

65TH CONGRESS 3d Session }

HOUSE OF REPRESENTATIVES

Document No. 1590

# STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF AGRICULTURE

FOR THE FISCAL YEAR ENDED JUNE 30

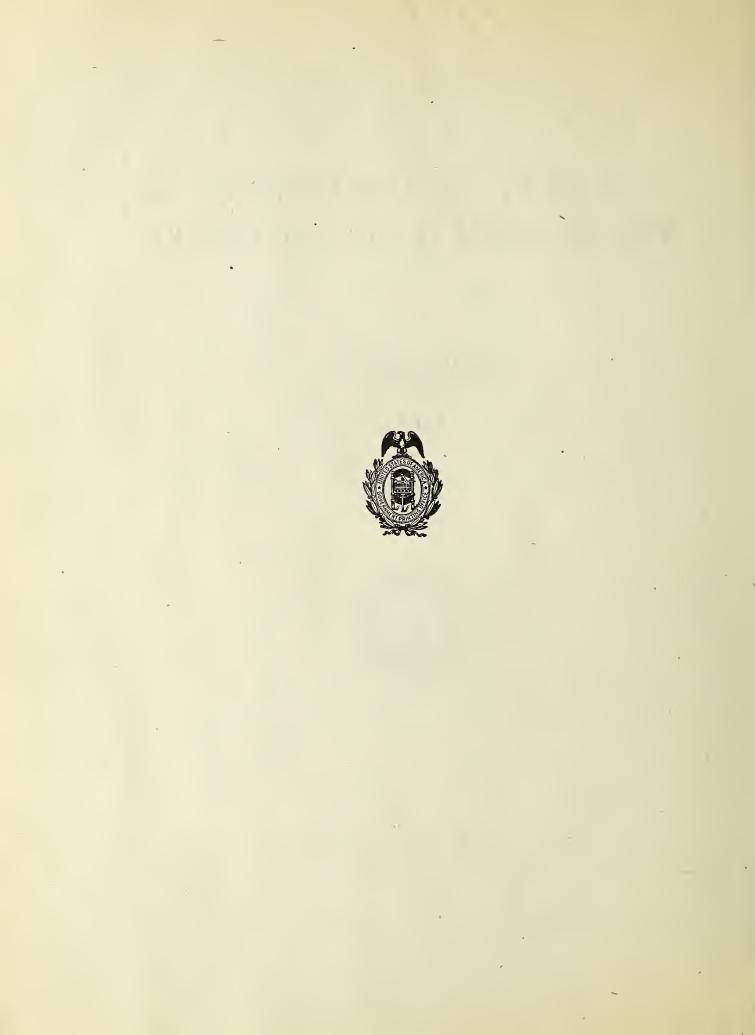
1918

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DECEMBER 16, 1918.—Referred to the Committee on Expenditures in the Department of Agriculture and ordered to be printed

> WASHINGTON 1919



## LETTER OF TRANSMITTAL.

DEPARTMENT OF AGRICULTURE, Washington, December 12, 1918.

SIR: As required by section 529, Revised Statutes, and the act of March 3, 1885 (23 Stat. L., 356), I have the honor to transmit herewith a detailed statement of expenditures of the Department of Agriculture for the fiscal year ended June 30, 1918. A copy of this report has also been transmitted to the President of the Senate. Very respectfully,

D. F. HOUSTON, Secretary.

The Speaker of the House of Representatives.

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## EXPENDITURES OF THE DEPARTMENT OF AGRICULTURE.

## OFFICE OF THE SECRETARY.

Classification of expenditures for the fiscal year ended June 30, 1918.

			Sala	ries.				Equipment.		
	Project.		Lump fund.			Travel, station, and field	Apparatus,		Miscella-	
		Statutory.	In Wash- ington.	Out of Washington.	Total.	expenses.	instruments, laboratory.	Furniture.	neous.	
1 2 3 4	Secretary's office Assistant Secretary's office Solicitor's office Disbursing office	9, 196.75 93, 941.06	\$2, 159.33 1, 811.33		\$72,052.57 9,196.75 93,941.06 45,498.55			\$852.56 6.00 433.44 34.65	\$823.67 67.50 593.81 149.90	
5 6 7	Library. Chief clerk's office Mechanical superintendent's office.	34, 026.30 139, 520.50 96, 611.53	1,811.33 8,872.18 887.30	\$600.00	35, 837.63 148, 992.68 97, <mark>498.83</mark>			512.49 1,185.23 555.87	10, 110. 18 2, 923. 99 1, 877. 72	
8	Total	488, 687.93	13, 730.14	600.00	503, 018.07	612.76		3, 580. 24	16, 546. 77	
9 10 11	Office of Farm Management: Administration Farm economics Farm organization	30, 867.18 25, 349.27 13, 027.56	5, 485. 26 45, 842. 94 70, 029. 20	$1,850.54 \\ 23,521.24$	36, 352. 44 73, 042. 75 106, 578. 00	30.96 10,994.17 26,281.64	\$585.00 932.20 1,500.50	371.18 333.50 52.50	36.15 120.52 89.36	
12	Total	69, 244. 01	121, 357.40	25, 371. 78	215, 973. 19	37, 306. 77	3,017.70	757.18	246.03	
	Grand total	557, 931. 94	135, 087. 54	25, 971. 78	1 718, 991.26	37, 919. 53	3,017.70	4, 337. 42	16, 792. 80	

Includes 5 and 10 per cent increased compensation, amounting to \$33,083.24, provided by the agricultural appropriation act for the fiscal year 1918.

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## PROJECT STATEMENTS.

SECRETARY'S OFFICE.		Forest appeals: Considers appeals from the de-	
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	$     $75, 167. 76 \\     1, 848. 24 \\     6, 757. 15   $	cisions of the Forest Service affecting land claims and land classification matters Total	\$1, 200. 00 77, 016. 00
Total allotment	83, 773. 15	Assistant Secretary's Office.	·
The Secretary of Agriculture administers the work of promoting agriculture in its broadest sense. He exercises general supervision and control over the affairs of the depart-		Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) . Unexpended balance (estimated)	$$9,584.28\ 145.80\ 436.47$
ment and formulates and establishes the general policies to be pursued by its various		Total allotment	10, 166. 55
branches. The following offices report directly to the Secretary's office: Information: Prepares for dissemination, by means of notices to the press and otherwise,	24, 495. 48	The Assistant Secretary of Agriculture acts for the Secretary in his absence and assists in the general supervision of the work of the department.	9, 730. 08
valuable agricultural information secured from publications of the department, or through oral statements of its scientists and specialists, with a view to the adoption of the methods recommended by the depart-		SOLICITOR'S OFFICE. Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) . Unexpended balance (estimated)	$\$95, 669. 39 \\ 37. 84 \\ 67. 50$
ment. Inspection: Handles personnel matters; is charged with the accounting and admini- strative examination of claims and the	11, 736. 84	Total allotment	95, 774. 73
preparation of financial reports involving appropriations under the Office of the Secre- tary; and assists in the fiscal operations of the bureaus Exhibits: Assists in the preparation of agri- cultural material for exhibition purposes at fairs and expositions of various kinds, and	17, 637. 78	1910) with the direction of the legal work of the department. Accordingly, he acts as legal adviser to the Secretary and the heads of the several branches of the department, conducts the law work, and represents the department in all legal matters. He ap- proves, in advance of issue, all orders and	
ships, installs, cares for, and demonstrates such exhibits	21, 945. 90	regulations promulgated by the Secretary under statutory authority	95, 707. 23

## EXPENDITURES OF THE DEPARTMENT OF AGRICULTURE.

## OFFICE OF THE SECRETARY.

Classification of expenditures for the fiscal year ended June 30, 1918.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purachsed in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	
\$642. 49 139. 61 326. 79 833. 89 377. 50 2, 771. 27 106. 87	\$142, 862. 37	\$6, 550. 54	\$11.86 227.48 .58	\$11, 288. 06		\$41, 629. 34	<sup>2</sup> \$104.33 <sup>2</sup> 1,025.87 <sup>3</sup> 10,804.06	\$361.33 19.80 250.51 135.37 363.53 14,259.40 9,382.33	75, 167, 76 9, 584, 28 95, 669, 39 46, 652, 36 47, 213, 19 334, 996, 25 161, 859, 15	1 2 3 4 5 6 7
5, 198. 42	142, 862. 37	6, 550. 54	239.92	11, 288. 06	2,909.36	41,629.34	11, 934. 26	24, 772. 27	771, 142 38	8
387.25 1,186.89 1,011.90	255.00	69.61 198.80 271.04	16. 07 53. 55 59. 78				<sup>2</sup> 443. 51	516.37 355.19 664.37	38, 808. 54 87, 217. 57 136, 764. 09	9 10 11
2,586.04	255.00	539.45	129.40				443. 51	1, 535. 93	262, 790. 20	12
7, 784. 46	143, 117. 37	7,089.99	369.32	11, 288. 06	2,909.36	41, 629. 34	12, 377. 77	26, 308. 20	1,033,932.58	

<sup>3</sup> Electricians', engineers', and mechanics' supplies, \$10, 799. 38; cleanign and toilet supplies, \$4.68. <sup>2</sup> Cleaning and toilet supplies.

DISBURSING OFFICE.

Outstanding liabilities, Aug. 31 (estimated)354.34Unexpended balance (estimated)633.24Total allotment633.24Total allotment633.24Total allotment47,639.94This office keeps appropriate ledgers relating to the advance and disbursement of all items of appropriation and makes payment of all vouchers and accounts properly certi- fied by the various branches of the depart- ment47,006.70LIBRARY.47,006.70Total expenditures as above\$47,213.19Outstanding liabilities, Aug. 31 (estimated)2,931.94Unexpended balance (estimated)2,580.25Total allotment52,725.38The library purchases all books and periodi- cals and supervises their arrangement, cata- loguing, and use; prepares bibliographies and lists on subjects connected with the work of the department; supervises, in gen- eral, the distribution of department publica- tions50,145.13CHIEF CLERK'S OFFICE.\$334,996.25Total expenditures as above\$334,996.25Outstanding liabilities, Aug. 31 (estimated)2,245.72Unexpended balance (estimated)2,245.72Unexpended balance (estimated)2,245.72Unexpended balance (estimated)2,245.72Coutstanding liabilities, Aug. 31 (estimated)2,245.72Unexpended balance (estimated)2,245.72Unexpended balance (estimated)2,245.72Unexpended balance (estimated)2,353.106.18	Total expenditures as above	\$46, 652. 36	as follow
Unexpended balance (estimated).633. 24Total allotment.633. 24Total allotment.47, 639. 94This office keeps appropriate ledgers relating to the advance and disbursement of all items of appropriation and makes payment of all vouchers and accounts properly certi- fied by the various branches of the depart- ment.47, 006. 70LIBRARY.47, 006. 70Total expenditures as above.\$47, 213. 19Outstanding liabilities, Aug. 31 (estimated).2, 931. 94Unexpended balance (estimated).2, 580. 25The library purchases all books and periodi- cals and supervises their arrangement, cata- loguing, and use; prepares bibliographies and lists on subjects connected with the work of the department; supervises, in gen- eral, the distribution of department publica- tions.50, 145. 13CHIEF CLERK'S OFFICE.\$334, 996. 25Total expenditures as above.\$334, 996. 25Outstanding liabilities, Aug. 31 (estimated).2, 245. 72Unexpended balance (estimated).2, 245. 72Unexpended balance (estimated).15, 864. 21Total allotment.353, 106, 18			
Total allotment47, 639. 94Total allotment47, 639. 94This office keeps appropriate ledgers relating to the advance and disbursement of all items of appropriation and makes payment of all vouchers and accounts properly certi- fied by the various branches of the depart- ment47, 006. 70LIBRARY.47, 006. 70Total expenditures as above.\$47, 213. 19Outstanding liabilities, Aug. 31 (estimated)2, 931. 94Unexpended balance (estimated)2, 580. 25Total allotment52, 725. 38The library purchases all books and periodi- cals and supervises their arrangement, cata- loguing, and use; prepares bibliographies and lists on subjects connected with the work of the department; supervises, in gen- eral, the distribution of department publica- tions50, 145. 13CHIEF CLERK'S OFFICE.\$334, 996. 25Total expenditures as above.\$334, 996. 25Outstanding liabilities, Aug. 31 (estimated)2, 245. 72Unexpended balance (estimated)2, 245. 72Cutat allotment15, 864. 21Total allotment353. 106, 18			
This office keeps appropriate ledgers relating to the advance and disbursement of all items of appropriation and makes payment of all vouchers and accounts properly certi- fied by the various branches of the depart- ment			
This office keeps appropriate ledgers relating to the advance and disbursement of all items of appropriation and makes payment of all vouchers and accounts properly certi- field by the various branches of the depart- ment	Total allotment	47, 639. 94	
to the advance and disbursement of all items of appropriation and makes payment of all vouchers and accounts properly certi- fied by the various branches of the depart- ment			
items of appropriation and makes payment of all vouchers and accounts properly certi- fied by the various branches of the depart- ment	Ints ofuce keeps appropriate ledgers relating		
of all vouchers and accounts properly certi- fied by the various branches of the depart- ment	to the advance and dispursement of all		
fied by the various branches of the department.fincludes we includes we inclu			
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LIBRARY.vision for icces for the papers rela promotion and lists on subjects connected with the work of the department; supervises, in gen- eral, the distribution of department publica- tions to libraries; and has charge of the foreign mailing lists for department publica- tions.vision for icces for the papers rela promotion and remov ployees, et secretary is and dispor propertyTotal expenditures as above.52, 725.38Supply secti cellaneous Secretary is and dispor propertyThe library purchases all books and periodi- cals and supervises their arrangement, cata- loguing, and use; prepares bibliographies and lists on subjects connected with the work of the department; supervises, in gen- eral, the distribution of department publica- tions.Supply secti 		47 000 70	
LIBRARY.ices for the A ppointmenTotal expenditures as above.\$47, 213. 19Outstanding liabilities, Aug. 31 (estimated).2, 580. 25Total allotment.52, 725. 38The library purchases all books and periodicals and supervises their arrangement, cataloguing, and use; prepares bibliographies and lists on subjects connected with the work of the department; supervises, in general, the distribution of department publications.Supply secti cellaneous Secretary: and disponerations.CHIEF CLERK'S OFFICE.Total expenditures as above.\$334, 996. 25 Outstanding liabilities, Aug. 31 (estimated).Quexpended balance (estimated).\$334, 996. 25 Outstanding liabilities, Aug. 31 (estimated).Total allotment.\$334, 996. 25 Outstanding liabilities, Aug. 31 (estimated).\$2, 245. 72 Outstanding liabilities, Aug. 31 (estimated).\$2, 245. 72 Outstanding liabilities, Aug. 31 (estimated).\$353, 106, 18	ment	47,000.70	
Total expenditures as above.\$47, 213. 19AppointmenOutstanding liabilities, Aug. 31 (estimated).2, 931. 94papers relation promotionUnexpended balance (estimated).2, 580. 25and removeTotal allotment.52, 725. 38Supply sectionThe library purchases all books and periodical sand supervises their arrangement, cataloguing, and use; prepares bibliographies and lists on subjects connected with the work of the department; supervises, in generations to libraries; and has charge of the foreign mailing lists for department publications.50, 145. 13Chief Clerk's Office.\$334, 996. 25Mail and file tributing tary; inde patching tary; inde ceives, dis handled beTotal allotment.353, 106, 18handled be	LIBRARY.		
Outstanding liabilities, Aug. 31 (estimated)2, 931. 94papers relationUnexpended balance (estimated)2, 580. 25promotionTotal allotment52, 725. 38supervisesThe library purchases all books and periodical sand supervises their arrangement, cataloguing, and use; prepares bibliographies and lists on subjects connected with the work of the department; supervises, in general, the distribution of department publications.Supply sectical cellaneous secretary in general, the distribution of department publications.So, 145. 13Chief Clerk's Office.Sa34, 996. 25Mail and file tributing tary; indeparting is secretary.So, 145. 13Chief Clerk's Office.Sa34, 996. 25Culdes de ceives, dis handled be	Total amonditures as above	@47 919 10	
Unexpended balance (estimated)	Outstanding lisbilities Aug 21 (astimated)		
Total allotment.52, 725.38and remove ployees, efficienceThe library purchases all books and periodi- cals and supervises their arrangement, cata- loguing, and use; prepares bibliographies and lists on subjects connected with the work of the department; supervises, in gen- eral, the distribution of department publica- tions to libraries; and has charge of the foreign mailing lists for department publica- tions.Supply secti cellaneous Secretary and dispo- property offices whe used samp nection w and drugsCHIEF CLERK'S OFFICE.So, 145.13 Mail and file tributing 2, 245.72 Unexpended balance (estimated).Mail and remov supply secti cellaneous Secretary and dispo- property offices whe used samp nection w and drugsTotal expenditures as above.\$334, 996.25 2, 245.72 Unexpended balance (estimated).Sast, 066, 18	Unexpended belonce (estimated)		
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The library purchases all books and periodicals and supervises their arrangement, cataloguing, and use; prepares bibliographies and lists on subjects connected with the work of the department; supervises, in gen- eral, the distribution of department publica- tions to libraries; and has charge of the foreign mailing lists for department publica- tions.Supply sectical cellaneous Secretary in and dispo- property offices whe used samp nection w and drugs Mail and file tributing tary; indepartment_ son, 145. 13CHIEF CLERK'S OFFICE.\$334, 996. 25 Outstanding liabilities, Aug. 31 (estimated).Sate 2, 245. 72 cludes de ceives, dis handled be	Total allotment	52, 725, 38	
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and dispon and lists on subjects connected with the work of the department; supervises, in gen- eral, the distribution of department publica- tions to libraries; and has charge of the foreign mailing lists for department publica- tions			
work of the department; supervises, in gen- eral, the distribution of department publica- tions to libraries; and has charge of the foreign mailing lists for department publica- tions			
eral, the distribution of department publica- tions to libraries; and has charge of the foreign mailing lists for department publica- tions			
eral, the distribution of department publica- tions to libraries; and has charge of the foreign mailing lists for department publica- tions			
foreign mailing lists for department publica- tions			
Total allotmentstor department publica-50, 145. 13and drugsCHIEF CLERK'S OFFICE.Mail and fileTotal expenditures as above.\$334, 996. 25Outstanding liabilities, Aug. 31 (estimated).2, 245. 72Unexpended balance (estimated).15, 864. 21Total allotment.353, 106, 18			
50, 143. 13Mail and fileCHIEF CLERK'S OFFICE.Total expenditures as above		50 1/5 10	
Total expenditures as above.\$334, 996. 25Outstanding liabilities, Aug. 31 (estimated).2, 245. 72Unexpended balance (estimated).15, 864. 21Total allotment.353, 106. 18	tions	50, 145. 13	Mail and file
Total expenditures as above.\$334, 996, 25tary; indepatching of patching of patching of patching of cludes de ceives, dis handled beOutstanding liabilities, Aug. 31 (estimated).2, 245, 72patching of cludes de ceives, dis handled beTotal allotment.353, 106, 18handled be	CHIEF CLERK'S OFFICE.		tributing 1
Outstanding liabilities, Aug. 31 (estimated)       2, 245. 72       patching 6         Unexpended balance (estimated)       15, 864. 21       cludes de ceives, dis handled be         Total allotment	Total awnon ditures as shows	P224 000 25	tary; inde
Unexpended balance (estimated) 15, 864. 21 Total allotment			patching of
Total allotment			cludes de
	energended balance (estimated)	10,004.21	ceives, dis
several bu	Total allotment.	353, 106, 18	handled be
	=		several bu

Distributed among the several subactivities

ws: 's office proper: The chief clerk has upervision of the clerks and other es, of the correspondence files and f the Secretary's office, and of ex-es from appropriations for miscel-expenses, rent of buildings, etc. ponsible for the enforcement of the egulations of the department and ian of the buildings. This project work of the time clerk, operation lephones and telegraph, and pro-r miscellaneous supplies and serv-he department as a whole..... te department as a whole..... at clerk's office: Prepares all 50, 910. 97 lating to appointments, transfers, ns, reductions, details, furloughs, vals; keeps personal records of em-18, 218. 10 tc. ion: Purchases stationery and mis-ion: Purchases stationery and mis-s supplies for the Office of the and the various bureaus; receives oses of, by sale or otherwise, all turned in by the bureaus and on of no further use; and solls up en of no further use; and sells unples of products secured in con-vith the enforcement of the food s act and the insecticide act..... 21, 542. 81 es: Receiving, recording, and dis-mail for the Office of the Secrelexing, copying, filing, and dis-correspondence of that office; if-epartment post office, which re-istributes, and dispatches all mail etween the city post office and the several bureaus..... 18, 424. 48

5

<ul> <li>Watch force: Protects and watches 29 buildings occupied by the department in three shifts, covering the entire 24 hours</li> <li>Char force: Provides for cleaning and keeping in sanitary condition the halls and toilets of the department buildings and the cleaning of rooms in the different units of the Office of the Secretary</li> <li>Stables: Feeding, care, and driving of the horses and care of vehicles used by the Office of the Secretary and the Division of Publications</li> <li>Rent in the District of Columbia for the various bureaus and offices of the depart.</li> </ul>	\$50, 894. 67 20, 946. 73 13, 435. 26	<ul> <li>Mechanical shops: Maintenance of mechanical shops for the repair and upkeep of the buildings, laboratories, and equipment, including electrical, carpenter, and cabinet work, plumbing, painting, rubber-stamp making, and operation of elevators</li> <li>Power plant: Supervision of the engineers and firemen, except those of the Weather Bureau, and provision of heat, light, power, and electricity for all buildings of the department in Washington except those occupied by the Weather Bureau and the Forest Service.</li> </ul>	\$92, 859. 65 71, 467. 34
ment	142, 868. 95	Total	164, 326. 99
Total		Office of Farm Management.	
Mechanical Superintendent's Off	ICE.	17 * * *	
Total expenditures as above	\$161, 859, 15	Administration.	
Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	2,467.84	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated)	\$38, 808. 54 117. 99
Total allotment	171, 810. 45	Unexpended balance (estimated)	1, 943. 74
Distributed among the several subactivities		Total allotment	40, 870. 27

#### WEATHER BUREAU.

Classification of expenditures for the fiscal year ended June 30, 1918.

			Sala	ries.				Equipment.	
	Project.	Statutory.	Lump fund.		Total.	Travel, station, and field expenses.	Apparatus, instruments.	Furniture.	Miscella-
		Diavitory	In Wash- ington.	Out of Washington.			laboratory.		neous.
$\frac{1}{2}$	Administration Collection and dissemination of meteorological, climatological,	\$45, 260. 00 239, 568. 53	\$29, 476. 70	\$774, 445. 71	\$45, 260. 00 1, 043, 490. 94	\$1,627.45 24,530.60	\$20, 762. 25	\$798.44 5,285.17	<b>\$2,</b> 834. 60 15, 725. 42
$^{3}_{4}$	and marine information. Investigation and research Establishment and mainte-	11, 480. 16	22, 486. 64	17, 181. 65 3, 151. 57	51, 148. 45 3, 151. 57	2, 116. 68	780. 09 591. 49	620. 15 664. 17	980. 52 205. 38
	nance of Greenville (S. C.) station.						•		
	Total	296, 308. 69	51,963.34	794, 778. 93	<sup>1</sup> 1,143,050.96	28, 274. 73	22, 133. 83	7,367.93	19,745.92

<sup>1</sup> Includes 5 and 10 per cent increased compensation, amounting to \$64,179.75, provided by the agricultural appropriation act for the fiscal year 1918.

## PROJECT STATEMENTS.

Administration.	
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	$\$68,093.00\ 10,941.44\ 655.56$
Total allotment	79, 690. 00
Direction of the policy and business of the bureau and supervision of its scientific activities	79, 034. 44
Collection and Dissemination of Me Climatological, and Marine Info	
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	80, 717. 85
Total allotment	1, 621, 000. 00
Distributed among the several subactivi- ties as follows: Forecasts and warnings: Taking, recording, enciphering, telegraphing, and compiling regular meteorological observations, and caring for and maintaining the instrumen- tal equipment therefor; issuing weather forecasts twice daily, including frost, cold-	

ATEMENTS. wave, storm, and small-craft warnings at the district forecast centers for their respective districts as follow: Washington (D. C.) district: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, New Jersey, Delaware, Maryland, District of Columbia, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, West Virginia, Kentucky, Tennessee, Ohio, Indiaña, Michigan, and upper and lower lakes; Chicago (III.) district: Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Northaa, and Wyoming; Denver (Colo.) district: Colorado, Utah, New Mexico, and Arizona; San Francisco (Cal.) district: California, Nevada, Washington, Oregon, and Idaho; New Orleans (La.) district: Louisiana, Arkansas, Texas, and Oklahoma; issuing special wind forecasts in connection with forest-fire prevention, shippers' forecasts, and other special forecasts in the interests of manufacturing, commerce, and agriculture, at selected stations; preparing daily weather forecasts at selected stations for their

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Planning and directing farm-management and farm-practice investigations, and the clerical routine incident thereto	<b>\$39, 926.</b> 53	of geographic factors to farm enterprises, investigations of hay making and utiliza- tion, farm bookkeeping, etc	\$87, 736. <b>46</b>
Farm economics.		Farm organization.	
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$87, 217. 57 518. 89 17, 072. 89		896.45
Total allotment	104, 809. 35	Total allotment	166, 496. 24
Detailed studies of the relation of farm in- come to factors of production, including cost-accounting investigations, farm-man- agement surveys, study of farm equipment, investigations of tenant farming, the rela- tion of farm practice to yields, the relation		Regional investigations of the practice, or- ganization, and administration of indi- vidual farms, and studies of types and systems of farming, with a view to enable farmers to improve their systems of farm management.	

## WEATHER BUREAU.

Classification of expenditures for the fiscal year ended June 30, 1918.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purachsed in bulk.	Fuel.	Specified items not otherwise classified.	Miscellané- ous supplies, services, etc.	Total.	
\$2,416.42 11,047.70	\$84,348.17	\$2,776.55 247,318.74	\$8,216.48	\$3, 572. 80		\$650.00 13,115.18	\$1, 809. 60 7, 944. 50	\$9, 919. 94 45, 106. 77	\$68,093.00 1,530,464.72	12
2,268.02 10.37	2, 249. 49 675. 00	1, 102. 26 530. 44	188. 20 48. 67	558.44		1, 120. 48 . 07	342.58 16.03	3,217.26 418.95	66,692.62 6,312.14	3 4
15, 742. 51	87, 272. 66	251, 727. 99	8,453.35	4, 131. 24		14, 885. 73	\$ 10, 112. 71	58, 662. 92	1, 671, 562. 48	

<sup>2</sup> Printing, engraving, lithographing and binding, \$4,536.74; mechanics', engineers', and electricians' supplies, \$2,812.14; cleaning and toilet supplies, \$2,565.23; subsistence and care of animals, \$189.60; advertising and publication of notices, \$9.

immediate vicinity; also printing the same or issuing by other means, and disseminating by maps, bulletins, and by telegraph and telephone messages; preparing reports for the press of weather synopses, forecasts, and complete information concerning the current local weather conditions in all their phases... iver and food forecasting: Developing

River and flood forecasting: Developing and improving methods of river and flood forecasting; establishing and maintaining river-gauging stations and substations which observe and report rainfall, river stages, and like conditions; disseminating flood information to the public, especially to the parties and interests most directly benefited thereby. Climatological work: Collecting, compiling, charting, and discussing climatological data of the United States; printing and promptly disseminating the information to the public, to commercial exchanges, and to all parties and organizations interested in or benefited by the service that can be promptly reached by the usual means of communication available; collecting, compiling, and furnishing to the Hydrographic Office, for publication, marine meteorological and climatological data.

<mark>\$998</mark> , 752. 34	Agricultural meteorology: Collecting and disseminating information relative to the effect of weather and climate on crops; during the crop season, from Apr. 16 to Oct. 31, collecting daily telegraphic reports from selected substations, report- ing in the interests of cotton, corn, wheat, sugar, rice, tobacco, fruit, and other standard crops, for publication and dis-	
172, 065. 92	semination to the public; issuing weekly summaries of weather and crop condi- tions to commercial exchanges and to all parties and organizations interested in or benefited by the service that can be promptly reached by the usual means of communication available	\$78, 941. <b>39</b>
	mitting marine intelligence for the bene- fit of commerce and navigation	9, 184. 22
	- Total	1, 611, 182. 57
-	INVESTIGATION AND RESEARCH	I.
	Total expenditure as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	666, 692. 62 7, 368. 44 1, 888. 94
352, 238. 70	Total allotment=	75, 950. 00

Distributed among the several subactivities as follows:

- Improvement of instrumental equipment: Selecting, testing, improving, and de-signing instrumental apparatus for use in the scientific work of the bureau.....
- Investigations of the problems of forecasting: Improving the accuracy of forecasts and formulating rules and enunciating principles in connection therewith ..... River and flood investigations: Improving
- methods of flood forecasting ...
- Investigations in climatology: Determin-ing more fully the climate of the entire United States, including its insular possessions.
- Aerological investigations: Studying upper-air conditions by means of kites and balloons for the purpose of obtaining gen-eral meteorological data pertaining to the
- whole atmospheric mass. Solar-radiation investigations: Determin-ing the insolation received in heat units on a horizontal surface from the sun and sky under all sky conditions; determining the radiation received on a normal surface in gram calories; establishing normals for insolation; investigating the relation between polarization and insolation on clear days; determining the effect of atmospheric conditions on nocturnal radiation; and measuring the insolation received through ray filters under different conditions..... An empirical determination of the relative
- values of evaporation in the United States: Determining under standard con-ditions of exposure the relative values of evaporation in various portions of the United States, and establishing the rela-tion between the evaporation under the above standard conditions and the climatological factors that combine to bring
- ing the nature of meteorological phenomena and the laws of their actions.
- Seismological investigations: Mapping the United States according to seismological activity and locating geological faults; studying in detail earthquake vibra-tions and drawing inferences therefrom in regard, on the one hand, to the sci-

	entifically important problem of the structure of the earth and, on the other,	
	to the practical question of types of	
	building best adapted to withstand seis- mic shocks	\$2,891.36
\$2, 678.44	Investigations of the relation between cli-	<b>4</b> -, 001.00
	mate and weather and plant develop-	
	ment: Investigating the effect of cur- rent meteorological factors upon the	•
4, 850. 20	growth of vegetation, the relation of cli-	
5, 241. 16	matological conditions to the growth of	
0, 241. 10	plants and the yield of crops, and the dis- tribution of crop areas.	11, 857. 28
	Ice-storm and sleet investigations: Im-	
4,964.32	proving and extending the issue of fore-	
4, 904. 02	casts and warnings of the approach of ice storms and sleet, and collecting and pub-	
	lishing statistical data thereon showing	
	distribution, frequency, and severity of	
14, 260. 00	ice storms, including details concerning the accompanying winds and other al-	
	lied weather conditions, the thickness,	
	weight, and damaging effects of ice coat-	
	ings to vegetation, overhead-line con- struction, etc., so as to enable the Weather	
	Bureau to meet the demands from tele-	
	graph and telephone companies, electric-	
	power companies, horticulturists, stu- dents, etc., for information relating to	
	such storms.	473.24
	Investigations of frost-protection methods:	
	Investigating the most economical and	
7,941.28	efficient methods of frost protection now in use, and correlating meteorological and	
1,011.20	climatological conditions in fruit and	
	truck producing areas with conditions at	
	key stations of the bureau, so that accurate minimum temperature forecasts may	
	be made for these districts	9, 398. 38
	Total	74, 061. 06
	D	
7 709 10	ESTABLISHMENT AND MAINTENANCE OF GREE	INVILLE (S.C.)
7, 762. 19	STATION.	
	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated)	\$6, 312. 14     150. 82
1, 743. 21	Unexpended balance (estimated)	37.04
	Total allotment	6, 500. 00
	Establishment, equipment, and mainte-	
	nance of a Weather Bureau station at	0.400.55
	Groopville S C	6 462 96

6,462.96

ontifically important problem of the

Distribution of Weather Bureau work and expenditures by stations.

Greenville, S. C....

Station.	Character of work.1	Amount.	Station.	Character of work.	Amount.
Abilene, Tex	a, b,, a, b, e, a, d, a, d, a, d, a, d, a, b, c, d, a, b, c, d, a, b, c, d, a, c, d, a, c, d, a, d, a, d, a, d, a, b, c, d, b, c, d	$\begin{array}{c} 6, 574.  44\\ 3, 690.  27\\ 3, 961.  73\\ 1, 720.  95\\ 3, 458.  84\\ 11, 845.  83\\ 2, 937.  11\\ 5, 783.  56\\ 1, 527.  22\\ 8, 747.  55\\ 1, 430.  24\\ 4, 431.  55\\ 4, 460.  42\\ 13, 961.  19\end{array}$	Boston, Mass. (section center). Broken' Arrow, Okla. Buffalo, N. Y. Burlington, Vt. Cairo, III. Canton, N. Y. Cape Henry, Va. Charleston, S. C. Charlotte, N. C. Charlotte, N. C. Chattanooga, Tenn. Cheyenne, Wyo. (section center). Chicago, III. (district forecast center). Cluceland Obio.	a, g a. a. a. a. a. b. c. b. c. d. c. c. d. c. c. d. c. c. d. c. c. c. c. c. c. c. c. c. c. c. c. c.	$\begin{array}{c} 4,636,40\\ 12,920,83\\ 3,333,46\\ 5,264,77\\ 2,384,36\\ 9,375,57\\ 1,954,51\\ 7,583,62\\ 3,696,99\\ 8,193,43\\ 7,493,93\\ 53,501,96\\ 16,018,86\end{array}$
Block Island, R. I Boise, Idaho (section center)	a, e a, b, c, d	2,707.27 6,117.92	Cleveland, Ohio Columbia, Mo. (section center).	a	11,001.68

<sup>1</sup> The letters in this column have the following meaning: a, meteorological observations and reports and daily weather forecasts; b, river and food work; c, climatological work; d, agricultural metrological work; e, maintenance of seacoast telegraph line in connection with forecasts and warnings and vessel reporting; f, vessel reporting; g, aerological investigations; h, solar-radiation investigations; k, general administration and supervision of work of the bureau.

Distribution of Weather Bureau work and expenditures by stations-Continued.

Station.	Character of work.	Amount.	Station.	Character of work.	Amount.
Columbia, S.C. (section center).	a, b, c, d	\$7,762.17	Norfolk, Va	a	\$10,085.95
Columbus, Ohio (section	a, b, c, d	16,160.58	Northfield, Vt.	a	\$10,085.95 3,301.35
center). Concord, N. H.	a, b	2,975.69	North Platte, Nebr	a, ea	5,087.98 3,024.86
Concordia, Kans. Corpus Christi, Tex	a	1,552.12	Norfolk, Va. Northfield, Vt. North Head, Wash North Platte, Nebr Oklahoma, Okla. (section	a, b, c, d	10 671 00
Corpus Christi, Tex	a. a, b	3,668.82 6,077.88	Omaha, Nebr	a. b. c. d.	9, 394, 04
Dallas, Tex. Davenport, Iowa	a, b a, b	6.587.56	Oswego, N. Y.	a	9,394.04 2,224.87 2,586.80
Davton, Ohio	a, b a	6,546.91 1,382.83	orianona, Nebr. Oswego, N. Y. Palestine, Tex. Parkersburg, W. Va. (section center).	aa. b. c. d.	2,586.80
Del Rio, Tex. Denver, Colo. (district fore-	a, b, c, d	22, 329. 16	center).	., ., .,	
cast and section center). Des Moines, Iowa (section	a, b, c, d	7,974.02	Pensacola, Fla.	aa	5,659.94 5,033.16
center)			center). Pensacola, Fla. Peoria, Ill. Philadelphia, Pa. (section center)	a, b, c, d	15,067.86
Detroit, Mich Devils Lake, N. Dak	a a	11,651.71 2,129.28	Phoenix, Arix, (section center).	a, b, c, d	9,536.89
Dodge City, Kans	a	2, 129. 28 1, 843. 94	Pierre, S. Dak	a	9,536.89 1,523.22 14,937.14
Drexel, Nebr Dubuque, Iowa	a, g a, b a, d	15,117.87 5,134.00	Pocatello, Idaho	a, Da.	1,687.20
Duluth, Minn	a, d	5,134.00 7,845.77	Port Angeles, Wash	a, e, f	8, 150.30 1, 705.90
Eastport, Me Elkins, W. Va	a. a	3,095.65 2,831.28	Port Huron, Mich.	a	2,620.48
Elkins, W. Va. Ellendale, N. Dak.	a, g	10,842.67	Portland, Me.	a, b	6,160.15 24,105.09
El Paso, Tex Erie, Pa	a	3,036.17 6,015.28	cast and section center).	li, b, c, d	1,100.00
Escanaba, Mich	a	2,747.46 3,108.39	Philadelphia, Pa. (section center). Phoenix, Arix.(section center). Piters, S. Dak. Pottaburgh, Pa. Pocatello, Idaho. Port Archur, Tex. Port Arthur, Tex. Port Huron, Mich. Portland, Me. Portland, Oreg. (district fore- cast and section center). Providence, R. I. Pueblo. Colo.	a	6,250.67 2,914.44
Eureka, Cal. Evansville, Ind	a. a, b.	6,977.77	Raleigh, N. C. (section center).	a, b, c, d	10,406.27
Fort Smith, Ark Fort Wayne, Ind	a, b	5, 143, 15 5, 272, 56	Providence, R. I. Pueblo, Colo. Raleigh, N. C. (section center). Rapid City, S. Dak. Reading, Pa. Red Bluff, Cal. Reno, Nev. (section center). Richmond, Va. (section center). Rochester, N. Y Roseburg, Oreg. Roswell, N. Mex. Royal Center, In1. Sacramento, Cal. Sagnaw, Mich.	a	2,230.06 4,446.50
Fort Worth, Tex	a, d	4,353.90	Red Bluff, Cal	a	1,615.04
Fresno, Cal	a, b a, d	6,835.31 5,964.57	Richmond, Va. (section center).	a, c, da, b, c, d	7,264.48 8,756.69 5,214.87
Galveston, Tex. Grand Haven, Mich	a, u	2,581.33	Rochester, N. Y	a	5,214.87
Grand Junction, Colo Grand Rapids, Mich. (section	a, d. a, b, c, d	3,701.37 8,632.19	Roswell, N. Mex.	a. a, d	2, 842.76 2, 598.84
conter)			Royal Center, Ind.	a, g	5,430.06 5,998.47
Green Bay, Wis. Greenville, S. C. Groesbeck, Tex	a a.	2,974.85 6,998.57	Saginaw, Mich. St. Joseph, Mo. St. Louis, Mo. St. Paul, Minn. Salt Lake City, Utah (section	a, b	4,296.79
Groesbeck, Tex	a, g	3,184.84	St. Joseph, Mo.	a a. b. c. d.	5,072.65 21,562.63
Hannibal, Mo Hampton, Va	a, b a.	3,258.24 1,064.14	St. Paul, Minn.	a	21,562.63 4,733.96
Harrisburg, Pa Hartford, Conn Hatteras, N. C	a, b	5,038,80			
Hatteras, N. C.	a, b a, e	5, 918. 89 2, 442. 56	San Antonio, Tex	a, d, g	5, 549. 57
Havre, Mont. Helena, Mont. (sectioncenter).	a	2,348.97	San Jiego, Cal.	aa.	4,901.74 4,309.59
Honolulu, Hawaii (section	a, c, d a, c, b	8,688.47 7,789.17	Sandy Hook, N. J.	a	2,808.02 42,852.43
center). Houghton Mich		3, 207. 79	San Antonio, Tex San Diego, Cal San dusky, Ohio San dy Hook, N. J San Francisco, Cal. (district forecast and section center). San Les Cal	a, c, u, c	42, 052.45
Houghton, Mich Houston, Tex.(section center). Huron, S. Dak.(section center).	a, b, c, d	16,457.08	San Jose, Cal San Juan, Porto Rico (section	·····	1,598.72 4,388.54
Huron, S. Dak. (section center). Independence. Cal.	a, c, d	7,981.72 1,685.57	center).		
Independence, Cal Indianapolis, Ind. (section	a a, b, c, d	13, 528.08	center). San Luis Obispo, Cal. Santa Fe, N. Mex. (section	a a, c, d, h	1,829.27 6,932.56
center). Iola, Kans. Ithaca, N. Y. (section center).	a, b, c	2,496.17	center)		3, 179.17
Ithaca, N.Y. (section center) Jacksonville, Fla. (section	a, c, d a, c, d		Sault Ste. Marie, Mich Savannah, Ga Scranton, Pa Seattle, Wash. (section center).	a a, c, d	9,085.15
center). Juneau, Alaska (section center).	a, c, u		Scranton, Pa. Seattle, Wash, (section center).	a. a, c, d	
Juneau, Alaska (section center). Kalispell, Mont	a, c a	8,244.81 1.941.67	Seattle, Wash. (section center). Sheridan, Wyo Shorveport, La Spokane, Wash. Springfield, III. (section center). Springfield, Mo Syracuse, N. Y. Tacoma, Wash Tampa, Fla Tatoosh Islan1, Wash Tavlor. Tex	a	2,272.92 4,353.50
Kansas City, Mo	abed	11,414.26	Sioux City, Iowa	a, b, d.	4, 552. 73
Keokuk, Iowa Key West, Fla	a, b, c, d a, b a, e, f	2, 551. 53 8, 290. 54	Spokane, Wash	a	5,029.54 8,045.78
Key West, Fla. Knoxville, Tenn. La Crosse, Wis. Lander, Wyo.	a, b	4,614,67	Springfield, Mo.	a, i	3, 907. 74
Lander, Wyo	a, b a.	3,632.42 1,833.43	Syracuse, N. Y. Tacoma Wash	a, 1a	4,472.75 4,581.99
Lansing, Mich Leesburg, Ga	9.	4,640.10 5,277.82	Tampa, Fla	a	4,389.29
Lewiston, Idano	8	2,731.14		a, e, 1 a, d	
Lexington, Ky. Lincoln, Nebr (section center).	a. a, c, d, h.	3,479.65 9,287.42	Terre Haute, In1	a, b	6,313.34
Little Rock, Ark. (section	a, b, c, d	10,180.42	Thomasville, Ga Toledo, Ohio	a a	1,526.75 5,902.01
center). Los Angeles, Cal	a, d	13, 259. 20	Tonopah, Nev. Topeka, Kans. (section center). Trenton, N. J. (section center). Valentine, Nebr. Vicksburg. Miss. (section	aa. c. d	$\begin{array}{c} 1,320,73\\ 5,902.01\\ 2,790.01\\ 8,044.55\\ 8,253.23\\ 1,889.94\\ 6,18441\end{array}$
Louisville, Ky.(section center).	a, b, c, d	15,271.02	Trenton, N. J. (section center).	a, c, d	8,253.23
Ludington, Mich. Lynchburg, Va.	a a	2, 528, 29 3, 356, 35	Valentine, Nebr Vicksburg, Miss. (section	a, c, d a, c, d a, b, c, d	1,889.94 8,618.41
Macon, Ga. Madison, Wis	a, b a, h	3,969.56 4,816.61	wala Wala, Wash. (see toff center). Wala Wala, Wash Washington, D. C. (central office of the bureau and dis- trict forecast.center)	a, c	
Marquette, Mich.	9	3,051.97	Walla Walla, Wash	a, c	$4,211.32 \\ 3,016.47$
Memphis, Tenn Meridian, Miss	a, b, c, d a, b, d	7,685.14	Washington, D. C. (central	a, d a, b, c, d, e, f, g, h, k	302, 067.45
Miami, Fla. Milwaukee, Wis. (section	a	$\begin{array}{c} 4,431.00\\ 3,869.22\\ 11,003.84\end{array}$	trict forecast center).		
Milwaukee, Wis. (section center).	a, c, d	11,003.84	Wausau, Wis Wichita Kans	a, b a, b, d	2,416.03 5,919.62
Minneapolis, Minn. (section	a, b, c, d	13, 191.67	Williston, N. Dak	a	1,628.13
center). Mobile, Ala	a, b, c, d	6, 597. 79	trict forecast center). Wausau, Wis. Wichita, Kans Williston, N. Dak. Willmington, N. C. Winnomucca, Nev. Wytheville, Va Yankton, S. Dak. Yellowstonc Park, Wyo Yuma, Ariz.	a, c, da	5,015.15 1,719.14 1,612.02
Modena, Utah	a. a, b, c, d	1,572.67 7,457.78	Wytheville, Va	a	1,612.02 1,689.43
Montgomery, Ala. (section center).			Yellowstone Park, Wyo	aa.	1,689.43 2,936.76 1,612.23
Mount Weather, Va	9	1,941.45 2,629,49	Yuma, Ariz. West Indian and Caribbean	a	1, 612.23 17, 375.46
Mount Weather, Va Nantucket, Mass Narragansett Pier, R. I Nashville, Tenn. (section	a a, e a, b, c, d	2,629.49 1,440.57	See stations		
Nashville, Tenn. (section center).	a, b, c, d	11, 399. 09	Stores in stock	••••••••••••••••••••••••	6,312.14
New Haven, Conn.	a, i	8,037.71 31,663.39	Total Outstanding liabilities (esti-	•••••••••••••••••••••••••••	1,671,562.48
New Orleans, La. (district forecast and section center). New York, N. Y.	a, D, C, U		mateu)	•••••••••••••	99,178.00
New York, N. Y	a	27, 545.50	Total		1,770,741.03

## BUREAU OF ANIMAL INDUSTRY.

		Salaries.				Equipment.			
	Project.	·	Lump	fund.		Travel, station, and field	Apparatus,		Miscella-
		Statutory. In Wash- ington. Out of Washington.		Total.	Total. expenses.		Furniture.	neous.	
1	Administration Eradication and control of ani-	\$89, 333. 91	\$50, 845. 39	· • • • • • • • • • • • • • • • • • • •	\$140, 179. 30	<b>\$</b> 754.68		\$1,878.30	\$1,234.18
3	mal diseases. Inspection and quarantine of imported animals, and export live-stock inspection.	26,353.10 6,896.88	11, 497. 55 9, 064. 27	\$351, 571. 64 86, 313. 29	389, 422. 29 102, 274. 44	77, 689. 79 14, 194. 10	\$9,455.85 4.28	2, 646. 46 159. 69	5, 725. 24 381. 83
4 5	Eradication of cattle ticks Live-stock demonstration work	17, 422. 07	7, 547. 17	429,947.73 25,351.40	454,916.97 25,351.40	98,340.03 14,556.88	-13, 225. 84 1. 59	162. 57	1, 107. 92
6 7	in areas freed from cattle ticks. Dairy investigations Animal husbandry investiga- tions.	25, 524. 41 26, 174. 57	125, 264. 84 48, 474. 39	129, 552. 91 99, 349. 67	280, 342. 16 173, 998. 63	55, 357. 25 18, 863. 46	5, 591. 73 664. 87	633. 21 922. 34	9, 552. 54 17, 818. 49
8	Investigations of animal dis- eases.	35, 736. 74	37, 312.06	30, 560. 37	103, 609. 17	4, 242. 54	4, 570. 80	146.67	3, 511. 03
9	Construction of buildings at Bethesda and Beltsville, Md.	3,387.56	• • • • • • • • • • • • •	3,111 29	6, 498. 85	5.29	•••••	·····	1, 887. 13
10	Investigation, treatment, and eradication of hog cholera.	9,973.31	17, 214. 81	138,922.63	166, 110. 75	66, 939. 93	1,879.03	306.58	4,407.62
11	Control of the manufacture, im- portation, and shipment of viruses, serums, etc.	5, 733. 61	12, 861. 54	144, 550. 33	163, 145. 48	7, 115. 90	2, 248. 84	175.63	972. 53
12 13	Eradication of dourine Control of meat and meat-food products.	2, 054. 44 118, 029. 08	6, 319. 09 12, 855. 88	20, 615. 59 3, 424, 065. 71	28, 989. 12 3, 554, 950. 67	20, 967. 40 39, 781. 96	308, 48 8, 086. 69	47.11 1,044.66	168, 57 33, 928, 24
14	Eradication of foot-and-mouth disease.	·····		40, 600. 60	40,600.60	524.28	·····		· • • • • • • • • • • • • • • • • • • •
15	Live-stock production in cane- sugar and cotton districts.		• • • • • • • • • • • • • • • • • • • •	- 26, 275. 64	26, 275. 64	3,966.83	119.01	· · · · <b>·</b> · · · <b>·</b> · · · · · ·	8, 152. 44
16	Dairying and live-stock produc- tion in semiarid and irrigated districts.		156.98	18, 409. 21	18, 566. 19	748. 27	76. 31	13.60	4, 143. 91
	Total	366, 619. 68	339, 413. 97	4, 969, 198. 01	1 5,675,231.66	424, 048. 59	46, 233. 32	8,136.82	92, 991. 67

Classification of expenditures for the fiscal year ended June 30, 1918.

<sup>1</sup> Includes 5 and 10 per cent increased compensation, amounting to \$249,250.47, provided by the agricultural appropriation act for the fiscal year 1918.

## PROJECT STATEMENTS.

#### Administration.

Administration.		Eradication of scabies in sheep: Coopera-	
Tetal amonditures as above	\$150 579 54	tion with States in which scabies in sheep	
Total expenditures as above.	\$150, 573. 54	exists by providing quarantine measures	
Outstanding liabilities, Aug. 31 (estimated).	850.00	to prevent the spread of this disease and	
Unexpended balance (estimated)	33, 435. 43	by demonstrating proper treatment, in-	
-		cluding the cleaning and disinfection of	
Total allotment	184, 858. 97	cars, pens, and other premises	\$113, 560. 21
		Eradication of mange (scabies) in cattle and	φ110, 000. Δ1
Supervision of the bureau activities and the		horses: The object of this work and the	
performance of such duties as are com-			
mon to the bureau as a whole, the cost of		methods employed are similar to those	00 04- 0-
mon to the buleau as a whole, the cost of		followed in the project on sheep scabies	62, 647. 97
which can not be readily prorated against		Supervision of interstate transportation of	
the various projects involved, such as ac-		live stock and inspection of southern cat-	
counting and editorial work, the distri-		tle outside the quarantine area: Exami-	
bution of supplies, and matters relating		nation and inspection of all live stock un-	
to the personnel	151, 423.54	loaded at market centers and public	
		stockyards where Federal inspection is	
ERADICATION AND CONTROL OF ANIMAL	DISFASES	maintained to determine the presence	
Endoniton and control of finimal	DISERSES.	in any of the animals of diseases which	*
Total expenditures as above	\$506, 712. 45	might be communicated to animals in	
Outstanding liabilities, Aug. 31(estimated).	2,650.00	other States; also issuance of certificates	
Unexpended balance (estimated)	35, 570. 75	covering interstate movement of ani-	
	*	mals free from disease or which have been	
Total allotment	544, 933. 20	treated under bureau supervision	157, 103.64
		Enforcement of the 28-hour law: Enforce-	
Distributed among the several subactivi-		ment of the law requiring that animals	
ties as follows:		being shipped interstate are unloaded	
Supervision: General direction of activities		for feeding, resting, and watering at least	
connected with the eradication and con-		once in 28 hours, and that the animals are	
trol of animal diseases and prevention of		handled is a humane manner at stock-	
the interstate spread of these diseases;		yards where such unloading is performed.	36, 928. 29
performance of duties connected with the		Inspection and tuberculin testing of cattle	00,010,10
general work of eradication, including		and mallein testing of horses: Inspection	
correspondence with the public and con-		and tests to prevent the spread of tuber-	
ferences with other branches of the Gov-		culosis of cattle and of glanders in horses	
	10, 769. 67	and mules through interstate manuf	-
ernment service	10, 709. 67	and mules through interstate movement;	

#### BUREAU OF ANIMAL INDUSTRY.

Classification of expenditures for the fiscal year ended June 30, 1918.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	
\$1,625.75	\$123.00	\$2,657.50	\$479.63	·····				\$1,641.20	\$ <del>15</del> 0, 573. 54	1
1,519.32 66.50	4,184.11 295.00	1,299.89 575.37	1,299.93 56.14	\$21.32 627.44	\$126.48 328.48	\$51.35 94.13	\$6,528.78 611.31	6, 741.64 329.19	506,712.45 119,997.90	23
2,689.92	6,089.59	1,352.80 43.11	4,655.09 398.98	69.20	572.40		14, 424. 01	361.61	597, 395. 55 40, 924. 36	45
2,394.09 1,683.88	3,330.00 1,549.73	869.28 1,507.96	2, 399. 05 5, 297. 63	1, 337. 91 1, 712. 08	4, 567. 44 32, 583. 96	904.18 1,343.71	9, 563. 72 39, 358. 02	8,224.36 5,167.91	385,066.92 302,472.67	-6 7
543.59	1,080.50	171.44	248.90	292.42	35,092.85	1,360.76	3,165.06	1,684.05	159,719.78	8
•••••	•••••	•••••	156.50	•••••	••••••	·····	10, 962. 65	75.04	19, 585. 46	9
456.64	875.99	375.42	1, 247. 49	170.14	6,147.42	160.48	246.95	999.47	250, 323. 91	10
408.78	1,096.00	486.00	881.86			•••••••••••	1,291.74	48.29	177, 871.05	11
33. 75 5, 610- 57	23,859.90	35. 38 4, 695 <b>.</b> 49	404.62 4,806.10	358.67	4, 258. 28 255. 30	•••••	14, 838. 02 8, 377.16	31.20 440.15	70, 081. 93 3, 686, 195. 56	12 13
····	240.00	6.08	25.50	······	•••••	••••••	•••••	52.00	41, 448. 46	14
136.42	50.00	207.10	296.37		7,554.22	930.16	4, 398. 00	3,627.21	55, 713. 40	15
1.00	••••••	59.29	677.62		3,994.77	158.60	5,988.56	1,344.70	35, 772. 82	16
17, 170. 21	42, 773.82	14,342.11	23,331.41	4,589.18	95, 481. 60	5,003.37	<sup>2</sup> 119, 753.98	30, 768. 02	6, 599, 855. 76	

<sup>2</sup> Subsistence and care of animals and storage and care of vehicles, \$3,632.42; mechanics', engineers', and electricians' supplies, \$4,315.28; cleaning and toilet supplies, \$1,246.38; structures and parts and nonstructural improvements to land, \$34,957.33; purchase of animals for experimental and control purposes, \$26,981.94; purchase of land, \$13,410; printing, \$30,210.63.

to prevent the spread of tuberculosis in dairy herds, and to provide milk supplies from cattle free from tuberculosis; to prevent the spread of tuberculosis among pure-bred breeding cattle, and to establish public registry of pure-bred herds which have been shown to be free from tuberculosis, in order that breeders throughout the country may have assurance of the healthfulness of pure-bred cattle which they are purchasing for the

Investigation and chemical testing of dips and disinfectants: Chemical and bacteriological studies of dips and disinfectants and of methods of preparing them. so as to insure the employment of properly compounded preparations in official dipping and disinfecting operations.....

INSPECTION AND QUARANTINE OF IMPORTED ANIMALS, AND EXPORT LIVE-STOCK INSPECTION.

Total expenditures as above	\$119, 997. 90
Outstanding liabilities, Aug. 31(estimated).	1, 500. 00
Unexpended balance (estimated)	14, 974. 68
Total allotment	136, 472. 58

	Distributed among the several subactiv- ities as follows: Supervision: General direction of the in- spection and quarantine of imported animals and of export live-stock inspec- tion and the performance of duties com-	
<b>*</b> **	mon to the whole work Inspection of animals for importation: In- spection at ports of entry and the estab- lishment of quarantines, when necessary, with a view to prohibit the importation	\$5, 675. 6 <b>7</b>
\$96, 436. 35	of diseased animals	68, 460. 93
	Quarantine of animals at ports of entry: Maintenance of quarantine stations for the detention, observation, and test of imported animals, with the object of preventing the introduction of animal	
27, 054. 73	diseases. Supervision over importation of hay and forage and of hides, hair, wool, and other animal by-products, to prevent the intro- duction of animal diseases.	13, 728. 81 - 19, 328. 89
4, 861. 59	Inspection and testing of animals for export to foreign countries, to insure freedom of export animals from disease	9, 708. 21
509, 362. 45	Inspection of vessels carrying export ani- mals, to provide for the safe transporta- tion and humane treatment of export live	_,
NIMALS, AND	stock	2, 369. 87
	Investigation of methods of disinfecting	2,000.01
\$119, 997.90 1, 500.00	hides: Determination of the best methods for the disinfection of hides, in order to	
14, 974. 68	prevent the introduction of infectious material.	2, 225. 52
136, 472. 58	-	
	Total	121, 497. 90

## ERADICATION OF CATTLE TICKS.

Total expenditures as above.	\$597, 395. 55
Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	$\begin{array}{c} 1,540.90\\ 6,48793 \end{array}$
,	
Total allotment	605, 424. 38
Extermination of the ticks which spread	
the infection of splenetic fever of cattle,	1
in cooperation with live-stock sanitary	F00 000 45
organizations in the States concerned	598, 936. 45
Long George Decourses where on A	There a
LIVE-STOCK DEMONSTRATION WORK IN A FROM CATTLE TICKS.	REAS FREED
Total expenditures as above	\$40, 924. 36
Outstanding liabilities, Aug. 31 (estimated).	3, 722. 91
Unexpended balance (estimated)	5, 663. 67
Total allotment	50, 310. 94
=	
Cooperation with county agents and with	
State officials in demonstrating to farmers the best means within their reach to im-	
prove and develop the live-stock indus-	
try and dairying in the areas freed from	
cattle ticks in the Southern States	44, 647. 27
DAIRY INVESTIGATIONS,	
Total expenditures as above	\$385,066.92
Outstanding liabilities, Aug. 31 (estimated).	8, 416. 75.
Unexpended balance (estimated)	29.051.48
- Total allotmont	422, 535. 15
Total allotment=	424, 000. 10
Distributed among the several subactivi-	
ties as follows:	
Administration.	
General direction of dairy investigations,	
including branch library, files, requisi- tions, and accounts; dairy engineering,	
compilation and indexing, editorial and	
stenographic work, and stores	45, 233. 01
Dairy farming.	
Supervision, Coneral supervision and office	
Supervision: General supervision and office correspondence and record work; compi-	
lation of material for use in field work and	
preparation of manuscripts	9,600.74
Southern dairying: The object of this work	•
is to encourage the development of the dairy business in the Southern States	
through instruction and demonstration.	19, 223. 38
Dairy demonstration farm: Operation of a	
dairy farm at Denison, Tex., for the pur-	
pose of demonstrating the practicability of reclaiming a worn-out cotton farm by	
dairying.	2, 160.00
Cow-testing associations and cooperation	
with county agents in dairy work: Ad-	
vice and assistance in the organization of cow-testing associations, with the object	
of increasing economically the average	
milk and butter production of the dairy	
cows in the United States; and assistance	•
to county agents in general dairy work,	
such as silo and dairy building construc- tion, feeding, care, and management of	
dairy cattle, demonstrations at fairs, etc.	31, 322. 20
Extension of bull associations: Inaugura-	
morest or the joint ownership of pure-	3, 214. 22
ion, feeding, care, and management of airy cattle, demonstrations at fairs, etc.	

395, 55 540, 90	Community development in dairying: De- termination of the practicability of the small community raising its economic statue through the employment of a field	
424. 38	status through the employment of a field instructor skilled in dairying Investigations in cow-testing associations: Determination of the best form of coop- cretics for the davidement and income	\$2, 682. 2 <b>3</b>
1	eration for the development and increase in production of the dairy herds of the United States.	5, 831. 60
936. 45	Investigations in bull associations: Deter- mination of the best form of cooperation and organization for the development of	4 000 00
FREED	bull associations. Holstein cattle breeding: Investigations in the production of cattle of this type	6, 282. 93
924.36 722.91 663.67	suitable for conditions in the semiarid portions of the West	54.92
	Dairy manufacturing.	
310. 94	Supervision: General direction of dairy manufacturing activities, including ex- tension work carried on with creamerics by correspondence; compilation of in-	
	formation collected Creamery extension: Advice and assistance	9, 483. 01
647. 27	to creamery operators and patrons looking to the improvement of the quality of milk and cream delivered to creameries,	
	the quality of the product, and the gen- eral efficiency of creameries Cheese-factory extension: Extension work	27, 371. 85
066.92 416.75	in representative dairy sections to en-	
051. 48	courage the building of cheese factories in localities where the industry will prove	
535.15	successful, to improve the quality of	
	milk delivered to cheese factories, to improve the methods of making and	
	hence the quality of cheese, and to in- crease the general efficiency of cheese	
	factories and their management	15, 537. 23
	Improvement of dairy products: Assist- ance, through demonstrations and other-	
	wise, for the purpose of increasing the	
	quantity and improving the quality of dairy products and encouraging a larger	
233. 01	consumption of these products on the farm	11, 291. 19
	Creamery management investigations: Study of methods for improving the	
	quality of the milk and cream delivered to creameries and the quality of creamery	
	butter, and for increasing the general	
	efficiency of creameries Cheese-factory investigations: Determina-	6, 591. 97
600.74	tion of the districts in which it would be	
	feasible to encourage the manufacture of cheese, what is being done in the manu-	
223.38	facture of cheese in districts other than the cheese centers, and particularly what	
440.00	kinds of cheese can be successfully and	
	profitably manufactured in certain sec- tions of the South; collection of data rela-	
100 00	tive to methods used in the best managed factories; determination of the machinery	
160.00	most efficient for cheese factories	1, 737. 54
	Renovated butter inspection: Inspection of renovated butter, the materials used in	
	its manufacture, and the factories pro-	
	ducing this product, as required by the act of May 9, 1902	6, 854. 06
	Butter inspection for Navy Department: Daily inspection at plants manufacturing	
	butter for the Navy Department to see	
322. 20	whether the product complies with the specifications and thus to assist the de-	
	partment in securing first-class tinned	
	and tub creamery butter and incidentally study the manufacture of butter for	
214.22	storage	2, 173. 85

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2,608.00

Dairy research laboratories.

- Supervision: General direction and office work of the dairy research laboratories... Investigations of the manufacture and handling of commercial ice cream, to determine methods and conditions necessary for the practical, economical, and sanitary manufacture of this product....
- sanitary manufacture of this product.... Changes in butter: Experiments to determine the factors which control the flavor, both desirable and undesirable, of butter, including studies of the methods of handling cream, pasteurization, ripening of cream, changes in butter in storage, and methods of renovating.....
- Milk-condensing investigations: Investigations to secure a general knowledge of milk condensing, determine causes of spoilage, and develop logical methods of operation.
- Bacteriology of milk: Biological studies of the bacteria occurring in milk, their relation to one another and to similar groups occurring elsewhere, their physiology and action on the constituents of milk, their habitat and the means by which they get into milk, methods of preventing contamination, and means of destroying bacteria in milk.
- Physiology of milk secretion: Investigation of the mechanism of milk secretion and of the factors which control or influence this function, with a view to a more logical breeding and feeding of dairy cows
- Utilization of creamery and cheese-factory by-products: Study of methods for the utilization of by-products of creameries and cheese factories by converting them into products which will be useful in the arts or available as food for man or animals.
- Disposal of dairy, creamery, and cheesefactory wastes: Investigation of methods for the proper disposal of the wastes of dairy farms, creameries, and cheese factories.
- Manufacture and ripening of Swiss cheese: Studies of the factors producing the peculiar chemical and physical changes which give Swiss cheese its desirable character, and the application of this knowledge to practice.
- Soft-cheese investigations: Investigation of the manufacture and ripening of certain European varieties of soft cheese, including a detailed study of the microorganisms active in their production; also the chemical determination of standards of composition with reference to the complex changes involved in the ripening processes as applied to American milk and to the different climatic conditions encountered.....
- Cheddar-cheese investigations: Study of methods of securing a more uniform product, the extent of losses and means of prevention, and bacteriological and chemical factors involved in the development of desirable and undesirable flavors.
- Silage investigations: Study of the changes which take place in the material put into the silo.
- Chemical investigations in the feeding of dairy cattle: Chemical work in connection with the feeding experiments conducted at Beltsville, Md.....

\$3, 273. 35 Dairy sanitation investigations: Investigation of the sanitation of city milk sup-

plies, factors influencing the commercial quality of milk, and means of producing and handling milk of a superior quality.. Cost of handling milk: Determination of the cost of handling milk in cities, including the cost of various operations in preparing milk for the market, with a view to avoid uneconomical methods and suggest ways of lessening the cost of handling......

Milk investigations and demonstrations.

- - Dairy sanitation extension: Educational work among dairymen and milk handlers with the object of unifying and making more efficient inspections carried on by State and municipal boards of health...

#### Dairy Division experiment farm.

9, 104. 27 Supervision: General direction of dairy investigations at the Beltsville (Md.) experiment station ... Breeding of dairy cattle: Study of the breeding of dairy cattle and application of principles thus established..... Feeding of dairy cattle: Study of the effects of the various feeds and constit-uents of feeds upon the animal body, upon growth, and upon the yield and composition of milk, and of the relative values of feeds for dairy production.... 6, 165. 64 Housing and care of dairy cattle: Deter-1,884.95 mination of the best method of stabling cows, and investigations of problems in the milking and care of cows and in herd management. . Feed production: The production of feed for the dairy herd at the Beltsville farm; 523.76 detailed records being kept of the cost of all farm operations and observations made on the building up of the soil by fertilization, tillage, and drainage .....

#### Metabolism in dairy cows.

#### Western dairy extension.

	5
	Supervision: General direction of western dairy extension work, including corro-
426. 41	spondence and other clerical routine Dairy farming: Instructions to farmers in
	the Western States in the feeding of dairy
	cattle, the raising of calves, construction
836.87	of silos and dairy buildings, herd-record
	work, and the selection of pure-bred
	bulls, with the object of improving and
	developing the business of dairying in
480.36	that section

2,

2,

\$3, 628. 80 5, 508. 78 3, 457.09 13, 373. 81 15, 124. 03 9,904.88 17, 343. 64 5, 526. 08 5, 719. 65 7, 140. 61

5, 511. 92

3, 613. 75

### 18, 812. 74

Beef-cattle extension work: Organization of associations to improve beef cattle and encourage the cooperative purchase and sale of breeding animals; organization of baby-beef clubs and bull clubs; and in-structions and assistance to farmers and live-stock men by lectures, personal visits, correspondence, and otherwise in all matters pertaining to beef-cattle work .....

\$1, 541. 98

## Certification of pedigrees.

Determination of the purity of breeds and
the identity of horses, dogs, and cats im-
ported for breeding purposes under the
provisions of paragraph 397 of the tariff
act of Oct. 3 1913

#### Sheep and goat investigations.

_		Supervision: General direction of sheep	
		and goat investigations, correspondence,	
		and maintenance of record files pertain-	5 091 02
		ing to same. Range-sheep investigations: Investigations	5, 081. 93
		of the production of a range type of sheep	
-		from stock of Rambouillet blood, the	
9		adaptability of Corriedale sheep to west-	
3	24, 901. 80	ern range conditions, flock management,	
•	24, 901. 00	and problems in range-sheep breeding	30, 321. 72
		Farm-sheep investigations: Study of the fac-	
		tors controlling yields of lambs and the	
_		rate of their growth; determination for the	
•		main types of agricultural conditions in the form States and for irrigated and dry	
í		the farm States and for irrigated and dry- land farming areas of the lines along	
_		which sheep raising can be made most	
Э		profitable; and dissemination of data as	
r		to the profits from the practical manage-	
7 1 f		ment of farm flocks in New England	4, 578. 54
1 c		Farm-sheep demonstrations: Assistance in	
2		extending the sheep industry in farm	
5	4, 358. 84	States and demonstrations on farms of	15 405 20
	4,000,01	profitable methods of sheep raising Milch-goat investigations: Determination	15, 425. 39
		of the most economical methods of breed-	
•		ing, feeding, and management of milking	
		goats for infants' and invalids' use and in	
í		commercial cheese making	782.39
-		Studies of wool and other animal fibers:	
1		Determination for the various grades of	
•	27, 369. 50	wool the lowest shrinkage due to natural	
		oil that is consistent with the maximum	
		quantity and quality of wool; study of the relation of skin folds and other body	
		characters to density of fleece and fine-	
1		ness of fiber; investigation of the effect of	
•		climate, soil, and feed, also age and	
	3, 527. 87	heredity, on the growth and quality of	
-	-,	wool and other animal fibers used in	
f		commerce; and dissemination of informa-	
;		tion to wool growers concerning trade	
l		requirements and the various grades of wool and regarding the best methods of	
3		preparing their clips for market	3, 838. 23
í		propuring them emps for manufacture	0,000.20
		Swine investigations.	
-			
Э		Production of pork: Studies of the effect of	
	12, 095. 81	feed on the growth and quality of hogs	
-		and the keeping quality of pork, the	
\$		effect of feed on the physiological condi- tion of here the toxic effect of cotten-	
		tion of hogs, the toxic effect of cotton- seed meal feeding, and the methods of	
	952, 71	farm curing of pork	11, 613, 68

## 14

Milk work: Educational work among dairy- men and milk handlers, with a view to improve the milk supply and to unify and make more efficient inspections car- ried on by State and municipal boards of health	<b>\$3, 534. 67</b>
a uniformly good product	11, 053. 07
Total	393, 483. 67
ANIMAL HUSBANDRY INVESTIGATIONS.	ş -
Total expenditures as above Outstanding liabilities, Aug, 31 (estimated). Unexpended balance (estimated)	\$302, 472. 67 3, 210. 50 5, 829. 88
	311, 513. 05
Distributed among the several subactiv- ities as follows: <i>Administration.</i> General direction of animal husbandry in- vestigations, such office expenses as are not chargeable to specific projects coming under this head <i>Animal genetics.</i> Investigations of the effects of animal in- breeding from a scientific standpoint; interpretation of these results with regard to advantages and disadvantages in prac- tical breeding, with suggestions as to the	24, 901. 80
mode of procedure to secure the former without suffering from the latter; study of the mode of inheritance of special traits; and, in general, investigations of the factors which determine the course of the life histories of animals Animal husbandry experiment farm. Maintenance of the farm at Beltsville, Md.,	<b>4, 35</b> 8. 84

- for the purpose of affording the bureau
- proper facilities for conducting investiga-tions in the feeding and breeding of farm animals, including poultry .....

### Beef-cattle investigations.

Supervision: General direction of the beefcattle investigations, correspondence, and maintenance of record files pertaining to same.

- Beef production: Study the cost of main-taining breeding herds and the cost of producing beef animals to various ages, study of methods of fattening cattle and of the relative importance of various feedstuffs for such purposes, including work with calves, baby beeves, and steers; investigation of methods of wintering stocker and feeder cattle; and determination of the effect of beef-cattle
- shrinkage in live stock during transporta-tion: Study of the loss in weight of live stock in transit and of methods of improving conditions surrounding live-stock shipments.....

1, 470. 00

Organization of pig clubs: The object of this work is to stimulate an interest in swine production; to teach farm children improved methods of raising, fattening, and marketing hogs; to instill in them, while young, a love of animals which will result in their taking more interest in life upon the farm; and to furnish them at the same time with some work which will, in a practical way, give an insight into the business side of farm life.....

#### Horse and mule investigations.

- Supervision: General direction of horse and mule investigations, correspondence, and maintenance of record files pertaining to these projects ...
- Farm horse and mule investigations: Study of problems in feeding, breeding, and management of horses and mules, with particular reference to their use as farm work animals.....
- Breeding American carriage horses: Investigations in the production of a breed of horses from American material suitable
- horses from American material suitable for carriage and general purposes...... Breeding Morgan horses: The object of this project is to breed horses under New England conditions, establishing a stud and using horses of Morgan descent as the foundation, and, incidentally, to pre-serve the Morgan type and blood lines.. Breeding horses on Indian reservations: Improvement of the quality of horses bred on Indian reservations by proper selection and the use of pure-bred stallions.
- stallions ....
- Breeding horses for military purposes: The breeding of horses suitable for military purposes in localities where such horses are the most profitable type for farm use, and the encouragement, in general, of better horse-breeding methods among farmers.....

#### Poultry investigations.

1,

16, 356. 37

1, 343. 30

- Supervision: General direction of poultry investigations, correspondence, and maintenance of record files connected with these projects..
- Farm-poultry investigations: Study of the effect of rations, the inheritance of egg production and other characteristics, the incubation of eggs, brooding, and the effect on health of fowls and on fertility of eggs of free range, small and large yards, and various styles of houses..... Turkey and guinea investigations: Study of the effect of different rations on the health of here direction and the state of the state
- health of breeding stock, egg production, rate of growth of young stock, and fatten-ing for market; improvement of the quality of the different breeds; development and improvement of the meat qualities and meat-carrying capacity; study of methods of natural and artificial incubation and brooding; and investiga-tion of the general management of turkeys and guineas, such as free range confinement, various styles of housing and shelter, methods of killing and dressing on the farm, and methods for the control and prevention of mortality in turkeys.
- Pigeon and squab investigations: Study of beeding, breeding, breedin

the feeding of pigeons, and possible profits to be expected in this industry; tests of different breeds of pigeons and the crosses of these breeds to determine their suitability and value for the pro-duction of squabs; and study of the possible improvement in prolificacy of squab breeders in breeding, selection, and feeding ...

- Ostrich investigations: Investigations of \$32, 875.81 the problems underlying the breeding, incubation, and feeding of ostriches in the United States; cooperation with the pathological division of the bureau in studying the diseases and climatic conditions affecting them; study of the mar-keting of feathers; and assistance to ostrich breeders in the preparation of their product for market. 4, 983.65 Organization of boys' and girls' poultry clubs: The object of this work is to stimulate an interest in poultry among farm
  - 7, 400. 90 boys and girls; to give a better knowledge of the value and importance of the poultry industry; to encourage better poultry management and the breeding of standard-bred poultry; to standardize poultry and poultry products; and to show how increased revenue may be obtained by 5, 152.81 marketing a first-class uniform product ...
- Total..... 305, 683. 17 15, 155. 35

#### INVESTIGATIONS OF ANIMAL DISEASES.

, 370. 02	Total expenditure as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$159, 719. 78 6, 431. 60 13, 576. 79
	Total allotment	179, 728. 17

## Distributed among the several sub-activities, as follows:

- 43, 949. 71 Supervision: General direction of investigations of animal diseases and performance of duties common to this work ... Rabies investigations: The diagnosis of rabies in animals; study of the disease to find the causative agent and to be able to grow this agent by laboratory methods; determination of the significance of 8,053.44 Negri bodies in relation to the causation of rabies.... Forage poisoning or cerebrospinal menin-gitis of horses: Studies having in view the
  - determination of the causative agent of this disease and the devising of measures
  - for its prevention; also detection and study of the lesions of this disease..... Investigation of animal tuberculosis: In-vestigations in the control and eradica-tion of tuberculosi tion of tuberculosis among cattle, hogs, and other domestic animals, including studies of the mode of infection with tubercle bacilli, the manner in which the disease is disseminated, methods of treatment, and measures necessary to prevent its transmission..... Investigation of animal abortion: Study of the etiology, mode of transmission, and
  - practicable means of eradicating the disease; devising the most satisfactory method of disinfecting contaminated premises; and determination of the presence of the bacillus in suspected samples of market milk, as well as in hairless pigs and in goats and calves affected with goiter.....

10, 589. 61

4,761.56

15, 312.25

\$1, 107. 61

10, 310. 66

1, 956.00

933.03

47, 543. 17

- Investigations of swamp fever: Determination of the nature, cause, and prevention of the so-called swamp fever of horses, and development of an accurate method of laboratory and clinical diagnosis; involves a general study of the so-called filterable or untravisible viruses and new methods of procedure in diagnostic technique
- technique. Diagnosis of and immunization against anthrax: Experiments having in view the differentiation between anthrax and other diseases which bear resemblance to it and the perfecting of means of immunization against the disease by vaccination.
- Investigations of disease of fowls: Study of the causes and methods of control of diseases of fowls.....
- Miscellaneous biological experiments and investigations: Development of methods for the control of hemorrhagic septicemia; determination of the specific nature of diseases affecting animals at the National Zoological Park for the purpose of controlling these diseases; investigations of market milk as it reaches the city after shipment from dairies in the country, for detection of pathological conditions; and miscellaneous investigations of animal diseases as required from time to time... Index catalogue and collection of parasites:
- Index catalogue and collection of parasites: Maintenance of a comprehensive card index to the literature of animal parasites and a collection of specimens of parasites for study and reference.....
- Investigation of roundworms of sheep: Development of methods for the control and
- eradication of these parasites..... Investigations of anthelminitics and the treatment of live stock for internal parasites: Determination of the relative values of remedies used against internal parasites and development of methods for the practical treatment of live stock to destroy or remove these organisms.
- Investigations of parasitic protozoa, with particular reference to blackhead in turkeys: Studies of the character and life history of these parasites, with a view to their eradication and control.....
- Investigations of cattle ticks, mange mites, and other external parasites: Investigations to develop the most effective methods for the eradication and control of external parasites of animals.....
- Miscellaneous investigations of animal parasites, their control and eradication: Investigations to develop methods for the control and eradication of miscellaneous animal parasites.
- General maintenance of Bethesda experiment station: This represents overhead charges incidental to the maintenance and upkeep of the buildings, fences, and equipment of the bureau experiment station at Bethesda, Md., together with the cost of planting and harvesting crops and other activities in connection with the operation of the farm, which items can not be segregated and charged against specific investigational projects.....
- Breeding and feeding small experiment animals for disease research: The object of this work is to breed and have available an abundant supply of small experiment animals of definite known history for the various investigations conducted by the several laboratories of the Bureau of Animal Industry.

	Investigations of stock poisoning by plants: Investigation of the losses of stock due to	•
	feeding on poisonous plants and develop- ment of methods for avoiding such losses.	\$14, 457. 58
	Total	166, 151. 38
\$450.00	Construction of Buildings at Bethesda and Beltsville.	
	Total expenditures as above Outstanding liabilities, Aug 31 (estimated). Unexpended balance (estimated)	\$19, 585. 46 7, 288. 86 1, 565. 50
1, 766. 58	Total allotment=	28, 439. 82
1, 696. <b>00</b>	The construction of barns, sheds, and other buildings required for the proper conduct • of the animal disease, animal husbandry, and dairy research work	26, 874. 3 <b>2</b>
-	INVESTIGATION, TREATMENT, AND ERADI- CATION OF HOG CHOLERA.	
	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	\$250, 323. 91 700. 00 15, 638. 34
14, 367. 53	Total allotment=	266, 662. 25
	Distributed among the several sub- activities as follows:	
<b>3</b> , 165. 49	Supervision: Direction and coordination of the research, extension, and control work relating to the cause and prevention of hog cholera	17, 356. 78
9, 835. 89	Hog-cholera etadication: Detail of veteri- nary inspectors to work in cooperation with State authorities with a view to the control and eradication of hog cholera;	
	production of serum used in the organ- ization of the work Educational and demonstrational hog-	171, 7 <b>23. 01</b>
3, 823. 26	cholera work: Instructions to farmers, through county agricultural agents and others, in methods of controlling hog cholera by the application of the prevent-	
2, 598. 05	ive serum treatment and proper quaran- tine and sanitary measures Investigation of methods of producing im- munity against hog cholera: Investiga-	<b>3</b> 8, 982. <b>9</b> 3
	tions to improve and cheapen present methods of immunizing hogs against hog	
7, 384. 15	cholera. Investigation of the cause of hog cholera: Studies having for their object the deter- mination of the specific microorganism of	2, 062. 00
<b>2,</b> 214. <b>1</b> 8	hog cholera, and, if possible, its artificial cultivation Investigation of the mode of dissemination of hog cholera: Investigation of the life of	1, 727. 65
	hog-cholera virus on infected premises and of ways in which virus is carried from farm to farm, as well as from animal	
	to animal	19, 171. 54
	Total	251, 023. 91
2 <b>4, 5</b> 86. 87	CONTROL OF THE MANUFACTURE, IMPOR- TATION, AND SHIPMENT OF VIRUSES, SERUMS, ETC.	
	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	\$177, 871. 05 975. 50 8, 014. 30
8, 47 <b>3. 33</b>	Total allotment=	186, 860, 85

.

\$9, 212. 14

10, 166. 88

159, 467. 53

35, 982. 36

3, 451. 04

Distributed among the several subactivities as follows:

- Supervision: General direction of the work of enforcing the law governing the interstate shipment and the importation of viruses, serums, toxins, and analogous products for use in the treatment of domestic animals, including the supervision of the work of 85 employees at the various localities in the United States where such products are prepared, and the performance of duties common to the whole work.
- whole work. Special supervisory inspection: Personal investigations of licensed establishments and of the conduct and inspection of operations at licensed establishments to see that the law, regulations, and instructions governing the preparation, sale, barter, exchange, shipment, and importation of viruses, serums, toxins, and analogous products intended for use in the treatment of domestic animals are properly observed.
- Inspection of establishments: Inspection and supervision of the operations of establishments engaged in the preparation and disposal of serums, viruses, vaccines, toxins, etc., to determine whether or not licenses should be issued; also to determine whether the products of licensed establishments are pure and potent.....

Total	178, 846. 55

ERADICATION OF DOURINE.

Total expenditures as above	\$70,081.93
Outstanding liabilities, Aug. 31 (estimated).	2, 150.00
Unexpended balance (estimated)	17, 145. 55
-	

CONTROL OF MEAT AND MEAT FOOD PRODUCTS.

Total expenditures as above	\$3, 686, 195. 56
Outstanding liabilities, Aug. 31 (estimated).	21, 363. 08
Unexpended balance (estimated)	80, 536. 87

Total allotment	3, 788, 095. 51	
	the second s	

Distributed among the several subactivities as follows:

- Supervision: General direction of the work of meat inspection, including the supervision of some 2,600 employees at all the slaughtering centers of the United States, and the performance of duties common to the whole work.
- Purchase, preparation, and distribution of brands and branding ink: Provision for suitable fluid and branding appliances for marking carcasses, parts of carcasses, and meat and meat food products inspected under the meat-inspection act..

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Special supervisory inspection: Personal investigations of official establishments and of the conduct and inspection of operations to see that the law, regulations, and instructions governing meat inspection are properly observed

- spection are properly observed...... Laboratory inspection: Chemical and bacteriological examinations to ascertain whether meat and meat food products prepared in official establishments or under exemption or those shipped interstate by farmers, as well as imported meats and meat food products, are properly labeled, sound, healthful, wholesome, and otherwise fit for human food, and to determine whether any prohibited substance has been used in their preparation or in or about the establishment; also examinations to determine whether the water and ice used in the preparation of meat and meat food products are potable.
- Atte-mortem inspection of animals for slaughter: Examination of all cattle, sheep, swine, and goats to discover animals which show symptons of or are suspected of being affected with any disease or condition which would probably cause their condemnation in whole or in part when slaughtered, such animals being held apart and slaughtered separately from other animals so as to insure careful post-mortem inspection, as proyided in the regulations governing
- Federal meat inspection. governing Federal meat inspection of animals: Visual and digital examination and inspection of the carcasses and parts of all cattle, sheep, swine, and goats slaughtered at official establishments to determine the presence in any such carcasses or parts of any lesions of disease or other condition which might render the meat or any organ unfit for food purposes; and condemnation and destruction for food purposes of all carcasses or parts of animals found on final inspection to be unsound, unhealthful, unwholesome, or otherwise unfit for human food.....
- Supervision of the preparation and distribution of meats: Inspection of meat and meat food products prepared within or brought into official establishments and departments thereof to see that no unfit meat or product is used in the various processes of preparation, packing, salting, smoking, canning, etc., to insure proper labeling, and to see that establishments are maintained in a sanitary condition, that the workers are clean as to person and raiment, and that deleterious preservatives or ingredients are not used. Inspection of meats for the United States Army and Navy: Supervision of the preparation of meat and meat food prod-
- preparation of meat and meat food products for the Army and Navy to insure that they are sound and fit for food purposes at the time of delivery and that such articles conform to the specifications of the Army and Navy. (This expenditure, \$179,275.48, is reimbursable).
- inspection of public markets: Examinations at public markets of portions of inspected and passed meats and products thereof which, when cut or otherwise removed from a marked carcass, part, or container, do not show the inspection legend.

\$23, 357. 27

75, 126. 26

255, 163. 42

1, 566, 250. 54

1, 653, 856. 02

12, 757. 70

## STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF AGRICULTURE.

- Supervision of operation conducted under certificates of exemption: Under this project premises are examined to ascertain whether the shippers are retail butchers, retail dealers, or farmers, and hence entitled to operate under certificates of exemption, as provided under the meat-inspection law; also to see that the premises in which animals are slaughtered or where meat and meat products are prepared by or for persons who make interstate shipments under exemption from inspection are maintained in a sanitary condition and that the articles so shipped are sound, healthful, wholesome, and fit for human food.....
- Examination of imported meats and meat food products: Operations under this project are directed to prevent the importation of meat and meat food products of cattle, sheep, swine, and goats which are not properly certified, or which are falsely labeled, or which are unsound, unhealthful, unwholesome, or otherwise unfit for human food, or which contain any prohibited dye, chemical, preservative, or other harmful ingredient.....
- any prohibited dye, chemical, preservative, or other harmful ingredient..... Field overhead and miscellaneous meat inspection: This includes the overhead charges, such as details of inspectors in charge, supervisors, clerks, etc., at the meat-inspection stations throughout the United States; also minor activities not included under other projects of this group....
- Bacteriological investigations of meat and meat food products: The object of these investigations is to aid inspectors to determine the proper disposition of questionable meat and to enable packers, by the use of proper methods, to prevent spoilage.
- Investigation of changes in meats during preservation: Study of the changes which take place in meats during preservation by various methods, with particular reference to the cause of such changes and their effect upon the wholesomeness and nutritive value of the product ... \$4,028.61 Investigation of canned meats: The object of this project is to develop, through chemical and bacteriological studies, information concerning the effect which prolonged storage has upon canned meats. Investigations of pathological conditions noted during meat inspection: Investi-6.85 gation of any obnormal, unusual, or hitherto unnoted condition of interest, \$4, 591. 10 directly or indirectly, from the meat-inspection viewpoint, which may be encountered during routine Federal meat inspection, special emphasis being laid upon infectious conditions and those characterized by malignancy... 4, 198. 47 Zoological investigations relating to meat inspection: Investigation of trichinosis and measles, and other zoological studies relating to meat inspection, with a view to improve methods of meat inspection 10, 961. 66 in so far as parasitic diseases of food animals are concerned..... 4, 915. 96 Investigations upon the control of the house fly and other insects in establishments operating under Federal meat 485.70 inspection..... 52,091.66 3, 707, 558. 64 Total..... The meat-inspection work described in the preceding paragraphs was conducted at Washington, D. C., and 253 stations and substations in the field. The approximate

paragraphs was conducted at Washington, D. C., and 253 stations and substations in the field. The approximate cost and the character of the work conducted at each of the 144 principal stations are given below, substations 334. 02

Distribution of meat-inspection work and expenditures by stations.

Station.	Nature of work. <sup>1</sup>	Amount.	Station.	Nature of work.1	Amount.
Albany, N. Y. Albert Lea, Minn Allentown, Pa Alton, Ill. Amarillo, Tex	a, b, c, d, g a, b, c, d a, b, c, d, g a, b, c, d, g a, b, c, d.	\$8, 414. 70 8, 740. 61 8, 373. 83 3, 805. 56 359. 87	Davenport, Iowa Dayton, Ohio Denver, Colo Des Moines, Iowa Detroit, Mich	a, b, c, d, e a, b, c, d, f, g a, b, c, d	\$4,388.65 11,681.58 39,002.09 4,117.68 45,662.27
Andalusia, Ala Arkansas City, Kans Atlanta, Ga Auburn Ala Augusta, Ga	c, d a, b, c, d a, b, c, d, f, g	5,477.403,112.73469.30 $3,011.999,719.42$	Dubuque, Iowa. Duluth, Minn. Eau Claire, Wis El Paso, Tex Evansville. Ind.	a, b, c, d, g a, b, c, d, e, f, g, h a, b, c, d c, d, g a, b, c, d	3, 190. 32 4, 384. 88 4, 447. 54 5, 922. 73 5, 336. 04
Austin, Minn Baltimore, Md Billings, Mont Birmingham, Ala Bisbee, Ariz	a, b, c, d, f a, b, c, d, e, f, g a, b, c a, b, c a, b, d	49, 833. 61 811. 62 4, 548. 35 1, 682. 82	Fargo, N. Dax Fergus Falls, Minn Fort Smith, Ark Fort Wayne, Ind Fort Worth, Tex.	c, d, g. a, b, c, d, g. c, d. a, b, c, d a, b, c, d a, b, c, d, e.	$1,980.00 \\1,944.36 \\1,392.44 \\5,216.52 \\74,609.41$
Boise, Idaho. Boston, Mass. Bridgeport, Conn Bristol, Va. Brooklyn, N. Y.	a, b, c, d, e, f, g, h c, d, e, g, h a, b, c, d, g a, b, c, d, e, f, g	2, 430, 00 44, 225, 33	Fostoria, Ohio. Frederick, Md Gardiner, Mont. Grand Rapids, Wis. Green Bay, Wis.	a, b, c, d. a, b, c, d, g. a, b, c. a, b, c, d, g. c, d.	1, 927. 50 2, 466. 54 157. 50 1, 815. 00 1, 551. 20
Buffalo, N. Y Burlington, Vt Butte, Mont Calais, Me Cedar Rapids, Iowa	a, b, c, d, e, f, g, h a, b, c, d, g a, b, c, d a, b, d a, b, c, d. e	2,464.65 1,287.17	Hallstead, Pa. Harrisburg, Pa. Hartford, Conn. Haverhill, Mass. Houston, Tex.	a, b, c, d c, d, f a, b, c, d, f, h	8,485.73 1,386.00 7,047.96
Chattanooga, Tenn Cheyenne, Wyo. Chipley, Fla. Chicago, Ill. Cincinnati, Ohio.	a, b, c, d, g a, b, c, d a, b, c, d a, b, c, d.e, f, g, b, i, o, p	6,965.30	Houston, Tex. Huntington, W. Va. Hutchinson, Kans. Indianapolis, Ind. Jacksonville, Ill. Jacksonville, Fla.	a, b, c a, b, c, d a, b, c, d	$1,516.71 \\ 80,722.70 \\ 7,645.02$
Cleveland, Ohio Columbus, Ohio Cumberland, Md	a, b, c, d, f, h a, b, c, d	77,011.73 6,103.06	Jersey City, N. J. Kansas City, Kans	a, b, c, d, e, f, g a, b, c, d, e, f, g, i	50, 843. 26 292, 715. 59

<sup>1</sup> The letters in this column have the following meaning: a, ante mortem inspection of animals for slaughter; b, post-mortem inspection of animals; c, super vision of the preparation and distribution of meats; d, miscellaneous meat inspection; e, supervision of operations conducted under certificates of exemption; f, inspection of meats for the Army and Navy (reimbursable, amount not included); g, inspection at public markets; h, investigations of pathological conditions noted during meat inspection; i, laboratory inspection of samples of meat and meat food products; j, examination of imported meat and meat food products; k, purchase of meat-inspection brands; l, preparation and distribution of branding ink; m, bacteriological investigations of meat and meat food products; p, investigations of the constrained for the control of the house fly.

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Distribution of meat-inspection work and expenditures by stations-Continued.

Station.	Nature of work.	Amount.	Station.	Nature of work.	Amount.
La Fayette, Ind	a, b, c, d	\$84, 500.33	Pueblo, Colo	a, b, c, d	\$4.812.9
Leavenworth, Kans	a, b, c, d	1.413.55	Quincy, Ill.	c, d, f	1.387.0
Lewiston, Idaho	a, b, c, d	4,770.84	Reading, Pa	a h c d g	1 056 0
Logansport, Ind	a, b, c, d	4,216.34	Reno, Nev.	a, b, c, d, f a, b, c, d. f a, b, c, d a, b, c, d, e, f, g c	4,781.6
Los Angeles, Cal	a, b, c, d, e, f, g, h	34, 253, 39	Richmond, Ind	a. b. c. d.	1,871.5
Louisville, Ky	a. b. c. d. f. g.	19,411.77	Richmond, Va.	a, b, c, d, e, f, g	13, 164. 7
Madison, Ind	a, b, c, d a, b, c, d	1,897.40	Rochester, N. Y.	c	274.4
Madison, Wis	a, b, c, d	4,070.00	St. Louis, Mo	1 a, b, c, d, e, i, g, n	72,052.4
Manchester, N. H.	c, d, f	1,442.60	Salt Lake City, Utah	C, Q, H	7,029.6
Mason City, Iowa	a, b, c, d	13, 365. 98	San Diego, Cal	a, b, c, d, e	3,944.5
Memphis, Tenn	a, b, c, d, g	6, 114. 13	San Francisco, Cal	a, b, c, d, e, f, g, h, i	31, 383. 5
Menominee, Mich	a, b, c, d, g	1,228.50	Seattle, Wash	a, b, c, d, e, f, g, h, i a, b, c, d, e, f, g, h.	25, 329. 5
Milwaukee, Wis	a, b, c, d, e, f, g, h	67, 291. 15	Shreveport, La	C. C	1,810.8
Morristown, Tenn	a, b, c, d, g	3,488.52	Sioux City, Iowa	a, b, c, d, e, g	80,798.6
Moscow, Idaho	a, b, c, d, g	2,003.55	Sioux Falls, S. Dak	a, b, c, d	24,073.7
Moultrié, Ga	a, b, c, d	1,751.60	Smithfield, Va	c, d	1,399.4
Nashville, Tenn	a, b, c, d, g	3,966.53	South St. Joseph, Mo	a, b, c, d, e, f	143,744.4
Natchez, Miss.	a, b, c, d, g	8,046.21	South St. Paul, Minn	a, b, c, d, g	53,782.0
National Stock Yards, Ill	a, b, c, d, e, h, i	120, 336.96	Spokane, Wash	a, b, c, d, g c, d, f, g, h c, d	17,392.1
Nebraska City, Nebr	a, b, c, d	7,076.87 35,658.32	Springfield, Mass	с, <u>а</u> , 1, g, п	14,928.3
Newark, N. J New Haven, Conn	a, b, c, d, f, g, h	<b>7</b> , 994. 52	Stamford, Conn Tacoma, Wash	c, d	1,389.5 10,874.1
New Orleans, La.	a, b, c, d, e, f	17,835.13	Terre Haute, Ind	a, b, c, d, n	6, 186. 9
New Richmond, Wis	a, b, c, d, e, f, g a, b, c, d	2,958.12	Texarkana, Tex.	a, b, c, d.	1,386.0
New York, N. Y	a, b, c, d, e, f, g, h, i	183, 446. 18	Tifton, Ga	a, b, c, d	1,406.6
Norfolk, Va.	c, d, e, f, g	2,566.33	Toledo, Ohio	a, b, c, d, g	9, 538. 0
North Fork, W. Va	c, d	617.46	Topeka, Kans		8, 514.2
North Tazewell, Va	a. b. C.	1,981.93	Union City, Tenn	a, b, c	419.9
Ogden. Utah	a, b, c, d, g	7, 646. 26	Walla Walla, Wash	a, b, c, d.	3.052.8
Oklahoma, Okla	a, b, c, d.	48, 818. 48	Washington, D. C.	a, b, c, d, e, f, g, p	149, 138, 1
Omaha, Nebr	a, b, c, d, e, f, g, h, i	186, 505, 12	Waterloo, Iowa.		7, 189, 9
Ottumwa, Iowa	a. b. c. d. g.	26, 211. 45	Watertown, S. Dak	a, b, c, d	5,601.4
Paterson, N. J.	a, b, c, d, e, g	15,231.53	Wausau, Wis	a, b, c, d	1,890.0
Peoria, Ill	a, b, c, d	10,327.57	Waveross, Ga	a. b. c	1,628.5
Philadelphia, Pa	a, b, c, d, e, f, g, h,	84,845.84	Wheeling, W. Va	a, b, c, d, f	15,801.4
Pittsburg, Kans	a, b, c, d	1,885.77	Wichita, Kans	a, b, c, d, e	39, 293.7
Pittsburgh, Pa	a, b, c, d, g, h	30,351.99	Wilkes-Barre, Pa	c, d	1,349.8
Portland, Me	a, b, c, d, f, g, h,	7,852.03	Winona, Minn	a, b, c, d, g	2,613.4
Portland, Oreg	a, b, c, d, f, g, h a, b, c, d	19, 589. 57	Wilmington, Del	a, b, c, d, f, g	4,428.7
Pottsvillé, Pa	a, b, c, d	6,434.16	Wilmington, N. C.	a, b, c, d	2,089.0
Providence, R. I.	a, b, c, d, e, f, g, h	24, 123, 86	Worcester, Mass	a, b, c, d, e, f, g	9,834.8

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ERADICATION OF FOOT-AND-MOUTH DISEASE.         Total expenditures as above	of crop production and of feeding and han- dling live stock under the conditions obtain- ing in this region
careful inspection of all receipts of cattle, sheep, and swine for symptoms of this disease at the large markets	in forage-crop production
	Total
LIVE-STOCK PRODUCTION IN CANE-SUGAR AND COTTON DISTRICTS.	DAIRYING AND LIVE-STOCK PRODUCTION IN SEMI- ARID AND IRRIGATED DISTRICTS.
Total expenditures as above.\$55,713.40Outstanding liabilities, Aug. 31 (estimated).1,500.00Unexpended balance (estimated).2,999.18	Total expenditures as above
Total allotment	Total allotment
Distributed among the several subactivities as follows: Experimental work: The object of this work is to determine the commercial possibilities of producing live stock in the cane-sugar and cotton districts of the South; includes stud- ies of the best and most economical methods	Investigations of the problems encountered in establishing the industries of dairying and meat production in the semiarid and irri- gated sections of the western United States, particularly with reference to the effective utilization of the forage and grain crops pro- duced in those regions

19

#### BUREAU OF PLANT INDUSTRY.

			Salaries.					Equipment.		
	Project.		Lump fund.			Travel, station, and field	Apparatus,		Miseelle	
		Statutory.	In Wash- ington.	Out of Washington.	Total.	expenses.	instruments, laboratory.	Furniture.	niture. Miscella- neous.	
$1 \\ 2 \\ 3 \\ 4$	Administration Laboratory of plant pathology Fruit-disease investigations Citrus-canker investigation and	\$83, 830. 68 8, 535. 54 5, 972. 54 504. 00	\$17, 260. 42 32, 137. 86 45, 886. 18 2, 325. 11	\$628.33 2,717.57 2,860.02 197,956.62	\$101, 719. 43 43, 390. 97 54, 718. 74 200, 785. 73	\$551.63 3,270.24 8,945.87 27,035.55	\$460.21 960.16 1,934.10	\$1,283.79 570.20 277.67	\$2,481.04 1,844.21 2,692.37 2,027.97	
5	cradication. Investigations in forest pathol-	6,007.89	22,989.30	28,609.51	57, 606. 70	9,242.84	1,784.78	1, 323. 03	2, 816. 26	
6	ogy. Eradication of white-pine blis-		13, 460. 78	121,344.78	134, 805.56	38,094.65		133.09	505.79	
7	Cotton, truck, and forage-crop	7, 653. 79	38, 504. 30	15, 174. 59	61,332.68	9,584.37	1,116.28	670.25	3,270.07	
8	disease investigations. Crop-physiology and breeding	8,089.52	15, 762. 92	14,119.98	37, 972. 42	3, 729. 30	158.13	102.49	3,399.56	
9	investigations. Soil-bacteriology and plant- nutrition investigations.	9,558.27	23, 484. 55	1,532.50	34, 575. 32	869.93	1,876.58	91.43	453.81	
10 11	Soil-fertility investigations Crop-acclimatization and fiber-	3,430.80 4,006.61	27,905.49 25,897.07	163.09 16,192.37	31,499.38 46,096.05	1,641.30 9,148.00	1,081.60 .145.62	157.89 90.66	886.70 1,521.45	
12	plant investigations. Drug-plant, poisonous-plant, physiological, and fermenta-	10, 293. 88	33, 189. 67	7,186.00	50, 669. 55	2,684.55	1, 662. 80	<b>2</b> 89. 88	956.85	
13	tion investigations. Agricultural-technology inves- tigations.	5, 317. 95	17, 572. 42	898.68	23,789.05	811.46	1,177.30	105.95	646.81	
14 15 16 17 18 19	Biophysical investigations Seed-testing laboratories. Cereal investigations Tobacco investigations Paper-plant investigations Alkali and drought-resistant	$\begin{array}{r} 4,305.87\\ 10,300.90\\ 12,112.34\\ 3,699.37\\ 2,827.00\\ 1,943.08 \end{array}$	$\begin{array}{c} 14,977.63\\ 20,081.63\\ 66,296.75\\ 5,403.42\\ 4,677.38\\ 9,749.13 \end{array}$	1 8,896.94 7,145.37 59,840.55 19,340.89 169.00 6,466.91	$\begin{array}{r} 28,180.44\\ 37,527.90\\ 138,249.64\\ 28,443.68\\ 7,673.38\\ 18,159.12 \end{array}$	2,588.91 6,065.79 26,346.73 2,425.45 1,002.00 3,149.07	981.51235.50317.4147.3461.42151.74	37.45 76.97 272.72 15.21 78.07	1, 118. 53 425.07 2, 715.16 510. 85 4, 288.22 1, 854. 39	
20 21	plant investigations. Sugar-plant investigations Investigations in economic and	$1,766.00\\8,621.84$	11, 090. 97 15, 551. 43	24, 864. 04	$37,721.01 \\ 24,173.27$	10, 150. 57 484. 45	459.47 22.61	99.84 195.81	787.73 454.06	
22	systematic botany. Dry-land agriculture investiga-	6,267.50	13, 939. 89	85, 720. 73	105, 928. 12	8,725.06	112.00	1,400.56	16, 190. 31	
23	tions. Western irrigation agriculture investigations.	8,667.80	6,350.25	40, 739. 87	55,757.92	2,693.79	54.63	1,235.63	10,032.76	
24 25 26 27	Pomological investigations Horticultural investigations Arlington farm Experimental gardens and	17, 371. 21 10, 102. 69 24, 257. 87 50, 418. 94	48, 868. 47 29, 387. 31 11, 490. 53 1, 987. 50	13, 672. 62 8, 914. 56	79, 912. 30 48, 404. 56 35, 748. 40 52, 406. 44	16, 465. 20 6, 434. 12 29. 68	1, 672.00 497.26	573.03 151.30 192.58 11.30	5,905.46 3,843.94 3,345.23 5,496.50	
28	grounds. Foreign-seed and plant intro-	36,741.66	32,151.54	26, 522. 20	95, 415. 40	6,627.71		897.32	9,804.00	
29 30 31	duction. Forage-crop investigations Seed distribution Demonstrations on reclamation projects.	30,062.88	30, 547. 46 18, 455. 85 7, 335. 67	25, 125. 83 652. 33 19, 926. 42	64,732.11 49,171.06 27,262.09			7.59 270.88 108.41	972.10 3,731.49 3,610.86	
	Total	391, 727. 24	664, 718. 88	757, 382.30	11,813,828.42	224, 272. 69	16,970.45	10,721.00	98,589.55	

Classification of expenditures for the fiscal year ended June 30, 1918.

<sup>1</sup>Includes 5 and 10 per cent increased compensation, amounting to \$56,725.77, provided by the agricultural appropriation act for the fiscal year 1918.

### PROJECT STATEMENTS.

#### Administration.

Total expenditures as above	40	(
Total allotment 114, 696.	35	
This project covers the administration of the business affairs of the bureau and general direction of all its investigational activities, and includes the offices of chief and asso- ciate chief of bureau, the office of the assist- ant to the chief, editorial office, office of records, library, central files section, and supply section	. 28	
LABORATORY OF PLANT PATHOLOGY.		
Total expenditures as above\$53, 107.Outstanding liabilities, Aug. 31 (estimated)5, 587.Unexpended balance (estimated)12, 802.	. 03	
Total allotment	. 94	

Distributed among the several subactivities as follows:

- Central laboratory of plant pathology: Study and identification of fungi and bacteria parasitic on plants, with a view to the discovery of remedies and methods of preventing diseases caused by them. Diseased material is received from all parts of the United States and abroad for examination and advice given as to methods of treatment.
- treatment.... Pathological collections. Maintenance of an herbarium of pathogenic specimens, also mycological and host indexes of new species and lists of plants which they attack, and a mycological exchange with American and foreign scientists; and the identification of pathological material received by correspondence or otherwise.....
- Plant-disease survey: Recording the geographical distribution and prevalence of plant diseases and the losses occasioned by

10, 113. 39

#### BUREAU OF PLANT INDUSTRY.

Classification of expenditures for the fiscal year ended June 30, 1918.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	
\$1, 744. 49 1, 154. 84 655. 70 1, 362. 73	\$62.50 614.75 650.00	\$487.03 54.41 166.32 92.78	\$203.42 16.81 368.02 425.25	\$104.06		\$150.00 94.23	\$587.93 16.63 32.28 320.35	\$494.91 1,616.34 3,476.40 5,286.26	\$110,013.88 53,107.31 74,080.51 237,986.62	1 2 3 4
1, 207.00	320.00	343.26	696.16		\$147.45	11.80	199.82	1,078.41	76, 777. 51	5
351.89		160. 41	95.77					3,337.72	177, 484. 88	6
868-20	802-15	98.71	308-33	24.27		58.45		4,832.88	82,966.64	7
1, 121. 47	1, 452. 59	97.22	256.27	409.23	226.15	421.00	286.08	1,480.38	51, 112. 29	8
1, 454. 35	15.02	67.23					47.20	1, 579. 65	41,030.52	9
751.52 947.96	200.00	14.32 92.52	133. 25 234. 79	22.44		20.75 38.00	16.00 500.00	1,608.40 1,928.86	37, 833. 55 60, 943. 91	10 11
866. 76	80.00	71.09	123.67		98.56	9. 33	89.86	1, 143. 65	58, 746. 55	12
214.24		18.58	22.20					210.74	26, 996. 33	13
280.68 614.18 1,329.43 346.91 128.20 243.01	904.00 540.00	$\begin{array}{r} 48.41\\329.20\\324.01\\8.05\\1.19\\61.60\end{array}$	157.29 80.89 375.85 58.65 124.11 438.60	112.59 14.82 2.25 30.52	199. 52	91.72 422.20 6.40 23.36	54.05 20.30 31.16 1.80 96.66	$\begin{array}{r} 632.38\\ 305.02\\ 3,621.87\\ 1,465.94\\ 2,102.90\\ 401.51\end{array}$	35, 187.96 46, 220.82 174, 220.52 33, 328.48 15, 385.47 24, 687.65	14 15 16 17 18 19
631.42 383.65	711.08	201. 88 12. 20	209.36 2.48			48.00	28.65	2, 464. 27 327. 47	53, 513. 28 26, 056, 00	20 21
1,020.22	66.90	397.36	1,354.56	512.69	3, 052. 09	3,130.92	556.57	5, 775. 27	148, 222. 63	22
756.12		211.24	228.00	103.94	2, 818.54	959.83	478.02	1,906.88	77, 237. 30	23
$1,973.29 \\ 510.06 \\ 214.39 \\ 174.69$		340.03 169.30 117.29 4.30	785.98 161.18 72.49 25.95	576. 23 1, 266. 03 840. 00	1, 225. 73	45.37 1,540.94 362.20	272.52 97.70 270.32 937.85	4, 883. 43 5, 332. 06 1, 453. 72 1, 788. 10	112,828.6166,177.7145,476.8062,047.33	24 25 26 27
1, 958. 49		934.34	1, 098. 64	207.93	1,081.00	1, 523. 31	33, 663. 74	5, 422. 10	158,633.98	28
306. 25 3, 263. 78 238. 31	891.35	84.44 247.66 106.78	273. 87 4,068. 42 352. 25	11.22 830.28	24.00	33. 12 589-50 724-05	97.61 54.72	3,783.10 231,218.26 184.98	79, 528.91 295, 168. 67 38, 027. 43	29 30 31
27,074.23	7,310.34	5,363.16	12, 752. 51	5,068.50	8, 873. 04	10, 304. 48	2 38, 757. 82	301, 143. 86	2, 581, 030. 05	

<sup>2</sup>Mechanics', engineers', and electricians' supplies, \$1,937.23; cleaning and toilet supplies, \$1,364.54; structures and parts and nonstructural improvements to land, \$1,956.05; purchase of land at Chico, Cal., to be used as a plant-introduction garden, \$33,500.

Distributed among the several subactivities as follows:

General orchard diseases: Laboratory studies and field tests and demonstrations to develop methods of eradication or control of pear blight, little peach, peach yellows, crown gall, apple canker and black heart, root rot, and other diseases of orchard fruits; and a special study of spraying materials and apparatus

15, 451. 11

\$9, 534. 17

14, 697. 97

fungicides, etc.; and tests and demonstra-		ERADICATION OF WHITE-PINE BLISTER	Rust.
tions of spraying methods in various sec-		Total arranditures as above	@1 77 404 00
tions where, for any cause, failure has oc- curred	\$6, 211. 30	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated)	
Fruit rots and spots: Study of the causes and	<i>\phi</i> 0, 211.00	Unexpended balance (estimated)	
methods of prevention of these diseases			
while the fruit is in the orchard, in transit,	11 000 00	Total allotment	247, 497. 95
in storage, or on the market	11, 306. 60	Special experiements and demonstrations in	
Physiological fruit diseases: Study of diseases resulting from bad soil, malnutrition, frost,		Special experiemnts and demonstrations in the application of methods necessary to	
and other environmental and physiological		control and eventually eradicate the white-	
conditions	7, 158. 35	pine blister rust, in cooperation with State,	
Pecan diseases: A study of the diseases of the		county, and local authorities	206, 169.81
pecan, in the field and in the laboratory,	6, 644. 03		
with special reference to pecan rosette	0, 044. 05	COTTON, TRUCK, AND FORAGE-CROP DISEAS GATIONS.	SE INVESTI-
Total	80, 631. 53	GATIONS.	
		Total expenditures as above	\$82, 966. 64
CITRUS-CANKER INVESTIGATION AND ER.	ADICATION.	Outstanding liabilities, Aug. 31 (estimated).	12, 519. 75
		Unexpended balance (estimated)	269.94
Total expenditures as above	\$237, 986. 62	Total allotment	95, 756. 33
Outstanding liabilities, Aug. 31 (estimated)			30, 700. 33
Unexpended balance (estimated)	9,067.18	Distributed among the several subactivities	
Total allotment	261 760 78	as follows:	
	201,100.10	Supervision: General direction of field in-	
Study of the cause, nature, means of com-		vestigations, miscellaneous laboratory ex- periments, and clerical routine	16, 752. 89
munication, and methods of control of cit-		Cotton diseases: General study of cotton dis-	10, 702.03
rus canker; and the application of measures for its eradication and control, in coopera-		eases and their control and the breeding of	
tion with State authorities and growers	252, 693. 60	wilt-resistant varieties of cotton adapted to	
		boll-weevil conditions in the eastern part of the cotton belt	C FCO 00
INVESTIGATIONS IN FOREST PATHOL	OGY	Truck-crop diseases: Investigations of the	6, 560. 00
		causes and control of miscellaneous diseases	
Total expenditures as above	\$76, 777. 51	of truck crops and the breeding of disease-	
Outstanding liabilities, Aug. 31 (estimated).	11, 398. 72	resistant varieties.	66, 858. 50
Unexpended balance (estimated)	4, 300. 12	Forage-crop diseases: Study of diseases of forage crops, especially alfalfa, clover, and	
Total allotment	92, 476. 35	cowpeas; development of control measures,	
	32, 470. 30	and breeding of resistant varieties	2,610.00
Distributed among the several subactivities		Pathological extension work: Specific dem-	
as follows:		onstrations of methods for the control of cot-	
Supervision: Planning and supervising field investigations, miscellaneous laboratory		ton, truck, and forage-crop diseases, in co- operation with the States Relations Serv-	
experiments in connection with the patho-		ice, extension divisions of the State agri-	
logical studies, and general office details.	7, 718. 60	cultural colleges, and others, in order to se-	
Diseases of shade and ornamental trees and	ŕ	cure the general adoption by farmers and	
shrubs: Experiments on the nature and		growers of the most improved methods of disease control and eradication	2,705.00
control of these diseases, in cooperation with States, cities, societies, institutions,			2,700.00
and private agencies.	8,077.73	Total	95, 486. 39
Pathological problems in wood preservation:			
The devising of better methods of timber		CROP PHYSIOLOGY AND BREEDING INVEST	IGATIONS.
preservation by the study of all pathological and mycological aspects of the rotting and		Total expanditures as above	\$51, 112. 29
staining of structural timber	8, 844. 27	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated).	5,483.64
Forest-tree diseases: Field and laboratory	0,011.21	Unexpended balance (estimated)	997.89
studies of the causes and progress of diseases			
affecting forest trees and shrubs, especially		Total allotment	57, 593. 82
forest nursery stock, including the control of such diseases as interfere with the com-		Distributed among the several subactivities	
mercial production of forest-tree seedlings		as follows:	
and with successful reforestation by plant-		Supervision: General direction of field in-	
ing.	34, 244. 05	vestigations, miscellaneous laboratory ex-	0.000 50
Imported and epidemic tree diseases: Study of the control of miscellaneous diseases, in-		periments, and clerical routine Indian cooperation: Breeding and testing of	6, 230. 52
cluding white-pine blister rust, the chest-		crops which may be grown profitably by	
nut bark disease, etc., and the dissemina-		the Indians themselves or for which In-	
tion of information, by demonstrations,		dian labor may be utilized	13, 446.50
publications, and correspondence, relative	90 901 59	Date culture: Investigations of the life his-	
to the work	29, 291. 58	tory and physiological requirements of the date palm in order to establish date culture	
Total	88, 176. 23	on a commercial scale in the United States.	14, 000. 00
		· · ·	

Fig culture: Development of economical and practical methods for the caprification of Smyrna figs in order to establish their cul- ture on a commercial scale in this country:		CROP-ACCLIMATIZATION AND FIBER-PLANT TIONS. Total expenditures as above	
ture on a commercial scale in this country; and breeding new varieties of figs and capri- figs adapted to American conditions	\$4, 000. 00	Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$60, 943. 91 24, 180. 97 1, 881. 53
Citrus-fruit breeding: Development by hy- bridization and selection of new and hardy types of citrus fruits with a view to extend		Total allotment	87, 006. 41
the area of their growth in the United States.	15, 916. 80	Distributed among the several subactivities as follows:	
Dry-land arboriculture: Experimental test- ing of deep-rooted and drought-resistant trees and shrubs better suited for culture in the dry-land regions of the United States than the shallow-rooted annual		Supervision: General direction of field in- vestigations, miscellaneous laboratory ex- periments, and clerical routine Acclimatization, adaptation, and breeding of cotton: Investigation of weevil-resistant	3, 002. 09
crops now grown	1, 980. 00	and drought-resistant types of cotton, and study of the factors of local adjustment; breeding and maintenance of cotton vari- eties, and cottonseed interbreeding	38, 542. 02
plication of stimulation treatments to seeds and plants.	1, 022. 11	Acclimatization, adaptation, and extension of corn: This project especially concerns trop-	00,012.02
- Total	56, 595. 93	ical and subtropical varieties of corn and the extension of the culture of corn into regions where it is either not being grown	
Soil-Bacteriology and Plant-Nutrition tions.	INVESTIGA-	or is a precarious crop. Acclimatization and adaptation of tropical plants: Study of tropical fruits and vege-	6, 951. 27
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	1, 897. 60	tables in their native habitat, including coffee, cacao, rubber and rubber substi- tutes, economic palms, and bananas, and their adjustment to conditions in the	·
Total allotment	49, 315. 19	United States and its insular possessions. Fiber-plant investigations: Investigations of	3, 151. 26
Distributed among the several subactivities as follows: Supervision: General direction of the investi- gations, office routine, and miscellaneous laboratory experiments Distribution and study of legume bacteria: Study of the life history of the nodule- forming bacteria, and their distribution in pure cultures for the inoculation of legu-	7, 234. 45	the possibilities of the commercial culture of sisal, henequen, and similar hard-fiber plants in the United States and its insular possessions; extension of flax and hemp industries in this country, both for seed and fiber; investigations of plant fibers used in the manufacture of brushes, up- holstery, and other textile products; lab- oratory work in measuring and testing the	
minous crops. Soil bacteriology: Investigation of the organ- isms causing decomposition in organic ma-	13, 743. 27	tensile strength of fibers; and identifica- tion of fibers and fiber plants	33, 478. 24
terial in soils; determination of the rela- tionships of the organisms which fix atmos- pheric nitrogen and those which cause ni- trification in soils; study of the relation of soil bacteria to the growth of crop plants	19 007 00	Total. Drug-Plant, Poisonous-Plant, Physiolo Fermentation Investigations.	
Nutrition of the date palm: Study of the op- timum conditions for nutrition and fruit production of the date palm	12, 007. 99 300. 00	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$58, 746, 55 8, 168, 92 2, 473, 99
Plant-nutrition investigations: Study of methods for determining the fertilizer re- quirements of crops and the functions of		Total allotment Distributed among the several subactivities	69, 389. 46
the different elements of plant food in their relation to the nutrition and compo- sition of crop plants	9, 642. 41	as follows. Supervision: General direction of field in- vestigations, miscellaneous laboratory ex-	
Total	42, 928. 12	ments, and clerical routine Drug and related plants and their products: Study of the culture, handling, and im-	11, 633. 48
Soil-Fertility Investigations.		provement of plants yielding drugs, spices, oils, and related products and by-products,	
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$37, 833. 55 2, 055. 01 27. 24	with a view to add profitable new crops and products to American plant industries Poisonous-plant investigations: Study of the geographical distribution and localization	24, 81 <b>4. 94</b>
Total allotment	39. 915. 80	of poisonous plants, with special reference to those areas in which, owing to their	
Study of the origin of organic constituents in soils; the cause of infertility and means of improvement and upbuilding of soils; and the various factors as influenced by fer-		abundance or concentration, they are be- lieved to be especially harmful; study of poisonous plants with reference to the na- ture and pharmacological action of their	
tilizers and soil amendments	39, 888. 56	constituents, methods of eradication, etc	2, 949. 76

.

Physiological and fermentation investiga- tions: Technical physiological studies of crop plants and their products, conducted,		Adulterated-seed investigations: Testing commercial seeds for proof of adulteration, in accordance with law.	\$6, 666. 80 <i>-</i>
in various instances, in cooperation with pathological and crop investigations of other offices of the bureau	\$27, 517. 29	Enforcement of the seed-importation act: En- forcement of the act of Aug. 24, 1912, pro- hibiting the importation of seeds adulter-	
Total	66, 915. 47	ated or unfit for seeding purposes as defined in the act.	5, 886. 43
AGRICULTURAL TECHNOLOGY.		Total	48, 233. 21
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated)	\$26, 996. 33 940. 59	CEREAL INVESTIGATIONS.	
Unexpended balance (estimated)	2, 498. 63	Total expenditures as above. Outstanding liabilities, Aug. 31 (estimated)	\$174, 220. 52 26, 175. 38
Total allotment	30, 435. 55	Unexpended balance (estimated)	485.99
Investigations of free-living and plant-in- festing nematodes, improvement of agri-		Total allotment	200, 881. 89
cultural apparatus, development of appa- ratus for solar and artificial projection in		Distributed among the several subactivities as follows:	
connection with illustrative work, and various other technological problems	27, 936. 92	Supervision: General direction of field inves-	`
BIOPHYSICAL INVESTIGATIONS.	,	tigations, miscellaneous laboratory experi- ments, and clerical routine.	14, 314. 34
Total expenditures as above	\$35, 187. 96	Production and improvement of cereal crops and their products: Determination of vari-	
Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	$1,419.61\\569.80$	etal adaptations of wheat, oats, barley, rice, grain sorghums, broom corn, and other	
Total allotment	37, 177. 37	grains, and the factors influencing them; improvement of these crops through selec-	
= Distributed among the several subactivities		tion and hybridization of varieties and races; study and improvement of production	
as follows: Supervision: General direction of biophysical		methods; study of inheritance in hybrids; identification, description, and classifica-	
investigations, office routine, and con- struction and repair of apparatus	· 16, 089. 20	tion of varieties. Cereal and flax tillage and rotation investiga-	92, 406. 65
Cooperative biophysical investigations: Study and comparison of environmental	,	tions: Improvement in yield and quality of cereals and flax through better cultural	
conditions under which crops can be pro- duced in the semiarid regions; investiga-		methods and rotations and obviation of the necessity for frequent summer fallowing on	
tion of the most efficient methods of con- serving moisture and plant nutrients in		certain dry lands of the West Cereal and flax diseases: Laboratory and field	2, 660. 00
the soil, and other related problems Special biophysical investigations: Devel-	9, 183. 00	experiments and studies in the life history of rusts, including black and stripe rust,	
opment of improved apparatus for the rapid determination of the moisture con-		smuts, scab, and other diseases of grain and flax, and of methods for their control; and	
tent of grain during transit; experiments in electroculture; methods of correcting		the breeding of disease-resistant varieties Corn improvement and production: Labora-	47, 565. 60
unfavorable nutrient solutions in the soil which lead to malnutrition of plants; and		tory and field experiments in the produc- tion and improvement of corn; study of the	
various other biophysical experiments, in cooperation with other offices of the bureau.	11, 335. 37	effects on corn of heredity and environ- ment; production of improved strains for	
Total.	36, 607. 57	the different geographical sections of the United States; and tests and demonstra-	
SEED-TESTING LABORATORIES.		tions of the best practical methods of seed corn selection, fumigation, drying, and pres-	
Total expenditures as above	\$46, 220. 82	ervation	43, 449. 27
Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	2,012.39 491.46	Total	200, 395. 90
- Total allotment	48, 724. 67	Tobacco Investigations.	\$99 999 40
= Distributed among the several subactivities as follows:		Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$33, 328. 48 2, 208. 83 1, 030. 42
Supervision: General supervisory and cleri- cal work in connection with the various		Total allotment	36, 567. 73
activities of the office Seed testing: Making tests at laboratories in	10, 633. 55	Distributed among the several subactivities as follows:	
and out of Washington for germination and mechanical purity of samples of seeds sub- mitted by farmers and seedsmen	18, 856. 73	Supervision: General direction of tobacco in- vestigations in and out of Washington, prep-	
Seed purity and vitality investigations:	10,000.73	aration of publications, laboratory experi- ments, and various details of clerical and	
Tests to determine conditions required for rapid and complete germination and greater withit, and to distinguish the characters of		scientific work. New England cigar-wrapper tobacco investi-	7, 201. 31
vitality and to distinguish the characters of closely allied economic seeds, in order to discominate information as to the identity		gations: Study of improved methods of breeding, growing, curing, and handling	
disseminate information as to the identity of various classes of commercial seeds	6, 189. 70		3, 247. 99

24

1	Adulterated-seed investigations: Testing	
	commercial seeds for proof of adulteration, in accordance with law	<b>\$6 666 80 -</b>
	Enforcement of the seed-importation act: En-	\$6, 666. 80 -
	forcement of the act of Aug. 24, 1912, pro-	
9	hibiting the importation of seeds adulter-	
	ated or unfit for seeding purposes as defined	
7	in the act	5, 886. 43
	Total .	10 000 01
	Total	48, 233. 21
3	CEREAL INVESTIGATIONS.	
9		AT- ( 000 F0
3	Total expenditures as above. Outstanding liabilities, Aug. 31 (estimated).	\$174, 220. 52 26, 175, 28
5	Unexpended balance (estimated)	485.99
=	- Lonponada Suranco (commutor)	
	Total allotment	200, 881. 89
	Distributed among the several subactivities	
	as follows:	•
<b>2</b>	Supervision: General direction of field inves- tigations, miscellaneous laboratory experi-	
	ments, and clerical routine	14, 314. 34
	Production and improvement of cereal crops	11,011.01
6	and their products: Determination of vari-	
51	etal adaptations of wheat, oats, barley, rice,	
0	grain sorghums, broom corn, and other	
	grains, and the factors influencing them;	
7	improvement of these crops through selec-	
=	tion and hybridization of varieties and races;	
	study and improvement of production methods; study of inheritance in hybrids;	
	identification, description, and classifica-	
	tion of varieties	92, 406. 65
0	Cereal and flax tillage and rotation investiga-	
	tions: Improvement in yield and quality	
	of cereals and flax through better cultural	
	methods and rotations and obviation of the	
	necessity for frequent summer fallowing on	2,660.00
	certain dry lands of the West Cereal and flax diseases: Laboratory and field	2,000.00
0	experiments and studies in the life history	
	of rusts, including black and stripe rust,	
	smuts, scab, and other diseases of grain and	
į	flax, and of methods for their control; and	
	the breeding of disease-resistant varieties.	47, 565. 60
	Corn improvement and production: Labora-	
	tory and field experiments in the produc- tion and improvement of corn; study of the	
	effects on corn of heredity and environ-	
7	ment: production of improved strains for	
	the different geographical sections of the	
7	United States; and tests and demonstra-	
	tions of the best practical methods of seed	•
	corn selection, fumigation, drying, and pres- ervation.	43, 449. 27
2	ervation	10, 110. 21
9	Total	200, 395. 90
6		
/	TOBACCO INVESTIGATIONS.	
7	Total expenditures as above	\$33, 328. 48
-	Outstanding liabilities, Aug. 31 (estimated)	2, 208. 83
	Unexpended balance (estimated)	1,030.42
	Total allotment	36, 567. 73
5	Distributed among the several subactivities	
	Distributed among the several subactivities as follows:	
3	Supervision: General direction of tobacco in- vestigations in and out of Washington, prep-	
5	aration of publications, laboratory experi-	
	ments, and various details of clerical and	
	scientific work	7, 201. 31
	New England cigar-wrapper tobacco investi-	
	gations: Study of improved methods of breeding, growing, curing, and handling	
0	breeding, growing, curing, and handling	3, 247. 99
0	cigar-wrapper tobacco	0, 211.00

STATIMENT OF EATENDITORES OF	THE DEFRICTENT OF AUTOOBTORE. 20
Maryland export tobacco investigations:	Breeding and physiology of alkali and
Study of improved methods of growing,	drought-resistant plants: Breeding of va-
curing, and handling the crop, by means of	rious crop plants suitable for cultivation
breeding and selection, fertilization, and	under alkali and drought conditions; in-
systems of rotation	
Burley tobacco investigations: Development	regions with a view to its use as an indicator in classifying land upon the basis of its
and test of pure strains of standard Burley varieties, determination of the fertilizer	crop-producing capabilities; and develop-
requirements and best systems of crop rota-	ment, by introduction and breeding, of
tion for Burley tobacco, and development	drought and alkali resistant varieties of
of better cultural and curing methods 1, 867. 30	pomegranates
Western fire-cured tobacco investigations:	Egyptian cotton breeding: Production of va-
Study of the fertilizer requirements, sys-	rieties of Egyptian cotton yielding fiber of
tems of crop rotation, and best cultural methods for producing fire-cured tobacco 1, 379.18	superior quality and thoroughly adapted to growing under irrigation in the south-
New York binder and filler tobacco investi-	western United States
gations: Development of improved types	
of tobacco by seed selection, the use of fer-	Total
tilizers, and the introduction of systems of	
crop rotation adapted to the culture of	SUGAR-PLANT INVESTIGATIONS.
binder and filler leaf	Total expenditures as above \$53, 513. 88
investigations: Development of improved	Outstanding liabilities, Aug. 31 (estimated). 3, 146.68
types of tobacco by the adoption of proper	Unexpended balance (estimated)
rotation systems, fertilization, and breed-	
ing and selection, including the breeding	Total allotment
of disease-resistant varieties	
Pennsylvania cigar-filler tobacco investiga-	Distributed among the several subactivities as follows:
tions: Experiments to improve the yield and quality of cigar-filler and binder leaf	
by breeding and selection, and the devel-	Supervision: General direction of field inves- tigations, miscellaneous laboratory experi-
opment of better methods of growing, cur-	ments, and clerical routine
ing, and handling the crop 2,787.98	Sugar-beet investigations: Studies of diseases
Wisconsin cigar-binder tobacco investiga-	of sugar beets and the breeding of improved
tions: Field and laboratory studies of to-	varieties; and investigation of the eco-
bacco diseases, and experiments to ascer- tain the fertilizer and other requirements	nomic practices in crop production in sugar-
of the crop in this section	beet areas
Miscellaneous tobacco investigations: Study	and improvement of American strains of
of the physiology, pathology, and chemistry	sugar-beet seed, and establishment of a
of the tobacco plant in relation to improved	permanent sugar-beet seed industry in the
methods of growing, curing, fermenting, and handling the crop. This work sup-	United States
plies the fundamentals for the practical	Sugar-cane and sorghum sirup production:
work in improving methods of tobacco	Investigations and demonstrations of meth- ods for the production of cane and sorghum
production	sirup, including the breeding, culture, and
Total	diseases of these crops, methods of manu-
Total	facture, standardization, and marketing of
PAPER-PLANT INVESTIGATIONS.	sirup, and utilization of cane and sorghum
TAPER-FLANT INVESTIGATIONS.	by-products, with special reference to the farm production of sirup
Total expenditures as above \$15, 385. 47	
Outstanding liabilities, Aug. 31 (estimated) 4,000.43	
Unexpended balance (estimated) 280.98	
Total allotment	INVESTIGATIONS IN ECONOMIC AND SYSTEMATIC BOTANY.
	Total expenditures as above
Utilization of various wild and cultivated	Outstanding liabilities, Aug. 31 (estimated) 3, 458. 50
plants and crop wastes for paper making;	Unexpended balance (estimated)
study of the market conditions of these	
products; and breeding of plants that have paper-making value	Total allotment
paper making value	Distributed among the several subactivities
ALKALI AND DROUGHT-RESISTANT PLANT	as follows:
INVESTIGATIONS.	Supervision: General direction of investiga-
	tional work and clerical routine
Total expenditures as above	Distigraphicat note in the second
Outstanding liabilities, Aug. 31 (estimated)	
Ullexpended balance (estimated)	including a list of scientific serials, for the
Total allotment	purpose of improving bibliographical facili-
· · · · · · · · · · · · · · · · · · ·	ties for botanical workers 5, 258. 73
Distributed among the several subactivities	Range investigations: Study of the life history
as follows:	of forage plants of the national ranges; ex-
Supervision: General direction of field inves-	horiments in pastilling and in both natilital
tigations laboratory experiments and	periments in pasturing and in both natural and artificial reseeding of destructively
tigations, laboratory experiments, and office details	and artificial reseeding of destructively

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Economic botany of native races: Utiliza-

Economic botany of native races: Utiliza-		POMOLOGICAL INVESTIGATIONS.	
tion of valuable plant species in the wes- tern United States, Mexico, and South		Total expenditures as above	\$112, 828. 61
America, and collection of data regarding	AF 000 0F	Outstanding liabilities, Aug. 31 (estimated).	12, 215.77
plants used by the American aborigines Botany of economic grasses: Collection and	\$5,030.67	Unexpended balance (estimated)	
identification of economic grasses, both		Total allotment	125, 484. 18
native plants and foreign introductions; preservation of authentic and correctly		Distributed among the several subactivities	
named specimens; and compilation of a		as follows:	
manual of North American grasses	7, 537. 56	Supervision: General direction of investiga-	19 100 55
Systematic work in economic botany: In- cludes an economic monograph of the		Fruit handling, transportation, and storage:	13, 128. 55
heather and blueberry families, with		Study of the causes of deterioration and of	
special reference to their utilization in the United States; identification and classifi-		means of improving the keeping and carry- ing quality of fruit by better methods of	
cation of forage plants, ornamental trees		picking, handling, precooling, and proper	
and shrubs in the American nursery trade,		refrigeration during transit, in storage, and	21 007 50
and miscellaneous plant material; and records of the origin and character of varie-		at market terminals. Viticultural investigations: Experiments in	31, 907. 52
ties of ornamental plants originating under		the culture of native and foreign varieties	
cultivation	7, 324. 71	of grapes and methods of handling and marketing grapes and grape products	19, 198. 80
Total	29, 514. 50	Fruit-production investigations: Study of the	10, 100. 00
		adaptability of fruit varieties to environ-	
DRY-LAND AGRICULTURE INVESTIGAT	IONS.	ment in different sections, including the cultivation of fruits under semiarid condi-	
Total expenditures as above	\$148, 222, 63	tions and in the national forests	16, 739. 34
Outstanding liabilities, Aug. 31 (estimated).	21, 162.89	Nut-culture investigations: Determination of the range of adaptability of different puts:	
Unexpended balance (estimated)	255. 50	the range of adaptability of different nuts; the relative value and merit of different	
Total allotment	169, 641. 02	varieties, their cultural requirements, and	
=		methods of propagation; and the production of improved varieties.	1, 141. 39
Distributed among the several subactivities as follows:		Fruit improvement through breeding, selec-	-, 111. 00
Supervision: Planning and direction of field		tion, and domestication: A general study of the laws of inheritance and other princi-	
investigations, and clerical routine incident		ples of fruit breeding involved in the propa-	
to the work. Methods of crop production under dry-land	18,378.50	gation and culture of hardy and disease-	Ð
conditions: Experiments in crop rotation		resistant varieties in the different fruit- producing regions of the country	13, 167.75
for the conservation of moisture and main-		Investigations in systematic pomology: As-	10, 107, 75
tenance of humus in the soil, and other cultural methods for improving agricultural		sembling of general data regarding the ori-	
conditions in the Great Plains area	111, 471. 27	gin and history of different fruit varieties in the United States, with special reference to	
Northern Great Plains field station: Mainte-		old and little-known varieties; identifica-	
nance of an experimental farm to demon- strate the kind and character of plants,		tion and naming of varieties; preparation of illustrations, models, and descriptions, and	
shrubs, trees, berries, and vegetables best		keys for use in making identifications; and	
adapted to the climate and soil of the semi- arid regions.	39, 535. 75	the verification of varieties, in order to se-	
-		cure a pure and stable nomenclature of the cultivated American fruits	17,352.03
Total	169, 385. 52	Fruit utilization: Investigation of the best	
WREEDN INDIAL MONTA CONCULTURE INVES		and most practical methods of using the lower grades of fruit and surplus stock which	
WESTERN IRRIGATION AGRICULTURE INVES- TIGATIONS.		can not be marketed profitably in a fresh	
Total expenditures as above	\$77, 237. 30	state. Extension work in horticulture: Study of ex-	1, 368. 16
Outstanding liabilities, Aug. 31 (estimated).	8, 291. 79	tension work in pomology and horticulture	•
Unexpended balance (estimated)	11. 23	in the various States, and dissemination of	
Total allotment	85, 540. 32	information concerning the best methods and practices, in cooperation with the	
=		States Relations Service.	2, 114.20
Distributed among the several subactivities as follows:		Pecan culture: Determination of the range of adaptability of pecans, the relative value	
Supervision: Planning and directing field		and merit of different varieties, and their	
investigations and conducting routine	15 500 00	cultural requirements, including methods of propagation; development of improved	
clerical work Crop production under irrigation: Study of	15, 703. 20	varieties; and discovery of uses for nut	
agricultural problems connected with sub-		material now largely wasted	8,926.64
duing new and reclaimed lands and the best methods of tillage, irrigation, etc.,		- Total	125, 044, 38
necessary for the utilization of these lands;		Horticultural Investigations.	,
and supervision of experimental work, in			PCC 177 71
cooperation with other branches of the Bureau of Plant Industry and the Recla-		Total expenditures as above Outstanding liabilities, Aug. 31 (estimated).	$     \$66, 177. 71 \\     7, 496. 52 $
mation Service.	69, 825. 89		
	85, 529. 09	Total allotment=	73, 674. 23
	00,000,001		

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Distributed among the several subactivities as follows:

Supervision: General direction of investigations and clerical routine. .

- Vegetable handling, transportation, and stor-age: Determination of the factors which govern the successful handling, transporta-tion, and storage of vegetables, with a view to reduce decord
- to reduce decay. Vegetable production: Surveys of truck-crop and market-gardening districts to determine the factors which limit crop production or cause crop deterioration; study of the best cultural methods, also of the value of or-ganic soils with reference to their utility in the growing of vegetables; a comprehensive study of the peanut industry; and investigation of the commercial production of veg-
- etable and flower seeds. Vegetable improvement through breeding, selection, and domestication: Development of better strains and varieties; standardization of different varieties of vegetables with a view to secure uniformity in size, season,
- a view to secure uniformity in and, productiveness, etc. Irish-potato investigations: A comprehensive study of the culture, handling, and utiliza-tion of the potato, including the development of disease-resistant varieties.....
- Investigations in systematic olericulture: Accumulation of data relating to the origin and history of varieties of vegetables, and establishment of a simple and stable nomenclature for the cultivated vegetables. .
- Vegetable utilization: Investigations of the best and most practical methods of using the lower grades of vegetables and surplus stock which can not be marketed profitably in a fresh state.
- Landscape-gardening and floriculture investigations: Study of the arrangement, ef-fects, and uses of trees, shrubs, and plants on streets, parks, and lawns, and investigation of the efficiency of various systems of plant propagation

#### Total..... 73, 674. 23

ABLINGTON FARM.

Total expenditures as above	\$45, 476. 80
Outstanding liabilities, Aug. 31 (estimated).	1, 671. 31
Unexpended balance (estimated)	233.95

#### Total allotment..... 47, 382.06

Maintenance of a field laboratory providing facilities for a wide variety of testing, breeding, and selection work and for the investigation of methods of plant propaga- tion; also includes collections of fruit and other horticultural varieties for systematic study, comparison, and description	
study, comparison, and description	47, 148. 11
Experimental Gardens and Groun	

Total expenditures as above	62,047.33
Unexpended balance (estimated)	61.61
-	

Total allotment..... 62, 108. 94

The care and upkeep of the department grounds and greenhouses, including the construction and repair of greenhouses; growing and care of tropical and miscel-laneous plants under glass; improvement of grounds (including the planting of trees, shrubs, etc.); experimental work with greenhouse crops, forcing of vegetables,

\$10, 728. 17	growing florists' crops, etc.; providing greenhouse facilities for pathological and physiological experiments of various offices of the bureau; and concret hybridication	
ψ10, 720. 17	of the bureau; and general hybridization work	\$62, 047. 33
	FOREIGN SEED AND PLANT INTRODUC	TION.
1, 334. 69	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	6, 334, 73
	Total allotment	165, 536. 34
	Distributed among the several subactivities as follows:	
	General direction of plant introductions: Se-	
12, 269. 57	curing new and valuable seeds and plants	
	from all parts of the world and distributing	
-	them for test among experimenters in this country; maintenance of a plant-quarantine	
	house; publishing inventories and bulletins	
	of foreign introductions; recording all im-	
4,234.66	ported material, and other necessary cleri-	
1, 201. 00	cal routine	52, 267.90
	Foreign explorations: This project covers the	
	cost of sending out trained agricultural ex-	
23,861.76	plorers to investigate agricultural methods and resources of foreign countries and	
	search for seeds and plants that may be	
	useful and profitable to American planters	
	and to assist in the introduction and de-	
73. 09	velopment of new plant industries	12, 760. 80
10.00	Plant-introduction field investigations: Main-	· ·
	tenance of plant-introduction gardens at	
	Chico, Cal., Miami and Brooksville, Fla.,	
	Rockville, Md., and Bellingham, Wash.,	
3, 506. 27	for the purpose of testing and propagating new plant introductions and distributing	
	them to suitable localities in this country	64, 953. 14
	Purchase, preparation, and irrigation of an	01,000,11
	addition to the Chico plant-introduction	
	field station	34,986.87
17, 666. 02	- Total	164, 968. 71
73, 674, 23		

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## FORAGE-CROP INVESTIGATIONS.

Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	579, 528, 91 10, 863, 97 2, 762, 76
Total allotment	93, 155. 64
Distributed among the several subactivities as follows: Supervision: General direction of field in- vestigations and clerical routine Forage-crop production and improvement: Tests and experiments with alfalfas, clovers, grasses, and miscellaneous forage crops, in both arid and semiarid regions, with a view to the development of better varieties through breeding and selection, improve- ment of cultural methods, etc.; foreign in-	14, 721. 33
troductions being tested in cooperation with the Office of Foreign Seed and Plant Intro- duction. Cactus investigations: Cooperative experi- ments in the propagation and culture of the various species of cacti, and study of their	69, 732. 38
economic value both as forage crops and as human food	500.00
trol by tillage or other methods	5, 439. 17
Total	90, 392. 88 \

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SEED	DISTRIBUTION	Ν.

Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	24, 349. 40
Total allotment	331, 410. 01
Distributed among the several subactivities as follows:	

Supervision: General direction of the pur-chase and distribution of seeds and plants, including routine office work...... Congressional distribution: Purchase, trans-portation, handling, packeting, assem-24, 361.82

	bling, and mailing of vegetable, flower, cot-	
	ton, tobacco, and lawn-grass seeds, Dutch	
7	bulbs, and miscellaneous seeds and plants	
0	for distribution; cleaning seed purchased	
4	for distribution and investigation of seed-	
_	distribution methods; and commercial pro-	
1	duction of Dutch bulbs, with a view to es-	
-	tablish the bulb industry on a commercial	
	basis in the United States	\$235, 686, 98
	Purchase and distribution of new and rare	4=00,000.00
	seeds: Dissemination of new and rare high-	
	grade seeds of crops to sections where the	
	data of the department indicate such crops	
2		59, 469. 27
4	to be of considerable promise	59, 409. 21
	(D-+-)	210 519 07
	Total	319, 518. 07

## FOREST SERVICE.

Classification of expenditures for the fiscal year ended June 30, 1918.

				Sala	ries.			Equipment.		
	Project.		Statutory.	Lump	fund.	Total.	Travel, station, and field expenses.	Apparatus, instru-	Furniture.	Miscella-
			Statutory.	In Wash- ington.	Out of Washington.	10041.		ments, lab- oratory.	Furmture.	neous.
1	Washington office	et 1	\$229, 197.22 56, 889.53	\$190,895.89	\$63, 382. 40	\$420,093.11 120,271.93	\$39,239.29 19,047.32		\$5,142.86	\$25, 578. 19 2, 169.81
2 3 4 5	Headquarters, distri Headquarters, distri Headquarters, distri Headquarters, distri Headquarters, distri	ct 2	47,331.00			110,422.19	14,973.97			6,927,49
4	Headquarters, distri	ct 3	40,286.69		34, 525. 15 59, 466. 28	74,811.84	11,359.91 21,730.05	•••••••	·····	2,230.71 1,558.84
6	Headquarters, distri	ct 5	50,479.50		68,879.95	119,359,45	18,078.23			9,491.96
78	Headquarters, distri Headquarters, distri	ct 6	37, 568. 17		65, 501. 79	14,811.84 103,093.79 119,359.45 103,069.96 17,276.01 204,725.34 16,694.89 9	6,884.93			2,667.99
8	Headquarters, distri	ct 7	5,594.35		11,681.66 161,522.51	17,276.01	2,447.02 25,927.22		•••••	60.00 51,705.70
10	Forest products labo Supply depot. Ogde	n. Utah	43,202.83		2,212.94	16,694,89	492.16	\$17,429,95	9,149,83	1,155.22
11.	Supply depot, Ogder Property auditor, Og	gden, Utah.	9.164.75			0,104.70	963.16			
12 13	Fremont experiment Wagon Wheel Gap e	t station experiment	2,620.66		3,735.37 876.56	6,356.03 876.56	262.02			1,646.38 104.50
14 15	station. Fort Valley experim Great Basin experim	ent station.	4,279.37		4,202.80 8,218.01	8,482.17 8,848.01	688.93 878 67			2,486.97 531.83
16	Wind River experim	ent station.	1,008.34		3,209.68	4,218.02	482.46			702.04
17	Total (exclus national fore		586,361.87	190,895.89	550, 506. 29	1,327,764.05	163,455.34	17,429.95	14, 292. 69	109,017.63
	NATIONAL FOR	FSTS								
	I ANIONAL FOR	Acres, net.								
18	Absaroka	840, 820	14, 339. 11		4,876.01	19,215.12	2,253.21			565.40
19	Angeles	820, 199	49,537.07		12,509.93	62,047.00	4,554.96			6,678.01 1,932.67
$\frac{20}{21}$	Angeles. Apache. Arapaho. Arkansas. Ashley. Battlement. Beartooth	$1,182,163 \\ 634,775$	15,115.20		6,350.98 5,504.90	21,466.24 16,599.64	1,946.19			1,932.07
22	Arkansas	626,746	13, 783. 16		11,807.38	16, 599. 64 25, 590. 54	4,529.55			2,897.87
23 24 25	Ashley	981.045	10, 195. 63		1,230.75	11 426 38	842.60			641.38
24	Battlement	662 534	10, 559.34		1,486.01 5,858.47	12,045.35	1,405.73			623.32 558.17
26	Beartooth Beaverhead	1,335,483	14,421.63		6,912.71	21, 334.34	2,059.01			1,926.81
27	Bighorn	650, 596 662, 534 1, 335, 483 1, 120, 102				$12,045.35 \\16,640.27 \\21,334.34 \\22,864.55 \\$	1,202.83			1,026.98
28	Bitterroot	1,047,012 904,587	13,806.39		41,453.68 55,617.74	55, 260. 07 65, 909. 23	2,262.31			3,727.85 4,623.35
29 30	Black Hills	624,855	23, 621, 59		10,974.66	34, 596. 25	3, 690, 26			1,403.31
31	Boise	1,058,941	14, 278. 10		4, 171. 50	18, 449, 60	1,120.00			3,228.75
32 33	Bridger	712,454	8,244.85		1,671.40 55,954.03	9,916.25	639.65			1,391.91 4,914.60
34	Cache	837, 250 761, 931	16, 516, 37		5,276.72	69,474.27 21,793.09	1, 489, 40			1,372.27
35	California	807,444	12, 568.77		14,000.67	26, 569.44	2, 154.04			3, 408. 03
36 37	Caribou	687,805	11,481.04		5,793.31 7,919.29	26, 569, 44 17, 274, 35 25, 055, 30	1,378.98			1,869.41 2,070.33
38	Cascade	807, 444 687, 805 859, 149 1, 021, 633	10,045,47		12,943.91	22,989,38	1,911,63			1,573.20
39	Bitterroot Blackfeet Boise Bridger Cabinet Cache California Caribou Carson Cascade Challis Chelan	1,258,912	8,773.16		3,331.72	22, 989.38 12, 104.88	513.14			259.90
40 41	Chelan Chugach Clearwater Cleveland Cochetopa Coconino Cocur d'Alene Colorad		7,059.29		7,546.97	14,606.26	1,107.30		• ••••••	1,210.12 1,125.72
41	Clearwater	5,417,602 785,103	9,842,48		5,319.79 31,530.68	13, 400.22 41, 373.16	2,820.19			4,729.35
43	Cleveland	547,951	21,786.28		26,625.29	48, 411. 57	2,605.53			2,950.67
44	Cochetopa	905,813	10,729.64		5,510.75	16, 240.39	2,396.45			2,647.89
45 46	Coeur d'Alene	1,651,422	20,912.88		33,877.75 59,485.65	60,790.63 70,644.07	4,343.77			4,210.27 9,152.15
47		662, 592 847, 328 785, 535 754, 739	12,955.06		7,941.40	20, 896, 46	3,444.18			1,396.23
48 49	Columbia	785, 535	7,964.47		23,219.60	31, 184.07 25, 452.62 30, 977.46	2,347.90			4,247.51
49 50	Colville Coronado	1,432,482	19, 705, 68		14,500.08	30,977,46	2,008.78			754.50 2,199.34
51	Crater	845, 685	19, 415. 82		52,808.42	72,224.24	4,466.29			2,503.94
52 53	Crook	870, 106	11,054.73		2,699.72	13, 754, 45	1,485.87			1,182.49
53 54	Datil	428,601 2,668,675	22 527 22		1,071.45	8, 878.12 30, 472.83	2 990 90			727.45 8,643.21
55	Decrlodge	831,919	26, 180. 56		19, 464, 18	45,644.74	3,870.32		1	7, 595. 28
56	Deschutes	1,287,266 727,252	10, 396. 17		17, 479. 47	27,875.64	4,583.48			872.96
57 58	Coronado Crater Crook Datil Decrlodge Deschutes Dixie Durango	727,252 616,630	7,037.34		2,408.59 4,922.96	9,445.93 15,240.37	642.34			573.95 918.45
00	arango	010,000	10,017.41	,	-, -, 544. 90	10, 210.01	501.00			510, 40

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#### DEMONSTRATIONS ON RECLAMATION PROJECTS.

Total expenditures as above	\$38, 027. 43
Outstanding liabilities, Aug. 31 (estimated)	4, 459. 37
Unexpended balance (estimated)	7, 740. 70
Total allotment	50, 227. 50

## FOREST SERVICE.

Classification of expenditures for the fiscal year ended June 30. 1918.

					(					
Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	Fuel.	Specificd items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	
\$13,367.56	\$123.00 978.53 522.41 3,656.76	\$4,985.09 334.30 1,037.03	\$2,277.41 545.08 1,390.33 265.09				\$695.50 .34	\$1,699.46 677.32 27.78 13.60	\$513, 201. 47 144, 024. 63 134, 264. 17 93, 414. 94	1 2 3 4
	3,776.84 7,070.12 8,227.81 3,054.72	1,099.30 1,031.76 1,085.26 5.50 226.76	845.82 1,852.26 472.93		\$6.00 446.81		4.00 1.05 76.68	478.72 738.48 175.21 .75	$132, 593, 36 \\158, 070, 12 \\122, 660, 77 \\19, 789, 28 \\288, 181, 31$	5 6 7 8 9
33, 514. 17	3,034.72 3,500.20	12.98	1, 512. 67 5, 225. 48		198 86			3.00	87, 233, 90 10, 127, 91 8, 868, 95	10 11 12
		30,00	5.95 61.22		127.52 10.00			6.00 4.50	1,150.53 11,839.26	13 14
		25.47 1.62 7.12	14.35 79.44		195.35 75.00		·····	225, 24	10, 695. 07 5, 564. 08	$15 \\ 16$
46, 881. 73	30, 990. 39	9,994.19	14,937.71		1,059.54		777.57	5,078.96	1,741,679.75	17
	61.00	181.33	351.12		1,229.57		27.15	93.06	23,976.96	18 19
	450. 24 217. 60 375. 23 9. 80	701.86 162.50 202.52 208.41	3,685.32 1,041.41 755.04 601.47		2,058.00 1,594.36 776.00 1,010.04		9.36 31.01 52.59 220.09	. 15 2. 64 53. 12	80, 194, 90 28, 391, 98 22, 844, 64 35, 121, 79	$     \begin{array}{c}       19 \\       20 \\       21 \\       22     \end{array} $
••••	285.00 266.80 506.00	50.05 104.63 179.41	1.15 187.62		1,010.54 520.53 778.75 604.17		. 35.41 41.40	21.50 146.10	13,824.00 15,412.20 22,003.34	23 24 25
	407.60 875.82	158.97 155.41 134.86	$769.40 \\ 464.44 \\ 6,983.35$		$1,094.73 \\999.51 \\99.68$		49.30 18.77 32.00	$     \begin{array}{r}       163.18 \\       12.75 \\       99.41 \\       100000000000000000000000000000$	$\begin{array}{r} 27,963.34\\ 26,745.24\\ 69,475.35\\ 81,782.74 \end{array}$	26 27 28
	$ \begin{array}{r} 122.05\\ 13.50\\ 610.50\\ 95.85 \end{array} $	$ \begin{array}{r} 226.64\\ 62.40\\ 113.75\\ 114.45 \end{array} $	6,700.97 915.18 378.87 560.81		$ \begin{array}{r} 300.52\\ 1,891.22\\ 798.70\\ 700.43 \end{array} $	·····	18. 29 92. 89 25. 66 6. 21	$ \begin{array}{r} 104.12 \\ 4.69 \\ 236.70 \\ 5.65 \end{array} $	81,782.74 42,669.70 24,962.53 13,431.21	29 30 31 32
	426.30 123.50 511.50	180, 87 168, 31 103, 93	5,429.60 222.86		869.16		106.61	179.98 46.50 171.88	84, 503. 62 26, 191. 70	33 34 35
	443.40 484.99 199.32	79.50 184.37 75.59	$     \begin{array}{r}       154.66 \\       559.18 \\       783.78 \\     \end{array} $		$708.43 \\1,669.85 \\440.67$		57.54 22.19 5.20	12.75 .50 1.25	38, 451, 22 21, 979, 02 32, 312, 73 27, 980, 02	36 37 38
	232.50 509.00 233.40 368.75	3.30 43.86 197.26 211.48	$ \begin{array}{c} 150.35\\891.71\\109.80\\4.664.86\end{array} $		768.19 163.90		26.62 10.24	2.50 2.45 55.28	14,061.38 18,544.84 17,892.59 53,450.78	39 40 41 42
	536.60 416.83 883.00	241.35 94.33 105.21	2,679.16 259.45 1,342.56		1,853.06 1,112.26 2,113.70		$1.60 \\ 40.44 \\ 10.98$	26.26 52.65 84.95	59,305.80 23,260,69	$\begin{array}{c} 23\\ 23\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ 31\\ 32\\ 33\\ 34\\ 35\\ 36\\ 37\\ 38\\ 39\\ 40\\ 41\\ 42\\ 43\\ 44\\ 45\\ 44\\ 45\\ 44\\ 45\\ 47\\ 48\\ 9\end{array}$
	752.37 90.26 771.00	305.88 305.94 141.58	2,909.56 1,498.13 500.12		24.80 538.99 1,472.46		78.29 22.55 10.50	118.55 4.20 95.77	73, 885.07 89, 543.76 28, 196.94 40, 770.91	46 47 48
	622.75 658.13 7.00 319.12	27.87 93.10 374.59 65.00	1,089.95 966.95 6,634.86 223.47		. 170,08 . 971.02 . 1,398.08 1,011.51		25.07 29.95 3.80 4.60	1.50 43.25 3.00	30, 803. 12 40, 307. 69 87, 615. 80 18, 046. 51	49 50 51 52
	732.40 977.50	445.42 193.49 296.99	35.63 1,391.67 2,991.89		$1,011.51 \\ 462.29 \\ 2,889.00 \\ 1,703.25$			74.15 2.15 247.05	$\begin{array}{c} 11,615.86\\ 47,320.15\\ 63,373.87\end{array}$	50 51 52 53 54 55 56 57 58
	696.95 376.48 588.15	113.71 46.99 181.46	42.18				6,65	21.10 15.50 .90	36, 587. 28 11, 592. 39 18, 617. 40	56 57 58

#### FOREST SERVICE—Continued.

				Sala	ries.			Equipment.		
	Projcet.			Lump	fund.		Travel, station, and field	Apparatus,		
			Statutory.	In Wash- ington.			expenses.	instru- ments, lab- oratory.	Furniture.	Miscella- neous.
	NATIONAL FORESTS-	continued.								
59 50 50 50 50 50 50 50 50	NATIONAL FORESTS Eldorado. Fillmore. Fishlake. Flathead. Flormont. Gallatin. Gila Gallatin. Gila Gallatin. Gila Gallatin. Gallatin. Gila Gallatin. Hayden. Lewaisan. Leadville. Lewis and Clark. Lancoln. Lacol. Lacol. Lacol. Lacol. Lacol. Maheur. Manti. Mantan. Minidoka. Minesola. Montezuma. Nebraska. Nevada. Nevada. Nevada. Nevada. Nevada. Nevaska. Nevada. Nevaska. Nevada. Nevaska. Nevada. Nevaska. Nevada. Nevaska. Nevada. San Isabel. San Isabel. San Juan. Santa Fe. Santiam. Santa Fe. Santiam. Santa Fe. Santiam. Santa Sabel. Santa Sabel. Santa Saboton. Serier. Shasta. Shoshone. Sierra.	$\begin{array}{c} \text{continued.} \\ \textbf{A cress, net.} \\ \textbf{S550, 752} \\ 699, 579 \\ 651, 377 \\ 1, 756, 255 \\ 1, 308, 268 \\ 856, 369 \\ 564, 695 \\ 1, 464, 411 \\ 540, 491 \\ 541, 491 \\ $	11, 294, 60, 938, 66, 12, 480, 79, 12, 883, 22, 17, 943, 87, 7943, 87, 712, 340, 19, 14, 379, 84, 7, 457, 84, 7, 457, 847, 74, 57, 847, 74, 57, 847, 74, 57, 847, 74, 57, 847, 74, 57, 847, 74, 57, 847, 74, 57, 847, 74, 57, 99, 13, 374, 429, 13, 376, 64, 11, 12, 358, 49, 13, 364, 411, 12, 358, 49, 10, 976, 68, 11, 552, 65, 99, 14, 552, 65, 14, 122, 99, 9060, 34, 10, 977, 61, 154, 122, 92, 91, 106, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 552, 65, 14, 122, 92, 92, 112, 22, 92, 112, 2461, 122, 92, 112, 2461, 122, 92, 112, 2461, 122, 92, 112, 2461, 122, 92, 113, 20, 942, 68, 84, 112, 218, 111, 2178, 011, 11, 017, 38, 112, 208, 112		$\begin{array}{c} 2, 933, 97\\ 3, 655, 41\\ 4, 880, 320, 58\\ 4, 880, 320, 58\\ 7, 031, 46\\ 5, 312, 38\\ 9, 942, 57\\ 9, 069, 39\\ 2, 788, 72\\ 227, 471, 239, 064, 16\\ 1, 2, 396, 91\\ 2, 788, 72\\ 227, 471, 239, 064, 16\\ 1, 2, 396, 91\\ 16, 958, 72\\ 2, 788, 72\\ 2, 788, 72\\ 2, 788, 72\\ 2, 788, 72\\ 2, 788, 72\\ 2, 788, 72\\ 2, 788, 72\\ 2, 788, 72\\ 2, 788, 72\\ 2, 788, 72\\ 3, 9064, 16\\ 1, 2, 396, 91\\ 16, 958, 72\\ 3, 9064, 16\\ 1, 2, 396, 91\\ 16, 958, 72\\ 3, 9064, 16\\ 1, 2, 396, 91\\ 16, 958, 72\\ 3, 9064, 16\\ 1, 2, 396, 91\\ 16, 233, 94\\ 4, 3064, 16\\ 1, 7, 55\\ 3, 263, 966\\ 1, 7, 502, 10\\ 3, 965, 29\\ 2, 433, 94\\ 4, 9, 765, 21\\ 3, 263, 966\\ 1, 7, 502, 33\\ 7, 506, 10\\ 1, 741, 05\\ 3, 263, 966\\ 1, 7, 502, 10\\ 3, 750, 000\\ 1, 7, 506, 10\\ 1, 7, 503, 37\\ 29, 968, 10\\ 3, 233, 44\\ 4, 316, 26\\ 6, 1036, 46\\ 17, 503, 37\\ 22, 569, 02\\ 220, 568, 44\\ 4, 316, 26\\ 1, 7, 503, 37\\ 220, 568, 44\\ 4, 316, 26\\ 1, 7, 533, 53\\ 1, 454, 84\\ 4, 1, 002, 63\\ 1, 5, 196, 50\\ 1, 198, 80\\ 5, 3928, 33\\ 3, 336, 45\\ 6, 9169, 39\\ 1, 3, 566, 01\\ 2, 708, 01\\ 3, 283, 54\\ 3, 383, 23\\ 3, 366, 56\\ 1, 7, 532, 23\\ 3, 366, 56\\ 1, 7, 532, 33\\ 2, 205, 59\\ 1, 1, 508, 67\\ 7, 542, 56\\ 1, 1, 508, 67\\ 7, 542, 56\\ 5, 295, 59\\ 1, 1, 508, 67\\ 7, 542, 56\\ 5, 13, 641, 82\\ 2, 395, 69\\ 1, 1, 508, 67\\ 7, 542, 56\\ 5, 295, 59\\ 1, 3, 568, 01\\ 1, 356, 61\\ 1, 356, 61\\ 1, 356, 83\\ 1, 3, 568, 01\\ 2, 708, 01\\ 3, 283, 54\\ 3, 333, 23\\ 3, 366, 56\\ 1, 3, 283, 23\\ 3, 366, 56\\ 1, 3,$		$\begin{array}{c} 2,582,44\\ 1,508,44\\ 2,591,67\\ 3,387,65\\ 2,922,37\\ 4,997,311\\ 1,739,80\\ 2,622,60\\ 1,012,60\\ 1,184,42\\ 3,153,72\\ 3,263,62\\ 2,60\\ 1,012,60\\ 1,184,42\\ 3,153,72\\ 3,263,62\\ 2,99,05\\ 7,49,88\\ 1,223,85\\ 1,224,84\\ 1,227,91\\ 1,702,46\\ 2,448,53\\ 2,529,06\\ 1,406,82\\ 2,419,95\\ 2,467,93\\ 1,224,84\\ 1,227,91\\ 1,702,46\\ 2,488,98\\ 1,723,85\\ 2,533,50\\ 1,722,85\\ 2,467,93\\ 1,224,84\\ 1,224,84\\ 1,224,84\\ 1,224,84\\ 1,224,84\\ 1,224,84\\ 1,224,84\\ 1,224,84\\ 1,224,84\\ 1,224,84\\ 1,224,85\\ 2,467,93\\ 1,206,12\\ 2,419,95\\ 2,467,93\\ 1,206,12\\ 3,550,60\\ 1,428,52\\ 2,467,93\\ 1,206,12\\ 3,550,12\\ 1,224,85\\ 2,535,64\\ 2,550,80\\ 1,556,46\\ 2,1694,75\\ 3,3570,91\\ 4,556,46\\ 2,178,61\\ 2,699,55\\ 1,211,53\\ 1,556,46\\ 1,322,552\\ 1,121,53\\ 1,556,46\\ 1,328,45\\ 1,243,45\\ 3,318,85\\ 1,243,45\\ 3,318,85\\ 3$			\$1, 474, 77 2, 006, 22 625, 94 5, 147, 77 1, 067, 11 1, 207, 88 898, 77 3, 805, 44 1, 055, 44 1, 055, 44 1, 035, 44 1, 035, 44 1, 032, 07 6, 974, 66 6, 97, 67, 97 2, 793, 03 1, 1032, 33 7, 701, 88 3, 134, 22 2, 286, 11 14, 409, 23 3, 134, 22 2, 286, 12 1, 1071, 84 3, 134, 22 2, 286, 11 14, 409, 23 3, 134, 24 1, 071, 84 1, 302, 77 6, 6, 77, 66 6, 449, 88 7, 45, 66 4, 6497, 80 1, 216, 88 7, 45, 68 7, 46, 46, 77, 66 6, 459, 88 7, 46, 46, 47, 00 1, 5, 56, 88 7, 46, 649, 88 7, 45, 66 4, 647, 70 1, 556, 88 7, 46, 647, 80 1, 250, 99 1, 250, 99 1, 250, 89 3, 567, 99 1, 506, 37 3, 667, 99 1, 153, 33 8, 764, 66 3, 567, 99 1, 160, 33 3, 287, 99 1, 160, 63 3, 567, 99 1, 992, 99 1, 160, 67 1, 160, 77 1, 160, 77 1, 160, 17 1, 160, 17
133 134 135 136 137 138 139	Sioux Siskiyou Sitgreaves Siuslaw Snoqualmie Sopris Stanislaus	$\begin{array}{c} 1,133,833\\ 1,71,792\\ 1,347,017\\ 657,293\\ 543,383\\ 697,855\\ 596,508\\ 810,559. \end{array}$	15,045.35 16,070.82 9,758.55 13,242.47 13,207.45 15,491.95		31,908.93 3,775.14 11,274.10 17,581.14 1,872.05	18, 258, 92 46, 954, 28 19, 845, 96 21, 032, 65 30, 823, 61 15, 079, 50 26, 862, 52	2,552.97 3,961.36			
40 41 42 43	Superior. Tahoe Targhee Teton.	853,477 555,698 1,312,662 1,924,968	14, 498, 80 19, 838, 40 20, 423, 84 10, 553, 11		9,065.61 18,623.78 13,479.69 3,806.00	23, 564. 41 38, 462. 18 33, 903. 53 14, 359. 11	2, 510. 07 2, 674. 25 2, 749. 49 242. 03			1,700. 1,787. 3,639. 378.

## Classification of expenditures for the fiscal year ended June 30, 1918-Continued.

 13, 207, 45

 13, 207, 45

 15, 491, 95

 14, 498, 80

 19, 838, 40

 20, 423, 84

 10, 553, 11

 596,508 810,559. 853,477 555,698 1,312,662 1,924,968

## FOREST SERVICE-Continued.

Classification of expenditures for the fiscal year ended June 30, 1918-Continued.

Talamanh Furnishing Spacified	-
	cellane-
stationery. Rent. and express and light, power, bir bush	supplies, Total.
postage. drayage. electricity. In blik. classified. Serv	,
<b>\$569.83 \$123.25 \$738.32 \$1,010.06 \$9.35</b>	\$20, 50 \$23, 514.37 59
<u>312.00</u> <u>68.57</u> <u>741.07</u> <u>761.00</u> <u>16.70</u>	38.09 20,574.05 60
420.00         8.71         37.23         592.28         45.42         178.38           178.38         167.57         3,517.38         282.65         11.60         11.60	16, 573. 83 61 120. 49 95, 553. 64 62
147.19 124.49 431.62 31.88	205.00 17,229.12 63
446.50         36.65         177.41         630.76         5.60           49.50         145.00         280.81         1,046.85         27.85	8.86 21,085.23 64 50.37 18,739.10 65
784.35 43.89 1,076.80 1,995.40 25.00	39.60 38,276.06 66
675,87 6,43 428,49 765,05 61,81	24,00   24,650.85 68
426.55 66.15 95.72 519.23 2.40	12,038.21 69
612.69         201.72         418.76         215.75         32.61           606.39         134.55         334.48         801.81         15.45	16.55 19,157.70 71
721.50 $100.50$ $333.31$ $1,023.50$ $32.40$	23.90 28,706.05 72 306.91 84,536.85 73
581.15 28.70 118.70 532.91 14.06	12,990.99 74
<b>199.46 1,397.36 682.32 29.35</b>	85.13 37,982.29 75 11,319.96 76
654.00 105.63 4.928.72 228.38 78.89	193.64 59,421.24 77
493.05         233.73         4,089.83         1,723.45         5.85           792.37         81.56         1,673.70         512.79         84.98	4.50 63,921.57 78
792.37         81.56         1,673.70         512.79         84.98           247.52         75.22         472.05         148.63         18.90           201.71         09.69         241.20         148.63         15.90	4.47 12,982.68 80
391.71         99.60         2,412.20         2,008.25         21.50           13.00         117.34         157.19         1,538.66         6.72	60.00         40,674.02         81           2.00         15,542.19         82
13.00         117.34         157.19         1,538.66         6.72           343.71         67.31         179.79         247.85         19.20           477.45         223.22         275.50         276.00         10.54	35.75 13,686.70 83
477.45         223.33         2,795.50         276.00         19.54           1,006.30         111.95         320.40         1,616.63         45.72	103.07 37,851.86 84
1.006.30         111.95         320.40         1.616.63         45.72           668.14         249.81         5,920.41         502.50         36.83	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
23.05 1.50 363.00 107.71 268.41 150.00 9.44	3,169.43 87
363.00         107.71         268.41         150.00         9.44           369.40         126.66         90.94         525.00         9.44	15, 589. 10 89
576.10 88.09 22.49 988.97 52.49	46.26 21,559.83 90
1.00 154.88 593.72 895.32 41.39	5.00 25,032.97 92
209.74 00.95 321.13 179.28 1.90	6.05 12,735.14 93 1.50 17,014.36 *94
463.50 62.69 222.36 598.65 24.40	.15 16,630,24 95
437.50 58.45 175.42 135.60 13.16	26.50 16,403.94 96 265.35 71,644.69 97
705-13 82.88 737.41 946.13 3.30	.50 25,789.66 98
343.00 40.82 85.08 216.66 14.00	12,403.35 99 10,059.88 100
022.30 122.02 72.43 812.30 12.89	23.30 24,197.50 101
150.25 2.90 300.50 27.20 15.03	1,199.11 31,275.90 102 4.90 10,446.83 103
484.10 82.37 1,684.07 375.18 14.60	80.73 49,492.40 104
404.15         125.61         102.06         206.84         8.76           432.00         140.93         2,579.79         29.45         25.41	6.13 20,134.73 105 42,462.47 106
71.50 231.69 755.93	104.65 42,568.21 107
740.00 187.34 1,159.35 1,744.14 15.76	40.55 69,830.29 108 1.30 16,165.38 109
418-32 42.63 556.57 957.63 27.45	52.92 39,209.01 110
492.00 221.20 6,939.63 110.00 119.94	188.56         81,102.64         111           39.86         53,879.13         112
857.20 160.29 2,369.78 1,875.01 95.53	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	8.40 9,617.16 114 .50 25,767.57 115
261.94 673.31 112.00 8.31	13.40 37,793.55 116
576.00         173.09         80.66         766.47         9.45           660.80         87.56         97.38         682.63         71.75	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
<u>678.58</u> 204.72 5,101.14 2,370.00 28.33	102 22 00 204 30 110
	29,455.07 120 16,633.04 121
402.60 106.91 206.35 505.36 7.74	.50 14,916.76 122
8.00         323.41         1,337.31         1,374.65           1,584.22         94.83         1,131.79         2,795.21         24.40	.50   35,165.53   123
1.00 92.03 969.47 174.45 3.87	29, 282, 96 125
340.00         42.36         53.26         533.91         38.80           414.25         24.50         12,695.32         245.60         42.40	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
457.27 40.52 1,974.52 1,406.88 6.03	.25 45,628.39 128
280.80 1.50 80.55 666-37 34.03	.10 16,551.79 129 64.60 71,404.74 130
541.20 98.66 1,293.99 924.11 14.42	38.05 23,997.09 131
157.71 39.84 1,485.08 1,502.48 43.82	2.40 40,741.09 132 57.24 23,927.69 133
490.57 288.21 1,781.12 848.13 5.10	912.16 57.433.44 134
424.39         77.22         629.47         1,839.26         42.58           37.00         110.47         371.98         412.87         7.42	.72 27,684.53 135 27,530.64 136
965.48 226.05 504.79 98.75 25.82	318.58 39,547.80 137
312.00 127.87 312.63 1,331.77 42.77	22.50 1.00 / 35,479.03 139
560.00 67.26 959.89 201.60 50.26	14.00 29.627.93 140
	1.00 48,041.57 141
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	17.05 43,259.58 142

## FOREST SERVICE-Continued.

				Sala	ries.			Equipme		
	Project.		Project.		fund.		Travel, station, and field	Apparatus,		
			Statutory.	In Wash- ington.	Out of Washington-	Total.	expenses.	instru- ments, lab- oratory.	Furniture.	Miscella- neous.
	NATIONAL FORESTS-	-continued. Acres net.								
144	Toiyabe	1,906,856	\$8,299.17		\$1,404.35	\$9,703.52	\$1, 783. 58			\$1, 128, 58
145	Tongass	15, 450, 657				32,810 06	8,026.49	•••••		13, 883. 53
$\frac{146}{147}$	Tonto Trinity	1,993,437 1,426,112	14 491.78		4,210.68	21, 162, 08 55, 579, 51	2,232.74			2,932.38 3,221.37
148	Trinity. Tusayan	1.611.773	15, 255, 92		3,912,71	19,168.63	2, 205, 93			2,748.20
149	Uinta	987,917				19, 558.06	1,993.41	••••		1, 322, 68
150 151	Umatilla Umpgua	485,786 1,011,022				14,700.21 54,796,83	1,406.80 1,473.39			1,732.74 1,463.68
151	Uncompangre	789,959	14,971.19		3,414.09	18, 385.28				1,011.62
153	Wallowa	957, 579				22,080.11	2,545,60			1,011.62 2,089.28
154	Wasatch Washakie	604,518 852,653	11,740.17		7,504.20 8,877,53	19,244.37 19,921.89	1,550.09 1,361.27			1,235.39
155 156	Washington	1,453,365			7,512.05	15,851.39				1,471.24 505.62
157	Weiser	562,362	14,038.04		- 3,660.06	17,698.10	1.022.35			1,126.54
158	Wenaha	738,938	8,672.10			13,214.34	1,558.78			554.45
159 160	Wenatchee White River	665,276 846,809	13,849.08 13,534.05		11,166.17 4,888.09	25,015.25 18,422,14	2,560.85 2,633.72			2,204.03 817.78
161	Whitman	882, 496	16,383.37			29.647.25	3,648,17			2,538.09
162	Wichita	61,480	3,604.14		2,826.64	6,430.78	431,63			1,540.76
163	Wyoming. Grand Canyon Di-	900, 020			5,887.92 2,165.55	15,276.70	1,622.90	•••••		1,035.01
164	vision.		5, 650. 99	•••••	2, 105. 55	6,016.54				1,014.93
165						78, 393. 39				3, 197. 04
	Total, national forests					C10020 11 11 11 11 11 11 11 11 11 11 11 11 11	340, 695.08			363, 475. 08
	Grand total		2, 528, 810. 50	\$190, 895.89	2,619,503.20	\$5,339,209.59	504, 150.42	\$17, 429. 95	\$14, 292.69	472, 492. 71

## Classification of expenditures for the fiscal year ended June 30, 1918-Continued.

<sup>1</sup> Includes wages and subsistence of temporary laborers. <sup>2</sup> Includes 5 and 10 per cent increased compensation, amounting to \$184,934.40, provided by the agricultural appropriation act for the fiscal year 1918.

## PROJECT STATEMENTS.

## WASHINGTON OFFICE.<sup>1</sup>

## DISTRICT HEADQUARTERS.

Total expenditures as above	\$801, 382. 78	District 1 (Missoula, Mont.).	
Outstanding liabilities, Aug. 31 (estimated)	53, 131. 44	Total expenditures as above	\$144, 024. 63
Total allotment	854, 514. 22	Outstanding liabilities, Aug. 31 (estimated)_	1, 565. 64
		Total allotment	145, 590.27
Distributed among the several subactivi- ties as follows:		Distributed among the several subactivi-	
Forester's office: General administrative		ties as follows:	
supervision and control of all activities		District forester's office: General supervi-	
in the Washington office, Forest Products Laboratory, district headquarters, and		sion of 25 national forests, aggregating 22, 614, 834 acres.	14, 883. 83
146 national forests, and administration		Operation: Administrative and supervisory	14, 000, 00
of land purchased under the Weeks for-		work done in or directed by this office	
estry law.	92, 521. 41		05 150 50
Operation: Administrative and supervisory work done in or directed by this office	131, 233. 36	expenses of the national forest force) Silviculture: Administrative and investi-	27, 176. 50
Lands: Administrative work done in or	101, 200. 00	gative work done in or directed by this	
directed by this office	34, 716. 95	office (supplementing the part time and	
Silviculture: Administrative, supervisory,		expenses of the national forest force)	35, 892.60
and State and Federal cooperative work done in or directed by this office	86, 304. 95	Grazing: Administrative and investigative work done in or directed by this office	
Research: Administrative, investigative,	00,004.00	(supplementing the part time and ex-	
and Federal cooperative work done in or		penses of the national forest force)	10, 655. 73
directed by this office:		Lands: Administrative and investigative	
Washington office \$85, 122.80 Forest Products Labora-		work done in or directed by this office (supplementing the part time and ex-	
tory 313, 977.48		penses of the national forest force)	26, 136.06
	399, 100.28	Engineering: Administrative and super-	
Grazing: Administrative and investigative	00 054 44	visory work done in or directed by this	
work done in or directed by this office Engineering: Administrative and super-	28, 954. 44	office (supplementing the part time and expenses of the national forest force)	24,050.18
visory work done in or directed by this		Research: Administrative and investiga-	- 1,000110
office (supplementing the part time and	01 000 -0	tive work done in or directed by this	0 505 05
expenses of the national-forest force)	81, 682. 83	office	6, 795. 37
Total	854, 514.22	Total	145, 590. 27

<sup>1</sup> Includes supervision of Forest Products Laboratory at Madison, Wis.

## FOREST SERVICE—Continued.

Classification of expenditures for the fiscal year ended June 30, 1918-Continued.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, service, etc.	Total.	
	\$354.80 998.15 900.56 691.35 727.00 600.00 233.74 470.00 365.00 42.39 480.54 453.95 499.55 823.85 442.11 96.46 1,778.59	$\begin{array}{c} \$111.43\\ 59.32\\ 46.80\\ 91.06\\ 67.55\\ 63.88\\ 133.04\\ 209.41\\ 100.63\\ 67.34\\ 147.04\\ 122.02\\ 148.31\\ 99.25\\ 92.19\\ 149.65\\ 160.89\\ 285.73\\ 23.80\\ 78.35\\ .20\\ 1,048.92 \end{array}$	$\begin{array}{c} 284.15\\ 1,425.63\\ 4,939.30\\ 430.29\\ 366.49\\ 576.57\\ 4,385.19\\ 390.10\\ 328.20\\ 634.70\\ 427.30\\ 231.12\\ 110.34\\ 146.55\\ 368.65\\ 211.49\\ 437.89\\ 50.00\\ 126.27\\ 341.08\end{array}$		$\begin{array}{c} 1, 162.68\\ 2, 153.41\\ 1, 319.80\\ 790.72\\ 279.95\\ 844.84\\ 1, 245.11\\ 273.07\\ 700.34\\ 62.50\\ 482.21\\ 324.75\\ 196.75\\ 675.45\\ 705.19\\ 24.94\\ 709.20\\ 531.25\end{array}$		14.29 2.10 3.60 9.25 37.18 7.30 10.25 17.17 24.62 14.40 18.20 40.31	\$77.01 63.00 12.45 1.00 5.02 25.18 1.50 29.40 .75 59.73 1.75 524.75 1.00 3.50 43.82 .75 74.45	$\begin{array}{c} \$13, \$38.17\\ 56, 180.66\\ 29, 937.64\\ 60, 062.25\\ 22, 694.42\\ 24, 739.01\\ 18, \$48.60\\ 63, 434.36\\ 23, 370.87\\ 27, 787.25\\ 23, 577.53\\ 24, 004.81\\ 17, \$23.05\\ 21, 089.31\\ 15, 909.98\\ 31, 498.50\\ 23, 436.42\\ 38, 107.87\\ 8, 501.91\\ 19, 374.67\\ 9, 577.37\\ 95, 011.67\\ \end{array}$	144 145 146 147 148 149 150 151 152 153 154 155 156 156 157 158 159 160 161 162 163 164 165
46,881.73	63, 980. 06 94, 970. 45	20,000.47 29,994.66					4,055.01	8,949-52 14,028-48	5,131,531.40 6,873,211.15	

Advertising.

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District 2 (Denver, Colo.).

## District 3 (Albuquerque, N. Mex.).

Total expenditures as above Outstanding liabilities, Aug. 31 (estimated)	\$134, 264. 17 320. 61	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated)	\$93, 414. 94 - 396. 64
Total allotment	134, 584. 78	Total allotment	93, 811. 58
Distributed among the several subactivi- ties as follows: District forester's office: General super- vision of 28 national forests, aggregating	22 680 46	Distributed among the several subactivi- ties as follows: District forester's office: General super- vision of 14 national forests, aggregating 19,037,459 acres.	16 220 61
20,185,971 acres Operation: Administrative and supervi- sory work done in or directed by this of- fice (supplementing the part time and ex-	22, 689. 46	Operation: Administrative and supervi- sory work done in or directed by this office (supplementing the part time and	16, 329. 61
penses of the national forest force) Silviculture: Administrative and inves- tigative work done in or directed by this office (supplementing the part time and	34, 404. 48	expenses of the national forest force) Silviculture: Administrative and investi- gative work done in or directed by this office (supplementing the part time and	23, 637. 50
expenses of the national forest force) Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and ex-	10, 909. 61	expenses of the national forest force) Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and ex-	12, 266. 56
penses of the national forest force) Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and ex-	7, 768.89	penses of the national forest force) Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and ex-	12, 101. <mark>0</mark> 8
penses of the national forest force) Engineering: Administrative and super- visory work done in or directed by this office (supplementing the part time and	32, 453. 79	penses of the national forest force) Engineering: Administrative and super- visory work done in or directed by this office (supplementing the part time and	13, 670. 17
expenses of the national forest force) Research: Administrative and investiga- tive work done in or directed by this of- fice.	26, 211. 50 147. 05	expenses of the national forest force) Research: Administrative and investiga- tive work done in or directed by this office.	15, 806 <mark>, 6</mark> 6
Total	134, 584. 78		93, 811. 58

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## District 4 (Ogden, Utah).

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## District 6 (Portland, Oreg.).

		District 6 (Portland, Oreg.).	
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated)	\$132, 593. 36 304. 19	Total expenditures as above. Outstanding liabilities, Aug. 31 (estimated)	\$122, 660. 77 618. 63
Total allotment	132, 897.55	Total allotment	123, 279. 40
= Distributed among the several subactivi- ties as follows:		= Distributed among the several subactiv- ities as follows:	
District forester's office: General supervi- sion of 29 national forests, aggregating 28,536,042 acres Operation: Administrative and supervi- sory work done in or directed by this office (superlementing the part time and	16, 365. 17	District forester's office: General supervi- sion of 27 national forests, aggregating 44,062,210 acres Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and ex-	16, 212. 60
office (supplementing the part time and expenses of the national forest force) Silviculture: Administrative and investi- gative work done in or directed by this office (supplementing the part time and	28, 789. 33	penses of the national forest force) Silviculture: Administrative and investi- gative work done in or directed by this office (supplementing the part time and	57, 255. 28
expenses of the national forest force) Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and ex-	20, 565. 31	expenses of the national forest force) Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and ex-	17 <b>, 0</b> 15. 67
penses of the national forest force) Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and ex-	17, 815, 69	penses of the national forest force) Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and ex-	6, 226. 97
penses of the national forest force) Engineering: Administrative and supervi- sory work done in or directed by this office (supplementing the part time and	28, 789-89	penses of the national forest force) Engineering: Administrative and super- visory work done in or directed by this office (supplementing the part time and	9, 638. 40
expenses of the national forest force) Research: Administrative and investiga- tive work done in or directed by this	16, 960. 07	expenses of the national forest force) Research: Administrative and investiga- tive work done in or directed by this	10, 203. 96
office	3, 612. 09	office	6, 726. 52
Total	132, 897. 55	Total	123, 279. 40
District 5 (San Francisco, Cal.)		* District 7 (Washington, D. C.).	
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated)	<b>\$158, 070.</b> 12	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated).	\$19, 789. 28 781. 79
Total allotment	158, 673. 29	Total allotment	20, 571. 07
= Distributed among the several subactivi-		Distributed among the several subactiv- ities as follows:	
			•
ties as follows: District forester's office: General supervi- sion of 18 national forests, aggregating		District forester's office: General supervi- sion of five national forests, aggregating	
District forester's office: General supervi- sion of 18 national forests, aggregating 19,055,805 acres Operation: Administrative and supervi- sory work done in or directed by this office (supplementing the part time and	27, 233. 17	District forester's office: General supervi- sion of five national forests, aggregating 1,300,777 acres, and 14 areas purchased or approved for purchase under the Weeks forestry law, aggregating 1,132,792 acres. Operation: Administrative and supervisory work done in or directed by this office	5, 058. 67
District forester's office: General supervi- sion of 18 national forests, aggregating 19,055,805 acres Operation: Administrative and supervi- sory work done in or directed by this office (supplementing the part time and expenses of the national forest force) Silviculture: Administrative and investi- gative work done in or directed by this office (supplementing the part time and	48, 562. 96	District forester's office: General supervi- sion of five national forests, aggregating 1,300,777 acres, and 14 areas purchased or approved for purchase under the Weeks forestry law, aggregating 1,132,792 acres. Operation: Administrative and supervisory work done in or directed by this office ' (supplementing the part time and expen- ses of the national forest force)	5, 058. 67 5, 141. 32
<ul> <li>District forester's office: General supervision of 18 national forests, aggregating 19,055,805 acres</li> <li>Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> </ul>	48, 562. 96 19, 195. 66	District forester's office: General supervi- sion of five national forests, aggregating 1,300,777 acres, and 14 areas purchased or approved for purchase under the Weeks forestry law, aggregating 1,132,792 acres. Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expen- ses of the national forest force) Silviculture: Administrative and investi- gative work done in or directed by this office (supplementing the part time and expenses of the national forest force) Grazing: Administrative and investigative work done in or directed by this office	
<ul> <li>District forester's office: General supervision of 18 national forests, aggregating 19,055,805 acres</li> <li>Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> </ul>	48, 562. 96 19, 195. 66 8, 445. 05	<ul> <li>District forester's office: General supervision of five national forests, aggregating 1,300,777 acres, and 14 areas purchased or approved for purchase under the Weeks forestry law, aggregating 1,132,792 acres.</li> <li>Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> </ul>	5, 141. 32
District forester's office: General supervi- sion of 18 national forests, aggregating 19,055,805 acres Operation: Administrative and supervi- sory work done in or directed by this office (supplementing the part time and expenses of the national forest force) Silviculture: Administrative and investi- gative work done in or directed by this office (supplementing the part time and expenses of the national forest force) Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and ex- penses of the national forest force) Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and ex- penses of the national forest force) Engineering: Administrative and supervi- sory work done in or directed by this office (supplementing the part time and ex- penses of the national forest force)	48, 562. 96 19, 195. 66 8, 445. 05 18, 881. 29	<ul> <li>District forester's office: General supervision of five national forests, aggregating 1,300,777 acres, and 14 areas purchased or approved for purchase under the Weeks forestry law, aggregating 1,132,792 acres.</li> <li>Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> </ul>	5, 141. 32 3, 256. 73
<ul> <li>District forester's office: General supervision of 18 national forests, aggregating 19,055,805 acres</li> <li>Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Iands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Engineering: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> </ul>	48, 562. 96 19, 195. 66 8, 445. 05	<ul> <li>District forester's office: General supervision of five national forests, aggregating 1,300,777 acres, and 14 areas purchased or approved for purchase under the Weeks forestry law, aggregating 1,132,792 acres.</li> <li>Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> </ul>	5, 141. 32 3, 256. 73 2, 847. 93
District forester's office: General supervi- sion of 18 national forests, aggregating 19,055,805 acres Operation: Administrative and supervi- sory work done in or directed by this office (supplementing the part time and expenses of the national forest force) Silviculture: Administrative and investi- gative work done in or directed by this office (supplementing the part time and expenses of the national forest force) Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and ex- penses of the national forest force) Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and ex- penses of the national forest force) Engineering: Administrative and supervi- sory work done in or directed by this office (supplementing the part time and expenses of the national forest force)	48, 562. 96 19, 195. 66 8, 445. 05 18, 881. 29	<ul> <li>District forester's office: General supervision of five national forests, aggregating 1,300,777 acres, and 14 areas purchased or approved for purchase under the Weeks forestry law, aggregating 1,132,792 acres.</li> <li>Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and supervised by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and supervise and supervisery work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> </ul>	5, 141. 32 3, 256. 73 2, 847. 93 2, 508. 51
<ul> <li>District forester's office: General supervision of 18 national forests, aggregating 19,055,805 acres</li> <li>Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Engineering: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Engineering: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> </ul>	48, 562. 96 19, 195. 66 8, 445. 05 18, 881. 29 25, 810. 75	<ul> <li>District forester's office: General supervision of five national forests, aggregating 1,300,777 acres, and 14 areas purchased or approved for purchase under the Weeks forestry law, aggregating 1,132,792 acres.</li> <li>Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Engineering: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> <li>Engineering: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)</li> </ul>	5, 141. 32 3, 256. 73 2, 847. 93 2, 508. 51 1, 473. 33

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SUPPLY DEPOT, OGDEN, UTAH.	
Total expenditures as above\$87, 233. 90Outstanding liabilities, Aug. 31 (estimated).12, 151. 06	[146
Total allotment	Total Outs
Purchase and distribution of supplies for the whole service outside of the Wash- ington office:	D.
PROPERTY AUDITOR, OGDEN, UTAH.	Di
Total expenditures as above	Oper Silvi
Record, supervision, and inspection of all property of the Forest Service.	Land Graz Engi Rese
Experiment Stations.	10000
Total expenditures as above.\$38, 117. 89Outstanding liabilities, Aug. 31 (estimated).148. 59	
Total allotment	Tim
Distributed among the several stations as follows:	Time Time
Experiment stations: District 2—Fremont, Manitou, Colo 8, 870. 96 District 2—Wagon Wheel Gap, Wagon	Grazi Grazi Fire
Wheel Gap, Colo	Occu Spec: Wate
Utah. District 6—Wind River, Stabler, Wash. 10, 704. 73 5, 571. 88	Turp Live
Total	
Total, Forest Service, exclusive of national forests	
	£.

THE NATIONAL FORESTS.	
[146 national forests and 14 Appalachian purchase a a net area of 155,925,890 acres.]	areas, comprising
Total expenditures as above. Outstanding liabilities, Aug. 31 (estimated).	\$5, 131, 531. 40 45, 259. 12
Total allotment	5, 176, 790. 52
Distributed among the several subactiv- ities as follows:	
Operation Silviculture Lands. Grazing Engineering.	$\begin{array}{c} \textbf{4, 166, 093. 33} \\ \textbf{476, 890. 42} \\ \textbf{186, 856. 42} \\ \textbf{229, 653. 19} \\ \textbf{115, 040. 46} \end{array}$
Research	2, 256. 70 5, 176, 790. 52
RECEIPTS FROM NATIONAL FOREST RE Timber sale Timber settlement. Timber trespass Grazing Grazing trespass. Fire trespass Occupancy trespass Special use	

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## BUREAU OF CHEMISTRY.

		Salaries.				Equipment.			
	Project.		Lump fund.			Travel, station, and field	Apparatus,		16
		Statutory.	In Wash- ington.	Out of Washington.	Total.	expenses.	instruments, laboratory.	Furniture.	Miscella- neous.
1	Administration	\$37,395.61	\$20, 508. 18		\$57,903.79	\$1,581.40		\$176.19	\$556.81
2	Investigations in agricultural chemistry	6, 2 <mark>9</mark> 5. 50	27, 480. 95	\$926.31	34,702.76	3,728.97	\$943.67	19.95	669.34
3	Collaboration with other depart- partments		12,647.50	1 599 07	12,647.50	368.04	105.25	70.60	71.92
45	Testing export food products Poultry and egg investigations Fish investigations.	5,956.57	1,846.00 1,260.00	1,582.87 24,173.03	3,428.87 31,389.60	4,556.16	78.23 43.03	9.00 110.08	75.85 300.55
6 7	Oyster and other shellfish in-		2,030.00 2,418.50	4,447.66 570.00	6,477.66 2,988.50	1,360.26 982.78	292.35 404.92	3.30	$\begin{array}{c} 136.00 \\ 45.00 \end{array}$
8	vestigations. Biological investigations of food	726.88	9,236.01	380.00	10, 342. 89	156.27	83.10	. 28.40	80.54
9	and drug products. Investigations of citrus by- products and of methods for determining maturity in fruits and vegetables.	3, 823. 06	408.83	7, 325. 74	11,557.63	2, 250. 24	197.75	• 0	1, 185. 00
10 11	Color investigations Table sirup investigations	3,699.53	25,120.93 4,457.50	100.00 210.00	28,920.46 4,667.50	1,584.53 271.98	4,057.41	44.22	11,867.04 452.65
12	Enforcement of the food and	279, 342.85	214, 417. 57	190, 031. 67	683,792.09	63, 511.05	4,920.03	1,636.82	4,156.41
13	drugs act. Investigation of naval stores and demonstration of meth- ods of production.		6,702.40	276.50	6,978.90	1,972.46	87.85	•••••	
	Total	337,240.00	328, 534. 37	230, 023. 78	1 895, 798. 15	82, 324. 14	11, 273. 59	• 2,098.56	19, 597. 11

## Classification of expenditures for the fiscal year ended June 30, 1918.

<sup>1</sup> Includes 5 and 10 per cent increased compensation, amounting to \$28,258.48, provided by the agricultural appropriation act for the fiscal year 1918.

# PROJECT STATEMENTS.

## Administration.

## COLLABORATION WITH OTHER DEPARTMENTS.

Total expenditures as above.       \$61, 042. 24         Outstanding liabilities, Aug. 31 (estimated).       119. 76    Outstanding liabilities, Aug. 31 (estimated).	586.26 262.41
Total allotment	233. 83
General administration of the research, regu- latory, and business affairs of the bureau, including the clerical work connected with the keeping of accounts, filing of corre-	, 082. 50
spondence, and editorial work	
INVESTIGATIONS IN AGRICULTURAL CHEMISTRY.         Total expenditures as above	
Studies to determine the effect of environ- ment on the composition of crops, to find new uses for waste agricultural products, to develop methods for preserving perishable farm products from seasons of oversupply to times of searcity, to ascertain the nutritive value of feeds, and to apply the science of chemistry to the solution of problems in the production, distribution, and utilization of farm products, as follows: Carbohydrate investigations	. 077. 92
Total 49, 458. 80 Total 13,	, 848. 67

## BUREAU OF CHEMISTRY.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	
\$208.00 337.94	$$120.00 \\ 248.75$	\$1.40 90.01	<b>\$0.</b> 90 169.59					\$493.75 5,659.54	$\$61,042.24\46,570.52$	1 2
6.27		156.50	18.44	•••••				141.74	13,586.26	. 3
61.29 .50	3,240.00 900.00	332.90 41.55 2.21	322.47 52.66 11.18	\$267.55 21.00 1.10				517.83 2,481.52 305.79 48.94	$\begin{array}{r} 4,109.78\\ 43,105.15\\ 9,590.57\\ 4,545.13 \end{array}$	4 5 6 7
199.62		2.57	11.32	•••••				1,453.40	12, 358. 11	8
		163.85	81.01	93.23		•••••		936.65	16,465.36	9
20.50 5,346.04	14,087.00	26.87 .45 5,095.27 9.18	70. 85 140. 26 6, 424. 37 49. 97					3, 433. 21 620.76 49, 695. 12 120. 26	50,044.89 6,153.60 840,173.54 9,218.62	10 11 12 13
6,180.16	18, 595. 75	5,922.76	7,353.02	1,912.02				65, 908. 51	1, 116, 963. 77	

Classification of expenditures for the fiscal year ended June 30, 1918.

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TROMTATO	L'EDODE	LOOD	PRODITORO
LESTING	EXPORT	T OOD	PRODUCTS.

Total expenditures as above. Outstanding liabilities, Aug. 31 (estimated).. \$4, 109. 78 155.80 155.79 Unexpended balance (estimated)..... 4, 421. 37 Total allotment..... Tests of samples of export food products, upon request of the exporters, in order to deter-mine whether the goods will meet the re-quirements of the country to which con-signed; the methods of analysis employed in foreign countries are also studied...... 4, 265.58 POULTRY AND EGG INVESTIGATIONS. Total expenditures as above..... Outstanding liabilities, Aug. 31 (estimated)... Unexpended balance (estimated)..... \$43, 105. 15 1,674.49 1, 274. 22 Total allotment..... 46, 053.86 Dissemination of information to shippers, car-riers, and others relative to improved methods of handling poultry and eggs; study of the breakage of eggs in transit; in-vestigation of the preparation of frozen and dried eggs; poultry fleshing studies; and re-search work to discover fundamental scien-tific facts heaving on the preservation of the tific facts bearing on the preservation of the quality of poultry and eggs and the preven-tion of decay. 44, 779. 64 FISH INVESTIGATIONS. Total expenditures as above.... Outstanding liabilities, Aug. 31 (estimated)... Unexpended balance (estimated).... \$9, 590. 57 2, 824.76 1, 685. 67 14, 101. 00 Total allotment..... Investigation of the methods of transporting and handling fish; study of the cold stor-age of fish and the utilization of by-products of the fish industry..... 12, 415. 33

OYSTER AND OTHER SHELLFISH INVESTIGATIONS.

3	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	
7	Total allotment	5, 000. 00
3	Investigations regarding the sanitary condi- tion of shellfish areas and the handling and shipping of shellfish; study of the conserva- tion of the by-products of the oyster indus- try; investigation of the sanitary character of water in relation to the sanitary condi- tions of shellfish.	4, 569. 79
5	Biological Investigations of Food an Products.	ID DRUG
	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$12, 358. 11 2, 104. 97 1, 435. 53
	Total allotment	15, 898. 61
1	Investigation of the biological effects of food and drug products upon health; determina- tion of the chemical composition of proteins as a basis for ascertaining their food value; study of nitrogen distribution in various cereals and other feeding stuffs; study of the utilization of hydrogenated oils	14, 463. 08
7 3 7	INVESTIGATIONS OF CITRUS BY-PRODUCTS Methods for Determining Maturity in Vegetables.	
) =	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	\$16, 465. 36 389. 61 303. 40
	Total allotment	17, 158. 37

## \*STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF AGRICULTURE.

Development of commercial methods for the utilization of cull citrus fruits, especially for the purpose of increasing the quantity and quality of the vield of essential oils from the peel and of juice from the fruit; study of methods for the extraction of other by-products from citrus fruits; and investi- gation of methods for determining maturity of fruits and vegetables	<b>\$</b> 16, 854. 97	Investigation and demonstration of processes for preparing sugar-cane and sorghum sirup of superior quality which will not crystal- lize or ferment, and of methods by which variability of flavor and color of the product may be overcome; the adoption of which methods, it is believed, will greatly stimu- late sirup production and prevent serious losses from spoilage
COLOR INVESTIGATIONS.		ENFORCEMENT OF THE FOOD AND DRUGS ACT.
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$50, 044. 89 3, 665. 22 76. 09	Total expenditures as above\$840, 173. 54Outstanding liabilities, Aug. 31 (estimated).29, 791. 43Unexpended balance (estimated).16, 242. 77
Total allotment	53, 786. 20	Total allotment
Investigations and experiments in the utiliza- tion, for coloring purposes, of raw materials grown or produced in the United States; establishment, equipment, and mainte- nance of a plant on the Arlington Farm for the purpose of conducting these experi- ments on a manufacturing scale	53, 710. 11	Enforcement of the provisions of the food and drugs act of June 30, 1906, and the necessary investigations, inspections, analyses of food and drug products in- cident thereto, as follows: General administrative work in connection with the enforcement of the act, including the preparation of evidence for presenta- tion in cases, fees paid expert witnesses, etc
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated).	\$6, 153. 60 271. 37	State cooperative food and drug control 14, 281.17 Sherley amendment cases
Unexpended balance (estimated)	575.03	Animal physiological chemical investiga- tions
Total allotment=	7, 000. 00	Carbohydrate tests and investigations 19, 181. 02 Citrus-fruit investigations 1, 674. 22

## BUREAU OF SOILS.

Classification of expenditures for the fiscal year ended June 30, 1918.

			Salaries.				Equipment.			
	Project.	Statutory.	Lump In Wash- ington.	o fund. Out of Washington.	Total.	Travel, station, and field expenses.	Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
1 2 3 4 5 6	Administration. Soil chemical investigations Soil physical investigations Investigations of fertilizer re- sources. Soil-survey investigations Classification of agricultural lands.	\$35, 428. 14 924. 00 3, 554. 54 4, 211. 75 26, 458. 15	\$763. 22 19, 715. 62 8, 955. 67 24, 403. 04 9, 213. 34	\$45,061.41 90,234.94 5,319.00	\$36, 191. 36 20, 639. 62 12, 510. 21 73, 676. 20 125, 906. 43 5, 319. 00	\$25.00 17.30 39.95 1,739.62 68,293.80 3,786.74	\$5.35 836.72 707.30 21,855.19 757.84	\$331.75 127.61 211.90 43.43	\$54. 26 217. 22 19, 273. 17 414. 00	
	Total	70, 576. 58	63,050.89	140, 615. 35	1 274, 242. 82	73, 902. 41	24, 162. 40	714.69	19, 958. 65	

<sup>1</sup> Includes 5 and 10 per cent increased compensation, amounting to \$8,458.27, provided by the agricultural appropriation act for the fiscal year 1918.

## PROJECT STATEMENTS.

Administration. Total expenditures as above	\$38, 841. 96	Distributed among the several subactivi- ties as follows:	
Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	150. 93 5, 878. 88	Supervision: Planning, direction, and super- vision of the routine and investigational	
Total allotment	44, 871. 77	work in soil chemistry; conduct of corre- spondence and other clerical work relative	<b>#3</b> 100 00
General direction and supervision of the various investigational activities of the		thereto. Mineral nature of agriculturally important	\$2, 100. 00
bureau, including the offices of chief of bureau and chief clerk, and the accounts,		American soils: Determination of the pre- dominating minerals in important soil	
editorial, supply, and files and records sections	38, 992. 89	types, with a view to establish the origin, process of formation, and relations of these	
Soil Chemical Investigations.		types	1, 000. 00
Total expenditures as above	\$23, 034. 87	Routine microscopic work: Determination of	
Outstanding liabilities, Aug. 31 (estimated).	128.70	the identity of rocks and other soil-forming	
Unexpended balance (estimated)	3,814.57	and fertilizer-producing materials sub- mitted by the various divisions of this	
•	00 079 14	bureau and other branches of the depart-	
Total allotment=	20, 978. 14	ment.	1, 100. 00

STATEMENT OF EXPENDI	TURES OF	THE DEPARTMENT OF AGRICULTURE.	39
Color certification and investigations Drug tests and investigations	\$6, 673.32 23, 106.89	Central district—Continued. St. Louis station	<b>\$1</b> 5, 56 <b>6</b> . <b>5</b> 6
Food control.	50, 083.00	Inspection, central district.	62, 104. 26
Food investigations	13, 306. 58	Western district—	
Microbiological tests and investigations	25, 385. 80	San Francisco station (including district	
Microchemical tests and investigations Miscellaneous tests and investigations	14,423.93 16,894.96	headquarters)	34, 664. 82
Net-weight investigations	3,845.57	Denver station Honolulu station	$15,968.31\ 3,925.84$
Nitrogen tests and investigations	3, 071. 98	Seattle station.	13,465.84
Oil, fat, and wax tests and investigations	5,050.01	Inspection, western district.	21, 670. 08
Pharmacognosy investigations	12, 872.40		
Pharmacological investigations	11, 541. 84	Total	869, 964. 97
Physiochemical investigations Phytochemical investigations	6, 052. 98 7, 017. 50	=	
Special investigations.	16, 892. 64		
Water tests and investigations	14, 855. 98	INVESTIGATION OF NAVAL STORES AND DEM	ONSTRATION
Eastern district—		OF METHODS OF PRODUCTION.	
New York station (including district	04 000 00		
headquarters) Boston station	94, 902. 09 19, 060. 55	Total expenditures as above	\$9, 218. 62
Buffalo station	19,000.00	Outstanding liabilities, Aug. 31 (estimated).	881.20
Philadelphia station	14, 464. 76	Unexpended balance (estimated)	67.59
Porto Rico station	7, 873.38	Total allotment	10, 167, 41
Savannah station	13,967.61	· =	10,107111
Washington station.	25, 344, 87	Transition of the median multipline and	
Inspection, eastern district	59, 756. 33	Investigation of the grading, weighing, and handling of naval stores; preparation of	
Chicago station (including district head-		definite and permanent type samples as a	
quarters) Cincinnati station	71, 319.97	basis for trading and to insure fair, uniform,	
	11, 592. 49	and simple grading; demonstration of im-	
Minneapolis station	8,822.79	proved methods and processes of preparing	10,000,00
New Orleans station	10, 660. 47	naval stores	10, 099. 82

## BUREAU OF SOILS.

Classification of expenditures for the fiscal year ended June 30, 1918.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	
\$1,076.97 13.58 2.40 102.81 204.81	\$2,698.03	\$195.63 .60 .40 62.69 37.08 2.10	\$300.72 1.01 12.44 2,029.44 179.80 5.07	\$4, 446. 02				\$715.18 1,344.17 1,656.00 46,961.22 2,622.51 1.85	\$38, 841. 96 23, 034. 87 15, 145. 92 173, 056. 29 198, 459. 70 9, 114. 76	1 2 3 4 5 6
1,400.57	2, 698. 03	298.50	2, 528. 48	4, 446. 02				53,300.93	457, 653. 50	

\$9,

## SOIL PHYSICAL INVESTIGATIONS.

, 950. 00	Total expenditures as above. Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$15, 145. 92 1, 957. 73 45. 56
	Total allotment	17, 149. 21
700. 00	Distributed among the several subactivities as follows: Supervision: Planning, direction, and super- vision of the routine and investigational work in soil physics; correspondence and other clerical details	3, 200. 00
, 300. 00	Designing, construction, and standardization of instruments: Routine work in the repair of instruments and apparatus, and the de-	
, 013. 57 , 163. 57	signing and construction of special pieces of apparatus for the various divisions of the bureau	2, 950. 00

Inorganic composition of soils: A systematic inquiry, in cooperation with the soil sur-vey, into the chemical composition of imvey, into the chemical composition of im-portant agricultural soils of the United States. Hydrolytic decomposition of soil-forming minerals: Study of the action of water and such substances as may exist in the soil solution upon the decomposition and degra-dation of soil minerals and the possible synthesis of new mineral species. Routine laboratory analyses: Chemical analy-sis of soils, waters, and similar materials for

sis of soils, waters, and similar materials for this bureau and other bureaus of the de-

Liming of soils: Study of the effects of liming and determination of a proper basis for the practice of liming soils. 5, 3,

Total..... 23, -

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<ul> <li>Physical examination of soils: Quantitative determination of the mechanical composition for an expression of the textural characteristics of soils; investigation of the physical composition of soils; and determination of the relation of the different components to the physical condition of the soil.</li> <li>Movement of the soil solution: Study of the movement and distribution of moisture in the soil and of methods for determining the critical moisture content; and devising an instrument that can be used in the field for</li> </ul>	\$5, 620. 00	Concentration of low-grade phosphates: De- termination of economical, mechanical, and chemical methods of separating phosphoric acid from impurities with which it is asso- ciated in the waste material resulting from mining operations Production of concentrated fertilizer prod- ucts: Investigation of the possibility of producing combinations of nitrogen, phos- phorus, and potash, or combinations of any two of these elements, by methods which may make it possible to use such compounds for fertilizer purposes	\$3, 450. 00
determining the moisture content of soils. Fixation of nitrogen by catalytic processes: Investigation of methods of fixing nitrogen by the aid of catalytic reagents, with a view to increase the efficiency of the known	480. 00 4, 853. 65	Production of raw materials suitable for fertilizer purposes: The purpose of this project is to obtain accurate and authentic data, by correspondence with producers and by occasional visits to mines and fac-	1, 900. 00
methods and to devise new ones Total Investigations of Fertilizer Resou	17, 103. 65	tories, regarding available or partially available fertilizer resources Effect of harvesting and other factors on the growth of kelp: Determination of the effect of different methods of harvesting on the growth of kelp; study of the influence of	1, 440. 00
Total expenditures as above. Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated).	\$173, 056. 29 7, 843. 81 10, 828. 14	fresh water and of the effect of storms on the kelp beds. Analysis of samples: Examination of samples of materials which give promise of value for	360.00
Total allotment	191, 728. 24	fertilizer use Total. 1	1, 550.00
Distributed among the several subactivities as follows:		Soil-Survey Investigations.	180, 900. 10
Supervision: Planning, direction, and super- vision of the investigations of fertilizer re- sources of the United States	4, 200. 00	Total expenditures as above. Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	1,666.90
Extraction of potash salts from kelp: Investi- gation and demonstration on a semicommer- cial scale of the practicability and economic		Total allotment	223, 342. 20
value of various methods used for the ex- traction of potash salts from the giant kelps	100 000 50	Distributed among the several subactivi- ties as follows:	
on the Pacific coast. Production of potash from feldspar and other mineral sources: Determination of commer- cially possible methods for utilizing feld- spar, alunite, natural brines, etc., as sources of potash for fertilizer production	139, 803. 50 · 2, 856. 00	Supervision: General direction and super- vision of the soil-survey investigations, including office correspondence, compila- tion of field reports, assignments of the field force, and all other matters relating to the administration of the work	14, 939. 26
Fertilizer value of city and trade wastes: De- termination of the amount and value of city and trade waste as sources of commercial fertilizer material	2, 250. 00	Soil surveys: These activities comprise the surveying, mapping, and classifying of the soils of important areas in different parts of the country; the preparation of re-	11, 000. 20
Fertilizer value of nitrogenous materials: De- termination by chemical and other methods of the actual fertilizer value of various		ports containing descriptive matter re- lating to the soils, their character, origin, and value for crops, and to the agricultural	
nitrogenous materials. Fixation of nitrogen by catalytic processes: Investigation of methods of fixing nitrogen by the aid of catalytic reagents, with a view to increase the efficiency of the known	3, 228. 00	conditions found in each area surveyed; the preparation of maps showing the distri- bution of the soils; and the dissemination of information relating to the use of soils. The purpose is to acquire a knowledge of	
methods and to devise new ones Fixation of atmospheric nitrogen: Investiga-	6, 849. 60	the soils of the United States and make it available for use by other bureaus and de-	
tion of new processes of fixing nitrogen by reduction methods. Extraction of phosphoric acid from natural phosphates: Investigation of the sulphuric- acid and electrical methods used for the extraction of phosphoric acid from natural	6, 413. 00	partments, agricultural colleges, experi- ment stations, and others engaged in the development of agriculture. The follow- ing areas were surveyed in whole or in part during the fiscal year 1918, aggregating 42,871 square miles:	
phosphates and devising improvements in these processes. Phosphate industry of the United States:	<b>3, 700</b> . 00	Alabama: Marengo County, <sup>1</sup> \$3,068.45; Morgan County, <sup>1</sup> \$4,424.88; St. Clair County, <sup>1</sup> \$276.82; Shelby County, <sup>1</sup> \$379.11.	8, 149. 26
Investigation of the sources, quantity, and production of phosphate rock. its manipu- lation for the fertilizer industry, the relative		Arizona: Gila River Valley area <sup>1</sup> Arkansas: Lonoke County, \$1,810.17; Perry County, \$1,866.56.	549. 56 3, 676. <b>73</b>
merits of the products obtained by the several manipulations, and other factors necessary to determine the cost to the		California: Grass Valley area, <sup>2</sup> \$1,329.05; Imperial Valley area, \$4,006.46; recon- noissance of upper San Joaquin Valley,	
farmer and to inform him concerning changing conditions	2, 900. 00	\$1,512.49; Ventura area, <sup>1</sup> \$207.39 Delaware: Kent County <sup>2</sup>	7, 055. 39 1, 120. 8 <b>1</b>

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Florida: Flagler County, \$1,197.83; Orange		Wisconsin: Adams County, <sup>2</sup> \$170.34; Jackson	
County, \$2,800.64	\$3, 998.47	County, <sup>2</sup> \$1,747.26; Kenosha County, <sup>2</sup>	
Georgia: Early County, \$925.73; Mitchell		\$724.61; Milwaukee County, <sup>1</sup> \$7.19; Outa-	
County, 1\$1,247.88; Pierce County, \$2,395.23;		gamie County, <sup>2</sup> \$1,657.36; Rock County, <sup>1</sup>	
Pulaski County, \$1,705.50; Toombs County, <sup>2</sup>	7 104 95	\$1,827.30; Waupaca County, <sup>1</sup> \$1,471.63	\$7,605.69
\$910.01. Idaho: Bannock County, <sup>2</sup> \$538.84; Nez Perce	7, 184. 35	Wyoming: Fort Laramie area, <sup>1</sup> \$1,374.70; Wind Biver reclamation project 1 \$215.18	1 000 00
County, <sup>1</sup> \$1,226.65	1, 765. 49	Wind River reclamation project, <sup>1</sup> \$315.18 Inspection, correlation, and supervision of	1, 689. 88
Indiana: Adams County, <sup>1</sup> $1,414.45$ ; Lake	1,700.45	field work: Inspection of soil-survey field	
County, <sup>1</sup> \$1,346.21	2,760.66	work to secure uniformity in methods and	
Iowa: Blackhawk County, <sup>1</sup> \$1,154.87; Buena	_,	results; examination and review of field	
Vista County, <sup>1</sup> \$1,320.50; Hamilton County,		reports; preparation of memoranda for soil	
\$828.89; Henry County, <sup>1</sup> \$487.66: Linn		correlation and keeping of records pertain-	
County, <sup>1</sup> \$1,669.89; Louisa County, <sup>2</sup> \$402.09;		ing thereto; and correlation of the soils of the	
Marshall County, <sup>2</sup> \$320.92; Montgomery		various areas surveyed, so as to insure	
County, \$955.08; Palo Alto County, 2\$262.75;		uniformity in the classification of the soils	
Polk County, <sup>2</sup> \$307.93; Wapello County, <sup>1</sup>		of the United States.	15, 429. <b>77</b>
\$1,178.45; Wayne County, <sup>2</sup> \$448.50; Winne-	0 540 10	Map drafting: Preparation of suitable base	
bago County, <sup>2</sup> \$405.59	9, 743. 12	maps for the use of soil-survey field parties; securing data regarding official boundaries,	
Kentucky: Logan County, 2 \$1,005.34; Muhlen-		railroad alignments, and other miscella-	
berg County, <sup>2</sup> \$337.51.	1, 342. 85	neous information required by field parties;	
Louisiana: La Salle Parish, <sup>1</sup> \$2,125.92; Sabine	1 709 69	adjusting, drawing, and coloring soil maps	
Parish, \$2,582.76. Maine: Aroostook County, <sup>1</sup> \$1,133.23; Kenne-	4, 708. 68	to be used as a copy for lithographic re-	
bec and Androscoggin Counties, <sup>2</sup> \$282.48	1, 415. 71	production; measuring the areas of different	
Maryland: Baltimore County, <sup>1</sup> \$2,148.47;	4, 110.71	soil types, etc	14,754.03
Carroll County, <sup>2</sup> \$279.22; Charles County, <sup>2</sup>		Photographic reproduction of base maps: The	
\$331.63; Washington County, <sup>1</sup> \$1,621.59	4, 380.91	photographic enlargement or reproduction	
Minnesota: Stevens County <sup>2</sup>	1,274.84	of base maps to a scale suitable for use of	1 202 50
Mississippi: Choctaw County, <sup>2</sup> \$756.42; Lamar		soil-survey field parties. Special soil studies: Investigations of the dis-	1, 293. 50
County, <sup>1</sup> \$1,967.04; Pearl River County, <sup>1</sup>	0.075.45	tribution, relationship, and characteristics	
\$1,488.65; Pike County, \$2,403.34.	6, 615.45	of the important soil series and soil types of	
Missouri: Knox County, <sup>1</sup> \$419.05; Lincoln County, <sup>1</sup> \$1,941.83; Reynolds County, <sup>2</sup>		the country, and studies of the adaptability	
\$573.07; Texas County, <sup>1</sup> \$2,254.27	5, 188.22	of soils to certain crops	3, 715. 43
Montana: Classification of lands opened for	0, 100. 22	Advisory service: Identification of miscel-	
settlement under enlarged homestead $act^2$ .	418.16	laneous soil samples and giving advice,	
Nebraska: Chase County, 1 \$1,369.45; Cheyenne		through correspondence or otherwise, re-	
County, <sup>2</sup> \$697.06; Morrill County, <sup>1</sup> \$1,621.72;		garding the use of soils.	2, 500. 00
Phelps County, \$928.15; Sheridan County, <sup>2</sup>		Miscellaneous supplies: Purchase of field	
\$470.60; Wayne County, <sup>1</sup> \$460.65	5,547.63	equipment, consisting of plane tables, com- passes, augers, alidades, etc., and repairs to	
New Jersey: Belvidere area, <sup>1</sup> \$1,559.76;		same, drafting and photographic supplies,	
Millville area, <sup>1</sup> \$935.58; Bernardsville area, <sup>2</sup>	0 000 00	and other materials required for field and	
\$187.53; Toms River area, <sup>2</sup> \$309.76. New York: Chenango County, <sup>2</sup> \$412.77;	2, 992. 63	office work	5, 328. 10
Oswego County, <sup>1</sup> \$1,571.64; Saratoga		-	
County, <sup>1</sup> \$878.80; Westchester County, <sup>2</sup>		Total	200, 126. 60
\$243.13	3, 106. 34	CLASSIFICATION OF AGRICULTURAL LA	TDE
North Carolina: Beaufort County, <sup>1</sup> \$103.30;	· ·		
Bertie County, \$855.75; Caldwell County,		Total expenditures as above	\$9, 114. 76
\$1,220.19; Hoke County, \$1,624.85; Orange		Outstanding liabilities, Aug. 31 (estimated).	15.79
County, <sup>2</sup> \$1,835.61; Wilkes County, <sup>2</sup>	7 041 00	Unexpended balance (estimated)	9,246.78
\$1,721.59 North Dakota: Sargent County, <sup>1</sup> \$1,403.20;	7, 361. 29	Total allotment	18, 377. 33
Traill County, <sup>2</sup> \$285.52.	1,688.72	1 0001 01101110110	10, 011. 33
Ohio: Fulton County, <sup>2</sup> \$292.59; Mahoning	1,000.72	This work consists of assisting the Forest Ser-	
County, <sup>1</sup> \$1,012.95; Wayne County, <sup>2</sup>		vice in the classification and segregation of	
\$1,981.11	3, 286. 65	agricultural lands in the several forest re-	
Oklahoma: Canadian County <sup>1</sup>	1, 724. 14	serves with a view to determine their value	
Oregon: Washington County, <sup>2</sup> \$435.57; Yam-		for agricultural purposes, so as to enable the	
hill County, <sup>1</sup> \$2,198.22.	2, 633.79	Forest Service to indicate what lands may	
Pennsylvania: Lycoming County, <sup>1</sup> \$601.50;	0 105 70	be opened for settlement.	
\$601.50; Mercer County, <sup>1</sup> \$1,564.20	2, 165. 70	Forest reserves in— Arizona	82. 5 <b>0</b>
South Carolina: Horry County, \$2,395.92; Lexington County, \$2,478.51; Newberry		California	810.95
County, <sup>1</sup> \$3,055.30.	7,929.73	Florida	160.65
Tennessee: Maury County <sup>2</sup>	1, 490. 93	Idaho	1, 346. 43
Texas: Bowie County, <sup>1</sup> \$4,007.33; Denton County, <sup>2</sup> \$2,570.11; Freestone County, <sup>2</sup>		Montana	1, 562. 99
County, <sup>2</sup> \$2,570.11; Freestone County, <sup>2</sup>		New Mexico.	690.76
\$2,743.72; Red River County, \$3,417.95	12, 739. 11	Nevada	358.20
Utah: Uintah Indian Reservation	274.89	South Dakota.	425.38
Virginia: Accomac County, <sup>1</sup> \$889.10; Pittsyl-	0.000.00	Utah	1,655.53 1.072.87
vania County, <sup>2</sup> \$2,499.18.	3, 338. 28	Washington	1,072.87 624.09
Washington: Chelan County, <sup>2</sup> \$704.14; Spokane County, <sup>1</sup> \$3,164.77		Wyoming	
	3 868 01	Supervision	340 20
West Virginia: Braxton and Clay Counties?	3, 868. 91	Supervision	340. 20
West Virginia: Braxton and Clay Counties, <sup>2</sup> \$1,064.68; Webster County, <sup>2</sup> \$308.86	3, 868. 91 1, . 37354		9, 130. 55

<sup>2</sup> To be completed during fiscal year 1919.

<sup>1</sup> Surveyed in part during fiscal year 1917.

## BUREAU OF ENTOMOLOGY.

			Sala	ries.			Equipment.			
	Project.		Lumpf		fund.		Apparatus,		Miscella-	
		Statutory.	In Wash- ington.	Out of . Washington.	Total.	expenses.	instruments, laboratory.	Furniture.	neous.	
$\frac{1}{2}$	Administration. Deciduous-fruit insect investi- gations.	\$35, 975. 46 3, 510. 48	\$1,613.67 21,034.34	\$34, 213. 24	\$37, 589. 13 58, 758. 06	\$145.16 10,119.20	\$2.00 982.12	\$351.96 1,221.85	\$1. 25 2, 983. 74	
3	Ccreal and forage insect investi-	10, 580. 62	9, 292. 40	73, 050. 85	92, 923. 87	17,361.64	1, 866. 44	1, 110. 07	1, 129. 15	
4	gations. Southern field-crop insect in-	8, 106. 34	9, 540. 16	43, 783. 53	61, 430. 03	16,007.30	670.68	1,140.66	876.10	
5	vestigations. Forest and shade-tree insect in- vestigations.	8, 797. 86	19, 280. 73	20,031.98	48, 110. 57	. 5,068.70	225.42	425.74	158, 30	
6	Truck-crop and stored-product	2, 257. 44	15, 321. 13	21, 839. 83	39, 418, 40	2,975.47	308. 52	266.36	121.56	
7 8	Insect investigations. Bee-culture investigations. Tropical and subtropical fruit msect investigations.	2, 176. 30 5, 153. 08	11, 885. 24 1, 771. 67	4,035.29 6,785.00	18,096.83 13,709.75	1, 142, 59 1, 585, 53	3.75 214.17	1,044.30 345.75	11.60 408.72	
9	Investigation and control of the Mediterranean and other fruit flies.		8, 978. 42.	6, 566. 67	15, 545. 09	5, 347. 34	238.34	476, 90	53. 04	
10	Miscellaneous insect investiga-	6, 598. 39	25, 734. 74	13, 514. 65	45, 847. 78	4,647.33	194.05	577.16	477.02	
11	tions. Investigation and control of gipsy moth and brown-tail moth.	17, 204. 42		61, 704. 70	78,909.12	150, 683. 36	172.66	510.75	25, 212. 39	
	Total	100, 360. 39	124, 452. 50	285, 525. 74	1 510, 338. 63	215, 083. 62	4, 878. 15	7, 471. 50	31, 432. 87	

<sup>1</sup> Includes 5 and 10 per cent increased compensation, amounting to \$16,807.93, provided by the agricultural appropriation act for the fiscal year 1918.

## PROJECT STATEMENTS.

#### Administration.

Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$38, 619. 16 350. 70 82. 60	1
Total allotment	39, 052. 46	
General administration, supervision, and direction of the investigations and business activities of the bureau, under the personal supervision of the chief of bureau	38, 969. 86	
Deciduous-Fruit Insect Investiga	rions.	6
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	\$84, 521. 88 2, 240. 70 1, 478. 65	
Total allotment	88, 241. 23	
Distributed among the several subactivities as follows: Supervision: Planning and direction of the activities relating to deciduous-fruit insect investigations, including supervision of scientific work, general office routine, cor-		1
respondence, etc. Apple insects: Studies of the life history and habits of and remedies for the apple-tree borer, aphids, and other insects injurious to the apple, and development of methods for their control; also study of variations necessary in the spraying schedule to con-	7, 801. 65	C
Peach insects: Work on the biology of insects injurious to the peach, including thrips,	28, 246. 01	
peach-tree borer, oriental peach moth, etc., and determination of methods of control Grape insects: Investigations of the life his- tory and habits of the grape berry moth,	8, 152. 61	

grape mealy bug, and other important grape insects in the United States, and develop-ment and application of remediat

19.16	ment and application of remedies	\$11, 344. 98
50.70	Nut insects: General inquiry into the insect	
82.60	enemies of the pecan, chestnut, and other	
	native cultivated nuts, and determination	
52.46	of appropriate remedies	11, 511.56
	Orchard insecticides and spraying machinery:	
	Testing of proprietary insecticides and	
	development of new insecticides; deter-	
	mination of the comparative merits of	
69.86	various types of spraying machinery in	
	general use and of accessories used in	0.007.07
	spraying.	6, 231. 81
00 11	Cranberry and small-fruit insects: Investiga-	
21.88	tion of the important insects affecting the	
40.70	cranberry and other small fruits, and deter-	
78 <b>.</b> 65	mination of appropriate remedial measures for same; study of methods of insect control	
41.23	now in vogue, with a view to develop im-	
11.20	provements where possible	3,043.25
	Deciduous-fruit insect control by natural	0, 040. 20
	agencies: Determination of the importance	
	of hymenopterous parasites and predatory	
	insects in the control of various species of	
	insects injurious to deciduous-fruit or-	
	chards, vineyards, etc., and development	
01.65	of methods for their practical propagation	
-	and dissemination.	7,879.01
	Orchard-insect survey: Collection of data re-	
	garding a large number of insect pests of	
	orchards, vineyards, etc., not normally of	
	first-class importance as pests but which	
	in the aggregate do a large amount of injury	
6.01	and may become seriously destructive at	
	any time, so as to be prepared to promptly	
	suggest remedies in case of serious insect	
	outbreaks and minimize the loss from such	
52.61	causes	2, 551. 70
		00 500 50
	Total	86, 762. 58

# Classification of expenditures for the fiscal year ended June 30, 1918.

#### BUREAU OF ENTOMOLOGY.

Classification of expenditures for the fiscal year ended June 30, 1918.

Statio	nery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, clectricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	
	89. 24 45. 89	\$2,868.65	\$34.27 513.57	\$4.44 960.65	\$154.25		\$201.60	 	\$201.71 5,612.30	\$38,619.16 84,521.88	$\frac{1}{2}$
2	48.72	5, 255. 13	785.19	1, 133. 31	308.99		965.22		4,809.59	127, 897.32	3
4	14.89	2, 593. 33	445.39	396.25	363.45		181.06		8,919.51	93, 438. 65	4
.2	18.70	995.00	133.55	165.94	57.50		· 196.85		1,286.24	57,042.51	5
3	95.04	949.00	181.29	<b>323</b> .76	22.71		19.35		2,005.49	46, 986. 95	6
	88. 99 51. 49		54.20 99.47	60.58 174.48	<b>38.48</b> 55.59		122.25		344. 16 1, 079. 27	21, 993. 67 18, 444. 22	78
1	08.59	435.00	113.32	<b>33.3</b> 6	19.60				993.74	2 <b>3, 3</b> 64. <b>3</b> 2	9
4	83.39	964.67	153.22	278.84	54.84				2,660.97	56 <b>, 33</b> 9. 27	10
4	44. 71	3,008.27	1,390.63	930.75	372.48		8 <b>73</b> . 47	2\$91.50	49, 462. 49	312,062.58	11
3,2	89.65	18,374.99	3,904.10	4,462.36	1,447.89		2, 559. 80	91.50	77, 375. 47	880, 710. 53	

<sup>2</sup> Advertising.

8,679.36

77.938.19

44, 359.29

CEREAL AND FORAGE INSECT INVESTIGATIONS.

Total expenditures as above	\$127, 897.32
Outstanding liabilities, Aug. 31 (estimated).	3,079.52
Unexpended balance (estimated)	5, 253.08

Total	allotment	136,	229.	92
2		-		

Distributed among the several subactivities as follows:

- Supervision: General supervision of all the cereal and forage insect investigations, preparation of results for publication, and usual office routine. Cereal insects: Investigations of insects at-
- tacking cultivated grains, including the white grub, corn earworm, European corn borer, cutworms, western army cutworm, jointworm, wireworm, chinch bug, Hessian fly, corn rootworms, and miscellaneous insects affecting rye, barley, and other small grains; and experiments in the utilization of natural enemies of such insects, besides remedial and preventive measures
- through mechanical means. Forage insects: Studies of insects attacking plants used as forage, including the alfalfa weevil, alfalfa seed chalcis, insects affecting the production of clover seed, and those attacking soy bean, cowpea, vetch, and other plants and grasses used for forage; and investigation of methods of combating these insects through the employment of their natural enemies and the utilization of mechanical, remedial, and preventive measures.....

OUTHERN FIELD-CROP INSECT INVESTIGA

. . . . . . . . . . . . . . . . . . . .

SOUTHERN FIELD-OROP INSECT INVESTIG	ATIONS.
Total expenditures as above	\$93, 438. 65
Outstanding liabilities, Aug. 31 (estimated).	638.09
Unexpended balance (estimated)	4,751.63
-	<u>e</u> ,
Total allotment	98, 828. 37

Distributed among the several subactivities as follows:

Supervision: General supervision of southern field-crop insect investigations and con-

duct of usual office routine.....

Cotton insects: Investigation of the cotton boll weevil, including life-history studies, experiments in methods of cultivation, determination of the efficiency of hand picking of squares, experiments with in-secticides, value of parasitic enemies as a control measure, and collection of data as to the status and dispersion of the weevil; study of the habits and extent of damage caused by cotton root aphids, cutworms, red spider, cotton bugs, and other insects, and development of methods of control; determination of the injury caused by thrips and other insects affecting cotton in the Imperial Valley, Cal., and of appropriate remedies; study of the relation of insects to the shedding of the cotton fruit, with a view to reduce loss from this cause .....

- Tobacco insects: Study of insects attacking tobacco, including hornworms, budworms, wireworms, and the large tobacco beetle; determination of methods of control, by spraying and otherwise, and demonstra-tion to planters of such methods; determi-nation of fonzible means to methods; nation of feasible means to prevent losses in warehouses and factories due to the cigarette beetle; and investigation of insects which transmit the mosaic disease. Rice insects: Life-history studies of the insect
- species responsible for injury to this crop, and determination and demonstration of 51.89 control measures..... Sugar-cane insects: Investigation of the moth borer, mealy bug, beetles, leafhoppers, and
- other insect enemies of sugar cane, with a view to discover means of suppressing them. 5,387.73

94,076.74 Total.....

43

\$10, 252.66

52,067.47

26, 316.99

.44

Forest and Shade-Tree Insect Invest	IGATIONS.	trative and routine duties common to the
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	57,042.51 982.72 2,495.87	entire work. Vegetable and truck-crop insects: Determina- tion by the usual field, experimental, and research methods of the causes, extent, and
Total allotment.	60, 521.10	character of insect injury to vegetable and truck crops with a view to develop effective
= Distributed among the several subactivities		preventive and control measures; includes
as follows:		investigations of insects affecting potatoes, sweet potatoes, cabbage and other cole
Supervision: General supervision of forest- insect investigations and performance of		crops, beans, peas, and other leguminous food crops, tomatoes, melons, onions, and
laboratory experiments and office routine pertaining to the work as a whole	11, 127. 74	cucumbers and other cucurbits, with espe- cial attention to the Colorado potato beetle,
Field investigations: Determination of the character, extent. cause, and methods of	,	potato tuber moth, potato aphis, potato stalk weevil, potato flea beetles, onion thrips,
prevention and control of insect damage to		bean ladybird, bean aphis, pea aphis, cab-
forest reproduction, including seeds, seed- lings, and saplings; the wood of dead, dy-		bage worms and lopers, root maggots, cab- bage and spinach plant lice, melon aphis,
ing, and felled timber; crude, finished, seasoned, and utilized forest products, in-		cutworms, wireworms, grasshoppers, blister beetles, and insects injurious to greenhouse
cluding poles, posts, mine props, railroad ties, etc.; hickory and ash forest and shade		vegetables and certain miscellaneous crops;
trees and shade trees and hardy shrubs in		determination of the life history of sugar- beet infesting insects, such as leafhoppers,
general. Investigations of the relation of climatic conditions to forest tree insects,		root aphids, sugar-beet wireworms, false chinch bug, leaf beetles, white grubs, and
including latitude, altitude, longitude, lightning, storms, etc., and of the interre-		other pests; studies of the agency of insects in the transmission of cucumber and melon
lation of insects and forest fires in the de- struction of forests. Systematic and eco-		wilt and mosaic, potato blight, and "calico" wilt of tomatoes, white blight of spinach,
nomic investigations of the scolytoid bark		curly-top of sugar beets, anthracnose of
and timber beetles of North America, flat- headed borers, and beneficial insects, and		beans, asparagus rust, and similar diseases. Stored-product insects: Studies of both com-
investigations of general methods of com- bating forest, forest-product, and shade-		mon and newly introduced insects injuri- ously affecting stored wheat, corn, oats,
tree insects. Instructions and demon- strations in the national forests and national		and other grains and flour, meal, and other mill products, including all cereal foodstuffs
parks relating to practical methods of pre-	-	in flour mills, elevators, and warehouses,
depredations	33, 954. 57	involving special investigation of railway and steamboat lines as carriers of infesta-
Laboratory investigations: Identification and classification of species; preparation of		tion; study of the insect enemies of dried fruits and nuts, beans, peas, and cowpeas,
original description of species and the vari- ous stages in their life history; revising and		and cured meats, hides, furs, and manufac- tured fabrics; and investigation and demon-
bringing up to date the systematic knowl- edge of all North American species; deter-		stration of appropriate measures for the control of such insects, including tests of
mination of seasonal histories, food, and		promising and standard fumigants and
and such other information of a technical		other insecticides against these species, and of kiln-drying and heat methods against
nature about the species as is essential to the best success in the investigation and		grain pests, especially grain weevils and insects attacking edible legumes
practical treatment of economic problems relating particularly to forest and other		Total
scolytoid beetles, hymenopterous, coleop-		
terus, dipterous, lepidopterous, and isop- terous insects, and buprestid, cerambycid,		BEE-CULTURE INVESTIGATIONS.
and other coleopterous larvæ, and conifer- ous bark lice (Phylloxeridæ)	12, 942, 92	Total expenditures as above
	58, 025. 23	Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)
TRUCK-CROP AND STORED-PRODUCT INSECT	Investi-	Total allotment
GATIONS.	5	Determination of various methods by which
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated)	\$46, 986. 9 <sup>5</sup> 2, 017. 80	bees respond to changes in external tem- perature, and best methods of caring for
Unexpended balance (estimated)	1, 821. 43	bees during winter; study of the develop- ment of the bee in the larval stage; deter-
Total allotment=	50, 826. 18	mination of the effect on bees of spraying fruit trees for codling-moth control; study
Distributed among the several subactivities as follows:		of the various diseases which affect brood and adult bees; demonstrations and in-
Supervision: General supervision of vegeta- ble, truck-crop, and stored-product insect		structions in beekeeping in the Southern States through and in cooperation with
investigations and performance of adminis-		county agricultural agents

34, 409. 90

1

4,060.79 49,004.75 •

 $\begin{array}{c} 21,\,993.\,\,67\\322.\,16\\81.\,56\end{array}$ 

22, 397. 39 

\$10, 534.06

22, 315. 83 ~

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TROPICAL AND SUBTROPICAL FRUIT INSECT	Insects af
INVESTIGATIONS.	vestigat
Total expenditures as above	which
Outstanding liabilities, Aug. 31 (estimated). 708.69	parasite
Unexpended balance (estimated)	worm, o
	Tot
Total allotment	100.
	T
Determination of the practicability of control	INVES
measures for white fly; perfecting the most	
economical method of gassing citrus groves and citrus nursery stock to combat scale	/T
insects; and investigation of other citrus-	Total expe
fruit insects, including the Argentine ant;	Outstandi
investigation of various means of control-	Unexpend
ling injurious citrus insects; study of the	Tot
fluted scale in Louisiana, and investigations	100
of special forms of insect damage to tropical	D' . "
and subtropical fruits 19, 152. 91	Distribu
	as foll
INVESTIGATION AND CONTROL OF THE MEDITERRANEAN	Supervisio
AND OTHER FRUIT FLIES.	prevent
Total expenditures as above \$23, 364. 32	tail mo
Outstanding liabilities, Aug. 31 (estimated). 584.69	publicat
Unexpended balance (estimated)	Scouting
	of the a the broy
Total allotment	venting
Studer of the life history of the Meditoryon and	plying
Study of the life history of the Mediterranean and other fruit flies in relation to their	ritory w
hosts, looking to the means of control; and	Relation of
cooperation in the introduction and study	Determi
of parasites from foreign countries; inspec-	tural co
tion and certification of pineapples and	and der
bananas for export from Hawaii to the	handlin favorabl
mainland of the United States under quar-	tion of
antine, and general enforcement of this	the proc
quarantine; investigations of fruits likely to be imported into the United States from	Laborator
Mediterranean or other countries, as a basis	of the h
for any necessary quarantine action; inspec-	parasite
tion and regulation of the entry of fruit im-	and bro
ported into the United States from Medi-	extent t
terranean and other countries in which	ing und as enem
fruit flies are known to occur	tion and
MISCELLANEOUS INSECT INVESTIGATIONS.	in areas
	infested
Total expenditures as above \$56, 339. 27	. natural
Outstanding liabilities, Aug. 31 (estimated).997.10Unexpended balance (estimated).6, 196.45	field con of the gi
Ollexpended balance (estimated)	the food
Total allotment	not dev
	and effe
Distributed among the several subactivities	of the d
as follows:	effecto
Supervision: General direction of investiga-	have be
tions, including administrative and rou- tine clerical work	study of
Identification and classification of insects:	spreads insectic
Identification and classification of insects: This covers the miscellaneous investiga-	banding
tional work not specifically provided for in	work to
other projects of the bureau	economi
Insects affecting the health of man: Investi-	Quarantin
gation and eradication of the house fly,	plants a
malaria-carrying mosquitoes, stable fly, Rocky Mountain spotted-fever tick, and	order to
other insects affecting the health of man;	gipsy m infested
investigation and control of insects found	prescrib
in packing houses and associated with meat	Prostrik
products and which may therefore transmit	Tot
disease. 13, 057. 59	

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Insects affecting the health of animals: In- vestigation of the various species of ticks which transmit disease or are important parasites of domestic animals, and of screw	
worm, ox warble, horsefly, horn fly, etc	\$15, 557. 25
Total	57, 336. 37
INVESTIGATION AND CONTROL OF GIPSY MO	
BROWN-TAIL MOTH.	
Total expensitures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	312,062.58 2,103.79 10,674.74
Total allotment=	324, 841. 11
Distributed among the several subactivities as follows:	
Supervision: General direction of work in the prevention of the spread of gipsy and brown- tail moth, preparation of the results for publication, and routine clerical work Scouting and extermination: Determination of the area infested by the gipsy moth and the brown-tail moth, for the purpose of pre- venting the spread of these insects and ap-	16, 085. 80
plying exterminative measures in the ter- ritory where the best results can be secured. Relation of silviculture to gipsy-moth control:	181, 324. 55
Determination of the relation of silvicul- tural conditions to gipsy-moth infestation, and demonstration of the best methods of handling forest growth so as to render it un- favorable to gipsy-moth attack; determina- tion of the most profitable utilization of the products cut. Laboratory and field investigations: Studies	3, 079. 29
of the habits and life history of imported parasites and natural enemies of the gipsy and brown-tail moths; determination of the extent to which these parasites are increas- ing under field conditions and their values as enemies of the insects concerned; collec- tion and colonization of beneficial species in areas where they do not now exist in the infested territory; determination of the natural increase of the gipsy moth under field conditions; study of the feeding habits of the gipsy moth larvæ in all stages and of the food plants upon which this species can not develop; investigation of the relation and effect on the increase of the gipsy moth of the disease known as "wilt," and of the effect of secondary insects on trees that have been defoliated by the gipsy moth spreads to new territory; and tests of new insecticides and methods of spraying or banding trees in order to enable control work to be carried on more efficiently and economically	65, 922. 65
Total	314, 166. 37

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#### BUREAU OF BIOLOGICAL SURVEY.

Classification of expenditures for the fiscal year ended June 30, 1918.

			Salarles.				Equipment.		
	Project.	Lump fund.		Total.	Travel, station, and field expenses.	Apparatus, instruments.	Furniture.	Miscella- neous.	
			In Wash- ington.	Out of Washington.			laboratory.		
12	Administration	\$28, 645. 33 3, 385. 94	\$7,708.38 9,285.83	\$19,910.28	\$36,353.71 32,582.05	\$1,413.99 17,500.98	\$59.00	\$504.58 85.96	*\$285.54 1,685.37
3 4	Economic investigations Biological investigations	5, 592. 51	26, 383. 86 15, 995.03	$43,227.19 \\ 1,022.50$	75, 203.56 23, 627.74	270, 309. 74 5, 711. 07	618.37 1.48	722.45 31.17	1, 249. 65 69. 53
5	Enforcement of the migratory- bird law	1,954.67	6,520.55	23, 869. 62	32, 344.84	11, 924. 41		54.18	81.98
	Total	46, 188. 66	65, 893. 65	88,029.59	1 200, 111. 90	306, 860. 19	678.85	1, 398. 34	3, 372. 07

1 Includes 5 and 10 per cent increased compensation, amounting to \$6,416.75, provided by the agricultural appropriation act for the fiscal year 1918.

Executive order or acts of Congress as breeding refuges for birds and game mam-mals and placed in charge of the Bureau of Biological Survey.....

Restocking reservations: Restocking national game preserves and other reservations with big game and game birds adapted thereto...

Total.....

formation on the losses occasioned by such

\$17, 908.08

2,895.30

2, 195. 50

6, 862. 09

2, 479. 33

347.25

60, 568. 17

\$392, 882. 04 8, 579. 16 <sup>2</sup> 6, 636. 02

408, 097. 22

15, 875. 37

95, 340. 35

## PROJECT STATEMENTS.

#### Administration.

Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	39,768.07 526.15 2,476.11	mals and placed in charge of the Bureau of Biological Survey
Total allotment	42, 770. 33	Montana national bison range: Maintenance of reservation and care of the herds of buf- faloes and other big animals located therein.
Administration of the investigational and ex- tension work of the bureau and conduct of		Wind Cave preserve: Maintenance of a na- tional game preserve in Wind Cave National Park, S. Dak.
its business and routine laboratory oper- ations.	40, 294. 22	Winter elk refuge: Maintenance of a perma- nent winter refuge to insure perpetuation
GAME PRESERVATION.		of elk in Wyoming Sullys Hill national game preserve: Mainte- nance and improvement of a game pre-
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$58, 104. 56 2, 463. 61 1 8, 155. 19	serve in Sullys Hill National Park, N. Dak., for the proper care of animals and birds placed therein
Total allotment	68, 723. 36	Restocking reservations: Restocking national game preserves and other reservations with

Distributed among the several subactivities as follows:

General maintenance of reservations and

#### Enforcement of the Lacey Act.

Enforcement of the Lacey Act.		ECONOMIC INVESTIGATIONS.
Supervision: General direction of the activi- ties under this group, including necessary clerical and other routine work Interstate commerce in game: Enforcement of sections 242, 243, and 244 of the Criminal	5, 591. 42	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated) Total allotment
Code of the United States, regulating the interstate shipment of game; involves the collection of evidence of violations of the Federal game laws and its transmission to the Department of Justice and to State officials through the solicitor's office and the		Distributed among the several subactivi- ties as follows: Supervision: General direction of the activi- ties under this group, including necessary
giving of expert testimony when necessary. Importation of foreign mammals and birds: The prevention, by inspection service, of the introduction from foreign countries of	13, 979. 81	routine laboratory and office work Relation of native and introduced mammals to agriculture: Investigation and demon- stration of methods for the control of wild animals destructive to cereal, fruit, and
injurious birds and mammals Publications: Compilation, publication, and distribution of information concerning game, game laws, interstate commerce in game, and importation of foreign birds	1, 290. 32 1, 460. 68	vegetable crops, pasturage, forest growth, and other vegetation, live stock, and range lands, including moles, pocket gophers, prairie dogs, wolves, etc
Establishment and maintenance of reserved Supervision: General direction of the activi- ties under this group, including necessary clerical and other routine work	5, 558. 39	forests and on the public domain: Syste- matic and economical control on Govern- ment reservations and other public domain of wolves, coyotes, and other mamnals destructive to live stock; collection of in-

123, 193. 01 refuges: Maintenance of areas set apart by animals.... <sup>1</sup> Includes \$1,296.12 from continuing appropriation for Wind Cave National Game Preserve (agricultural appropriation act for fiscal year 1913) and \$3,597.37 from continuing appropriations for Sullys Hill National Game Preserve (fiscal years 1915, 1916, 1917, and 1918). <sup>2</sup> Includes \$1,599.13 from continuing appropriations for suppressing the spread of rabies in wild animals (urgent deficiency act approved Fab. 28. 1915). Feb. 28, 1915).

#### BUREAU OF BIOLOGICAL SURVEY.

Classification of expenditures for the fiscal year ended June 30, 1918.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purachsed in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	-
\$295.13 33.74 661.69 161.51 77.82	\$206. 00 1, 834. 02	\$132.33 182.62 1,063.86 16.29 107.05	\$51. 04 603. 96 3, 333. 85 509. 48 20. 65					\$731. 75 5, 164. 88 37, 884. 85 994. 16 399. 42	\$39, 768. 07 58, 104. 56 392, 882. 04 31, 122. 43 45, 010. 35	1 2 3 4 5
1,229.89	2,040.02	1, 502. 15	4, 518. 98					45, 175. 06	566, 887. 45	

15,015.65

17, 245. 62

7, 482. 34

Suppression of rabies in predatory wild animals: Destruction of wolves, coyotes, and other wild animals which prey upon live

- Destruction of ground squirrels in national forests and on other public lands: Development and application of practical methods for the control of ground squirrels in national forests and on other public lands, in order to prevent injury by them to range areas and invasion by them of private lands surrounded by or adjacent to Government lands.
- Relation of native and introduced birds to agriculture: Field observations and laboratory investigations of birds, with a view to determine from a knowledge of their feeding habits which species are beneficial and which injurious, and to make recommendations for the guidance of farmers, fruit growers, and foresters in their protection or control.
- tion or control...... Rearing fur-bearing animals: Determination of the best methods of feeding, confining, and otherwise handling fur-bearing animals, especially foxes, minks, and martens; determination of species most suitable for domestication; development of superior types by selective breeding; investigation of the effects of temperature on fur growth; and tests of methods of dressing peltries and of caring for dressed furs....

Total...... 401, 461. 20

BIOLOGICAL INVESTIGATIONS.

Total expenditures as above	\$31, 122. 43
Outstanding liabilities, Aug. 31 (estimated).	445. 81
Unexpended balance (estimated)	1, 195. 05
Total allotment	32, 763, 29

Distributed among the several subactivities as follows:

Supervision: General direction of the projects under this group, including necessary clerical and other routine work.....

Biological surveys of the States and Territories: Determination of the distribution,

tribution of the principal plants, in order to secure information which will be of use to the public in the conservation of bird and mammal life and to obtain data by which the boundaries of the natural life zones may be determined..... \$11, 488. 26 Investigations of birds and mammals of the public domain: Investigation of the wild life of the public domain, particularly in the national forests and Federal preserves, with special reference to fur bearers and species classed as game, in order to assist in the conservation of the valuable species and the destruction of the harmful ones. 14, 382. 45 Bird migration: Determination of the migratory movements of game and other birds and their breeding and wintering locations, to serve as a basis for the conservation of useful species and for use in the formulation of regulations under the Federal migratory-bird act.... 1,024.98 Total..... 31, 568, 24 ENFORCEMENT OF THE MIGRATORY-BIRD LAW. Total expenditures as above.... \$45,010.35 . . . . . . . . . Unexpended balance (June 30, 1918)..... 1 8, 175. 53 Total allotment..... 53, 185. 88 Distributed among the several subactivities as follows: Supervision: General supervision, including necessary clerical and other routine work. Migratory-bird protection: Protection of mi-8, 255. 32 gratory water fowl, shore birds, and insec-tivorous birds through the establishment of a warden service and cooperation with State game associations in the enforcement of the provisions of the migratory-bird law. 35, 119, 40 Investigation of migratory wild fowl: Secur-ing information concerning the distribution and abundance of migratory wild fowl in their breeding and wintering resorts, for the purpose of obtaining data on the in-crease or decrease of the species as a basis for the formulation of proper regulations under the migratory-bird law..... 1, 635. 63

abundance, and habits of the birds and

mammals of the United States and the dis-

<sup>1</sup> This unexpended balance was reappropriated under the migratory-bird treaty act, approved July 3, 1918; all outstanding liabilities on June 30, 1918, under this project to be paid from the reappropriated amount.

4,672.55

## DIVISION OF PUBLICATIONS.

Classification of expenditures for the fiscal year ended June 30, 1918.

		Salaries.				Equipment.		
Project.	Statutory.	Lump fund. In Wash- ington. Washington.		Total.	Travel, station, and field expenses.	Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.
Publication work of the Dcpartment of Agriculture	\$171, 995. 10	\$12, 912.09		1 \$184,907.19	\$12.50	\$4,271.67	\$1,369.42	\$2,153.44

<sup>1</sup> Includes 5 and 10 per cent increased compensation, amounting to \$12,912.09, provided by the agricultural appropriation act for the fiscal year 1918.

## · PROJECT STATEMENT.

## BUREAU OF CROP ESTIMATES.

Classification of expenditures for the fiscal year ended June 30, 1918.

			Salaries.				Equipment.			
	Project.		Lump fund.			Travel, station, and field	Apparatus,		Miscella-	
		Statutory.	In Wash- ington.	Out of Washington.	Total.	expenses.	instruments, laboratory.		neous.	
$1 \\ 2 \\ 3$	Administration Crop reporting and estimating Crop recording and abstracting	\$31, 285. 54 64, 423. 49 33, 230, 00	\$4,904.90 14,132.97 7,871.66	\$95,317.06	\$36, 190. 44 173, 873. 52 41, 101. 66	\$55, 161. 29		\$282.62 4,995.32 662.81	\$274,50 930.75 195.00	
	Total	128, 939. 03	26, 909. 53	95, 317.06	<sup>1</sup> 251, 165. 62	55, 161. 29	•••••	5, 940. 75	1,400.25	

<sup>1</sup> Includes 5 and 10 per cent increased compensation, amounting to \$10,257.59, provided by the agricultural appropriation act for the fiscal year 1918.

## PROJECT STATEMENTS.

Administration.	CROP REPORTING AND ESTIMATING.				
Total expenditures as above\$37, 478.Outstanding liabilities, Aug. 31 (estimated)845.Unexpended balance (estimated)350.	00 Outstanding liabilities, Aug. 31 (estimated) 1, 500.00				
Total allotment	44 Total allotment 250, 751, 77				
This project covers the office of the chief, having general direction and supervision of the work of the bureau; also the office of the chief clerk, which has direct supervi- sion of the fiscal operations, records, files, and correspondence, custody of property, distribution of seeds and publications to crop correspondents, and matters relating to the personnel	Distributed among the several subactivities as follows: General crop and live-stock estimates: The issuance periodically of estimates on the acreage, condition, yield, and value of staple crops, and the number, condition, and value of the various classes of live stock in the United States, based on information furnished by the field agents and collected				

#### DIVISION OF PUBLICATIONS.

Classification of expenditures for the fiscal year ended June 30, 1918.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.
<b>\$16, 113. 9</b> 6		\$243.35	<b>\$90.</b> 64				<sup>2</sup> \$2, 597. 90	\$2, 530. 81	\$214, <b>290.</b> 88

<sup>2</sup> Engraving, \$441.79; cleaning and toilet supplies, \$609.29; mechanics', engineers', and electricians' supplies, \$1,546.82.

\$48, 504.03

department for official record and for lectures; preparation of lantern slides for official use and photographs and lantern slides for furnishing to applicants at a price authorized by law; production of motion pictures of the department's activities, for educational purposes.....

educational purposes... Distribution of documents: Cooperation with the Government Printing Office in the distribution of department publications; maintenance of record of distribution of department publications; storing and mailing of

Total...... 215, 034. 06

## BUREAU OF CROP ESTIMATES.

Classification of expenditures for the fiscal year ended June 30, 1918.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	• Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	
\$181.47 7,221.24 1,028.40	\$1,421.68	\$45.00 1,044.80 22.62	\$2.85 976.94			 	<sup>2</sup> \$59.77 <sup>3</sup> 59.33	\$441.79 2,066.90 752.33	\$37, 478. 44 247, 751 <b>. 77</b> 43, 762. 82	1 2 3
8,431.11	1,421.68	1,112.42	979.79				119.10	3, 261. 02	328, 993. 03	

27, 500.00

17,000.00

<sup>2</sup> Cleaning and toilet supplies.

<sup>3</sup> Engraving.

CROP RECORDING AND ABSTRACTING.

Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$43, 762. 82 188. 22 334. 24
Total allotment	44, 285. 28
Collection, from published and unpublished records, of statistical data relative to agri- culture in the United States and foreign countries, and the analysis and conversion of such data into form suitable for study and practical use; includes maintenance of a statistical library.	43, 951 <b>. 04</b>
\	

from a list of 160,000 farmers, merchants, and others acting as crop correspondents of the bureau......\$204,751.77

Truck-crop estimates: The issuance periodically of estimates of the acreage, condition, and yield of truck crops of the United States, based on data furnished by the truck-crop specialists and field agents and secured through correspondence with a list of about 12,000 truck growers, dealers, canners, etc.

Fruit-crop estimates: The publication of estimates of acreage, condition, and yield of the commercial crop of apples and peaches, a list of about 8,000 reporters being maintained.

### STATES RELATIONS SERVICE.

_			Sala	ries.			Equipment.			
	Project.		Lump fund.			Travel, station, and field	Apparatus,			
		Statutory.	In Wash- ington.	Out of Washington.	Total.	expenses.	instruments, laboratory.	Furniture.	Miscella- neous.	
$\frac{1}{2}$	General administration Administration of the Hatch, Adams, and Smith-Lever	\$57, 664. 64 20, 446. 58	\$11, 234. 27 56, 712. 63		\$68, 898. 91 77, 159. 21	\$269.69 3,202.68	\$5.75	\$1,522.26 284.38	\$27.07	
3	acts. Farmers' cooperative demon- strations in the Northern and Western States.	19, 787. 02	73, 203. 84	\$390, 511. 32	483, 502. 18	30, 192. 58	12.00	2, 116. 93	190. 75	
4	Farmers' cooperative demon- strations in the Southern States.	28, 560. 86	47, 735. 53	459, 571. 01	535, 867. 40	93, 950. 14	25.79	3, 501. 18	33.09	
5	Farmers' institutes and agricul- tural schools.	4, 611. 28	9, 273. 90	277.50	14, 162. 68	1,450.82	••••••	635.41		
67	Alaska experiment stations Hawaii experiment station	•••••		38, 530, 50 32, 762, 67	38, 530. 50 32, 762. 67	2,047.78 1,461.03	44.77 307.40	288.63	12,295.12 1,451.12	
8	Porto Rico experiment station			31, 890.49	31, 890. 49	2,180.34	49.85	490.85	2,904.61	
9 10	Guam experiment station Home-economics investigations.	8,968.22	24, 338.05	10, 481. 40	10, 481, 40 33, 306, 27	9.25 524.61	17.62 624.26	151.33 3,011.99	918.45 12.90	
	Total	140, 038. 60	222, 498. 22	964, 024. 89	1,326,561.71	135, 288. 92	1,087.44	12,066.97	17, 833. 11	

#### Classification of expenditures for the fiscal year ended June 30, 1918.

1 Includes 5 and 10 per cent increased compensation, amounting to \$13,395.57, provided by the agricultural appropriation act for the fiscal year 1918.

## PROJECT STATEMENTS.

#### GENERAL ADMINISTRATION.

GENERAL ADDITISTRATION.		1
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	\$73, 455. 07 204. 76 33. 08	
Total allotment	•73, 692. 91	
General direction and supervision of the work of the States Relations Service, including the office of the director, the chief clerk's office, the publication work, library, ac- counts, records, supplies, and property	73, 659. 83	
Administration of the Hatch, Adams, A Lever Acts.	and Smith-	To
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	\$81, 369. 27 364. 75 5, 888. 03	U
Total allotment	87, 622. 05	
Supervision of the work and expenditures of the State agricultural experiment stations, under the acts of Mar. 2, 1887, and Mar. 16, 1906, and acts supplementary thereto, pro- viding funds to State agricultural colleges		Sı
for the prosecution of investigational work, and under the act of May 8, 1914, providing for cooperation in extension work between the State agricultural colleges and the De- partment of Agriculture; including the an- nual inspection of each college and station,		Co

examination of the accounts, financial reports, equipment, publications, etc., and personal conference with the college and station officials to determine the legitimacy

and efficiency of their work and expenditures; preparation of annual reports to Congress on the work and expenditures of each station; advice to stations regarding personnel, lines of work, equipment, publications, etc.; collections of literature on agricultural science throughout the world and the preparation of summaries of the same in the Experiment Station Record, consisting of 18 numbers of 100 pages each, annually, with detailed indexes; preparation of card indexes on publications of American stations for the use of agricultural colleges and experiment stations, State department of agriculture, and others; and exchange of information regarding the organization and progress of agricultural research with over 1,000 experiment stations and kindred institutions in more than 50 countries.....

\$81, 734.02

45, 515. 26

323, 087. 05

#### FARMERS' COOPERATIVE DEMONSTRATIONS IN THE NORTHERN AND WESTERN STATES.

т	otal	l	tmont	 599.	000	97
ж.	ULAI	and	hunen been a	 - MMM.	UOO.	- A/

Distributed among the several subactivities as follows:

- supervision: General supervision of farmers' cooperative demonstration work in the 33 Northern and Western States, including supplies, equipment, and miscellaneous labor.
- County-agent work: Instruction and demonstrations in agriculture, in cooperation with State agricultural colleges, by means of county agricultural agents, for the purpose of securing the adoption of better farm practice, organization, and administration, to the end of increasing the profits of farming
- the end of increasing the profits of farming and improving rural social life...... Boys' and girls' club work: Cooperation with State agricultural colleges in the organization of young people on the farms into clubs, with a view to interest boys and girls and, through them, farm men and women in farm, farm home, and rural community problems; to teach them better methods of farm, garden, and home practice; to bring them in touch with the work of the department and of the agricultural colleges and

#### STATES RELATIONS SERVICE.

Classification of expenditures for the fiscal year ended June 30, 1918.

	Stationery.	Rent.	Telcgraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwisc classified.	Miscellane- ous supplies, services, etc.	Total.	
	\$825.96 374.26	\$80.00	\$380.19 76.60	\$18.94 2.46					\$1,506.30 189.68	\$73, 455. 07 81, 369. 27	12
	4,986.76		1, 279. 31	2,928.05					2, 293. 13	527, 501. 69	3
	1,082.52		2,780.58	874. 84					2, 197. 11	640, 312.65	4
	276.67		31.96	9.77					1,072.78	17,640.09	5
	10.60 367.64 258.77	300.00	120.29 218.70	2,999.41 63.43	\$154.11 293.35	\$2,483.57 1,550.87	\$540.00		1,839.96 2,016.94	61,654.74 40,557.16	67
	258.77 184.32 477.26		250.89 56.51 60.57	314.66 675.67 27.36	92.93	509.76 297.82			$1,392.78 \\ 1,794.52 \\ 2,794.63$	40, 335.93 14, 586.89 40, 839.85	8 9 10
T	8, 844. 76	380.00	5, 255. 60	7, 914. 59	540. 39	4,842.02	540.00		17,097.83	1, 538, 253. 34	

schools; and to encourage them in securing tory; agricultural instruction to boys such an education as will aid in making through the organization and work of boys' them useful and successful workers, homeclubs. \$469, 162.23 ... \$110,065.42 Home demonstration work, including girls' club work: Demonstrations in home garstrations to farmers, in cooperations with State agricultural colleges, of the impor-tance of certain efficiency factors relating to the organization and administration of the farm, including instructions in meth-eds of collumine their supervisions and efdening and poultry raising, and the organi-zation of women's clubs for general study and of girls' clubs for the teaching of gardening, cooking, and other subjects..... 148, 672. 98 ods of analyzing their own business and of Total. 667, 541. 74 working out their labor income...... 45, 486. 48 Extension work in home economics: Cooperation with State agricultural colleges, coun-FARMERS' INSTITUTES AND AGRICULTURAL SCHOOLS. ties, and local agencies in the organization, correlation, and conduct of extension work Total expenditures as above..... Outstanding liabilities, Aug. 31 (estimated). \$17, 640. 09 in home economics with farm women for the purpose of securing efficiency and pro-7,018.19 moting prosperity and contentment in the Unexpended balance (estimated)..... farm home. 34, 371. 97 Total allotment..... 25, 211. 28 558, 526. 18 Total. Distributed among the several subactivities FARMERS' COOPERATIVE DEMONSTRATIONS IN THE as follows: SOUTHERN STATES. Farmers' institutes and movable schools: Investigations and reports upon the organiza-tion and progress of farmers' institutes, movable schools, and similar organizations \$640, 312. 65 27, 229. 09 21, 249. 24 Total expenditures as above..... Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)..... in the United States and foreign countries, for the purpose of obtaining special suggestions of plans and methods for making these organizations more effective for the dis-semination of the results of the work of the department and the agricultural experi-ment stations and to improve methods of arrival tural practice. Total allotment..... 688, 790. 98 Distributed among the several subactivities as follows: Supervision: General supervision of farmers' cooperative demonstration work in the 15 agricultural practice. Southern States, including supplies, equip-ment, and miscellaneous labor...... County-agent and boys' club work: Instruc-Investigations of agricultural instruction in 49, 706. 53 schools: Study of agricultural instruction in this and other countries, with a view to determine the needs of such instruction, in order to make it practically useful to stution and demonstrations in agriculture, in cooperation with State agricultural coldents who are to become farmers or workers

cooperation with State agricultural col-leges, by means of county agricultural agents, for the purpose of securing the adoption of better farm practice, organiza-tion, and administration, to the end of in-creasing the profits of farming and improv-ing rural social life; teaching and demon-teration of methods of meeting the reverse stration of methods of meeting the ravages of the cotton boll weevil in all cotton terri5, 526. 92

18, 193.09

553.00

schools with up-to-date and properly organ-ized subject matter and illustrative mate-rial to supplement and reinforce text-12,666.17 books and field practice.....

in agricultural institutions; and furnishing

Total....

52	STATEMENT OF EXPEND	ITURES OF	THE DEPARTMENT OF AGRICULTURE.	
App Rec U Outstan T Mainten Sitka, Fairb nuska hortic termin devel etc., sheep	ALASKA EXPERIMENT STATIONS. cpenditures as above: oropriation, 1918		Maintenance of a station at Honolulu, Hawaii, to study diversified agriculture, including the proper management of soils for rice and pineapples, plant-breeding experiments, introduction of forage crops, and a general study of the peculiar agricultural needs of this group of islands; also demonstrations to farmers and communities on the different islands composing the group in growing, handling, and marketing tropical and sub- tropical crops, including pineapples, ba- nanas, cotton, roselle, corn, potatoes, onions, garden vegetables, etc., and in stock raising, dairying, etc.         PORTO RICO EXPERIMENT STATION         Total expenditures as above: Appropriation, 1918	Ι.
App Rec	propriation, 1918 \$40, 214.65 eeipts from sale of prod-		Maintenance of a station at Mayaguez, P. R.,	φ40, 350. 95
	ding lightiliting Aug. 21 (artigrated)	\$40, 557.16	to investigate problems underlying the development of agriculture and to devise	
	ding liabilities, Aug. 31 (estimated).	75.94	means and methods of improving the art and practice, special attention being given	
Т	otal allotment=	40, 633. 10	to the development of the citrus-fruit and pineapple industries, coffee improvement,	

#### OFFICE OF PUBLIC ROADS AND RURAL ENGINEERING.

Classification of expenditures for the fiscal year ended June 30, 1918.

			Salaries.				Equipment.		
	Project.	Statutory.	Lump In Wash- ington.	o fund. Out of Washington.	Total.	Travel, station, and field expenses.	Apparatus, instruments. laboratory.	Furniture.	Miscella- neous.
1 2 3 4 5 6 7 8 9	Administration Road building and maintenance Road-material investigations Field experiments Farm-irrigation investigations Farm-drainage investigations Rural-engineering investigations Improvement of post roads	9, 365.07 1,061.80 18,913.10 16,971.27	\$5, 823. 30 26, 333. 32 48, 351. 49 33, 993. 95 938. 89 11, 174. 83 7, 185. 55 20, 406. 40	\$1,474.00 42,988.12 4,641.75 47,789.15 32,224.65 40.00	\$18,541.64 35,311.06 117,262.92 43,359.02 6,642.44 77,877.08 56,381.47 25,017.45	\$88.07 7,779.90 32,639.03 2,481.52 2,870.97 35,043.89 19,026.73 1,567.30	\$25.60 824.10 43.50 231.39 595.00 7.00	\$12. 15 441. 67 717. 79 230. 61 159. 42 193. 04	\$108. 43 380. 04 2, 761. 05 1, 564. 87 93. 40 1, 454. 15 914. 79 7. 55
	Total	97,027.68	154, 207. 73	129, 157. 67	1 380, 393. 08	101, 497. 41	1, 726. 59	1,754.68	7, 284. 28

1 Includes 5 and 10 per cent increased compensation, amounting to \$8,745.95, provided by the agricultural appropriation act for the fiscal year 1918.

#### PROJECT STATEMENTS.

#### ADMINISTRATION.

50

Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	27,614.26 567.46 690.07
Total allotment	28, 871. 79
Adminstration of the business affairs of the office and general direction of its investi- gational activities. ROAD MANAGEMENT.	28, 181. 72
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	$     $45, 268. 30 \\     225. 98 \\     3, 357. 66   $
	48, 851. 94

Distributed among the several subactivities as follows:

Supervision: Direction of the various research and extension activities under this group and conduct of routine office business, including correspondence, maintenance of records, purchase of supplies and equipment, and other clerical work.....

\$13, 421. 29

Collection of current data relating to highways: Collection and systematization of available information and statistics relative to highways, including the maintenance of a current record and the compilation of road legislation; covers all statistical studies, except the census of road mileage, revenues, and expenditures made at five-year intervals, and provides necessary information of a general statistical character for the use of persons engaged in or aiding road improvement.

11, 602. 60

. 02

methods for the control of various fungous and insect pests, the beekeeping industry, and the breeding and feeding of live stock.. \$40, 335. 95

GUAM EXPERIMENT STATION.

\$14, 586.89 Total expenditures as above..... Outstanding liabilities, Aug. 31 (estimated)... 494.09 Unexpended balance.....

> 15,081.00 Total allotment.....

Maintenance of a station at Agana, Guam, to	
conduct investigations and carry on experi-	
ments to determine the agricultural possi-	
bilities and improve the agricultural prac-	
tices of the island, through the introduction	
of improved varieties of forage, fruit, and	
vegetable crops, pure-bred horses, cattle,	
goats, swine, and poultry, and the use of	
modern implements.	15,080.98
1	í.
HOME-ECONOMICS INVESTIGATIONS	

Total expenditures as above	\$40, 839. 85
Outstanding liabilities, Aug. 31 (estimated)	3, 384. 60
Unexpended balance (estimated)	179. 50
Total allotment	44, 403, 95

Distributed among the several subactivities as follows:

Respiration calorimeter investigations: Studies by special calorimeter investigations. South-ies by special calorimetric methods of agri-cultural products with reference to their use in the home for food, clothing, and equipment, and the household tasks which their use involves for the number of suc their use involves, for the purpose of sug-gesting plans and methods for the more effective utilization of such products for these purposes; including experiments on the incubation of eggs, ripening of fruits and vegetables, and studies of labor expendi-tures and efficiency in household activities. Studies of food, dietetics, clothing, and house-hold equipment, work, and management: Studies of the nature of agricultural prod-ucts used in the home for food, clothing, and equipment; studies of household processes, methods, and uses pertaining thereto; classi-feation, comparison, equipment fication, comparison, revision, and digest of information useful to housekeepers, students, and extension workers; and dissemination of the results of research.....

#### 44, 224. 45 Total.....

## OFFICE OF PUBLIC ROADS AND RURAL ENGINEERING.

Classification of expenditures for the fiscal year ended June 30, 1918.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purachsed in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	
\$1,275.18	\$120.00	\$2,386.01	\$1,592.36	\$1,784.50				\$1,705.92	\$27,614.26	12
234.48 1,748.81		17.20 35.16	.77 261.12					1,103.18 1,231.65	45,268.30 156,683.13	3
944.12 86.78	12,00	4.25 .20	7.00 222.28		••••		<sup>2</sup> \$18. 85 <sup>3</sup> 7. 65	1,915.05 9,368.39	51, 349. 39 19, 347. 61	45
909.00 795.27	1,282.00 126.00	635.78 96.55	953.09 415.19					2,434.03 1,764.92	121,051.90 80,308.96	67
237.45	120.00	90.00	410, 19					59.32	26, 897. 17	8
	•••••	•••••			•••••		45,474.25	•••••	5,474.25	9
6,231.09	1, 540. 00	3, 176. 25	3, 451. 81	1,852.07			5, 505. 25	19, 582. 46	533, 994. 97	

<sup>2</sup> Printing.

<sup>3</sup> Advertising and publication of notices.

Economic studies of county and township highway systems: Study of the organi-zation, procedure, cost of operation, and results obtained in the management of high-way systems in counties and townships in various parts of the United States; determi-nation of the type of road, character of materials, and methods of maintenance which are yielding the best results at the least cost, and of the elements of weakness in various local systems of management... Economic studies of State highway systems:

Study of the character of organization of State highway systems, working plans, cost state nighway systems, working plans, cost of operation, systems of reports and records, character and cost of work done, location and classification of highways, and purposes served; and correlation and presentation of such information so as to make it available to the National Government for military and postal purposes and for the adminis\* Road construction under contract.

\$4, 285. 32	<ul> <li>tration of the Federal-aid road act, and to the States in the establishment and management of State and county highway systems.</li> <li>Traffic studies: The assembling of all practicable data on the regulation of traffic, the adaptation of various types of road surface to traffic conditions, and the relation of maintenance methods and cost to traffic requirements.</li> <li>Advice, lectures, and demonstration of road and bridge models: Expert advice on road legislation, organization, and management, upon the request of public officials and organizations, by means of conferences, lectures, and demonstrations, including the use of road models, lantern slides, etc., showing the various phases of road construction and improvement.</li> </ul>	\$9, 004. 25 1, 172. 87 6, 007. 95
	Total	45, 494, 28

\$12, 209.01

32,015.44

31, 270.

927.

3,022.

9,988.

matters..

#### ROAD BUILDING AND MAINTENANCE.

Total expenditures as above	\$156, 683. 13
Outstanding liabilities, Aug. 31 (estimated).	1,999.35
Unexpended balance (estimated)	

#### Total allotment...... 168, 194. 40

Distributed among the several subactivities as follows:

- Supervision: Direction of the various research and extension activities under this group and conduct of routine office business, including correspondence, maintenance of records, purchase of supplies and equipment, and other clerical work.....
- Investigation of costs of road maintenance: Study of costs of maintenance in counties where roads have been systematically improved under the direction of competent engineers, with a view to secure accurate cost data for various types of road......
- Investigations of various types of road construction and costs: Study of certain types of road construction which have been developed locally with available material and labor, as the basis for giving advice as to proper types of construction, such as bituminous-sand, rock-asphalt, bituminoussurfaced gravel, patented types, etc.....
- Object-lesson roads: Demonstration of the proper methods of construction and the most efficient use of materials, for the purpose of instructing road officials in the art of road building, and correlation of conclusions drawn from laboratory tests with those resulting from field service tests....
- County road systems: Study of the roads of a county or other political subdivision and preparation of general plans and specifications for their administration, improvement, and maintenance.....
- Inspection, advice, and lectures: Inspections by high way engineers and studies of specific local problems in road construction and maintenance; preparation of definite recommendations for the solution of these problems, and the imparting of this information to road officials, high way associations, mass meetings of citizens, and others who require it.
- Superintendence of county roads: Demonstration to county officials of the advantages accruing from the supervision of all county roads by one skilled in highway construction and maintenance and of the advantages of centralized control over all roads in a county.....
- Bridge construction in connection with road building and maintenance: This work consists of furnishing to local officials plans and specifications for bridges and investigating conditions and advising the authorities interested as to the best methods of bridge construction to meet their peculiar needs and conditions.
- Road maintenance (advice and inspection): Supervision of the maintenance of certain post-road projects for the purpose of determining accurately the relation between the cost of effective maintenance and the available local funds and of determining main-

92 40	the Post Office Department, under the terms of the act of Aug. 24, 1912, by making inspections, furnishing estimates of cost and other data, and providing the services of engineers to supervise the construction and improvement of highways over which United States mail are carried	1, 231. 13
	Total	158, 682. 48
	Road-Material Investigations.	
02	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated).	\$51, 349. 39 3, 697. 77 5, 679. 98
	Total allotment	60, 727. 14
95 65	Distributed among the several subactivities as follows: Supervision: Direction of the various sub- activities under this group and conduct of routine office work, including correspond- ence, maintenance of records, purchase of supplies and equipment, preparation of specifications, etc. Routine chemical testing and inspection: Routine chemical tests and inspection: Routine chemical tests and inspections of bituminous and nonbituminous dust pre- ventives and road binders, with a view to determine their fitness for particular classes of work, conformity with specifica- tions, etc.; includes the inspection of cul- vert metal for use in roads built under the	19, 624. 33
10	supervision of this office. Microscopic examination and classification of road-building rocks: General study of rocks in relation to their adaptability for road	3, 978. 56

tenance costs on various types of roads; and advice to local road authorities on these

Improvement of post roads: Cooperation with

- 78, 709. 13
  9, 018. 54
  9, 018. 54
  binders: Studies of the effect of methods of production upon the character of bituminous materials, the relative fitness of the various types of bituminous materials for different classes of construction, and the changes which take place in these materials upon exposure to service conditions. Experimental bituminous road construction and maintenance: Development of new types of bituminous-bound and bituminous
  - treated roads, and the correlation of laboratory experiments with service tests.... 1, 653. 23 Physical tests of road-building materials: Determination, by means of physical tests, of the suitability of various materials for use

\$637.17

652.48

Nonbituminous road-material investigations:		FARM-IRRIGATION INVESTIGATIONS	8.
Investigation of the physical properties of		Total expenditures as above	\$121 051 00
nonbituminous road materials, correlation	1	Outstanding liabilities, Aug. 31 (estimated)	1, 677. 51
of the results of physical tests with behavior		Unexpended balance (estimated)	16, 97
in actual service, and development of tests to meet new conditions in road construc-		-	
tion	\$8, 191. 07	Total allotment	122,746.38
Instrument making and repairing: Construc-	φο, τοτι στ	Distributed and all and the states	
tion and repair of testing machines and in-		Distributed among the several subactivities as follows:	
struments required in conducting road-		Supervision: Direction of farm-irrigation in-	
material investigations	1, 773. 60	vestigations and conduct of the editorial.	
Standardization of methods of testing bitu-		clerical, and other routine work	6,402.48
minous road materials: Revision of current		Utilization of water in irrigation: Investiga-	-,
methods of testing bituminous road mate-		tions to determine what constitutes the	
rials and development or introduction of		best utilization of water in irrigation, as to	
new and better methods	373.45	the quantity used and method of applying,	
Standardization of methods of testing non-		to serve as a basis for improving irrigation	
bituminous road materials: Standardiza-		practice, for designing canals, pumping	
tion of the physical methods of testing non-		plants, and farm ditches, for formulating ditch regulations and contracts, and for the	
bituminous road materials, so that the re-		granting and adjudicating of water rights.	53, 774. 67
sults obtained by various laboratories may	723. 17	Pumping for irrigation: Study of the adapta-	00,111.01
be compared	720.17	tion of wells and pumping machinery for	
Total	55,047.16	the supplying of water for irrigation; deter-	
		mination of the cost of installation, main-	
		tenance, and operation of wells and pump-	
FIELD EXPERIMENTS.		ing machinery; and technical investiga-	
· · · · · · · · · · · · · · · · · · ·		tions to develop improvements in the de- sign of pumps for irrigation	9, 957. 92
Total expenditures as above	\$19,347.61	Irrigation appliances and equipment: Devel-	9,901.92
Outstanding liabilities, Aug. 31 (estimated).	14, 603. 84	opment of the best general types of struc-	
Unexpended balance (estimated)	27, 150. 10	tures and equipment for diverting, trans-	
	01 101 55	porting, dividing, distributing, and apply-	
Total allotment	61, 101. 55	ing water used for irrigation	9, 174. 28
-		Flow of water for irrigation in ditches, pipes,	
Distributed among the several subactivities		and other conduits: Determination of the	
as follows:		accuracy of formulas for the flow of water	
Supervision: Direction of the various sub-		in conduits of various kinds and the devel-	
activities under this group and conduct of		opment of new formulas, in order that con- duits may be properly designed to carry the	
routine office work	593.10	water which they are intended to convey.	4, 457. 70
Experimental road construction: Experi-		Measurement of water for irrigation: Im-	1, 107. 10
ments to determine the relative merits and		provement and standardization of devices	
values of various preparations and mate-		for measuring water for irrigation, in order	
rials for use in road construction and of the		to insure the economical use of water from	
various methods and types of road con-		the small streams delivered to individual	0 500 03
struction	4, 594. 72	· farmers	2, 709. <b>91</b>
Traction tests: Investigations of the effect of		Customs, regulations, and laws relating to ir-	
width of tire, diameter of wheel, type and		rigation: Investigation of the effect of cus- toms, regulations, and laws upon the use of	
size of axle bearing, kind of power, and		irrigation water by farmers, upon the eco-	
method of application of power on tractive effort required to haul vehicles over various		nomical use of water from the standpoint	
types of road surfaces; collection and study		of the public, and upon the success of irri-	
of comparative data on the resistance of-		gation development, with a view to sug-	
fered to traction by unimproved and im-		gest desirable changes.	4, 333. 56
proved road surfaces and by grades in the		Drainage of irrigated lands: The devising of	
case of automobiles and horse-drawn vehi-		methods for reclaiming lands which have	
cles; and determination of the comparative		been injured by overirrigation, by the rise of ground water due to irrigation, or by	
pulling power and sustained effort and the		waste water from irrigation canals or irri-	
relation of these factors to the rations of light	000 24	gated lands, and the prevention of injury to	
and heavy draft animals.	990. 34	irrigated lands from these sources; han-	
Experimental road maintenance: Determina-		dling of general drainage problems in the	
tion of the cost of maintenance of various types of experimental roads constructed by		sections where irrigation is practiced, and	
this office, maintenance cost records being		preparation of drainage plans for individu-	91 410 07
kept for a period of five years or more	27, 416. 05	als and communities	31, 419. 07
Road and bridge foundation tests: Determi-	,	Expert advice and assistance: Assistance in irrigation development and improvement	
nation of the distribution of pressure through		of irrigation practices by advising farmers,	
fills and foundations and study of the		through correspondence and by personal	
effect of loads on road surfaces and road		visits, as to methods and equipment for	
foundations	357.24	irrigation	499.82
		-	100 700 17
Total.	33, 951. 45	Total	122, 729. 41
		•	

•

## FARM-DRAINAGE INVESTIGATIONS.

- FARM-DRAINAGE INVESTIGATIONS.		Drainage of
Total expenditures as above	\$80, 308. 96	ods of pla
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated)	2, 456. 95	drains and t
Unexpended balance (estimated)	27, 131. 14	formation co
		rived from a
Total allotment	109, 897. 05	Drainage of -o
=		interest in t
Distributed among the several subactivi-		to periodica
ties as follows:		making such
Supervision: General direction of farm-drain- age investigations, including necessary		Drainage of s
clerical and other routine work, and the		terest in th
purchase of equipment and supplies not		with the vie
properly chargeable to specific projects	10, 020. 67	agriculture.
Construction, operation, and maintenance of		Irrigation in
drainage improvements: Study of the cost		practicabili
and efficiency of machines and implements		existing in
for digging ditches and building levees un-		the United
der various conditions of work; study of the		methods an
sizes, types, and arrangement of pumping		ditions and
equipment suitable for drainage work; in-		
vestigation of the strength and durability		Total
of tile, especially of cement tile in alkaline soils; study of the cost of construction, op-		
eration, and maintenance of drainage im-	*	
provements and an analysis of such costs;		– Rur
and determination of the rate of deprecia-		
tion of drainage improvements	7,018.92	Total expend
Drainage of peat, turf, and muck soils: In-		Outstanding l
vestigation of special problems involved in		Unexpended
planning and constructing drainage systems		
for peat, turf, and muck soils	1,356.89	Total a
Drainage of tillable lands (research): Deter-		
mination of the proper depth, spacing, and		Distributed
arrangement of tile drains in various types		as follows
of soils, carrying capacities of tile drains, and the effect of drainage upon the soil tem-		
perature; ascertaining the amount of water		Supervision:
that should be removed by tile drains per		clerical, dr
day from various kinds of soil under varying		and the p
conditions of climate and topography; in-		plies not
vestigation of the effect of drainage on crop		projects
yields; and study of the best methods of ter-		Investigation
racing to prevent washing and gullying of	0 000 10	and draina
hillside farm lands.	6, 308. 19	sanitary con
Organization, financing, and legal regulations		try by mak
of drainage districts: Study of the organiza- tion of drainage districts and the laws under		edge of pro
which such districts are formed; investiga-		supply, an
tion of the various methods of financing		ance to farm
drainage districts; determination of the ef-		to existing
fect of customs and drainage laws and regu-		Investigation
lations upon the economical organization of		buildings:
drainage districts; and study of the various		kinds of far
methods of assessing costs of drainage im-		a view to
provements. Run-off investigations: Determination of the	3, 494. 64	arduous an
Run-off investigations: Determination of the		
rates of run-off which must be provided for		Investigation involving
by drainage channels in reclaiming wet lands and of the sizes of ditches necessary to		gation of th
remove the run-off.	10, 971. 80	in various
Drainage of tidal marshes: Investigation of the	10, 371. 00	view to sta
causes of failure in many attempts made to		data which
reclaim tidal marsh land, and determination		selecting e
of the proper arrangement and size of sluice		new equip
openings and the requisite storage capacity		
of ditches.	43.85	Total.

08. 96 56. 95 31. 14 97. 05	<ul> <li>Drainage of tillable lands (extension): Instructions to landowners in the proper methods of planning and constructing farm drains and terraces and dissemination of information concerning the benefits to be derived from such improvements</li> <li>Drainage of -overflowed lands: Promotion of interest in the reclamation of lands subject to periodical overflow, with the view of making such lands available for agriculture.</li> <li>Drainage of swamp lands: Promotion of interest in the reclamation of swamp lands, with the view of making them available for agriculture.</li> <li>Irrigation in humid regions: Study of the practicability of irrigation under conditions existing in the central and eastern parts of the United States, and development of methods and needs of those regions</li> </ul>	\$27, 909. 38 6, 969. 91 337. 68 8, 333. 98
	- Total	82, 765. 91
	RURAL-ENGINEERING INVESTIGATION	18.
18.92	Total expenditures as above	\$26, 897. 17
	Outstanding liabilities, Aug. 31 (estimated).	799.53
	Unexpended balance (estimated)	2, 081. 60
356.89	Total allotment=	29, 778. 30
	Distributed among the several subactivities as follows:	
	Supervision: General direction of rural-engi- neering investigations, including necessary clerical, drafting, and other routine work and the purchase of equipment and sup- plies not properly chargeable to specific	-
308. 19	projects Investigations of farm domestic water supply and drainage disposal: Improvement of sanitary conditions of the farms of the coun- try by making available to farmers a knowl- edge of proper systems of plumbing, water supply, and drainage disposal; also assist- ance to farmers in installing systems suited	573. 28
	to existing conditions	2, 525. 92
	Investigations of the construction of farm buildings: Preparation of drawings for all kinds of farm structures and equipment and for the general layout of the farmstead, with	
494.64	a view to make the work of the farm less arduous and the home life more attractive.	15, 713. 37
971. 80	Investigations of rural-engineering problems involving mechanical principles: Investi- gation of the mechanical principle involved in various kinds of farm equipment, with a view to standardization and the securing of data which will be of assistance to farmers in selecting equipment; also the designing of	
	new equipment and apparatus	8, 884. 13
43.85	Total	27, 696. 70

## IMPROVEMENT OF POST ROADS.

Total expenditures as above	\$5, 474. 25
Unexpended balance	2. 80
Total allotment	5, 477. 05
Expenditures prior to July 1, 1917	494, 522. 95
Total appropriation	500, 000. 00
The object of this work has been to construct improved highways along postal routes for service tests, in cooperation with the Post Office Department, States, and counties, for which a special appropriation of \$500,000 was provided under the act of Aug. 24, 1912. The cost of the work to June 30, 1918, is dis- tributed as follows:	
Lauderdale County, Ala	9, 991. 48
Boone and Story Counties, Iowa	9, 999. 50
Dubuque County, Iowa	30, 000. 00
Bath County, Ky	6, 300. 00
Montgomery County, Ky	6, 800. 00
Cumberland County, Me	65, 000. 00

Montgomery County, Md Leflore County, Miss	\$14,700.00 50,000.00
Davie County, N. C. Iredell County, N. C.	16,099.25 5,439.60
Forsyth County, N. C.	3, 555. 25
McDowell County, N.C Licking and Muskingum Counties, Ohio.	10,000.00 120,000.00
Jackson County, Oreg	9, 999. 98
Aiken County, S. C. Dillon County, S. C.	$10,000.00 \\ 34.50$
Loudon County, Tenn Montgomery County, Tenn	$\frac{10,800.00}{10,000.00}$
Bexar County, Tex	14, 110.00
Comal County, Tex	21, 485.00 3, 050.00
Hayes County, Tex	23, 020. 00
Travis County, Tex Caroline County, Va	14,960.00 1,906.07
Hanover County, Va	9,000.00
Spotsylvania County, Va Fairíax County, Va	6,846.57 16,900.00
- Total	499, 997. 20

#### BUREAU OF MARKETS.

Classification of expenditures for the fiscal year ended June 30, 1918.

			Sala	ries.				Equipment.	
	Project.	-	Lump	fund.		Travel, station, and field	Apparatus,		Miscella-
		Statutory.	In Wash- ington.	Out of Washington.	Total.	expenses.	instruments, laboratory.	Furniture.	neous.
1	Administration.	\$71, 860, 60	\$14,908.92	\$17.06	\$86,786.58	\$326, 25	\$167.51	\$1, 493, 42	\$2, 481. 27
2	Marketing and distribution	31, 802. 83	146, 829. 56	18, 308, 16	196,940.55	37, 531, 41	82, 32	1, 161. 93	5, 240. 72
3	Collecting and distributing mar-	27,860.93	37, 730. 65	48,400.55	113,992.13	12,770.12	3.50	, 820.07	4,083.07
	ket information.	0.017.00	10.007.00	10 045 10	00.070.00	0 110 10	45.00	100 50	100.00
4	Market reports on live stock and meats.	8,017.80	16,907.93	13, 345. 10	38, 270. 83	3, 416. 19	45.00	198.56	183.09
5	Food-supply investigations		22,080.91	5, 529, 95	27,610.86	18, 282. 87			502. 53
6	Investigations and demonstra-	4,736.00	10,011.90	148.89	14, 896. 79	3, 393. 49			91.77
	tions of cotton standards.		- /	1					
7	Cotton testing. Rural cooperation	5,460.56 6,500.00	10,080.63 17,068.35	1,002.50 11.00	16,543.69 23,579.35	2,571.18 2,111.75	22. 52	222, 56	998.65 450.11
9	State cooperation in marketing	1,200.00	6,723.76	24, 501, 12	32, 424, 88	3, 513. 39		197.82	90.56
Ŭ	work.				02,121100	0,010.00			00.00
10	Grainstandardization and grain handling and transportation investigations.	5,680.00	43, 390. 74	24, 153. 50	73, 224. 24	12, 939. 81	160.90	849.81	1,998.96
11	Enforcement of the standard- container act.		2,340.00		2, 340. 00	848. 39		•••••	
12	Enforcement of the cotton-fu-	4,847.50	47,111.81	6,931.10	58,890.41	4,389.68		92.80	1,076.19
	tures act.	10 107 01		045 101 50			100		
13	Enforcement of the grain-stand- ards act.	10, 465. 84	71, 719. 94	247, 101. 53	329, 287. 31	30,957.33	139.75	5, 878. 53	18, 200. 62
14	Administration of the ware-		27,730.53	100.00	27,830.53	5, 455. 61		202.17	\$16.08
	house act.		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1001.00	,	.,		302717	
	Total	178, 432. 06	474, 635. 63	389, 550. 46	1 1,042,618.15	138, 507. 47	621. 50	11, 117. 67	36,213.62

1 Includes 5 and 10 per cent increased compensation, amounting to \$25,599.94, provided by the agricultural appropriation act for the fiscal year

#### PROJECT STATEMENTS.

23, 066. 60

21, 267. 24

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#### Administration.

Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$93, 368. 94 2, 364. 86 108. 50
Total allotment	95, 842. 30
Supervision of the research, service, exten- sion, and regulatory work of this bureau and the execution of the necessary admin- istrative details connected therewith MARKETING AND DISTRIBUTION.	95, 733. 80
Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$265, 118. 71 23, 579. 63 37, 299. 82
Total allotment	325, 998. 16
Distributed among the several subactivities as follows: Cotton handling and marketing: Investiga- tion of the commercial processes involved in the handling, marketing, and utilization of cotton, in order to make recommenda- tions as to improvements and economies; investigational work in connection with the	

farm products and of the forms of organization and methods of management best suited for their use..... Transportation and storage: Investigation of the service furnished throughout the United States by common carriers of every kind in the transportation of farm products, particularly perishables, and of the need for more and better service in individual sections in connection with particular commodities; cooperation with shippers in securing, and with carriers in inaugurating, such service; dissemination of information to carriers as to the greater needs of shippers in transportation service, and bringing •

\$34, 547. 23

27, 785. 63

14, 432.00

#### BUREAU OF MARKETS.

Classification of expenditures for the fiscal year ended June 30, 1918.

Static	onery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwisc classified.	Miscellane- ous supplies, services, etc.	Total.	
\$3 8,2	525.55 243.45 075.84	\$142.50	\$136.10 2,698.96	\$11.94 1,665.27					\$1,440.32 11,411.60	\$93,368.94 265,118.71	1 2 3
16,0	075.84	4,088.81	23,040.06	2,116.09				•••••	7, 801.34	184, 791. 03	3
7,5	524.15	1,832.50	6, 201. 92	354.25	\$9,00	·····			541.06	58, 576, 55	• 4
	41.66	20.00	115.83 96.68	$31.27 \\ 122.85$					553. 27 5, 303. 46	47,158.29 23,905.04	5 6
	49.00		17.70	15.96					9,618.88	29,837.58	7
	12.02 28.87		$75.12 \\ 122.76$	$1.00 \\ 126.13$					322.53 207.59	26,874.44 36,812.00	8 9
	99.25		319, 69	304, 80	5, 70	······,·			3,260.32	93, 163. 48	10
			3.17	2, 02					101.49	3, 295. 07	11
		9, 286. 61	789.36	922, 09	152, 30				22, 547.77	98,147.21	12
1,5	576.88	47,014.23	3, 390. 44	3, 460. 68					22, 423. 07	462, 470. 09	13
	22.77	2, 133. 33	92. 19	179. 58		•••••			700.71	37, 432. 97	14
34,3	399.44	64, 517.98	37, 099. 98	9, 313. 93	308.25				86, 233. 41	1,460,951.40	

\$20, 499. 54

9,087.77

11, 444. 74

to shippers a better understanding of their rights, duties, and joint responsibilities with the carriers in the safe transportation of their products to consumers; cooperation with shippers and carriers in a campaign of education for the use of better packages and better methods of harvesting, packing, and loading, so as to reduce the present great economic loss of foodstuffs in transit; encouraging the proper construction of coldstorage houses wherever desirable; accurate determination of the amount, kind, and location of all available public storage space in the United States for foodstuffs (except grains), as well as its ownership and the rates charged for its use; ascertaining the relative quantity of foodstuffs held in public storage, as well as that held in private storage for sale, the points at which these foodstuffs are so held, and the relation of these points to producing sections, the length of time they are held, and the effect upon prices of holding them; issuing reports regarding the cold-storage holdings

- Miscellaneous problems in marketing and cooperation: Cooperation with other governmental agencies already conducting investigations in the marketing of specific products; and investigations relative to the preparation, handling, preservation, and marketing of food and miscellaneous products, and regarding rural-organization work not specifically provided for in other projects.
- Direct marketing: Determination of the feasibility, both from a physical and economic viewpoint, of marketing farm products by parcel post and by express from producer to consumer direct, and ascertaining the best methods to be used.....
- Marketing live stock, meats, and animal byproducts: Conduct of a thorough study of existing markets and methods of marketing

live stock through the large central and small local markets, including transportation, yardage, sale, and delivery of live stock and the slaughter, packing, and wholesale and retail distribution of meat products and by-products derived therefrom; classification and grading of live stock and meats; and other allied subjects, with a view to improve the methods and reduce the cost of marketing live stock, meats, and animal by-products.....

- with a view to improve the methods and reduce the cost of marketing live stock, meats, and animal by-products..... Market business practice: Investigation of the business practices of cooperative and farmers' marketing, distributing, purchasing, and rural business organizations and other marketing agencies, with special reference to their accounting systems and methods of auditing, business organization, and financing, and the devising of suitable methods of business practice and accounting systems for these organizations and agencies for the purpose of increasing their efficiency....
- Marketing grain and hay: Study of the primary and terminal marketing of grain and hay, including the cost of marketing; comparison of services rendered by independent and line elevators and cooperative purchasing and selling associations; future transactions and exchange practices, scalping, prices, market quotations, supply and demand, export trade, and related subjects, in order to suggest possible improvements and economies in marketing the grain and hay crops.

\$26, 151. 59

27, 577.57

14, 487. 74

\$4.

5,

17,

8.

13.

age, market quotations, factors affecting supply and demand, relations of vegetableseed production to seed marketing agencies, forms of advance growing contracts, factors affecting commercial quality and germination of seeds, cleaning methods and machinery, and exports and imports of seeds and their bearing on domestic production and markets.....

- Marketing cotton seed and its products: Investigation of present methods of handling, marketing, and utilizing cotton seed and its crude products, with a view to suggest means whereby improvements may be made and economics effected; and studies regarding future trading, the establishment of standard grades, and the standardization of conditions under which cotton seed and its products are handled and stored.....
- Marketing dairy products: Study of the marketing of dairy products and dairy substitutes, including the agreements under which they are sold, the methods and costs of their preparation for market, market grades and classification of dairy products, market quotations and quotation systems, market requirements and conditions, marketing methods and facilities, and related subjects, in order to suggest measures by which market conditions and marketing methods may be improved and the cost of marketing dairy products reduced .....
- Cotton warehousing investigations: Accumulation and dissemination of useful information relating to the warehousing of cotton, insurance rates while in storage, and benefits, including better arrangements for financing, to be derived from conserving cotton in storage houses, the construction of different types of warehouses, and the relation of present methods and practices of compressing cotton to warehousing.....
- Foreign market investigations: Investigation of foreign markets for American farm and manufactured food products. from the handling at the American seaboard to the distribution in foreign countries, and assistance in the development of the export trade in such products; investigation especially of the export facilities at the American seaboard and beyond, the methods and costs of physically handling products intended for shipment abroad. transoceanic and foreign transportation, the methods of distribution and sale in foreign countries, their sources of supply, the consumptive demand, trade practices and preferences, and the various competitive factors encountered abroad by American producers and shippers; incidentally, investigation of successful foreign systems, cooperative and otherwise, for purchasing farm supplies and marketing farm products, including a study of representative consumers' organizations and municipal markets, and the conditions under which they have been developed; and investigation of the importation by the United States of farm and manufactured food products and the influence of such imports on the domestic markets.
- Preservation of fruits and vegetables in transportation and storage: Determination of the effect on the keeping qualities of fruits and vegetables of commercial methods and facilities used in harvesting and preparing them for shipment and of the amount of deterioration superinduced by the con-

	ditions under which they are stored and transported, in order to demonstrate im- proved methods of and facilities for har- vesting, precooling, loading, refrigeration- in transit, transporting, and storing such	_
	commodities, so as to insure a minimum of deterioration and decay	<b>\$</b> 8, 389. <b>91</b>
744.09	Total	288, 698. 34
	Collecting and Distributing Market In	FORMATION.
	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	\$184, 791.03 27, 286.37 4, 777.14
	Total allotment	216, 854. 54
491. 55	Collection and distribution, by telegraph, mail, or otherwise, of timely information on the supply, commercial movement, dis- position. and market prices of fruits and vegetables, and assistance to shippers in securing better distribution of perishable products.	212, 077. 40
	MARKET REPORTS ON LIVE STOCK AND	MEATS.
674. 22	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	58,576.55 5,858.29 12,235.12
	Total allotment	76, 669. 96
755. 51	Gathering, compiling, and publishing, at such frequent intervals as will most effec- tively guide producers, consumers, and distributors in the sale and purchase of live stock, meats, and other animal products, information concerning market supplies, prices, and distribution of such products and on related subjects	64, 434. 84
	FOOD-SUPPLY INVESTIGATIONS.	
	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	
	Total allotment	50, 052. 09
	Investigations relating to the production, transportation, storage, preparation, mar- keting, manufacture, and distribution of agricultural food products, including the extent, manner, and methods of any ma- nipulation of the markets or control of the visible supply of such food products, or any of them, by individuals, groups, asso- ciations, combinations, or corporations	
		48, 788. 23
	Investigations and Demonstrations Standards.	OF COTTON
	Total expenditures as above Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated)	\$23, 905.04 1, 880.70 272.99
, 295. 41	Total allotment	26, 058. 73
	Field and laboratory investigations and dem- onstrations of standards for the different grades, qualities, and conditions of cotton, and investigations of the ginning, grading, baling stanling marking compression	

baling, stapling, marking, compressing,

25, 785. 74

andt are of cotton .....

18, 522.87

9 046 55

#### COTTON TESTING.

Total expenditures as above	\$29, 837.58
Outstanding liabilities, Aug. 31 (estimated).	3, 449.70
Unexpended balance (estimated)	20.42
Total allotment	33, 307, 70

Determination of the waste, tensile strength,	
and bleaching qualities of the different	
grades, classes, and varieties of cotton, in	
order to ascertain their commercial and	
spinning value and to demonstrate the re-	
sults of such tests	33, 287. 28

#### RURAL COOPERATION.

Total expenditures as above	\$26, 874.44	
Outstanding liabilities, Aug. 31 (estimated).	694.98	ſ
Unexpended balance (estimated)	10, 521.64	

Distributed among the several subactivities as follows:

- Rural credit, insurance, and communication: Investigation of the problems relating to the organization of rural communities for the purpose of obtaining better credit, insurance, and communication facilities by the accumulation and dissemination of useful information relating to the various phases of the subject.....
- Rural, social, and educational activities: Improvement of social and educational conditions in rural communities by the accumulation and dissemination of useful information growing out of a study of typical communities with reference to their social and educational needs, the work of their existing forms of organization, and the possibilities for improvement through organized activity; investigation of methods of encouraging social organization activities and study of means of improving social, economic, and educational conditions of women and children through the work of women's rural organizations.

	,
Total	27 569 42

#### STATE COOPERATION IN MARKETING WORK.

Total expenditures as above	\$36, 812.00
Outstanding liabilities, Aug. 31 (estimated).	4, 762.95
Unexpended balance (estimated)	2, 767.64
Total allotment	44, 342.59

 GRAIN STANDARDIZATION AND GRAIN HANDLING AND TRANSPORTATION INVESTIGATIONS.

Total expenditures as above	\$\$93, 163. 48
Outstanding liabilities, Aug. 31 (estimated)	
Unexpended balance (estimated)	6, 577.40

Total	allotment	114, 255. 48
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Distributed among the several subactivities , as follows:

Investigation and determination of grain standards: Investigations of such phases of harvesting, handling, transportation, storage, and grading of grain as contribute infor-mation fundamental and necessary for establishing, fixing, and perfecting standards for corn, wheat, rye, oats, barley, grain sor-ghums, flaxseed, and other grains; the relation of grades and standards to the feeding and manufacturing value of sound and unsound grain; the milling and the manufacturing value of wheat and such other grains as are used in the manufacture of flour, meal, and cereal products; smut and smut control in so far as this factor has to do with commercial grading of wheat; and the in-fluence on grade of biophysical, biochemical, and physiological changes which take place in grain during harvesting, transportation, and storage; development of labora-tory methods for determining the condition and quality of grain and of special apparatus for use in grain grading ...

## Total...... 107, 678.08

ENFORCEMENT OF THE STANDARD-CONTAINER ACT.

Total expenditures as above Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated)	\$3, 295. 07 85. 20 619. 73
	4,000.00
Supervision and direction of the investiga- tional and regulatory activities incident to the enforcement of the standard-container act and of the rules and regulations of the Secretary of Agriculture thereunder	3, 380. 27

ENFORCEMENT OF THE COTTON-FUTURES ACT. Investigations of future and spot markets for

Total expenditures as above. Outstanding liabilities, Aug. 31 (estimated) Unexpended balance (estimated) Total allotment	3, 093. 64 30, 188. 08	cotton: Investigation of future markets for cotton to ascertain how accurately their future quotations reflect spot values; collec- tion of general information as to conditions within the future exchanges; investigation of spot markets to determine their fitness for designation as bona fide spot markets;	
Distributed among the several subactivities as follows: Administration: Supervision and direction of investigational and regulatory activities incident to the enforcement of the United States cotton-futures act and of the rules and regulations of the Secretary of Agricul- ture thereunder, and the performance of such executive and clerical duties as may be necessary in connection therewith Determination of disputes: Hearing and de- termining disputes as to the grade, quality, or length of staple of cotton tendered in settlement of future contracts made in com- pliance with section 5 of the cotton-futures act and referred to the Secretary of Agricul- ture under the terms of the act for determi-	3, 708. 61	securing daily reliable quotations for cotton from each of the designated spot markets; and inspection of the designated bona fide spot markets from time to time Preparation and distribution of the official cotton standards: Preparing and dis- tributing practical forms of the official cot- ton standards of the United States for grades of white cotton, promulgated by the Secre- tary of Agriculture on Dec. 15, 1914, under section 9 of the United States cotton-futures act, and practical forms of the official stand- ards for colored cotton, promulgated by the Secretary of Agriculture on Jan. 28, 1916, under the same section of that act; and in- spection of these copies of the standards, condemning them when necessary and re-	\$12, 315. 73
nation of facts; and drafting of memoranda of conclusions upon which are based the Secretary's findings in cases of dispute	16, 071. 10	placing them upon request	69, 145. 41 101, 240. 85

## INSECTICIDE AND FUNGICIDE BOARD.

Classification of expenditures for the fiscal year ended June 30, 1918.

		Sala	ries.			Equipment.		
Project.	Statutory.	In Wash-	ofund. Out of Washington.	Total	Travel, station, and field expenses.	Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.
Enforcement of the insecticide act	\$25, 340. 86	\$42,047.68	\$7,623.08	1 \$75,011.62	\$8, 179. 53	\$1,042.47	\$410.75	\$1, 197. 07

<sup>1</sup> Includes 5 and 10 per cent increased compensation, amounting to \$2,357.61, provided by the agricultural appropriation act for the fiscal year 1918.

## PROJECT STATEMENT.

ENFORCEMENT OF THE INSECTICIDE ACT.

Total expenditures as above	\$95, 543, 16
Outstanding liabilities, Aug. 31 (estimated)	
Unexpended balance (estimated)	12, 800, 58
Total allotment	112,500,00

<sup>1</sup> Includes \$7,802.12 expended to June 30, 1918, from continuing appropriations made available by a special act of Congress approved Aug. 18, 1914.

.00

ENFORCEMENT OF THE GRAIN-STANDARDS ACT.

Total expenditures as above	\$462,470.09
Outstanding liabilities, Aug. 31 (estimated)	43, 303. 45
Unexpended balance (estimated)	100, 084. 30

Distributed among the several subactivities as follows:

- Administration: Supervision and direction of the investigational and regulatory activities involved in the enforcement of the United States grain-standards act and the rules and regulations of the Secretary of Agriculture thereunder, and the performance of such executive and clerical duties as may be necessary in connection therewith......
- necessary in connection therewith...... Licensing of inspectors: Determination of the competence of persons applying for license under the United States grain-standards act and issuance to qualified persons of licenses for inspecting and grading grain and certificating the grade thereof, and suspension or revocation of licenses in accordance with the provisions of the act....
- the provisions of the act..... Determinations of appeals and disputes: Hearing and determination of disputes and appeals referred to the Secretary of Agriculture regarding grade and quality of grain, and preparation of findings in each case... Supervision of inspection: Supervision of the

Supervision of inspection: Supervision of the inspection of grain; supervising the keeping of all records of grain graded and inspected

RDS ACT. 1 \$462,470.09 43,303.45 100,084.30 605,857.84	by licensees under the act; collecting re- ports and compiling for publication a sum- mary of facts as required by law; and per- formance of other work necessary to secure the accurate application of the official grain standards under the act\$421, 608. 24 Total
of	Administration of the Warehouse Act.
8	
d d	Total expenditures as above <sup>2</sup> \$37, 432.97
e e	Outstanding liabilities, Aug. 31 (estimated).3, 739.27Unexpended balance (estimated).61, 806.53
ĥ	
e	Total allotment 102, 978. 77
. 64, 799. 27	
e	Inspection and classification of warehouses
e et	applying for licenses under the United States warehouse act; licensing warehouses
es	that are found to be suitable for the proper
r	storage of cotton, grain, flaxseed, wool, and
n	tobacco; and licensing qualified persons to
h	classify any agricultural products stored in
. 5, 522. 03	a warehouse licensed under this act, accord-
5: d	ing to grade, weight, or class of the product
d 1-	stored; prescribing duties of licensed ware- housemen; making investigations and such
, 1,	rules and regulations as may be necessary
. 13, 844.00	in carrying out the provisions of the act; .
e	and establishing standards for such agricul-
g d	tural products defined in the act as are not
d	already standardized 41, 172. 24

## INSECTICIDE AND FUNGICIDE BOARD.

Classification of expenditures for the fiscal year ended June 30, 1918.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.
\$586. 13	<b>\$</b> 885.00	\$156.15	\$570.07		••••••	<b>\$220.</b> 39	<sup>1</sup> \$160. 35	\$7,123.63	\$95, 543. 16

<sup>2</sup> Toilet and cleaning supplies.

Distributed among the several subactivities as follows:

Administration: Supervisory work in connection with the enforcement of the insecticide act, including

maintenance of necessary records, fiscal operations, correspondence, inspection work, etc	\$33, 729. 57
Chemical, microscopic, and bacteriological examination of insecticides and fungicides other than those	
used on horses, cattle, sheep, swine, or goats	36, 530. 71
Testing the efficacy of fungicides and the action on vegetation of insecticides and fungicides	9,733.37
Testing the efficacy of insecticides and the action on vegetation of insecticides	11, 558.44
Chemical and bacteriological examination of insecticides and fungicides used on horses, cattle, sheep, swine,	
or goats, and efficacy tests of same	8, 147. 33
Total	99, 699. 42

<sup>1</sup> Includes \$29,899.48 expended to June 30, 1918, from continuing appropriation of \$250,000 carried in the agricultural appropriation act for the fiscal year 1917. <sup>2</sup> Includes \$3,660.60 expended to June 30, 1918, from continuing appropriation of \$50,000 carried in the Agricultural appropriation act for the fiscal year 1917.

## FEDERAL HORTICULTURAL BOARD.

Classification of expenditures for the fiscal year ended June 30, 1918.

			Salaries.				Equipment.		
	Project.	Lump fund.		ofund.		Travel, station, and field	Apparatus.		Miscella-
		Statutory.	In Wash- ington.	Out of Washington.	Total.	expenses.	instruments, laboratory.	Furniture.	neous.
1	Enforcement of the plant- quarantine act	\$19, 207. 53	\$22,044.30	\$20, 839. 49	\$62,091.32	\$2,868.13	\$225.45	\$838.38	\$402.47
2			4,017.33	47, 638. 23	51, 655. 56	66, 478. 36	103.29	1,372.63	1, 553. 30
	Total	19, 207. 53	26,061.63	68, 477. 72	1 113, 746. 88	69, 346. 49	328.74	2, 211.01	1,955.77

<sup>1</sup> Includes 5 and 10 per cent increased compensation, amounting to \$1,607.22, provided by the agricultural appropriation act for the fiscal year 1918.

## PROJECT STATEMENTS.

## ENFORCEMENT OF THE PLANT-QUARANTINE ACT.

Total expenditures as above. Outstanding liabilities, Aug. 31 (estimated). Unexpended balance (estimated).	\$68, 906. 66 500. 00 5, 593. 34
Total allotment.	75, 000. 00
Distributed among the several subactivities as follows: Administration: Conduct of administrative and clerical work necessary for the proper enforcement of the plant-quarantine act Control of entry of plants and plant products under regulation: Foreign inspection and certification of	62, 091. 32
nursery stock and other plants and plant products under regulation; prompt notification of arrival and proposed distribution, and provision for the proper inspection, either at port of entry or at place of destination, of such imports. Foreign-plant quarantines: Prevention, under existing quarantines, of the entry of plant material affected	1, 069. 61
with white-pine blister rust, potato wart, Mexican fruit fly, avocado weevil, pink bollworm of cotton, European pine-shoot moth, citrus canker and other citrus diseases, <i>Sclerospora maydis</i> disease of Indian corn, insect enemies and plant diseases of sugar cane, and insect enemies of sweet potatoes, yams, and banana plants; and provision for like control by quarantine of any new plant pest	2, 662. 45
insect enemies of sweet potatoes, yams, and banana plants, and, by future quarantine, control of any new pest that may appear	2, 479. 18
quarantine action.	1, 104. 10
Total	69, 406. 66

## FEDERAL HORTICULTURAL BOARD.

Classification of expenditures for the fiscal year ended June 30, 1918.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, elcctricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	
\$1,001.17 1,146.26	\$328.05 1,373.92	\$381.81 1,257.22	\$87.38 799.49	\$6.75 29.43			* \$195. 71 * 3, 042. 46	\$480. 04 98, 241. 43	\$68,906.66 227,053.35	1 2
2, 147. 43	1,701.97	1,639.03	886.87	36.18			3,238.17	\$8,721.47	295, 960. 01	

Advertising and publication of notices.
 Printing, \$137.96; advertising, \$5.10; structures and parts and nonstructural improvements to land, °2, \$93.40.

PREVENTING THE ENTRANCE AND ESTABLISHMENT OF PINK BOLLWORM OF COTTON.

Total expenditure as above Outstanding liabilities, Aug 31 (estimated) Unexpended balance (estimated)	51, 746, 33
Total allotment	

Distributed among the several subactivities as follows:

Supervision: General planning and direction of the activities necessary for the proper enforcement of the	
work of suppressing the spread of the pink bollworm of cotton, including routine clerical work	51, 563.93
Inspections, surveys, and extermination of local infestations: Preventing the entry into the United States	· ·
of the pink bollworm of cotton through Texas border ports by the cleaning and disinfection of railway	
cars and other vehicles and freight, express, etc., and by inspection and disinfection of baggage and	
other possible carriers; survey and eradication work in Texas, including inspection of all oil mills to	
which Mexican cotton seed has been taken for milling, supervising the thorough cleaning up of mills and	
premises, conducting surveys and inspections of cotton fields in the vicinity of such mills to detect any	
instances of local infestation, and determining and conducting control measures necessary to stamp	
out such infestations, including destruction, by burning, of all cotton stalks and bolls remaining in the	
fields	227, 235, 75
	.,
Total	278, 799, 68

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96487°-H. Doc. 1590, 65-3-5

## ACQUISITION OF LANDS UNDER THE WEEKS FORESTRY LAW.

Classification of expenditures for the fiscal year ended June 30, 1918.

		Salaries.					Equipment.		
	Project.		Lump fund.			Travel, station, and field	Apparatus,		
		Statutory.	In Wash- ington.	Out of Washington-	Total.	expenses.	instruments, laboratory.	Furniture.	Miscella- neous.
1	National Forest Reservation			-					•
234	Commission. Acquisition of lands: Forest Service Solicitor's office. Geological Survey			\$69, 160. 54 35, 543. 34 597. 00	\$79, 678. 05 43, 781. 62 597. 00	\$24, 667. 22 8, 367. 27 548. 10			
5	Purchase of lands								
	Total	••••••	18, 755. 79	105, 300. 88	1 124,056.67	33, 582. 59	157.32	·····	514.02

<sup>1</sup> Includes 5 and 10 per cent increased compensation, amounting to \$3,275.22, provided by the agricultural appropriation act for fiscal year 1918.

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## PROJECT STATEMENTS.

NATIONAL FOREST RESERVATION COMMISSION.	The cost of the work, including admin-
Total expenditures as above\$51.39Unexpended balance24,948.61	istrative expenses and purchase of lands, is distributed as follows:
	Forest Service: As provided in sec. 6 of the Weeks forestry law, the Forest Service, by direction of the Secretary of Agriculture, examines, locates, and recommends for purchase such lands as, in the judgment of the Secretary, may be necessary for the regulation of the flow of navigable streams, reporting to the National Forest Reservation Commission the results of such examinations
Unexpended balance, June 30, 1918 (avail-	the United States to the lands to be ac-
able for further disbursement) <sup>1</sup> 3, 687, 973.81	quired under this law, no payment being made, however, until the title is satisfac- tory to and approved by the Attorney
Total available July 1, 1917 <sup>2</sup> 4, 557, 183.33	General and vested in the United States. 53, 318. 22
at a lost one or an and have seen to be an anter a sub-the second	tual normant had been made up to June 20, 1019, and \$1,660,017,00 hals no.

<sup>1</sup> Includes \$2,025,956.43 covered by executed contracts on which no actual payment had been made up to June 30, 1918, and \$1,662,017.38 balance available for incumbrance during the fiscal year 1919. <sup>2</sup> Includes \$3,275.22 for 5 and 10 per cent increased compensation provided by the agricultural appropriation act for the fiscal year 1918.

#### ACQUISITION OF LANDS UNDER THE WEEKS FORESTRY LAW.

Classification of expenditures for the fiscal year ended June 30, 1918.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forazc purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	
				••••••		•••••	÷ \$51.39		\$51.39	1
\$0. 85	\$516.50 843.64	<b>\$112.</b> 09 60. 00	<b>£444.</b> 96 36. 13			\$19.50 11.00	• 92. 00 <sup>2</sup> 32. 05	\$8 213.92 185.66	$114, 415, 58 \\53, 318, 22 \\1, 145, 10$	2 3 4
							1700, 330. 62		700, 330. 62	5
. 85	1, 360. 14	172.09	481. 09			30. 50	700, 506. 06	8, 399. 58	869, 260. 91	
<sup>2</sup> Printing and binding. <sup>3</sup> Options for purchase of lands. <sup>4</sup> Lands purchased.					lands.	nds purchased.				

Geological Survey: Before any lands are pur-chased by the National Forest Reservachased by the National Forest Reserva-tion Commission they are examined by the Geological Survey, as provided in sec. 6 of the Weeks forestry law, and a' report is made to the Secretary of Agri-culture showing that the control of the lands will promote or protect the naviga-

P	tion of streams on whose watersheds they lie urchase of lands: During the fiscal year ended June 30. 1918, the payments for the actual purchase of lands acquired under the Weeks forestry law amounted to	\$1, 145. 10 700, 330. 62
	Total	869, 209. 52

## SUMMARY OF EXPENDITURES OF THE DEPARTMENT OF AGRICULTURE.

The total expenses of the Department of Agriculture for the fiscal year ended June 30, 1918, were \$28,042,933.88, of which amount \$27,119,054.97 was paid and \$923,878.91 represented outstanding liabilities on Aug. 31, 1918. The payments were classified as follows:

Statutory salaries	\$5, 456, 744. 54
Lump-fund salaries:	
In Washington	2,942,039.33
Out of Washington	11, 670, 480. 44
Travel. station, and field expenses	2, 438, 412. 52
Equipment:	
Apparatus, instruments, and labora-	
tory	156,013.97
Furniture	91, 410. 20
Miscellaneous	843, 524. 91
Stationery	203, 508.18
Rent	488, 960. 20
Telegraph, telephone, and postage	369,000.29
Freight, express, and drayage	298, 556. 72
Furnishing of heat, light, power, and elec-	
tricity	35, 619. 80
-	

Forage purchased in bulk	\$235, 935. 41
Fuel	75, 173. 61
Land, including acquisitions under the	
Weeks forestry law	747, 332.62
Structures and parts and nonstructural im-	
provements to land	39, 812. 78
Purchase of animals for experimental and	
control purposes	26, 981. 94
Road construction under contracts	5, 474. 25
Unclassified items, including mechanics',	
engineers', and electricians' supplies;	
printing, engraving, lithographing, and	
binding; subsistence and care of animals	
and storage and care of vehicles; cleaning	
and toilet supplies; and advertising and	
publication of notices	78, 451.60
Miscellaneous supplies and services	915, 621.66
Total	27, 119, 054.97



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