in the country heretofore, and the natural results which must necessarily flow from such a course of action, has had the effect to cast a shadow of doubt for the time being, on the future prospects of these sources of wealth, while the pecuniary losses that followed in the train of these causes were construed by alarmists abroad as indexes of certain failure, and thus rendered the doubt that existed an *apparent* certainty.

All this however, has had a beneficial effect in its ultimate results, by checking that abnormal cause of action incident to the first outbreak of all speculative movements of this kind. Had that cool discretion and

judgment which has marked the subsequent career of these undertakings—that firm determination to surmount all natural obstacles and test the truth or falsity of the claim advanced of the value of these veins, been practiced in the earlier stages of quartz mining, we should have been spared the disagreeable task of chronicling adversity and *pseudo-failures* in a legitimate and profitable branch of employment, thus saving this one of the grand levers of our commercial prosperity the odium that has heretofore attached to it and is still persistent in the minds of some abroad.

Aided by the discrepant and in many cases malicious reports from our own hills, the *savans* of the Atlantic States and Europe reiterated the howl, and the public of those distant shores were nightly harrangued in the lecture-room, and popular assemblies, on the utter *impossibility of the auriferous veins of this country proving to be more than a mere ephemeral show*, and unworthy the confidence of reflecting minds. Their gratuitous expressions and unfavorable opinions, are now proved from the subsequent explorations which have been conducted on these veins, to be equally unfounded as were the arguments made use of by these men to convince their listening audiences of the *supposed facts* they so learnedly put forth; and our citizens engaged in these pursuits of industry have labored on, temporarily affected only by the confusion of opinions and anathemas issued from the portals of science, against this great interest of the State, and have borne the testimony triumphantly to the world that science unattended by personal experience will render him who uses it far more notorious than popular or reliable.

Notwithstanding the disadvantages of a manufactured public opinion with which this branch of industry has been obliged to contend, and the serious obstacles which have thus been presented to its progress, it has now become one of the permanent employments of the State, and should it meet with no other impediments than those which are the resultants of nature, it will obtain a position second to none, within the next two years.

The permanency of their character would scarcely have been demonstrated in the short period of time in which it has occurred, in any other country or State except this, and is in true keeping with the firmness of purpose manifested in every great undertaking by the citizens of this State, and is but another mark of that indomitable perseverance in overcoming difficulties either natural or artificial, that stand in the path of their advancement, for which they have become peculiarly characterized and proverbial.

The popular belief that the gold mines of this State, and the operations conducted upon them heretofore has been suspended, with the exception perhaps of a few isolated cases scattered through the country, and that they hold but a forced existence for speculative purposes, designed ultimately to be the means of conducting swindling operations on a large scale abroad, is as base as it is unfounded; those feelings and ideas find a haven in the breasts of a few only, who from their position commercially have been the means of propagating this erroneous and unjust opinion in relation to this subject. The embittered feelings of such persons, which have had their origin in disappointed hopes arising from too hasty conclusions respecting the productiveness of those oper-

ations in which they were individually interested, and which in nearly every case was caused by inadequacy of means and mismanagement of their operations, is no criterion whereby to form an opinion that would be just or reasonable, with reference to these metallic veins, and those in this country who would still propagate those opinions, do so in the face of every evidence to the contrary which reason or sober judgment would demand or can be found in this or any other country.

With these preliminary remarks on the general impressions at home and abroad, respecting their *theoretic* value, founded as they are on presumption rather than evidence, we shall proceed to consider the geological position which the quartz veins of this State hold to the rocks with which they are found in connection, hoping thereby to elucidate more clearly their present as well as prospective value.

## QUARTZ VEINS AND THEIR RELATIVE AGES IN CALIFORNIA.

The quartz veins of this State are found distributed in nearly parallel lines throughout the west flank of the Sierra Nevada, and consist of three distinct lines separated by intervals ranging from four to eleven miles; as these divisions are found in nature they constitute what may be denominated the principal or main ranges. Between these are to be found smaller lines of these rocks at times running parallel with the former, at others having strikes more or less oblique, and even at right angles in some instances with the principal veins.

From the peculiar distribution of these rocks, as relates to their connection and position with the formations in which they are found, it would be difficult to refer them all to the same age; this would be manifest only by observing the different sections in which they occur. They will therefore be designated in this report as the *Older* and *Recent* groups, in order to better describe the peculiarities that may be found in both, and with reference also to the age of the rocks which they have been the apparent cause of disturbing.

### OLDER GROUP.

The eastern and also a part of what may be termed the central line of dikes are included under this head. This group is found to have intruded itself through the primitive formations only, or through the trapean rocks which immediately succeed the primitive. The principal rocks which appear to have suffered the greatest amount of local disturbance and dislocation from these quartz veins, have been the granite serpentine and the earlier trapean rocks, which appear to under-lie both the former. The veins or dikes that occur in the primitive series are usually much more massive than those of a later period, and are not distributed over so wide an area, or possess so great a number of lateral veins, or cross-courses incident to the more recent group of these rocks.

The mineral characteristics of the Older Group are more uniform and regular so far as known, and are found to possess a firmness of

texture, where they enter the greenstone, much greater than those of recent date. It is seldom found that this suite of veins has cut through or in any way disturbed the slates which rest on the granite, even when the latter are in the immediate neighborhood; less rare is it to find them cut through by the older group; that in a line of travel over two hundred miles in length that I have seen but two instances in the eastern range of veins, and it is even questionable whether this dike belonged strictly to the older group.

The effect of these veins on the rocks which they pass through, has been to disorganize their structure to a considerable extent, which has rendered the decomposition of both more rapid and complete, hence it frequently happens that rich deposits of metal are found in such places, and usually occur near the point of contact of both series of rocks. The older group is found to extend from near the summit ridge of the mountains to a distance of about forty miles toward the west, and constitute nearly six-eighths (6-8) of all the veins found within this line of distance, and on these are located the greatest proportion of all the mines at present in operation.

In that portion of the country lying north of the Cosumnes River and ranging thirty miles east of the Valley Sacramento, the central line of dikes belonging to the older group, are found, their western edge passes through the counties of El Dorado, Placer, Nevada, Butte and Shasta, and as far north as the Mt. Shasta hills to the east of the peak. It is well developed in the counties of El Dorado, Placer and Nevada, and in one locality in the county of Yuba, a short distance above Scott's Ferry. In these latter counties the more recent group is also found, and in the county of Nevada it is seen to have disturbed the older groups in some localities, and in Placer county, where both have features in common which will be noticed more particularly when treating of the Recent group.

To localize the upper and older group of these veins, a few localities will be given for the purpose of familiarizing their geographical positions; in Nevada county it is met with at the National vein, also at German Bar, at the Ariel Mine in Sierra county, and the Jamison Creek mines in Butte county; on the American forks at the Volcano mine, El Dorado county; Leake Vein, Calaveras county; Big Oak Flat, and Marble Springs, Tuolumne county.

These localities are situated far into the mountains, and are situated on the eastern part of this line of dikes, and upon those parts of it where it is most largely developed, becoming an extended and well defined continuous range.

Returning to the middle or central range of dikes, at the distance of thirty miles from the valley, and travelling south we find that immediately after crossing the Cosumnes, the granitic rocks that have heretofore been found associated with this range of veins further north begin to disappear in a gradual manner, and the prevailing rocks are talcose, to the exclusion of almost every other of the primitive series; for a distance of about fifty miles, the quartz is found associated with this or some of its subordinate members, the granitic rocks lying far to the east. The quartz vein found among the talcose series and which appear of the same age as those occurring in the granite, are equally uniform in the general

characteristics they present, so far as relates to their mineral constituents, but there is one remarkable feature attending them here (as also to the north in a few instances,) which is not common to the granitic associations of these rocks, viz: the depth to which the vein is decomposed from the surface down, will not exceed more than one-fourth that which will be found where the invading rock is of the granitic series. This peculiar feature is very striking in passing from a "sett" situated in the latter to one located in the former, and will be found to hold good even in the same neighborhood.

One other feature is equally apparent, and at the same time important in connection with this, which is, that while those veins present the contrast above noted, the "setts" occurring in the serpentine series which have been unaffected by the cause producing such extensive decomposition as is found among the granite rocks, do not possess a texture so firm and coherent as the veins found in the northern sections, such veins will be worked with a less amount of labor and capital producing an equal amount of ore.

There is nothing to distinguish the veins of this section from being of the same age with those at the north, and running through a similar range of country, like the veining of the granitic series they do not appear to have disturbed the more recent formation of the tertiaries, but are confined exclusively to the primitive rocks. Following a line west toward the valleys, the occurrence of a more recent group becomes manifest, and is unquestionably the equivalent of that alluded to as occurring throughout the northern counties.

### RECENT GROUP.

This group of these rocks is found extending from the lowest foot-hills on the east border of the valley, where the first outcrop of the slates are met, to a distance of about eighteen miles to the east, and after is found running into the western edge of the older group; their intrusion appears to have formed one of the principal and later disturbing agents that has been in action in those periods of development of that part of this country, immediately preceding, and continuing into the middle Eocene and Miocene periods of the tertiary era.

Their altitude above the sea is variable, from one hundred to fifteen hundred feet, and some few localities reach the height of two thousand. One of the features, which this group presents, and which distinguishes it from those of the older group is, that they have cut through and disturbed not only the primitive formations, but every other formation found resting upon them, this occurs in almost every case in which these rocks are found. A dike of this age is often found protruding through the granite or some other member of the primitive series, and may be traced frequently for one or two miles before any member of the sedimentary rocks are met with; in this case, the latter rocks will be found more or less disturbed at the point of contact with the vein, and it will often be found that its passage from the granite beneath into the slates above is perfect, traversing the overlying rock through a great part of its length, and sending out cross courses in every direction. A di-

turbed position is not the only change observable in these cases; structural change is as often the result of the intrusion among the slates as the appearance of the veins themselves. The above peculiarities in relation to these views are observable in every part of the lower mining districts, and an erroneous opinion in regard to the age of the dike under examination may easily occur as the part under our observation may be situated either in the primitive or sedimentary rocks.

A dike of this character occurs in the town of Centreville, Placer County, and extends in a northerly direction for one and a half miles through granite, when it enters the slates, passing entirely through their length and again appearing in granite at their northern extremity; another instance of a similar character is met with on Deer Creek, two miles below Nevada; here the dike passes through the trap, granite and slate, and also at Newtown in the same county. Still further north, in the County of Yuba, a vein cuts both the granite and slate, as in the vicinity of Brown's Valley, and again on Dry Creek; in many other localities throughout this range of country, the same features are to be found, and our opinion on the comparative ages of these veins, can be correctly founded only by a careful examination of the entire length of the vein.

On the same range of hills, this group is continued south as far as the Tuolumne River, and includes the district on which some of the principal companies of the southern counties are located. It frequently happens that the veins of this group are composed of a perfect *net-work* of small threads and veins, varying in power from one inch to one foot. This peculiarity is admirably exemplified at Angel's Camp in Calaveras County, at this locality and for miles around these small "*hilos*," constitute a large part of the rich veins of this section, while at the distance of four miles to the south, it again appears as a mammoth dike, popularly known as the "Great Cason Hill Vein," which extends southerly to the Stanislaus River.

From this point a line of large dikes interrupted at intervals continue in a southeast direction for sixty miles, passing through Campo Seco, Coulterville, Bear Valley, and thence to Mt. Ophir; throughout this entire distance they are found to cut through all other volcanic rocks, with perhaps one or two exceptions: the basaltic rocks in some parts of the southern counties bear evidence of displacement by these intrusions, and I know of but two cases in which the latter intrusions have *thrown* these veins, and in these cases it is not yet fully determined whether this be the fact. It is on the west flanks of the hills in which the dikes of the recent group of quartz appears, that the features which mark their age are more particularly noticeable; here the slates (and in the foothills, the sandstone) present all the varied changes of position and structure, noticed by different writers on the physical features incident to the mountain districts of California—at one time dipping east at another west, and again half inverted, in the multifarious disturbances to which they have been subjected.

The greatest amount of displacement in the sedimentary rocks is always found in the closest proximity to the veins in their immediate vicinity, and although a vertical position only may be given in many instances, yet this is found to become less as you recede from the vein

on either hand transversely to its line of strike; it is not unfrequent that the high angle of dip in the first instance will assume a nearly horizontal position in the distance of a mile from the point of uplift, but the next ridge will present a re-enactment of the first case if the rocks composing it are of the same character.

The vertical position of the slates is one of those peculiar features which attracts the attention of almost every person passing to or from the interior, from their appearance resembling an old church-yard they have been termed the *grave-stone slates*, and this distinctive feature is found to prevail to the lower range of foot-hills toward the valley, as well as in the more elevated parts of the mountains; this verticality among the lower hills has been urged as an objection to the point that the intrusion of the quartz of either group, was not the immediate cause of that uplift, but that the present inclination has been given by causes of a similar character which have acted subsequent to the intrusion of the quartzose veins.

This proposition seems invalid for this reason: if any such agency as that proposed had been the immediate cause of producing the effects which are observable among the slates of this section and sufficiently powerful to have forced them into the position they now occupy: it seems but reasonable to suppose that some portions of the intrusive materials should make their appearance among them; but this is not the case, nor is it necessary to introduce such a complication in order to explain the physical features which are apparent in these rocks, as we find an agent distributed largely among them, which is fully adequate to induce all the changes of position or structure noticeable.

That we do not find massive outcrops of these dikes among the slates at the edge of the valley, is equally invalid as an objection against their agency in producing the disturbances which are clearly attributable to their intrusion a few miles farther to the east, for an examination will convince the unprejudiced mind that the causes which have been instrumental in tilting the slates from their former position in the interior has extended to the eastern edge of valleys and produced the ruptures we there witness.

In favorable situations for observing the intrusive character of the recent group, as in the canons through which flow many of our streams it is there found that the porphyries which lie superior to the primitive rocks, and have had their origin from contact with igneous rocks in an incandescient state, as well also as the trapean rocks adjoining, are broken through the sedimentary rocks above them which are still unchanged.

Another fact of interest, and having an important bearing on this part of our subject is found on the west borders of the great valleys and in the Coast Mountains. From all the testimony in our possession at the present time relative to the sedimentary rocks which dip under the valleys of the Sacramento and San Joaquin, we are induced to believe that those which occur on the east border are of an age cotemporaneous with those on the west, and in addition thereto a group is found which evidently belong to a still later period. We have in these mountains then, a corroborative evidence that the disturbances produced by the

intrusion of igneous rocks with which the quartz is found in connection has occurred during a comparatively recent period.

As these rocks have forced their way to the surface through all the species that lie above them, they can be considered in no other light than having an age posterior to most of the tertiary rocks within the State, or the northern and middle parts of it; and contemporaneous at least with the lower portion of the miocene period. Under these circumstances it is not to be wondered at that gold may be found in San Francisco or Contra Costa, as the geological formations which have developed it east of the great rivers, are found also in the mountains to the west, though not to the same extent.

The disturbance of the recent sedimentary rocks of the Coast Mountains, and the character of some of the intruded masses that has produced the tilting and dislocations, their identity with the stratified rocks on the eastern border of the great valleys, leads us to the conclusion that the causes of uplift which have been found among the latter, were continued partially to the coast in the same period. With respect to the agents that played an important part in these turbulent periods, there can be but little trouble in their discrimination, and ample testimony is found to identify them with the recent group of igneous rocks under consideration, and if these conclusions are correct, the character for permanency of these veins is beyond all cavil or doubt.

Future investigation may disprove this position, but until it is made evident that the veins of the recent group have been disturbed by other and more recent volcanic agents on either side of the great rivers, we can regard them in no other view than being among the last of an extensive series of disturbances which have operated principally through a large portion of the west flank of the Sierra Nevada at a comparatively recent period in the geological history of this part of the continent.

The metalliferous character of this group is in no way inferior to that of the older ranges of these rocks; the proof of this rests in the fact, that some of the best placers yet found in this country are included within its boundaries among the alluvium and drift deposits of the tertiary epoch. The gold generally found in these placers is of that character known among the miners as "rough or recent gold," having suffered but little from attrition by water; but it is not unfrequent to find the recent metal associated with that which has been much worn by attrition, and the two qualities thus appearing in the same placer range, can be regarded only as having different origins and ages. It would scarcely appear reasonable to suppose that two pieces of metal driven from the same source and subjected to the same action, should present smooth and rounded surface in the one, while its fellow beside it shall retain all its angularities as though just detached from its original matrix.

With reference to the older group of these veins there are features manifest which are both interesting and important, when we consider the immediate position of the recent group, to those of the older where both are found in contact. It has been remarked in the preceding pages that the veins of the older series have disturbed the greenstone below and the granite above only; a casual examination of the district in which these veins occur, would convey to the observer an idea that a



discrepancy in the statements must exist, from the fact that veins which pierce the granite are found to cut the stites also in the same section. As in the case of the Centreville veins, these will be found to belong to the more recent intrusions of these rocks, and wherever those features occur the recent group will be found playing the part of a disturbing agent on the primitive veins themselves and their investing rocks; so far as our experience goes in judging of the effects produced by these recent intrusions, their influence is not an injurious one, for the recent dike has thus far proved equally metalliferous with the primitive setts.

## CHARACTER AND POSITIONS OF THE OLDER VEINS BELOW THE SURFACE.

Under this head will be concluded all that we have to say upon the subject of gold mining in this State at the present time, and as the largest proportion of the mines of the State are situated on the older group of the quartz, the remarks that follow will be confined principally to that series.

In the northern part of the State,\* the granite rocks in which these veins are situated upon the surface, have been found to be underlied with another class of igneous rocks, which, from their nature and *presumed* age, it was feared might have so disturbed the "setts" as to render the successful prosecution of mining a doubtful project, and injurious speculation from this fact, have been indulged in to an extent that at one time threatened to destroy the well merited confidence which the discovery of these veins had induced from the outset; and for this reason no little degree of interest has been manifested both at home and abroad in relation to their future prospects.

Had those speculations which have been founded on presumptive evidence only, been confined to the sphere to which it legitimately belonged, and divested of the over-anxious fears expressed and manifested from abroad, the parties most directly interested would have suffered less inconvenience by loss of confidence and credit, which the voluntary conservators of our good in distant lands have been the means of inducing, and the public mind would have been unbiassed but for the opinions of men who should have had more discretion than to have hazarded their reputation on such premature evidences as they must have been possessed of at that time.

It is scarcely a supposable case, that men thousands of miles distant should be found adequate to judge correctly of the value of metalliferous districts, having never seen the sections alluded to, or even before the veins were known by the parties engaged in opening them. Elaborate discussions based upon presumptive analogy, may subserve the purpose of pleasing popular assemblies, but they will be found untenable and useless often, when applied to practical and systematic operations.

Mining exploration within the past eighteen months, has added much to our information relative to the position of metallic veins of the State, and the rocks with which they are associated. The granite series has

\* North of the Consumnes River.

been closely investigated, and in several of the mines the workings have been carried entirely through this rock, and contrary to the anticipations of the incredulous, the *setts* have not been *thrown* at the point of contact with the inferior rocks. Thus far the depth of the granite series has not been found to exceed a depth of but little more than one hundred feet, and in almost every case where shafts have been driven, either on the vein or beside it, the rock has been found in a highly decomposed state, thus presenting but little difficulty in passing through it. There are, in some localities, many small veins running out at different angles from the principal "*setts*," into the surrounding granite, and when thus appearing in the inverting rocks, marks of dislocation are observable. These interesting features define most clearly the energy and extent of the supporting and injecting forces from below, at the date of the intrusion of the veins, and the angles which the small cross-courses make with the main "*setts*" from which they emanate, shows most conclusively that the fracture of the superincumbent rocks must have been extensive. Another and a striking feature is also to be observed in this particular, which is, that the small threads found in the granite have a greater power when they enter the greenstone below ; thus indicating that the intrusive dikes spent themselves principally in the superior granite above.

The entire mass of the granitic rocks in the vicinity of the quartz, is of a loose and incoherent texture, from the surface to the lowest point yet reached, and when brought from the greatest depths the same general characteristics are found to prevail throughout. It presents a crumbling, reddish and purple hue, at times faintly spotted with white, its felspathic constituent thus imparting a porphyritic appearance to considerable quantities. When damp it is somewhat clayey, in the dry state, after exposure to the air, it is easily crushed in the hand, giving the greasy feeling of some of the talcose minerals. These peculiar features may be best examined in and about the towns of Nevada and Grass Valley ; for here they extend over several miles, and the extent to which mining operations have been carried in these sections, renders an examination of all the different phases that are presented in this class of veins, both easy and convenient.

Immediately below the granite, the greenstone is found underlying this entire section of country, in every instance in which the granite has been perforated, this rock has been found beneath, and when first met with in descending is much broken up, and the fissures filled with foreign infiltrations from above. The trap rock has a blueish-gray and greenish color, often highly charged with pyrites ; the veins on entering this rock change their color from the deep reddish-brown, which they maintain in the granite above, and the cavities filled with the peroxide of iron which has resulted from the decomposition of the pyrites it originally contained, to a clear, white or semi-translucent mineral, holding considerable quantities of cubic and rhombic crystals of pyrites, which are more or less auriferous. In some of the trapean rocks arsenical pyrites is met with, but this latter is much more common in the southern districts, and on the forks of the American River.

In every mine throughout the northern districts, in which the greenstone has been reached, *the veins have penetrated this rock*, and in no one instance thus far is it found that the vein has either been *pinched or faulted*,

but the reverse is true, *that every sett has increased in power the deeper they descend*. Of six companies now in successful operation in Grass Valley, all of them are obtaining their ores from the greenstone, in larger quantity and better quality than was found to be the average in the granite above: on Deer Creek it is the same, and but two mines in this district still continue in the granite, viz:—the Illinois and Gold Tunnel mines, the lower gallery of the latter is within nine feet of the greenstone, with an increasing power in the “sett” at the point of working. In the counties of Butte and Shasta, the same fact prevails, and in each of those mines, which have entered the trap there has been no diminution in the power of the vein or qualities of the ore.

The depth to which some of these veins are found to enter the greenstone has been fifty-five feet, at the present time, and at this depth into this rock they bear all the reasonable evidence of continuing to an unlimited depth, and being of more recent date than their investing series. The greenstone in close proximity to the dikes is found much shattered and disturbed, exhibiting evidences of displacement subsequent to fracture, the inclination of the disturbed masses corresponding to the dip of the vein, the line of fracture form angles of fifty to seventy degrees to the dip of the “sett,” and as high as forty in some cases with the horizon: this gives a stratified appearance to these rocks: this peculiar feature is observable at the Osborn Hill Mine, and is indicated by the heavy lines in the sketch of its transverse section. At this mine may also be observed the other peculiarities before noticed, the highly decomposed and broken character of the upper part of the greenstone of seventeen feet below; at the Lafayette and Helvetia Mine, similar features are to be observed of the semi-stratified appearance of the greenstone, caused by the intrusion of the quartz dike through it; the entire length of the adit level of this mine is driven entirely through this rock a distance of about eleven hundred feet.

On Deer Creek, five miles north of Green Valley, we find a material change in the relative position of the metallic veins to the investing rocks, at the Gold Tunnel, as before remarked, the “sett” is exclusively in granite, while at the Wyoming Mine, one and a half miles below, the “sett” is situated in the greenstone inferiorly and the slate above, while in the adjacent mine above the Wyoming, slate and granite in the middle and greenstone below is the order of arrangement. At this mine may be observed one of those interesting features noticed in the concluding paragraphs of the Recent Group, and when we compare the accompanying sketches of the Osborn Hill and Wyoming, a sufficient illustration of the relative ages of the group will appear. The present working “sett” of the latter mine is protruded through the primitive rocks, and also through the slate above them, and from its dip it must pass through older veins at a depth probably not exceeding four hundred feet below their present level. The slate which lies superior in this mine is evidently of the same age as that occurring among the foot-hills toward the valley, and as the sketch of this mine illustrates, the vein passes entirely through them; the dip of this vein is forty-three degrees east, while those of the adjacent mine above varies from thirty-two to thirty-eight degrees. It is not surprising that a recent “sett” in passing through the cross-course of an older vein, or through a part of a primitive vein, should produce

valuable deposits of metal which has taken place in this mine in several instances, and it serves for an illustration of the principle advanced in the preceeding pages, that the recent veins were equally metalliferous with those of the primitive series, wherever and whenever found in this State.

From the facts thus far presented to your consideration respecting the known position of these rocks in the northern part of the State, some evidence at least exists, that those veins thus far opened are now proved to have cut through that suite of igneous rocks which heretofore have been supposed would destroy their continuity to any considerable depth below the surface. Already has the establishment of this point exerted an influence which is beginning to be strongly felt, and is restoring that confidence in gold mining which it long since lost. More capital has been invested within the preceding four months in this branch of employment, than in the entire time which has elapsed since the general suspension of these operations. From the developments which have been made relating to the permanency of their character within the past year, individuals are fast becoming satisfied that the metallic veins of this State merit that confidence which is fast returning. If other testimony is required than that already cited of the almost certainty of their continuation to unlimited depths, it will become necessary to search out some other formations than those acknowledged to be the foundation on which rest the superstructure of this terraqueous sphere, for it is evident if facts have any weight, that they have disturbed the lowest of all known rocks.

It may be argued that the shallow depth, fifty feet into the greenstone, is not positive, but that these veins may be faulted by more recent volcanic intrusions below this point. This is possibly true, but at the same time, is there any good reason for such a supposition when no evidence of such disturbances are observable above the surface in their vicinity, and when those intrusive rocks are not to be found to depths of two or three thousand feet below the summits of those ridges on which these mines are located in many instances. There are many deep gorges among our mountains which exhibit the character of the rocks composing them to the depths above named, and on examination of their structure will convince an unbiassed observer of their primitive character. Among these gorges it is not unfrequent to find the quartz veins extending from their bottom to various heights, ranging as high as six hundred feet in every instance in which these veins are met among the rocks in situ. They possess their *greatest power at their lowest point*. In one instance I well remember having traced a dike of this rock from the river to the height of thirteen hundred feet, a drawing of which is still in my possession; the "silt" thinned out to small threads at this height, with a diminishing power from the base of the hill to the summit; this vein passes through greenstone and porphyry, granite and slate, successively, until it finally spent itself among the latter. If intrusive dikes are found to increase in power as their distance below the surface increases, we may reasonably conclude that they may continue to a depth below, equal to that which may be found above, in a case like the last one cited, provided the rocks beneath the lowest point at which it is observable continue of the same character.

Abundant examples of this character are to be met with throughout our mountains, and with such evidence before us, the character of these metallic veins for permanency must be placed beyond suspicion or doubt, and our testimony on this point extends much beyond any that has, as yet, been adduced. In the County of Calaveras, an extensive dike, two miles in length, has been laid open in such a manner that a vertical depth of eight hundred feet of the vein is now exposed to view.

The dike cuts through two ridges, which separate two streams of water, and the companies located on these streams have sunk their shafts to the depth of over one hundred feet, directly under the beds of the creeks, and have driven their galleries each way untill within a few feet of each other: the vein in one shaft has a power of thirty-seven feet, but in no point on the "sett" is it less than five, in each of the five mines located on this vein, the power of the "sett" has uniformly increased the deeper they have descended. In this case we have a thorough examination of one, at least, of our metallic veins, which will compare with some of the operations in other countries, and we may deduce some safe conclusions respecting their probable stability, if depth below the surface becomes an essential requisite to establish that point.

The rocks through which these veins pass are principally of the talcose series, with greenstone, hornblende schists, and syenite, in the immediate vicinity; the dikes have cut through all of them in succession without having suffered any deflection from that parallelism which must have ensued, if any of the rocks with which they are found in contact, had an age posterior to the dikes themselves. This district is particularly noticed in connection with this part of our subject, for the purpose of exhibiting the stronger probability of permanency in the quartz veins of this country, for the reason that if disturbance in their position is likely to ensue in any part of this State, it would be likely to occur in these sections, as the effects of recent volcanic action is more prominent throughout the southern portions of the mining districts than any other part of the west flank of the Sierra Nevada.

From what testimony we have in our possession relative to these veins, it seems but reasonable to conclude that their integrity is perfect, or as nearly so as can be reasonably expected considering the short period which has been employed in developing their true character, and that the confidence which they formerly possessed was well grounded; all subsequent examinations have only tended to confirm this belief in the minds of those who have carefully and diligently studied this subject. The present condition of our gold mines, their flourishing state and prospective value, based on facts as now developed, most clearly indicate their importance, as an industrial pursuit and one destined ere long to form one of the leading interests in the economy of the State; and as such it would seem that all prudent measures to develop farther their extent and value, and place them upon that footing before the world which that value and importance demands should be used, either through the State or General Government, and through them promote such measures as will prove an inducement to more extensive and permanent operations than has yet been done.

In concluding this part of the report, and in connection with the magnitude and importance of perhaps a somewhat exciting principle in

relation to it, I would beg leave to call your attention to a point on which there has heretofore existed much diversity of opinion, which not unfrequently has engendered angry discussion and beligerent feeling in a large proportion of our mining population. The experience of the last three years has elucidated the fact most clearly that the two mining interests of this State cannot be governed by the same rule of law in all cases, and prove alike advantageous to both; it is therefore suggested whether some method more congenial to this interest may not be adopted, that will favor the occupancy and improvement of the metallic veins of this State, giving at the same time widest scope and protection to all at present engaged, and those who may wish hereafter to enter upon those pursuits.

### PRESENT GOVERNMENT OF METALLIC VEINS.

Before entering upon this part of our subject I will state, that throughout every part of the mining counties, which it has been my fortune to visit, in my examinations of previous years, and up to the present time, the subject of needful protection to capital investment and labor in this branch of mining, has been fully and unequivocally expressed by those engaged and interested in it, and by a large portion of those engaged in placer mining, having no direct connection with the former. And it is at the solicitation of nearly *every individual* engaged in the pursuit of mining on veins, that the subject is presented to your consideration at the present time. A wish has long since been expressed, and urged through all the various channels of communication, that the present tenure by which this species of property is holden and conveyed may be changed in such manner as may render available capital investments, which must be largely employed in order to develop those sources of wealth and insure their occupancy.

It is perhaps a questionable point whether the State government is vested with the power to code and convey title in fee to lands containing the precious metals, even were that title absolutely required from the nature of existing circumstances; but whether her jurisdiction in the case be sovereign or not, she legitimately possesses a conservative jurisdiction over such lands, and through that power, as a member of the great confederacy, may exert an influence to obtain such modifications of existing laws of the general government, as would conflict with the common interests of her citizens, or of those rules and regulations temporarily instituted by the State, which by their present action, have a tendency to cripple and reduce her otherwise available means of revenue.

Under this form of the question it becomes a matter of some importance to consider, whether the entire interests of the State would not be materially and beneficially affected, by placing such lands as are under its conservative influence in a position that would be likely to yield a revenue from their occupancy, and which at the same time would yield an adequate security for the investment of capital to be employed in their development. A system of law that would induce a more extensive occupancy than that now existing must insure, as a resultant, a corresponding increase of revenue, thereby

reducing taxation on the great mass, render less burdensome the support of the State government.

A course of action that would accomplish this end, and at the same time prevent that result which it has been the careful study of the representatives of the people to guard against, and whose every effort has been directed to preserve to the people the most liberal policy in the acquirement of wealth from the varied and prolific sources presented in no other country than this, must be unobjectionable either to the miner or merchant.

A strong objection has been urged against the sale of mineral lands, and justly too, as in this case the title must pass into the hands of private parties, which in most countries has proved objectionable in many particulars, and a course of this kind could never meet the approbation of a large majority of our population, in the present state of our information. In all other countries as in our own, the title to mineral lands is vested in the crown, or general government, (with the exception of Great Britain,) and the title or permission to use or occupy can emanate only from that source, where it properly belongs. In all countries where mines of the precious metals have been found, different policies for their government have been pursued, but as yet that policy which has been the most liberal, and at the same time protective of private rights, is found to have exerted the widest and most beneficial influence in their developement and occupancy; under such a system it is impossible for it to do otherwise than prosper, and the experience of nearly three centuries have gone to substantiate that fact.

There can be no possible objection to the *general principles* on which our present system is founded, it is the same that made Spain and Mexico what they were and are, and one that with these countries has stood the tests of time, the best proof of its utility and universal applications. Throughout all the political changes that have convulsed and shattered the civil codes of these governments, no change or alteration of a restrictive tendency has been made in the Ordinances des Mineria. For the last fifty years no change that in the least has affected its vital features, except to render them more liberal and congenial; its dictates with them are as sacred as their holy creed, and to molest or change its principles would be regarded as equally sacrilegious.

Under that system individual rights in mines are scrupulously respected, and strict non compliance with its requisitions are followed by a reversion of party rights to the crown, from which only can a similar title be obtained by others wishing to occupy and improve.

The history of mining proper throughout the world, has taught us that it is impossible to pursue that business to advantage without heavy outlays of capital; this applies equally to mining for silver or gold; the great amount of labor and expense attendant in opening a mine is the cause of this, that branch alone often being the work of years, before the reduction of any of its metals take place whereby any return of profits can be realized. We are not wanting in illustrations of this kind, they are as wide-spread as the mining operations of the world; and if more definite examples of this fact is required than the general history of this branch of industry, we need but to refer to the superficial operations of our own State heretofore, to show that limited means cannot succeed in gold mining, though the veins produc-

ing the metal may be (as they frequently are in this country,) exceedingly productive.

Our citizens embarked in this delusive speculation in a most inconsiderate manner. The results that followed from their earlier operations are too well known : the capital at their command, being small, was expended even before their veins were opened, and this great lever of success in these operations being thus early suspended, prevented the prosecution of the enterprise to a successful termination, which would have ended in profit in place of loss.

The fault, " if fault there be," lay at the door of misguided apprehensions, induced by flattering reports of results which had flowed from hasty examinations, but not in the veins themselves ; as these were dumb, and unable to speak for themselves, until men of larger means developed their capabilities, the cause of failure was attributed to a want of metal in the lodes ; hence the distrust which has up to the present time attached itself to this branch of mining, and has resulted in serious loss to the country at large, as well as to the private citizen.

A few have grappled through against all obstacles, who were fortunate enough to command the necessary means, and now have their mines opened and in successful operation. But it has been at the expense of heavy outlays of capital, and nearly two years of industrious application and hard labor ; the results which they have produced has been the means of fixing on a permanent basis, the character of these mines, which it will be difficult to affect injuriously hereafter ; and their integrity as lucrative employments, and safety for capital investments in themselves, is questioned by none who are conversant with their present condition.

Notwithstanding their acknowledged intrinsic value, there is an incubus resting upon them, which prevents, and must still prevent, their more extensive occupancy, and until removed in some manner, will stand as an insuperable obstacle to their future progress. This rests in the doubtful and uncertain tenure, by which these mines are held, being subject, as they are, to the government of the majority of the people in the district in which they are located, and whose interests directly considered, are both unconnected and foreign, though following a profession similar in some respects to that under consideration.

The position of the Placer miner, and those engaged on veins, is different in many respects. In the case of the former, there is but a comparatively small amount of capital requisite to pursue his business advantageously and successfully : in the other, experience has fully demonstrated that he cannot pursue his business successfully without large expenditures. In the case of the former, the extraction of gold is conducted by the simple process of washing ; in the other, it can be extracted from the gangue often only by complex metallurgical processes, and subjected even then to much uncertainty, and, at times, loss—requiring what the Placer does not, the employment of men who have made it the study of their lives, and the use of means mechanical and scientific, which do not come within the requisition of the former, to conduct his operations to a successful issue.

The operations of the placer miner are generally limited as to time, seldom exceeding a year in the same locality, on his removal his interests in his former residence ceases ; in the case of the miner engaged on veins, he



finds that his operations must be continued through a series of years in order to secure a fair remuneration for his labors, and if he removes to other parts of the State, his interests in the locality he left does not cease, as his capital investments still remain and continue a permanent source of revenue to the State and county in which they are located. The implements of the placer miner are few, and easily obtained or disposed of if he wishes to remove but, it is widely different with the other. He is obliged to obtain expensive machinery to obtain profitable results from his labors, and heavy sacrifice is often the attendant, if it is his misfortune to fail in his operations from any causes either natural or artificial.

The effect of placer mining in all parts of the world has been, to produce a wandering and unstable community, no better example is to be found than in our own State; it is a true illustration of what has occurred in other countries whose features simulate our own; and to remedy this has been the aim of our State government almost from its earliest foundation; how far its efforts have been attended with success its present history will clearly elucidate. The attempt to induce a permanent settlement in the mountains can be said to have partially succeeded only, and this has occurred in those instances where the parties thus locating have been enabled to avail themselves of interests that would partake of a degree of permanency for a series of years; their titles to improvements on the lands such persons occupy, being retained only by the law of sufferance, subject to the decrees of the majority residing in their vicinity if found to be auriferous.

On the broad platform of "equal right and equal privilege," which has been the governing principle of this State in its most extended sense from its earliest occupancy, the dim outline of a desire to establish permanency in the settlement of the mountain districts has been manifested, and at the present time it has become a distinguishing feature in a large portion of the mining population, in mining employments it is equally apparent as in agriculture; among the most stringent advocates of a "*masterly inactivity*" in regard to the government of the mines, two years ago, are now to be found men equally earnest in their advocacy of vesting rights that shall partake of the character of permanency, and protective where his operations require investments, to secure competency and reward for his labours. Experience has taught us that necessity, if we would foster those employments which it has been our pride to boast, and where no subversion of those fundamental principles on which our laws are founded can take place.

In every county of the State where quartz mining has been conducted this will be found a striking feature in each and all of their operations, and has been particularly manifested in some of the northern counties, where more stringency in the enforcement of mining laws of former years existed, than probably any other part of the State; the effects of this course of action was equally manifest abroad, in the Atlantic States and Europe, when the construction of the present mining code was published in those countries. In one of our northern counties a system has been founded on this code which under certain conditions, (consisting of a given amount of improvements only) conveys a title in fee to all intents and purposes; and another by which parties have the right of holding all that they may be able to purchase. This course of action among miners themselves must be viewed as a plain and clearly defined wish, on their part, to extend over the country a system

of government that shall prove alike conducive to the enhancement of these interests and the public welfare, and offer by these means inducements for the investments of capital from abroad ; its effects would prove beneficial inasmuch as every dollar of capital thus invested would become so much available means of revenue and serve to retain a much greater amount of the gold extracted from our hills, within the State.

From the nature of gold-mining proper, it results as a consequence almost, that those who engage in it, must become permanent settlers, as their operations if successful become the work of years instead of a few months, and their investments, when made, are done with that view. Under these circumstances does it not become a matter of correct policy to separate the interests of the placer miner and those engaged on veins, in such a manner that those engaged in each branch may enjoy that liberty which the placer miner now possesses, and which is enjoyed by the other only by the sufferance of the former in the largest majority of cases ; giving to each the right to enact those laws, which they in their good judgment will find most conducive to their separate interests, and which from their nature and attendant circumstances are very dissimilar and foreign.

The jealousies and feeling arising from the suspicion entertained by each other, which has heretofore and at the present time exists to a considerable extent, in these two branches of industry would, by the above course be done away, and a much greater degree of stability in mining proper would be the result, (which under the present arrangement of affairs can hardly exist) in which its prosperity to a great extent is involved : its influence would not only be made manifest here, but it would give a confidence abroad in these operations which they do not now possess, and to which we must look for those means by which we shall be able to conduct gold-mining successfully and with profit.

The entire separation of these interests would be regarded abroad as the opening of a new era in the mining history of this State, fraught with beneficial results, and involving a vital interest in her future economy, advantageous alike to the revenues of the State and to the people ; it would remove that serious obstacle at present in the path of its progress, viz : "the insecurity that now exists for invested capital, from the motative policy heretofore pursued," and restore that confidence which such a policy has in a great measure been the means of destroying.

The mines of this State are of a character and value, which if placed in a proper position, will invite investment from abroad, to an amount little less than twenty millions of dollars within the next eight years ; this presumption is founded on the fact that more than one sixth of that amount is at the present time in active operation in this country, and its largest proportion has been derived from American sources, during a portion of that period when public confidence had been shaken in regard to their value. Negotiations are now pending which involve nearly one million more of capital investment in this branch of mining, nearly one half of which is in the cities of Boston and New York.

Considering the disadvantages that now surround them, as shown from the facts relating thereto, they can but be regarded as the prolific sources of wealth in this country ; and every inducement consistent with the liberal

policy adopted in the government of the placers, is equally applicable and should be extended to them.

The following pages will contain a brief notice of some of the principal mines of the State with a list of those in successful operation and their locations. Also a table of Barometric Altitudes; and Catalogue of Minerals obtained during the tour, to be placed in the State Cabinet.

### LA FAYETTE AND HELVETIA MINE.

This company is located at Grass Valley, Nevada County, and the sketch of the workings of their mine is taken from the La Fayette Hill vein only about two miles south-west of the town. The length of the vein at the above hill is eleven hundred feet; it has a curvilinear course, varying from north-east to south-west; its mean, however, when marked on a right line is north, ten degrees east. The dip of the vein is forty-one degrees east, having a power of three feet at the depth of thirty-four feet; at this point the ore was of a poorer quality than at any other point. The depth of the present working is about 55 feet, and here the vein increases in power and value, being equal to three feet eight inches, and yielding in a large amount of ore, forty dollars per ton. The vein, when discovered, was covered with yellow brown alluvium for five feet, and passed through this and decomposed granite of a purple color fifteen feet, when it entered a mass of decomposed and fragmentary greenstone of five feet depth, thence into compact rock of the same character and continued to the depth of fifty-five feet.

Adit level is 1100 feet in length, exclusive of tram road for conveying ore and attle from the mine; it extends through the whole length of their claim. At their present depth all the ore is obtained by blasting, which adds much to the expense of the mine. The cost of obtaining ore from this mine is from seven to eight dollars per ton at present rates of labor. The company have about 900 feet of vein in Gold Hill, which requires no blasting and is obtained at the mill for five dollars per ton.

The La Fayette Hill vein was much decomposed for the depth of thirty feet, and contained a large quantity of peroxide iron and free gold; after passing into the compact greenstone the vein becomes quite firm, and highly charged with pyrites investing gold; the crystals were white and well-terminated, generally perfect in form. In some parts of the mine, galena is met with and gold imbedded in it; an examination of this latter mineral has not been made for silver, but from its appearance it is quite probable that it contains this metal. The matrix of the ore is a bluish white and translucent, in pieces of one inch in thickness; the blue tint of the vein in the vicinity of the shafts is due in a great measure to finely divided particles of lead.

The capital of this company is about three hundred thousand dollars, and their receipts in four months has been as high as \$98,000, but their average is near \$10,000 per month; the mine has yielded with great uniformity since the commencement of operations, and bids fair for future success.

This mine has two Batteries and when in full operation is capable of reducing forty tons of ore per day, but one battery is run at a time as the

amalgamating apparatus is not of sufficient capacity at present to dispose of that amount of ore judiciously, the amalgamating instruments consist of Cram's Cylinder and Berdan's Amalgamator, in the latter about fifteen per cent of the gross amount is saved after it has passed through the other instruments; this arises from the fact that Berdan's instrument possesses a levigating power from revolving balls in the instrument which gives a new surface to the material passing under them.

### GOLD HILL MINE.

This mine is located in the town of Grass Valley on the first hill to the west of the village. The mine was first opened in 1851 and worked to a considerable extent and profit, subsequently it passed to the hands of the Agua Frio Company under the superintendence of their agent Mr. Atwood in whose possession it now remains; after an examination of the mine the old method of working was given up, and a new system of operations entered upon in order to tap the vein at the lowest possible point and at the same time afford easy transit to the reduction works and drainage to the mine. With this view an adit was commenced about fifteen feet above the level of the creek which flows in front of the town, and carried west through the base of the hill for a distance of seven-hundred feet, cutting through alluvium and decomposed granite most of the way, at the west end of the adit which cuts the vein nearly at right angles, the shaft marked A in the longitudinal section was intersected at a depth of ninety feet below the surface; from near the ninety feet shaft a level has been driven to the north on the strike of the vein about seventy feet marked, D, also two other levels east of it, E, F, which intersect the north crosscut D of the ground plan; a winze has been sunk below the water level sixteen feet marked H, of the longitudinal section; this disposition in the working of the mine affords many advantages in the extraction of the ore and affords easy communication with all parts of the mine and surface, and the intersection of the shaft A produces ample ventilation. The vein intersects the greenstone at the bottom of the air shaft, and as in the case of the Lafayette has cut completely through it; increasing in power as it enters this rock, about one thousand tons of ore was in the yard at the time I visited the mine ready to pass through the reduction works. From the end of the long adit a tram road four-hundred feet in length passes to the mill on which by *mule power*, the ore is conveyed from the farthest part of the mine. The ground plan exhibits the crosscuts and levels and their connection with the mill.

The strike of the vein is north and south dipping east at an angle of 24 degrees, with a vein whose power at ninety feet was nearly three feet; the transverse section is shown the air shaft entering the greenstone and intersecting the vein, with the increase in power of the vein from the surface to the lowest point worked. The ores in the greenstone differ in no particular from those of the Lafayette, with the exception that none of the plumbic sulphuret was observed at this mine though the vein has much the same blue tint. The reduction works of this company were not completed in November and no opportunity was afforded to witness their process at that time; it was expected that their machinery would be capable of reducing over one

hundred tons of ore per day, which from its appearance would not be a large estimate, it is probably the most powerful machinery in this country and will compare with any in Europe.

The operations of this mine are looked for with considerable interest at home and abroad, as their capacities for reduction are much more extensive than any hitherto put up in this country.

### OSBORN HILL MINE.

This mine is located two miles east of Grass Valley, it has been opened on the course of the vein four-hundred and fifty feet and from sixty-five to seventy feet in depth. Vein strikes north and south dipping east at an angle of forty degrees; the transverse section shows a depth of sixty-five feet; the shaft was carried through twelve feet of alluvium, seven of clay slate, seventeen of a much broken and decomposed greenstone, and fifteen feet of compact rock of the same character; total depth including winze I is nearly seventy feet. The vein at this mine has dislocated all the rocks above it and possesses that half stratified appearance as in the Lafayette, arising from fracture by the intrusive vein. The power of the vein is about three feet at the depth of sixty-five feet. In the longitudinal section, the levels which have been driven are given to scale and their different lengths are found by reference to the sketch. This mine has been one of the most flourishing and profitable of the State and has been conducted with much prudence and economy.

### WYOMING MINE.

This mine is situated on the north bank of Deer Creek, about two miles below the town of Nevada; its altitude above the Creek is two hundred and forty feet, and the higher parts of the outcrop on the line of the vein will reach nearly or quite three hundred feet above the same point. An adit was driven about two hundred feet through clay slate, which intersected the vein at this point, at an angle of about twenty-seven degrees. From this, two levels have been driven on the vein, of one hundred and twenty and fifty feet each, and a winze of twenty-five. The vein dips east with an angle of forty five degrees, having a strike north and south, with a power of three feet. Fifty feet below the upper adit, another was commenced and carried to a hundred and twenty-five feet, intending to intersect the vein at one hundred feet below the surface of the shaft F; at seventy-six feet the greenstone was met, and the adit carried fifty feet into it. At the junction of the slates and trap, the former are much changed, evidently from the effects of heat, while at the junction of the slates and vein, above this, they have again suffered from the intrusion of the latter.

On the south side of the hill the vein crops out through the trap two hundred feet below the summit, with an increased power, leaving no room for doubt of the permanency of its character. In this mine one of the recent veins has cut through from the Bunker Hill Mine, east of this, which produced a valuable nest of ore; the dip of the principal Wyoming

Vein, if it holds its present inclination, must cut the older lodes at the depth of four or five hundred feet, and its situation is such that ample drainage and ventilation can be obtained.

### GOLD TUNNEL MINE.

The mine bearing this name is located half a mile west of the town of Nevada, on Deer Creek, and has been worked successfully since its discovery in 1850 or '51. It was originally a placer claim and was found while working the banks of the creek for placer gold. Soon after its discovery an engine was erected upon the ground and the vein opened; it was commenced by driving an adit level on the vein, which was subsequently abandoned and a new level commenced at the point at which the present reduction works are situated.

The length of the present level is three hundred and seventy-five feet, and has an inclination of ten degrees from the horizontal line; three winzes have been drove on the lower side of the adit [L. F. II.] which are respectively thirty, twenty and twelve feet, with a level of twenty-five feet between the winzes F. and H. On the opposite side two cements of fifty feet each, and a gallery connecting both, of one hundred and twenty-five feet, with a corresponding one connecting the winzes on the lower side. All the ore included within the dash lines has been stopped out. This vein is situated in granite, and thus far has been loose and incoherent; this is attributable to the large amount of pyrites contained in the vein, as is shown at any point where the quartz retains any solidity; the gold is in a free state in the gossan, of which there are large quantities throughout the mine; the operators on this vein have been eminently successful, and their mine bids fair to continue valuable. The strike of their vein, north ten degrees east, dipping east ten degrees south, at an angle of thirty-eight degrees.

### ILLINOIS MINE.

The Illinois Mine is situated directly opposite the Gold Tunnel on the south bank of Deer Creek, and is a continuation of the same vein, it has all the characteristics of the former throughout. The length of their upper gallery is four hundred and fifty feet and that of the lower, two hundred and fifty; two cross-cuts have been driven which connect the galleries at C. D. each fifty feet in length.

### JONES AND DAVIS MINE, HERBERTVILLE, CALAVERAS COUNTY.

The mine of this company is located on the east side of a small tributary running into Amador Creek, the latter passes through the town of Amador one mile north of this mine; the top of the whim-shaft, C, is one hundred and forty-five feet above the level of the creek, and ninety feet below the outcrop of the vein on which the shaft, C, has been sunk; at shaft 4 the

vein is three hundred and fifty feet above the Amidor, and increases in altitude for half a mile, until it arrives at the height of four hundred feet above the town. The company have sunk two shafts of ninety feet on the vein, and drove two galleries, the upper one A being two hundred and eighty feet, the lower, B, one hundred and fifty feet, and are driving in the course of the dotted lines to run a third gallery at the depth of fifty feet below the point B. Figures 1, 2, 3, are stopes from which they are now obtaining their ore, being conveyed along the lower level to the whim-shaft and thence elevated to the surface; from thence it is conveyed on a tram road 600 feet to the reduction works at its terminus.

The design for future operations is to cut an adit a short distance north of the mill, and intersect the vein at a point which will give a depth of three hundred feet from its highest point to a level with the end of their present tram road, and then stope down from this point, which will not only furnish an abundance of ore, if the vein retains its present power, but materially lessen the expense of its extraction. This will be accomplished in a distance of three hundred yards, and probably less. This mine is very systematically arranged for the comfort of the miner, and obtaining all the ores easily, and reflects much credit on its projectors; the sketch of the mine, drawn to scale on the spot, will fully elucidate itself; its convenience of arrangement, considering its local position, will be found equal to all its necessary requirements.

The vein is invested in chlorite and talcose rocks, throughout its whole extent, being nearly three miles in length. On the eastern side of the vein a graphic slate occurs, having a thickness of one or two feet; outside of this a bed of chlorite, from five to ten feet, much discolored by graphite, at times perfectly black and staining the hand easily. On the west side, a greenish chlorite occurs, next the vein, highly pyritiferous and often containing considerable gold; the power of the vein at ninety feet depth is six feet, and has steadily increased from the surface down; its strike is north-west by west, with a corresponding dip east and south, of fifty-five degrees. The color of the vein is bluish white, with black seams of graphite, giving a ribband-like appearance in the mass; it is highly pyritiferous, and when properly roasted, crumbles easily; some parts of the vein contain an arsenical pyrites, which has an injurious effect in the reducing process, by preventing perfect amalgamation; this is caused by roasting the ores in contact with charcoal which should not be practised in these varieties of ores.

### SPRING HILL MINE.

This mine is located on Amadore Creek, at the east end of the town and one mile north of the preceding mine. The company commenced operations on this sett in 1851, and have continued uninterrupted since that time; it is located on the same vein as the former, and crops out to the height of 530 feet on the highest point of the hill between Jones, Davis & Co.

Two inclined shafts have been sunk on the vein to about 75 feet below the bed of the creek, at which point the sett has a power of six feet; in its general character it differs in no wise from the mine one mile south, except in the disposition of investing rocks. At Spring Hill the graphic slates

which form the gangue are found on the west side of the vein, in place of the east as at Davis' mine. This was evidently caused by an unequal displacement at the period of intrusion of the dike, resulting from the transverse fracture forming the cross course on which Johnson's mine is situated; the resistance being less in that direction at the time of fracture in the incumbent rocks. This cross-fracture had the effect also to throw the intrusive mass from a right line at the time it broke through, for the entire length of the dike, giving it at first view the appearance rather of two sets in place of one which they in reality are. There are many similar features attending the veins of this country, which has created no little confusion in regard to their true position; and of themselves though they may appear insignificant, yet with the miner they involve questions of high importance, and exert an influence either prejudicial or favorable upon his operations, as their position may be clearly or distinctly known.

The study of our system of metallic veins and its correct development, involves some of the most important interests of the State; a correct knowledge of their position is much desired, but as the limits of this report will not admit that examination which they require, further allusion to the subject will be omitted.

All the vein between shafts and to the point E, has been stoped out with the exception of a small body of vein to support the walls of the mine and attle F F. The mine from its proximity to the creek has considerable water but is kept free by one of Farnham's double-action pumps placed at the shaft B, while the shaft A is used for bringing the ore to the surface.

### AMADORE COMPANY MINE.

This is situated on the opposite side of the Creek from the Spring Hill mine, and on the same sett. Their operations have been conducted below the bed of the creek, to the depth of nearly one hundred feet. Shaft D is the whim shaft, 97 feet, and is to the depth of 100 feet, at the bottom of which a 37 foot horse has been struck, all the ore from the lower level A C has been stoped out, the points I supporting the otile. Reference to the sketch will present its position at the date of visiting it.

The strike of the vein in both the latter, is north by west, dipping east 65 degrees.

### RANCHOREE MINE.

Is located one mile north of the preceding, and on the ridge dividing the Amadore and Ranchoree Creeks; their reduction works are about half a mile west of the town of Ranchoree.

The upper portion of their vein is situated 420 feet above the creek; on the vein are three shafts of about 70 feet, and two levels of 110 and 75 feet respectively; they are now driving on the level I, to obtain drainage and easy transit for their ores to the mill; the plan of operations will be seen on the sketch marked by the dash lines. The vein at this lower level gives a good ore, and has the same investing rocks as at the upper levels. The



vein strikes north 25 degrees west, dipping east, with a power of four feet. The investing rocks are talcose slates.

### KEYSTONE MINE.

This mine is situated on the arroya leading into the Amadore, one mile below Jones & Davis' mine; it appears to be a parallel vein, half a mile west of the line uniting the latter and the Spring Hill mine; the ores partake of all the general characters of the other two mines, and it is situated 25 feet above the level of the creek. The sett of Jones, Davis & Co. and the Spring Hill are in the high hill east of the workings figured in the sketch for the Keystone Mine.

This vein strikes north 10 degrees west, dipping 40 degrees east, with a power of five feet; the investing rocks are the graphic slate and chlorites, as found in all the others in this neighborhood.

### EUREKA MINE, SUTTER, CALAVERAS COUNTY.

This mine is located a short distance south of the town of Sutter. The company have one shaft, A, which is used for the whim by which the ore is at present taken from the mine: a cross cut, seen at D, in the ground plan, was carried east 140 feet, intersecting the level, D, and main shaft, from this the gallery, B, was carried south 135 feet, and subsequently the lower level, C, was driven each way a distance of 230 feet.

The mine is in active operation, and they are now driving an adit on the east side of the hill, which will intersect their vein at an angle of 65 degrees to its line of strike, this will be 400 feet in length, and will afford easy and rapid communication with the reduction works. At the end of the adit a tram-road is constructed 2800 feet, which connects with the mill; the gallery, B, 2, will be connected with the adit in the dotted line, F, of the ground plan.

The vein of this company is in chlorite, and has a strike north and south, dipping east 55 degrees, with a power of five feet; the vein has a ribband like appearance in masses, from small seams of graphic slate running through it. The vein contains some arsenical ores, which are highly auriferous.

## LIST OF GOLD MINES

*At present in operation in California, with location, power employed, &c.*

| COUNTY.    | TOWNS, ETC.          | NAME OF MINE.         | LOCALITY.          | POWER. |
|------------|----------------------|-----------------------|--------------------|--------|
| Nevada.    | Nevada and vicinity. | Gold Tunnel.          | Deer Creek.        | Steam. |
| "          | "                    | Golden Gate.          | Little Deer Creek. | "      |
| "          | "                    | Nevada.               | Deer Creek.        | Water. |
| "          | "                    | Wyomung.              | "                  | "      |
| "          | "                    | Wisconsin.            | East of town.      | "      |
| "          | "                    | Illinois.             | Deer Creek.        | "      |
| "          | "                    | El Dorado.            | "                  | "      |
| "          | Grass Valley.        | Gold Hill.            | West of town.      | Steam. |
| "          | "                    | Crossett and Collins. | Osborn Hill.       | "      |
| "          | "                    | Empire.               | Ophir Hill.        | "      |
| "          | "                    | French.               | Union Hill.        | "      |
| "          | "                    | Lafayette & Helvetia. | Lafayette Hill.    | "      |
| Butte.     | Jamison Creek.       | Washington.           | Jamison.           | "      |
| "          | "                    | Eureka.               | "                  | Water. |
| Sierra.    | Downieville.         | Ariel.                | South Fork.        | "      |
| Yuba.      | Brown's Valley.      | Huntley's.            | "                  | Steam. |
| Shasta.    | "                    | Kelby's.              | "                  | "      |
| "          | Mt. Washington.      | Mt. Washington.       | "                  | "      |
| Siskiyou.  | Scott's Valley.      | Stents.               | Scott River.       | Steam. |
| "          | "                    | Shackelford's.        | Scott Valley.      | "      |
| "          | "                    | Moffat's.             | "                  | Water. |
| "          | "                    | Martin's.             | Hunbug Creek.      | "      |
| Klamath.   | Sealey's Flat.       | McDermott's.          | "                  | "      |
| El Dorado. | Union Town.          | Union.                | Marthenas Creek.   | Steam. |
| "          | Quartzville.         | Thomas's.             | Consummes River.   | Water. |
| Calaveras. | Ranchoree.           | Ranchoree.            | Creek.             | "      |
| "          | Amidor.              | Amido.                | Town and Creek.    | Steam. |
| "          | Spring Hill.         | "                     | "                  | "      |
| "          | Amidor.              | Keystone.             | Tributary Creek.   | "      |
| "          | Herbertville.        | Jones & Davis's.      | "                  | "      |
| "          | "                    | Lea & Johnson         | "                  | "      |
| "          | Mokelumne Ridge.     | Woodhouse             | "                  | "      |
| "          | "                    | Phenix.               | "                  | "      |
| "          | "                    | "                     | "                  | "      |
| "          | Sutter.              | Eureka.               | Sutter Creek.      | Water. |
| "          | "                    | Anador, No. 2.        | "                  | Steam. |
| "          | Jackson.             | Oneida.               | "                  | "      |
| Tuolumna.  | Maxwell Creek.       | Harris's.             | Creek.             | "      |
| "          | Coulterville.        | Maxwell Creek Co.     | "                  | "      |
| "          | Mered River.         | Marble Springs.       | North Fork.        | "      |
| Mariposa.  | Mt. Ophir.           | Noveax Monde.         | Mt. Ophir.         | "      |
| "          | Quartzburg.          | Washington & Georg.   | Quartzburg.        | "      |

From this it will be seen that there are thirty-nine mines in successful operation in this State at the present date, twenty-eight of which I have personally visited this season, and my excuse for not visiting the balance, was the lateness of the season and distances, with the time necessarily required to compile this report, being now delayed much beyond the time when it should have appeared.

## ALTITUDES

*Taken by Aneroid Barometer No. 10,811, with the Counties and Localities in which they were taken.*

| COUNTY.          | LOCALITY.            | POSITION.                                       | ALTITUDE<br>ABOVE THE<br>SEA. |
|------------------|----------------------|-------------------------------------------------|-------------------------------|
| Santa Clara,     | San Jose,            | Mansion House,                                  | 150 feet.                     |
| " "              | Almaden,             | Hotel,                                          | 480 "                         |
| " "              | Mine,                |                                                 | 1345 "                        |
| " "              | Houck's Ranch,       | Santa Clara Valley,                             | 190 "                         |
| " "              | Gilroy's,            | " " "                                           | 155 "                         |
| " "              | Mission Peak,        |                                                 | 2025 "                        |
| Monterey,        | Mission San Juan,    |                                                 | 210 "                         |
| " "              | Ranch Tres Pinos,    | Cañada San Benito,                              | 220 "                         |
| " "              | Pass Santa Anna,     | Top of hill,                                    | 615 "                         |
| " "              | Cañada San Juan,     | Four miles south of the above,                  | 300 "                         |
| " "              | Cañada Las Muertos,  | Entrance,                                       | 280 "                         |
| " "              | Sierra Gibilan,      | Summit,                                         | 2780 "                        |
| " "              | Chupadero,           | "                                               | 2368 "                        |
| " "              | Chelone,             | "                                               | 2010 "                        |
| " "              | Soledad Mission,     |                                                 | 312 "                         |
|                  |                      | Hill on road from San Juan to }<br>Watsonville, | 340 "                         |
| San Luis Obispo. | High Ridge,          | South Naesimiento,                              | 2460 "                        |
| Alameda,         | Mission San José,    | Portico,                                        | 285 "                         |
| " "              | Sunols Hill,         | Entrance to valley,                             | 505 "                         |
| " "              | " Valley,            |                                                 | 285 "                         |
| " "              | Seven Mile House,    | Sunol Valley,                                   | 240 "                         |
| " "              | Livermore's Ranch,   | Livermore Valley,                               | 420 "                         |
| " "              |                      | Hill in Pass nine miles from Ranch,             | 865 "                         |
| " "              |                      | Cañada half mile north of hill,                 | 584 "                         |
| " "              | Stone House,         | Bottom of hill, one mile,                       | 680 "                         |
| San Joaquin,     | Elk Horn,            | Mouth of Livermore Pass,                        | 220 "                         |
| " "              | Suddenfield's Ranch, | San Joaquin Valley,                             | 80 "                          |
| Nevada,          | Nevada City,         | Adams' Office,                                  | 1810 "                        |
| " "              | *Grass Valley,       | " "                                             | 1950 "                        |
| Placer,          | Auburn,              |                                                 | 1080 "                        |
| " "              |                      | Half-way House to Sacramento,                   | 370 "                         |
| El Dorado,       | Aurum City,          |                                                 | 1200 "                        |
| " "              | Mud Springs,         |                                                 | 1430 "                        |
| Sacramento,      | North Fork House,    |                                                 | 170 "                         |
| " "              | Sacramento City,     | Levee,                                          | 39 "                          |
| Yuba,            | Marysville,          |                                                 | 76 "                          |
| " "              | Johnson's Ranch,     | Bear River,                                     | 1120 "                        |

\* A difference of fifty feet by observations of Mr. Atwood with mercurial Barometer, taken three quarters of a mile south; difference probably in elevation of both places.

Altitudes were taken in the Counties of Butte, Sierra and upper part of Yuba with another instrument, but as it was found not to correspond with the points of departure on my return, the observations were presumed to be incorrect and therefore are not given in this table. Some of the localities in this table have been levelled and their height accurately known, and as the barometric measurements have been found to correspond, they are probably close approximations.

## COLLECTION FOR THE STATE CABINET.

*The Minerals found in the attached list will represent the rocks of those sections examined and spoken of in the report.*

1. Sandstone conglomerate with serpentine, Water Works, San Francisco.
2. Chromic iron, containing Nickel, Panoches, Gabilan Mountains.
3. Chromic iron, containing Nickel, San Benito, Canada of.
4. Chromic iron, containing Nickel, Alameda County.
5. Serpentine, containing free Iodine, Water Works, San Francisco.
6. Serpentine seams of Asbestos, Water Works, San Francisco.
7. Sulphuret Copper in Quartz, Alisal, Monterey.
8. Blue and green Carbonate Copper, Alisal, Monterey.
9. Carbonate and Sulphuret Copper, Alisal, Monterey.
10. Carbonate and Sulphuret Copper, Santa Barbara.
11. Jaspers rocks, Presidio, San Francisco.
12. Gangue of the veins, Alisal Mine.
13. Gossan, containing Gold, Gabilan Mountains.
15. Gold in Quartz with peroxide iron, Washington Mine, Shasta Co.
16. Do. do. do. do. do. do. do. do. do.
17. Do. do. do. do. do. do. do. do. do.
18. Gossan, containing Gold, Gold Tunnel Mine, Nevada.
19. Gold in Quartz, Gold Tunnel Mine, Nevada.
20. Gold in Pyrites, Gold Tunnel Mine, Nevada.
21. Gold in Quartz with Galena, Lafayette and Helvetia Mine, Nevada.
22. Gold in Pyrites, Lafayette and Helvetia Mine, Nevada.
23. Gold in Arsenical Pyrites, Lafayette and Helvetia Mine, Nevada.
24. Gold in Gangue of Vein, Lafayette and Helvetia Mine, Nevada.
25. Auriferous Pyrites, Gold Hill Lode, Helvetia mine.
26. Gold and Peroxide Iron, Lafayette and Helvetia mine.
27. Serpentine from the Lode, Lafayette Hill.
28. Pyritiferous and Variegated, Lafayette Hill.
29. Gold in Quartz, Empire Co., Ophir Hill.
30. Gold in Pyrites, Empire Co., Ophir Hill.
31. Ores of the Greenstone, Empire Co., Ophir Hill.
32. Ores Pyritiferous, Empire Co., Ophir Hill.
34. Discoloration of Quartz by Gold, Empire Co., Ophir Hill.
35. Gold in Quartz, Gold Hill mine.
36. Auriferous Pyrites in Quartz, Gold Hill mine.
37. Auriferous Cellular Quartz, Gold Hill mine.
38. Surface Ores and Peroxide Iron, Gold Hill mine.
39. Auriferous Quartz in Crystals, Osborn Hill mine.
40. Ore from the Granite, Osborn Hill mine.
41. Ore from decomposed Greenstone, Osborn Hill mine.
42. Ore from the Greenstone Gangue, Osborn Hill mine.
43. Gossan containing Gold, Wyoming mine.
44. Auriferous Quartz, Wyoming mine.

45. Pyrites containing Gold, Ben Franklin mine.
46. Ore from the Greenstone, Ben Franklin mine.
47. Conglomerate and Gold, Little York.
48. Trachyte, Grass Valley.
49. Auriferous Pyrites in Quartz, Mt. George mine.
50. Auriferous Pyrites and Sulphur, Mt. George mine.
51. Auriferous Pyrites, Mt. George mine.
52. Steatite (Soapstone) Jenny Lind Hill (*Rocky Tunnel*).
53. Serpentine, Jenny Lind Hill, (*Rocky Tunnel*.)
54. Asbestos, Jenny Lind Hill, (*Rocky Tunnel*).
55. Cellular Quartz and Gold, Lea & Johnson mine, Calaveras Co.
56. Ore from the Greenstone, Lea & Johnson mine, Calaveras Co.
57. Surface ore of cross course, Lea & Johnson mine, Calaveras Co.
58. Cellular Quartz surface ore, Ranchoree mine, Calaveras Co.
59. Auriferous Pyrites, Ranchoree mine, Calaveras Co.
60. Quartz Talc and Gold, Ranchoree mine, Calaveras Co.
61. Auriferous Quartz, Jones & Davis' Mine, Calaveras County.
62. Pyritiferous Quartz, Jones & Davis' Mine, Calaveras County.
63. Gangue investing Lode Auriferous, Jones & Davis' Mine, Calaveras County.
64. Surface Ores, Jones & Davis' Mine, Calaveras County.
65. Gold in Quartz, Eureka Mine, Calaveras County.
66. Arsenical Pyrites and Gold, Eureka Mine, Calaveras County.
67. East side of Lode, do do do do
68. Middle of Lode, do do do do
69. Average Ores, do do do do
70. Graphic Slate, Jones & Davis Mine.
71. Veinstone with Graphical Slate, Spring Hill Mine, Calaveras Co.
72. Do Roasted, do do do
73. Auriferous Pyrites, do do do
74. Gold in Quartz, do do do
76. Cellular Quartz, Keystone Mine, Amidor.
77. Auriferous Pyrites, do do do
78. do do and Gold, Ariel Mine, Sierra County.
79. Pyrites in Talc, do do do
80. Peroxide Iron, do do do
81. Calcareous Travertin, South Fork, Yuba.
82. Galena and Gold in Quartz, Tuolumne Water Co.
83. do do do do do
84. Peroxide Iron and Gold do do do
85. Auriferous Talc, do do do
86. Talcose Slate and Gold, Calaveras River.
87. Gossan and Gold, New York Mine, Stanislaus River.
88. Carbonate Line, Almaden Mine, Santa Clara.
89. Serpentine, do do do
90. Carbonate Lime in Cinnabar, Almaden Mine, Santa Clara.
91. Cinnabar, do do do do
92. do do do do do
93. Sulphuret Copper, Santa Barbara.
94. Carbonate Copper, Carson Hill.
95. Carbonate Copper, Grass Valley.