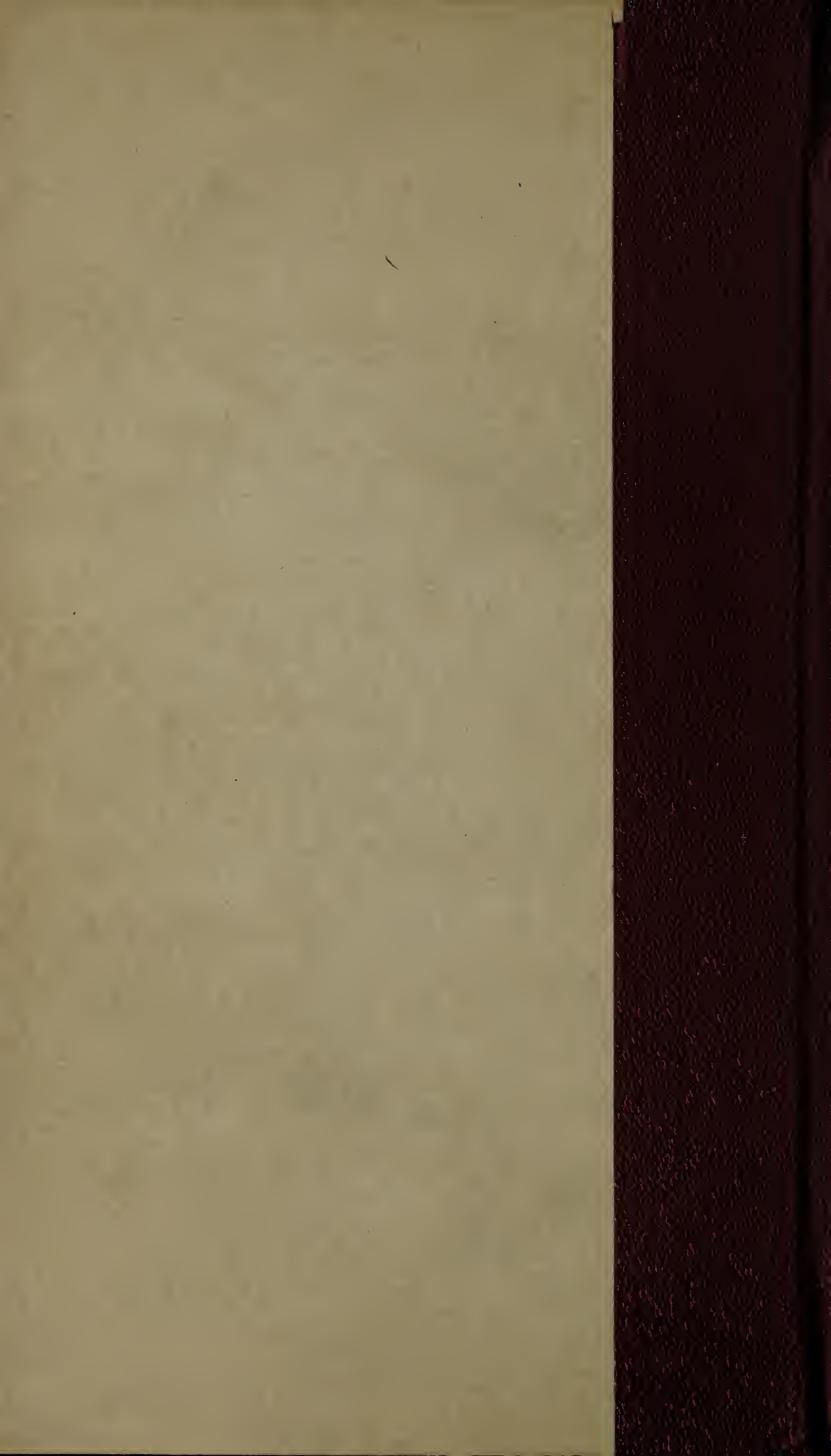
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### OF THE

# BUREAU OF ANIMAL INDUSTRY

# 1907

MESSAGE FROM THE PRESIDENT OF THE UNITED STATES, TRANSMITTING REPORT OF THE BUREAU OF ANIMAL INDUSTRY, DEPARTMENT OF AGRICULTURE, FOR THE FISCAL YEAR ENDED JUNE 30, 1907

### WASHINGTON GOVERNMENT PRINTING OFFICE 1908

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### LETTERS OF TRANSMITTAL.

To the Senate and House of Representatives:

In compliance with the requirements of section 11 of the act approved May 29, 1884, for the establishment of a Bureau of Animal Industry in the Department of Agriculture, I transmit herewith a report of the operations of that Bureau for the fiscal year ended June 30, 1907.

THE WHITE HOUSE, March 21, 1908.

THEODORE ROOSEVELT.

DEPARTMENT OF AGRICULTURE, OFFICE OF THE SECRETARY, Washington, D. C., March 20, 1908.

The PRESIDENT:

I have the honor to submit herewith, for transmittal to Congress, a report of the operations of the Bureau of Animal Industry of this Department for the fiscal year ended June 30, 1907, in compliance with the requirements of section 11 of the act approved May 29, 1884, for the establishment of that Bureau (23 Stat., p. 31).

Very respectfully,

JAMES WILSON, Secretary.

### REPORT OF OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY FOR THE FISCAL YEAR ENDED JUNE 30, 1907.

### GROWTH DURING THE YEAR.

The fiscal year ended June 30, 1907, witnessed an unprecedented increase in the work of this Bureau. This was due mainly to the extension of the meat inspection under the new law of June 30, 1906, and partly to the work of eradicating the southern cattle tick, which was begun in the summer of 1906. The large and rapid growth during the year is well shown by the increase in the number of employees and in the expenditures for the maintenance of the work. Both of these items were more than doubled, the Bureau force having grown from 1,460 on July 1, 1906, to 3,152 a year later, while the expenditures rose from \$1,510,868.20 for the fiscal year 1906 to \$3,131,656.52 for the fiscal year 1907.

The following statement presents a comparison of the number of employees on the rolls of the Bureau, classified by lines of work, at the beginning and end of the fiscal year:

Force employed in the Bureau of Animal Industry in 1906 and 1907.

		r of em- ees—
Class of work.	July 1, 1906.	July 1, 1907.
Administration Meat inspection Inspection of animals for export	43 981 26	78 $2,290$ $24$
Inspection and quarantine of imported animals Control and eradication of contagious diseases of animals Scientific investigations concerning animal diseases	$     \begin{array}{c}       30 \\       236 \\       83     \end{array} $	$26 \\ 548 \\ 105$
Dairy investigations and inspection of dairy products Animal husbandry investigations	40 21	51 30
Total	1,460	3,152

### WORK OF THE INSPECTION DIVISION.

The work of the Inspection Division, in charge of Dr. R. P. Steddom, chief, consists of two main lines—(1) the meat inspection and (2) the field work for the control and eradication of contagious diseases of animals. The latter comprises the inspection of southern cattle and the supervision of their movement when forwarded from the area quarantined on account of Texas or tick fever, the work for the extermination of the southern cattle tick which spreads this disease, and the work for the eradication of scabies of sheep and cattle in the West.

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### THE MEAT INSPECTION.

The operation of the new meat-inspection law of June 30, 1906, has, on the whole, been satisfactory and has shown the wisdom of that measure. This law has overcome several defects of the old law and has enabled the Bureau not only to extend the inspection, but to improve its efficiency. The important matters of sanitation of slaughtering and packing establishments, preparation of meats and products, use of chemicals, preservatives, etc., and prevention of fraudulent labeling are now controlled and regulated, whereas formerly the Bureau had no authority over them, but was practically confined to an inspection before and at the time of slaughter to determine the health of the animals. The interstate transportation of meats and meat food products is also now under control. The Federal meat inspection is on a higher plane than ever before, and public confidence, which was unsettled by the agitation of the previous year, has been restored.

The Department's regulations governing the meat inspection are based upon scientific knowledge and principles and upon the experience of many years. Regulations under the new law were issued under date of July 25, 1906, and additional regulations; amendments, and rulings were issued later as circumstances required and as the work developed.

In meat inspection it is sometimes difficult to determine how to dispose of carcasses affected in some degree with abnormal conditions-in other words, to decide just where to draw the line between what should be condemned and what passed. The regulations are made as explicit as possible, and yet much must be left to the judgment of the inspectors. Most animals are in such a good state of health that there is no question as to the wholesomeness of their meat, while others may be so diseased as to leave no doubt that their carcasses should be condemned. But at some point between these two extremes there arises a question as to whether a carcass or part should be passed or condemned. Sometimes an affection is so slight and so localized as not to impair the wholesomeness of the meat, and by removing an organ or cutting away a small portion of the carcass the remainder may be safely passed. The public should be protected against diseased and unwholesome meat, yet good meat should not be needlessly destroyed. In questions of this sort the Department has endeavored to be on the safe side, and its regulations and practice in this respect are more strict than those of European countries.

The Secretary of Agriculture, deeming it wise to have the benefit of the opinions and advice of a commission of experts outside of the Department with regard to these matters, appointed such a commission early in the year 1907, to consider and advise relative to those portions of the Department's meat-inspection regulations relating to the disposition of carcasses affected with various diseases and abnormal conditions. The membership was as follows: Dr. William H. Welch, professor of pathology, Johns Hopkins University, chairman; Dr. L. Hektoen, professor of pathology, University of Chicago; Dr. M. J. Rosenau, director of the hygienic laboratory, United States Public Health and Marine-Hospital Service; Dr. Joseph Hughes, president of the Chicago Veterinary College; Dr. V. A. Moore, professor of comparative pathology, Cornell University; Dr. Leonard Pearson, dean of the veterinary department of the University of Pennsylvania, and Dr. Charles Wardell Stiles, chief of the division of zoology, hygienic laboratory, United States Public Health and Marine-Hospital Service, secretary.

This commission held sessions in Washington during February, and under date of July 29 submitted a report. The general conclusions reached are stated in the following words: "If there be any general error in the regulation this is in favor of the public rather than in favor of the butchers and packers."

The specific suggestions made by the commission are being considered in the preparation of revised regulations.

A change in the method of marking fresh meats with the inspection legend has been adopted by which a saving estimated at between \$400,000 and \$500,000 a year on the cost of the label previously used is being effected. The new method consists in the use of a metal stamp with special ink prepared by the Bureau.

Only \$2,164,176.82 was expended for meat inspection out of the appropriation of \$3,000,000 made by Congress for this purpose, but it should be remembered that the law was in full force but nine months of the fiscal year and that the service was constantly expanding during the year. The rate of expenditure during the first half of the period was considerably below the normal requirements under the new law.

### NUMBER OF ESTABLISHMENTS AND CITIES.

The following table shows the number of establishments and the number of cities and towns where the inspection of meats and meat food products was conducted in each fiscal year since 1891. The figures relating to 1907 show an increase of 334.4 per cent in the number of establishments and of 220.7 per cent in the number of cities and towns, as compared with the previous fiscal year.

Number of establishments	and cities whe	re meat inspection	has been	conducted, fiscal years
	18	91 to 1907.		

Year.	Establish- ments.	Cities and towns.	Year.	Establish- ments.	Cities and towns.
1891 1892 1893 1894 1895 1896 1897 1898 1898 1899	$9\\23\\37\\46\\55\\102\\128\\135\\139$	$ \begin{array}{r} 6\\ 12\\ 16\\ 17\\ 19\\ 26\\ 33\\ 35\\ 42\\ \end{array} $	1900. 1901. 1902. 1903. 1904. 1905. 1906. 1907.	$149 \\ 157 \\ 155 \\ 156 \\ 152 \\ 151 \\ 163 \\ 708$	$ \begin{array}{r} 46\\52\\50\\50\\51\\52\\58\\186\end{array} $

### MARKET INSPECTION.

Inspection is maintained at 29 markets as a matter of convenience to dealers who handle meats issuing from establishments having inspection, and who in supplying their customers find it necessary to ship orders into another State. The volume of this business is so small that no separate record has been kept of it, the stamps, seals, etc., used in identifying such consignments being included in the regular establishment records.

### EXEMPTION FROM INSPECTION.

The present meat-inspection law provides that it shall not apply to animals slaughtered by any farmer on the farm nor to retail butchers and retail dealers in meat and meat food products supplying their customers. Based upon this provision of the law, the regulations of the Department provided for the granting of formal certificates of exemption to retail butchers or retail dealers engaged in supplying their customers through the medium of interstate or foreign commerce, and required that all meats and meat food products shipped under such certificates be formally certified by the shipper as sound, healthful, wholesome, and fit for human food. Compilations made from these shippers' certificates indicate that in round numbers the shipments made thereunder to June 30, 1907, approximate twenty million pounds.

A great many certificates of exemption granted in the fall of 1906, when it was impossible to make a thorough investigation of the establishments, have since been canceled because upon inspection the establishments were found to be insanitary; certificates have been withheld in other cases for the same reason, either permanently or until the places were put in sanitary condition; and it was found upon investigation that certificates were held in some cases by establishments that should operate under inspection, and these certificates were accordingly withdrawn and inspection established. In all there were outstanding at the close of the fiscal year 1907 about 4,000 certificates of exemption.

### ANTE-MORTEM INSPECTION.

Since October 1, 1906, the regular ante-mortem inspection at slaughtering centers has been confined to animals that were about to be slaughtered, while those that were not to be slaughtered at local establishments were inspected for contagious diseases only. In view of this change the column heretofore appearing in the table showing ante-mortem inspections, under the heading "For other cities and miscellaneous buyers," is not included in the following statement, although such inspections were made during the first quarter of the fiscal year, as follows: Cattle, 1,457,749; calves, 207,309; sheep, 1,870,755; swine, 2,616,480; total, 6,152,293.

Ante-mortem inspections of animals about to be slaughtered, fiscal year 1907.

Kind of animals.	Passed.	Suspected.a	Total.
Cattle Calves Sheep Swine Goats	$7, 606, 653 \\1, 760, 203 \\9, 723, 016 \\31, 797, 790 \\55, 540$	25,4453,382.1,29525,7091	$7, 632, 098 \\1, 763, 585 \\9, 724, 311 \\31, 823, 499 \\55, 541$
Total	50,943,202	55, 832	50,999,034

<sup>a</sup> This term is used to designate animals found diseased or suspected of being diseased on ante-mortem inspection, most of which are afterwards slaughtered under special supervision, the final disposition being determined on post-mortem inspection.

The foregoing table shows an increase of 20.5 per cent over the ante-mortem inspections made for official establishments during the previous fiscal year.

### POST-MORTEM INSPECTIONS.

The following table shows the number of inspections made at time of slaughter, an increase of 18.7 per cent over the previous year.

Kind of animals.	Passed for food.	Passed for lard and tal- low only.	Con- demned.	Total.
Cattle Calves. Sheep. Swine. Goats. Total.	$7,593,220 \\1,757,112 \\9,672,200 \\31,639,620 \\52,106 \\50,714,258$	$ \begin{array}{r}     564 \\     48 \\     152 \\     70, 401 \\     1 \\     \hline     71, 166 \end{array} $	$\begin{array}{r} 27,933\\ 6,414\\ 9,524\\ 105,879\\ 42\\ \hline 149,792\\ \end{array}$	7,621,7171,763,5749,681,87631,815,90052,14950,935,216

Post-mortem inspections, fiscal year 1907.

Included in the foregoing table are the post-mortem inspections of animals rejected or suspected on ante-mortem inspection, and the final inspection of carcasses that were retained a for disease or other cause at time of slaughter.

The various diseases and conditions for which carcasses and parts were condemned and tanked are shown in the following table:

Diseases and conditions for which condemnations were made on post-mortem inspection, fiscal year 1907.

	Cat	Cattle.		Calves.		Sheep.		Swine.	
Cause of condemnation.	Car- casses.	Parts.	Car- casses.	Parts.	Car- casses.	Parts.	Car- casses.	Parts.	Car- casses.
Tuberculosis Actinomycosis Hog cholera and swine	19,305 $661$	10,530 22,081	68	4 5		2	65, 618	364, 559	
plague Tumors and abscesses	180	57,547	62	31	402	59	$21,506 \\ 1,483$	$729 \\ 32,526$	3
Septicemia, pyemia, and uremia	917		234		779		5, 545		1
Pregnancy and recent par- turition Pneumonia, pleurisy, cnte- ritis, hepatitis, nephritis,	458	·			55		323		
metritis, etc Injuries, bruises, etc Lymphadenitis	$1,376 \\ 2,290$	2,262	656 464	43	$1,093 \\793 \\1,360$	31 $4$	4,540 $592$	6,270	4 1 4
Immaturity Sexual odor Miscellancous	2,746	754	3,585 1,345	162	5,042	200	816 5, 456	32,077	29
Total	27,933	93,174	6, 414	245	9,524	296	105, 879	436, 161	42

SUPERVISING PREPARATION OF MEATS AND PRODUCTS.

Under the new law the inspection does not end with the examination of the carcass at time of slaughter, but extends to the subsequent preparation of the meats and meat food products. The latter service represents the work of a large number of Bureau employees, the total weight of the products so prepared and processed during nine

<sup>a</sup> This term is applied to carcasses held on suspicion on first post-mortem examination, to be subjected later to more thorough examination for determining final disposition. months of the fiscal year being nearly four and a half billion pounds, as shown in the following table:

Table showing the amount of meats and meat food products prepared and processed under Bureau supervision, October 1, 1906, to June 30, 1907.

Kind of product.	Weight.
Beef placed in cure Pork placed in cure All other classes placed in cure Sausage, chopped Canned bcef. Canned pork All other canned meats. Beef extract. Lard Compound lard. Edible tallow. Oleo oil.	$\begin{array}{c} Pounds.\\ 137, 969, 046\\ 2, 248, 886, 322\\ 6, 839, 268\\ 267, 760, 463\\ 82, 386, 711\\ 16, 991, 513\\ 5, 817, 640\\ 746, 151\\ 1, 003, 602, 287\\ 353, 549, 027\\ 34, 774, 806\\ 169, 129, 640\end{array}$
Stearin. Oleomargarine and butterine.	80, 066, 29 55, 694, 03
Total	4,464,213,208

The following amounts of meats and meat food products were condemned on reinspection from October 1, 1906, to June 30, 1907: Beef, 8,925,179 pounds; pork, 5,844,526 pounds; mutton, 77,770 pounds; veal, 27,112 pounds; total, 14,874,587 pounds.

INSPECTION CERTIFICATES FOR EXPORT MEATS AND PRODUCTS.

Under the present law vessels carrying export shipments of meats and meat food products are allowed clearance only when such shipments are covered by certificates of inspection issued by inspectors of the Bureau, unless such shipments are destined to countries for which the Secretary of Agriculture has waived the certificate requirements as provided by the law; and while for a time certificates were issued only for shipments to Great Britain and Ireland and continental Europe, it has been the general policy to issue certificates for exports to other countries when they were requested.

The following table shows the number of certificates issued to cover export shipments of meats and meat food products during the fiscal year:

Inspection certificates issued for export shipments of meats and meat food products, fiscal year 1907.

172-1	Number	Product covered.					
Kind.	Number.	Beef.	Mutton.	Pork.	Total.		
Regular. Special. Total.	71, 125 33, 976 105, 101	Pounds. 486, 796, 494 4, 588, 895 491, 385, 389	Pounds. 3, 511, 444 4, 745 3, 516, 189	Pounds. 632, 428, 670 231, 162, 533 863, 591, 203	Pounds. 1, 122, 736, 608 235, 756, 173 1, 358, 492, 781		

In addition to the above there were 1,661 "animal product" certificates issued to cover inedible animal products, such as hoofs, horns, bones, casings, inedible tallow, etc., amounting to 16,347,957 pounds. The amount of meats and meat food products exported under Bureau certificates as indicated above shows an increase of 129.3 per cent over last year. This increase is due largely to the fact that, under the present law, lard, oleo oil, stearin, edible tallow, and other meat food products are now certified to, a thing that has not heretofore been done.

With reference to the foregoing table, attention is called to the provision of the present law under which meat food products for export to any foreign country may be prepared or packed in preservatives of kinds and in quantities not in conflict with the laws of the foreign countries to which the products are destined. It will be noted that there have been exported under this provision since October 1, 1906, 235,756,173 pounds of this character of product, including beef, mutton, and pork; this product was exported in 481,296 packages bearing 'special' stamps as indicated in the following table, and was covered by 33,938 'special' certificates.

Table showing number of stamps issued for edible meats and meat food products and inedible animal products, fiscal year 1907.

Kind of stamps.	Number.
Regular	35,954,701 481,941 722,427 50,323
Special Regulation 50 Animal product.	722, 427 50, 323
Total	37,209,392

In addition to the above there have been used during the year 1,770,412 self-locking seals, for the identification of sacks and burlapcovered barrels containing meats and meat food products.

### MICROSCOPIC INSPECTION.

There was no microscopic inspection of pork during the fiscal year 1907. At the beginning of the year nine establishments had stocks of microscopically inspected pork on hand amounting to 4,448,361 pounds; of this amount, 8,870 packages, weighing 2,360,411 pounds, were exported under 238 certificates, during the months of July, August, September, and October, 1906, the remainder being disposed of as regular stock. The Bureau records of microscopically inspected pork were therefore closed with the month of October, 1906.

The following table shows by years the quantity of pork exported to countries requiring microscopic inspection during the entire period since the inauguration of that inspection:

Quantities of pork exported to countries requiring microscopic inspection, fiscal years 1892 to 1907.

Year.	Pounds.	Year.	Pounds.
1892.         1893.         1894.         1895.         1896.         1897.         1898.         1899.	$\begin{array}{c} 22,025,698\\ 8,059,758\\ 18,845,119\\ 39,355,230\\ 21,497,321\\ 42,570,572\\ 120,110,356\\ 108,858,149 \end{array}$	1900.       .       .         1901.       .       .         1902.       .       .         1903.       .       .         1904.       .       .         1905.       .       .         1906.       .       .         1907.       .       .	$55,809,626\\35,942,404\\33,681,229\\19,108,341\\9,020,521\\14,721,935\\26,566,409\\2,360,411$

As the microscopic inspection of pork for trichinæ has been discontinued, perhaps the reasons for this action should be made plain. This inspection was inaugurated in 1892 to meet the requirements of Germany and other countries which forbade the importation of American pork unless it had been microscopically inspected. This inspection was applied, however, only to pork intended for export to such countries. Experience has shown that under practical conditions a reliable inspection for trichinæ is not possible. ln numerous instances trichinous pork has been examined as many as twenty or thirty times before the parasites were found, and in practice it is out of the question to make so many examinations. The failure of microscopic inspection to exclude trichinous pork has been fully demonstrated by the experience of Germany, where a very elaborate system is in operation, with a force of inspectors variously estimated at 25,000 to 100,000, and where, nevertheless, many cases of trichinosis have occurred from eating inspected pork. It was found that some foreign governments, although requiring certificates of microscopic inspection by the United States Government, paid no attention to these certificates, but made an additional inspection of their own, on the result of which depended the admission of the In view, therefore, of the expense and the ineffectiveness products. of the microscopic inspection it was decided to stop it.

This microscopic inspection for trichinæ has never been carried on or considered necessary for the protection of the American public. The danger of contracting trichinosis comes from eating pork in a raw, uncured state, and this is not the custom among the people of this country. The trichina parasites are destroyed by thorough cooking or curing. Consumers should understand that the Government mark "Inspected and passed" does not guarantee that the meat has been inspected for trichinæ. In all cases, whether pork has been inspected or not, it should be thoroughly cooked or thoroughly cured before it is used for food.

Cases of trichinosis have occurred in this country, and it is suggested that in communities where the habit exists of eating raw or underdone pork the local officials of such communities either try to discontinue this habit or establish inspection stations where such meat can be brought for examination, for although it is not believed that the inspection will eliminate all cases of trichinosis the disease may be reduced to a minimum.

### TRANSPORTATION OF LIVE STOCK.

Inspectors of the Bureau stationed at the principal live-stock centers have been required to report all cases where live stock have been confined in cars without feed or water in excess of the limit provided by law. These reported violations have been referred to the Department Solicitor, and, where the evidence of the violation has appeared sufficient, prosecution has been recommended.

While the new law has been much better observed than the old one was, many violations still occur. However, the cruelty to the animals could be much further reduced by requiring a minimum rate of speed at which they shall be carried.

### CONTROL OF CONTAGIOUS DISEASES.

### TEXAS FEVER.

The shipments of cattle during the quarantine season of 1906 from the area quarantined for Texas fever to northern markets for immediate slaughter show a falling off of 21.8 per cent as compared with the quarantine season of 1905, the whole number of such cattle being 1,000,629, shipped in 36,213 cars. There were also inspected in the provisionally quarantined areas of Texas and Oklahoma 126,238 head of cattle, which were permitted to be moved north for purposes other than immediate slaughter.

Supervision was exercised over 137,902 dippings in crude petroleum, and over the cleaning and disinfection of 36,895 cars.

On account of the unusual number of outbreaks of Texas fever in 1906 at points outside of the quarantined area, and because the regulations of the Secretary of Agriculture, effective April 15, 1907, made necessary some changes in the construction of quarantine pens, it was deemed advisable to make an investigation of the yards in which southern cattle are handled en route to northern markets and at destinations. A live-stock inspector has been detailed to this work. Wherever he finds upon a personal inspection that the regulations are not complied with, or that unsafe conditions exist, the Bureau takes up the subject with the transportation and stockyard companies, requesting that the necessary alterations or improvements be made or that the use of the yards for handling southern cattle be discontinued. This work has already resulted in the improvement of a number of yards and the abandonment of some for the purposes indicated, and in every instance has called forth expressions of willingness to conform to the requirements of the regulations.

### THE ERADICATION OF CATTLE TICKS.

Encouraging progress has been made in the eradication of cattle ticks from the Southern States. This work, which was begun in the summer of 1906 under an appropriation by Congress of \$82,500 "to enable the Secretary of Agriculture to undertake experimental work in cooperation with State authorities in eradicating the ticks transmitting southern cattle fever," is no longer an experiment. The results already accomplished demonstrate that the extermination of this costly pest is not only possible but practicable, though several years may be required for the completion of the work. From January 1 to October 31, 1907, there were released from quarantine, or prepared for release in the near future, areas aggregating over 40,000 square miles. This means that the cattle of an area almost as large as the State of Tennessee are, for the first time in years, to have an unrestricted market.

While for the most part the State authorities have cooperated, it is unfortunate that in some sections the Bureau's work has met with a lack of support and even with active opposition, this condition probably being due to a failure to realize the benefits to follow from the work. It therefore seems best not to resume operations in such localities until public sentiment changes, as more can be accomplished by using the available funds in sections where the work is appreciated and supported by those most directly interested.

During the fiscal year 1907 the work of eradicating cattle ticks has been pursued to a greater or less extent in the States of Virginia, North Carolina, South Carolina, Georgia, Alabama, Tennessee, Kentucky, Arkansas, Texas, Missouri, California, Louisiana, and the Territory of Oklahoma. Briefly stated, it has included 1,934,488 inspections of cattle, 539,674 of which were reinspections; thus indicating the inspections of 1,394,814 individual cattle, these making up 95,566 herds. The work has been done in cooperation with State authorities. At the close of the fiscal year the Bureau force engaged in this work numbered about 220 men. During the fiscal year there were released from quarantine areas amounting to approximately 20,000 square miles, and 20 counties previously in quarantine were admitted to provisional quarantine.

As by far the greater part of the work must be done during the warm months, the work of each season falls within two fiscal years. Instead, therefore, of confining this report to the fiscal year ending June 30, 1907, a statement has been prepared showing the operations and results from January 1 to October 31, 1907, as follows:

State.	Inspections.		Disinfe	ections.	Territory released or prepared for early release from quar- antine.		
State.	Herds.	Cattle.	Herds.	Cattle.	Whole counties.	Parts of counties.	Area in square miles.
Virginia North Carolina Georgia South Carolina Tennessee Alabama Kentucky Louisiana Arkansas Oklahoma Texas California	$\begin{array}{r} 13,148\\7,944\\112,931\\5,146\\5,835\end{array}$	$120, 234 \\ 222, 344 \\ 53, 293 \\ 49, 633 \\ 654, 394 \\ 40, 900 \\ 27, 664 \\ 38, 536 \\ 96, 380 \\ 136, 043 \\ 418, 236 \\ 450, 277 \\ \end{array}$	$1,549 \\ 2,309 \\ 7,999 \\ 1,030 \\ 21,386 \\ 1,335 \\ 1,424 \\ 5,135 \\ 1,461 \\ 4,132 \\ 586 \\ 1,800$	$\begin{array}{c} 8,710\\ 14,137\\ 32,631\\ 9,140\\ 122,952\\ 12,913\\ 6,769\\ 37,264\\ 9,952\\ 43,215\\ 286,187\\ 191,925\end{array}$	$ \begin{array}{r}                                     $	3 6 	
Total	289, 871	2, 307, 934	<b>50, 1</b> 46	775, 795	37	19	40, 970

Summary of tick-eradication work and its results, January 1 to October 31, 1907.

While most of the work has been and will doubtless continue to be done in areas contiguous to the quarantine line, encouragement has been given to local work in any part of the quarantined area in the assurance that when any considerable area is rendered tick free it will be released from quarantine. Such effective work was done in two parishes of Louisiana that they are almost tick free and have already been given provisional quarantine.

It will be noted from the table that considerable work was done in Arkansas, a State which has heretofore been wholly below the quarantine line, and that as a result of this work five counties are to be entirely released from quarantine and one other county is to be given provisional quarantine.

Such good results were obtained in California that an area of about 20,000 square miles was released from quarantine August 1, 1907, and it is believed to be only a question of a short time when the

infection in California will be confined to a comparatively small area along the southern coast.

Various approved methods for the eradication of ticks have been used, including pasture rotation, and dipping, spraying, and hand dressing with oil and oil emulsion. In sections where there were large herds and large ranches dipping or spraying on a large scale has been carried out, either alone or in connection with pasture rotation, while in other sections, where the cattle on some farms frequently consisted only of a cow or an ox team, hand dressing with oil was found to be the only practicable method. The Bureau furnished Beaumont crude petroleum, spraying outfits, and a dipping cage for demonstration work in different localities.

On December 5 and 6, 1906, there was held at Nashville, Tenn., a conference of Federal and State representatives to consider plans for the eradication of the cattle tick. The proceedings of the conference, consisting of papers and discussions, were published as Bureau Bulletin 97. It was suggested at this conference that meetings be arranged for instructing both State and Federal representatives who were to be engaged in the tick-eradication work in farm management, rotation of crops, and such other subjects as would better fit them for dealing with the question in the different localities where the work was to be done. Accordingly two meetings were held—one at Chattanooga, Tenn., the latter part of April, and the other at Richmond, Va., early in May. These meetings, which were really schools of instruction, were addressed by persons selected by the State authorities interested and were of great value to all who attended them.

Besides Bulletin 97, above referred to, there were issued and widely distributed two circulars (97 and 110) giving information as to methods for exterminating the ticks.

### SCABIES IN SHEEP.

The total number of inspections of sheep for scabies was 62,625,831 (including 68,264 goats inspected for scabies at slaughtering centers), and the total number of dippings was 12,133,466, of which 2,640,408 were redippings. This is an increase of 5.7 per cent over the inspections made during the previous fiscal year, and a decrease of 2.1 per cent in the dippings.

The following table shows the number of inspections and dippings of sheep for scabies, and the cars cleaned and disinfected on that account, for the past eight years:

Inspections and dippings of sheep for scabies, and cars cleaned and disinfected, 1900 to 1907.

Fiscal year.	Inspections.	Dippings.	Cars cleaned and dis- infected.
1900         1901         1902         1903         1904         1905         1906         1907	$\begin{array}{c}1,801,392\\7,912,724\\11,186,661\\16,444,370\\40,967,961\\53,680,786\\59,246,288\\62,625,831\end{array}$	$\begin{array}{c} 626,838\\ 1,034,368\\ 1,017,162\\ 2,167,002\\ 9,578,476\\ 16,873,659\\ 12,396,976\\ 12,133,466\end{array}$	$791 \\ 752 \\ 2,732 \\ 7,965 \\ 8,625 \\ 6,275$

### 16 OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY.

The prevalence of sheep scab has been considerably reduced, and since the close of the fiscal year the quarantine for this disease has been removed from Wyoming and Idaho and it is expected that later it may be removed from Utah. Such headway has been made as to give hope that with another year's work the disease may also be eradicated from Colorado, New Mexico, and Arizona.

### SCABIES IN CATTLE.

During the fiscal year 1907 there were 15,243,323 inspections of cattle for scabies and 466,623 dippings, of which 30,342 were redippings. These figures indicate an increase of 1.7 per cent in inspections and of 91.4 per cent in dippings as compared with the previous fiscal year.

The following table shows the growth of this work during the past four years:

Inspections and dippings of cattle for scabies, and cars cleaned and disinfected, 1904 to 1907.

Fiscal year.	Inspections.	Dippings.	Cars cleaned and dis- infected.
1904. 1905. 1906. 1907.	$1,124,321\\14,085,267\\14,983,260\\15,243,323$	$162,554 \\ 563,394 \\ 243,826 \\ 466,623$	532 29,897 19,992 15,009

The eradication of scabies of cattle has been greatly retarded in some localities by the removal of fences from the public domain in conformity with an act of Congress.

Most stock owners are not only willing but anxious to assist in freeing their cattle of disease, but a small minority are not, and where cattle mingle as they do upon the open range, without any restriction, it is very difficult to enforce proper sanitary measures. It is highly important, in the eradication of disease, for stock owners to have some control over the lands occupied by their animals, and in this respect the enforced removal of fences has been a great disadvantage. It would be of great assistance in combating contagious diseases of live stock if the public-land laws were so amended as to permit the leasing and fencing of the public domain. Fortunately, scabies or mange is a comparatively mild disease. If some plague such as rinderpest, footand-mouth disease, or contagious pleuro-pneumonia should be introduced, the losses under the conditions following the removal of fences would be beyond estimate and would in some localities amount to extermination of the live stock.

It became clearly apparent during the year that the regulations in force were inadequate for eradicating cattle scabies under range conditions, especially in sections affected by the removal of fences, and that more stringent measures were required if any substantial headway was to be made. New regulations were accordingly put into effect after careful consideration of the situation, and better results are expected. The Bureau has endeavored to suppress this disease without any greater hardship to cattle owners than is necessary, but recent conditions have demanded more rigorous measures than were previously applied, and while some inconvenience may be caused for a time it is believed that unless measures fully as strict as the present regulations are enforced the Department might as well abandon all efforts to eradicate the disease. There is no doubt that the ultimate results will fully justify the temporary inconvenience.

SCABIES IN HORSES.

The total number of inspections of horses for scabies was 24,662, and the total number of dippings (or sprayings) was 1,319.

### WORK OF THE QUARANTINE DIVISION.

The Quarantine Division, of which Dr. R. W. Hickman is chief, has under its supervision all work of the Bureau in connection with the exportation and importation of live stock, including the management of the quarantine stations at various ports of entry for imported animals. It also has charge of certain miscellaneous investigations of contagious diseases of animals.

INSPECTION OF VESSELS AND EXPORT ANIMALS.

The ships carrying exported animals are inspected and regulations as to fittings, equipment, ventilation, feed, water, attendants, etc., are enforced. During the fiscal year 741 vessels were inspected before clearance.

The following table gives statistics of inspection of live animals for export during the year:

		American	1.	Canadian.			
Kind of animals.	Number inspected.	Number rejected.	Number exported.	Number inspected.	Number rejected.	Number exported.	
Cattle Sheep Goats	$352,080 \\ 96,933 \\ 15$	$586\\15$	$351,494 \\ 96,918 \\ 15$	$52,718\ 31,544$	$\begin{array}{c} 21 \\ 64 \end{array}$	52,697 31,480	
Swine. Horses. Mules.	$1,259 \\ 1,258 \\ 479$		$1,259 \\ 1,258 \\ 479$	3		3	
Donkeys Total	2 452,026	601	2 451, 425	84,265	85	84,180	

Number of American and Canadian animals inspected for export, number rejected, and number exported, fiscal year 1907.

Most of the animals included in the foregoing statement as exported were shipped to Great Britain. There went to that country, of the American animals, 341,742 cattle, 57,315 sheep, and 763 horses, and all of the Canadian animals except 73 cattle and 4 sheep. Next in number were shipments to Canada, 38,029 sheep and 241 horses having been inspected for shipment to that country.

The following table shows the number of animals inspected on landing at the three British ports where the Bureau maintains inspection and to which the greater part of the exports go, also the number and percentage lost in transit. It will be observed that under the Bureau's supervision of this traffic the percentage of loss is very low.

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	Cattle.				Sheep.		Horses.			
From—	Landed.	Lost.	Per cent of loss.	Landed.	Lost.	Per cent of loss.	Landed.	Lost.	Per cent of loss.	
United States Canada	$341,071 \\ 55,720$	$\begin{array}{c} 455\\148\end{array}$	$\begin{array}{c} 0.\ 13\\ .\ 27\end{array}$	55,786 30,886	$\frac{351}{332}$	0. 63 1. 07	788 3	1	0. 13	
Total	396,791	603	. 15	86,672	683	. 79	791	1	. 13	

Number of animals inspected at time of landing at British ports, and the loss in transit, fiscal year 1907.

### NEW CANADIAN REGULATIONS.

On March 1, 1907, the new Canadian regulations relating to the quarantine of animals became effective, prohibiting the importation into Canada from the United States of branded or range western horses, mules, and asses, other than those which are gentle and broken to harness or saddle, and requiring the inspection of horses, mules, or asses, other than those comprising settlers' effects, and that the same must be accompanied by (1) a satisfactory certificate of mallein test, dated not more than thirty days prior to the date of entry and signed by an inspector of the United States Bureau of Animal Industry, or (2) a similar certificate from a reputable veterinarian, provided such certificate is indorsed by an inspector of the Bureau of Animal Industry, or (3) a similar certificate from an inspector of the Canadian department of agriculture. Horses, mules, or asses forming part of settlers' effects are required to be inspected and to be accompanied by such certificates of mallein test, otherwise they are subject to the mallein test by an inspector of the Canadian department of agriculture at any time after their arrival in Canada, and if found to react within a period of six months from the date of entry they will be destroyed without compensation.

From March 1 to June 30, 1907, 214 horses were reported as inspected and subjected to the mallein test by Canadian official veterinarians at the border, 23 of which number have been rejected on account of reacting to the test. Seventy-six horses were inspected and tested by Bureau veterinarians for shipment to Canada, accompanied by satisfactory certificates of mallein test.

Three hundred and fifteen cattle intended for exportation to Canada were tested with tuberculin by the Bureau, and of these 290 were passed and 25 were rejected.

### INSPECTION AND QUARANTINE OF IMPORTED ANIMALS.

In order to exclude from this country the contagion of the destructive animal diseases which exist in other parts of the world, it is necessary to use the utmost vigilance with regard to imported animals. All animals offered for importation are required to be inspected, and certain kinds when coming from certain countries are required to be quarantined for a sufficient period to insure their freedom from contagion. Cattle from Great Britain, Ireland, and the Channel Islands are imported subject to the test of a Bureau inspector stationed in Great Britain. Importations from Canada are received without quarantine when accompanied by a satisfactory certificate of tuberculin test by a Canadian official veterinarian, otherwise they are subjected to quarantine and the tuberculin test at the border line by an inspector of this Bureau.

Owing to the large number of zoological animals imported and the uncertainty as to their immediate origin, blood tests have been made in the case of all those whose natural habitat was such as to give rise to a suspicion of the possible presence in their blood of the causative agent of surra or rot, the *Trypanosoma evansi*. In an importation of 51 head of Indian cattle 17 animals were destroyed, owing to the demonstrated presence in their blood of this trypanosome.

The following table shows the number of imported animals inspected and quarantined and the number admitted on inspection without quarantine during the fiscal year:

Number of imported animals inspected, with and without quarantine, during fiscal year ended June 30, 1907.

Port of entry.	Cattle.	Sheep.	Swine.	Goats.	Other animals.
New York Boston.	20	521 $4$	13 $4$		
Baltimore Canadian border ports:	130	65	3		
Beecher Falls, Vt		2			
Buffalo, N. Y. Cape Vincent, N. Y.	2 4	8	4		
Danforth, Me. Eastport and Calais, Me.	3				•••••
Fort Fairfield, Me	30	20		T	
Hogansburg, N. Y Houlton, Me	2	13	2		
Island Pond, Vt		3	7		
Lowelltown, Me. Massena, N. Y	1				
Niagara Falls, N. Y. Ogdensburg, N. Y.	$\begin{vmatrix} 1\\2 \end{vmatrix}$				
Richford, Vt	9			3	
St. Albans, Vt. Sault Ste. Marie, Mich.	3				
Vanceboro, Me.	2	1	2		
Total quarantined	643	638	35	4	128

### QUARANTINED.

<sup>a</sup>Comprises 56 deer, 7 gnu, 15 antelopes, 26 camels, 11 llamas, 2 springbok, 1 mouflon, 4 zebus, 1 yak, 1 peccary, 1 Red River hog, 2 reindeer, 1 aoudad.

### NOT QUARANTINED.

Port of entry.	Cattle.	Sheep.	Swine.	Horses.	Mules and asses.	Goats.	Other animals.
New York							b 7
Boston				$\begin{array}{c} 227\\ 16\end{array}$			
Philadelphia Baltimore				36			
Portland, Me							
New Orleans, La					2		
San Francisco				4			
From Mexico:							
El Paso c			7	9	3	7	d 2
Eagle Pass			11	215	19	12	e 12
Laredo, Tex				34	9		d 3
Nogales, Ariz	10,206		14	8	11		d 1
San Diego, Cal		1,818	59	289	72	219	

a In bond from France to Mexico.

b Zebras.

<sup>c</sup> The figures for El Paso include 16 cattle in transit to Lower California and 1,743 cattle, 2 swine, and 1 horse in transit to Mexico. <sup>d</sup> Deer.

• Comprises 6 deer, 2 camels, 2 zebras, and 2 zebrules.

				_			
Port of entry.	Cattle.	Sheep.	Swine.	Horses.	Mules and asses.	Goats.	Other animals.
From Mexico-Continued. Calexieo, Cal. <sup>a</sup> Los Algodones <sup>b</sup> Brawley, Cal. <sup>c</sup>				$201 \\ 133 \\ 10$			
				$11 \\ 32$			
Canadian border ports: Eastport, Me Calais, Me Houlton, Me Fort Fairfield, Me Vanceboro, Me	2 $58$ $8$	2 420	2	$\begin{array}{c} 36\\ 39\\ 31 \end{array}$			
Monticello, Me Bridgewater, Me Limestone, Me	2			11 8			
Lowelltown, Me Mars Hill, Me Van Buren, Me	61			$\begin{array}{c} 8\\14\\12\end{array}$			
Danforth, Me. Jaekman, Me. Island Pond, Vt	38	133		6 4 45			
Beecher Falls, Vt Newport, Vt North Troy, Vt Derby Line, Vt	99 12	$egin{array}{c} 1 \\ 60 \\ 14 \\ 1 \end{array}$	5	$52 \\ 179 \\ 12 \\ 32$		3	
Richford, Vt. Alburg, Vt. Burlington, Vt.	7					31	
St. Albans, Vt. Swanton, Vt. Rouses Point, N. Y	33	$\begin{array}{r} 26\\8\\183\end{array}$	2	$\begin{array}{r} 72\\ 38\\ 28\end{array}$			
Chateaugay, N. Y Mooers, N. Y Fort Covington, N. Y				$\begin{vmatrix} 31\\72\\8 \end{vmatrix}$			
Malone, N. Y Ogdensburg, N. Y Morristown, N. Y	5	$\frac{4}{856}$	$\frac{1}{2}$	$ \begin{array}{c} 15\\ 82\\ 11\\ 22 \end{array} $			
Waddington, N. Y Hogansburg, N. Y Massena, N. Y. Cape Vincent, N. Y.	$\begin{array}{c} 4\\2\\97\end{array}$		1	$\begin{array}{c} 32\\ 6\\ 2\\ 28 \end{array}$			
Clayton, N. Y. Buffalo, N. Y. Niagara Falls, N. Y.	579 169	$\begin{array}{r}2\\86,554\\182\end{array}$	$\begin{array}{c}1\\88\\42\end{array}$	$ \begin{array}{c}     23 \\     1 \\     1,058 \\     730 \end{array} $		2	f 4
Rochester, N. Y Port Huron, Mieh. Detroit, Mich	$\begin{array}{c} 151\\904\end{array}$	$7,486\\481$	58 112	8 281 595	4		g 2
Sault Ste. Marie, Mich Total not quarantined	31,595	104, 506	638	83	996	262	34
Grand total	32,238	105, 144	673	8, 418	996	266	162

### Number of imported animals inspected, with and without quarantine, during fiscal year ended June 30, 1907-Continued.

NOT QUARANTINED—Continued.

a Including 2 cattle, 3,070 sheep, 145 horses, 295 mules, and 1 jackass, United States animals returned.
b Including 131 horses and 482 mules, United States animals returned.
c Including 3 United States horses returned.
d Deer.
e Dog.
f Elephants

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### TUBERCULIN TEST IN GREAT BRITAIN.

For the convenience of importers of fine breeding cattle the Bureau has continued making tuberculin tests in Great Britain of cattle intended for importation into the United States. The results of these tests during the fiscal year are shown in the following table:

Results of tuberculin tests in England of cattle for importation, fiscal year 1907.

Breed.	Passed.	Rejected.
Jersey Aberdeen-Angus Ayrshire Guernsey Kerry Dutch	$\begin{array}{c} 44\\56\\4\end{array}$	1 7 1 1 1
Total	162	11

Two importations, consisting of 15 cattle, were received at the quarantine station for the port of New York without having been tested by the Bureau veterinarian stationed in Great Britain and were therefore tested with tuberculin at the station. Nine of the number were condemned as tuberculous—8 Guernsey and 1 Dutch Belted.

### ERADICATION OF VENEREAL DISEASE IN HORSES.

The work of investigation in connection with suspected cases of the disease known as "maladie du coït," or "dourine," has been continued throughout the year, with Dr. E. T. Davison in the field. Numerous suspected cases have been reported from time to time in different sections of the country by veterinarians and horsemen, but in every instance it has been shown on investigation to have been some other disease simulating maladie du coït in some particulars, and usually proving to be coital exanthema, or some other disease, such as an irregular form of rhinoadenitis or strangles, or a sequela of that affection; or possibly some of the animals were affected with farcy, summer sores, sclerostomiasis, etc. Investigations have been made in various parts of South Dakota, Nebraska, the Indian reservations, Washington, Oregon, Wyoming, Oklahoma, and Montana. A careful inspection has been made of the range horses in the principal range States during this season, several thousand animals having been inspected in such States in the round-up work, with the assistance of veterinary inspectors engaged in other lines of field service, such inspections having been made for the detection of scabies, glanders, and dourine. The general method has been to have the horses in any section of the country that has ever been regarded with suspicion rounded up during the breeding season and examined. In the State of Montana the horses on the Indian reservations have likewise been examined, not because of disease having been reported among the Indians' horses in Montana, but because of the fact that, if there were any disease in the country, the conditions prevailing on the Indian reservations would be likely to furnish an ideal medium for its development and dissemination. Representative herds of range horses have likewise been examined, even when such herds have never been regarded as suspicious. All herds that have ever been regarded with suspicion are still kept under surveillance. Inspectors have been present at the large sales of range horses in Montana, and no horses have been rejected as dourine suspects at the Canadian border.

It seems, from all the circumstances connected with the investigations that have been made of suspected cases and outbreaks of this disease during the past year and for several preceding years, that a point has at last been reached in this work giving ample foundation for the belief that the disease has been stamped out, and that unless again imported there will be no recurrence of it in this country. The reports of the Bureau veterinarians engaged in this work show 14,720 inspections during the fiscal year, with no case of maladie du coït discovered.

### INVESTIGATION OF A DISEASE OF HORSES.

In July and August, 1906, field investigations were made of a disease among horses in Holt County, Nebr., resembling surra in many of its characteristics, and which had repeatedly been reported

### 22 OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY.

as such by laymen who had read Bureau Bulletin 42, Emergency Report on Surra, which was issued because this disease had been found to exist in the Philippine Islands. The disease occurring in Nebraska, however, appears to be the same as that reported from portions of Kansas and some other States, and commonly known as swamp fever. Cooperative laboratory investigations of this latter disease by the Bureau and the Minnesota Agricultural Experiment Station are in progress at that station, and are hereinafter referred to in reporting the work of the Pathological Division.

In the course of his field work Doctor Davison was able to reduce greatly the mortality from this affection by a course of treatment which he adopted and as a result of which a number of animals promptly recovered. The same treatment was prescribed and very successfully used in an outbreak of the disease in Kansas. As an antipyretic he gave 40 grains of quinine, 2 drams of acetanilid, and 30 grains of powdered nux vomica four times daily. Cold water sponge baths were given, and in addition frequent copious injections of cold water per rectum, which had a beneficial effect in reducing the temperature and likewise in stimulating peristalsis of the bowels, which, as a result of the disease, show a tendency to become torpid during the fever. He found it better to avoid giving purgatives unless absolutely necessary, on account of their debilitating effect. As a rule the affected animals ate fairly well during the first three or four days of the febrile attack, and if given laxative, easily digestible foods, obstinate constipation calling for the administration of purgatives may be avoided. But not infrequently a dirty, yellowish tinge of the visible mucous membranes has been observed, in which cases 20 grains of calomel in from 2 to 4 drams of aloes in a ball was given, or 2-dram doses of fluid extract of podophyllin seemed to answer equally well. Following the subsidence of the fever a tonic was administered, composed of iron, quinine, nux vomica, and gentian, in combination.

### WORK OF THE PATHOLOGICAL DIVISION.

The work of this division, under Dr. John R. Mohler, chief, consists mainly of the scientific investigation of animal diseases. Some of the investigations mentioned in the last report have been concluded and the results have either been published or are at present in the hands of the printer, while others have continued to be the subject of further consideration.

### SCIENTIFIC INVESTIGATIONS OF DISEASES.

### SWAMP FEVER IN HORSES.

A disease known as swamp fever, which prevailed among the horses of the Red River Valley, in Minnesota, was investigated in cooperation with the Minnesota Experiment Station, and already definite results have been obtained which not only throw new light upon the infection but are highly encouraging with reference to the possibility of obtaining a satisfactory treatment for the disease.

Confining conclusions strictly to the observations drawn from these experiments, the following summary is presented:

(1) Swamp fever is caused by a micro-organism and not by chemical poisons or poisonous plants. (2) It is transmissible among horses and mules by inoculation.

(3) The virus is present in the blood. It has been demonstrated by inoculation tests to be present in the blood as much as nineteen days before death and twenty-four hours after death.

(4) The disease has been transmitted to a horse by subcutaneous inoculation of 5 c. c. of blood.

(5) The incubation period is approximately from ten to thirty days, at the end of which time the first symptom, a rise in temperature, appears. The disease when uncomplicated follows a chronic course terminating in death.

(6) The disease is characterized by fevers recurring at irregular intervals and by progressive anemia, emaciation, and weakness. The pulse in the later stages is accelerated, though weak, stringy, and sometimes intermittent. The appetite is tremendous, and remains so even after the animal has become very weak. There is a marked wasting of the flanks and hind quarters, causing in the later stages of the disease a dragging and staggering gait of the hind legs.

(7) The most constant and characteristic lesions are found in the circulatory system, mainly in the heart.

Among the important problems which it is hoped that future experiments will solve are the following:

(a) The nature of the virus and its isolation.

(b) Its distribution in the body, and also whether it is contained in the excreta.

(c) Whether the disease can be transmitted by the alimentary tract—that is, by feeding.

(d) The natural mode of transmission and infection.

(e) The susceptibility of other animals than horses and mules.

(f) Methods of prevention and cure.

### SURRA.

The past year has again demonstrated very forcibly the great advantages accruing to the country from the supervision which the Bureau of Animal Industry holds over animals brought to our ports of entry from abroad.

An importation of 51 carefully selected cattle from India (Bos *indicus*) during the summer season of 1906 brought to the New York port a number of animals that were found by blood examination to be harboring the animal parasite Trypanosoma evansi, the specific cause of surra. As serious losses had been experienced in the Philippines and in countries of the East through the infection of both horses and cattle with surra, it was at once determined to use every precaution in safeguarding the cattle and horses of this country from its fatal attacks. Each of the Indian cattle that developed the disease was promptly slaughtered and burned, and the healthy portion of the herd was kept carefully isolated in individual screened stalls of a fly-proof stable until repeated blood examinations had shown that they were free from trypanosomes, and until killing trosts in the late fall had removed all danger of the transportation of virulent blood from animal to animal by means of blood-sucking flies.

From this importation of surra much has been learned of the character of the disease, and of the remarkable periodical development of the living parasites within the blood of the affected animal.

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Virulent blood drawn from an affected animal and injected into a test rabbit will cause a sharp elevation of temperature after a period usually varying from five to eight days, but occasionally this period extends to ten or eleven days. At the time of the acme of the fever attack if an examination is made of the blood of the inoculated animal numerous wiggling and squirming organisms will be seen moving about rapidly among the blood corpuscles and manifesting their presence by an active disturbance of all corpuscles with which they come in contact. If the blood is examined daily these moving hematozoa may be found present for two, three, or four days, when they suddenly disappear, while the temperature returns to normal. Now follows a latent or quiescent period lasting for five or six days, during which the temperature of the animal remains at or near the normal point, and the animal eats as usual, only showing the effects of the parasitic invasion by a staring coat and by a slight loss of flesh and energy. At the end of the latent period the same course is repeated, and again an elevation of temperature and a return of the parasites occur, only to disappear more or less suddenly at the termination of the attack. These recurring periods of disease gradually undermine the strength and vitality of the animal until it succumbs.

Post-mortem examination of such an animal shows, first, general emaciation and also that the hair has fallen from around the eyes, mouth, and nose, leaving bare, denuded patches. The external genitals are swollen and edematous and more or less bare of hair. On opening the carcass it will be seen that the skin is firmly adherent to the tissues underneath, that considerable clear fluid has entered the peritoneal cavity, that the abdominal viscera have formed numerous fibrous attachments to the peritoneal walls, and that similar little fibers unite the various visceral organs into a more or less compact The spleen will be found greatly enlarged, even to six or mass. eight times its normal size. The liver and all of the thoracic organs will usually be found unchanged. Variously scattered over the surfaces of the abdominal walls, both internal and external, may be found small collections of the débris of degenerated red blood corpuscles, and the outer surfaces of the digestive organs within the peritoneal cavity may exhibit scattered remains of similar hemorrhages.

The disease produces very similar conditions in horses following natural infection, and may be readily transmitted to ruminants and canines by means of infectious blood. Healthy rabbits were for experimental purposes placed in cages with rabbits that had been infected through injections of virulent blood, but no infection followed, even though they remained in this close contact for thirty days, eating and drinking from the vessels used by the diseased animals.

It will at once be evident that the spread of such a disease as this over the country would quickly lead to great destruction of live stock and to great financial loss. To prevent these losses the best efforts of this Bureau have been exerted and the disease has been rigidly controlled.

### GLANDERS.

This disease continues to be prevalent in various parts of the country. Cases have occurred among army horses at Fort Myer, Va., in the quartermaster's stables at Washington, D. C., and in several private stables in the vicinity of this city. In conjunction with local veterinarians 11 cases have been diagnosed and destroyed in this section.

In July, 1906, an enzootic of glanders occurred in Dayton, Ohio, which was investigated by the Bureau at the request of the State veterinarian of Ohio, against whom injunction proceedings had been brought to restrain him from killing horses which responded to the mallein test. A dozen horses reacted to the test, half of which were showing clinical symptoms of the disease. Post-mortem examinations made on a number of the animals killed on account of having reacted to mallein showed lesions of glanders in the lungs and thoracic lymph glands. A number of tubes of potato media were inoculated in Dayton and brought to the laboratory in Washington, where typical cases of glanders in guinea pigs were produced by inoculating the cultures which had developed in the potato tubes.

In February, 1907, a severe outbreak occurred at Ames, Iowa, and the Bureau was called on to confirm the diagnosis. Material from two of the cases was forwarded, both of which were proved by guinea-pig inoculations and cultures to be positive cases.

Some work has been done with the agglutination method as a means of diagnosis, and when the technique of the procedure becomes somewhat more simplified a valuable additional resource will have been obtained for the diagnosis of occult cases of the disease which give an indefinite mallein reaction.

### TUBERCULOSIS.

The investigations relative to the immunization of cattle against tuberculosis have been continued throughout the year in conjunction with the Bureau Experiment Station, and the scope of the work has been extended by the application of the immunizing inoculations to an added number of cattle and also to a number of hogs. Some of this work has been done in conjunction with the Georgia Experiment Station, which, in addition to furnishing a number of cattle from the station herd for test inoculations, obtained permission from stock owners in the vicinity to have the experiment extended to some of their young cattle. This work, as formerly, consists in applying the immunizing test in a variety of ways, that the comparative efficiency of the various methods may be determined.

A number of cattle that have reacted to the tuberculin test, thus proving that they are diseased with tuberculosis, have been purchased and are being treated by various methods with living and sterilized cultures of bacilli, for the purpose of perfecting, if possible, some method of treatment which will serve to check the advance of the disease or possibly overcome it completely.

The examination of sediment taken from the cream separators of public creameries for the detection of tubercle bacilli has been continued, and the presence of these micro-organisms has been demonstrated in about 25 per cent of the samples. This continues to brand the public creamery as an important source of tubercular infection for the hogs and calves that are fed upon the separated milk that is returned to the farm from the creamery, and shows the absolute necessity of having State laws compelling creamery companies to sterilize  $\mathbf{26}$ 

all milk and other products before returning them to the farmer for use as food for live stock.

The tubercular infection of hogs has been deemed a matter of sufficient importance to warrant a continuance of investigations into the most common means of contracting the disease by these animals. The danger offered to swine by being allowed to run over and feed upon the droppings of tuberculous cattle has been thoroughly tested, also the danger which threatens healthy swine from being brought into contact with feces from tuberculous hogs. The probability of infection being carried from tuberculous brood sows to their litters has been studied, as well as the danger arising from the general herding together of healthy and tuberculous animals.

Owing to the increasing use of tankage from the packing houses as feed for hogs, and owing also to the fact that this substance has been prominently accused of being an important agent in the spread of tuberculosis among these animals, investigations have been carried on with this material with a view to ascertaining the justice of its condemnation as swine feed. The work thus far done fails to show that tankage can be held responsible for originating or spreading tuberculosis among hogs.

The length of time that tubercle bacilli will continue to live and retain their virulence while in butter under usual market conditions is also being made a subject of investigation in cooperation with the Dairy Division. In these investigations butter has been made from milk that has been infected through the addition of bovine tubercle bacilli to the milk just previous to its passage through the cream separator, and another lot has been made from milk obtained from a cow with a tuberculous udder from which tubercle bacilli were being daily excreted in great numbers. These samples of butter have been prepared in both salted and unsalted condition and have been tested upon guinea pigs both by feeding and by inoculation tests immediately after its preparation, again after keeping in cold storage for a period of ten days, and again thirty days afterwards; and it is intended to repeat the tests after three and six months' retention of the butter in a cold storage plant. The ability of these various samples to cause tuberculosis to develop in the guinea pigs upon which they are tested will serve to demonstrate the length of life which may be expected of tubercle bacilli in both salted and unsalted butter when stored under ordinary market conditions for different periods of time.

In the year 1902 thoroughgoing and extensive experiments were begun for the purpose of studying the comparative characters of human, bovine, and avian tubercle bacilli. These investigations have been continued without cessation until the present time, and have led to the production of Bulletin No. 96 of this Bureau, which contains the results of this long series of experiments.

Another line of investigation inaugurated at the same time has been carefully brought to a satisfactory close. This was a study of transformability of tubercle bacilli from one type to another when subjected to unusual conditions of growth, both within animal hosts and upon artificial culture media. The results of these investigations are now in press in the form of an article in the Twenty-third Annual Report of the Bureau of Animal Industry.

### TUBERCULIN TESTING OF CATTLE.

During the past year there has been considerable agitation in the District of Columbia with reference to the improvement of its milk supply. In response to the public feeling which was thus aroused, the Commissioners of the District appointed a committee or conference composed of scientists, physicians, veterinarians, milk producers and dealers, attorneys, and business men to consider methods for obtaining pure and wholesome milk and to advise as to proper legislation to that effect.

An effort is being made by a number of dairymen to produce milk under strict sanitary conditions from cows which are not only apparently healthy but have been proven free from tuberculosis by the application of the tuberculin test.

In order to assist in this work the Secretary of Agriculture, about April 1, directed this Bureau to apply the tuberculin test to the herds of all dairymen who might request such action; consequently the report of this work embraces only the last three months of the fiscal year.

To derive the greatest benefit and permanency from the work, a form of agreement was prepared which must be signed by each dairyman before his application for the test is granted. This agreement provides that all animals which react to the tuberculin test, and in addition exhibit clinical symptons of tuberculosis, shall be slaughtered and their carcasses disposed of according to the meat-inspection regulations of the Bureau of Animal Industry, thus placing the disposal of tuberculous carcasses upon a rational and economic basis. Further, all animals which react to the tuberculin test and exhibit no other evidence of tuberculosis may be slaughtered, and the carcasses passed for food or condemned, under the conditions named in the first instance, or they must be completely segregated from the healthy portion of the herd and maintained in that condition after the system of Bang. If such animals are producing milk, it is not permissible to use it for any purpose whatsoever without having previously sterilized it. The offspring from these reacting segregated animals must be removed from the parents immediately after birth and fed upon the milk of healthy cows or the sterilized milk of their These conditions tend to lessen the financial loss to own parents. the breeder by enabling him to perpetuate a valuable strain of cattle which he has been creating, and thereby gradually to build up a new herd which will be entirely free from tuberculosis.

In addition to these measures, the agreement provides for the thorough disinfection of contaminated premises and the compliance with all reasonable sanitary measures recommended by the Bureau of Animal Industry or the health department of the District of Columbia. The permanency of the work in suppressing tuberculosis is further assured by a clause which provides that no cattle shall be added to the tested herd unless they have passed the tuberculin test applied by an agent of the Bureau of Animal Industry or of the health department of the District of Columbia.

A system of tagging the ears of all cattle tested is in use. Two varieties of tags are used, stamped in serial numbers, one variety to be attached to the right ears of passed animals and the other to the left ears of the reacting animals. The work is being carried out in the District of Columbia, Maryland, and Virginia. Already the Pathological Division has tested 28 herds, representing 526 cattle, of which 99 head, or 18.82 per cent, proved to be tuberculous. In addition to this there are records of 9 herds tested by District of Columbia veterinarians, which include 132 cattle, of which 19 head, or 14.39 per cent, proved to be tuberculous. Taking the totals of the amount of testing performed, it appears that in 37 herds, embracing 658 cattle, 118 animals, or 17.93 per cent, proved to be tuberculous. This percentage illustrates the great necessity of the work which is being performed.

The results which are already evident are highly encouraging, as each herd tested acts as a nucleus for the development of an educational center which is of great value to the farmer and the dairyman in creating an attitude favorable to the production of milk free from the contamination of disease germs.

It is also worthy of note that the herds belonging to all of the public institutions in the District of Columbia are tuberculin-tested and are now free from tuberculosis.

### FOWL TUBERCULOSIS.

In the early spring of 1907, by following up a correspondent's inquiry in a poultry journal, the location of another center of avian or fowl tuberculosis in this country was found. This is only the fifth positive demonstration of the disease on the American continent. Thus far fowl tuberculosis has been located in Oregon (by Pernot, 1900), in California (by Moore and Ward, 1903), in Canada (by Higgins, 1905), in New York (by Burnett, 1907), and in the southeastern corner of Michigan in February of this year by the Pathological Division. Other writers have reported the disease, but the failure to make bacteriological demonstration makes the reports useless as scientific evidence. In the cases investigated by this Bureau both dead and live birds were received from Michigan showing generalized abdominal tuberculosis, as attested by microscopic demonstration of the tubercle bacillus and by feeding experiments which resulted successfully in four months.

The importance of continued investigation on this line is shown by the fact that numerous vague diagnoses, under the title of "liver disease," "spotted liver," "going light," "rheumatism," etc., are abroad in poultry circles, some of which in the above-mentioned demonstrations have been proved to be tuberculosis, thus suggesting that chicken tuberculosis is much more extensive in its depredations than hitherto realized. The finding in the feces by all investigators of multitudes of bacilli suggests the ease with which the disease may spread throughout a flock. It must be admitted that in the present state of our knowledge of this disease in mammals and birds the appearance of tuberculosis in a flock of chickens opens up for that locality all the questions connected with the plague.

Canaries are reputed to die frequently with tuberculosis. As a matter of fact, however, among all the notes of post-mortem examinations held on canary birds in this laboratory there is not a single record of a case of tuberculosis. In May, 1906, as previously reported, some dead canaries were received from a fancier in Washington, D. C., which presented a most perfect picture of tuberculous infection. Microscopic examination, however, failed to reveal any acid-fast bacilli, but did bring to light a streptobacillary organism which after inoculation in pure culture into pigeons and other experiment animals perfectly reproduced the disease that had been killing the canary birds. Further study showed that it was a question of the streptobacillary pseudo-tuberculosis of canaries reported by Nocard, the same as the "tuberculose zoogleique" of Malassez and Vignal. A few months later some new cases were received from another breeder of canaries. The present note is made not merely because of the finding of a new center of infection during the past year, but also on account of the fact that Roger has reported in the Revue Vétérinaire, December 1, 1905, the finding of this disease in a The occurrence of the pseudo-tuberculosis sporadically chicken. among poultry only further demonstrates the necessity for careful bacteriologic examination in all cases of supposed tuberculosis among chickens.

Of further interest as bearing upon the question of tuberculosis was the case of a pigeon brought to the laboratory, suspected of being crop-bound. The tumor mass was a little high for that condition, and upon operation it was found to be a yellow, cheesy tumor, the size of a hickory nut, attached to the cervical vertebræ and incorporating within its mass the esophagus and trachea. Microscopic examination proved it to be tuberculosis. This bird was a 5-weeks-old squab from perfectly healthy parents. The owner and his family are apparently in excellent health, without the slightest suggestion of tuberculosis. However, the owner had just dismissed a colored boy whose general appearance and offensive habit of hawking and spitting about the yards and the pigeon loft had led him to fear tubercular infection. It is to be regretted that examination of the boy could not have followed the finding of the tubercle bacilli in the pigeon.

### RABIES.

The Pathological Division has continued to examine all cases of suspected rabies where laboratory assistance was desired. The presence of the so-called Negri bodies in the hippocampus major is at present considered to be the most valuable method of diagnosis. In all cases where they are found and the changes in the plexiform ganglia are also present a diagnosis of rabies is at once reported and rabbit inoculations are not made.

Forty-seven suspected cases were received during the year, of which number 27 (all dogs except 2—a sheep and a cat) were found to have been affected with the disease. Twelve of the positive cases were from the District of Columbia, 6 from Virginia, 5 from Maryland, and 1 each from Maine, Wisconsin, North Carolina, and South Carolina.

In two of the cases, Nos. 725 and 905, we were unable to give a diagnosis by either of the rapid methods of examination. No. 725 was chloroformed early in the disease, which is sufficient to account for the negative microscopic findings. No. 905, on the other hand, died naturally, and is an example of those rare cases where rabbit inoculations are necessary to establish a diagnosis even when the disease has run its course.

### Below is a tabulated list of the positive cases:

List of cases of rabies investigated by the Bureau during fiscal year 1907.

	•			•			
Date.	Ree- ord No.	Kind of animal.	Received from—	Result of inoculation.	Diagnosis by histological examination.	Diagnosis by presence of Negri bodies.	Persons or ani- mals bitten.
1000							
1906. Aug. 10	670	Dog	Calais, Me	Positive	None made.	None made.	None.
Sept. 3	698	Dog	Calais, Me District of Colum-	do	Positive	do	2 dogs and 1
Sept. 12	708	Dog	bia. Clemson College,	do	None made.	Positive	horse. 1 ehild.
-		_	S. C.				
Oet. 3	725	Dog	Glenn Dale, Md	do	Negative	Negative	None.
Oct. 12 Dee. 21	$\begin{array}{c} 735 \\ 826 \end{array}$	Dog	Hyattsville, Md District of Colum-	00	do	do	2 children.
Dec. 21	020	108	D1a.				
Dee. 26	828	Dog	do	do	do	do	2 dogs.
1907.							
Jan. 14	849	Sheep.	La Crosse, Wis	do	None made.	do	None.
Jan. 15	850	Dog.	La Crosse, Wis Norfolk, Va	do	Positive	do	9 persons.
Jan. 19	859	Dog	Forest Glen, Md District of Colum-	do	do	do	1 person.
Jan. 24	865	Dog	District of Colum- bia.	None made.	do	do	
Jan. 26	870	Dog	do	do	do	Positive	Do.
Feb. 7	889		Norfolk, Va	do	do	do	1 woman.
Feb. 21	905	Dog	District of Colum- bia.	Positive	Negative	Negative	1 person.
Feb. 25	914	Dog	ob	None made.	Positive	đo	
Feb. 28	920	Dog	Norfolk, Vado Wilmington, N. C. Norfolk, Va Distriet of Colum-	Positive	do	Positive	1 woman.
Mar. 15	942	Dog	do	None made.	do	do	1 man.
Mar. 21	956	Dog.	Wilmington, N. C.	Positive	do	None made.	C lucius and
Mar. 23	965	Dog.	Noriolk, Va	None made.	do	Positive	Several persons.
Mar. 30	974	Dog	D18.				
Apr. 4	982	Dog	Norfolk, Va	do	Positive	do	1 horse.
Apr. 12	994	Dog.	College Park, Md	do	do	do	11 dogs.
Apr. 26	1013	Dog	District of Colum- bia.	Positive	do	do	1 man.
Do	1016	Dog	do.	None made	ob	ob	
June 5	1076	Dog.	do Bethesda, Md	Positive	Positive	do	2 horses, 2 dogs,
							$1 \text{ cow.}^a$
June 11	1093	Cat	District of Colum- bia.	do	do	None made.	2 children.
June 10	1094	Dog	do	do	do	do	Several animals.

<sup>a</sup> The eow and both dogs developed rabies between the fourth and sixth weeks following the bite of the rabid dog.

### MYCOTIC STOMATITIS.

During the fall of 1906 an official of the Pathological Division was sent to Charleston, Huntington, and Buffalo, W. Va., and vicinity, to investigate a reported outbreak of foot-and-mouth disease. The investigation resulted in finding a very severe and extensive outbreak of mycotic stomatitis. The disease was prevalent throughout the Kanawha and Guyandotte valleys and along the Ohio River in the vicinity of Huntington. The disease assumed a very severe type in some cases and for a short time menaced the milk supply of Huntington and Charleston. Complete recovery resulted in most cases in about one week, while the most severe cases continued for from three to four weeks. The malady was demonstrated not to be inoculable from one animal to another. A former study of this disease is contained in Bureau Circular 51.

### AUTOPSIES ON WILD ANIMALS.

A large number of interesting pathological conditions were found in the wild animals furnished by the National Zoological Park. The different species of wild animals which are kept in captivity living

under unnatural conditions are more susceptible to the various diseases than those which live continually in localities and under conditions to which their systems are accustomed. Lack of exercise and changed climatic conditions are especially important factors in making the animals in captivity susceptible to affections of the respiratory and digestive tracts. The results of the autopsies show that the majority of animals succumbed to disorders of this kind. The Pathological Division received for autopsy 126 animals from the National Zoological Park, and the results of the post-mortem examinations are as follows:

Diseases of the digestive apparatus, 36, as follows: Liver, 4 (cirrhosis, 1; fatty degeneration, 2; necrosis, 1;) gastro-intestinal tract, 32 (gastritis, 2; chronic gastritis, 1; gastro-enteritis, 4; rupture of the rumen, 1; enteritis, 10; diffuse peritonitis, 1; septic peritonitis, 1; infectious entero-hepatitis, 1; colitis, 1; gangrenous intestines, 1; intussusception, 2; intestinal parasites, 4; hemorrhagic peritonitis, 1; stomatitis, 1; esophagus obstruction, 1).

The gastro-intestinal and respiratory tracts were involved together in two cases (pulmonary congestion and enteritis, 1; pneumonia and enteritis, 1).

Diseases of the respiratory tract, 16 (pneumonia, 6; pleurisy, 1; abscess of lung, 1;

asphyxia, 2; pulmonary congestion, 3; parasites of lung—porocephalus, 3). Diseases of the genito-urinary tract, 12 (parenchymatous nephritis, 7; hemorrhagic nephritis, 1; purulent nephritis, 1; septic metritis, 1; impaction of oviduct, 1; catarrhal salpingitis, 1).

Diseases of the circulatory apparatus, 2 (hypertrophy of the heart, 1; pericarditis, 1). Diseases of the locomotory apparatus, 1 (arthritis).

Bacterial diseases were specifically demonstrated in the following cases: Tuberculosis, 20; hydrophilosis, 3; proteus bacillosis, 8; Bacterium aerogenes, 1; septicemia, 5; Bacillus enteritidis, 1; coli bacillosis, 1.

Mycotic diseases were found in 10 cases, all being aspergillosis (fumigatus).

Cases not diagnosed (failure due to decomposition and other unavoidable conditions), 5.

Traumatisms, 3 (fracture of ischium, 1; contusion of brain, 2).

### QUAIL DISEASE.

In February and March a large number of dead bobwhites were received at the Pathological Division from different dealers. Postmortem examination showed in all cases congestion of the lungs, focal necrosis of the liver, and intestinal ulceration. Careful inquiry revealed the fact that quail in the United States were threatened with a virulent epizootic which might lead to as extensive destruction of these birds as had occurred in England and Scotland under the ravages of grouse disease. Centers of infection were located at Alexander City and Dadeville, Tallapoosa County, and Birmingham, Jefferson County, Ala.; Wichita, Kans., and Marlow, Chickasaw Nation, Ind. T. The fact that a virulent Bacillus coli was found to be the cause of the disease indicated its close resemblance to grouse disease. Since the pathologic features of British grouse disease, however, are not altogether like those of the disease among American quail, it was deemed well to allow the disease in this country to go by the popular name of quail disease. A Bureau circular (No. 109) was published as a preliminary report, embodying questions to be answered by persons interested in the propagation of this popular game bird. To these questions of the circular have come numerous responses showing that the disease is more widespread than was shown by the original investigation, and demonstrating also that the Bureau was not too early in promulgating whatever facts had come to hand through field investigation and laboratory research.

### THE MALTESE GOAT IMPORTATION AND MALTA FEVER.

The remaining Malta goats and their offspring from the importation of September, 1905, have been kept in quarantine during the past year. The climatic conditions of this country do not appear to be favorable to the breeding of these animals, and all of the offspring have been delicate, a large proportion dying from rheumatism, goiter, or pneumonia.

From time to time agglutination tests were made with the blood of the goats, and as late as June, 1907, when the last test was made with the serum from the 16 remaining animals, two positive reactions were obtained. From the results of the investigation of Malta fever by the commission on Mediterranean fever of the Royal Society of London and the measures it has adopted to prevent the spread of the disease in the island of Malta, it was deemed inadvisable to risk using these animals for the purpose for which they were originally imported. The remainder of the herd have therefore been destroyed.

### NECROTIC DERMATITIS IN SHEEP.

During the past winter this disease broke out in a number of bands of sheep in Montana and rapidly spread, affecting a great many animals. It was confined principally to the face and head and occasionally the feet. The lesions consisted of patches varying in size from one-fourth to three-fourths of an inch in diameter, devoid of wool, and covered with thick, dry, brown crusts which, when forcibly removed, exposed a granulating base covered with pus. Three live animals affected with the disease were forwarded to the laboratory, from which cases the *Bacillus necrophorus* was isolated.

In March a similar outbreak occurred in a flock of about 150 sheep and lambs at The Plains, Va., which was investigated by the Bureau. The adult animals were affected before they commenced to lamb, and the udders showed lesions of the disease. As the lambs were born they rapidly became infected, the lesions appearing about the head and on the legs as irregular granulations, which projected above the surface and in some cases were pedunculated. There were no lesions in the mouth. Cultures made from these cases also developed *Bacillus necrophorus*.

The disease runs a mild course in the majority of cases, and even in the severest forms it rarely causes death. Treatment with antiseptic washes and ointments usually effects a speedy cure.

### MESENTERIC EMPHYSEMA OR INTESTINAL GAS CYSTS IN HOGS.

The study of this quite common affection of hogs was taken up by the Pathological Division during the past year, in order to establish the cause of this peculiar condition. While the affection is not of great importance from an economic standpoint, its occurrence in apparently healthy hogs and the extensive cystic formations in the intestinal walls and on the mesentery make this condition of great interest from a pathological standpoint.

Numerous fresh specimens were received from several abattoirs, and various culture media were inoculated. The pathological histology was also carefully studied. A micro-organism similar to the one recently described by Jaeger in this condition and belonging to

### OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY.

the coli group was obtained from every case examined and was found to be the etiological factor of this process. The affection invariably restricts itself to the small intestines and takes its origin in the mucous membranes. The cysts are always found in the course of the lymphatics, and there is a close association between these cysts and the lymph vessels. Histologically the lymphatics principally manifest marked changes and the picture is very striking. Masses of giant cells are found frequently obstructing the entire lymph vessel, and again they may form a uniform lining of the gas cysts. Their presence excludes the theory that the affection is of an acute character, and, on the contrary, is indicative of a chronic condition. The experiments are still in progress and attempts to transmit the condition by the introduction of the isolated organisms in various ways have not yet been concluded.

### URTICARIA IN HOGS.

Affections of the skin in hogs are very common, and as some of the skin lesions are frequently associated with infectious diseases a thorough knowledge of the various cutaneous affections is of great importance from the standpoint of a differential diagnosis. A very frequent affection of the skin in hogs is urticaria (diamond skin disease, rash, etc.), and as the lesions closely resemble those of swine erysipelas of foreign countries, this condition of the skin was carefully studied as to its etiology and pathology. It was found that urticaria in hogs is merely a localized affection of the skin in which a bacterial invasion plays no part. The cutaneous symptoms may result from various causes; thermic influences on the skin, irritants, certain drugs, and gastro-intestinal disorders may produce the characteristic rash of urticaria. In most of the cases in hogs it is brought on by a gastrointestinal catarrh with the subsequent action of the absorbed fermenting toxins upon the walls of the blood vessels. The condition may be classified as a mild inflammatory exudative process in which the pathogenesis is identical with that of any other inflammation. It is produced by a direct influence of the cause on the wall of the vessel, and not through the influence of the central nervous system, as has been formerly supposed. An article on this subject is now being prepared for publication.

### CORN COCKLE POISONING OF CHICKENS.

The Pathological Division investigated the loss of about 120 chickens by two men who at the suggestion of a friend bought what they supposed to be wheat middlings with which to make an evening mash for their poultry. Both men secured from a near-by dealer what he offered as a first grade of middlings but which proved to be only low-grade screenings heavly loaded with corn cockle (Agrostemma githago). The most important lesion was that of a severe corrosive action upon the whole gastro-intestinal tract, particularly the crop. Intestinal hemorrhages were quite marked in several of the Many a farmer would be inclined to doubt a diagnosis of cases. poisoning from cockle in such cases, claiming that he had fed lots of cockle with his wheat to his chickens. In fact, that would be the very use to which he would be likely to put wheat that had become badly infested with cockle. It is, indeed, true that the poisoning of

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chickens by cockle seed fed with wheat is rarely, if ever, heard of. But when the grain has been ground there is then exposed the tissue of the seed which contains the sapotoxin, the poisonous material which has in numerous instances proved so fatal to poultry, and even to larger animals.

### FOWL CHOLERA.

Another important chicken disease definitely located during the past year was fowl cholera. It is true that almost every raiser of chickens reports serious outbreaks of chicken cholera, and in many instances also reports the cure of his sick birds by some home remedy or some change in feeding. But it is also true that in none of these cases is the diagnosis based on anything more than the presence of a fatal diarrhea. The small number of birds lost, the cure of the sick birds, and the method of cure all testify to the incorrectness of this diagnosis. When true fowl cholera (hemorrhagic septicemia) is once introduced into a flock it is sure to decimate that flock unless speedily recognized and promptly treated by thoroughgoing disinfection.

In April, 1907, the Pathological Division received the viscera of some dead fowls from a poultryman in Clay County, Ill. He reported hens going to the nest apparently well and falling over dead in the morning. From the tissues was recovered *Bacterium avisepticum*, the causative agent of hemorrhagic septicemia in fowls. This fulminant form of the disease has been reported but two or three times in America, although it is possible that true fowl cholera, a subacute form of hemorrhagic septicemia, due to a less virulent variant of the causative organism, is more or less common.

In view of the fact that the fowl cholera organism is closely related to, if not identical with, the bacterium of swine plague, the following case is particularly interesting: In response to a request from a farmer for aid in the diagnosis of a disease which was taking off his poultry, this Division made an examination of two dead chickens forwarded from Centerville, Miss. The special lesions noted were enlarged and congested liver studded with petechial hemorrhages and enlarged spleen greatly congested. From the organs were isolated motile organisms which by tinctorial and cultural tests, confirmed by pathogenicity, were proved to be virulent members of the hog-cholera group of bacilli. The finding of the hog-cholera bacillus in the latter case is an addition to the records of last year, when this Division reported the finding of *Bacillus enteritidis* in a duck and two pigeons.

### HEMORRHAGIC SEPTICEMIA OF PIGEONS.

A disease identical with fowl cholera is that known as hemorrhagic septicemia of pigeons. There was brought to the laboratory for examination the last of a loft of 35 pigeons, all of which had died with similar symptoms following the introduction of a few birds bought in the market. Bacteriological examination showed the presence in the blood and all the organs of a minute, nonmotile, polarstained organism which was proved by further investigation to be a member of the swine-plague group of bacteria and resembled closely the organism reported by Leclainche as the cause of hemorrhagic septicemia in wild pigeons. Inoculation of pure cultures demonstrated its intense virulence. This is the first time that this disease has been reported in this country among pigeons. The fact that it was introduced by the purchase of a few birds in the market emphasizes the great danger, so often pointed out, of introducing new stock without several days of quarantine.

# DISTRIBUTION OF BLACKLEG VACCINE.

During the year ending June 30, 1907, there were made in the Pathological Division for free distribution about 1,250,000 doses of blackleg vaccine, consisting of 67 separate makings.

This vaccine is used for the purpose of conferring immunity on young cattle against the disease known as symptomatic anthrax, or, more popularly, blackleg. The manufacture of this vaccine continues to be an important feature of the routine work of the laboratory, the vaccine being in great demand by stock owners in infected districts. The process of manufacture of this product has been greatly improved during the past year.

The results of vaccinations for the year ending June 30, 1906, as reported to the Bureau by the stock raisers who have used the vaccine, are as follows:

Results obtained from vaccine distributed during the fiscal year ended June 30, 1906.

				s, same n, pre-		Die	d after v	vaecinat	tion.	
State or Territory.	Num- ber of re- ports.	Number of eattle vacci- nated.	vious	Per eent.	Within $\frac{48}{48}$ hours.	From 2 to 7 days after.	Within 1 year.	Total num- ber.	Per eent of deaths after vacei- nation.	Num- ber of cases due to mis- takes.
									<u></u>	·
Arkansas. Arizona. California. Colorado. Georgia.	$14 \\ 45 \\ 403 \\ 469 \\ 1$	$\begin{array}{c} 870 \\ 4,060 \\ 60,021 \\ 60,494 \\ 13 \end{array}$	18     176     559     947     6	$\begin{array}{c} 2.\ 06\\ 4.\ 33\\ .\ 93\\ 1.\ 53\\ 46.\ 15 \end{array}$	2 $5$ $29$	3 9 33 69	$5\\190\\180$	$3 \\ 16 \\ 228 \\ 278$	$\begin{array}{c} 0.34 \\ .39 \\ .38 \\ .45 \end{array}$	3 1
Idaho. Illinois. Indiana.	29 93 8	2,818 3,738 376	$\begin{array}{c} 39\\103\\9\end{array}$	$ \begin{array}{c} 1.38\\ 2.75\\ 2.39 \end{array} $	$2 \\ 4$	$\begin{array}{c} 1\\ 1\\ 3\end{array}$	$\begin{array}{c} 1\\14\\1\end{array}$	$\begin{array}{c} 4\\19\\4\end{array}$	.14 .50 1.07	
Indian Territory Iowa Kansas. Kentucky	$\begin{array}{c} 24\\ 161\\ 444\\ 4\end{array}$	$ \begin{array}{r} 1,907\\ 7,768\\ 38,400\\ 174\\ 20 \end{array} $	$53 \\ 130 \\ 524 \\ 3$	$ \begin{array}{c c} 2.77 \\ 1.67 \\ 1.36 \\ 1.72 \end{array} $	$\begin{array}{c} & 3 \\ & 12 \end{array}$	1 7 40	$\begin{array}{r} 6\\ 43\\ 108\\ \end{array}$	$7\\53\\160$	.36 .68	5
Louisiana Miehigan Minnesota Mississippi	$\begin{array}{c}1\\2\\17\\1\end{array}$	$30 \\ 18 \\ 674 \\ 70$	$21 \\ 7$	$ \begin{array}{c} 3.11 \\ 10.00 \end{array} $	1		2	$\frac{1}{2}$	.15 2.85	
Missouri Montana Nebraska New York	$381 \\ 263 \\ 1,335 \\ 12$	$\begin{array}{r} 13,821\\ 33,584\\ 103,537\\ 304 \end{array}$	$202 \\ 337 \\ 1,920 \\ 12$	$ \begin{array}{c} 1.46\\ 1.00\\ 1.85\\ 3.94 \end{array} $	9 8 44	$19 \\ 27 \\ 172 \\ 1$	$42 \\ 45 \\ 306 \\ 1$	$70 \\ 80 \\ 522 \\ 2$	.50 .23 .50 .65	3 27
North Carolina Nevada New Hampshire	$54 \\ 7 \\ 1$	$2,318 \\ 2,184 \\ 12$	80 30	$3.43 \\ 1.37$	3	$\frac{\overline{2}}{1}$	5 7	$10 \\ 8$	$\begin{array}{c} \cdot 43 \\ \cdot 36 \end{array}$	
New Mexieo North Dakota Ohio	$\begin{array}{c} 42\\355\\2\end{array}$	$9,494 \\ 36,791 \\ 36$	331 568	$3.48 \\ 1.54$	$\begin{array}{c}2\\12\end{array}$	$\begin{array}{c} 22\\ 30\end{array}$	$\begin{array}{c} 11\\100\end{array}$	$\begin{array}{c} 35\\142\end{array}$	$\begin{array}{c} .36\\ .38\end{array}$	14
Oklahoma Pennsylvania	41 1	5,427 8	82	$1.51 \\ 12.50$	1	8	16	25	. 46	1
Oregon. South Dakota Tennessee Texas.	$61 \\ 401 \\ 51 \\ 770$	$12,723 \\ 39,147 \\ 1,952 \\ 171,143$	$105 \\ 565 \\ 48 \\ 2,364$	.82 1.44 2.45 1.38	$\begin{array}{r}1\\25\\\ldots\\24\end{array}$	$\begin{array}{r} 4\\64\\2\\167\end{array}$	$9 \\ 177 \\ 13 \\ 1,035$	$14 \\ 266 \\ 15 \\ 1,226$	.11 .67 .76 .71	$\begin{array}{c} 6\\ 3\\ 1\\ 35\end{array}$
Utah Vermont.	14 5	2,291 86	18	.78 1.16		2	1	3	. 13	
Virginia. Washington. West Virginia. Wiseonsin.	$296 \\ 40 \\ 104 \\ 7$	$9,070 \\ 1,367 \\ 2,695 \\ 411$	$228 \\ 62 \\ 60 \\ 2$	$ \begin{array}{c} 2.51 \\ 4.60 \\ 2.22 \\ .48 \end{array} $	4 1 1	14 7	$\begin{array}{r} 36\\15\\16\end{array}$	$54\\16\\24$	$.59 \\ 1.17 \\ .89$	· · · · · · · · · · · · · · · · · · ·
Wyoming	334	64,846	664	1.02	20	85	164	269	. 41	3
Total	6,292	691, 557	10,276	1. 485	203	794	2, 549	3, 546	. 514	102

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An examination of the foregoing table shows, when compared with the records of previous years, a slight decrease in the percentage of animals dying without being vaccinated, also in the number of animals dying subsequent to vaccination. It therefore appears justifiable to reiterate a former statement that blackleg is becoming much less of a menace to the raising of young cattle than it was some years ago, when the mortality without vaccination amounted to over 10 per cent in certain sections. It is evident that the vaccine in a few years has not only saved many animals to the breeder, but has gone far toward a goal that was suggested early in the period of free vaccine distribution—i. e., the eradication of blackleg from the pastures of the country.

# WORK OF THE BIOCHEMIC DIVISION.

This division, of which Dr. M. Dorset is chief, has been engaged during the year chiefly in the laboratory inspection of meat products, investigations concerning hog cholera, and tests of stock dips, besides continuing the preparation and distribution of tuberculin and mallein.

#### LABORATORY MEAT INSPECTION.

In addition to the lines of work previously carried on, this division has taken up the laboratory inspection of meats and meat food products under the provisions of the act of Congress of June 30, 1906. This work involves the inspection of prepared meats and meat food products manufactured in establishments at which inspection is conducted by the Bureau of Animal Industry, and requires the examination of all substances entering into the composition of these products, including salt, pickles, spices, edible fats and oils, etc., in addition to the examination of the meats themselves, to determine their bacteriological and chemical condition. For carrying out this work laboratories were established in New York, Chicago, Cincinnati, Kansas City, Omaha, and San Francisco. All of these laboratories, with the exception of the one located in New York City, were equipped and ready for work prior to October 1, 1906. About March 1, 1907, the laboratory located in Cincinnati was transferred to East St. Louis, Ill.

These laboratories, working in connection with the Washington central laboratory, inspected samples of all meat food products which were prepared prior to October 1, 1906, and which, under the regulations of the Department, required a laboratory inspection before they could be shipped interstate. This inspection resulted in the refusal of the Department to permit shipment in interstate commerce of more than 100 different varieties of meat food products which were found to be in conflict with the regulations and which had previously been allowed shipment in interstate commerce without restriction. In addition to this inspection of stocks on hand prior to October 1, a regular inspection of the products prepared in various establishments granted inspection or exemption was taken up on that date, and several thousand samples have since been examined. These examinations show that as a general rule the packing houses have been complying with the regulations with regard to preservatives and coloring matters and also with regard to proper labeling.

In connection with the meat-inspection work, an ink has been devised for the marking of inspected carcasses which appears to give satisfactory results when properly applied. If experience shows that this ink is as satisfactory as results so far indicate, its use will effect a great saving in the cost of marking inspected carcasses.

# INVESTIGATIONS CONCERNING SOURING AND OTHER CHANGES IN MEATS.

Experiments are under way concerning the cause of souring of meat and the changes which may take place in canned meat food products. This work involves experiments with hams taken from hogs exhibiting various diseased conditions, or other conditions, such as overheating, which are believed to affect the curing of meats, and also includes bacteriological examinations of sweet and sour hams and ham pickles. Along with these experiments concerning sour meats investigations are being carried out with regard to the bacteriological condition of normal canned meats and of canned meats which have undergone various changes.

#### HOG CHOLERA EXPERIMENTS.

The experiments concerning the etiology of hog cholera, which were described in the previous annual report, have been continued, but not as extensively as in previous years. So far as they have gone, however, they confirm in all particulars the findings which were briefly described in last year's report.

# PREVENTION OF HOG CHOLERA BY VACCINATION.

The method of immunizing hogs from hog cholera, concerning which preliminary reports were submitted last year, has been tested much more extensivley than heretofore, and the following facts have been demonstrated:

(1) When hogs immune from hog cholera are injected with suitable amounts of virulent blood taken from hogs sick of the disease the blood of the immunes acquires the power to protect nonimmune hogs from an otherwise fatal dose of disease-producing blood administered simultaneously with the serum.

(2) Immunes which have never exhibited symptoms of disease after exposure to hog cholera may furnish equally as potent serum as those which have recovered from an attack of the disease.

(3) Hyperimmunization may be accomplished as well by administering one large dose of disease-producing blood to an immune as by repeated injections of smaller doses.

(4) Hyperimmunization may be accomplished with blood from any virulent strain of hog cholera.

(5) Hyperimmunized hogs probably retain for several months the power to furnish a potent serum.

(6) Serum from properly hyperimmunized hogs in doses of 15 c. c. should protect nonimmunes weighing from 25 to 50 pounds from a fatal dose of disease-producing blood administered simultaneously with the serum.

(7) Immunity in hogs treated by what is termed the serumsimultaneous method (No. 6) lasts at least three and one-half months and probably longer.

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(8) In serum-simultaneous vaccination it is not necessary to produce illness in the vaccinated hog in order to secure an immunity lasting for at least three months.

(9) If a sufficient dose of serum is given, hogs are not injured by the serum-simultaneous vaccination.

(10) Hogs vaccinated by the serum-simultaneous method do not communicate disease to others unless they themselves become sick.

(11) Serum administered alone can not be expected to furnish protection for a longer period than three weeks.

(12) The serum probably can not be used successfully as a curative agent unless administered within four days after actual infection has taken place.

In order that this method, which has proven so successful in an experimental way, may be given a practical test, efforts will be made to secure the cooperation of experiment stations in testing serum which the Department will furnish them. If arrangements for these tests can be made it is hoped that the practicability of this method for combating hog cholera may be determined within a short time.

# PREVENTION OF HOG CHOLERA BY SELECTIVE BREEDING.

This work has been continued and another generation of hogs from immune parents has been exposed to hog cholera. The results were not decisive, and the work will be continued along the lines described in the preceding report.

#### BACTERIOLYTIC POWER OF BLOOD SERUM FROM HOGS.

Experiments designed to determine the effect of the blood serum of hogs upon various bacteria which at times attack these animals have been carried out. These experiments are of a very technical nature and are of interest on account of the light they throw upon the defensive mechanism of the animal body in its fight against infectious diseases. Bulletin 95, by Dr. B. M. Bolton, describing the results of these experiments, was issued during the year. The details of this work, on account of their technical nature, need not be gone into in this report.

# PREPARATION AND DISTRIBUTION OF TUBERCULIN.

Experiments having for their object the development of a practical method of standardizing tuberculin have been begun, but sufficient progress has not been made to warrant a statement as to the results which may be expected from them.

Requests for tuberculin from official veterinarians and health officers throughout the country for the diagnosis of tuberculosis in cattle continue to increase. The total amount of tuberculin prepared and shipped to such officers and to Bureau employees during the past fiscal year amounted to 129,050 doses, an increase of 24 per cent over the amount distributed during the previous fiscal year.

# PREPARATION AND DISTRIBUTION OF MALLEIN.

During the fiscal year the demand for mallein for the diagnosis of glanders in horses was greatly in excess of that during the previous fiscal year, 41,012 doses having been furnished to health officers and to the War Department. The quantity supplied to the War Department amounted to 25,507 doses, this being used in part to test all of the horses belonging to that Department and in part for the purpose of determining the immunization and curative value of mallein.

Recent experiments have been planned looking to the immunization of horses from glanders by artificial inoculation, but these experiments have not progressed sufficiently to warrant a report upon them.

# STOCK DIPS.

As a result of the laboratory experiments conducted in the Biochemic Division and of the field tests conducted by that division in collaboration with the Zoological Division and the South Dakota Agricultural Experiment Station, permission has been granted by the Secretary of Agriculture for the use of cresol dips and coal-tar creosote dips in the official dipping of sheep for scabies, thus making available four classes of dips which may be used in the official dipping of sheep, the other two previously sanctioned being the lime-and-sulphur and tobacco-and-sulphur dips. Since the issuance of the order of the Secretary permitting the use of cresol dips and coal-tar creosote dips a large number of proprietary substances belonging to these classes, as well as others belonging to the classes of lime-and-sulphur and tobacco-and-sulphur dips, have been submitted to the Bureau for the purpose of determining the strength in which they may be used for official dipping, and as a result of these laboratory examinations permission has been granted for the use in official dipping of the preparations which were found to conform to the prescribed standard.

The Biochemic Division has also examined samples of crude petroleum to determine their fitness for dipping cattle for scabies and for ticks, and has conducted some further experiments in regard to methods of emulsifying these dips.

# DISINFECTION AND DISINFECTANTS.

The experiments which were intended to determine the relative value of liquor cresolis compositus (U. S. P.) and carbolic acid as disinfectants have been completed, and they show that the former has a distinctly greater germicidal value than carbolic acid. The results of these experiments are contained in Bureau Bulletin 100, by Dr. C. N. McBryde. Experiments with other coal-tar products are being carried on in a similar manner.

# DIGESTION EXPERIMENTS WITH POULTRY.

The analytical work in connection with the second series of digestion experiments with poultry has been completed and a bulletin describing these experiments has been prepared for publication. These experiments have a practical bearing upon chicken feeding.

# EXAMINATION OF WATER SUPPLIES OF DAIRY FARMS.

Complete bacteriological and chemical analyses, together with a sanitary survey of the surroundings, of the water supplies of approximately 400 dairies located in Virginia, Maryland, and the Dis-

trict of Columbia have been recently completed, but the results have not as yet been brought together in such shape that it is possible to report at this time upon the conditions found.

# WORK OF THE DIVISION OF ZOOLOGY.

This division, under Mr. B. H. Ransom as chief, has continued and extended its work of investigating animal diseases of parasitic origin, collecting and determining animal parasites, and preparing publications relating to these subjects.

# ROUNDWORMS IN SHEEP.

The first series of field experiments in connection with a study of the life history of the roundworms of sheep with the view of determining, if possible, methods of preventing infection has been completed. From these experiments the following conclusions may be drawn:

Lambs from infested ewes will remain free from hook worms (*Monodontus trigoncephalus*) if separated from their mothers soon after birth, and afterwards allowed with them in a clean pen only during short periods for sucking, the manure being removed from this pen each time it is used, and if the lambs when weaned are placed by themselves on noninfested pasture.

Infection with twisted stomach worms (*Hæmonchus contortus*) may be almost entirely avoided by this method.

Lambs raised by this method will rarely altogether escape infection with nodular worms (*Esophagostomum columbianum*); usually they will escape with a light infection, and in a few instances they may become rather heavily infested.

The "bare-lot" method of Dalrymple (raising lambs and ewes together in a perfectly bare lot and feeding and watering from raised racks and troughs) does not protect lambs from a rather heavy infection with stomach worms.

In some cases infection with hook worms may not occur in lambs raised by the "bare-lot" method.

With the ''bare-lot'' method some lambs may escape infection with nodular worms, but in most cases a slight infection will occur, and occasionally a rather heavy infection may take place.

Sheep infested with stomach worms, hook worms, and nodular worms, if kept on a clean board floor and supplied with clean fodder and water (the chances of reinfection thus being reduced to a minimum), will still be more or less infested with these parasites after a lapse of nearly twenty months, indicating that individuals of these parasites may live in the body at least this length of time. No increase in the number of individuals of the parasites occurs in the body when sheep are kept under these conditions; on the other hand the number decreases, showing that the eggs of the parasites will not develop to maturity inside the body, but must first pass to the outer world before reinfection is possible.

Pastures on which infested sheep have grazed will not become free from infection with twisted stomach worms after remaining empty from October 25 to June 16, climatic conditions being those of Washington, D. C., in the years 1906 and 1907. Pastures on which infested sheep have grazed will be free from infection with hook worms and nodular worms after remaining empty from October 25 to June 16, climatic conditions being those of Washington, D. C., in the years 1906 and 1907.

A second series of field experiments undertaken this year (1907) has been a failure on account of the death while quite young of nearly all the lambs which were to be used.

The laboratory experiments bearing on the life history of the twisted stomach worm have been continued, and although this work has been much interrupted some new data of importance in addition to those published in Circular 93 have been obtained. A circular (No. 102) containing information as to the treatment and prevention of stomach-worm disease in sheep has been issued.

Experiments with Strongyloides longus, a rather common intestinal roundworm of sheep, closely related to the parasite found in cases of Cochin China diarrhea in man, have shown that rabbits may be infected with this parasite either by feeding them with embryos which have developed to the proper stage in cultures of feces from infested sheep, or by placing cultures containing the embryos on the skin. These facts indicate that sheep also may become infected with the parasite in question either through the swallowing of embryos or by their penetration through the skin.

A circular describing three new genera and several new species of strongyloid nematodes found in sheep and other ruminants has been prepared and is nearly ready for publication. This circular will be of value in assisting investigators to properly differentiate species which have heretofore been greatly confused.

# GID IN SHEEP.

An investigation of the distribution of the gid parasite in the State of Montana has been continued, and up to the present time the fact of its presence in Teton, Chouteau, Valley, Fergus, Broadwater, and Cascade counties has been definitely established, and considerable losses among sheep from this cause have been reported. These counties cover a larger part of the State, showing that the disease is widely prevalent in Montana, and the indications are that it has even a wider distribution than has been definitely determined.

Experiments for the purpose of determining certain facts in the life history of the parasite are in progress, sheep affected with the parasite having been obtained and shipped to the laboratory for this purpose. A careful morphological study of the adult and larval stages of the parasite has been begun in order to fix more definitely the points of difference between the gid tapeworm and other closely related tapeworms of dogs, the latter of which are in no way connected with the gid parasite, but are likely to be mistaken for it. In this connection a comparison is being made between specimens of gid parasites of American and European origin in order to determine whether the two are of the same or of different species.

"PALISADE-WORM" DISEASE OF HORSES.

A preliminary investigation of this disease, which has been attributed to the palisade worm (a parasitic nematode, certain stages of which occur in the arteries in the neighborhood of the celias axis, producing aneurisms), has been made. From the data gathered it is not possible to state whether or not the parasite in question stands in a causal relation to the disease which is associated with it. A large number of horses are annually lost from this disease in Wyoming and neighboring States, and the matter is sufficiently important to warrant an extensive investigation.

# TREATMENT OF SHEEP SCAB.

Two series of experiments in the treatment of sheep scab, with special reference to the use of coal-tar dips, carried on under cooperation between the Biochemic and Zoological divisions, have been completed. As a result of these experiments the use of coal-tar dips under certain restrictions is now permitted in the dipping of sheep entering interstate commerce. This work is reported more at length in connection with the work of the Biochemic Division.

# INVESTIGATIONS BEARING ON TICK ERADICATION.

A series of investigations with the object of improving, if possible, methods now in use in tick eradication, and determining other methods which may prove useful, has been undertaken at Auburn, Ala., with the cooperation of the Alabama Agricultural Experiment Station and the live-stock sanitary board.

#### COLLECTION OF PARASITES.

At the laboratory post-mortem examinations with reference to the presence of parasites have been made of 136 animals. Of these 70 were wild animals, mostly from the National Zoological Park, and the remainder were domestic animals. Seven of the latter were free from parasitic infection, and in the 59 found to be infested parasites occurred as follows: Cestodes in 9, nematodes in 58, protozoa in 14, trematodes in 1. Twenty-five of the wild animals were free from parasites, and parasites occurred in the remaining 45 as follows: Cestodes in 15, nematodes in 38, protozoa in 3, trematodes in 13, arthropods in 5.

In addition to the specimens from the animals examined at the laboratory a considerable number sent in for identification and others obtained by exchange with various investigators at home and abroad have been added to the collection. The total number of entries in the catalogue of the helminthological collection is now 4,794.

# INDEX-CATALOGUE OF MEDICAL AND VETERINARY ZOOLOGY.

- Work on this publication has been continued, four parts having been issued and two more sent to the printer during the fiscal year. Nineteen parts, comprising 1,492 pages, have been prepared so far, bringing the work down through the M authors.

# WORK OF THE BUREAU EXPERIMENT STATION.

During the past year the work at the Bureau Experiment Station, as in former years, has consisted of both independent original investigations and investigations in cooperation with the other scientific divisions of the Bureau, relating to animal diseases and breeding. The station is located at Bethesda, Md., and is in charge of Dr. E. C. Schroeder, superintendent.

#### TUBERCULOSIS.

Two bulletins on tuberculosis were published in the course of the year, Nos. 93 and 99, based on observation and experiments made at the station. In these special attention was called to the danger of infection through the ingestion of contaminated food rather than through the respiration of air in which dust containing tubercle bacilli is suspended. It was shown that the location of tuberculous lesions in the body is quite independent of the point at which the infectious material enters, and that the frequency with which tuberculosis occurs as a lung disease does not justify the conclusion that the lung is infected directly through the air. The frequency with which the disease localizes itself in the lung was traced to the following facts: That tubercle bacilli may pass through the uninjured wall of the intestine after they have been swallowed and then into the lymph channels; that they are carried along the lymph channels and are passed into the blood through the great lymph ducts that communicate with the venous circulation, and that the blood after it has received the lymph stream is filtered through the exceedingly fine capillary network of the lungs before it is distributed to other portions of the body.

The work of the year demonstrated that the commonest mode for the discharge of tubercle bacilli from the bodies of tuberculous cows is with their feces; that about 40 per cent of the tuberculous cows that show no symptoms of disease are expelling and scattering tubercle bacilli, and that tubercle bacilli passed with the feces of tuberculous cows are actively pathogenic.

It was shown that when tubercle bacilli are present in milk they will be present in both the skim milk and the cream obtained from the milk, irrespective of the manner in which the cream arises slowly and naturally by standing or rapidly through a rotary or centrifugal process. Butter made from infected milk was shown to be infectious for guinea pigs, and it was shown that tubercle bacilli in ordinary salted butter persist forty-nine days with undiminished virulence.

When it is borne in mind how frequently milk contains cow feces, and that the percentage of dairy cows known to be tuberculous is very large, the facts presented seem to warrant the conclusion that tuberculous cows are responsible in a great measure for the prevalence of tuberculosis in the human family.

The investigations to explain the increase of tuberculosis observed in recent years among hogs, which were begun last year, are still in progress. It was shown that the simple exposure of hogs to the manure from a stable containing tuberculous cows is sufficient to infect them in a comparatively short time. The Pathological Division is making further investigations at the Experiment Station relative to the danger of tuberculosis among pigs when infected sows are used as brood animals. Additional work during the year with the application of the tuberculin test to hogs has given results confirmatory of the conclusions published last year in Bureau Bulletin 88.

Through the use of a cow with a tuberculous udder it was found that calves taking milk from such cows contract tuberculosis with great rapidity. One calf that took the milk of the cow for several months was affected with generalized tuberculosis at the age of 5 months, and four calves, of which three sucked the milk from the cow's udder, respectively one, three, and seven days, and one which was fed the milk from a pail thirty days, also contracted tuberculosis.

In cooperation with the Pathological Division a series of special experiments with tuberculosis are being conducted, among which the more important are tests of various methods of immunization, the curative treatment of tuberculosis, and a study of the relative virulence of tubercle germs derived from different portions of the body of a tuberculous animal. In connection with the latter it is interesting to know that tuberculosis was induced in the bodies of guinea pigs by the inoculation of the feces from a tuberculous cow; that pure cultures were obtained in the Pathological Division from such guinea pigs, and that cows have been injected with the pure cultures. Some of the cows injected have the appearance of animals affected with a fairly rapid form of tuberculosis.

# RABIES.

Among the several cases of rabies brought to the notice of the station in the course of the year were two of special interest, as they occurred in other animals than dogs. In the fall of 1906 a small, quiet mare was placed in quarantine because she had been bitten by a rabid dog. Fourteen days after her confinement in a large, wellventilated box stall she showed symptoms of the disease and died after suffering terrible agony. Rabbits inoculated from the mare also became rabid.

In the spring two horses and a cow owned by neighboring farmers were placed in quarantine, because they had been bitten by a rabid dog. The horses have not shown symptoms of disease, but are still in confinement. The cow became rabid on the twenty-second day after she was bitten, and was killed to end her agony, with the consent of her owner, after he had convinced himself that she was truly "mad." About a week before she became rabid she produced a calf, which she failed to recognize during her paroxysms of fury and attacked viciously. The history of the dog that bit the two horses and the cow illustrates the great damage a rabid dog may do and the large territory he may cover after he has become affected, the farms where he bit the horses and the cow being located 9 or 10 miles from the premises from which the dog escaped. This dog is also known to have bitten four other dogs, which were at once killed by their owners.

# OTHER INVESTIGATIONS OF DISEASES.

Investigations relative to infectious abortion, sheep scab, internal parasites of sheep, Texas fever, etc., are in progress in cooperation with the Bureau laboratories in the city. A test made of the infectious character of ticks grown on East India cattle has so far given negative results. The test of cattle ticks grown on sheep and other animals has progressed very slowly because material for the work has been difficult to obtain.

It was found from the examination of young turkeys raised near the station that the destructive disease known as blackhead exists in that locality, and the disease was also found in turkeys shipped to the Washington market from Virginia. From what can be learned it now prevails in most of the Eastern States and many outbreaks have occurred in the Western States. The rapidity with which it kills young turkeys was shown by the death of 26 out of 28 turkeys hatched at the station last spring. The two remaining birds are in poor condition and will either die or fail to reach a profitable maturity if they live. This disease is of great economic importance, and further investigations are projected.

# THE TUBERCULIN TEST.

A number of cows owned by persons residing near the station were tested with tuberculin in the course of the year. The total number of tuberculin tests made at the station each year is quite large, and includes both hogs and cattle. The results obtained with the tests are exceptionally reliable, as shown by post-mortem examinations which are sooner or later made in the majority of cases.

Tests of commercial tuberculin have shown that some of this material found on the market is impotent and worthless. Some of the samples tested, which had the proper color and the general appearance of tuberculin, failed to cause a reaction in several cows that reacted strongly less than forty-eight hours later upon injection with tuberculin prepared in the Bureau laboratories. It is easy to understand that persons who have had unsatisfactory experience with unreliable tuberculin may have formed erroneous ideas as to the diagnostic value of the tuberculin test, but this, of course, does not affect the reliability of real tuberculin properly prepared. These tests will be continued, and when impotent products are found the results will be published.

# OTHER WORK OF THE EXPERIMENT STATION.

Special investigations in animal breeding and feeding, in cooperation with the Animal Husbandry Office, are in progress at the Experiment Station. This work is discussed in connection with the work of the Animal Husbandry Office.

During the year the usual number of small experiment animals for the use of the station and the Bureau laboratories were raised, quite a number of local (mostly sporadic) outbreaks of disease were investigated, and all the station land not actually occupied by buildings, experiment pens, etc., was kept under cultivation to obtain green forage for the animals.

# WORK OF THE ANIMAL HUSBANDRY OFFICE.

The work of this office, in charge of Mr. George M. Rommel, Animal Husbandman, consists principally of investigations concerning the breeding and feeding of farm animals and poultry.

#### HORSE BREEDING.

#### COLORADO WORK.

The work in the breeding of American carriage horses, in cooperation with the Colorado Experiment Station, is progressing satisfactorily. During the fiscal year 11 foals were dropped, 2 males and 9 females. The stallion Carmon served 15 mares owned by private individuals. No additional horses were purchased. One 2-year-old colt died of strangles or distemper.

#### VERMONT WORK.

The Morgan horse breeding work of the Bureau has received a great impetus through the generosity of Mr. Joseph Battell, of Middlebury, Vt. Mr. Battell is known for his devotion to the Morgan horse and has from the first been greatly interested in the Bureau's work. Feeling that the importance of the work demanded more land than had been available, Mr. Battell offered to give the Department 280 acres of land within 2 miles of the village of Middlebury. The offer was accepted, and work was begun on the farm April 16, 1907. The land lies very well, the soil is good, and the location is excellent for a horse farm. Since his first gift, Mr. Battell has added 120 acres, making 400 in all. All the horses in the Vermont experiment have been transferred to the new farm at Middlebury, which has been named the Morgan Horse Farm. Although the main work is being done at the new farm, the project is still being carried on in cooperation with the Vermont Experiment Station.

No purchases of horses were made during the year, but arrangements were made to buy a stallion as soon as funds became available, which was done on July 1. The stallion, General Gates, is a particularly valuable acquisition. He was bred by Mr. Battell, and was sired by Denning Allen out of Sallie Scott, by a thoroughbred. General Gates was selected on account of his individuality and his performance as a sire. He sired the champion Morgan stallion at the Louisiana Purchase Exposition and has made a great impression on the horse stock of central Vermont. Two of the fillies purchased in 1906 were sired by him. At the time General Gates was bought a yearling filly by him out of Ellen (one of the mares purchased in 1906) was also acquired.

On June 30, 1906, there were in the Vermont stud nine brood mares, one 2-year-old filly, two yearling fillies, six weanling fillies, and one weanling colt. During the spring four mares were bred to General Gates, two to Lambert, and one each to Battle Ax, Morgan, Falcon, and Rob Roy. One 2-year-old filly died August 8, 1906, from supposed heart failure, and one twin was lost June 9, 1907.

# CLASSIFICATION FOR AMERICAN CARRIAGE HORSES.

Since the inauguration of the work of the Bureau of Animal Industry for the development from American material of a carriage horse which would breed true to type, it has been evident that one of the earliest supplementary steps to give the movement wide scope and a broad foundation would be the establishment of classes for such horses at the State and national fairs. This sentiment has grown rapidly during the past year and has found expression in the addition of such classes to the premium lists of fairs in Iowa and Kentucky, States from which large numbers of American carriage horses are marketed. On their own initiative the Iowa State Fair, held at Des Moines, the Kentucky State Fair, held-at Louisville, and the Blue Grass Fair, held at Lexington, Ky., have offered prizes for American carriage horses for the season of 1907.

The classifications adopted by these fairs are similar, but considerable differences exist which it is desirable to harmonize. A uniform, systematic, and practical classification, suitable for the guidance of fairs in general, is a possibility and will tend to bring about uniform exhibitions. If the horses shown under these conditions are capably judged, a uniform type can be fixed definitely and rapidly.

It seems fortunate that such a uniform classification has been made possible by a cooperative arrangement between the Bureau and the American Association of Trotting Horse Breeders. The classification was worked out by the committee on heavy harness horses of the association and was finally approved and distributed late in May, 1907. The committee is organized to represent the Department of Agriculture, the American Trotting Register Association, the American Saddle Horse Breeders' Association, and the American Morgan Register Association. Mr. George M. Rommel, the Animal Husbandman of the Bureau, is chairman of the committee, the other members being Mr. Joseph Battell, Middlebury, Vt., registrar of the American Morgan Register Association; Gen. John B. Castleman, Louisville, Ky., president of the American Saddle Horse Breeders' Association; Mr. A. T. Cole, of Wheaton, Ill., a prominent breeder of Morgan horses of carriage type: Prof. Charles F. Curtiss, director of the Iowa Agricultural Experiment Station, Ames, Iowa, and a member of the horse purchasing board of this Department, and Mr. H. K. Devereux, of Cleveland, Ohio, secretary of the American Association of Trotting Horse Breeders.

As soon as the classification was approved it was sent out to the horse press and to managers of fairs. It has had a most cordial reception. The press has quite generally approved the plan, and the interest of fairs has been very gratifying. Two fairs (the Interstate Fair held at Kansas City and the Kansas State Fair held at Hutchinson) have accepted the classification, and several others whose premium lists of 1907 were closed have signified a desire to take up the matter in time for the season of 1908. This start should be followed by its adoption generally, and wherever possible this should be done for the 1907 fairs.

The adoption of the classification by State fairs is especially urged for the reasons that they are in the closest touch with farmers, that the farmers are the breeders of most of the carriage horses sold on the American markets, and that the value of the American horse for carriage purposes is rarely appreciated by the farmers who breed Hundreds of horses sold annually by farmers at really insigthem. nificant prices are after some months of finishing and handling again sold as carriage horses at prices up into the thousands. Furthermore, there is a continual sale of stallions to supply this trade. These horses are usually of only moderate value as speed producers, but are of excellent carriage type. If kept entire and properly mated they could be of inestimable value as foundation sizes of the American carriage horse, but as a rule they are castrated and lost so far as breeding value is concerned. If the powerful educational influence of the fairs and stock shows is thrown into the solution of the carriage-horse problem the farmer will not only be educated to appreciate the intrinsic value of the native light horse for carriage purposes, but will recognize the worth of the stallion with good conformation and quality but only moderate speed as a sire of carriage horses, and the problem of fixing the type will be one of early solution.

When a fair adopts the carriage-horse classification it should take all possible steps to insure a creditable exhibition of animals. By direct correspondence and by press and official notices farmers who own suitable horses should be urged to exhibit.

The classification has been published as Circular 113 of this Bureau.

#### SHEEP BREEDING.

One of the most important problems confronting stock breeders of the United States at present is the development of a breed of sheep suitable to range conditions. In spite of the great development and prosperity of the sheep industry of the West, breeding methods are not systematic, and most breeders are continually crossing, the result being a lack of uniformity in the stock and to a certain extent a failure to attain as high a standard as might otherwise be possible. The requirement of the range is a breed of sheep that will yield a profitable clip of wool, produce good mutton lambs, and that will stand flocking in large numbers. It is believed possible to combine these characteristics in one breed of sheep, and with this idea in mind an experiment was begun in the fall of 1906 in cooperation with the Wyoming Experiment Station. Fifty-nine ewes have been purchased in the northwestern range country and 30 in Nebraska for All were purebred or high-grade Rambouillet foundation stock. except four, which were grade Delaines, and nearly all were yearlings and 2-year-olds. During the breeding season of 1906 rams were leased for breeding. In June, 1907, four purebred Rambouillet rams were purchased.

# BREEDING MILKING SHORTHORNS.

Experiments in breeding milking Shorthorn cattle were begun in cooperation with the Minnesota Experiment Station and represent the first attempt the Bureau has made at cooperative breeding with a number of farmers. During the year steps were successfully taken to bring about the desired cooperation. Nine Minnesota breeders, most of them within easy touch of the station, have agreed to allow their herds to be used and to manage them according to the instructions of the Department and the station. These, with the station herd, will make 10 herds in all under observation.

#### POULTRY BREEDING.

The work in poultry breeding in cooperation with the Maine Experiment Station continues in a satisfactory manner. Three lines of investigation are being followed:

(1) To increase egg production. This work has been under way at the station for nine years, during three of which the Bureau has cooperated. At the start the better-laying hens were selected by their yearly records in trap nests and mated with the sons of heavy layers. The work has been continuous with each succeeding generation. This year 1,000 hens are kept for testing and breeding, and sufficient males to mate with them. Two thousand chicks are being raised from which to select next season's stock.

(2) Investigations regarding the yields and welfare of hens kept for egg production when kept in medium-sized and large flocks under similar conditions. Four flocks of 50 hens each are being compared with two flocks of 100 hens each. The floor allotment to each bird in all of the flocks is 4.8 square feet.

(3) Comparisons of the yields and the health of laying hens when kept in large and very large flocks in rooms of the same size. Four rooms each having 480 feet of floor space and alike in arrangement are used. One hundred hens are kept in each of the first two rooms, giving 4.8 square feet of floor to each bird. In each of the other rooms 150 hens are kept, the floor allotment there being 3.2 square feet. This is the third year during which the sizes of flocks and floor allotments have been investigated.

A careful description of the methods in use at the Maine Station was published as Bulletin 90 of the Bureau series.

#### OTHER BREEDING INVESTIGATIONS.

The animal-breeding experiments recently started at the Bureau Experiment Station are progressing favorably. Studies are being made of the effects of very close inbreeding of guinea pigs and domesticated rats. Experiments have been started with wild and domesticated rats to determine some of the laws of inheritance in breeding hybrids. Crossbreeding experiments are being made with sheep for the same purpose. Heredity of rats and guinea pigs is under observation, and selective breeding is also being carried on.

The question of telegony is receiving attention, and observations are made of the progeny of females that have previously produced hybrids: Although there are no experimental data to confirm the assertion that telegony plays a part in breeding, it is generally considered important by a great many breeders.

About 500 small animals are used in the breeding experiments at present, and careful records and descriptions are kept of each individual. Owing to the short time the experiments have been under way, no definite results can yet be stated.

#### FEEDING INVESTIGATIONS.

#### ANIMAL NUTRITION.

The experiments in animal nutrition in cooperation with the Pennsylvania Experiment Station during the fiscal year have consisted in a continuance of the investigation concerning the influence of age and individuality upon the metabolism of cattle, which was begun in the fall of 1904. Two steers have been used as the subjects of this investigation—one a purebred Aberdeen-Angus and the other of mixed breeding in which Jersey blood apparently predominated. The animals were purchased in 1904 as yearlings, and since that time have been fed identical feeds in amounts varying with the weight and capacity of the animals, while a complete record has been kept of the feed consumed and of the growth made. The record has included, in addition to the weights, monthly measurements of the animals and a systematic series of photographs every three months. At intervals of about three months also the digestibility of the feed has been determined and likewise the nitrogen balance, the results of the latter serving to indicate the rate at which lean meat was being produced by the animals. Furthermore, experiments have been made each

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winter with the respiration calorimeter to determine both the maintenance and the production values of the feeds used for each animal. In this way it is hoped to detect the influence, if any, of the advancing age of the animals and of their individuality, and to determine whether either of those factors affects the actual physiological processes involved in the utilization of the feed.

In the course of the year, in addition to the records of feed and growth above mentioned, eight experiments have been made with the respiration calorimeter, together with a number of check tests to control the accuracy of the apparatus. This special work has required the taking of about 200 samples of feed and excreta, calling for a total of about 1,100 determinations in the chemical laboratory, some of which require special skill and experience. More than 1,000 weighings of animals, feed, and excreta were required, most of which must be accurate to within one-quarter of an ounce. The actual records of the calorimeter experiments required some 55,000 entries, exclusive of those relating to the samples and weights above mentioned. Naturally, such an amount of material necessitates a large amount of careful computation before the results can be deduced. This series of experiments has been concluded with this season's work, and the results are being prepared for publication. A bulletin upon the energy value of red-clover hay is now in press.

At the beginning of the new fiscal year, July 1, 1907, the work in animal nutrition was very materially enlarged by the addition of cooperative experiments in feeding beef cattle with the Missouri Experiment Station, this work having been carried on prior to that date by cooperation between the station and the Bureau of Plant Industry of this Department. The station is feeding a large number of steers to compare the results of feeding 2-year-olds and calves, and exhaustive investigations are planned on the feeding of steers from birth to maturity, chemical studies of the carcasses to be made from time to time. Representatives of different lots and ages will be sent to the Pennsylvania station with supplies of the same feed as they received at the Missouri station, and these steers will be placed in the respiration calorimeter for studies of their metabolism and of the energy values of the feed used.

#### FEEDING COTTON-SEED PRODUCTS TO HOGS.

A comprehensive study of the value of fermented cotton-seed meal for hogs is now under way, and it is proposed to undertake during the coming fiscal year experiments in feeding cotton-seed meal to hogs on alfalfa pasture. Varying amounts will be fed to determine the quantity which may be fed safely while hogs are on pasture.

#### POULTRY FEEDING.

Investigations with poultry were begun in the fall of 1906 at the quarantine station of the Bureau at Halethorp, Md. A three-pen poultry house was constructed of a size sufficient to accommodate 75 hens. On December 1, 75 White Plymouth Rock pullets were divided into three equal lots and fed by the moist mash, dry mash, and hopper methods of feeding. The mixtures used were the same in all three pens, the difference being that the fowls in pen 1 received their mash moist, those in pen 2 received their mash dry, and those in pen 3 received both mash and grain mixtures from self-feeding hoppers.

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Records of production and of the general health and thrift of the hens in the various pens have been kept. During the spring chicks have been hatched from these hens and about 450 are now being raised. A careful record has been kept so that the pullets from the various pens can be identified, and this will be used during the coming year to repeat the experiment. It is planned to repeat it with several successive generations in order to determine the influence, if any, of the method of feeding upon vitality.

A new poultry equipment is in process of construction at the Bureau Experiment Station at Bethesda, Md. This site is far more favorable and convenient than that at Halethorp. The laying house now being built at Bethesda is 16 by 80 feet, divided into five pens, each 16 feet square, and has a small feed house attached. The house is so planned that more pens can be added as needed. A double-yard system for each pen is planned in connection with the laying house. The remainder of the tract devoted to poultry, about 5 acres in all, will be suitably fenced, so as to provide inclosures and range for the young stock. In addition to the laying house, five colony houses are to be built. It will also be necessary to construct a suitable incubator cellar.

# BEEF PRODUCTION IN THE SOUTH.

The work in cooperation with Mr. Kernachan in the Tennessee Valley (northern Alabama), referred to in the previous report, has been continued during the year. The object of these experiments is to show what can be done under farming conditions in the way of improving the native cattle for beef purposes by using purebred bulls with grade cows and by proper feeding. There were 86 grade Aberdeen-Angus cattle under investigation at the close of the year.

The work in direct cooperation with the Alabama Experiment Station concerning the feeding of beef cattle comprised a feeding experiment during the winter of 1906–7, a repetition of those conducted during the two preceding winters. As usual, the steers were sold on the New Orleans market. The results of the three winters' work are being prepared for publication.

# SUPERVISION OF PEDIGREE RECORD ASSOCIATIONS.

Under the new system of supervising pedigree record associations less friction appears to have been experienced in the importation of animals for breeding purposes than ever before. The secretaries of such associations in the United States have cheerfully complied with the new regulations. One of the surest indictions of the practicability of these regulations is the fact that, although they have been in force for one year, it has not been found necessary to make any changes in their terms. Some difficulty has been experienced in getting secretaries to use the exact form of entry certificates prescribed by the Treasury Department, but this is being rapidly and satisfactorily adjusted.

# WORK OF THE DAIRY DIVISION.

The force of the Dairy Division, under Mr. Ed. H. Webster, chief, engaged in various lines of educational and research work, has been materially increased during the year. A gradual change in the form of organization as regards administrative duties has been in progress, the work being grouped in four main branches. All work pertaining

to the production of milk has been classed as Dairy Farming Investigations. All that relating to the manufacture of dairy products, such as butter, cheese, etc., is placed under the general heading of Dairy Products Investigations. Everything pertaining to the organization and management of manufacturing and distributing mediums, such as creameries, cheese factories, market milk service, etc., has been put under the general heading of Organization and Management Investigations. The duties imposed by law in the inspection of renovated butter factories form the fourth branch, designated as Renovated Butter Inspection.

# DAIRY FARMING INVESTIGATIONS.

#### SOUTHERN DAIRYING.

A special appropriation of \$20,000 made by Congress for the purpose of further developing the dairy industry of the Southern States has been used in educational work among the farmers of that section. Assistance has been rendered in the remodeling of old barns and the building of new ones, the construction of silos, the selection and breeding of herds, the keeping of records of feeds and of the products of the dairy herds, by the investigation of local market conditions and the sources of the supplies that are brought into the South from outside territory, and by attending farmers' institutes and agricultural meetings. Mr. B. H. Rawl has charge of this work. Nine men have been engaged in it in North Carolina, South Carolina, Georgia, Tennessee, Mississippi, Louisiana, and Texas.

This work has met with uniform favor throughout the South. No attempt has been made to reorganize the entire working system of anyone's farm, but the policy has been to call the attention of the farmer to one particular thing in which he might improve conditions and to get him to do this one thing. This has nearly always resulted in gaining the attention of the farmer, and in nearly every case he has become convinced that it is to his interest to follow the suggestion made. After he has adopted the suggestion as to one important part of his dairy work other things are pointed out as fast as it is thought he will be likely to undertake additional improved methods. It was early observed that different men must be approached in different ways and that the work must be fitted to the needs of each individual. With some farmers stress has been laid upon keeping records of herds, with others upon the securing of good bulls for the herds, with others upon the securing of markets for their products, and to still others assistance has been given in planning and erecting new buildings or in laying out a crop system that will supply the needs of the herds.

In the course of this work 10 barns and 23 silos were erected during the fiscal year, and 3 barns and 18 silos were in process of construction at the end of the year. The average cost of the completed silos, per ton capacity, was as follows: Modified Wisconsin style, \$1.29; stave, \$1.36; concrete, \$3.63; metal lath and cement, \$2.46. Of the last two classes there have been built but one each, both of which are small; hence the cost shown is perhaps too high for averagesized silos.

Many farmers have been induced to keep records of their herds, so as to show the cost of feed and the amount realized from the products both before and while carrying out the suggestions made for improved methods. Such records have been kept for 70 herds, including 1,606 cows. The results from 16 herds, containing 314 cows, have been compiled for illustration and show an average increase of \$3.75 in the monthly production of each cow for an average period of five and a half months. This is a striking example of the practical results to be obtained by the adoption of better dairy methods in the South.

So encouraging have been the results of the Department's work that similar work is being taken up by some of the States. The North Carolina department of agriculture has adopted the same system of field work and is planning to place two men in the field for work similar to that being done by the Dairy Division. The Tennessee and Georgia authorities are so favorably impressed with the work that it is only a question of securing the funds when both States will take it up. Louisiana has furnished an assistant to supplement the work of the member of the Dairy Division working in that State. It is believed that after this special educational work has been well started the Department should withdraw and the States should continue it, and the effort has been made to impress the persons conducting the State work with this idea. It is hoped that the interest created in the various States visited by the representatives of the Dairy Division will encourage others to engage in the work; in fact, this has already been accomplished in many sections. Entire harmony and hearty cooperation exist between the officers of the State experiment stations and the workers of the Dairy Division in every State in which the work is being carried on.

A special effort has been made to encourage the agricultural colleges in these States to extend their work in dairying by giving short courses particularly adapted to the needs of the farm dairyman. Under this encouragement the Mississippi college last winter offered its first short course in dairying. In other States a portion of the time of the Dairy Division men in the field was given in assisting and teaching in the short dairy courses that were offered.

As a result of the work of the Dairy Division the cities of Atlanta, Ga., and Memphis, Tenn., have adopted the score-card system and are rapidly improving their milk supplies.

#### DAIRY RECORDS AND TESTS.

During the past year an effort has been made to establish a uniform system of keeping advanced registry records among the different breeding associations. This movement was started by the National Association of Dairy Instructors and Investigators at their meeting at Urbana, Ill., in July, 1906, and a committee was appointed to take the matter under advisement and to confer with the various breeding organizations. It was suggested that in addition to securing uniformity in keeping advanced registry records some system of national registration be adopted for certifying animals eligible to such register. The subject has been presented to the different associations at their annual meetings during the year, and the associations have each appointed a member of a committee to confer with the committee from the organization above named and a delegate from the Dairy Division to consider unification of this important 54 OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY.

line of work and the establishment of a national dairy register of merit.

It is expected, through this branch of the Dairy Division work, to give encouragement also in the formation of test associations for the purpose of keeping records of dairy cows, and also to encourage, wherever possible, the better keeping of general records for dairy farms. It is expected to issue publications from time to time on these subjects. One publication much sought for is Records of Dairy Cows, by Mr. C. B. Lane, assistant chief of the division, and it is intended to supplement this by publishing additional records from year to year.

It is believed that some systematic work should be undertaken by the Dairy Division to encourage farmers to make tests and keep records of their dairy herds. There is no question that if such a plan were generally adopted the income of the dairy farmers of the country could be largely increased. The average individual farmer can not or will not take up this matter; hence the need for some organized effort in the way of education and demonstration. It is believed that a moderate expenditure for work of this kind would yield large economic results.

# DAIRY PRODUCTS INVESTIGATIONS.

This branch, which is in charge of Mr. C. E. Gray, includes work relating to butter, cheese, and milk.

#### BUTTER.

FISHY FLAVOR.—The investigations to determine the cause of fishy flavor of butter have been continued. While these studies have not reached a stage that will warrant the publication of results, many things have been learned as to the cause of fishy flavor, and it is thought altogether likely that the work in this direction can be brought to a successful conclusion during the coming year. The development of this fishy flavor in butter continues to cause dealers the loss of many thousands of dollars each year, and the cause has been a mystery.

EFFECT OF ACIDITY ON KEEPING QUALITY.-Experiments have also been made concerning the amount of acidity in cream and its effect upon the keeping quality of the butter. In the past it has been the opinion of those most prominent in the teaching of butter making that butter made from cream ripened to a high degree of acidity would be the best for storage purposes. There is no question that the advocates of "high ripening," as it is called, have met with much success in using this method as compared with the method of no ripening, or ripening without any control whatever, so far as the butter maker is concerned. There were, however, those who advocated a milder acidity, claiming that this was conducive to a better keeping quality, and some work has been done in Minnesota and Canada to demonstrate that this kind of ripening gave the best results. To throw further light on the question the Dairy Division undertook extensive experiments in making butter from cream having various degrees of acid development and in storing the butter at different temperatures to test its keeping qualities. Several thousand pounds of butter were made under given conditions and placed in storage.

Chemical analyses and bacteriological examinations were made of the cream before it was churned and of the butter immediately after churning. The cream was divided into two lots, one being pasteurized and the remainder left unpasteurized. These lots were subdivided into smaller lots. One portion was churned without the development of any acidity whatever; another, to which a good starter was added, was immediately churned; to the third portion the starter was added and the cream was allowed to ripen to a normal degree of acidity, while the fourth portion was the same as the third, except that the cream was allowed to ripen to a very high degree of acidity.

These lots of butter were stored at temperatures of 32° and 10° F. above and 10° F. below zero. The Dairy Division had under its control storage rooms in Chicago admirably adapted to work of this kind, where temperatures were carried at a very uniform level throughout The butter was examined at intervals of a few months. the year. It was found that the pasteurized cream, churned sweet without starter, produced remarkably fine butter that kept without deterioration for weeks after it was taken out of storage. This was at such marked variance with the popular idea of high ripening that it has been deemed best not to publish the results in detail until another year's work can be carried out, in order to have a complete check upon the experiments already made. If the findings of the past year prove to be repeated in the coming year's work, there seems likely to be almost a complete revolution in the methods of making butter from sweet cream. Aside from doing away with the trouble of making the starters and ripening the cream, it will materially shorten the hours of labor of the butter maker and make it possible for the creamery work to be carried on during regular working hours. Under the present system the creamery man has to begin his work at 3 or 4 o'clock in the morning, winter and summer, and rarely ever finishes before 3 or 4 o'clock in the afternoon.

A NEW MOISTURE TEST.—One of the greatest needs of the butter maker has been an accurate and rapid method of determining the amount of moisture in butter. During the year Mr. Gray has worked out an extremely simple and rapid method of determining moisture in butter and other products, and a description of this method has been published as Bureau Circular 100. It is understood that already this simple apparatus has been procured and is being used with entire success by many hundreds of butter makers. Under the present-day methods of business the butter maker must know absolutely what he is doing at every stage of his work, and before this rapid means of determining the moisture in butter was made available he was unable under practical conditions to determine whether he was exceeding the maximum amount of moisture allowed by law or was reducing the moisture to an unduly low point and thus materially cutting into the profits of the business. With this simple method, which is known as "Gray's moisture test," there is no longer any reason for such a condition of affairs in any creamery in the country.

Application for United States patent on this apparatus and method has been filed under the act of Congress of March 3, 1883, so that the method may be used by the Government of the United States, or any of its officers or employees in the prosecution of work for the United States, or by any person in the United States, without the payment of royalty.

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BUTTER LABORATORIES AT ALBERT LEA, MINN.—During the spring of 1907 laboratories for butter investigations were established at Albert Lea, Minn., in cooperation with the Minnesota Experiment Station. Arrangements have been made with the Albert Lea Dairy Association whereby the Dairy Division gets the benefit of its supply of milk—about 25,000 pounds a day—for experimental purposes in the manufacture of butter. Bacteriological and chemical laboratories have been built and equipped on the creamery grounds. This arrangement is expected to be of great assistance in furthering the butter investigations of the division.

CHEESE.

The cheese investigations consist of three general lines—soft cheese investigations at Storrs, Conn.; Cheddar cheese investigations at Madison, Wis., and Swiss cheese investigations at Albert Lea, Minn.

SOFT CHEESE INVESTIGATIONS.—In these investigations, conducted in cooperation with the Storrs Experiment Station, progress has been made during the year in working out the methods of manufacture of Camembert cheese, and a bulletin (No. 98) giving directions for making this type of cheese has been published. The work on Camembert has been practically completed, and at the present time the main effort is being directed toward the problems involved in the manufacture of Roquefort cheese. Much remains to be done in connection with the latter, particularly in securing the right texture in the product.

CHEDDAR CHEESE INVESTIGATIONS.—This work is being carried on in cooperation with the Wisconsin Experiment Station. The main problem under consideration is the use of acids of various kinds in the manufacture, rather than the developing of lactic acid in the milk. There are some features in connection with this substitution of acid which, if they prove successful, will bring about a great saving to the manufacturers of the Cheddar type of cheese, both in time and in the losses sustained under the ordinary methods of manufacture.

Swiss CHEESE INVESTIGATIONS.—Investigations concerning the Swiss type of cheese have been begun at Albert Lea, Minn. In connection with the laboratory plant used for butter investigations, there has been constructed a curing room for this kind of cheese. Space has been secured in the creamery plant for the manufacture of the cheese, and milk is purchased from the Albert Lea Dairy Association for this purpose.

The fundamental problems involved in the manufacture of Swiss cheese are but little understood; the whole process seems to be one of "rule of thumb" rather than any scientific method. Makers of the Swiss type of cheese in this country, as well as in Europe, follow the plan which has been in vogue for a great many years in Switzerland and Germany in the manufacture of cheese. This method is open to many objections, as it is almost impossible to get a uniform product with any degree of certainty, and the losses sustained in the making through the loss of butter fat in the whey are very heavy. The physical and biochemic processes of ripening have not been studied to any considerable extent in this country or abroad. This is a large and important field of investigation, as the manufacture of the Swiss type of cheese is next in importance to that of the Cheddar type in this country.

#### MILK SECRETION.

One of the most interesting problems in dairying and one that is fundamental to all else is the secretion of milk and the various changes that milk is subject to because of different conditions of breed, feed, lactation period, climate, health of the cow, etc., and there is very little literature that throws light on the questions involved.

At the beginning of the year arrangements were made with the Missouri Experiment Station to take up a thorough and prolonged study of this subject. From the nature of the problems and of the investigations proposed it is expected that a long period of time will be required to complete the work.

It seemed desirable to give special consideration to the changes that come about by the advances in the period of lactation, consequently it was decided to select a number of cows of the different breeds and make a careful and systematic study of the milk of each cow from the beginning to the end of her milking period. Sixteen cows have been selected for this preliminary test. It will be necessary to repeat the test another year in order to guard against irregularity and to give a complete check on the work, as there are no complete previous experiments available for comparison.

Among other things studied will be the color of the milk. While the cows are being fed on identically the same feed during the entire period of lactation, there are some differences in color of the milk, probably due to breed and milking period, and these will be studied throughout the period. As soon as certain fixed characteristics, such as breed of the animal and advance in lactation period, have been determined it is expected to take up different feeding stuffs and determine the effect of each on the chemical and physical constituents of the milk.

#### OTHER MILK INVESTIGATIONS.

Plans have been made for taking up during the coming year an extended study of pasteurization and other processes which may affect milk from a bacteriological and chemical standpoint, with special reference to the preparation of milk for market purposes. This is an important subject which has hitherto received but little attention from the Dairy Division.

#### ORGANIZATION AND MANAGEMENT OF DAIRY ENTERPRISES.

Investigations on this subject are divided into two general sections, one, relating to market milk, under the supervision of Mr. C. B. Lane, assistant chief of the Dairy Division, and the other, dealing with creameries, cheese factories, etc., under the supervision of Mr. B. D. White. The work is almost entirely educational, the object being to put into actual practice the experience and facts obtained from the research investigations. The method of procedure is to carry on an educational campaign by correspondence, securing reports from all kinds of dairy concerns, attending dairy meetings of various kinds, and giving such assistance as may be possible in the general development of the dairy interests of the country.

#### MARKET MILK SERVICE.

MILK SUPPLY OF WASHINGTON, D. C.—One of the main features of the work during the year has been the investigation of the milk supply of Washington, D. C. Nine hundred and eighteen dairies, with 16,446 cows, were inspected and rated according to a score card prepared by the Dairy Division, 100 points representing a perfect score. Of these dairies 526 were located in Maryland, 294 in Virginia, and 66 in the District of Columbia. With a few exceptions the conditions found were not at all satisfactory, the average of all the scores being only 45.03. The scores covered such items as condition of cows, tuberculin test, sanitation and arrangement of stables and milk houses, health and cleanliness of milkers, and handling and cooling of milk. There were found to be 74 establishments where milk was handled in the city, and the average rating of these was 72.58. One hundred and forty-four bacteriological examinations were made of milk, taken at random from wagons on the streets of the city during hours of delivery.

MILK SUPPLY OF OTHER CITIES.—Aside from the work which has been done in and around the city of Washington, there have been many calls from outside cities, mainly from boards of health, for assistance in improving their milk supplies. Assistance was ren-dered to the following cities during the fiscal year: Hollister, Los Angeles, Oakland, Pasadena, Redlands, Riverside, San Bernardino, San Diego, San Francisco, San Jose, Santa Barbara, Santa Cruz, Stockton, and Vallejo, Cal.; Boulder, Colo.; Hartford, Conn.; Atlanta, Ga.; Boston and Brockton, Mass.; Montclair, N. J.; Cortland, Glens Falls, and Syracuse, N. Y.; Cleveland, Ohio; Memphis, Tenn., and Richmond, Va. The usual method of procedure in such cases has been to have the board of health call a general meeting of the dairymen and consumers, together with the physicians of the city, for a complete and comprehensive discussion of the milk situation in the city. Special meetings are called for the physicians, and often for the city council, for the purpose of taking up in detail special features that these bodies would be interested in from legislative and administrative standpoints. The use of the score card is discussed, and the inspector who goes from the Dairy Division gives such information as may be needed. It is required that these cities make reports from time to time of the progress made. Calls for assistance of this character are coming faster than they can be filled with the number of men available for this work. With an adequate force this feature of the work of the Dairy Division could be greatly extended with undoubted benefit to the public.

MILK AND CREAM CONTESTS.—In February, 1906, there was held at Chicago, under the auspices of the Dairy Division, as a part of the national dairy show, a competitive exhibition of milk and cream, with the object of promoting better conditions for handling milk and cream for home consumption. This was the beginning of a work that has been extended during the fiscal year 1907, similar contests having been held in New Hampshire, Massachusetts, Connecticut, Pennsylvania, Illinois, and Missouri. These events have been productive of much good in the improvement of the milk supply. Perhaps the most successful of these contests was the one held at Cleveland, Ohio, in March, 1907. The subject was taken up jointly by

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the chamber of commerce and the city health department. A large number of samples of milk and cream were exhibited and scored, dairy farms were inspected and scored, prizes were awarded, meetings were held, and addresses made. The interest of dairy farmers and milk producers, as well as physicians and sanitarians, was enlisted, and the result was a general awakening for better milk in the city, to the benefit of both producer and consumer. A report of this meeting has been prepared for publication.

MODERN DAIRY AT JAMESTOWN EXPOSITION. —The Dairy Division installed and conducted at the Jamestown Exposition what was termed a modern dairy plant. It was located in the food building and consisted of two parts, one showing the necessary equipment and methods for a small dairy farm, bottling milk for market purposes, and the other the methods and necessary machinery for handling a large city and milk business, with pasteurizing apparatus, bottling machine, etc. Literature relating to market milk was kept on hand for distribution, and stereopticon lectures were given on different phases of the market milk service.

#### CREAMERY INVESTIGATIONS.

A thorough study is being made by the Dairy Division of different plans of organization of dairy enterprises, with special reference to cooperative work, and assistance is given wherever practicable in the organization of cooperative and other dairy concerns.

The division has solicited reports from the various creameries of the country with a view to giving them assistance in their business methods, methods of manufacture, and keeping of records. At the close of the year about 500 or 600 creameries were reporting monthly to the division, each giving a statement of the amount of milk and cream received from the creamery patrons, the amount of butter sold, the overrun obtained, the expense of operating the business, etc. A careful analysis of these reports shows that there is a heavy loss to many creameries and to the farmers supplying them because of lax methods of manufacture and the absence of system in keeping records.

The creameries settle with the farmers supplying the cream on the basis of the butter fat contained in the cream. The quantity of butter produced naturally exceeds the amount of butter fat in the cream, the excess being caused by water, casein, salt, etc., which are incorporated with the butter. This excess is termed "overrun," and normally amounts to  $18\frac{1}{2}$  per cent. If a creamery does not show an overrun to this extent it may be assumed that there is some waste in manufacture or some laxity in keeping records, the result in either case being a loss to the business.

Reports for the year 1906 and the first months of 1907 from several hundred creameries in Minnesota, Iowa, and Wisconsin show that in 63 per cent of the creameries the overrun fell below  $18\frac{1}{2}$  per cent. In Wisconsin the percentage of reporting creameries coming below this mark was 68, and the average overrun was but 15.7 per cent. In Minnesota 63 per cent of the creameries reporting failed to reach the normal overrun, the average being 16.66 per cent. For Iowa the percentages were 57 and 16.46, respectively. Applying these percentages to all the creameries in the States named, the total loss sustained by reason of the low overrun is calculated as exceeding \$2,000,000 annually, and the loss for the entire country is estimated at more than \$5,000,000 a year. The reports also show that, as might naturally be expected, the creameries making an overrun of  $18\frac{1}{2}$  per cent or more yield better returns to the persons supplying the cream than are paid by the creameries with low overruns.

As the monthly reports are received, letters are immediately written by the Dairy Division to the creameries whose reports show low overruns or indicate defective work of any other kind. In these letters the defects are pointed out and suggestions are made for remedying them. This has already resulted in a material betterment of the conditions in many creameries.

The Dairy Division maintains offices in New York and Chicago, with a butter expert at each place whose special duty it is to inspect the butter received at those markets and give helpful suggestions to butter makers and creamery managers. Large quantities of butter deficient in quality are found on these markets. The trouble may be due to poor cream or milk or to poor workmanship, and because of such defects the butter may not bring good prices. Butter may leave the creamery in apparently good condition and yet be unsatisfactory after it arrives at its destination a week or two later. When requested by the shipper the experts of the Dairy Division examine a shipment on its arrival at market and send to him promptly a reliable report as to its condition and quality. If the butter is not satisfactory they state what the defects are and make suggestions for overcoming the trouble. These reports are not in the nature of faultfinding criticism, but are intended to help the butter maker to produce a better product and obtain a better price. Facilities are provided for a limited number of chemical analyses of butter found on these markets. The plan is for the inspectors to spend three weeks of each month in the city and the remainder of the month in visiting creameries that seem to be having most trouble with their product. In Chicago up to July 1, 1907, the butter from 525 different creameries was inspected and 1,394 letters were written to butter makers and creamery managers telling them of the faults in their butter and making suggestions for improvement. The New York inspector likewise examined the product of several hundred creameries.

As this work has progressed, more and more of the creameries have taken an interest in it and have availed themselves of this service, and the commission men have also found that it is to their advantage to have a disinterested expert examine the butter and send a report to the creamery. Many commission men have stated that the services of the inspectors have resulted in much good in a general improvement of the quality of the butter received on the market.

A system of score cards for indicating the sanitary condition of creameries and the ability of the creamery men to conform to the standard regulations has been worked out by the Dairy Division and adopted by a number of the State dairy and food commissions. The division furnishes blank forms for these reports to the inspectors in the States where the system has been adopted. These forms are made out in quadruplicate, one copy being given to the creamery, one sent to the State dairy and food commissioner, one to the Dairy Division, and one retained by the inspector. Reports show that the system is working very satisfactorily and that it results in much improvement in conditions.

#### DAIRY BUILDINGS.

The work of planning building of various kinds for dairy purposes has been continued throughout the year. The Dairy Division has many demands for information of this kind, and a constant study is being made of the various forms of buildings for housing cattle, for cheese factories, creameries, and market-milk plants. This field is not covered by commercial architects for the reason that as a rule such work does not pay a sufficient revenue. The main object is to produce plans for buildings that are best adapted for the object in view at a minimum cost, and that will contain all the features of sanitation that should be included in buildings of this character. During the year 56 plans have been drawn and 504 blueprints made and sent out in answer to requests. In sending these plans to dairymen it isexpected that each person will make a report to the Dairy Division of the cost of erection. It is desirable to secure as many accurate statements of cost as possible, in order that approximately correct information may be given to prospective builders. A limited number of these buildings are erected under the supervision of the division. This is done where it is thought desirable to have careful records kept and in locations where there are no previous examples to guide the This has been particularly true of the southern dairy work, builder. as outlined elsewhere in this report.

#### CHEESE STATISTICS.

The Dairy Division for a year and a half has collected monthly statistics of stocks of cheese on hand. Each month there is mailed to the proprietors of all the storage warehouses and to cheese dealers who store cheese a special form, upon which they are requested to make a report of the stocks on hand on the first day of the month. From these reports a statement is compiled and issued from the office of the Dairy Division about the 5th or 6th of each month. This work seems to meet a demand among the manufacturers and dealers in cheese. A circular letter was issued the 1st of January, 1907, asking those who had contributed to these reports and those who had received them monthly whether in their judgment the work was of enough value to be continued another year. Almost without exception the replies indicated that the work should be continued, many stating that it was very valuable to them in their business.

# RENOVATED BUTTER INSPECTION.

The inspection of renovated butter and of the factories producing the same, under the act of Congress of May 9, 1902, has been continued, under the general supervision of Maj. M. W. Lang, with offices in Chicago and New York City.

For the year ending June 30, 1907, there were 49 renovated-butter factories bonded and which paid the Government tax. A few of them were in operation only a part of the year. During the year a combination of 8 factories was consummated, 3 of which have since been permanently closed. One new factory was built and 4 were rebuilt with increased capacity. These 49 factories produced during the fiscal year 62,919,998 pounds of renovated butter, an increase of 9,124,337 pounds over the previous fiscal year. Renovated butter

was inspected for export as follows: At Chicago, 3,332,456 pounds; at New York, 1,837,924 pounds, and at Boston, 368,090 pounds, a total of 5,538,470 pounds.

The general condition of the factories during the year was fair from a sanitary standpoint, and the quality of the product was really superior to what it has been in past years. This is probably due to the fact that the packing stock used has been fresher.

Near the close of the fiscal year a committee was appointed by the Secretary of the Treasury and the Secretary of Agriculture to revise the regulations for the inspection of renovated butter. The report of this committee has been submitted to the Secretaries of the two Departments and the new regulations adopted to take effect August 15, 1907. The only essential change made in the regulations was the granting of the privilege to the manufacturers of using the word "process" in place of "renovated," as allowed by law, if the manufacturer preferred the former term.

#### PUBLICATIONS.

The Bureau's publications are an important feature of its work. Several of those issued or prepared during the fiscal year have already been mentioned. In addition, the Twenty-second Annual Report of the Bureau (for 1905) has been issued, and the Twenty-third Annual Report (for 1906) has been prepared for publication. These annual reports are volumes of several hundred pages, containing special articles and miscellaneous information relating to the livestock industry and the work of the Bureau. Congress at its last session ordered a new edition of the Special Report on Diseases of the Horse. A chapter on 'Osteoporosis, or bighead,'' was added, and some slight revision made, and soon after the close of the fiscal year the new edition appeared. This book has proved to be one of the most popular publications ever issued by the Government, the total editions approximating 900,000 copies.

The new publications of the Bureau during the twelve months ending June 30, 1907, were 78 in number, consisting of the Twentysecond Annual Report of the Bureau, the annual report of the Chief, 21 bulletins, 16 circulars, 2 Farmers' Bulletins, 30 orders and regulations, 3 Yearbook articles, and 4 miscellaneous publications, aggregating 2,110 printed pages. In addition there were numerous reprints of earlier publications.

#### EXPENDITURES.

The following statements show the expenditures made from the appropriations for the work of the Bureau, and also give the names of persons employed, except those paid from the appropriation for meat inspection. As a detailed statement of expenditures from the latter appropriation has already been transmitted to Congress (H. Doc. 33, 60th Cong., 1st sess.), only a summary of the same is given here.

# Summary of disbursements from the different appropriations for the Bureau of Animal Industry during the fiscal year ended June 30, 1907.

[Includes vouchers approved for payment prior to March 1, 1908.]

APPROPRIATION FOR GENERAL EXPENSES.

Object.	Salaries.	Travel.	Miscella- neous.	Total.
General administrative work	\$17,142.67	\$635.23	\$21, 114.98	\$38,892.88
Eradication of scabies in sheep Eradication of scabies in cattle	$152,783.58\\63,324.07$	$86,353.31\ 26,099.22$	5,442.99 1,558.18	244,579.88 90,981.47
Supervision of transportation of live stock and inspection of vessels	33,601.82	499.07	113.60	34,214.49
Administration of field inspection.	$64,504.65 \\ 4,396.34 \\ 23,267.67$	$23,198.14 \\ 3,889.29$	$\begin{array}{r}15,210.38\\382.79\\3,231.98\end{array}$	$102,913.17 \\ 4,779.13 \\ 30,388.94$
Inspection work relative to the existence of conta- gious diseases, and tuberculin and mallein test-	20,201.01	3,003.25	0,201.00	30, 300, 94
ing of animals. Investigations and experiments in dairy indus-	4, 516.67	3,622.79	450.06	8,589.52
try Inspection of renovated butter factories and	36,268.35	8,685.83	10,980.53	55,934.71
markets. Investigations and experiments in animal hus-	8,420.17	6,005.13	958.82	15,384.12
bandry Scientific investigations in diseases of animals	$8,301.16 \\ 67,483.55$	$1,381.41 \\ 1,775.52$	$1,865.51 \\ 38,793.01$	$\frac{11,548.08}{108,052.08}$
Total	484,010.70	162, 144.94	100, 102.83	746,258.47

APPROPRIATION FOR ANIMAL BREEDING AND FEEDING.

Cooperative experiments in animal breeding and feeding		\$3,095.85	\$10, 574.41	\$24, 424.75
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#### APPROPRIATION FOR SOUTHERN DAIRY WORK.

Cooperative investigations of the dairy industry in the Southern States	\$9,651.23	\$8,182.53	\$669.72	\$18,503.48
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APPROPRIATION FOR DISEASES OF DOMESTIC ANIMALS, MINNESOTA.

Cooperative experiments and investigations in diseases of domestic animals in Minnesota	\$1,275.00	\$93.14	\$323.62	\$1,691.76
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APPROPRIATION FOR ERADICATING CATTLE TICKS, 1907.

Eradication of southern cattle ticks	\$47,674.48	\$27,029.79	\$6,508.78	\$81,213.05
		}		

APPROPRIATION FOR ERADICATING CATTLE TICKS, 1907-8.

Eradication of southern cattle ticks	\$16,746.93	\$1,998.50	\$18,745.43
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#### APPROPRIATION FOR MEAT INSPECTION..

Administration of meat inspection. Meat inspection. Export cattle	1,763,812.97	36, 494.39	256,987.89	\$79, 797.03 2, 057, 295.25 27, 084.54
Total	1,848,271.54	38,604.05	277, 301.23	2, 164, 176.82

# APPROPRIATION FOR SALARIES. . Statutory roll. \$76, 642.76 \$76, 642.76

# Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907.

[Includes vouchers approved for payment prior to March 1, 1908.]

# GENERAL ADMINISTRATIVE WORK, WASHINGTON, D. C.

#### SALARIES.

Payee.	Salary.	Travel.	Payce.	Salary.	Travel.
Bailey, A. T. Boyle, C. W. Carter, A. Castleman, S. D. Chapman, L. E. Cookman, C. L. Cratty, J. A. De Atley, A. V. Delaney, J. Douglas, L. Epps, R. Farrington, A. M. Fenton, L. Fleming, E. Franklin, J. R. Gardner, E. F. Herbert, G. F. Joncs, T. H. Kesler, W. T.	$\begin{array}{c} \$40.\ 00\\ 227.\ 50\\ 595.\ 00\\ 420.\ 00\\ 780.\ 50\\ 100.\ 00\\ 480.\ 00\\ 470.\ 00\\ 20.\ 01\\ 471.\ 67\\ 3,\ 000.\ 00\\ 177.\ 00\\ 49.\ 33\\ 40.\ 00\\ 650.\ 67\\ 78.\ 00\\ 594.\ 84\end{array}$	\$16.25	McCabe, G. P. McCallion, C. McCormick, J. E. McFarland, H. B. Mann, E. L. Moore, L. W. Neilson, C. W. C. Parks, G., H. Pitney, A. L. Ritzman, E. G. Sands, J. K. Schroeder, E. C. Sehorn, V. H. Simms, I. Smith, A. J. Troupe, J. Waller, H. N. Waters, J. H. Willis, C. P.	\$334.00 20.00 420.00 320.00 178.00 31.50 900.00 1,545.00 1,103.33 392.00 775.00 21.33 59.50 81.66 35.00 292.00	\$114.08 
Lambert, M. A. Langille, L. A. Linton, II. B.	$\begin{array}{r} 420.00\\ 420.00\\ 637.50\end{array}$		Winfield, F. E. Wood, E. J. Wood, H. S.	707.33	

#### TRANSPORTATION.

Payce.	Amount.	Payee.	Amount.
Atlantic Coast Line R. R. Co., W. H. Smith, jr. Atlantic Transport Line, H. N. Waller. Chicago, Milwaukee and St. Paul Rwy. Co.: G. P. McCabe. Do	$\begin{array}{c} 85.\ 00\\ 6.\ 00\\ 75.\ 00\\ 2.\ 64\\ 8.\ 62\\ 5.\ 00\\ 7.\ 40\end{array}$	Pennsylvania R. R. Co.: G. P. McCabe. Do. E. C. Schroeder. G. P. McCabe. E. C. Schroeder. C. W. Boyle. The Pullman Co.: G. P. McCabe. Do. Do. Do. Do. Do. Do. Do. Do.	$ \begin{array}{c} 17.50\\ 12.05\\ 10.00\\ 12.05\\ 5.65\\ 3.50\\ 4.00\\ \end{array} $

#### MISCELLANEOUS EXPENSES.

Payee.	Artiele.	Amount.
P. M. O'Bryan Capital Traction Co Do.	Street ear ticketsdo.	10.00
D. F. Parker. J. Lansburgh Furniture and Carpet Co L. Warner. Do.	Duplicator Desk. Fire extinguisher	7.50 30.50 12.00
C. W. Thompson United States Envelope Co. Woodward & Lothrop.	Removal of ashes Envelopes Chairs	$3.34 \\ 3.14 \\ 33.35$
D. F. Parker W. B. Moses & Sons. R. C. Ballantyne Underwood Typewriter Co.	Window shades Copying press	$\begin{array}{c} 2.30\\ 6.40\end{array}$
United States Envelope Co. Capital Traction Co. C. W. Thompson. W. L. Swayze.	Envelopcs. Street car tickets. Removal of ashes	1.54

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# GENERAL ADMINISTRATIVE WORK, WASHINGTON, D. C.-Continued.

MISCELLANEOUS EXPENSES—Continued.

Payee.	Article.	Amour
reat Bear Spring Co	Water	\$4.
arber & Ross	Shears	1.
E. Waterman	Pen	1.
emington Typewriter Co	Typewriters and covers	158.
Do. Do.	Typewriter and coverdo	79. 79.
A. Schmidt	Metric scales.	1.
brary Bureau	Cards	8.
Do	Oak case and cards	17.
pital Traction Co	Street car tickets	10.
arris & Shafer Co	Repairs to clock	1.
rentano's	Brass inkstand Copying press	$10. \\ 16.$
nited States Envelope Co.	Envelopes.	$\frac{10.}{3.}$
awman & Erbe Manufacturing Co	Cards, cabinet, etc.	8.
ational Electric Supply Co	Wire.	5.
brary Bureau	Cards.	4.
Do B. Moses & Sons.	Guides Linoleum	9.
Du Perow	Plates and annunciator.	106. 4.
Do.	Electric supplies	12.
Goldenberg	Shades.	1.
ockett-Fiske Co	Shades. Bindery supplies	11.
brary Bureau	Cards	2.
H. Hoeke.	Wardrobe Desks.	18.49.
Do	Wardrobe	49. 29.
Hartig.	Jack chain	
brary Bureau	Cards	8.
. L. Śwayze	Copying books	67.
Do.	Fountain pen.	4.
Lansburgh Furniture and Carpet Co	Desks and chair Envelopes	35. 3.
Do	do	э. 3.
uthern Printers Supply Co	Type	39.
Do	do	72.
B. Moses & Sons.	Window shades	3.
mington Typewriter Co	Typewriter stand	4.
Do Do	Typewriter and cover Typewriter stand	79. 4.
Do	Repairs to typewriter	2.
Do.	Typewriter and cover	79.
. L. Swayze	Typewriter table	3.
Do.	Stationery rack	1.
Goldsmith Co Somerville Co	Clock. Repairs to lavatories	4. 18.
. H. Hoeke	Typewriter desks.	101.
tional Electrical Supply Co	Portables, taps and reflectors	101.
pital Traction Co.	Street-car tickets	10.
wman & Erbe Manufacturing Co	Cabinet, cards, and guides	13.
Do.	Card-index cabinet	7.
P. Andrews Paper Co	Punch Gauges	1. 1.
. H. Hoeke	Flat top desk.	24.
R. Edmonston.	Cooler and stand	9.
iy, Curran & Co	Safety pins	
wman & Erbe Manufacturing Co.	Guides Typewriter and tabulator	15. 100.
emington Typewriter Co Do	Typewriter and tabulator	79.
Leonard Electric Co.	Rheostat	1.
Du Perow	Cord	8.
ockett-Fiske Co	Journal paper	3.
pital Traction Co	Street-car tickets	10.
brary Bureau Do	Cardsdo	3. 8.
Do	Filing-case section.	25.
Kann, Sons & Co	Cheese cloth	5.
. B. Moses & Sons.	Rubber mats	6.
brary Bureau	Filing-case section.	50.
Do B. Mosea & Song	Guides.	4. 36.
. B. Moses & Sons. . F. Roberts Co.	Chairs Ink	30.
cockett-Fiske Co.	Journal paper	3.
emington Typewriter Co	Felt pad	1.
De	Repairs to typewriter	3.
Do. Do.	Typewriters	156.

S. Doc. 405, 60-1--5

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907-Continued.

# GENERAL ADMINISTRATIVE WORK, WASHINGTON, D. C .-- Continued.

MISCELLANEOUS EXPENSES—Continued.

Payee.	Article.	Amount.
G. F. Muth & Co	Chamois skins	\$6.00
Woodward & Lothrop	Chairs	13.34
Do	Chair	6.67
Do	Mirror Chairs	$2.00 \\ 9.91$
Do Do	do	20.01
Do.	Umbrella stands	8.00
J. Lansburgh Furniture and Carpet Co	Desks.	61.00
Woodward & Lothrop	Cuspidors	$ \begin{array}{c c} 10.09\\ 12.12 \end{array} $
Do Capital Traction Co	Table Street-car tickets	12.12 10.00
Haverford Cycle Co.		55.00
E. Voigt	Clock	7.50
Guy, Curran & Co	Safety pins	$     1.20 \\     14.00 $
J. S. Topham J. B. Lambie Co	Mail bags Emery wheel cutters	14.00
W. H. Hoeke.	Desk.	39.75
Do	Furniture	43.75
Do	Wardrobe	29.50
Capital Paper Box Co	Filing boxes Bicycle chain	15.00 2.50
E. P. Hazleton Woodward & Lothrop	Chairs.	13.34
W. B. Moses & Sons	Stationery rack.	1.20
Library Bureau	Ends for filing case	10.00
Do	Cards	29.50 52.00
Do Do	do. Filing-case sections	52.00 100.00
E. P. Hazleton	Bicycle brake and repairs to tire	5. 25
Library Bureau	Filing-case sections.	75.00
Do	Attaching slides to filing case	4.00
J. B. Lambie Co.	Tool steel.	
Hygienic Soap Granulator Co National Phonograph Co	Granulators Phonographs and shaving machine	8.00 225.80
G. E. Barber.	Plastering in laboratory.	
J. B. Lambie Co	Brass.	2.54
Barber & Ross	Wire, punch, and vise	6.75
Southern Printers Supply Co Do	Type and galleys	543.04 730.88
L. Hartig	Iron jack chain	
Rockford Pen Knife Co	Knife	1.00
J. C. Rau	Electric supplies.	13.20
American Office Specialty Co United States Post Office Department	Pencil sharpeners. Maps.	
M. Du Perow.		
National Electrical Supply Co	Desk fans	26.50
Brown & Sharp Co	Slot cutters	
Rudolph & West Co Yawman & Erbe Manufacturing Co	Brass tubing Folders	12.60 7.20
Barber & Ross.	Glue pot.	. 45
Do	Drill and screws	2.20
	Pulleys, shaft, saw blade, and hangers.	
Lamb & Tilden Yawman & Erbe Manufacturing Co	Rubber type and holder	5.75 555.00
Geo. E. Howard.	Filing cabinets Envelopes	
Brentano's.	Fountain pen	5.00
C. W. Thompson	Removal of ashes	1.92
J. S. Cotton L. Davenport	Laundry	
Potomac Electric Power Co.	Lectric current	$\begin{array}{c} 3.00\\ 82.00\end{array}$
J. H. Johnson & Son	Rent	150.00
Littlefield, Alvord & Co.	Express	. 72
Home Ice Co. Snow Forwarding Co.	Ice.	39.58
Adams Express Co	Drayage Express	$\begin{array}{r} .25\\ 17.06\end{array}$
United States Express Co	do	26.27
G. G. Brown	Rent.	50.00
J. J. O'Heron.	Drayage	. 75
Littlefield, Alvord & Co J. H. Johnson & Son	Rent.	150.00
J. S. Cotton	Laundry	4. 54
Potomac Electric Power Co	Electric current	92.26
Washington Gas Light Co	Illumination	36.50
Home Ice Co. L. Davenport.	Ice	42.52
G. G. Brown	Rent	$\begin{array}{c}1.80\\50.00\end{array}$
J. H. Johnson & Son	do	150.00
Potomac Electric Power Co	Electric current	28.05

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

GENERAL ADMINISTRATIVE WORK, WASHINGTON, D. C .-- Continued.

MISCELLANEOUS EXPENSES—Continued.

Payee.	Article.	Amount.
Home Ice Co	Ice	\$35.72
Washington Gas Light Co	Illumination	32.50
L. Davenport. Washington Gas Light Co	Laundry. Illumination	2.40 38.00
G. G. Brown	Rent.	50.00
I. S. Cotton	Laundry	3.86
United States Express Co Adams Express Co	Express	44.18
Do	do	32.39 17.47
United States Express Co	do	17.4 13.00
Metropolitan Steamship Co Chicago and Alton Rwy. Co	Freight	. 29
Chicago and Alton Rwy. Co.	do.	. 60
Potomac Electric Power Co	Illumination	$148.9' \\40.40$
Washington Gas Light Co Littlefield, Alvord & Co	Dravage	2.2
Chicago and Northwestern Rwy	Freight	. 30
C., C., C. and St. L. R. R. Co. Chicago and Great Western Rwy	do	. 70
Illinois Central R. R.		. 53
Home Ice Co.	Ice	29.8
C. W. Thompson J. S. Cotton.	Removing ashes	7.3
J. S. Cotton.	Laundry	5.5
G. G. Brown J. H. Johnson & Son	Rent	50.00
Do	dodo	150.00
G. G. Brown	do	50.00
G. G. Brown Baltimore and Ohio R. R. Do.	Freight	4.30
Do	do	3.70
Pennsylvania R. R. Co Do	do	. 4
C. W. Thompson	Removing ashes	4.6
Home Ice Co	Ice	24.6
Great Bear Spring Co	Water	2.00
Do J. S. Cotton	Laundry	4.00 7.92
Littlefield, Alvord & Co	Drayage	
Star Union Line	Freight	$1.1^{4}$
Potomac Electric Power Co		
Pennsylvania R. R. Co Do	do	. 5
Do	dodo.	
Do		
Do Do		$.3'_{1.8}$
Washington Gas Light Co	Illumination	40.60
J. H. Johnson & Son	Rent.	150.00
J. S. Cotton	Laundry	9.8
Home Ice Co	Ice Rent	
Great Bear Spring Co		2.00
L. Davenport	Laundry	5.8
Littlefield, Alvord & Co	Drayage	3.80
Do Washington Gas Light Co	Illumination	$\frac{.2}{37.60}$
Littleficld, Alvord & Co	Drayage	
Potomac Electric Power Co	Electric current	101.07
Pennsylvania R. R. Co.	Freight.	1.3
Collector of Taxes, District of Columbia J. H. Johnson & Son	Paving alley Rent	4.84 150.00
Home Ice Co.	Ice	22.90
J. S. Cotton	Laundry	10.6
C. W. Thompson	Removal of ashes	4.67
Do Washington Gas Light Co	Illumination	
Potomac Electric Power Co	Electric current	104.0
Pennsylvania R. R. Co	Freight	.7
Do, Littlefield, Alvord & Co.	Dravage	$1.04 \\ 1.00$
E. M. Willis	Rent	62.5
Western Union Telegraph Co	Telegrams	52.29
Pennsylvania R. R. Co.	Freight	. 9'
Do. I H. Johnson & Son	do	1.2 $150.00$
J. H. Johnson & Son United States Express Co		
Do		8.4
	do	31. 29

OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY.

# Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

# GENERAL ADMINISTRATIVE WORK, WASHINGTON, D. C.-Continued.

MISCELLANEOUS EXPENSES—Continued.

Payee.	Article.	Amou
dams Express Co	Express	\$37.
Do	do	24.
Do ome Ice Co	do	36 19.
Vashington Gas Light Co	Illumination.	46
S. Cotton	. Laundry	1.
ittlefield, Alvord & Co		c
. W. Thompson		
hesapeake and Potomac Telephone Co	. Telephone service	96.
otomac Electric Power Co	Electric current	94.
. M. Willis. . W. Knox & Co	Rent. Express	
ttlefield, Alvord & Co	. Drayage	! .
lesapeake and Potomac Telephone Co	.   Telephone service	99
estern Union Telegraph Co. Do.	. Telegramsdo	
H. Johnson & Son		
M. Willis	do	62.
ashington Gas Light Co	. Illumination	43.
W. Thompson aggie Wesley	. Removing ashes. Laundry.	
ome Ice Co	Ice	
estern Union Telegraph Co	. Telegrams	4
Do	do	$\begin{vmatrix} 2\\ 7c \end{vmatrix}$
lams Express Co nited States Express Co	. Express	76 76 76
Do		
S. Cotton		5
stal Telegraph Co	. Telegrams	22
nited States Express Co	. Express. . Electric current	$\begin{vmatrix} 1\\95 \end{vmatrix}$
ttlefield. Alvord & Co	Dravage	
Contingent expenses," Department of Agricul-	Paper, mat, envelopes	
ture (by transfer). lams Express Co	Express	33
ostal Telegraph-Cable Co		
esapeake and Potomac Telephone Co	. Telephone service	106
estern Union Telegraph Co.		
Do. H. Johnson & Son		$     \begin{array}{c}       22 \\       150     \end{array} $
nnie Ransom	Laundry	
ashington Gas Light Co	. Illumination	41
ome Ice Co nited States Express Co	- Ice.	25 5
otomac Electric Power Co	<ul> <li>Express.</li> <li>Electric current.</li> </ul>	106
M. Willis	. Rent	62
ttlefield, Alvord & Co	. Drayage	
S. Cotton estern Union Telegraph Co	Laundry	7     20
. B. Moses & Sons	Drayage.	
W. Thompson.	. Removal of ashes.	6
nnie Ransom	Laundry	20
lams Express Co nited States Express Co	Expressdo	35 26
ome Ice Co	. Icc	27
S. Cotton	Laundry	7
M. Willis W. Thompson	Rent. Removal of ashes	
W. Thompson otomac Electric Power Co	Electric current.	5 99
ashington Gas Light Co	. Illumination	38
ttlefield, Alvord & Co	Drayage	6
nnsylvania R. R. Co Do	do	
Do		
Do	do	
ostal Telegraph Cable Co.	- Telegrams	25
lams Express Co nited States Express Co	do	51 32
H. Johnson & Son	Rent.	150
annie Ransom	. Laundry	7.
ablic Printer	Printing Bulletin No. 96.	1,092
ublic Printer		100.
S. Cotton	. Laundry	6.
ome Ice Co	1 <b>T</b>	29.

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

# GENERAL ADMINISTRATIVE WORK, WASHINGTON, D. C.-Continued.

MISCELLANEOUS EXPENSES—Continued.

Payee.	Article.	Amount
Washington Gas Light Co	Illumination	\$35. (
C. W. Thompson.	Removal of ashes.	3.6
C. W. Thompson Western Union Telegraph Co	Telegrams	25.7
Littleneld, Alvord & Co	Drayage	2.2
Pennsylvania R. R. Co Do	Freight	1.8 18.7
Public Printer	Printing filing instructions	13.7 126.1
Adams Express Co	Express	104.2
United States Express Co	do	19. 4
Adams Express Co I. P. Roosa	Freight	4. (
I. H. Johnson & Son.	Rent	150.0
Chesapeake and Potomac Telephone Co.	Telephone service	. 1
Dô	đo	.1
Do		
Do Index Bureau	Logislativo cards	28.5
Do.	do	4. 6
Do	do	2.2
Chesapeake and Potomac Telephone Co	Telephone service	
Do		
Western Union Telegraph Co Public Printer	Telegrams Printing filing instructions	41.9
Jnited States Express Co.	Express.	1.8
besapeake and Potomac Telephone Co	Telephone service	7.9
Pennsylvania R. R. Co	Freight	1.(
Do Dhas. Shore	do Bicycle supplies and repairs	6. 4
Western Union Telegraph Co	Telegrams.	
dams Express Co	Express	
Vestern Union Telegraph Co	Telegrams	• 4
Do	do	
S. Lincoln Tawman & Erbe Manufacturing Co.	Bookcases Guides	42.0
Remington Typewriter Co	Repairs to typewriter.	10. 2
Do	do	9. 1
V. L. Swayze.	Numbering machine	3. 2
Do Lansburgh Furniture and Carpet Co	Typewriter stand Typewriter desk	3. 2 34. 3
W. H. Hoeke	Library table	34. 4.
Woodward & Lothrop.	Wardrobe and table	28.
N. B. Moses & Sons	Stationery file	1.
Woodward & Lothrop	Fountain pen and chair	10.
W. H. Dyer Do	Molding	4. (
R. P. Clarke Co	Billiard cloth	- 18. 7
V. D. Allen Manufacturing Co	Leather belt	6. (
Barber & Ross	Locks	10. (
Do	Wire cloth and clamps	11.0
V. H. Dyer. Church & Stephenson	Lumberdo	3.
Do		18.0
'ypewriter and Office Supply Co	Typewriter clamps	3. (
. B. Lambie Co.	Nails.	4.
Rudolph & West Co 2. W. Van Fleet	Saws and sash cord	7. 10.
Parkes File Co.	File tapers.	
	Iron.	2. 1
A. L. Johnson	Carpenter tools	6.
. B. Lambie Co.	Nails, brads, and sand paper	8. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.
Barber & Ross. Do	Nails, iron, and brads Cupboard catches and brads	9.0
Do	Locks, nails, and springs	15.
Do	Hinges. Fire extinguishers, complete	
. Warner	Fire extinguishers, complete	60.
. E. Hurley. Barber & Ross.	Ironwork Carpenters' supplies	10. 21.
Do	do	$\frac{21.}{7.0}$
A. L. Johnson	Oil stoves and rivets	6.
J. B. Lambie Co	Leather belt and coupling	2.
Bedell Manufacturing Co	Chair cane and beading	5.
Barber & Ross Bausch & Lomb Opțical Co	Bolts and chisels  Asbestos board	2.1 7.1
Church & Stephenson.	Lumber.	
Do	Screws and zinc	
		7.0

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

# GENERAL ADMINISTRATIVE WORK, WASHINGTON, D. C.-Continued.

MISCELLANEOUS EXPENSES—Continued.

Payee.	Article.	Amount
Rudolph & West Co	Screws and zinc.	\$7.1
Barber & Ross	Glass cut and hooks	
J. B. Espey	Hoop iron	- 6
Bedell Manufacturing Co	Chair seats	9.0
G. F. Muth & Co	Brushes.	4.7
Oliver Machinery Co.	Saw table Handcart	
C. M. Woolf & Co D. F. Parker	Pencil sharpeners and paper weight	15.7
N. H. Shea	Soapine	1
J. C. Ergood & Co	Soap	21.7
R. C. Ballantyne	Sponge cups	1.4
Chas. Shore	Tire and repairs to bicycle	
W. L. Swayze	Sponge cups, inkstands, erasers	27.5
Do Do	Wire basketsdo	1.5
Do.	Rubber rulers and desk pads.	
Do	Clips.	4.9
Do	Waste baskets	
Do	Rubber erasers	
Do. F. Morrison Bonor Co	Paper.	
E. Morrison Paper Co D. F. Parker	Paste Copy holders and fasteners	.8
Jnion Envelope Co.	Envelopes	72.0
D. F. Parker	Letter files.	6.0
R. P. Andrews Paper Co.	Rulers	12.6
$D_0$	Paper fasteners and scrapbook	6.1
D. F. Parker	Penracks.	4.0
Do C. R. Edmonston	Typewriter ribbons.	$18.0 \\ 3.0$
Pypewriter and Office Supply Co.	Drinking glasses Erasers	3. 0
Lansburgh & Bro	Toilet brushes and combs.	
P. Lindemeyr.	Ink	3.6
R. C. Ballantyne	Letter openers	1.5
United States Envelope Co	Envelopes.	143.2
Lansburgh & Bro	Whisk brooms	3.8
Eagle Pencil Co H. F. Seamark	Pencils Bicycle	11.0 $39.0$
R. P. Andrews Paper Co.	Library paste	16.0
P. Lindemeyr.	do	13.0
W. L. Swayze	Typewriter brushes	1.2
Do	Pins	6.8
Do	Copying cloths.	7.6
Do Do	Typewriter paper Erasers	77.0 $1.2$
Do	Pencils	40.0
Do	Ink	9.2
Do	Wire baskets	1.5
Do	Files	24.0
Do. Do.	Pins.	2.7
D. F. Parker	Typewriter paper. Envelope openers.	40.0 2.5
Do	Typewriter ribbons	103.5
Do	Perforators	1.2
R. C. Ballantyne	Pens.	26.1
American Lead Pencil Co	Pencils.	29.8
amb & Tilden	Ink pads	11.2
Barber & Ross. Lagle Pencil Co	Postal scales. Penholders.	$\begin{array}{c} 31.0\\11.7\end{array}$
. Elliott & Co.	Towels.	35.2
ansburgh & Bro	Toilet brushes and combs.	10. 4
Remington Typewriter Co	Typewriter paper	187.0
R. C. Ballantyne	Pens	54.0
R. P. Andrews Paper Co.	Copying books	72.0
I. C. Davison & Co. Jnited States Envelope Co.	Envalopes	73.1
Typewriter and Office Supply Co.	Envelopes. Erasers.	7.5 4.5
N. L. Swayze.	Scratch books	4. 5
Do	Ink pads	10. 8
Do	Desk pads	2.8
Do	Wrapping paper	28.0
Do	Waste baskets	7.0
N. H. Shea R. C. Ballantyne	Soapine.	4.8
L. Warner	Erasers. Fire extinguishers	2.6 24.0
R. P. Andrews Paper Co	Paste.	24.0 4.5
Do	Memorandum books and tags	6.1
Do	Paper fasteners	15.0
	Time books	1.8

# GENERAL ADMINISTRATIVE WORK, WASHINGTON, D. C.-Continued.

MISCELLANEOUS EXPENSES—Continued.

. Payee.	Article.	Amount.
Lamb & Tilden	Pads and ink	\$23.63
C. R. Edmonston	Tumblers.	2.00
United States Envelope Co	Envelopes	7.70
Rudolph & West Co.	Shears	12.38
Do	Hammers.	15.28
W. L. Swayze.	Waste baskets Ink eradicator	$4.20 \\ 2.50$
- Do	Copying cloths	15.20
Do	Ink stands.	1.95
Do	Clips	9.80
Do	Copying cloths	38.00
Do	Clips.	4.20
Do.	Oil boards	6.00
Do Do	Journal paper. Rubber bands	.40 $81.96$
Do.	Typewriter paper	107.00
Do	Thumb tacks	1.04
Do	Stamp pads.	32.82
Do	Letter files	24.00
Do.	Pens.	11.80
Do	Blank books.	33.00 4.80
Do. Do.	Erasers Inkstands	4.80
Do	Pins.	38.50
Do	Desk pads.	4.23
Do	Baskets	1.57
D. F. Parker.	Copy holders	9.00
United States Envelope Co.	Envelopes	44.39
T. S. Buck Manufacturing Co	Cushion mounts	$46.50 \\ 5.88$
Eagle Pencil Co. Lansburgh & Bro	Penholders Toilet brushes and combs	10.45
P. Lindemeyr	Toilet paper.	9.60
E. Morrison Paper Co.	Invoice books	1.80
Do	Time books	4.50
D. F. Parker	Carbon paper.	5.50
R. P. Andrews Paper Co.	Copying books	108.00
G. T. Fritch & Son.	Brooms.	11.25 70.50
J. Elliott & Co. Dulin & Martin.	Towels. Mirror	1. 35
R. P. Andrews Paper Co.	Memorandum books.	9.50
W. L. Swayze	Blotters	5.20
Do	Rubber bands	99.90
Do	Invoice books	8.20
Do.	Letter paper.	57.75
E. Morrison Paper Co. Typewriter and Office Supplies Co.	Ledger and paper. Repairs to typewriter	$\begin{array}{c} 2.75\\ 13.55\end{array}$
R. P. Andrews Paper Co.	Scrap books	7.27
Chas. Shore.	Tire	4.00
Do	Repairs to bicycle	5.00
Rudolph & West Co	Shears	18.57
Remington Typewriter Co	Paper.	35.25
J. C. Ergood & Co	Soāp.	7.84
W. L. Swayze	Erasers. Record books	$13.20 \\ 23.64$
Do. Do.	Typewriter paper	23. 04 77. 00
Do.	Waste baskets.	1.57
Do	do	3.90
Do	Blotters	7.80
Do	Note books	11.20
Do	Scratch books	3.25 3.70
Do Do	do do	4.80
Do	Pencils	40.00
Do	Record books	5.91
Do	Scratch books	1.95
Do	Desk pads	2.82
J. B. Lambie Co.	Mops.	1.85
G. F. Muth & Co.	Typewriter oil	$\begin{array}{c}1.20\\1.92\end{array}$
Do United States Envelope Co	Flat brushes Envelopes	1.92 35.00
United States Envelope Co Union Envelope Co	Linvelopesdo	13.85
G. F. Muth & Co.	Brushes	.96
Do	Chamois skins	3.40
W. L. Swayze.	Memorandum tablets	14.40
Do.	do	14.40
	These second	
Do. Barber & Ross.	Erasers Pails	9.90 5.50

# GENERAL ADMINISTRATIVE WORK, WASHINGTON, D. C.-Continued.

MISCELLANEOUS EXPENSES—Continued.

Payee.	Article.	Amount.
Castelberg's National Jewelry Co	Eyeglass cords	\$2.40
American Lead Pencil Co	Pencils	14.70
P. H. Heiskell Co.	Hair sweeps	12.00
G. T. Fritch & Son	Brooms	11.25
Rudolph & West Co	Mop handles	2.25
E. Morrison Paper Co	Clips	
Bedell Manufacturing Co	Chair cushions	10.00
Lamb & Tilden	Ink.	8.25
Stockett-Fiske Co	Binders and file	5.98
Underwood Typewriter Co	Ribbons.	1.60
Woodward & Lothrop	Sapolio.	2.25
Do	Cuspidors	8.79
Do	Table	$4.69 \\ 7.50$
Do Do	Sapolio Matches	
D. F. Parker.	Penracks and oilers	12.20
	Carbon paper	66.00
D0	Carbon paper and erasers.	21.00
Union Envelope Co.	Envelopes.	82.50
Woodward & Lothrop.	Baskets.	5.90
Do	Chairs	3.24
R. C. Ballantyne.	Pens.	16.40
District of Columbia Paper Manufactur-	Blotting paper	
ing Co.		100.00
E. Morrison Paper Co.	Tags	3.75
W. L. Swayze	Typewriter paper.	80.00
Do.	Pens	11.80
Do	Typewriter paper and ink eradicator	159.00
Do	Thumb tacks.	2.43
R. P. Andrews Paper Co.	Wall files	. 80
Bedell Manufacturing Co	Chair cushions	15.00
J. Elliott & Co	Toweling	17.98
N. H. Shea	Soapine	20.00
Lansburgh & Bro	Whisk brooms	5.70
J. C. Rau	Telephone brackets	9.30
H. F. Seamark	Bicycle	42.00
W. H. Hoeke.	Desk	15.50
R. C. Ballantyne.	Sponge cups	4.50
Bedell Manufacturing Co	Chair cushion	2.50
Woodward & Lothrop. D. F. Parker.	Brushes and sapolio.	8.14
D. F. Parker.	Clips, files, and desk baskets	19.30 $1.00$
Monarch Typewriter Co Lamb & Tilden	Rubber cover. Rubber cement	6.00
D. F. Parker.	Stationery, ink, and penracks	13.65
Do	Clips.	30.00
Do.	Letter files.	12.00
Remington Typewriter Co	Typewriters.	468.00
M. Wiegand	Shipping tags	17.00
M. Wiegand Yawman & Erbe Manufacturing Co	Guides.	. 54
G. F. Muth & Co.	Lye	1.60
W. L. Swayze.	Wrapping paper	28.00
Do	Pencils	4.38
W. B. Moses & Sons.	Chair	4.75
Bedell Manufacturing Co	Repairing chairs	12.50
Lamb & Tilden.	Band daters	6.60
Barber & Ross	Tacks.	18.00
Southern Printers' Supply Co.	Type.	17.38
R. C. Ballantyne	Pens.	16. 40
Bedell Manufacturing Co	Repairing chair.	. 60
H. C. Davison & Co	Copying books	43.86
D. F. Parker.	Carbon paper.	19.60
F. A. Schmidt	Ink.	1.96
H. F. Seamark.	Pump.	1.25
J. F. Siebert Z. D. Gilman	Fountain pen	2.50 48.23
Remington Typewriter Co	Thermometers Typewriter paper	48. 23 47. 00
Do	do	187.00
Z. D. Gilman	Thermometers.	48.86
J. S. Topham.	Leather case.	10.35
Woodward & Lothrop	Matches	5.22
W. L. Swayze.	Clips and desk baskets	14.97
Do.	Wire baskets and stamp pads.	24.84
Do.	Sponges and invoice books	23.40
Z. D. Gilman.	Thermometers.	48.23
Rudolph & West Co.	Shears.	12.38
D. F. Parker.	Pencil pointers	12.00
Do	Impression paper	7.80

### GENERAL ADMIMISTRATIVE WORK, WASHINGTON, D. C.-Continued.

MISCELLANEOUS EXPENSES—Continued.

Payee.	Article.	Amount.
D. F. Parker. Do.	Fasteners Ink	\$24.00.85
Do	Pads.	5.00
Do	Ink	12.00
Do	Varnish	4.50
Do	Fasteners.	$\begin{array}{c} 30.00\\ 5.63\end{array}$
Do. J. B. Espey	Typewriter ribbons. Padlocks and keys	48.00
National Electrical Supply Co	Fans	26.50
American Lead Pencil Co	Pencils	137.25
C. R. Edmonston	Tumblers	1.50
D. F. Parker. Typewriter and Office Supply Co	Typewriter ribbons.	$\begin{array}{c}180.00\\61.25\end{array}$
R. P. Andrews Paper Co	Repairs to typewriters Books, rules, and paste	57.91
United States Envelope Co	Envelopes.	150.73
Bausch & Lomb Optical Co	Sand glasses	90.00
R. P. Andrews Paper Co.	Tablets and record books	39.20
E. Morrison Paper Co Dulin & Martin	Copying books Mirror	2.10 1.50
W. H. Hoeke.	Flat top desks	44.70
Do	Top desk.	22.35
R. P. Andrews Paper Co	Ledger	3.50
W. B. Moses & Sons	Linoleum	51.19
Yawman & Erbe Manufacturing Co	Filing cases	$\begin{array}{c} 21.39\\ 9.38\end{array}$
R. P. Andrews Paper Co Stockett-Fiske Co	Index cards Automatic holders	9.30
Yawman & Erbe Manufacturing Co	Filing cases.	44.03
E.S. Newman	Adding machine	350.00
W. B. Moses & Sons	Hassock	.40
E. Morrison Paper Co	Postal scale.	2.00
R. C. Ballantyne.	Copying bath Invoice books	$\begin{array}{c} 6.50\\ 2.73\end{array}$
W. L. Swayze. Stockett-Fiske Co	Automatic holder for sheets	2.80
W. H. Hoeke.	Flat top desk	24.84
D. F. Parker	Journal	1.75
Do	Pencil sharpener	4.00
Yawman & Erbe Manufacturing Co	Vertical guides	1.85 19.00
Do. Underwood Typewriter Co	Cupboard section Typewriter	80.00
Library Bureau		13.00
Do.	do	2.70
Do		6.40
D. F. Parker	Carbon paper	
Do W. H. Hoeke	do Typewriter desk	25.47
Do.	Flat top desk	
Do	do	22.38
W. L. Swayze.	Baskets	5.85
Do.	Punch and eyelets.	
Lutz & Co. Yawman & Erbe Manufacturing Co	Leather chair bottoms Cabinet and cards	
Do	Typewriter stand	
Library Bureau	Guides	5.40
Yawman & Erbe Manufacturing Co	Cards	2.50
W. B. Moses & Sons	Hassocks	2.40
Do Remington Dynowriter Co	Oak costumers Typewriter rent	
Remington Typewriter Co Do	Ribbon attachment	5.00
Barber & Ross.	Oil stove	1.00
National Electrical Supply Co	Portables and shades	14.08
M. Du Perow	Cord	6.60
R. P. Andrews Paper Co	Fasteners and washers	6.43 2.34
Lamb & Tilden R. P. Andrews Paper Co	Band dater Cards	5.63
Underwood Typewriter Co.	Typewriter and cover	84.00
Stockett-Fiske Co	Sheet holder	1.25
R. P. Andrews Paper Co.	Paper fasteners.	.80
Yawman & Erbe Manufacturing Co Do	Section of filing case	13.30 4.00
Do. Remington Typewriter Co.	Typewriter stand Typewriter cover	1.00
Swayze, Bailey & Co.	Blank book.	.78
R. P. Andrews Paper Co.	Copving paper	2.28
E. S. Newman	Adding-machine paper	1.50
Library Bureau	Cards.	$\begin{array}{c} 4.50 \\ 5.25 \end{array}$
E. Morrison Paper Co	Ledger	
Yawman & Erbe Manufacturing Co.	Section of filing case	14.02

# GENERAL ADMINISTRATIVE WORK, WASHINGTON, D. C.--Continued.

MISCELLANEOUS EXPENSES—Continued.

Payee.	Article.	Amount.
Library Bureau	Cards	\$6.75
J. S. Topham.	Leather	
Woodward & Lothrop	Desks, table, and wardrobe	80.12
Do	Chairs	
Do		
Do	Table	6.18
Do	Chairs	4.80
Do	Wardrobe and table	25.72
Do		
Library Bureau	Cards	
F. Sharp & Sons		11.70
Dennison Manufacturing Co	Fastener press	1.00
Library Bureau	Cards	12.60
Yawman & Erbe Manufacturing Co	Sections of filing case	32.23
Do	Folders	4.50
Franklin Co	Reading glass	1.78
Woodward & Lothrop	Typewriter desk	28.1
Brentano's	Fountain pen	5.00
Yawman & Erbe Manufacturing Co	Tray, section, and guides	15.82
Do	Section of filing case	10.4
M. Du Perow	Fan	9.4
Yawman & Erbe Manufacturing Co	Guides and cloth-covered boxes	
National Electrical Supply Co	Desk fans	26.50
R. P. Andrews Paper Co	Cards	
Woodward & Lothrop		
Western Union Telegraph Co	Telegrams	
Do.	do	14.8
Postal Telegraph Co	do	33.44

# ERADICATION OF SCABIES IN SHEEP.

1

ALBUQUERQUE, N. MEX.—SALARIES.

			·····		
Derroe	Colony	Traval	David	Golomy	(Deno rec 1
Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
		0.00.00			
Adams, E. L.	\$16.33	\$43.40	Hearn, J. L.	\$178.67	\$161.95
Allen, E. R.	300.00	133.45	Holbrook, J. B.	189.00	102.88
Alyea, W. C.	42.67	69.85	Hougendobler, J. J.	1,500.00	697.62
Anderson, W. C.	189.00	140.05	Imes, M.	1,645.84	472.75
Asner, H. E	240.00	139.93	Jones, J. S.	16.33	16.15
Ball, H. M.	733. 33	144. 15	Jung, O. E.	189.00	168.90
Barnard, W. R.	189.00	106.28	Justin, M. M.	189.00	105.50
Bertrand, C	240.00	95.30	Kinsey, O., jr.	49.00	25.60
Blake, C. F.	158.67	115.60	Kramer, W. F	189.00	68.40
Brown, G. H.	16.33	12.00	Lamborn, G. E	156.33	115.05
Brown, V. L.	211.00	140.60	Law, F. W	42.67	64.25
Cady, B. J.	1,325.00	545.45	Lemery, A. A.	189.00	131.00
Casper, G. T.	1,275.00	591.95	McBroom, R.	240.00	353.38
Chambers, L. M	80.00	92.65	McCarthy, T. A.	233.34	136.60
Collins, A. G.	189.00	100.30	McCampbell, C. W	175.00	70.25
Collins, G. C.	42.00	64.05	Markert, G	1,050.00	543.55
Covington, P. C	835.00	585.70	Mather, C. A.	175.00	164.35
Creech, G. T.	845.00	322.40	Metsker, L	638. 33	17.25
Cunningham, M. F	240.00	113.30	Moreno, R. J.	42.67	16.00
Curry, H. E.	240.00	123.48	Morris, D. K.	189.00	164.60
Davis, W. L	16.33	15.75	Morrissey, L. W	1,016.67	476.55
Dye, W. C	189.00	262.11	Nelson, J. I.	904.17	552.15
Ellis, C. R.	172.67	136.25	Nelson, S	156.33	124.85
Emonts, J	170.33	141.70	Newlove, H. S.	450.00	
Ettling, C. Ewers, S. V.	189.00	6.75	Olbeter, R. M	300.00	193.60
Ewers, S. V	240.00	117.66	Oldaker, E. E. Osborn, W. F	159.45	69.55
Fish, Ř. J	14.00	18.05	Osborn, W. F	240.00	156.55
Fish, W. F.	366.67	521.21	Perry, J.	189.00	• 131.00
Fladness, S. O	180.00	191.51	Petty, F. L.	160.00	145.90
Freeman, C. E	240.00	178.62	Philips, A. G.	16.33	16.25
Gallagher, F. L	159.45	111. 70	Pickett, J. F.	240.00	347.21
Gomel, C	189.00	61.70	Pine, D. B.	240.00	75.65
Graham, R	600.00	466.70	Pine, H. E	240.00	134.85
Harmon, A. A.	1,433.34	59.25	Robinson, G. H	1,050.00	1,066.64
Haskett, B	954.17	510.95	Roney, B. C.	37.33	42.10
Heacock, C. C	1,450.00	493.60	Sargent, L. E	833.33	290.27

ERADICATION OF SCABLES IN SHEEP-Continued.

ALBUQUERQUE, N. MEX.—SALARIES—Continued.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Sawhill, W. H. Schafer, C. K. Schneider, F. L. Simpson, H. H. Skinner, W. A. Smith, E. M. Smith, L. C. Sorrell, W. Speake, E. O. Spindler, E. S. Stults, C. L. Sullivan, D. C.	$\begin{array}{c} 1,000.\ 00\\ 1,125.\ 00\\ 28.\ 00\\ 1,400.\ 00\\ 150.\ 00\\ 189.\ 00\\ 276.\ 67\\ 1,000.\ 00\\ 999.\ 45\\ 276.\ 67\end{array}$	$\begin{array}{c} \$62.\ 70\\ 737.\ 46\\ 779.\ 60\\ 40.\ 60\\ 659.\ 50\\ 112.\ 30\\ 94.\ 35\\ 94.\ 85\\ 476.\ 13\\ 680.\ 60\\ 116.\ 20\\ 197.\ 00\\ \end{array}$	Tiffany, J. B. Tremper, H. J. Vance, A. Watters, S. A. Waugh, E. N. Wiley, M. C. Wilkes, R. W. A. Williams, R. E. Willets, E. V. Worswick, R. C. Zimmerman, A.	$189.00 \\ 156.33 \\ 240.00 \\ 30.33 \\ 685.56 \\ 160.00 \\ 16.33 \\ 42.00$	$\begin{array}{c} \$47.\ 70\\ 197.\ 39\\ 117.\ 85\\ 222.\ 76\\ 20.\ 75\\ 270.\ 25.\\ 116.\ 70\\ 15.\ 75\\ 18.\ 30\\ 170.\ 70\\ 11.\ 30\\ \end{array}$

# ALBUQUERQUE, N. MEX.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Atchison, Topeka and Santa Fe Rwy.		Atchison, Topeka and Santa Fe Rwy.	
Co.:	(	Co.—Continued.	
E. O. Speake	\$4.45	C. Bertrand	\$13.80
Do	4.45	E. E. Oldaker and 1 other	27.60
B. J. Cady.	12.00	L. E. Sargent.	11.50
E. S. Spindler Do	4.10 4.10	A. A. Harmon	5.15
Do	4.10	C. E. Freeman. R. M. Olbeter.	4.10
Do.	7.30	S. A. Watters.	$\begin{array}{c}10.55\\12.65\end{array}$
Do	7.30	Chas. Bertrand	9.75
G. T. Creech	2.40	W. Sorrell.	5.30
Marion Imes	31.95	C. R. Ellis	5.15
Do	17.75	R. W. Wilkes and 1 other	37.90
Do.	10.55	G. Lamborn.	12.65
F. L. Schneider.	5.05	Swen Nelson	12.65
Marion Imes.	13.80	A. Vance	12.65
F. L. Schneider.	$5.05 \\ 3.85$	R. C. Worswick.	12.65
Do. L. E. Sargent.	2.50	C. L. Stults.	9.75
F. L. Schneider.	3.85	L. W. Morrissey. F. L. Pettey.	$\begin{array}{c} 10.00\\ 17.75 \end{array}$
E. S. Spindler.	4.10	F. L. Gallagher.	41.25
Bert Haskett.	23.45	E. E. Oldaker	41.25 41.25
Marion Imes.	10.55	B. J. Cady.	13.25
E. O. Speake	4.45	Do.	6.40
Do	4.45	L. E. Sargent.	10.55
E.S. Spindler	11.15	M. Imes	23.45
Do	9.20	C. Ettling and 16 others	488.75
Marion Imes	5.30	C. W. McCampbell and 1 other	57.50
C. C. Heacock.	10.55	J. Emonts	28.75
E. O. Speake C. L. Stults.	9.40	C. C. Heacock	10.55
C. L. Stults	28.75	E. O. Speake	4.10
S. V. Ewers.	$\begin{array}{c}28.75\\28.75\end{array}$	Do. E. C. Spindler	5.30
D. B. Pine. C. Bertrand	28.75 28.75	E. S. Spindler.	$\begin{array}{r} 4.10 \\ 18.95 \end{array}$
W. F. Osborn.	28.75 28.75	C. E. Freeman. R. M. Olbeter	23.45
H. E. Curry.	28.75	H. E. Curry	10.55
S. A. Watters.	$\frac{20.10}{28.75}$	H. E. Curry. M. F. Cunningham.	10.55 10.55
H. E. Asher	28.75	S. V. Ewers.	10.55
C. E. Freeman.	28.75	H. E. Asher	5.30
M. F. Cunningham	28.75	C. Bertrand	9.75
W. Sorrell	28.75	W. Sorrell.	25.10
R. McBroom	28.75	C. L. Stults	25.10
II. E. Pine.	28.75	E. R. Allen	25.10
J. F. Pickett.	28.75	W. C. Anderson and 2 others	56.85
L. E. Sargent.	$\begin{array}{c}9.80\\6.35\end{array}$	W. R. Barnard and 1 other M. M. Justin	21.10
B. Haskett.	4.65	R. C. Worswick.	$\begin{array}{c}10.55\\4.10\end{array}$
A. A. Harmon.	5.80	O. E. Jung and 1 other	6.90
Do	5.80	J. B. Holbrook	5.30
W. Sorrell.	16.10	D. K. Morris	23.45
C. A. Mather	10.15	C. A. Mather	28.75
C. R. Ellis	13.80	F. L. Pettey.	15.15
J. Emonts.	13.80	P. C. Covington	4.70
Swen Nelson and 2 others.	19.05	Do	8.85
R. C. Worswick	6.35	Bert Haskett	4. 45
A. A. Harmon.	13.80	M. Imes.	13.80
Do C. L. Stults	$\begin{array}{c c} 13.80 \\ 16.10 \end{array}$	Do	13.80
	10.10 1	E. O. Speake	6.35

## ERADICATION OF SCABLES IN SHEEP—Continued.

### ALBUQUERQUE, N. MEX.—TRANSPORTATION—Continued.

Payee.	Amount.	Payee.	Amount.
Atchison, Topeka and Santa Fe Rwy.		Chicago Great Western Rwy. Co.,	
Co.—Continued.	0C 9E	M. C. Wiley	\$39.05
E. O. Speake F. L. Schneider	\$6.35 90.00	Chicago and Northwestern Rwy. Co., T. A. McCarthy	45.10
J. I. Nelson	6.35	Chicago, Rock Island and Gulf Rwy.	10.10
Do S. A. Watters	$6.35 \\ 7.50$	Co.: Geo. Markert	8.50
C. A. Mather	6.20	C. C. Heacock.	5.70
Swen Nelson	$   \begin{array}{r}     13.80 \\     90.00   \end{array} $	Do Chicago, Rock Island and Pacific Rwy.	9.90
W. A. Skinner Do	90.00 6.20	Co.:	
J. J. Hougendobler.	9.75	Geo. Markert	2.35
Do M. Imes	9.75 $10.55$	C. C. Heacock. Do	5.70
E. O. Speake	5.30	Geo. Markert	4.95
Do Do	90.00 5.30	Colorado and Southern Rwy. Co.:	
E. S. Spindler	4.10	M. Imes. C. C. Heacock.	7.60 3.80
Do. C. C. Heacock	4. 10 10. 55	Do	3.80
Do	10.55	G. E. Lamborn. M. Imes	3.80 3.80
R. M. Olbeter	9.75	C. C. Heacock	5.15
R. C. Worswick E. V. Willits	$\begin{array}{r} 4.10\\ 15.90\end{array}$	H. E. Curry. M. F. Cunningham	5. 15 5. 15
J. Emonts	19.50	S. V. Ewers	3.80
W. Sorrell. G. E. Lamborn	90.00 10.55	W. R. Barnard.	10.30
F. L. Pettev.	4.10	M. M. Justin L. E. Sargent	3.80 5.15
R. W. A. Wilkes. A. A. Harmon.	4. 10 5. 15	Denver and Rio Grande R. R. Co.:	. 0, 10
B. J. Cady		M. Imes.	17.75
Do	6.40	L. C. Smith and 1 other O. E. Jung and 1 other	$     19.00 \\     12.60 $
Do R. M. Olbeter	6.40 90.00	J. L. Hearn.	9.50
M. Imes.	90.00	S. Nelson. A. Vance.	$31.95 \\ 31.95$
A. Zimmerman F. L. Gallagher	3. 45 4. 10	G. E. Lamborn.	31.95
F. L. Gallagher. E. L. Adams and 2 others	12.30	G. T. Casper	10.80
John S. Jones E. S. Spindler	5.30	Do Do	9.50 7.15
F. L. Gallagher	75.00	Do	7.15
T. A. McCarthy	90.00	James Perry. A. Zimmerman	5.85 9.50
E. O. Speake R. J. Fish.	3.35 9.75	Eastern Rwy. Co. of New Mexico:	
J. B. Tiffany.	28.75	G. T. Creech	4.45
W. L. Davis R. E. Williams.	$\frac{28.75}{28.75}$	Do El Paso and Southwestern System:	4.45
A. Zimmerman	28.75	G. H. Robinson	4.35
G. H. Brown E. L. Adams	28.75 28.75	Do Do	4.35 4.35
A. G. Phillips	28.75	Do	2.30
A. Vance. Do.	7.50	Do. C. C. Heacock.	$\begin{array}{c} 2.30\\ 4.20 \end{array}$
G. E. Lamborn	10.15	G. H. Robinson	4.65
R. C. Worswick. R. W. A. Wilkes	$\begin{array}{c} 7.50 \\ 15.15 \end{array}$	Do. Do.	4.65 75.00
A. A. Harmon.	5.80	Fort Worth and Denver City Rwy. Co.:	
Do B. J. Cady	90.00	M. Imes. Do.	2.45 5.20
Do	4.65 9.50	C. C. Heacock	5. 20 5. 20
J. B. Tiffany.	13.80	Missouri Pacific Rwy. Co., R. W. A.	
W. H. Sawhill. M. Imes.	25 40 90.00	Wilkes. New York Central and Hudson River	30.35
Swen Nelson and 2 others	11.55	R. R. Co., R. M. Olbeter	59.20
Joseph Emonts. Chicago, Burlington and Quincy Rwy.	13.80	Pecos Valley and Northeastern Rwy. Co.:	
Co.:		M. Imes	3.00
W. H. Sawhill. G. C. Collins	30.35 30.35	G. T. Creech	3.60
B. C. Roney	30.35	Do M. Imes.	3.60 10.30
R. G. Fish J. S. Jones.	30. 35 30. 35	G. T. Crecch	4.85
R. J. Morena	30.35 30.35	Do Do	4. 45 4. 45
W. C. Alyea. F. W. Law.	30.35	Do	4. 45
H. H. Simpson	30. 35 30. 35	Pecos and North Texas Rwy. Co.: M. Imes	7.30
E. N. Waugh	30.35	G. T. Creech	4.85
E. V. Willits	30.35	Pennsylvania R. R. Co., C. R. Ellis	54.70

## ERADICATION OF SCABLES IN SHEEP—Continued.

ALBUQUERQUE, N. MEX.—TRANSPORTATION—Continued.

Payee.	Amount.	Payee.	Amount.
The Pullman Co., C. Ettling and 16 others.         Santa Fe Central Rwy. Co.:         G. T. Casper.         W. A. Skinner.         Do.         G. T. Casper.         G. T. Creech.         W. A. Skinner.         Do.         Santa Fe, Prescott and Phoenix Rwy.         Co.:         M. Imes.         Do.         B. J. Cady.         Do.         Do.         J. I. Nelson.         R. M. Olbeter.         W. Sorrell.	\$102.00 8.20 8.20 4.55 8.20 5.60 3.80 4.05 3.45 6.40 4.10 9.40 6.90 30.00 9.70 23.45 9.70 9.70 13.25 9.00 9.00 10.65 8.85 23.15 9.00	Santa Fe, Prescott and Phoenix Rwy. Co.—Continued. E. R. Allen. B. J. Cady. Do. Do. Do. B. Haskett M. Imes. P. C. Covington. A. A. Harmon. C. E. Freeman. C. L. Stults. C. F. Blake. D. K. Morris. B. J. Cady. W. C. Anderson. D. K. Morris'C. C. R. Ellis. J. Emonts. S. Nelson. A. Vance. G. E. Lamborn. A. A. Harmon. B. J. Cady. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do	

ALBUQUERQUE, N. MEX.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Casper, G. T.	Livery service	\$37.50
Do	do.	75.00
Do	do.	75.00
Heacock, C. C.	do	37.50
Do		75.00
Do		75.00
Emmons, J. D.		30.00
Faber, A.		3.80
Garcia, E. G.		84.00
Albuquerque Hardware Co	Water cooler	2.50
Imes, Marion	Telegrams, telephone, laundry, drayage.	8.20
Bell, J. F., Co.		3.60
Albuquerque Planing Mill Co		45.00
Wilson, D. E.	Rent	84.00
Imes, Marion		26.75
Wilson, D. E.	Rent.	28.00
Do		28.00
Do	do	28.00
Imes, Marion.		27.39
Metsker, L	Mimeograph	30.00
Garcia, E. G.		84.00
Metsker, L		27.21
Do	Telegrams, repair to chairs, and post- office box rent.	17.85
Schneider, F. L.	Livery service	37.50
Do	Livery service	75.00
Do		75.00
Skinner, W. A.	do	37.50
Do	do	75.00
Do	do	75.00
Spindler, E. S.	do	2.50
Do.	do	35.00
Do	do	75.00
Do	do	75.00
Wiley, M. C.	do	37.50
Ďo	do	75.00
Do	do	75.00

#### ERADICATION OF SCABLES IN SHEEP—Continued.

AURORA, ILL.-SALARY.

Payee.	Salary.	Travel.
Holcombe, A. A.	\$1,650.00	\$293. 10

#### AURORA, ILL.—MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Holcombe, A. A. Estate of W. S. Frazier. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do	Rent. do do do do do do do do Telephone, janitor, and car fare. Rent. Telephone, janitor, and car fare.	$\begin{array}{c} 6.00\\ 6.00\\ 6.00\\ 6.00\\ 6.00\\ 6.00\\ 6.00\\ 6.00\\ 6.00\\ 2.40\\ 6.00\end{array}$

#### BISMARCK, N. DAK.-SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Butler, W. J. Cary, E. J. Cosford, S. E. Fretz, W. J.	450.00 450.00	303.15	Herbert, C. M. Lawton, R. G. Nutting, L. A.	450.00	\$258.98 333.15

#### BISMARCK, N. DAK.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Chicago, Burlington and Quincy R. R. Co.: W. J. Fretz. Do. Do. Chicago, Milwaukee and St. Paul Rwy. Co., R. G. Lawton. Chicago and Northwestern Rwy. Co., R. G. Lawton Great Northern Rwy. Co.: E. J. Cary. L. A. Nutting. Do. Do. Do. Do. Do. Northern Pacific Rwy. Co.: C. M. Herbert. W. J. Fretz. Do. Do. E. J. Cary. S. E. Cosford. W. J. Butler. Po.	$\begin{array}{c} 12.\ 60\\ 12.\ 60\\ 6.\ 73\\ 2.\ 13\\ 7.\ 70\\ 3.\ 10\\ 15.\ 60\\ 4.\ 10\\ 4.\ 10\\ 4.\ 10\\ 75.\ 00\\ 5.\ 80\\ 20.\ 60\\ 11.\ 55\\ 4.\ 40\\ 7.\ 15\\ \end{array}$	Northern Pacific Rwy. Co.—Cont'd. W. J. Butler. Do. Do. Do. Do. Do. S. E. Cosford. W. J. Fretz. S. E. Cosford. W. J. Butler. Do. Do. W. J. Fretz. Do. Do. S. E. Cosford. W. J. Fretz. Do. Do. S. E. Cosford. W. J. Fretz. Do. Do. S. E. Cosford. W. J. Butler. E. J. Cary. S. E. Cosford. W. J. Butler. E. J. Cary. S. E. Cosford. W. J. Butler. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do	$\begin{array}{c} 2.35\\ 2.35\\ 2.35\\ 2.35\\ 4.05\\ 3.05\\ 3.05\\ 2.40\\ 6.65\\ 2.35\\ 3.70\\ 4.65\\ 15.80\\ 75.00\\ 75.00\\ 75.00\\ 3.95\end{array}$

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#### ERADICATION OF SCABLES IN SHEEP-Continued.

BISMARCK, N. DAK.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Rodee, H. A	Sheep	\$100.00

#### CHICAGO ILL.-MISCELLANEOUS EXPENSES.

Orr & Luckett.....

... Thermometers.....

\$5.00

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# DENVER, COLO.—SALARIES.

Payec.	Salary.	Travel.	Payee.	Salary.	Travel.
Allen, R. M	<b>\$1, 133</b> . 33	\$595.24	McClure, W. E	\$100.00	\$46.75
Armstrong, H. E		527.65	McNally, H. R.	1,500.00	479.77
Best, G		152.50	Merrill, J	1,100.00	860.44
Blickhahn, G	32.67	42.20	Miller, A. W.	1,500.00	371.11
Brown, C. A.		559.16	Naylor, R. E.	200.00	80.20
Burch, S. R.	888.89	302.65	Newman, R. R.	389.66	618.50
Burkholder, C. E	189.00	284.25	Noves. O. W.	1,000.00	329.70
Campbell, C. E	250.00	200.14	O'Connor, J. P	1,450.00	817.25
Campbell, C. S	833.33	316.01	Overton, F. C.	148.00	132.70
Clarke, L	2,008.33	533.45	Payne, A. J.	133.33	86.50
Conard, J. A	210.00	216.55	Peck, S. W	1,170.00	770.00
Cummins, W. M	600.00	96.50	Persells, H. V.		178.35
De Laney, J. V.	840.00	564.55	Quirk, M. J.	408.33	254.17
Duffy, R. F.	184.00	92.65	Ramsay, R. A	931.94	413.20
Dunaway, W. F	205.53	139.55	Rea, T. B	905.56	838.47
Eddingfield, A. A.	189.00	207.90	Rich, T. S	466.66	107.70
Ellis, W. J.	35.00		Rietz, J. H	943.33	448.81
Exline, J. C.	1,358.33	775.58	Royce, J. A	120.00	117.55
Fleming, W. R	1,228.61	512.10	Schafer, C	210.00	267.75
Gilbert, L. C.	128.33	118.25	Schumacher, W	1,481.11	669.75
Gilbert, N, O	146.67	124.55	Simpson, J. M	1,500.00	412.43
Gilmore, E	870.00	8.62	Songer, L. C.	1,450.00	961.87
Gross, W. F	1,220.00	554.25	Snyder, R	1,325.00	664.72
Heckart, H. L	210.00	290.05	Spencer, W. T	76.67	
Hodges, D. R.	1,183.33	11.25	Stout, E. N.	1,500.00	424.45
Hoyman, H. J.	1,450.00	433.83	Talbot, S. P	1,150.00	339.86
Johnson, W. L	1,500.00	779.22	Teeple, G. R	175.00	35.80
Jones, W. F	1,500.00	407.35	Totten, G. E	1,629.17	635.87
Kailer, W. C.	240.00	205.87	Traum, J	1,275.00	710.59
Korb, W. A	53.67		Yard, W. W	456.67	51.85
Leeper, J. C	40.00		Zink, C. H	1,700.00	473.10
Lowry, T. J.		928.30	Johnson, F. E		91.25
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DENVER, COLO.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Atchison, Topeka and Santa Fe Rwy. Co.: J. H. Rietz. G. E. Totten. E. N. Stout. Do. S. P. Talbot. W. L. Johnsou. E. N. Stout. S. P. Talbot. S. P. Talbot. S. P. Talbot. E. N. Stout. S. P. Talbot. E. N. Stout. S. W. Peck. E. N. Stout. Chicago and Alton R. R. Co., H. J. Hoy- man.	$\begin{array}{c} 6.05 \\ 2.75 \\ 1.90 \\ 1.60 \\ 4.50 \\ 2.55 \\ 1.60 \\ 2.55 \\ 1.60 \end{array}$	Chicago, Burlington and Quincy Rwy. Co.: W. F. Jones. Do. Do. Do. T. B. Rea. Do. Do. Do. Do. Do. Do. Do. H. E. Armstrong. Do. W. F. Jones.	\$2.50 2.73 2.73 3.20 1.90 2.39 1.81 2.39 2.39 2.39 1.90 1.90 5.35 5.35 2.73

# ERADICATION OF SCABLES IN SHEEP—Continued.

DENVER, COLO.-TRANSPORTATION-Continued.

Payee.	Amount.	Payee.	Amount	
icago, Burlington and Quincy Rwy.		Chicago, Burlington and Quincy Rwy.	-	
Co.—Continued.	<b>C1</b> - C	Co.—Continued.		
W. F. Jones.	\$1.59	H. R. McNally	\$2	
Do	$\begin{array}{c} 3.60\\ 3.19\end{array}$	Do W. F. Jones	$\begin{vmatrix} 2\\ 2 \end{vmatrix}$	
Do	2.36	Do	$\tilde{2}$	
A. W. Miller	2.42	Do	4	
T. B. Rea	1.81	$\mathbf{D}$ o	2	
J. M. Simpson	1.59	Do	3	
L. C. Songer	$1.59 \\ 1.90 \\ 1.90 \\ 1$	Do Do	1 5	
Do.	1.90	Do	5	
T. B. Rea.	1.90	H. L. Heckart.	17	
H. J. Hoyman	14.50	W. F. Jones	1	
$\mathbf{D}$ o	1.90	Do	12	
	2.21	Do. H F Ameritrong	. 2	
W. F. Jones.	$\begin{array}{c} 2.63 \\ 3.40 \end{array}$	H. E. Armstrong G. E. Totten	· 7 15	
Do	2.32	H. J. Hoyman.	10	
Do	2.32	Do	1	
A. W. Miller	1.60	W. F. Jones	4	
	2.88	Do.	1	
W. F. Jones.	$\begin{array}{c}2.88\\3.77\end{array}$	G. E. Totten	1 11	
Do	2.73	Do.	11	
Do	2.14	H. E. Armstrong.	6	
Do	2.14	Do	6	
$\mathbf{D}\mathbf{o}$	2.19	H. J. Hoyman	2	
Do	1.55	H. E. Armstrong	7	
J. M. Simpson T. B. Rea	$\begin{array}{c}2.17\\2.13\end{array}$	Do S. R. Burch	2	
Do	1.90	Do.	4	
Do	1.90	L. Clarke	22	
Do	1.90	R. E. Naylor	6	
Do	2.69	L. Clarke	17	
Do Do	$\begin{array}{c}2.73\\1.90\end{array}$	H. L. Heckart W. F. Jones	72	
W. F. Jones.	6.02	v. F. Jones.	2	
Do	1.57	Do.	4	
T. B. Rea	1.90	Do	3	
Do	1.90		2	
H. J. Hoyman Do	$\begin{array}{c}1.96\\3.41\end{array}$	L. Clarke L. C. Gilbert.	14 8	
G. E. Totten	7.15	W. F. Jones.	2	
A. W. Miller	2.88	G. E. Totten.	10	
Do	2.43	Do	11	
Do	1.82	J. Traum.	4	
Do Do	$\begin{array}{c}1.82\\2.27\end{array}$	W. F. Jones. Do.	52	
Do	2.27	R. E. Naylor.	75	
H. J. Hoyman	1.14	G. E. Totten	12	
Do	2.62	H. L. Heckart	3	
A. W. Miller	2.18	L. Clarke	120	
Do Do	$\begin{array}{c}4.55\\1.20\end{array}$	W. F. Jones. L. Clarke	5 12	
Do	$1.20 \\ 1.20$	T. B. Rea.	12	
Do	1.20	• Do. Do.	2	
W. F. Jones.	1.57		3	
Do Do	$\begin{array}{c}1.57\\1.20\end{array}$	A. W. Miller. F. E. Johnson.	$2 \\ 2$	
Do	2.43	H. E. Armstrong.	2 9	
Do	2.14	Do.	16	
Do	3.52	• F. E. Johnson	75	
Do Т. В. Вор	4.86	W. F. Jones.	2	
T. B. Rea. Do	$\begin{array}{c}1.27\\1.27\end{array}$	H. L. Heckart.	13	
H. J. Hoyman.	$\frac{1.27}{2.28}$	Chicago and Northwestern Rwy. Co.: G. Best	28	
Do	3.24	W. R. Fleming	8	
Do	3.17	O. W. Noyes	10	
Do	2.12	C. Campbell	4	
Do L. Clarke	3.17	A. W. Miller	2	
H. E. Armstrong	$\begin{array}{c} 4.90 \\ 2.30 \end{array}$	O. W. Noyes. J. M. Simpson	2	
Do	14.60	Do.	1	
A. W. Miller W. F. Jones.	1.93	O. W. Noyes	3	
MULTER LODOG	3.77	Do.	3	

# · ERADICATION OF SCABIES IN SHEEP-Continued.

DENVER, COLO.—TRANSPORTATION—Continued.

Payee.	Amount.	Payee.	Amour
icago and Northwestern Rwy. Co.—		Colorado and Southern Rwy. Co	
Continued.		Continued.	
O. W. Noyes	\$2.25	L. Clarke	\$6.
Do		T. J. Lowry.	3.
C. Campbell. O. W. Noyes	$8.00 \\ 2.25$	C. E. Burkholder.	5.
C. Campbell	8.30	Conrad Schafer.	5.
Do	6.20	W. C. Kailer Jacob Traum	5. 5.
J. M. Simpson	1.88	C. Campbell.	2
Do.	1.88		$\frac{2}{3}$
Do	1.88	W. R. Fleming	14.
Do	1.88	T. J. Lowry	3.
O. W. Noyes	3.28	Do	3.
$\mathbf{D}\mathbf{o}$	3.23	Do	5.
Do.	1.84	Do	4.
Do.	1.87	C. Campbell.	2.
Do	1.62	W. F. Gross. Denver and Rio Grande R. R. Co.:	3.
Do. Do.	$\begin{array}{c} 2.90 \\ 2.15 \end{array}$	Denver and Rio Grande R. R. Co.:	0
Do.	2.13	L. Clarke.	9.
Do.	$2.04 \\ 2.61$	J. C. Exline	10. 5.
C. Campbell.	4.95	Do.	э. 5.
Do	4.95	S. P. Talbot	J.
O. W. Noyes	1.55	L. Clarke	17.
Do	1.46	W. Schumacher	- 8.
Do	1.00	Do	10.
Do	1.60	Do	8.
Do	1.83	Do	10.
Do.	1.27		6.
Do	1.35	G. E. Totten	9.
Do.	2.16	Do	8.
Do. Do.	$\begin{array}{c} 1.86 \\ 1.86 \end{array}$	Do C. A. Brown	11.
Do	$1.80 \\ 1.86$	W. L. Johnson	$11. \\ 14.$
C. Campbell.	4.40	Do.	14.
Do.	8.30	J. Conard	11.
Do	2.90	C. Schafer	11.
O. W. Noyes	1.74	W. C. Kailer	11.
C. Campbell	4.40	R. R. Newman	10.
Do	8.30	Conrad Schafer	8.
Do	4.20	W. C. Kailer	8.
O. W. Noyes	1.74	Conrad Schafer	4.
Do	2.25		5.
Do. Do.	$\begin{array}{c c} 2.25 \\ 2.54 \end{array}$	S. P. Talbot.	28.
L. Clarke.	$\frac{2.54}{3.15}$	W. C. Kailer Do.	4. 16.
L. C. Gilbert.	8.90	Conrad Schafer	16.
L. Clarke.	3.75	J. Traum	13.
cago, Rock Island and Pacific Rwy.	0	Do	13.
0.:		J. H. Rietz	19.
G. E. Totten	2.70	W. F. Dunaway	16.
Do	3.00	S. Royden Burch	12.
A. W. Miller	1.71	H. L. Hcckart.	8.
S. R. Burch	2.70	W. F. Gross.	8.
Do	3.70	W. Schumacher.	90.
A. W. Miller	$\begin{array}{c} 3.70 \\ 1.51 \end{array}$	C. H. Zink T. B. Rea	$12. \\ 10.$
Do	1.51 1.51	G. R. Teeple.	10. 10. 10.
Do.	2.16	A. A. Eddingfield	10.10.10.10.10.10.10.10.10.10.10.10.10.1
L. Clarke.	14.50	R. F. Duffy	8.
G. E. Totten	60.00	R. F. Duffy Michigan Central R. R. Co.:	0.
cago, St. Paul, Minneapolis and		R. A. Ramsay	2.
maha Rwy Co.:		Do	1.
R. M. Allen.	2.84	Missouri Pacific Rwy. Co.:	
Do	1.58	S. P. Talbot	1.
Do	1.58	W. L. Johnson	1.
Do	1.58	Do	1.
J. M. Simpson. R. G. Lawton.	$\begin{array}{c c}1.58\\5.48\end{array}$	Do Do	$\frac{1}{2.1}$
orado Midland Rwy. Co., W. L.	0. 40	Do	2.2
ohnson.	4.50	Do	$\frac{2.}{3.}$
orado and Southern Rwy Co.:	1.00	Do	1.
T. J. Lowry	2.85	Do.	1.
Do	2.85	Do	3.0
J. J. Hougendobler	2.90	Do	1.
Rudolph Snyder	2.10	Do	1.
L. Clarke	6.80	Do	1.

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# ERADICATION OF SCABLES IN SHEEP—Continued.

DENVER, COLO.—TRANSPORTATION—Continued.

Payee.	Amount.	Payee.	Amount.
Missouri Pacific Rwy. Co.—Continued.		Union Pacific R. R. Co.—Continued.	
W. L. Johnson	\$1.52	T. J. Lowry.	\$1.70
A. W. Miller Do	1.83 $1.83$	J. V. Delaney.	7.55
S. P. Talbot	2.27	Do	5.80
Do	2.27	Do	15.10
A. W. Miller	1.59	T. B. Rea	1.83
Do W. L. Johnson	$\begin{array}{c c} 1.59\\ 1.52\end{array}$	Do S. Royden Burch	1.83 $2.70$
S. P. Talbot	2.27	L. Clarke.	7.82
Do	2.27	J. H. Rietz	1.19
Do	1.52	Do	1.19
W. L. Johnson Do	$\begin{array}{c}1.67\\1.67\end{array}$	J. V. Delaney. O. W. Noyes.	$1.70\\1.32$
Do.	1.67	$D_0$	1.32
Do	1.52	J. M. Simpson	1.99
Do	1.67	T. B. Rea	1.22
S. P. Talbot. W. L. Johnson	$\begin{array}{c}1.67\\1.67\end{array}$	Do L. Clarke.	$1.22 \\ 5.40$
Do	1.67	C. A. Brown	14.70
Do	1.67	J. Merrill.	8.80
Dó	1.67	L. C. Songer	19.70
Do	$\begin{array}{c} 1.67\\ 1.67\end{array}$	T. J. Lowry.	$\begin{array}{c} 3.25\\ 3.25\end{array}$
Do S. P. Talbot	3.34	Do T. B. Rea	5.25 2.16
	3.34	L. Clarke	16.15
Do	1.67	Do	5.25
Do	1.67	O. W. Noyes.	2.64
Do Do	$\begin{array}{c}1.67\\1.67\end{array}$	W. F. Dunaway L. Clarke	8.45 12.35
Do.	1.67	W. T. Spencer	7.10
Do	1.67	W. A. Korb	7.10
$\mathbb{D}_0$	6.05	C. E. Burkholder.	16.15
Do Pennsylvania R. R. Co.:	8.15	A. A. Eddingfield J. C. Leeper	$\begin{array}{r}16.15\\3.25\end{array}$
R. A. Ramsay	11.00	W. J. Ellis.	3.25
Do	10.65	R. F. Duffy	8.45
Do.	16.65	J. Merrill	2.60
Rio Grande Southern R. R. Co., Conrad Schafer.	6.50	J. V. Delaney L. C. Songer	5.80 $2.60$
Union Pacific R. R. Co.:	0.00	H. R. McNally.	$2.00 \\ 2.16$
R. M. Allen.	8.45	Do	2.16
W. F. Gross	4.95	L. Clarke	18.15
G. Best. J. H. Rietz	8.45 8.45	Do. W. F. Dunaway	4.95 8.45
G. Best	15.50	H. J. Hoyman	23.15
R. M. Allen	15.50	T. J. Lowry	1.95
T. B. Rea	$\frac{12.35}{15.45}$	Do	$\begin{array}{c} 3.10\\ 2.90\end{array}$
H. J. Hoyman. G. E. Totten	$13.45 \\ 1.80$	G. E. Totten R. M. Allen	2, 90
T. B. Rea	1.83	W. C. Kailer	3.15
Do	1.83	L. Clarke	6.10
Do	$\begin{array}{c c}1.83\\1.83\end{array}$	J. Traum.	2.75 5.50
Do Do	1.85	W. C. Kailer C. Schafer	5. 50 3. 25
O. W. Noyes	1.98	G. E. Totten	5.50
Do	1.98	J. Traum	15.45
	$\begin{array}{c}2.27\\1.98\end{array}$	R. F. Duffy	8.45 7.80
Do Do	$\begin{array}{c} 1.98 \\ 1.98 \end{array}$	A. A. Eddingfield Frank Jelen	7.80 32.10
J. H. Rietz	1.97	H. V. Persells	19.80
Do	1.97	S. Royden Burch	3.35
	1.56	Do	2.75
Do. A. W. Miller	$\left  \begin{array}{c} 1.56 \\ 2.02 \end{array} \right $	H. R. McNally. T. B. Rea.	$2.75 \\ 12.35$
J. V. Delaney	7.10	H. R. McNally.	2.75
Do	6.35	T. J. Lowry	75.00
Do	15.10	J. V. Delaney	75.00
Do. T. J. Lowry.	$\begin{array}{c c} 12.70 \\ 1.70 \end{array}$	J. Traum C. Schafer	$15.45 \\ 3.25$
Do	$\begin{array}{c} 1.70\\ 2.20 \end{array}$	C. E. Burkholder	3.25 9.90
L. Clarke	12.00	J. H. Rietz	8.45
Do	6.85	G. E. Totten	3.25
L. C. Songer	$\begin{array}{c c}2.28\\2.28\end{array}$	L. Clarke	3.25
Do.	$\frac{2.28}{1.80}$	Wyoming and Northwestern Rwy Co.: Colin Campbell	8.00
G. E. TOLLER			
G. E. Totten T. J. Lowry	1.70	Do	6.20

# ERADICATION OF SCABLES IN SHEEP-Continued.

DENVER, COLO.-MISCELLANEOUS EXPENSES.

Рауее.	Article.	Amoun
olorado Telephone Co	. Telephone service	\$4.
ifteenth Street Investment Co	.  Rent	30.
Do Do	do	30. 30.
olorado Telephone Co	Telephone service	4
ifteenth Street Investment Co	. Rent.	30.
olorado Telephone Co Do	do	1.
Do	do	4.
Do		
Do ifteenth Street Investment Co		4. $     30. $
Do	do	30.
olorado Telephone Co	- Telephone service	
Do ifteenth Street Investment Co	đo Rent	2.
olorado Telephone Co	. Telephone service	2.
Do	do	4.
Do		$\begin{vmatrix} 2.\\ 4. \end{vmatrix}$
Do ifteenth Street Investment Co`	Rent.	4. 30.
Do	do	30.
olorado Telephone Co Do	do	2.4.
Do	do	2.
Do	do	4.
ifteenth Street Investment Co	Rent.	30. 4.
olorado Telephone Co	do	4. 2.
Do	. Rent	30.
aillie, George	Labor	24.
oice, Fred		44. 40.
olan, J. P	do	40.
esege. C. H.	do	32.
artridge, C. E. flaeging, W. H.		$   \begin{array}{c}     28. \\     40.   \end{array} $
chrobel, E. H	. do	16.
nipley, W. B	do	40.
chroeder, W. C	do	$     28. \\     32. $
'illiams. Henry	do	36.
plorado Telephone Co	Telephone service.	2.
Do	Ront	4. 30.
ommer, D. F	. Labor	40.
e Laney, J. V	. Livery service	35.
Do Do	do	35. 35.
Do	do	35.
Do	do	35.
Do Do		
Do		35. 35.
cNally, H. R.	do	30.
Do		$\begin{array}{c} 30.\\ 30. \end{array}$
Do	do	30.
Do	. do	30.
Do	-ldo	30.
Do		30. 30.
Do	do	30.
Do Do	do	30. 30.
Do	do	30. 30.
iller, A. W	do	30.
Do	do	
Do		30. 30.
Do	do	30.
Do Do	do	30. 30.
Do		
Do	do	30.
Do	do	30.
Do Do		$\begin{vmatrix} 30.\\30. \end{vmatrix}$

## ERADICATION OF SCABLES IN SHEEP—Continued.

DENVER, COLO.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount.
Simpson, J. M. Do. Do. Do. Do. Do. Do. Do. Do	do do do do do do do do do do do	$\begin{array}{c} 25.00\\ 25.00\\ 25.00\\ 25.00\\ 25.00\\ 25.00\\ 25.00\\ 25.00\\ 25.00\end{array}$
Do Do Do	do	$\begin{array}{c} 25.\ 00\\ 25.\ 00\\ 25.\ 00\end{array}$

	FARGO, N. DAK.—SALARIES.						
Payee.	Salary.	Travel.	Payee.	Salary.	Travel.		
Barth, W. C	$\begin{array}{c c} 999.\ 45\\ 266.\ 67\\ 1,225.\ 00\end{array}$		Kiernan, J. A. Lawton, R. G. McClure, S. W. Nutting, L. A.	$1,175.00 \\700.00$	120.15 530.44 273.30 418.55		

FARGO, N. DAK.—TRANSPORTATION.				
Payec.	Amount.	Payee.	Amount.	
Chicago and Northwestern Rwy. Co.: R. G. Lawton. Do. Do. Do. Chicago, Rock Island and Pacific Rwy. Co.: R. G. Lawton. Do. Great Northern Rwy. Co.: L. A. Nutting. Do. Do. Do. Do. Do. Do. Do. Do	$\begin{array}{c} \$2.31\\ 2.13\\ 2.39\\ 2.16\\ \hline\\ 1.67\\ 1.67\\ \hline\\ 0.590\\ 2.70\\ 3.10\\ \hline\\ 7.80\\ 7.80\\ 4.10\\ 10.30\\ 15.60\\ 5.90\\ 3.10\\ 15.60\\ 4.10\\ 15.60\\ 2.33\\ 35.98\\ 2.05\\ 1.85\\ 2.45\\ \end{array}$	Northern Pacific Rwy. Co.—Continued.           N. B. Smith.           Do.           N. B. Smith.           Do.           Do.	\$4.90 4.20 2.90 2.90 2.90 3.45 1.70 1.70 7.15 4.75 4.75 2.35 12.45 2.35 1.245 2.355 1.245 2.355 1.70 1.70 1.70 2.80	

#### KANSAS CITY, KANS.-SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Adair, H. B. Anglicker, J. Browning, G. W. Cannon, E. C. Kcrshner, P. I.	$\begin{array}{r} 83.33 \\ 1,125.00 \\ 202.77 \end{array}$	$\$4.25\ 232.03$	MacKellar, W. M. Webster, J. H. Smith, W. A. Corbett, C. M.	$\begin{array}{c} 210.00\\ 240.00\end{array}$	\$35.00 

### ERADICATION OF SCABLES IN SHEEP-Continued.

KANSAS CITY, KANS.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Atchison, Topeka and Santa Fe Rwy.         Co,:         P. I. Kershner.         C. M. Corbett.         Chicago, Rock Island and Pacific Rwy.         Co.:         P. I. Kershner.         Do.         Do.         Do.         Do.         Do.         Galveston, Harrisburg and San An-         tonio Rwy. Co.:         G. W. Browning.         Do.         <	$\begin{array}{r} 4.21 \\ 4.47 \\ 3.26 \\ 3.26 \\ 50.00 \\ \end{array}$ $\begin{array}{r} 4.95 \\ 4.95 \\ 4.95 \\ 4.95 \\ 4.95 \\ 4.95 \end{array}$	Galveston, Harrisburg and San Anto- nio Rwy. Co.—Continued. G. W. Browning. Do. International and Great Northern R. R. Co.: G. W. Browning. Do. Do. Do. Do. Missouri Pacific Rwy. Co., P. I. Kersh- ner. San Antonio and Aransas Pass Rwy. Co.: G. W. Browning. Do. Union Pacific R. R. Co., P. I. Kershner.	$ \begin{array}{r} 4.60 \\ 4.60 \\ 4.60 \\ 4.60 \\ 2.72 \\ \end{array} $

#### LEWISTON, IDAHO.—SALARIES.

.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Henderson, L. C	\$382.22	\$81.88	Wilson, A. H		\$8.50

#### NASHVILLE, TENN.-TRAVEL.

Payee.	Travel.
Hanawalt, D. C.	\$30.20

#### PENDLETON, OREG.—SALARIES.

D		(D) _ 1		a l	(T)]
Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Adams, J. D.	\$160.00	\$159.90	Proudfoot, W	\$596.67	\$630.29
Archer, R. J.	427.50	169.30	Ring, N. S.	105.00	158. 21
	750.00	281.30	Rooper, J. A	210.00	133.21 121.65
Behler, C. R.		192.60	Dorb C F	596.67	340.35
Dodson, G. J.	$210.00 \\ 210.00$		Rork, C. F.		266.28
Donnelly, E. W	210.00	65.30	Shraiberg, S. G.	205 00	200.28 286.35
Foster, S. L.	210.00	149.75	Siggins, E. L.	895.00	
Hamilton, W	746.11	250.25	Silverwood, H	276.67	151.90
Henderson, L. C.	346.11	5.50	Allen, F. T		123.80
Hutchinson, E. N.	895.00	390.77	Anglicker, J	<b></b>	209.55
Kitzhofer, J. H	32.67		Burton, J. W		175.25
Lowe, C. D	440.17	400.05	Butin, G. E.		157.25
Lytle, W. H.	346.11	143.35	Chaney, H. B.		109.45
McClure, S. W	850.00	210. 49	Deming, C. W		113.88
McDonald, H. L.	600.00	396.75	Jelen, F.		130.20
Mason, F. H.	70.00	102.80	Lantz, M. S		111.10
Mason, W. D	268.33	209.64	Quirk, M. J		253.00
Newberry, G. W	177.33	17.25	Roome, H		180.40
Pinkerton, H. E	646.67	163.40	Worcester, W. W.		202.75
Proper, L. J.	101.11	88.90	,		

## ERADICATION OF SCABLES IN SHEEP-Continued.

PENDLETON, OREG.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amoun
Chicago, Burlington and Quincy R. R.		Oregon R. R. and Navigation Co	
Co.:	<b>\$54.00</b>	Continued.	
H. Silverwood G. E. Butin	$\$54.00\ 32.10$	S. W. McClure. H. E. Pinkerton.	\$5. 5.
Chicago and Northwestern Rwy. Co.:	02.10	G. J. Dodson	5.
H. Roome	38.65	E. W. Donnelly	12.
J. Anglicker	44.50	H. Silverwood	2.
J. W. Burton.	44.00 $44.00$	W. D. Mason.	
W. W. Worcester M. J. Quirk	44.00	S. W. McClure. J. D. Adams.	10.
F. T. Allen.	44.00	H. E. Pinkerton	5.
Freat Northern Rwy. Co.:		W. D. Mason	11.
E. L. Siggins	$\begin{array}{c} 4.14 \\ 3.65 \end{array}$	S. G. Shraiberg.	
Do Northern Pacific Rwy. Co.:	5.05	H. L. McDonald H. E. Pinkerton	$\begin{array}{c} 6.\\ 5.\end{array}$
S. W. McClure.	17.50	S. L. Foster	9.
Do	7.07	L.J. Proper	3.
Do	1.49	J. D. Adams	4.
Do.	11.60	W. D. Mason	4.
E. L. Siggins.	$\begin{array}{c} 6.91 \\ 1.49 \end{array}$	H. Silverwood	5. 7.
Do	1.49 1.49	S. Shraiberg. R. J. Archer	9.
S. W. McClure.	5.94	H. E. Pinkerton	
E. L. Siggins	5.94	C. D. Lowe	3.
Do	3.75	F. H. Mason	3.
Do Do	$\begin{array}{c} 3.32 \\ 7.07 \end{array}$	H. E. Pinkerton Do	4. 4.
S. W. McClure.	4.09	Do.	4. 3.
N. S. Ring.	11.50	N. S. Ring.	7.
E. L. Siggins	3.15	L. J. Proper	7.
Do	4.09	Oregon Short Line R. R. Co.:	
L. C. Henderson	2 00	W. H. Proudfoot and 1 other	40.
Do S. W. McClure	$\begin{array}{c} 3.00 \\ 7.50 \end{array}$	R. J. Archer S. W. McClure	$   \begin{array}{c}     20. \\     20.   \end{array} $
L. C. Henderson	4.60	H. L. McDonald	18.
S. W. McClure	75.00	S. W. McClure	8.
Oregon R. R. and Navigation Co.:		C. F. Rork	5.
S. W. McClure	6.85	Do.,	1.
Do	$\begin{array}{c} 6.85\\ 5.45\end{array}$	Do	1.
Do R. J. Archer	2.70	Do Do	5. 4.
Do	2.70	Do	1.
S. W. McClure.	5.65	S. W. McClure	13.
Do	2.10	C. F. Rork	4.
W. H. Lytle.	4.50	Do	4.
E. N. Hutchinson. C. D. Lowe.	$\begin{array}{c} 4.00\\ 3.75\end{array}$	Do Do	4. 5.
S. W. McClure.	0.70	Do	0. 1.
Do	6.85	Do	· 1.
$\mathbf{D}0$	6.85	Do	1.
W. H. Lytle	3.75	Do	2.
Do. C. D. Lowe.	$\begin{array}{c} 3.75\\ 3.75\end{array}$	Do Do	2.5
E. N. Hutchinson	6.85	Do	5. 5.
Do	6.00	Do	$\frac{3.1}{2.1}$
Do	6.00	Do	$\overline{2}.$
Do	2.60	Do	1.
Do C. D. Lowe	$\begin{array}{c} 2.60 \\ 7.50 \end{array}$	Do	3.
W. Proudfoot	6.85	Do Do	3. 4.
S. W. McClure.	8.30	Do	4.
Do	5.75	Do	5.
W. H. Lytle.	4.50	Do	4.
E. N. Hutchinson.	$\begin{array}{c} 6.85\\ 6.85\end{array}$	Do.	5.
C. D. Lowe	7.50	Do	5.
$\mathrm{Do}$	2.90	Do. Do.	$\frac{2}{2}$
H. L. McDonald	2.70	Do	$\frac{2}{2}$ .
	2.85	H. Roome	2.
C. D. Lowe	7.50	J. W. Burton	9.1
W. H. Lytle. S. W. McClure.	$\begin{array}{c} 7.50 \\ 5.75 \end{array}$	J. Anglicker	3.
H. E. Pinkerton.	$5.75 \\ 5.40$	W. W. Worcester.	2.
S. W. McClure	90.00	M. J. Quirk. F. T. Allen.	2.0 5.1
H. L. McDonald	2.85	E. A. Bundy.	0. a 4. f
C. D. Lowe	7.50	G. E. Butin	7.9
S. W. McClure	7.50	S. W. McClure	14.

## ERADICATION OF SCABLES IN SHEEP-Continued.

PENDLETON, OREG.-TRANSPORTATION-Continued.

• Payee.	Amount.	Payee.	Amount.
Oregon Short Line R. R. Co.—Cont'd. H. B. Chaney. H. V. Persells. C. F. Rork. Do. Do. H. Roome. M. J. Quirk. F. T. Allen. J. W. Burton. C. W. Deming. Frank Jelen. H. B. Chaney. R. J. Archer. H. V. Persells. G. E. Butin. C. F. Rork. Frank Jelen. S. W. McClure. Pennsylvania R. R. Co., S. W. McClure. Southern Pacific Rwy Co.: E. N. Hutchinson. Do.	$\begin{array}{c} \$5.\ 70\\ 7.\ 95\\ 5.\ 05\\ 5.\ 80\\ 2.\ 10\\ 40.\ 00\\ 42.\ 55\\ 37.\ 65\\ 53.\ 15\\ 13.\ 70\\ 29.\ 15\\ 4.\ 80\\ 4.\ 80\\ 9.\ 45\\ 10.\ 05\\ 8.\ 80\\ 4.\ 65\\ 90.\ 00\\ 36.\ 75\\ .\\ 6.\ 00\\ 2.\ 60\\ \end{array}$	Southern Pacific Rwy Co.—Continued. E. N. Hutchinson Do. Do. W. Proudfoot. E. N. Hutchinson Do. Do. S. W. McClure Do. Do. Do. Do. Do. E. N. Hutchinson G. W. Newberry. E. A. Bundy. Union Pacific Rwy. Co.: S. G. Shraiberg. H. B. Chaney.	\$2.45 2.45 2.25 11.55 1.65 1.65 3.30 1.65 6.00 3.00 10.30 4.90 4.90 3.30 28.65 25.75 34.80 19.80

#### PENDLETON, OREG.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Hunter, L.         Smith, Guy.         McClure, S. W.         Taylor-Howe Co.         Smith & Crawford.         Do.         Do.         Baker & Folsom.         Hunter, L.         Smith & Crawford.         Baker & Folsom.         Smith & Crawford.         Smith & Crawford.         Baker & Folsom.         Smith & Crawford.	Furniture. Rent. Telegrams, rent, drayage, post-office box, and laundry. Copying press. Rent. do. do. do. Desk. Tables and chairs. Rent. Linoleum. Rent. Telephone service. Trays, pads, and brush. Livery Service. do.	$\begin{array}{c} \$39.75\\18.00\\8.97\\7.00\\26.00\\26.00\\26.00\\26.00\\26.00\\11.00\\26.00\\26.00\\11.00\\26.00\\15.00\\15.00\\15.00\\15.00\end{array}$
Do Do	do	$\begin{array}{c} 15.\ 00\\ 15.\ 00\\ 15.\ 00\end{array}$

#### SALT LAKE CITY, UTAH-SALARIES.

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Payee.	Salary.	Travel.	· Payee.	Salary.	Travel.
Archer, R. J. Babson, S. C.	\$360.00 363.33	$$451.65 \\ 66.90$	Deming, C. W Dennis, W. R	\$625.00 333.33	\$69.75     46.25
Bailey, A. L. Barth, W. C.	657.22	$259.85 \\ 514.90$	Dill, B. Dill, R.	240.00	$152.05 \\ 639.45$
Beck, M. Behler, C. R.	486.00	237.40	Drake, E. J	526.66	335.55 567.10
Bibb, A. G.	276.67	167.85	Drake, R. N. Drake, W. H.		77.20
Bidegaray, D. Blair, J. N. Blamar, C. H.	288.00		Dunn, R. H. Gallagher, J. J.	1,433.34	995.72
Blemer, C. H. Broadhurst, R. A.	1,091.67		Gianella, T. A Gillett, S. D	1,000.00	523.00
Bundy, E. A. Clay, L. G.	420.00	300.30	Ginn, J. H. Giraldo, A.		
Compton, C. Cooley, F. C.	424.99	221.00	Grimshaw, T. M Hamilton, W	703.89	136.50
Day, W. E	691.67	470.25	Hammond, H. J	1,625.00	418.57

### ERADICATION OF SCABLES IN SHEEP—Continued.

SALT LAKE CITY, UTAH-SALARIES-Continued.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Hanawalt, D. C	\$175.00	\$20.15	Paxton, 1. B	\$973.33	\$550.83
Hancock, H. J. Harrington, D. W	190.00	$\begin{array}{c c}95.70\\50.25\end{array}$	Pettey, F. O. Philpott, L. B.	$\begin{array}{c} 461.\ 10\\ 240.\ 00 \end{array}$	<b>307.</b> 50 122. 55
Henderson, L.C. Hickox, G.S.	703.89	$\begin{array}{c c} 54.05\\ 223.07\end{array}$	Pinkerton, H. E. Proudfoot, W.	603. 33 503 <b>.</b> 33	283.00 578.90
Hickox, C		168.15	Rawling, W. J.	708.00	
Hicks, H. H. Hood, H. B.	1,616.67 190.00	$\begin{array}{c} 612.33\\ 201.45\end{array}$	Redmond, T Richards, I	$1,111.66 \\ 347.22$	115.05 198.00
Hutchinson, E. N. Jacobs, J. O.	780.00	$288.80 \\ 393.63$	Robinson, C. H. Rork, C. F.	1,000.00 603.33	488.05 350.40
Johnstone, S. A	150.00	28.50	Ryan, W. M	66 <b>0. 0</b> 0	
Lantz, M. S. Lawson, J. M.	991.67	28.50 843.37	Saunders, W. H	$\begin{array}{c} 242.\ 50\\ 280.\ 00 \end{array}$	221. 60 141. 70
Lindsay, J. W	$ \begin{array}{c c} 114.00 \\ 362.33 \end{array} $	682.90	Siggins, É. L. Stevens, J. W	$780.00 \\ 204.00$	163.70
Lytle, W. H.	603.89	320.00	Taylor, J	84.00	
McCabe, B. D McDonald, H. L	500.00	39.30 163.00	Terry, G. M. Tornquist, A.	$246.00 \\ 150.00$	••••
Mahoney, W. J Morris, A		45.85	Upton, W. L. Van Allstyne, W. C	1,000.00 546.67	944.68 337.55
Murray, F. E	956.94	310. 30	<sup>•</sup> Woollen, D. M	400.00	288.70
Neal, J. T. O'Rourke, I. W.		61.10	Young, E. J.	276.00	

SALT LAKE CITY, UTAH-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Denver and Rio Grande R. R. Co.:	\$16.15	Nevada-California-Oregon Rwy. Co.:	@10_00
J. J. Gallagher.	9.90	R. Dill.	\$10.00
C. D. Lowe I. B. Paxton	5.00	Do	. 10.00
	5.00	Do.	10.00
Do	5.35	Do.	10.00
S. D. Gillett	13.15	Do.	5.60
F. E. Murray	5.35	Do.	5.60
S. D. Gillett R. A. Broadhurst	5.35	Do.	11.20
C. H. Robinson.	6.85	Do.	4.45
	5.35	Do.	10.00
F. E. Murray	24.20	Do	5.60
Do. C. Hickox.	4.60	H. H. Hicks.	5.60
F. E. Murray	11.60	Do I. B. Paxton	5.60 6.25
Do.	6.15	R Dill	
S. D. Gillett	4.95	B. Dill.	5.60
T. Redmond.	16.75	R. Dill. Do	4. 45 10. 00
M. Beck	6.15	Do.	10.00
T. Redmond.	13.00	B. Dill.	6.50
L. B. Philpott.	6.35	Nevada Central R. R. Co.:	0.00
H. H. Hicks	5.35	A. G. Bibb.	9,00
A. G. Bibb	5.00	H. H. Hicks.	13.50
W. L. Upton.	6.35	Nevada County Narrow Gauge R. R.	10.00
S. D. Gillett	4.95	Co.:	
C. Hickox	5.60	I. B. Paxton.	3.40
S. D. Gillett	7.45	H. J. Hammond	3.40
Do.	8.40	Nevada Northern Rwy. Co., H. H.	0.10
L. B. Philpott	6.35	Hicks	30.00
R. A. Broadhurst	5.35	Northwestern Pacific R. R. Co.:	00.00
A. G. Bibb.	3.55	J. O. Jacobs and 2 others.	10.50
W. L. Upton	5.75	H. J. Hammond.	2.25
F. E. Murray	3.75	H. H. Hicks and 6 others	24, 50
M. Beck	5.60	J. M. Lawson and 1 other	4.70
R. C. Shepherd	5.35	H. H. Hicks and 2 others.	6.75
F. E. Murray	4.95	H. H. Hicks and 3 others.	4.00
Do	5.90	H. H. Hicks.	4.70
۰Do	5.90	Oregon Short Line R. R. Co.:	
Do	4.95	H. E. Pinkerton	57.20
S. D. Gillett	5.35	R. Dill	25.20
Do	8.65	E. A. Bundy	23.40
Do	10.30	H. E. Pinkerton	25.00
G. T. Casper.	15.00	C. D. Lowe	7.75
Great Northern Rwy. Co., W. C. Barth.	22.15	F. O. Pettey.	22.80
Missouri Pacific Rwy. Co., A. G. Bibb	37.50	H. B. Hood	11.30

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# ERADICATION OF SCABLES IN SHEEP-Continued.

SALT LAKE CITY, UTAH-TRANSPORTATION-Continued.

Payee.	Amount.	Payee.	Amount
Oregon Short Line R. R. Co.—Cont'd.		Southern Pacific Rwy. CoContinued.	
W. Proudfoot	\$14.30	J. M. Lawson W. L. Upton and 1 other	\$1.7
E. A. Bundy C. D. Lowe	$\begin{array}{c} 11.70\\ 7.75\end{array}$	J. O. Jacobs.	5.73 4.6
D. M. Woollen.	5.85	Do.	4.6
W. L. Upton	5.85	Do	3.6
E. J. Drake	6.65	J. O. Jacobs and 5 others	22.1
Do D. Dill and 1 other	6.65 22.60	H. J. Hammond	3.6
R. Dill and 1 other H. E. Pinkerton	22.00 20.15	Do	1.4 7.20
W. C. Van Allstyne	28.65	J. J. Gallagher. Do	7.2
W. H. Saunders	10.25	W. L. Upton	3.4
H. H. Hicks and 2 others	85.95	Do	4.2
F. E. Murray J. J. Gallagher	$\begin{array}{c} 22.\ 80\\ 18.\ 75\end{array}$		4.1
W. L. Upton	10.60	Do Do	4.1
H. H. Hicks.	22.80	Do	4.1
Do	22.80	Do	3.4
I. B. Paxton.	22.80	Do	3.4
W. C. Barth C. F. Rork	$22.80 \\ 5.80$	J. M. Lawson.	27.5.
C. H. Robinson	2.75	C. H. Robinson	18.4 4.1
Do	2.75	Do	4.5
Do	2.75	Do	4.5
Do	2.75	Do	4.5
W. L. Upton C. H. Robinson	$.90 \\ 2.35$	Do Do	4.8
Do	2.35 2.35	H. H. Hicks	18.7
C. F. Rork	1.50	R. Dill	3.8
Do	1.50	Do	3.8
Do	5. 50	J. O. Jacobs.	2.5
Do Do	$5.50 \\ 2.75$	J. O. Jacobs and 1 otherJ. O. Jacobs	7.3 4.6
Do	2.75	Do.	4.6
Do	5.80	H. J. Hammond	3.6
Do	4.30	Do	2.5
Do	1.50	Do P. A. Broadhurst	2.50
Do Do	$\begin{array}{c}1.50\\1.50\end{array}$	Do.	5.0 2.2
Do.	1.50	Do	5.1
Do	5.80	R. A. Broadhurst and 4 others	12.5
	5.80	J. M. Lawson	1.9
J. M. Lawson B. Dill	$28.65 \\ 22.80$	Do I. B. Paxton	7.5.
H. H. Hicks.	22.80	J. M. Lawson	4.8
R. A. Broadhurst	3.85	W. L. Upton	3.8
Do.	3.85	Do	
W. J. Rawling. S. D. Gillett.	5.05 8.90	I. B. Paxton Do	$   \begin{array}{c}     2.3 \\     3.4   \end{array} $
R. A. Broadhurst.	15.15	H. H. Hicks and 5 others	12.5
A. G. Bibb	22.80	H. H. Hicks and 4 others	29.9
W. L. Upton	4.20	H. H. Hicks.	8.2
C. Hickox. M. Beck.	$8.90 \\ 12.20$	Do F. E. Murray	5.1 5.5
W. L. Upton	2.10	H. J. Hammond and 1 other	2.3
Do	2.10	Do	1.9
C. F. Rork	5.05	Do	
R. A. Broadhurst H. H. Hicks	$\frac{16.\ 60}{16.\ 60}$	J. O. Jacobs. H. H. Hicks	3.69 4.10
F. E. Murray.	52.00	J.J. Gallagher	8.2
L. B. Philpott	16.60	Do	4.9
W. L. Upton	1.95	Do	7.6
Do	1.95	I. B. Paxton	4.2
S. D. Gillett Do	$\begin{array}{c} 2.55\\ 1.75\end{array}$	C. H. Robinson J. O. Jacobs	4.8
H. H. Hicks and 9 others	900.00	C. H. Robinson	4.8
W. L. Upton	90.00	H. J. Hammond	1.8
W. J. Mahoney	15.80	Do	2.5
J. W. Lindsay	15.80	H. H. Hicks.	4.1
J. T. Neal and 1 other H. H. Hicks and 1 other	$\begin{array}{c} 20.50 \\ 20.50 \end{array}$	Do W. C. Barth	4.9
W. M. Ryan.	13.50	Do	4.20
Southern Pacific Rwy. Co.:		J.J. Gallagher	3.6
F. E. Murray.	16.20	H. H. Hicks.	
J. O. Jacobs J. J. Gallagher.	$\begin{array}{c} 2.89\\ 18.75\end{array}$	J. J. Gallagher Do	
	10.10		0.0

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### ERADICATION OF SCABLES IN SHEEP—Continued.

SALT LAKE CITY, UTAH-TRANSPORTATION-Continued.

Payee.	Amount.	a Payee.	Amount
outhern Pacific Rwy. Co.—Continued.		Southern Pacific Rwy. CoContinued.	
W. L. Upton	\$4.20	H.J. Hammond	\$3.7
II. J. Hammond	3.25	H. H. Hicks.	
Do	$\begin{array}{r} 3.25\\ 4.10\end{array}$	Do Do	4.9
W. J. Rawling H. H. Hicks	5.85	Do	10.2
I. B. Paxton.	5.60	W. J. Rawling.	9.1
Do	3.69	H. H. Hicks	3.2
Do	3.69	Do	3.2
J.J.Gallagher	2.95	Do	10.2
Do	2.75	San Pedro, Los Angeles and Salt Lake	
	2.95	R. R. Co.:	0.0
S. D. Gillett H. J. Hammond	7.80 $7.25$	R. J. Archer.	8.2 8.6
	5.94	W. Proudfoot Do	8.6
Do	5.05	C. D. Lowe	13. 7
H. H. Hicks.	5.85	R. A. Broadhurst.	9.3
Do	5.85	S. D. Gillett	6.1
Do	5.05	R. A. Broadhurst	9.3
$\widetilde{\mathbf{D}}$ o	5.05	S. D. Gillett	5.3
$\mathbf{D}0$	3.69	F. E. Murray	30.0
Do	3.69	S. D. Gillett	5.3
Do R. A. Broadhurst	$5.85 \\ 14.05$	Do R. A. Broadhurst	5.3 30.0
I. B. Paxton	14.03 3.69	J. M. Lawson.	30.0
Do	2.49	I. B. Paxton	90.0
Do	2.95	F. E. Murray.	12.9
Do	2.49	S. D. Gillett	11.8
D. W. Harrington	26.05	C. H. Robinson	6.8
F. E. Murray		Do	6.8
J. M. Lawson	2.35	Do	6.8
Do	$\begin{array}{c} 2.35\\ 3.60\end{array}$	Do	6.8 6.8
J. J. Gallagher. Do.	3.60	S. D. Gillett Do.	6.8
Do	3.60	W. M. Ryan.	10.1
Do.	3.60	R. A. Broadhurst.	6.8
H. J. Hammond.	5.05	Do	. 6.8
H. H. Hicks.	5.85	J. M. Lawson	6.8
$\mathbf{D}_{\mathbf{D}}$	5.85		2. '
Do.	22.80	R. C. Shepherd	6.8
L. West	8.70 8.70	W. M. Ryan H. H. Hicks	10. 10.
Do Do	9.25	S. D. Gillett	10. 3
Do	4. 65	Uintah Rwy. Co., T. Redmond.	8.0
J. J. Gallagher	3.60	Union Pacific R. R. Co.:	0.0
Do.	3.60	W. H. Saunders	30.0
J. M. Lawson	18.45	W. L. Upton	. 1.9
<u>D</u> o	4.90	Do	1. 9
$D_0$	3.00	R. C. Shepherd	1.9
A. G. Bibb.	9.35	Do	3.0
H. J. Hammond		Virginia and Truckee R. R. Co., H. H. Hicks.	6. 5
Do Do	3.40	Yosemite Valley R. R. Co., H. J. Ham-	0. 8
Do	7.15	mond.	4. (
D	1.10		2.

#### SALT LAKE CITY, UTAH-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Henderson, L. C Do	Livery service	
Do	do	15.00
Do. American Linen Supply Co.	Laundry and soap.	15.00 3.00
F. Auerbach & Bro Rocky Mountain Bell Telephone Co F. Auerbach & Bro	Telcphone service	19.50
Do. Do.	do	22. 50 22. 50
Hickox, G. S.	Janitor, electric light, and telegrams	

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# ERADICATION OF SCABLES IN SHEEP-Continued.

SALT LAKE CITY, UTAH-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount.
Bundy, E. A.F. Auerbach & Bro.Rocky Mountain Bell Telephone Co.American Linen Supply Co.F. Auerbach & Bro.Hickox, G. S.Do.F. Auerbach & Bro.Hickox, G. S.F. Auerbach & Bro.Hickox, G. S.Yutah Independent Telephone Co.American Linen Supply Co.F. Auerbach & Bro.Hickox, G. S.Utah Independent Telephone Co.American Linen Supply Co.F. Auerbach & Bro.Hickox, G. S.Yutah Independent Telephone Co.American Linen Supply Co.Hickox, G. S.F. Auerbach & Bro.Hickox, G. S.American Linen Supply Co.Utah Independent Telephone Co.F. Auerbach & Bro.Hickox, G. S.American Linen Supply Co.Utah Independent Telephone Co.F. Auerbach & Bro.Hickox, G. S.American Linen Supply Co.Utah Independent Telephone Co.F. Auerbach & Bro.Hickox, G. S.	Rent. Telephone service. Laundry. Rent. Telegram, janitor, and light. Telegram, janitor, light, and ink. Rent. Telegram, janitor, and light. Rent. Telegrams, janitor, and light. Telephone service. Laundry and soap. Rent. Janitor, telegrams, and light. Rent. Telegrams, drayage, janitor, and light. Laundry and soap. Telephone service. Rent. Telegrams, drayage, janitor, and light. Rent. Telegrams, drayage, janitor, and light. Rent. Telephone service. Rent.	$\begin{array}{c} 22.50\\ 19.50\\ 3.00\\ 22.50\\ 5.45\\ 11.15\\ 22.50\\ 3.85\\ 22.50\\ 3.40\\ 18.00\\ 3.00\\ 22.50\\ 4.35\\ 22.50\\ 5.70\\ 3.00\end{array}$

#### SPOKANE, WASH.—TRANSPORTATION.

-	Payee.	Amount.
C. W. Deming	and Navigation Co.:	\$6.00
Do	•••••••••••••••••••••••••••••••••••••••	8.30

### SOUTH ST. PAUL, MINN.-TRAVEL.

· Payee.	Travel.
Humphrey, M. E	\$2.80
Niven, A. B.	21.51

#### TACOMA, WASH.—TRANSPORTATION.

Payee.	Amount.
Northern Pacific Rwy. Co.: M. S. Lantz. Do. Oregon Railroad and Navigation Co.: M. S. Lautz. Do.	\$4.35 9.13 5.90 6.85

#### WASHINGTON, D. C.—SALARIES.

Payee.	Salary.	Travel.
Emery, J. A. Ramsay, R. A.	\$104.17	\$26.35

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## ERADICATION OF SCABLES IN SHEEP-Continued.

### WASHINGTON, D. C.-TRANSPORTATION.

Payee.	Amount.
Central Railroad of New Jersey, S. R. Burch Chicago and Northwestern Rwy. Co.: J. A. Emery. S. R. Burch Lake Shore and Michigan Southern Rwy. Co., R. A. Ramsay	33.40

#### WASHINGTON, D. C.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
<ul> <li>Z. D. Gilman.</li> <li>Bausch &amp; Lomb Optical Co.</li> <li>Do.</li> <li>Rudolph &amp; West Co.</li> <li>Underwood Typewriter Co.</li> <li>Bausch &amp; Lomb Optical Co.</li> <li>Boise Statesman.</li> <li>Morning Oregonian.</li> <li>Fargo Forum.</li> <li>Helena Daily Independent.</li> <li>Seattle Daily Times.</li> <li>Arizona Republican.</li> </ul>	Aplanatic lensesdo         Brass tubing.         Typewriter.         Lenses         Brass tubing and rods         Lenses         Advertising amendment to Department regulations.        do.        do.	$\begin{array}{c} 35.\ 10\\ 2.\ 80\\ 80.\ 00\\ 140.\ 00\\ 29.\ 13\\ 140.\ 00\\ 2.\ 20\\ \hline \\ 2.\ 80\\ 1.\ 90\\ 1.\ 81\\ 1.\ 15\\ \end{array}$
Arizona Republican Salt Lake City Tribune	do	10.80

#### WINONA, MINN.-TRAVEL.

Payee.	Travel.
Fretz, W. J.	\$299.79

#### ERADICATION OF SCABIES IN CATTLE.

ALBUQUERQUE, N. MEX.—SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Blanche R. J Durham, L. Lipp, G. A.	1,000.00	403.55	Sargent, L. E Savage, W. A Smith, E. M	1,625.00	\$147.34 373.86 10.50

#### ALBUQUERQUE, N. MEX.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Atchison, Topeka and Santa Fe Rwy. Co.: R. J. Blanche	\$2.95	Cincinnati, New Orleans and Texas Pacific Rwy. Co.: W. A. Savage	\$12.65
Do Do L. Durham	3.40	Do Chicago, Rock Island and Gulf Rwy. Co.:	5. 70
R. J. Blanche	4.45	L. E. Sargent	75.00
Do Do Do		W. A. Savage. Chicago, Rock Island and Pacific Rwy. Co.:	150.00
Do W. A. Savage Do	90.00 10.55	W. A. Savage. Do. L. E. Sargent.	5.70

# ERADICATION OF SCABIES IN CATTLE-Continued.

ALBUQUERQUE, N. MEX.-TRANSPORTATION-Continued.

Payee.	Amount.	Payee.	Amount.
Chicago, Rock Island and Pacific Rwy. Co.—Continued. L. E. Sargent. Do. Do. W. A. Savage. Colorado and Southern Rwy. Co.: W. A. Savage. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do	\$5.00 3.30 3.30 5.70 3.05 3.05 5.15 3.05 12.65 8.70 4.35 6.95 12.65 8.70 4.35 6.95 12.65 3.05	Fort Worth and Denver City Rwy. Co.—         Continued.         W: A. Savage.         Do.         L. E. Sargent.         W. A. Savage.         Pecos Valley and Northeastern Rwy.         Co.:         G. A. Lipp.         L. Durham.         Do.         Santa Fe Central Rwy. Co., L. Durham.	33.05 3.05 3.05 5.20 3.00 3.00 3.00 3.00 3.00 4.45 4.45 4.85 75.00 75.00 4.45 4.85 5.60

#### ALBUQUERQUE, N. MEX.--MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Blanche, R. J. Do. Do. Lipp, G. A. Do.	do	$\begin{array}{c} 75.00\\ 75.00\end{array}$
Do Savage, W. A Do Do	do do do	$\begin{array}{c} 75.00\\ 37.50 \end{array}$

#### BILLINGS, MONT.-SALARY.

Payee.	Salary.
Eells, F. C.	\$4.17

#### BISMARCK, N. DAK.-SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Bentley, C. A Blackwell, A. M. Bracken, W. J. Brimhall, S. D. Cohenour, H. H. Corbin, E. A. Crewe, W. F. Dunn, P. Elwell, F. N. Evans, F. Foster, J. P. Glynn, F. J.	$\begin{array}{c} 450.00\\ 400.00\\ 350.00\\ 450.00\\ 250.00\\ 150.00\\ 250.00\\ 400.00\\ 450.00 \end{array}$	$\begin{array}{c} \$91.\ 54\\ 93.\ 00\\ 232.\ 25\\ 86.\ 91\\ 206.\ 05\\ 196.\ 33\\ 41.\ 40\\ 232.\ 00\\ 214.\ 45\\ 64.\ 19\\ 137.\ 70\\ 249.\ 25\\ \end{array}$	James, I. L. Logan, J. Lowe, J. H. McGinnis, R. W. Mayer, N. J. Peabody, H. C. Stauffer, J. A. Swaney, F. C. Thomas, G. E. Treacy, R. H. Fish, J. G.	$\begin{array}{c} 450.\ 00\\ 350.\ 00\\ 200.\ 00\\ 27.\ 23\\ 450.\ 00\\ 37.\ 33\\ 350.\ 00\\ \end{array}$	$\begin{array}{c} \$227.\ 80\\72.\ 05\\181.\ 71\\153.\ 82\\29.\ 25\\197.\ 90\\16.\ 90\\194.\ 15\\166.\ 71\\264.\ 50\\\end{array}$

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# ERADICATION OF SCABLES IN CATTLE—Continued.

BISMARCK, N. DAK.—TRANSPORTATION.

Payce.	Amount.	Payee.	Amount
Chicago, Burlington and Quincy R. R.		Chicago and Northwestern Rwy. Co	
Co.: R. H. Treacy	. \$14.95	Continued. J. G. Fish	\$7.00
Do	14.20	Do	4. 32
Do	. 50.00	Do	7.00
Chicago, Milwaukee and St. Paul Rwy.		Do	$4.32 \\ 13.22$
Co.: S. M. Smith	. 3.05	C. A. Bentley.	
J. H. Lowe	. 2.49	S. D. Brimhall.	2.13
A. M. Blackwell	. 2.01	J. P. Foster	3.04
S. M. Smith Do	- 3.52 - 3.05	Do Do	
J. H. Lowe		A. M. Blackwell.	4.3
Do	. 3.24	R. H. Treacy	4.04
Do		Do C. A. Bentley	4.04 20.50
Do Do		S. D. Brimhall.	20.50 2.10
F. Evans		Do	3.3
$D_0$		Do	4.50
N. J. Mayer. J. H. Lowe.	. 6. 83 . 3. 76	Do Do	8.74 4.50
N. J. Mayer	. 3.05	Chicago, St. Paul, Minneapolis and	1.00
Do	. 3.05	Omaha Rwy. Co., R. H. Treacy	120.00
. Do Do		Great Northern Rwy. Co.: W. F. Crewe.	10.00
Do.		J. A. Stauffer.	10.00 2.60
Do	. 3.05	Do	2.60
A. M. Blackwell	. 2.16	H. H. Cohenour	5.00
J. H. Lowe. Fred Evans	$\begin{array}{c c} & 7.32 \\ 6.02 \end{array}$	J. A. Stauffer. Do	3.70 3.70
Do	$\begin{bmatrix} 0.02\\ 5.84 \end{bmatrix}$		2.3
Do	. 7.02	Do	2.3
Do.			2.40
Do Do		R. H. Treacy Do	2. 98 2. 98
Do	. 5.84	Jas. Logan.	7.70
J. P. Foster	. 3. 53	H. H. Cohenour.	6.20
H. C. Peabody.	-24.20	Do	6.85
R. H. Treacy Do	20.0-	F. J. Glynn. R. H. Treacy.	5.00 75.00
F. C. Swaney	- 3.93	H. H. Cohenour	75.00
Fred Evans	- 5.84	H. C. Peabody	75.00
Do Do		J. A. Stauffer. J. G. Fish.	75.00 25.00
Do	. 4.88	Fred Evans.	25.00
Do	. 3.16	A. M. Blackwell	25.00
Do Do	- 5.84	J. A. Stauffer. H. H. Cohenour.	2.38
Do	- 5.84 - 5.84	Do.	5.20 3.65
Do	- 4.76	Do	7.30
Do	- 5.84	Do	10.30
N. J. Mayer. Do.	- 3. 05 - 3. 05	Do Do	10. 30 10. 30
A. M. Blackwell	. 2.63	H. C. Peabody.	10. 00
Do	2.63	Minneapolis, St. Paul and Sault Ste.	
Fred Evans. Chicago and Northwestern Rwy. Co.:	- 5.84	Marie Rwy. Co.: H. H. Cohenour	4.90
R. W. McGinnis	. 3.30	Do.	4.90
J. P. Foster	. 3.76	Do	7.00
DoJ. G_ Fish	- 4.70 - 4.32	C. A. Bentley P. Dunn	4. 69 4. 69
Do	4.32	P. Dunn Northern Pacific Rwy. Co.:	4. 0
F. J. Glynn	. 2.25	W. F. Crewe	2.65
J. H. Lowe. Do		Do	2.55
E. A. Corbin.	- 3.83 - 4.04	Do Do	5.80 5.80
Do	. 20. 50	G. E. Thomas	3. 45
P. Dunn	- 4.04	Do	2.45
Do. S. D. Brimhall	- 20.50 - 4.50	Do	2.45
Do	- 5.82	Do. R. H. Treacy	6. 15 13. 40
Do	- 5.08	Do	3. 45
J. P. Foster	16.38	Do	13.40
Do Do	. 16.37 . 3.36	Do Do	9.00 9.00
• Do	4.32	Jas. Logan	9.00 20.60
J. G. Fish	4.32	R. H. Treacy.	7.18

#### ERADICATION OF SCABLES IN CATTLE-Continued.

BISMARCK, N. DAK.-TRANSPORTATION-Continued.

Payee.	Amount.	Payee.	Amount.
Iorthern Pacific Rwy. Co.—Cont'd.         R. H. Tracy.         Do.         F. J. Glynn.         Do.         Do.         I. L. James.         F. J. Glynn.         St. J. Glynn.	\$13.40 7.15 13.40 3.45 3.45 10.90 3.05 3.05 4.65 3.45 3.45 3.45 5.70 20.60 75.00 75.00	Northern Pacific Rwy. Co.—Cont'd. F. N. Elwell. R. H. Treacy. G. E. Thomas. Do. R. H. Treacy. Do. J. H. Lowe. Do. R. H. Treacy. Do. R. H. Treacy. Do. R. H. Treacy. R. H. Treacy. R. H. Treacy.	\$75.00 150.00 75.00 7.15 3.45 3.45 12.70 3.45 3.45 3.45 3.45 3.45 3.580 6.30 75.00

#### BISMARCK, N. DAK.-MISCELLANEOUS EXPENSES.

Payee.	Articles.	Amount.
Webb Bros. Do. Baker, I. P. Freacy, R. H.	Desk and chairs	35.75 75.00

DENVER. COLO.-SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Allen, R. M. Batchelder, H. M. Dampbell, C. E. Dampbell, L. S. Davison, E. T. Elliş, W. J. Hammack, L. C. Hulbush, C. Hurst, W. H. Jackson, R. E. L. Johnson, F. E. Korb, W. A.	$1,629.17 \\305.56 \\1,450.00 \\413.33 \\140.00 \\675.00 \\128.33 \\1,500.00 \\1,103.00 \\1,408.33$	$\begin{array}{c} & \$413.\ 80\\ & 65.\ 57\\ & 372.\ 74\\ \hline \\ & 219.\ 55\\ & 269.\ 44\\ & 159.\ 20\\ & 526.\ 24\\ & 431.\ 76\\ & 589.\ 63\\ & 258.\ 32\\ \end{array}$	Leeper, J. C. McClure, W. E. Hascall, M. T Noyes, O. W. O'Neil, E. R. Pelsue, O. E. Ramsay, R. A. Spencer, W. T. White, T. Yard, W. W. Smith, E. M.	$\begin{array}{c} 460.00\\ 1,000.00\\ 450.00\\ 1,000.00\\ 91.00\\ 1,000.00\\ 216.67\\ 625.00 \end{array}$	\$78.64 409.30 294.01 591.29 589.43 184.50 206.50 103.92

### DENVER, COLO.-TRANSPORTATION.

		1	
Payee.	Amount.	Payee.	Amount.
Atchison, Topeka and Santa Fe Rwy. Co., E. M. Smith. Baltimore and Ohio R. R. Co., R. A. Ramsay. Chicago, Burlington and Quincy R. R. Co.: W. W. Yard. L. C. Hammack. R. A. Ramsay. H. M. Batchelder. Do. Do. L. C. Hammack. Do. Do. Do. Do. Do.	\$15.80 57.00 7.15 7.65 5.45 7.60 3.10 3.10 2.41 2.41 2.41	Chicago, Burlington and Quincy R. R. Co.—Continued. W. W. Yard. L. S. Campbell. Do E. R. O'Neil. Do. Do. F. E. Johnson. Do. Do. Do. H. M. Batchelder.	$5.69 \\ 3.86 \\ 3.86 \\ 4.59 \\ 3.19 \\ 1.83 \\ 1.56 \\ 2.93 \\ 2.58 \\ 1.90 \\ $
Do	2.41	Do	7.60

# ERADICATION OF SCABLES IN CATTLE-Continued.

DENVER, COLO.-TRANSPORTATION-Continued.

Payee.	Amount.	Payee.	Amou
nicago, Burlington and Quincy R. R.		Chicago, Burlington and Quincy R. R.	
Co.—Continued.		Co.—Continued.	
F. E. Johnson	\$2.92	H. M. Batchelder	\$3
E. R. O'Neil	$\begin{array}{c} 3.19\\ 6.02 \end{array}$	Do E. R. O'Neil	
Do Do	2.30	Do	
Do	3.09	Do	(
Do.	2.32	Do	5
Do	2.32	Do	5
Do	2.68	Do	
Do	1.91	Do	1
Do	3.19	Do	7
Do	3.19		5
F. E. Johnson Do	$\begin{array}{c c}2.43\\1.65\end{array}$	W. J. Ellis. E. R. O'Neil.	16
Do	2.91	H. M. Batchelder.	
Do	2.01 2.00	Chas. Hulbush	6
Do.	1.87	E. R. O'Neil	2
Do	1.87	Do	
L. C. Hammack	3.25	H. M. Batchelder	3
$\mathbf{D}0$	2.41	<u>D</u> o	6
Do	1.94		
Do Do	$\begin{array}{c} 1.94 \\ 1.73 \end{array}$	E. R. O'Neil Do	72
H. M. Batchelder	6.45	Do	11
Do	4.55	Do.	
Do	4.55	Do	7
F. E. Johnson	1.61	Do	
Do	1.70	Do	7
Do.	1.24	H. M. Batchelder	6
E. R. O'Neil.	1.48	L. S. Campbell	
Do	5.85	Do	
Do Do	$5.56 \\ 3.19$	Do C. A. Hulbush	$\begin{vmatrix} 3\\25 \end{vmatrix}$
Do	3.19 3.19	H. M. Batchelder.	20
Do.	2.68	L. S. Campbell	3
Do	$\overline{3.01}$	Do	ı 1
Do	1.03	Do	2
Do	1.03	F. E. Johnson	10
Do	2.57	L. S. Campbell	2
L. S. Campbell Do	$\begin{array}{c} 3.25\\ 3.25\end{array}$		1
Do	$\begin{array}{c} 5.25 \\ 1.30 \end{array}$	Do Do	$\begin{vmatrix} 4\\2 \end{vmatrix}$
Do	1.30	Chicago, Milwaukee and St. Paul Rwy.	2
Do	1.61	Co.:	
Do	1.48	R. A. Ramsay	4
E. R. O'Neil.	3.01	Do	12
Do	2.48	S. M. Smith	3
Do	2.39	Do	1
Do R. E. L. Jackson	$\begin{array}{c}1.91\\4.90\end{array}$	Do Do	2
L. S. Campbell.	2.90	Do	
Do	1.30	Do	1
Do	1.15	Chicago and Northwestern Rwy. Co.:	
	1.15	W. E. McClure	8
E. R. O'Neil	1.91	R. A. Ramsay	3
Do H. M. Batchelder.	1.09	W. H. Hurst	4
Do	$\begin{array}{c} 3.50\\ 1.98 \end{array}$	Do Do	
R. E. L. Jackson	4.90	Do	
E. R. O'Neil.	2.86	Do	2
Do	2.86	Do	11
F. E. Johnson	1.74	Do	2
	1.74	Do	2
E. R. O'Neil.	2.02	L. C. Hammack.	8
Do Do	5.85 $4.29$	W. H. Hurst	7
Do	$4.29 \\ 2.42$	Do Do	5
Do	2.42 2.42	W. T. Spencer	
Do.	2.20	Do	
Do	2.20	W. H. Hurst	5
L. S. Campbell	2.90	Do	3
	1.30	Do	6
Do H. M. Batchelder	3.65	Do	
Do	$\begin{array}{c} 6.\ 45\\ 6.\ 70\end{array}$	Do L. C. Hammack	
	0.70 7.24		

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## ERADICATION OF SCABLES IN CATTLE—Continued.

DENVER, COLO.—TRANSPORTATION—Continued.

Payee.	Amount.	Payee.	Amount
hicago and Northwestern Rwy. Co.—		Missouri Pacific Rwy. Co.:	
Continued.		R. A. Ramsay	\$10.4
L. C. Hammock	\$5.00	F. E. Johnson	2.1
Do	5.00	Do	2.8
W. T. Spencer	9.00 8.20	Do Pecos and Northern Texas Rwy. Co.:	1.5
Do		R A Remsey	7.3
O. W. Noyes.	3.72	R. A. Ramsay Do	7.3
Do	2.54	Pennsylvania R. R. Co.:	1.0
Do	2.54	R. A. Ramsay	17.5
Do	2.54	Do	17.5
Do	2.54	Do	21.0
Do	2.54	The Pullman Co.:	
W. T. Spencer	4.60	R. A. Ramsay	5.0
L. C. Hammack	5.00	Do	5.0
Do	5.00	Do	5.0
hicago, Rock Island and Pacific Rwy.		Do	5.0
Co.:	10 75	Do	5.0
R. A. Ramsay	12.75	Do.	5.0
F. E. Johnson.	$\begin{array}{c}1.\ 69\\1.\ 71\end{array}$	Do Southern Rwy. Co., R. A. Ramsay	5.0 $17.5$
Do Do	$1.71 \\ 1.51$	Texas and Pacific Rwy. Co., R. A. Ramsay	17.0
Do	1.51 1.51		25.0
Do	2.11	say Union Pacific R. R. Co.:	20.0
Do	1.51	R. A. Ramsay	16.1
Do	1.71	M. T. Hascall.	2.1
hicago, St. Paul, Minneapolis and		Do	2.1
Omaha Rwy. Co.:		Do	3. 9
C. W. Noyes.	2.12	Do	3. 9
Do	2.12	Do	2.1
Do	4.24	Do	2.1
Do	3.96	Do	3. 5
Do	3.60	H. M. Batchelder	
Do	3. 46	Do	5. 5
Do	3. 18	Do	2.3
olorado and Southern Rwy. Co.:	9.05	R. E. L. Jackson	
R. E. L. Jackson	3.85	Do M. T. Hascall.	1.6
	$3.85 \\ 7.10$		
W. J. Ellis	6.75	Do Do	2.1
W. T. Spencer. W. A. Korb.	3. 85	The second	3. 6
Do	3.85	Do	3.5
M. T. Hascall	5.80	H. M. Batchelder	6. 0
W. J. Ellis	5.80	M. T. Hascall.	2.1
W. A. Korb.	5.80	F. E. Johnson.	1.6
W. J. Ellis.	3.85	Do	1. 6
Do	3.85	O. W. Noyes.	2.2
Do	4.30	M. T. Hascall.	2.7
Do	3.85	Do	1.8 2.3
L. E. Sargent.	2.50	Do	2. 0
W. T. Spencer Denver and Rio Grande R. R. Co.:	2.90	Do Do	2.1
	17.75	Do.	4.
R. A. Ramsay. H. M. Batchelder		R. E. L. Jackson	2.
reat Northern Rwy. Co.:	10.00	M. T. Hascall.	
W. E. McClure	2.23	H. M. Batchelder.	5.4
Do.	2.33	R. E. L. Jackson	2.1
Do	2.33	Do	3. 1
Do		M. T. Hascall.	1.8
L. C. Hammack	1. 90	Do	
Do	1.90	Do	
Do	2.21	Do	2.
Do	2.21	0. W. Noyes	
Do	1.96	Do.	
Do		F. E. Johnson	
Do		M. T. Hascall.	-
Do		Do	
Do		Do	
Do	2.10	Do	
Do		Do Do	
Do		H. M. Batchelder	
Do	1 00	Do.	1.
Do	1.50	L	

# ERADICATION OF SCABLES IN CATTLE-Continued.

DENVER, COLO.-TRANSPORTATION-Continued.

Payee.	Amount.	Payee.	Amount.
Union Pacific R. R. Co.—Continued. H. M. Batchelder Do. Do. M. T. Hascall. Do. Do. Do. Do. Do. Do. Do. Do. Do. R. E. L. Jackson Do. M. T. Hascall. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do	$\begin{array}{c} \$1.\ 75\\ 1.\ 75\\ 3.\ 50\\ 1.\ 84\\ 2.\ 40\\ 5.\ 46\\ 1.\ 84\\ 4.\ 32\\ 1.\ 42\\ 2.\ 02\\ 2.\ 84\\ 2.\ 10\\ 3.\ 10\\ 1.\ 92\\ 4.\ 90\\ 7.\ 40\end{array}$	Union Pacific R. R. Co.—Continued. M. T. Hascall. Do. Do. Do. Do. J. C. Leeper. O. W. Noyes. W. A. Korb O. W. Noyes. M. T. Hascall. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do	$\begin{array}{c} 2.02\\ 3.18\\ 3.70\\ 4.95\\ 3.40\\ 3.25\\ 3.02\\ -2.40\\ 7.40\\ 1.84\\ 9.62\end{array}$

#### FARGO, N. DAK.-SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Barth, W. C. Beechy, L. P. Blackwell, A. M. Bond, G. A. Bracken, W. J. Brimhall, S. D. Cary, E. J. Cohcnour, H. H. Crewe, W. F. Eagle, J. J. Eells, F. C. Elwell, F. N. Evans, F. Fish, J. G.	$\begin{array}{c} 1,050.00\\721.66\\1,050.00\\925.00\\883.33\\1,042.22\\1,050.00\\540.55\\375.00\\925.00\end{array}$	3387.41 92.50 395.82 264.25 265.00 165.63 292.20 319.20 516.25 203.64 27.80 353.99 133.60 277.56	Foster, J. P. Glynn, F. J. Harrington, C. F. Herbert, C. M. Lowe, J. H McCoul, J. E. McGinnis, R. W. Roberts, H. T. Smith, N. B. Smith, S. M. Stauffer, J. A. Thomas, G. E. Treacy, R. H. Treloar, D. C.	$\begin{array}{c} 964.\ 44\\ 340.\ 00\\ \hline \\ 1,033.\ 34\\ 313.\ 89\\ 795.\ 00\\ 297.\ 22\\ 813.\ 33\\ 700.\ 00\\ 1,050.\ 00\\ 1,050.\ 00\\ 1,333.\ 33\\ \end{array}$	$\begin{array}{c} \$63.\ 07\\ 213.\ 57\\ 151.\ 60\\ 10.\ 15\\ 250.\ 00\\ 88.\ 10\\ 298.\ 90\\ 44.\ 20\\ \hline \\ 551.\ 06\\ 449.\ 85\\ 259.\ 91\\ 530.\ 80\\ 200.\ 30\\ \end{array}$

#### FARGO, N. DAK.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount
Chicago, Burlington and Quincy R. R. Co., R. H. Treacy. Chicago, Milwaukee and St. Paul Rwy. Co.: J. H. Lowe.	\$16.15 3.42	Chicago, Milwaukee and St. Paul Rwy. Co.—Continued. S. M. Smith. Do. Do.	\$6.1( 2.9) 2.9
Do.	$\begin{array}{c} 6.56 \\ 2.16 \end{array}$	Do.	3.0.
A. M. Blackwell		Do:	3.0
F. Evans.	$2.22 \\ 2.22 \\ 2.49$	Do	2.0
Do.		Do	2.9
Do.		Do	1.6
Do	$\begin{array}{c} 2.49\\ 2.22 \end{array}$	Do	2.5
Do		Do	2.8
Do	$2.22 \\ 1.53 \\ 2.22$	A. M. Blackwell.	2.7
Do		F. Evans.	6.8
Do		J. H. Lowe.	6.4
Do	8.52 $2.22$	Do	2.49
J. H. Lowe.		Do	6.83
Do Do Do	$\begin{array}{c} 2.22 \\ 3.94 \\ 4.72 \end{array}$	Do. Do. F. Evans.	$3.9 \\ 3.9 \\ 1.5 $
Do	$\begin{array}{c} 3.94 \\ 3.94 \end{array}$	Do	1.5
Do		A. M. Blackwell	2.1
Do.	$3.28 \\ 3.28 \\ 3.85$	Do	2.0
Do.		Do	2.1
Do.		F. J. Glynn	5.1
Do	5.00	S. M. Smith	2.8

# ERADICATION OF SCABLES IN CATTLE—Continued.

FARGO, N. DAK.—TRANSPORTATION—Continued.

Payec. An	nount.	Payec.	Amoun
vaukee and St. Paul Rwy.		Chicago and Northwestern Rwy. Co.—	
ucd.	@ 4 50	Continued.	
	\$4.76     1.54	J. G. Fish Do	\$4. 4.
	$\frac{1.04}{3.00}$	R. H. Treacy	3.
	6.02	S. D. Brimhall	8.
	5.44	Do	8.
е	10.28	J. P. Foster	4.
	$\begin{array}{c c} 1.58 \\ 3.06 \end{array}$	J. G. Fish Chicago, Rock Island and Pacific Rwy.	4.
	6.02	Co., G. E. Thomas	18.
	3.40	Chicago, St. Paul, Minneapolis and	
	6.02	Omaha Rwy. Co.:	
e	3.41	R. W. McGinnis	16.
•••••	$\begin{array}{c c} 3.28 \\ 3.42 \end{array}$	R. H. Treacy.	6.
acy	5.42 5.15	S. M. Smith	12. 2.
<i>'e</i>	3.28	Denver and Rio Grande R. R. Co., R.	• • •
	3.28	H. Treacy	17.
	2.31	Great Northern Rwy. Co.:	
	2.31	J. A. Stauffer	3.
••••	8.00 4.26	F. J. Glynn	2.2.2
	$\begin{array}{c c} 4.20 \\ 3.94 \end{array}$	Do A. M. Blackwell	1.
	5.80	W. F. Crewe.	5.
	3.94	J. A. Stauffer	3.
	3.83	F. J. Glynn	4.
th	3.05	Do	2.
•••••	$\begin{array}{c c}3.29\\6.10\end{array}$	Do	2. 9.
acy.	3.90	W.C.Barth Do	9.
	3.51	J. A. Stauffer.	2.
Iorthwestern Rwy. Co.:		W. F. Crewe.	5.
	4.07	R. H. Treacy	8.
acy	8.85	Do	8.1
nhall	3.25	A. M. Blackwell	1. 1.
	4.64 4.26	Do H. H. Cohenour	8.
	10.56	Do	
	7.04	Do	$\overline{2}.$
	4.50	Do	12.
•••••	5.68	W. F. Crewe	7.
	$\begin{array}{c c} 3.20 \\ 2.16 \end{array}$	Do. Do.	$10. \\ 3.$
	$2.10 \\ 2.16 \ $	D0	5. 5.
	4.08	Do.	7.
	8.14	Do	10.
	8.46	J. A. Staunfer	• 2.
•••••	$\begin{array}{c c} 2.26 \\ 7.60 \end{array}$	Do	9. 9.
•••••	4.32	Do. W. F. Crewc.	1.
	8.14	Do.	5.
	4.66	J. A. Stauffer	2.
	4.32	Do	6.
nhall	8.14	Do	14.
nhall	$\begin{array}{c c} 4.00 \\ 3.35 \end{array}$	Do. Minneapolis, St. Paul and Sault Stc.	. 4.
Ginnis	1.65	Marie Ry. Co.:	
	1.65	H. H. Cohenour	5.
	7.60	Do	4.
	4.66	G. E. Thomas.	$\frac{2}{2}$ .
•••••	5.38 2.00	Do Do	2.
	2.00 2.00	F. N. Elwell	2.
	7.60	Do	3.
nhall	4.00	G. E. Thomas	2.
	10.56	Northern Pacific Ry. Co.:	
	3.20	R. H. Treacy	5. 5.
	$\begin{array}{c c}1.95\\3.08\end{array}$	Do Do	26.
nn	3.08 3.50	D0	7.
th	2.50	E. J. Cary	6. (
	4.07	Do Do	6. 6.
	5.38		0 1

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## ERADICATION OF SCABLES IN CATTLE-Continued.

FARGO, N. DAK.-TRANSPORTATION-Continued.

Payce.	Amount.	Payee.	Amount.
Northern Pacific Ry. Co.—Continued. G. E. Thomas. Do. F. J. Glynn. R. H. Treacy. F. J. Glynn. R. H. Treacy. F. N. Elwell. F. J. Glynn. R. H. Treacy. Do. Do. Do. Do. Do. Do. Do.	$5.70 \\ 1.95 \\ 5.80 \\ 3.95 \\ 7.28 \\ 3.45 \\ 3.95 \\ 3.95 \\ \end{cases}$	Northern Pacific Ry. Co.—Continued. R. H. Treacy. Do. Do. Do. E. J. Cary. Do. G. E. Thomas. R. H. Treacy. Do. F. J. Glynn. Oregon Short Line R. R. Co., R. H. Treacy.	5.80 7.28 7.28 5.80 5.80 13.40 4.80 13.40 5.80 1.95 13.05

FARGO, N. DAK.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Commercial Bark of Fargo Do.	Telephone, laundry, gas, ink, post-office box rent	105.00 105.00
Commercial Bank of Fargo	Drayage, laundry, gas, telephone, soap, and post-office box rent. Rent. Telephone, gas. water, drayage, express, laundry, and soap.	16. 77 105. 00 23. 56

#### HELENA, MONT.-SALARY.

	. Payee.	Salary.
Davison, E. T		\$150.00

KANSAS CITY, KANS.—SALARIES.

			,		
Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Payee. Asher, H. E. Anders, T. O. Barr, E. E. Bertrand, C. Clawson, C. A. Cunningham, M. F. Curry, H. E. Davidson, W. A. Douglas, H. O. Ewers, S. V. Freeman, C. E. Fry, W. A.	\$8.00 173.33 250.00 8.00 541.67 8.00 8.00 200.00 32.50 8.00 8.00 8.00	Travel. 	Payee. McBroom, R. McCall, C. A. McFall, J. Mauldin, C. E. Osborn, W. F. Parker, J. W. Pickett, J. F. Pine, D. B. Pine, H. E. Rockwell, M. H. Smith, C. R. Sorrell, W.	$\begin{array}{c} \$8.00\\ 1,500.00\\ 200.00\\ 660.00\\ 8.00\\ 125.00\\ 8.00\\ 8.00\\ 8.00\\ 245.00\\ 150.00\end{array}$	\$143.90 34.61 146.80 56.05
Grimes, R. B. Irwin, A. N. Ivers, R. Jones, R. W. Lackey, S. Lash, E. Lauman, F. J.	$\begin{array}{c} 916.67\\ 1,262.50\\ 240.00\\ 250.00\\ 187.50\\ 193.34 \end{array}$	$\begin{array}{c} 219.04\\ 228.55\\ 80.66\\ 102.50\\ 46.70\\ 58.30\\ 67.21 \end{array}$	Stults, C. L. Turner, T. J. Watters, S. A. Yenner, W. Young, J. M. Ruth, A. Pearson, C.	$\begin{array}{r} 8.00 \\ 1,400.00 \\ 8.00 \end{array}$	204.10

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# ERADICATION OF SCABLES IN CATTLE—Continued.

### KANSAS CITY, KANS.—TRANSPORTATION

Payee.	Amount.	Payee.	Amount.
Atchison, Topeka and Santa Fe Rwy.         Co.:         W. Yenner.         Do.         T. J. Turner.         A. N. Irwin.         T. J. Turner.         R. B. Grimes.         A. N. Irwin.         J. McFall.         R. W. Jones and two others.         Robt. Ivers.         Chicago, Rock Island and Pacific Rwy.         Co.:         R. B. Grimes.         Do.         W. A. Fry.         R. B. Grimes.         Do.         W. A. Fry.         R. B. Grimes.	\$2.87 2.87 1.92 1.92 2.95 2.80 15.38 7.70 3.20 4.48 6.55 4.26 10.15 47.25 10.55 7.48 7.48 2.85 4.06	Chicago, Rock Island and Pacific Rwy. Co.—Continued. R. B. Grimes Do. Do. Elmer Lash. A. N. Irwin. H. O. Douglas. W. A. Davidson. Galveston, Harrisburg and San An- tonio Rwy. Co.: J. W. Parker. Do. International and Great Northern R. R. Co., J. W. Parker. Missouri, Kansas and Texas Rwy. Co.: J. W. Parker. A. N. Irwin. Missouri Pacific Rwy. Co.: W. Yenner. Do. R. B. Grimes.	\$4.06 4.06 4.06 15.60 50.00 7.64 11.65 4.95 4.95 2.35 2.35 2.60 3.20 1.26

#### KANSAS CITY, KANS .- MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Clawson, C. A.	do	35.00
Irwin, A. N. Do. Do.	do	50.00 75.00
Smith, C. R Do. Douglas, H. O.	do	35.00

#### NEW ORLEANS, LA.-MISCELLANEOUS EXPENSES.

ę	9	
Mauldin, C. E	Car fare	\$27.25
,		

#### WASHINGTON, D. C.-TRAVEL.

Payee.	Travel.
Steddom, R. P.	\$78.70

#### WASHINGTON, D. C.—TRANSPORTATION.

Payee.	Amount.
Atchison, Topeka and Santa Fc Rwy. Co.: R. P. Steddom Do Chicago, Burlington and Quincy R. R. Co., R. P. Steddom Denver and Rio Grande R. R. Co., R. P. Steddom Southern Pacific Rwy. Co., R. P. Steddom	$\begin{array}{r} 31.\ 95\\ 43.\ 90\\ 17.\ 75\end{array}$

# 102 OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY.

# Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

### ERADICATION OF SCABLES IN CATTLE—Continued.

WASHINGTON, D. C.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Z. D. Gilman. E. H. Catlin Co. Independent Publishing Co. Dallas Morning News Oregon Publishing Co. Seattle Times Printing Co. Roswell Register Tribune. The Forum Printing Co. Oklahoma State Capital.	Thermometer eases. Advertising amendment to Depart- ment regulations. do. do. do. do. do. do. do. do. do. do. do. do. do.	$ \begin{array}{r} 10.00\\ 2.30\\ 2.85\\ 3.36\\ 1.40\\ 1.98\\ 2.50\\ 2.40\\ \end{array} $
Topeka Capital Sioux Falls Argus Leader Wyoming Tribune	do	1.95

# SUPERVISION OF TRANSPORTATION OF LIVE STOCK AND INSPECTION OF VESSELS.

#### BOSTON, MASS.-SALARY.

· Payee.	Salary.	Travel.
Coyle, T	\$1, 441. 66	\$31.25

#### BOSTON, MASS.-TRANSPORTATION.

Payee.	Amount.
New York, New Haven and Hartford R. R. Co., Thomas Coyle	\$12.25
Pennsylvania R. R. Co., Thomas Coyle	12.25

#### \_BUFFALO, N. Y.—SALARIES.

Payee.	Salary.	Payee.	Salary.
Hinkson, R Raub, A. J	\$870.00 718.00	Rieman, J. J.	\$730.00

#### CEDAR RAPIDS, IOWA-SALARY.

. .

Payee.	Salary.
Owen, F. D.	\$150.00

### CHICAGO, ILL.—SALARIES.

Payee.	Salary.	Payee.	Salary.
Hanton, G. T		Honan, W. C.	\$42.50
Holland, J		Kochanowski, R.	1,050.00
Townsend, N. L		Pideoek, W. S.	1,050.00
Wolf, M		Tierney, D. D.	790.00

SUPERVISION OF TRANSPORTATION OF LIVE STOCK AND INSPECTION OF VESSELS— Continued.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Boazman, J. B. Hopkins, F. W. Nighbert, E. M.	\$166.67 208.33 116.66	\$99.27 9.45	Owen, F. D. Ragland, M. J	\$175.00 300.00	\$3.90

# CINCINNATI, OHIO—SALARIES.

#### CINCINNATI, OHIO—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Illinois Central R. R. Co., F. W. Hopkins. Louisville and Nashville R. R. Co.: F. W. Hopkins. Do	3.60 3.18 2.35	Louisville and Nashville R. R. Co.: F. W. Hopkins. Do. Southern Railway Co., F. W. Hop- kins.	

#### CINCINNATI, OHIO-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Bertram, E. L	Telegrams	\$0.68     1.66
Hopkins, F. W.	Car fare	7.00

#### CLEVELAND, OHIO-SALARY.

Payee.	Salary.	Payee.	Salary.
Sawtelle, J. E	\$950.00	Shannon, J. D	\$950.00

#### DENVER, COLO.-SALARY.

Persells, H. V	533.33		·····
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#### KANSAS CITY, KANS.-SALARIES.

Biggs, A. W. Bray, S. B. Cannon, E. C.	734.33	Carter, C. Zimmerman, H. E. Tunstall, J.	734.00
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#### LONDON, ENGLAND-SALARY.

Payee.	Salary.	Travel.
Wray, W. H.	\$387.50	\$199.54

### 104 OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY.

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

SUPERVISION OF TRANSPORTATION OF LIVE STOCK AND INSPECTION OF VESSELS— Continued.

LONDON, ENGLAND-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Wray, W. II. Do. Do. Do. Do. Do. Do. Do. Do	Postagedo. Telephone service Postagedo Telephone service	$\begin{array}{r} 4.31 \\ 3.36 \\ 8.20 \\ 5.79 \\ 3.39 \\ 8.20 \end{array}$

#### LOS ANGELES, CAL.—SALARY.

Payee.	Salary.
Hill, W. E	\$116.67

#### NASHVILLE, TENN.-SALARY.

. Payee.	-	Salary.	Travel.
Ragland, M. J.		\$200.00	\$74.31

#### NASHVILLE, TENN.-TRANSPORTATION.

Payee.	Amount.
Cincinnati, New Orleans and Texas Pacific Rwy Co., F. W. Hopkins.	\$2.80 3.51

#### NATIONAL STOCK YARDS, ILL.-SALARIES.

Payee.	Salary.	Payee.	Salary.
Bruton, A. R. Edmond, C. S.	$1,050.00 \\ 120.00$	Hartwell, C. K. Schierman, J. F. Tellejohn, E. H. Weaver, F.	$1,050.00 \\780.00$

#### NEW YORK CITY-SALARY.

· Payee.	Salary.
Flannery, J	\$1,200.00

#### NORFOLK, VA.-MISCELLANEOUS EXPENSES.

Payee.	Artiele.	Amount.
Ferrell, C. H., & Co	Rent	\$48.00

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SUPERVISION OF TRANSPORTATION OF LIVE STOCK AND INSPECTION OF VESSELS— Continued.

### PHILADELPHIA, PA.—SALARIES.

Payee.	Salary.	Payee.	Salary.
Biehl, J	\$66.00	Carter, G	\$1,200.00

#### RICHMOND, VA.—SALARY.

. Payee	Salary.
Owen, F. D	\$116.67

#### ST. LOUIS, MO.—SALARY.

McGuire, W. R

#### \$950.00

.

#### SOUTH OMAHA, NEBR.—SALARIES.

Payee.	Salary.	Payee.	Salary.
Crandall, W. W	$\$950.00 \\ 797.50$	Keyser, C. T.	\$720.00
Gove, A. W		Sutton, C. G.	780.00

#### SOUTH ST. JOSEPH, MO.-SALARIES.

#### WASHINGTON, D. C.-TRAVEL.

Payee.	Travel.
Burch, S. R.	\$27.05

#### INSPECTION OF SOUTHERN CATTLE.

ATLANTA, GA.—SALARIES.

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
	Brawley, W. Carter, B. D. Frady, J. E. Gaines, J. L. Johnson, E. McClain, W. Maloney, A. J. Meaders, F. M. Moore, H. W. Moore, M. D.	$\begin{array}{c} 210.\ 00\\ 16.\ 33\\ 105.\ 00\\ 105.\ 00\\ 60.\ 67\\ 79.\ 33\\ 116.\ 67\\ 189.\ 00\\ 16.\ 33\\ 16.\ 33\\ 16.\ 33\end{array}$	79.92	Park, A. B. Payne, A. J. Query, A. J. Quillian, C. M. Robinson, C. I. Shelton, E. W. Sims, W. A. Smith, G. Waters, J. T. Willbanks, T. S.	175.00 $16.33$ $203.89$ $105.00$ $175.00$ $175.00$ $16.33$ $189.00$ $65.33$	97.91 121.73 16.68

## INSPECTION OF SOUTHERN CATTLE—Continued.

ATLANTA, GA.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Cleveland, Cincinnati, Chicago and St. Louis Rwy. Co., W. A. Myers Illinois Central R. R. Co., A. J. Maloney. Nashville, Chattanooga and St. Louis Rwy. Co.: W. G. Smith A. J. Payne. Pennsylvania R. R. Co., E. H. Bau- mann.	4. 10	Seaboard Air Line Rwy. Co., A. J. Payne. Southern Rwy. Co.: A. J. Payne. Do. Do.	\$8.00 2.79 3.90 3.90

#### ATLANTA, GA.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Carter, B. D.	Livery service	. \$7.00
Brawley, Wm	do	. 30.00
Do.		. 30.00
Gaines, J. L.		15.00
Do.		30.00
Fradv, J. E.	do	
Do		. 30.00
Johnson, Ed.	do	
McCailn, win. A.	do do	. 4.00
Meaders, F. M		15.00
. Do	do.	
Do	do	
Moore, H. W.	do	- 7.00
Moore, M. D. Owens, C. T.		. 7.00
Candler Investment Co.	Rent.	
Do.		
Do	do	. 22.50
Fielder & Allen Co	Office furniture	
Candler Investment Co		. 22.50
Query, A. J. Robinson, C. I.		- 7.00 15.00
Do		
Waters, J. T.	do	
$\mathbf{D}0$	do	
Do.		30.00
Willbanks, T. S	do	28.00 15.00
Do		
	do	7.00

#### AUBURN, ALA.—TRAVEL.

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Payee.	Travel.
Graybill, H. W.	\$26.5¦
Lewallen, W. M.	6.4(

## AUBURN, ALA.—TRANSPORTATION.

Payee.	Amount
Louisville and Nashville R. R. Co., W. M. Lewallen. Western Railway of Alabama, H. W. Graybill.	

#### OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY. 107

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

#### **INSPECTION OF SOUTHERN CATTLE**—Continued.

BLACKSBURG, VA.-TRAVEL.

Payee.	Travel.
Davidson, R. J.	\$13.20

#### BLACKSBURG, VA.—TRANSPORTATION.

Payee.	Amount.
Atlantic Coast Line R. R. Co., R. J. Davidson.	\$6.30
Norfolk and Western Rwy. Co., R. J. Davidson.	6.30

Payee.	Teavel.	Payee.	Travel.
Bertram, E. L. Everly, O. W.	\$5.40 10.95	Ragland, M. J.	\$5.45

CINCINNATI, OHIO-TRAVEL.

DES MOIÑES, IOWA-TRAVEL.

Miller, C....

	\$13.25		
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#### FORT WORTH, TEX.-SALARY.

Payee.	Salary.	Payee.	Salary.
Dallas, J. T	\$700.00	Hughes, A. N.	\$360.00

#### . INDIANAPOLIS, IND.-TRAVEL.

Payee.	Travel.
Walter, H. K.	\$7.40

KANSAS CITY, KANS.-SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Allen, L. J. Anders, T. O.	966.67	\$95.09 294.74	Clark, L. N. Clawson, C. A.	\$210.00 525.00	\$52.10 150.11
Andrews, E. B. Andrews, L. Arnett, D. N. Beattie, R. S.	140.00	$\begin{array}{r} 20.65\\ 13.92\\ 31.20\\ 171.65\end{array}$	Cock, J. H. Cole, G. T. Cole, W. W. Coleman, W. A.	$246.67 \\ 350.00 \\ 388.90 \\ 280.00$	$ \begin{array}{r} 9.00 \\ 133.17 \\ 76.61 \\ 148.90 \end{array} $
Benson, T. H. Berry, J. C. *Brewer, F. W.	$211.11 \\ 140.00 \\ 1,500.00$	$\begin{array}{c} 16.35\\ 32.35\\ 445.51 \end{array}$	Conley, C. C. Corbett, C. M. Cracroft, T. B.	$816.67 \\ 222.00 \\ 400.00 \\ 207.50 \\$	167.80 142.05 14.20
Browning, G. W. Buffington, R. M. Burgett, J. L. Cantwell, J. H.	890.00 1,210.34	$245.38 \\ 318.93 \\ 34.35$	Crockett, J. L. Dallas, J. T. Deahl, N. II. Dean, A.	$\begin{array}{r} 207.\ 50\\ 423.\ 33\\ 210.\ 00\\ 1,833.\ 34 \end{array}$	$ \begin{array}{r}     14.30 \\     40.65 \\     47.10 \\     125.65 \\ \end{array} $
Carpenter, G. C Cash, J. Cater, F. C.	$ \begin{array}{r} 140.00\\83.34\\268.34\end{array} $		Denman, W. A. Dennis, V. A. Drake, J. B.	210.00 73.33 205.33	65.05 179.31 83.55 120.52
Chapin, D. C. Clare, H. C.	175.00	$ \begin{array}{c c} 12.30 \\ 51.61 \end{array} $	Drummond, R. H Dumbauld, H	576.67 800.00	$130.52 \\ 195.94$

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#### INSPECTION OF SOUTHERN CATTLE-Continued.

KANSAS CITY, KANS.—SALARIES—Continued.

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Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
1 aj 00.	Number of t	Lituron		, Sulling .	1101011
Enos, E. M.	\$203.00	\$94.31	Morledge, R.		\$35.78
Fry, C. P.		39.35	Moser, G. C.	\$1,241.67	201.21
Fry, J. L		18.76	Nanee, J. E.	183.33	63.27
Fry, W. A		89.87	Ney, W. O	200.00	52.39
Gallagher, F. A.	175.00	22.80	Offield, J. W.	210.00	56.75
Gibson, C. H	250.00	116.40	Owens, C. S.	193.67	82.65
Gideon, O. P	198.33	67.05	Parker, J. W		150.39
Glenn, H. H.		123.05	Pearee, B	165.67	56.59
Gorton, C. T	250.00	70.52	Persse, J. C.	140.00	11.85
Gourley, T. M.	70.05		Rigdon, F. Rigdon, S. J	1,016.67	356.43
Graham, R	1,160.54	455.32	Rigdon, S. J	400.00	113.69
Hahn, R. H.		52.59	Riseling, F	300.00	
Hart, H. M	1,140.00	521.85	Robards, J.	1,000.00	390.92
Hiatt, W. L.		95.56	Robinson, C. W	140.00	
Hughes, A. N.	423.33	6.95	Shepherd, M. K.	205.33	51.20
Jorden, W. D	150.00	104.05	Sherwood, E. C.	866.67	
Kooken, M	250.00	81.15	Singleton, H.	500.00	73.75
Laey, W. J.	27.23	6.80	Smith, F. M.	210.00	75.35
Lamb, M. B		13.65	Smith, W. A	631.67	
Lane, G.		12.95	Sommers, F.	210.00	102.03
McArmiek, C. E.		45.65	Steele, J. G.	430.00	127.99
MeClelland, J. D.			Stine, B. L.	1,200.00	36.97
McCunningham, D		61.52	Stone, R. E.	179.67	53.23
MeLelland, W. W.	140.00	12.60	Thrower, J. D.	200.00	
Mathews, V. A.	140.00	34.33	Treeman, F. D.		44.56
Mayer, O. C.			Wagner, A. E.	1,050.00	
Merritt, J. G		69.60	Wallace, W. A	386.12	132.17
Miller, I.	312.67	78.70	Warner, D. E.	840.00	255.21
Mock, B. H	198.33	44.25	Blaekmar, C. E	1,050.00	
Morgan, P	200.00		Bruser, J	1,200.00	

KANSAS CITY, KANS.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Atchison, Topeka and Santa Fe Rwy. Co.: Ralph Graham. S. J. Rigdon. Ralph Graham. G. C. Moser. A. Dean. Ralph Graham. H. M. Hart. Do. Do. Do. Do. F. C. Cater. Ralph Graham. L. J. Allen. H. M. Hart. Ralph Graham. Chieago and Alton R. R. Co.: G. C. Moser. Do. Chieago, Burlington and Quincy Rwy. Co.: G. C. Moser. Do. Chieago, Burlington and Quincy Rwy. Co.: G. C. Moser. Do. Chieago, Burlington and Louisville Rwy. Co., G. C. Moser. Chieago, Indianapolis and Louisville Rwy. Co., G. C. Moser. Chieago, Milwaukee and St. Paul Rwy. Co.:	$\begin{array}{c} \$2.14\\ 12.50\\ 4.35\\ 4.15\\ 25.10\\ 3.61\\ 3.74\\ 3.74\\ 3.74\\ 3.74\\ 4.35\\ 5.90\\ 25.0$	Chieago, Roek Island and Paeifie Rwy. Co.: F. W. Brewer. Do. L. J. Allen. H. M. Hart Do. G. C. Moser. Do. J. G. Steele. Ralph Graham. H. M. Hart. L. J. Allen. H. M. Hart. L. J. Allen. G. C. Moser. Do. L. J. Allen. F. W. Brewer. T. O. Anders. Cleveland, Cineinnati, Chieago and St. Louis Rwy. Co.: G. C. Moser. Do. Denver, Enid and Gulf R. R. Co., F. W. Brewer. Evansville and Indianapolis R. R. Co., Galveston, Harrisburg and San Anto- nio Rwy. Co.: C. C. Conley. Do.	$1.74 \\ 2.06 \\ 4.45 \\ 1.90 \\ 3.80 \\ 3.71$
G. C. Moser. Do. Chieago, Rock Island and Gulf Rwy. Co., F. W. Brewer.	$   \begin{array}{c}     10.45 \\     4.04 \\     3.90   \end{array} $	Do. Do. Do. Do.	5.05 5.05 5.05 5.05 5.05

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Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

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## **INSPECTION OF SOUTHERN CATTLE**—Continued.

KANSAS CITY, KANS.—TRANSPORTATION—Continued.

Payce.	Amount.	Payce.	Amount.
Galveston, Harrisburg and San Anto- nio Rwy. CoContinued. C. C. Conley. Do. Do. Do. G. W. Browning. C. C. Conley. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do	A mount. \$5.05 5.05 5.05 1.00 26.80 3.05 3.15 2.85 10.25	Missouri, Kansas and Texas Rwy. Co.— Continued. J. E. Nance. B. L. Stine. A. Dean. Missouri Pacific Rwy. Co.: G. C. Moser. Do. New York, Chicago and St. Louis R. R. Co.: G. C. Moser. Do. St. Louis, Brownsville and Mexico Rwy. Co., C. C. Conley. St. Louis and San Francisco Rwy. Co.: F. Rigdon. Do. Do. Do. Do. F. W. Brewer. Do. F. W. Brewer. Do. F. Rigdon. Do. F. Rigdon. Do. M. A. Fry. Do. F. Rigdon. Do. Do. Do. Do. M. A. Dean. Do. Do. Do. M. O. Ney. Do. A. Dean. B. L. Stine. G. C. Moser. Do. Do. Do. Do. M. Do. Mo. Moser. Do. Do. Do. Do. Do. Mo. Do. M. Do. Do. M. Do. Do. M. O. Ney. Do. Do. M. O. Ney. Do. Do. Do. Do. M. Do. Do. Do. Do. Do. M. O. Ney. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do	\$10.25 7.50 25.00 7.50 2.36
S. J. Rigdon. T. O. Anders and 1 other. F. W. Brewer. T. O. Anders. Do. L. J. Allen. G. C. Moser. Do. Frank Rigdon. B. L. Stine. Frank Rigdon.	$10.25 \\ 7.20 \\ 6.60 \\ 4.65 \\ 8.20 \\ 4.90 \\ 7.50 \\ 7.50 \\ 3.34 \\ 24.60$	St. Louis Southwestern Rwy. Co.: F. Rigdon. Do. Texas and Pacific Rwy. Co.: C. C. Conley . D. McCunningham. Wabash R. R. Co.: F. C. Cater. G. C. Moser. Do.	$ \begin{array}{c} 1.65\\ 1.65\\ 10.75\\ 10.75\\ 7.50\\ 2.10\\ 1.12\\ \end{array} $

#### KANSAS CITY, KANS.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Andrews, Ed. B.	Livery service	\$46.00
Andrews, L.		
Do	do	60.00
Arnett, D. N.	do	60.00
	do	
Beattic, R. S.		
E	do	
	do	
Berry, J. C.		
	do	
Bensen, T. H.		
Blackmar, C. E.	do	
	do	
	do	
Brewer, F. W.		
	do	
	do.	60.00

## INSPECTION OF SOUTHERN CATTLE—Continued.

KANSAS CITY, KANS.—MISCELLANEOUS EXPENSES—Continued.

Payee.	A rticle.	Amou
rewer, F. W	Livery service	\$6
Do	dodo	6
uffington, R. M Do	do	30
Do	do	6
Do	do	- 60
Do Do		60 60
D0		60
Do	do	60
intwell, J. H.	do	60
Do rpenter, G. C.	do	60 61
Do	do	6
sh, John	dodo	30
Do	do	30
rter, F. C. Do.	do	60
are, H. D.	do	1
Do		3
Do awson, C. A.		3
Do	do	3
Do	do	3
	do	3
ark, L. N Do	do	3
Do.	do.	3
leman, W. A		4
Do	do	6
Do Do		$\begin{bmatrix} 6\\ 6\end{bmatrix}$
le, W. W.		3
Do	do	3
Do		3
Do ockett, J. L.		$3 \\ 4$
Do.		6
Do	do	6
ean, Albertuthwestern Telegraph and Telephone Co	Telegrams Telephonc scrvice	
ansas City Stock Yards Company of Missouri	Rent	4
chardson, T. M. Insas City Stock Yards Company of Missouri	do	4
ansas City Stock Yards Company of Missouri	do	4
chardson, T. M	Ink.	4
Do.	Telegrams.	
uthwestern Telegraph and Telephone Co	Telephone service	P
chardson, T. M.	Rent.	· 4:
nsas City Stock Yards Company of Missouri an. Albert	do Telegrams	4
an, Albert. uthwestern Telegraph and Telephone Co	Telephonc service	9
an, Albert	Telegrams.	
organ, P uthwestern Tclegraph and Telephone Co	Car fare	
nsas City Stock Yards Company of Missouri	Rent	4
chardson, T. M. xas and Pacific Telephone Co	do	4
xas and Pacific Telephone Co	Telephone service.	9
ahl, N. H	do.	3.
Do	do	3.
nman, Wm. A	do	6
Do. Do.	do	61 61
ummond, R. H	do	3
Do	do	3.
Do		3
Do Do	do	3
Do	do	2
umbauld, H	do	30
Do		60 60
Do. Do.		6(
Do	do	60
	do.	60

## INSPECTION OF SOUTHERN CATTLE—Continued.

KANSAS CITY, KANS---MISCELLANEOUS EXPENSES--Continued.

Payee.	Article.	Amot
umbauld, H	Livery service	\$60
rake, J. B.	do	32
Do.		3.
Do nos, E. M		34 11
Do	-	30
Do	do	3.
ry, J. L		3
Do. ry, C. P.		3. 60
Do		6
allagher, F. A.	do	30
Do		60
Do. Ibson, C. H		60 60
Do.		6
Do	do	60
deon, O. P		29
Do.		3.
Do enn, H. H.		3.
orton, C. T		3
Do	do	3.
Do	do	3
aham, Ralph		$\frac{1}{2}$
Do Do		3.
Do.	do	3
Do	do	3.
Do		3
Do		3.
Do rden, W. D		
Do.		7
Do	do	7.
vens, Lane		6
Do Do.		6
ooken, Mark	do	
Do.	do	$3$
Do	do	3
Armick, C. E.	do	3
Do Clelland, J. D	do	4
Do.		6
Do	do	3
Cunningham, Dan	do	6
Do Do		6
Lelland, W. W.		
Do	do	3
thews, V. A	do	
Do erritt, J. G		6
Do.	do	6
Do.	do	6
ller, Ira	do	3
Do.	do	3
Do. Do.		3
ock, B. H.		2
Do	do	3
Do.	do	3
nce, J. E.		4
y, W. O	do	
Do	do	6
field, J. W.	do	3
Do. Do.	do	3
vens, C. S.	do	$\frac{3}{2}$
Do	do	3
Do	.do	3
ice, H. B.	Rent.	1 1
Do	do	1
Do		ī
	do	

## INSPECTION OF SOUTHERN CATTLE-Continued.

KANSAS CITY, KANS.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amou
ice, Н. В.	Rent	\$12
Ďo	do	12
Do		12
	Livery service	
	do	
	do	
ersse, J. C	do	60
	do	
gaon, Frank	do	
Do	do	60
$g_{\text{Do}}^{\text{doll}}$ , S. J		30
	do	
	do	
Do	do	
	do	
$D_0$ .		
Do.		
binson, C. W.		
	do	
epherd, M. K.		
Do	do	
Do′	do	
nith, F. M	do	
·Do		
Do		60
aith, W. A	Car fare	3
mmers, F		
Do		
	do	
Do one, R. E		
	do	
Do	do	00 3
agner A. E.	Car fare	····· 11
	do	
	do	
	do	
	Livery service	
Do.	do	60
Do.		
	do.	
	do	
	do	
	do	
Do.	do	

#### KNOXVILLE, TENN.-TRAVEL.

Payee.	Travel.
Mooers, C. A	\$14.47

#### KNOXVILLE, TENN.—TRANSPORTATION.

Payee.	Amount.
Southern Rwy. Co.: C. A. Mooers. H. A. Morgan. Do.	\$3. 32 3. 32 3. 32
W. G. Smith	15.50

#### **INSPECTION OF SOUTHERN CATTLE**—Continued.

LOS ANGELES, CAL.—SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Coffy, J. P. Coleman, A. T. Eastman, C. Echols, B. C. Hood, H. B. MacKellar, W. M.	408.88 250.00 256.67	$\begin{array}{r} 92.04\\96.25\\112.00\\100.90\end{array}$	Paul, A Raque, C. A Rosenberger, M Rubel, C. W Schofield, M Rodibaugh, S. I	\$166.67	$54.00 \\ 156.36$

#### LOS ANGELES, CAL.—TRANSPORTATION.

Payee.	Amount.
Chicago, Indianapolis and Louisville Rwy. Co., S. I. Rodibaugh Pennsylvania R. R. Co., B. C. Echols. Southern Pacific Rwy Co.: W. M. MacKellar. Do. Do. Do.	5.15 $5.15$

#### LYNCHBURG, VA.—SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Armistead, H Aufente, J. R	\$357.50	\$5.25	Marshall, H. Niven, C. F.	\$317.22 189.00	\$187.07     315.01
Baucom, G. H. Berdan, A. Butler, J. S.	$\begin{array}{c} 72.\ 00\\ 233.\ 34\\ 250.\ 00\end{array}$	173.15216.45	Niven, J. F. Niven, L. A. Oglesby, W. B.	$\begin{array}{c} 36.\ 00 \\ 189.\ 00 \\ 149.\ 33 \end{array}$	$\begin{array}{c} 323.\ 50\\ 159.\ 42\end{array}$
Caldwell, H Clark, W. G Connell, R. M	400. 00 45. 00	* 386.55 125.01	Overton, J. E Owen, T. M Plyler, P. P. W	70.00	$     114.59 \\     616.37 $
Covington, T. R. De Hart, H. L. Edwards, J. H.	36.00	80.00	Pratt, R. T. Ragland, M. J. Richardson, M. H.		530.15 337.22
Emery, F. E. Everly, O. W. Finley, G. M.		$528.06 \\ 195.91 \\ 79.31$	Roberts, G. A. Saunders, J. B. Seymore, C. H.	$   \begin{array}{r}     170.84 \\     208.34 \\     113.89   \end{array} $	$79.90 \\94.86 \\46.55$
Gallagher, B. A. Glick, S. H. Graham, J.	$508.\ 34\\162.\ 00$	376.95 126.69	Shearer, J. C. Slicer, H. M. Spoon, J. P.	$244.\ 44\\203.\ 00$	107.98 91.17
Henderson, E. P. Herring, L. J.	400.00 70.00	$\begin{array}{c} 347.\ 11\\ 112.\ 52 \end{array}$	Squires, J. H. Turlington, J. E.	70.00	$\begin{array}{c} 31.17\\ 445.01\\ 96.65\\ 76.28\end{array}$
Hills, J. V. Jones, A. C. Jones, C. H.	$70.00 \\ 250.00$	$     181.18 \\     106.20 \\     90.65 \\     700 \\     90.65 $	Will, E. J. Williams, J. S. Winfree, P. B.	97.50	33. 45
Kiernan, J. A. Lawson, W. F. Lull, E. E.	$168.00 \\ 250.00$	790.09 225.00	Winfree, R. N Wood, E. P Yager, E. P	$\begin{array}{r} 45.\ 00\\ 125.\ 01\\ 159.\ 45\end{array}$	$101.\ 84\\149.\ 00$
Koonce, L. F	70.00	111. 10			

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#### OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY. 114

# Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

## INSPECTION OF SOUTHERN CATTLE-Continued.

LYNCHBURG, VA.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Atlantic Coast Line R. R. Co.:         J. A. Kiernan.         Do.         Do.         Chesapeake and Ohio R. R. Co.:         O. W. Everly.         E. P. Yager.         Chicago and North Western Rwy. Co.,         J. R. Aufente.         Cleveland, Cincinnati, Chicago and St.         Louis Rwy. Co.:         B. A. Gallagher.         H. Caldwell.         Louisville and Nashville R.R.Co., T. M.         Owen.         Norfolk and Western Rwy. Co.:         J. A. Kiernan.         J. A. Kiernan and 1 other         Do.         Do.         Pennsylvania R. R. Co.:         Henry Marshall.         J. V: Hills.	$\begin{array}{c} 3.21 \\ 3.70 \\ 7.50 \\ 3.70 \\ 3.75 \\ 3.70 \end{array}$	Pennsylvania R. R. Co.—Continued. Aug. Berdan.Seaboard Air Line Rwy. Co.: J. A. Kiernan. Do.E. P. Henderson. W. G. Smith.Southern Rwy. Co.: T. M. Owen. Do.J. A. Kiernan. Do.Do.J. A. Kiernan. Do.Do.J. A. Kiernan. Do.Do.J. A. Kiernan. Do.J. A. Kiernan. Do.J. A. Kiernan. Do.J. A. Kiernan. Do.J. A. Kiernan. Do.J. A. Kiernan. Do.J. A. Kiernan. E. P. Henderson. Do.J. A. Kiernan. E. P. Henderson. T. M. Owen.T. M. Owen. Do.J. A. Kiernan. T. M. Owen.T. M. Owen.T. M. Owen.T. M. Owen.T. M. Owen.	$\begin{array}{c} 6.40\\ 5.20\\ 6.55\\ 6.55\\ 6.55\\ 8.45\\ 5.20\\ 6.55\\ 7.50\\ 6.40\\ 8.60\\ 3.20\\ 4.40\\ \end{array}$

LYNCHBURG, VA.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Payee.           De Hart, H. L.           Do.           Jones, C. H.           Do.           Do.           Do.           Do.           Do.           Do.           Seymour, C. H.           Do.           Saunders, J. B.           Do.           Do.           Shearer, J. C.           Do.           Do.           Do.           Do.	Livery service. do do do do do do do do do do Electric light and drayage. Rent. do Livery service. do do do Crude petroleum	$\begin{array}{c} \$5.00\\ 37.50\\ 37.50\\ 37.50\\ 18.75\\ 37.50\\ 37.50\\ 37.50\\ 37.50\\ 37.50\\ 37.50\\ 37.50\\ 37.50\\ 37.50\\ 37.50\\ 37.50\\ 37.50\\ 37.50\\ 37.50\\ 300\\ 45.00\\ 45.00\\ 45.00\\ 45.00\\ 45.00\\ 45.00\\ 37.50\\ 37.50\\ 37.5(\\ 37.5$
Do	do	213.5

#### **INSPECTION OF SOUTHERN CATTLE**—Continued.

#### NASHVILLE, TENN.—SALARIES.

Payec.	Salary.	Travel.	Payee.	Salary.	Travel.
Andress, W. R.	\$210.00	\$22.80	Lentz, E. S.		\$70.15
Beakley, W. A.	140.00	<i>Q22.00</i>	Lentz, G. W.	\$175.00	<i>Q</i> .0.10
Beattie, J. G.	342.22	68.99	Lowrey, E. H.	175.00	
Becker, C. J.	166. 67	84.83	Martin, R. M.	146.67	14.85
Bowers, S. B.	179.67	01.00	Mitchell, F. P.	133.00	14.00
Boyd, M. D.	95.67		Murphy, W. J.		165.76
Browning, G. W	380.00	87.10	Myers, M. J.	881.67	107.59
Bullington, W. H.	140.00	01.10	Noyes, R. E.	253.34	83.65
Burkhalter, J. D.	182.00		Pack, B.	177.33	
Butler, C. T.	0 - 0 -		Pennington, J. F.	172.67	
Cain, W. S.	140.00		Pettibone, A. H.	112.01	71.36
Carlock, L. H.	79.33		Petty, J. W.	100.00	33.65
Davis, H. F.			Pfaffman, G. A.	268.33	59.85
Davis, J. H.	175.00		Phillips, R.	109.67	00.00
Ellenberger, W. P.	110.00	94.29	Pinkstone, T.	103.07	•••••
Featherstone, O. A	74.67	04.20	Potter, G. M.	342.22	96.92
Enochs, N.	177.33		Price, J. O. F.	375.00	101.14
Evans, D.	140.00		Purycar, E. F.	65.33	101.14
Fanning, J. H.	23.33		Ragland, M. J.	374.44	•••••
Flaherty, G. F.	233.34	94.49	Robbins, H.	342.22	124.46
Floyd, J. N.	140.00		Romines, J. P.	49.00	124.40
Frazier, F. A.	177.33		Safley, J. C.	165.67	
Garrett, O. M.	16. 67		Scott, P. B.	128.34	87.70
Good, H. H.	175.00		Shipley, H. R	149.33	01.10
Greer, H. C., jr.	140.00		Smallmon, D. M.	149.34	
Gunn, J. H.	140.00		Sparkman, I. L.	170.34	
Hampton, J. M	102.66		Stewart, W. J.	110.01	145.31
Hanawalt, D. C.	102.00	175.50	Storie, I. R.	170.33	110.01
Harbison, G. W	177.33	110.00	Swaim, J. L.	184.33	
Haston, D. L.			Talbott, J. G.	168.00	
Henry, J. T.	105.00		Thomason, H.		14.00
Hine, E.	136.50		Ulman, O.	270.00	11.00
Holloway, J. H.	179.67		Wasson, S. B.	102.67	
Jackson, R. E	110.01	114.03	Weihe, W. E.	371.11	71.45
Jarvis, D. A.		111.00	Whitson, M. E.	186.67	11. 10
Jarvis, G. W			Williams, JT.	105.00	
Johnson, J. D.			Willis, W. G.		
Kell, O. T.	95.67		Lewallen, W. M.		56.16
	00.01		100000000, 1100000000000000000000000000		00.10
		1			

#### NASHVILLE, TENN.—TRANSPORTATION.

Payee.	Amount.	Payce.	Amount.
Baltimore & Ohio R. R. Co., G. F. Flaherty. Chicago, Burlington and Quincy R. R. Co.: W. E. Weihe. J. G. Beattie. Chicago, Milwaukee and St. Paul Rwy. Co., G. A. Pfaffman. Cleveland, Cincinnati, Chicago and St. Louis Rwy. Co., G. M. Potter. Illinois Central R. R. Co.: H. Robbins. P. B. Scott.	\$14.35 18.50 17.50 15.05 13.85	Nashville, Chattanooga and St. Louis Rwy. Co.: W. P. Ellenberger. Do. Do. A. H. Pettibone. W. P. Ellenberger. Do. Do. Pennsylvania R. R. Co., W. R. Andress. Southern Rwy. Co.: M. J. Ragland. W. P. Ellenberger.	\$3.95 3.30 3.15 3.95 3.00 4.60 3.15 23.35 5.15
Louisville and Nashville R. R. Co.: R. M. Martin. W. P. Ellenberger.	$     \begin{array}{r}             16.75 \\             3.24         \end{array}     $	W. I. Encloseiger	4.00

## **INSPECTION OF SOUTHERN CATTLE**—Continued.

NASHVILLE, TENN.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Beakley, W. A.	Livery service	\$30.00
Bowers, S. B. Do.	do	$10.00 \\ 30.00$
Do	do	29.00
Boyd, M. D. Do	do do.	$     11.00 \\     30.00 $
Bullington, W. H.	do	30.00
Do Burkholder, J. D.	do	30.00 10.00
Do Do	do	30.00 30.00
Butler, C. T.	do	11.00
Cain, W. S. Do.	do do	30.00 30.00
Carlock, L. H.	do	4.00
Do Davis, H. F		30.00 7.00
Dó Do	do	30.00
Davis, J. H.	do	29.00 7.00
Dó Do	do	30.00 30.00
Enochs, N	do	8.00
Do Do		30.00 30.00
Evans, David	do	30.00
Do Fanning, J. H		30.00 4.00
Do	do	6.00
Floyd, J. N. Do	do	30.00 30.00
Frazier, F. A	do	8.00
Do Do	do	30.00 30.00
Good, H. H. Do	do	7.00
Do		30.00 30.00
Greer, H. C., jr.		30.00 30.00
Gunn, J. H.	do	30.00
Do Hampton, J. M.	do	30.00 16.00
Do	do	28.00
The Texas Co Cumberland Telephone and Telegraph Co.	Crude petroleum.	213.78 8.78
Cumberland Telephone and Telegraph Co Harbison, G. W.	Livery service	8.00
Do		30.00 30.00
Haston, D. L.	do	9.00
Do. Do.	do	30.00 30.00
Hine, Ernest.		30.00 28.50
Henry, J. T.	do	15.00
Do Holloway, J. H.	do	30.00 10.00
Do	do	29.00
DoJarvis, D. A		30.00 7.00
Do	do	30.00
Do Jarvis, G. W	do	30.00 8.00
Do Do	do	
Johnson, J. D	]do	11.00
Do Kell, O. T	do	30.00 11.00
Do	do	30.00
Lentz, G. W.		7.00 30.00
Do	do	30.00
Lowrey, E. H. Do	do	30.00
Do	do	30.00
Mitchell, F. P. Do	do	27.00
Pack, B		8.00

#### **INSPECTION OF SOUTHERN CATTLE**—Continued.

#### NASHVILLE, TENN.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount.
Pack, B	Livery service	\$30.00
Do Pennington, J. F	do	30.00
Do		30.00
Do	do	29.00
Phillips Robert Do	do	17.00 $30.00$
Pinkstone, Theo	do	16.00
Do		30.00
Puryear, E. F Romines, J. P	do	$\begin{array}{c} 28.00\\ 21.00\end{array}$
Safley, J. C.	do	7.00
Do	do	26.00
Do Shipley, H. R.	do	30.00 10.00
Do	do	22.00
Do	do	28.00
Smallmon, D. M Do		11.00 $30.00$
Do	do	17.00
Sparkman, I. L	do	7.00
Do Do		$\begin{array}{c} 29.00\\ 29.00\end{array}$
Storie, I. R.	do	5.00
Do	-	30.00
Do Swain, J. L		$\begin{array}{c} 30.00\\12.00\end{array}$
Lincoln, W. B.	Car fare	2.65
Do	do	1.90
Do Do	do	$1.00 \\ 1.05$
Do		1.00
Do	do	1.00
Do Swain, J. L	do Livery service	$\begin{array}{c}1.03\\30.00\end{array}$
Do	Livery service	30.00
Talbot, J. G	do	15.00
Do		27.00
Do Wasson, S. B	do	$\begin{array}{c} 30.00\\ 14.00 \end{array}$
Do	do	30.00
Whitson, M. E	do	12.00
Do Do		30.00 30.00
Williams, J. T.	do	15.00
Do	do	30.00
Willis, W. G. Ellenberger, W. P.	Freight.	28.00 154.96
Do	Copying press and bath, ink, and soap.	104.90
Do Cumberland Telephone and Telegraph Co	Telephone service	5.00
Do Louisville and Nashville R. R. Co	Freight	5.00 82.43
Cumberland Telephone and Telegraph Co	Telephone service.	10. 23
Do	do	10.24
Do The Texas Co	Crude petroleum	4. 04 165. 56
Ragland, M. J.	Express on petroleum	105.50 15.79

#### NEW ORLEANS, LA.-SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Andrews, C. Ĺ Baker, J. E.	\$39.67     49.00		Knowles, P. P. Mauldin, C. E.	\$49.00	\$5.75
Craeroft, T. B Davidson, C. M	186.67	\$62.70	Sorrell, W Beckham, J. M		147.00

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### INSPECTION OF SOUTHERN CATTLE-Continued.

#### NEW ORLEANS, LA.-TRANSPORTATION.

Payee.	Amount.
Louisiana Rwy. and Navigation Co., Walter Sorrell. Morgan's Louisiana and Texas R. R. and S. S. Co.:	\$9.60
Walter Sorrell. Do. New Orleans and Northeastern R. R. Co., Walter Sorrell.	2.40
Yazoo and Mississippi Valley R. R. Co.: Walter Sorrell. Do.	

#### NEW ORLEANS, LA.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Andrews, C. L. Baker, J. E. Beckham, J. M. Davidson, C. M.	do	21. 00 21. 00
Knowles, P. P.	do	21.00

#### PETERSBURG, TENN.—SALARY.

Payee.	Salary.	Travel.
Porter, W. S.	\$10.00	\$10.40

### RALEIGH, N. C.—SALARY.

Curtice, C	\$600.00	\$291.41
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#### RALEIGH, N. C.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Atchison, Topeka and Santa Fe Rwy. Co., C. Curtice Cincinnati, New Orleans and Texas Pacific Rwy. Co.: C. Curtice. W. P. Ellenberger Chicago, Rock Island and Pacific Rwy. Co., C. Curtice. Galveston, Harrisburg and San An- tonio Rwy. Co.: C. Curtice. Do. Do. Do. Kansas City Southern Rwy. Co., C. Curtice.	4.20 18.60	Louisville and Nashville R. R. Co., C. Curtice Missouri, Kansas and Texas Rwy. Co., C. Curtice Nashville, Chattanooga and St. Louis Rwy. Co., C. Curtice Pennsylvania R. R. Co., C. Curtice San Antonio and Aransas Pass Rwy. Co., C. Curtice Southern Rwy. Co., C. Curtice St. Louis and San Francisco R. R. Co., C. Curtice. Texas and Pacific Rwy. Co., C. Curtice.	4.05 10.60

#### RICHMOND, VA.-MISCELLANEOUS EXPENSES.

Payee.	Articles.	Amount.
Owen, F. D	Car faredo.	\$4.95 2.90

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### **INSPECTION OF SOUTHERN CATTLE**—Continued.

#### WASHINGTON, D. C.-TRAVEL.

Payee.	. Travel.
Abel, J. Smith, W. G. Smith, W. H., jr.	55.30

#### WASHINGTON, D. C.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amoun't.
Baltimore and Ohio R. R. Co., W. H. Smith, jr. Pennsylvania R. R. Co.: W. H. Smith, jr. Do. The Pullman Company, H. W. Gray- bill. Western Maryland R. R. Co., W. H. Smith, jr.	. 80 4. 50	Western Maryland R. R. Co., W. H. Smith, jr. Richmond, Fredericksburg and Poto- mac R. R. Co., J. Abel. Southern Rwy. Co.: J. Abel. Do. H. W. Graybill.	17.50 15.50

#### WASHINGTON, D. C.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Birmingham Age-Herald Dallas Morning News	Advertising amendment to depart- ment regulations.	\$1. 47
Dallas Morning News	do	2.40
Atlanta Constitution. Oklahoma State Capital. New Orleans Picayune.	do	1.70
Oklahoma State Capital	do	2.10
New Orleans Picayune	do	2.85
Jacksonville Metropolis	do	1.17
Muskogee Evening Times	do	2.40
Columbia State	do	2.30
Charlotte Daily Observer	do	1. 79
Do	do	1.87
Oklahoma State Capital	do	$\hat{2}.10$
Arkansas Gazette	do	2.00
Richmond Times-Dispatch	do	1. 32
New Orleans Picayune. Jacksonville Metropolis. Muskogee Evening Times. Columbia State. Charlotte Daily Observer. Do Oklahoma State Capital. Arkansas Gazette. Richmond Times-Dispatch. Do. Do	do	1. 32
Do	do	1.32
Jackson Clarion-Ledger. San Francisco Call.	do	3.80
Jahr Francisco Gan.	do	3. 40
Jackson Charlon-Ledger	do	4.0
Fargo Forum.		4.00
Jackson Clarion-Ledger. Fargo Forum Dallas Morning News Reno Gazette.		5.70
Reno Gazette	1	<b>3.</b> 30 <b>3.</b> 50
Columbia State		3. 50
Columbia State. Salt Lake City Tribune. Boise Daily Statesman.		3. 52
Boise Daily Statesman	do	3.40
Topeka Daily Capital	do	1.9
Oklahoma State Capital	do	4.00
Topeka Daily Capital Oklahoma State Capital New Orleans Picayune.	do	4.3
Atlanta Constitution. Omaha Bee Publishing Co. Los Angeles Times. Morning Oregonian. Argus Leader. Charlotte Observer.	do	3.30
Omaha Bee Publishing Co	do	4.00
Los Angeles Times	do	4.20
Morning Oregonian	dodo	5.60
Argus Leader	do	3. 23
Charlotte Observer.	do	2. 72
Record Stocking II.	[uu	0.00
Wyoming Tribune	do '	1 3.52
Helena Daily Independent.	do	4.10
Helena Daily Independent Commercial-Appeal Dallas Morning News	do	3.6
Dallas Morning News	do	1.80
Roswell Register Tribune	do	3.1
Gazette Publishing Co	do	
Arizona Republican	do	
Jacksonville Metropolis.	do	
Oklahoma State Capital	do	
Seattle Times	do	
Brandon Printing Co	Postal scales	6. 7
Brandon Printing Co Muskogee Evening Times	Advertising amendment to depart-	3. 12
muskogee Evening Thiles	ment regulations.	0.11
Do	do	1. 52
	······································	1.0

#### INSPECTION OF SOUTHERN CATTLE—Continued.

#### WARTRACE, TENN.—SALARY.

. Payee.	Salary.	Travel.
Clark, H. A.	\$10.00	\$9.70

#### ADMINISTRATION OF FIELD INSPECTION.

WASHINGTON, D. C.—SALARIES.

Payee.	Salary.	Payee.	Salary.
Bailey, H.	\$4.67	Steddom, R. P.	\$2,750.00
O'Rouke, E. L.	440.00	Temple, S. B.	361.67
Scheele, M. A.	420.00	Yates, N.	420.00

#### WASHINGTON, D. C.-MISCELLANEOUS EXPENSES.

. Payee.	Article.	Amount.
W. B. Moses & Sons. D. F. Parker. Do. Underwood Typewriter Co. D. F. Parker. Do. Typewriter and Office Supply Co. Rudolph & West Co. Typewriter and Office Supply Co. Bausch & Lomb Optical Co. E. H. Catlin Co. Underwood Typewriter Co. Yawman & Erbe Manufacturing Co. F. A. Imler. Remington Typewriter Co. Rudolph & West Co. E. H. Catlin Co. F. J. Houston.	Mimeograph silk.	$\begin{array}{c} 1.50\\ 80.00\\ 4.00\\ 30.00\\ 22.50\\ .52\\ 14.60\\ 43.95\\ 5.00\\ 80.00\\ 45.07\\ 6.00 \end{array}$

#### INSPECTION AND QUARANTINE OF IMPORTED ANIMALS.

ATHENIA, N. J.—SALARIES.

Payee.	Salary.	Travel.	Payee.	Sala <b>r</b> y.	Travel.
Dewhurst, W. R Gill, E Kay, J. B	\$174.00 950.00 900.00	\$3. 45 8. 96	Pope, G. W Tuthill, H	\$1,633.33 600.00	\$408.80

#### ATHENIA, N. J.-MISCELLANEOUS EXPENSES.

Payee.	Articles.	Amount.
Noval, D Allett, A. Reger, R Hazzard, F. L. Hopkins, J. C., & Co. Allett, A. Noval, D. Reger, R. O Hazzard, F. L. Pope, G. W. Hubinger, C.	do do do Camp outfit Services do do do do Car fare, railroad fare, and labor	43. 75 37. 50 37. 50 42. 61 43. 75 43. 75 77. 50 62. 50 94. 08

## **INSPECTION AND QUARANTINE OF IMPORTED ANIMALS**—Continued.

ATHENIA, N. J.-MISCELLANEOUS EXPENSES-Continued.

Payce.	Article.	Amount.
Shapiro & Levenson	Wood, lime, and cabbage	20.36
McSparrow, J. C.	Board, wood, and feed	22.20
Eimer & Amend	Shingles and express.	15.85
Reger, R. O.	Services	12.50
Noval D	do	33.25
Allett, A	do	42.00
McSparrow, J. C.	Hay and oats, and meals for help	31.77
Noval, D.	Services.	24.50
Allett, A		46.38
Woltman, P.,	Cow and calf.	65.00
Woltman, P	Rope, caps, and oil.	12.89
McSparrow, J. C.	Kerosene and board	21.12
Do.	do	20 10
New York and New Jersey Telephone Co	Telephone service.	39.18
Noval, D.	Services.	40.25
Allett, A	do	39.81
Noval, D	do	13.56
Allett, A.	do	13.50 13.56
Pope, G. W.		$13.50 \\ 28.71$
Hubinger, C.	Gasoline and trowel	28.71 19.47
Du Bois, F. N., & Co.		
Burrill, R. W.	Cyclo closets.	46.00
Do	Labor.	42.00
Brennan, E.	Plumbers' supplies	48.70
Diddla & Docart Co	Hay.	72.00
Biddle & Bogart Co.	Paint, oil, and brushes	23.27
Forker, C. A., & Co.	Flag.	3.80
New York and New Jerscy Telephone Co	Telephone scrvice.	36.55
Pope, G. W.	Station expenses	18.49
Biddle & Bogart	Paint, oil, benzine, and putty	13.65
Bausch & Lomb Optical Co	Objective.	7.20
Hubinger, C.	Gasoline, rake, and wire	24.17
Biddle & Bogart	Paint.	30.00
New York and New Jersey Telephone Co	Telephone service	36.75
Mongin, X	Labor	42.44
Campbell, Morrell & Co	Cement	198.00
Swenson Bros.	Labor and material	15.90
Mongin, X.	Labor	42.88
Biddle & Bogart	Painting at station	12.00
Birch, S. M.	Lumber and lime	26.62
D'Brien, R. J. Co.	Oats and rock salt	48.40
Hubinger, C	Gasoline, wheelbarrow, and serum	15.83
Pope, G. W.	Car fare, labor, and tools	30.30
New York and New Jersey Telephone Co	Telephone service	16.15
Pope, G. W.	Wheelbarrows	5.20

#### BALTIMORE, MD.-TRAVEL.

Payee.	Travel.
Hedrick, H. A	\$5.50

#### BOSTON, MASS.-SALARIES.

Payee.	Salary.	Travel.
Hume, H. F. Ryder, J. F.	\$720.00	\$30.22

#### BOSTON, MASS.—MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Harwood, H. J.	Rent at Littleton	$\$62.50 \\ 62.50$
Do. Do.	do	62.50

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INSPECTION AND QUARANTINE OF IMPORTED ANIMALS-Continued.

BUFFALO, N. YTR
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Payee. · A	mount.	Payee.		Amount.
Bird, W. N. D. Durfee, C. O. Hunter, W. R. McCollum, P. L. O'Leary, J. P.	\$19.99 11.01 13.04 6.62 18.84	Robinson, L. A Somerville, S., jr Williams, M. D. Wootton, W. C.		\$12.84 1.15 4.67 8.29
CAL	AIS, ME	SALARY.		
Payee	<b>e.</b>		Salary.	Travel.
Potter, H. T.			\$278.00	\$48.04
CALAIS, MEN	MISCEL	LANEOUS EXPENSES.		
Payee.		Article.		Amount.
New England Telephone and Telegraph Co Telephone service				\$0.24 .20
CARTH	AGE, N	. Y.—SALARY.		
Payee	в.		Salary.	Travel.
Corlis, W. S				
EL PA	ASO, TE	X.—SALARY.		
Bray, T. A			\$70.00	
FORT FAI	RFIEL	D, ME.—SALARY.	-	
Perry, F. M.			\$1, 338. 34	\$212.10
HALET	HORP,	MD.—SALARY.		
Wade, W. H			\$900.00	
HALETHORP, MD	MISC	ELLANEOUS EXPENSES.		
Payee.		Article.		Amount.
D. A. Lock. Real Estate and Improvement Co Do Do Do Do		do		\$9. 80 56. 25 56. 25 56. 25 56. 25 56. 25

KANGAG	CITY	KANS.—SALARIES.	
<b>D</b> ANDAD	ULL L.	AND. BALANING.	

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Johnson, L. E	\$1, 416. 67	\$225.05	Вгау, Т. А	\$1,630.00	\$123.00

**INSPECTION AND QUARANTINE OF IMPORTED ANIMALS**—Continued.

KANSAS CITY, KANS.-TRANSPORTATION.

	Amount.		Amount.
Atchison, Topeka and Santa Fe Rwy. Co., L. E. Johnson El Paso and Southwestern System: L. E. Johnson. Do. Do. T. A. Bray. L. E. Johnson. T. A. Bray. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do	$13.70 \\ 3.15 \\ 5.90 \\ 8.70 \\ 8.10$	El Paso and Southwestern System—Ct. L. E. Johnson. Do. Southern Pacific Rwy. Co.: L. E. Johnson. Do. Do. T. A. Bray. Do. Do. L. E. Johnson. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do	\$8.70 7.45 4.30 10.55 3.50

#### KANSAS CITY, KANS.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
T. A. Bray. Do. Do.	do	1.70
Do		

#### LOS ANGELES, CAL.-TRAVEL.

Payee.	Travel.
West, L	\$211.10

#### LOS ANGELES, CAL.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Southern Pacific Rwy. Co.:           L. West	\$8.70 8.70 8.70 8.70 8.70 8.70 8.70 8.70 8.70	Southern Pacific Rwy. CoContinued. L. West $\dots$ Do. Do. Do. Do. Do. Do. Do. Do. Do. Do.	$\begin{array}{c} 8.70\\ 9.25\\ 9.25\\ 8.70\\ 4.65\\ 8.94\\ 8.70\\ 9.25\\ 4.65\\ 8.70\\$

#### MALONE, N. Y.-SALARY.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Mayne, H. D	\$1,550.00	\$279.85			

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## 124 OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY.

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

INSPECTION AND QUARANTINE OF IMPORTED ANIMALS—Continued.

NEWPORT, VT.—SALARY.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Canfield, C. H	\$1,570.83	\$119.31	Ward, G. W	\$1,600.00	\$90.24

#### NEWPORT, VT.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
New England Telephone and Telegraph Co Do	Telephone service	\$1.75 .70
Do. Vermont People's Telephone Co. New England Telephone and Telegraph Co.	do	$1.75 \\ 3.40$
$\mathcal{V}_0$		1.75
Do. Vermont People's Telephone Co New England Telephone and Telegraph Co	do	$     \begin{array}{r}       1.75 \\       3.00 \\       5.25     \end{array} $
Vermont People's Telephone Co	do	3.00

#### OGDENSBURG, N. Y.-SALARY.

Pay	Salary.	Travel.	
Cowie, Chas		\$1,264.00	\$172.04
OF	RONO, ME.—SALARY.		
Russell, F. L.		\$792.00	\$382.15
PORT I	HURON, MICH.—SALARY.		
Cumming, D	·····	\$820.00	
ST. A	LBANS, VT.—SALARY.		
Morin, C. L	•	\$1,200.00	\$149.75
· ST. ALBANS, V	r.—MISCELLANEOUS EXPENSES	•	
Payee.	Articles.		Amount.
C. L. Curtice	Desk, chair, table, and bo	okcase	\$88.50
SAULT ST	E. MARIE, MICH.—SALARY.		
	Payee.		Salary.
Deadman, J. F.			\$63.00

**INSPECTION AND QUARANTINE OF IMPORTED ANIMALS**—Continued.

SEATTLE, WASH.-TRAVEL.

Payee.	Travel.
Hess, O. B.	\$42.00

SIOUX CITY, IOWA.—SALARY.

Payee.	Salary.	Travel.	. Payee.	Salary.	Travel.
Thompson, W	\$400. 00	\$420.65			

WASHINGTON, D. C.—SALAF
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Curtis, M	\$447.50		Hickman, R. W	\$2,750.00	\$173.21
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#### WASHINGTON, D. C.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Boston and Maine R. R. Co., R. W. Hickman. Maine Central R. R. Co.: R. W. Hickman. Do. New York, New Haven and Hartford R. R. Co.: R. W. Hickman. Do.	4.00 5.00	Norfolk and Washington S. S. Co., R. W. Hiekman. Pennsylvania R. R. Co.: R. W. Hickman. Do. Do. Do. Do. Do. Do.	\$5.00 10.00 2.50 14.75 4.00 11.05 5.65

#### WASHINGTON, D. C.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
W. L. Swayze.CopLibrary Bureau.LibW. B. Moses & Sons.CarW. H. Hoeke.DesNational Electric Supply Co.LanZ. D. Gilman.TheJ. Lansburgh Furniture and Carpet Co.DesRemington Typewriter Co.TypLibrary Bureau.CarZ. D. Gilman.TheLibrary Bureau.CarZ. D. Gilman.TheLibrary Bureau.CarLibrary Bureau.CarDo.CharDo.CharDo.CharDo.CharDo.CharDo.CharDo.CharDo.CharLibrary Bureau.CarDo.CharDo.CharLibrary Bureau.CarTheCarDo.CharLibrary Bureau.CarDo.CharLibrary Bureau.CarDo.CharDo.CharDo.CharDo.CarDo.CarDo.CarDo.CarDo.CarDo.CarDo.CarDo.CarDo.CarDo.CarDo.CarDo.CarDo.CarDo.CarDo.CarDo.CarDo.CarDo.CarCarCarCarC	ek bying press and typewriter stand prary cards and filing cases pet and mat sks mp shade ermometers sk pewriter rds airs air, wardrobe, and mirror bying press stand air rds ermometers do n cauldron sk	$36.02 \\ 11.23 \\ 6.67 \\ 5.00$

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## INSPECTION WORK RELATIVE TO EXISTENCE OF CONTAGIOUS DISEASES AND TUBER-CULIN AND MALLEIN TESTING OF ANIMALS.

ARKANSAS CITY, KANS.—TRAVEL.

Payee.	Travel.	Payee.	*	Travel.
Tuck, R. W	\$11.50		• • • • • • • • • • • • • • • • • • • •	
BUI	FFALO, N	Y.—TRAVEL.		
Howes, B Logan, A. H Ryder, H. R.	33.57 4.28 5.12	Volgenau, E. L		\$8.27 6.85
CH	ICAGO, IL	LTRAVEL.		
Lavery, W. F. McBirney, J.	$59.98 \\ 6.41$	Siegmund, W. C Wolf, M		\$46. 13 22. 10
CLEV	ELAND, C	PHIO.—TRAVEL.		
Schaffter, E. P	<b>\$0.4</b> 5			
COLU	UMBUS, OI	HIO.—TRAVEL.		
McClelland, R. L.	\$3.15			
DAY	TON, OH	IO.—TRAVEL.		
Repp, G. E	\$2.00			
DEN	IVER, CO	LO.—TRAVEL.		
Davison, E. T	\$120. 37			
HEL	ENA, MO	NT.—SALARY.		
P	ayee.		Salary.	Travel.
Davison, E. T.			\$1,333.34	\$716.95
HELENA,	MONT7	TRANSPORTATION.		

Payee.	Amount.	Payee.	Amount.
Chicago, Burlington and Quincy Rwy. Co.: E. T. Davison. Do.	\$4.60 4.60	Northern Pacific Rwy. Co.—Continued. E. T. Davison Do. Do.	
Chicago, Milwaukee and St. Paul Rwy. Co., E. T. Davison. Chicago and North Western Rwy. Co.: E. T. Davison.	15.25 3.15 2.15	Do Do Do Do	$\begin{array}{c} 13.95\\32.85\\17.50\\11.50\\52.75\\11.50\\11.50\\52.75\\11.50\\52.75\\11.50\\52.75\\11.50\\52.75\\12.75$
Do Do Do Do Missouri, Kangag and Taxag Pury, Co	$\begin{array}{c} 3.\ 15\\ 30.\ 25\\ 18.\ 90\\ 3.\ 65\end{array}$	Do. Do. Do. Do.	$\begin{array}{c} 22.\ 70\\ 22.\ 70\\ 7.\ 15\\ 7.\ 15\\ 6.\ 00\end{array}$
Missouri, Kansas and Texas Rwy. Co., E. T. Davison Northern Pacific Rwy. Co.: E. T. Davison	37. 55 11. 50	Do. Oregon Short Line R. R. Co., E. T. Davison. Pennsylvania R. R. Co., E. T. Davison.	37.50 22.00

#### OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY. 127

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

### INSPECTION WORK RELATIVE TO EXISTENCE OF CONTAGIOUS DISEASES AND TUBER-CULIN AND MALLEIN TESTING OF ANIMALS—Continued.

HELENA, MONT.-MISCELLANEOUS EXPENSES.

Payee.	Artiele.	Amount.	Payee.	Artiele.	Amount.
Wahlgren Furniture Co A. P. Curtin Davison, E. T Yutz, Bessie Ellis, C. F.	Chairs. Rent do	$\begin{array}{c} 12.90 \\ 14.00 \\ 13.00 \end{array}$	Do. Do.	do do do	$\begin{array}{c} 14.00\\ 14.00\end{array}$

#### HONOLULU, HAWAII-SALARY.

Payee.	Salary.
Norgaard, V. A	\$1,400.00

#### INDIANAPOLIS, IND.—TRAVEL.

Payee.	Travel.
Sorenson, N. C	\$9.73

#### LIVERPOOL, ENGLAND-SALARY.

Payee.	Salary.	Travel.
Geddes, T. A.	\$1,208.33	\$1,020.47

#### LIVERPOOL, ENGLAND-MISCELLANEOUS EXPENSES.

Payee.	Articles.	Amount.
Geddes, T. A.	Car fare, soap, and postage	\$10.93

#### NASHVILLE, TENN.-TRAVEL.

	Payee.	Travel.
Meadors, W. H		\$18.31
	P.	

#### OTTUMWA, IOWA-TRAVEL.

iller,	J	 	 \$5.52

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#### PIERRE, S. DAK.-SALARY.

Payee.	Salary.	Travel.
Fretz, W.J.	\$575.00	\$285 <b>. 9</b> 8

## INSPECTION WORK RELATIVE TO EXISTENCE OF CONTAGIOUS DISEASES AND TUBER-CULIN AND MALLEIN TESTING OF ANIMALS—Continued.

PIERRE, S. DAK.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Chicago, Burlington and Quincy R. R. Co.: W. J. Fretz. Do. Do. Do. Chicago and North Western Rwy. Co.: W. J. Fretz. Do. Do. Do. Do. Do. Do. Do.	\$9.79 22.40 19.75 12.15 3.55 3.55 3.55 19.58 16.38	Great Northern Rwy. Co.: W. J. Fretz. Do. Do. Do. Do. Do. Do. Northern Pacific Rwy. Co.: W. J. Fretz. Do. Do. Do. Do. Do.	$\begin{array}{c} \$13.35\\ 4.30\\ 4.30\\ 10.40\\ 7.10\\ 10.10\\ 10.10\\ 6.75\\ 4.40\\ 13.95\\ 17.75\\ \end{array}$

PIERRE, S. DAK.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
T. B. Pierce.	Gray mare	\$15.00
Ida Cass.	Sorrel mare	15.00

#### SOUTH ST. PAUL, MINN.-TRAVEL.

Payce.	Travel.
Ketchum, F. D.	\$10.00
WASHINGTON D.C. TRAVET	

#### WASHINGTON, D. C.-TRAVEL.

Payee.	Travel.	Payee.	Travel.
Buckley, J. S	$34.58 \\ 76.84$	Mohler, J. R. Stafford, R. J. Washburn, H. J. Woodward, B. T.	4.10 6.30

#### WASHINGTON, D. C.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Baltimore and Ohio R. R. Co.: L. Enos Day Do Do B. T. Woodward Chesapeake and Ohio Rwy. Co.: J. S. Buckley Do Pennsylvania R. R. Co.: J. S. Buckley Do H. J. Washburn J. S. Buckley	$ \begin{array}{c} 10.75 \\ 3.35 \\ 1.85 \\ 11.40 \\ 12.50 \\ 14.00 \\ 14.09 \\ 10.00 \\ \end{array} $	J. S. Buckley.	$52.65 \\ 14.00 \\ 6.50 \\ 5.00 \\ 1.90 \\ 1.30 \\ 1.75 \\ .50$

## INSPECTION WORK RELATIVE TO EXISTENCE OF CONTAGIOUS DISEASES AND TUBER-CULIN AND MALLEIN TESTING OF ANIMALS—Continued.

WASHINGTON, D. C.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Z. D. Gilman Do Do Do Do	do	45.00

#### INVESTIGATIONS AND EXPERIMENTS IN DAIRY INDUSTRY.

ALBERT LEA, MI	NN.—SALARIES.
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Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Davis, B. J.	\$45.00	\$40.95	Issajeff, T. W	\$208.34	\$20.10
Doane, C. F	266.67	13.40	Timberlake, T. O	45.00	41.00

#### ALBERT LEA, MINN.-TRANSPORTATION.

Ряуее.	Amount.	Payee.	Amount.
<ul> <li>Baltimore and Ohio R. R. Co., C. F. Doane.</li> <li>Chicago, Rock Island and Pacific Rwy. Co., C. F. Doane.</li> <li>Illinois Central R. R. Co.: T. O. Timberlake.</li> </ul>	\$27.50 4.04	Illinois Central R. R. Co.—Continued. B. J. Davis. T. W. Issajeff. New York, New Haven and Hartford R. R. Co., T. W. Issajeff. The Pullman Co., C. F. Doane	10.50

#### ALBERT LEA, MINN.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount
Bickford, W. E	Plumbing supplies and labor	\$15.5
Matson, Jas	Labor and material for laboratory	9.7
Minneapolis and St.Louis R.R.	Freight	4.3
Karlen, J. & Son	Cheese cloths	9.2
Knatvold, B. H.	Desks, chairs, and stools	44.0
Do	Shades and mat.	8.2
Creamery Packing Manufacturing Co	Gang press.	
Do	Dairy supplies.	
Geissler, P. & H. Co.	Labor and material	48.9
Do		48.3
Knatvold, B. H.	Awnings and mat	24.5
Tophagen & Hausen	Supplies for cheese press	40.9
Do	Lumber, drayage, and labor	
Geissler, P. & H. Co.	Labor and material	44.0
Do		49.7
	Do	46.9
Do	Do	36.0
Do	Do	48.7
Larson, A.	Cement and labor	4.0
Phompson & Wullf	Drayage and labor.	8.2
Thompson & Wullf Beehive Store	Towels, hemming, and baskets	7.6
Peterson Hardware Co	Labor and supplies	15.2
Tophagen & Hausen	Labor and material	39.8
Do	Labor	9.1
	Labor and material	25.9
Do		23.9
Do		48.7
Doane, C. F.	Freight, drayage, and ink	2.9
Do	Salt and cheese cloth	13.3
Tophagen & Hausen	Lumber for shelves	49.3
Do	Lumber, labor, nails, and screws	21.6
Do	Lumber and labor.	29.6
Albert Lea Dairy Association		

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## 130 OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY.

## Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907-Continued.

### INVESTIGATIONS AND EXPERIMENTS IN DAIRY INDUSTRY-Continued.

ALBERT LEA, MINN.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount.
Creamery Packing Co. Albert Lea Dairy Association Knatwold & Barlow Creamery Packing Co. Leitz, E. Farmers' Store Co. Leitz, E. Do. Fox River Butter Co. Leitz, E. Beatrice Creamery Co. Eimer & Amend Co. Wagner Glass Works Thompson, C. Wagner Glass Works. Thompson, C. Do. Do. Washington Market Co. Torrison Balance Co. Wagner Glass Works. Jensen Manufacturing Co.	Rent, water, and steam. Rent. Color for butter. Tubes and amyl acetate. Butter. Laboratory supplies. Do. Butter. Laboratory supplies. Butter. Glassware. Extracting apparatus and scale. Milk. Extraction apparatus. Milk. Do. Storage on butter. Scales and weights. Extraction apparatus and flasks.	$\begin{array}{c} 25.00\\ 30.00\\ 11.10\\ 13.38\\ 502.74\\ 35.14\\ 5.00\\ 2.65\\ 30.30\\ 96.72\\ 42.55\\ 36.85\\ 15.00\\ 30.00\\ 22.50\\ 37.50\\ 30.00\\ 5.65\\ 49.35\end{array}$

#### AGRICULTURAL COLLEGE, MISS.-TRANSPORTATION.

Payee.		Amount.
Mobile, Jacksonville and Kansas City R. R. Co., J. W. Ridgway		\$1.00
AMES, IOWA-SALARY.		
Payee.	Salary.	Travel.
Gray, C. E.	\$416.66	\$78.20

#### AMES, IOWA-TRANSPORTATION.

Payee.	Amount.
Chicago, Rock Island and Pacific Rwy. Co., C. E. Gray. Chicago, St. Paul, Milwaukee and Omaha Rwy. Co.: C. E. Gray.	\$10.15 3.52
Do Cleveland, Cincinnati, Chicago and St. Louis Rwy. Co., C. E. Gray.	$\begin{array}{c} 6.35 \\ 17.50 \end{array}$

#### ARLINGTON, N. J.-SALARY.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Kieffer, P. H	\$30.00	\$22.67			

#### BLOOMER, WIS.-SALARY.

			1		
Cheney, L. S.	\$104.00	\$32.87	Smith, A	\$51.50	

INVESTIGATIONS AND EXPERIMENTS IN DAIRY INDUSTRY-Continued.

BOSTON, MASS.—SALARY.

/hitaker, G. M	\$286.86		
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BOSTON, MASS.-TRANSPORTATION.

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Payce.	Amount.	Payee.	Amount.
altimore and Ohio R. R. Co.: G. M. Whitaker. Do. oston and Maine R. R. Co.: G. M. Whitaker. Do. Do. hesapeake and Ohio Rwy. Co., G. M. Whitaker. ew York Central and Hudson River R. R. Co.: G. M. Whitaker. Do. York, New Haven and Hartford R. R. Co.: G. M. Whitaker.	\$18.00 17.00 1.71 2.05 2.07 23.00 3.40 2.15 12.25	New York, New Haven and Hartford R. R. Co.—Continued. G. M. Whitaker. Do. Do. Do. Pennsylvania R. R. Co.: G. M. Whitaker. Do. Do. Do. Southern Rwy. Co., G. M. Whitaker	$3.15 \\ 2.05 \\ 6:50 \\ 22.00 \\ 8.90 \\$

#### CHICAGO, ILL.-SALARY.

	Salary.	Travel.
Credicott, H. J.	\$1, 582. 23	\$177.85

#### CHICAGO, ILL.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amouńt.
Baltimore and Ohio R. R. Co.: H. J. Credicott. Do. Do. Chicago, Indianapolis and Louisville Rwy. Co.: H. J. Credicott. Do. Do. Do.	$\begin{array}{c} 17.\ 00\\ 17.\ 50\\ \hline \\ 7.\ 90\\ 11.\ 50\\ 10.\ 20\\ \end{array}$	Do	\$10.50 18.00 17.00 2.00 4.00 4.00

#### CHICAGO, 1LL.—MISCELLANEOUS EXPENSES.

Payee.	Artiele.	Amount
Booth, A		\$30.0
Do Do		30. 0 30. 0
Do.		30.0
Do		30.0
Do Do		30. 0 30. 0
Do		30. 0
Do		30.0
Do Do	do	30. 0 30. 0
Do	do	30.0
Yawman & Erbe Manufacturing Co McGaarty, M. C Credicott, H. J.	Section for filing case Stenographic work	12.5

## INVESTIGATIONS AND EXPERIMENTS IN DAIRY INDUSTRY-Continued.

COLUMBIA, MO.-SALARY.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Perkins, A. E	\$447.50*		Shaw, R. H.	. \$1,800.00	\$12.35
	OLUMBI	а., мо.—т	RANSPORTATION.	_ <u>_</u>	
	_	Payee.		<u></u>	Amount.
The Pullman Co., R. H. Shaw				· · · · · · · · · · · · · · · · · · ·	\$2.00
					5.15 $5.15$
COLU	MBIA, M	OMISCE	LLANEOUS EXPENSES.		
Payee.			Article.		Amount.
Do Do Do			do do do do do do do do do do		$\begin{array}{c} \$16.00\\ 16.00\\ 16.00\\ 16.00\\ 20.00\\ 20.00\\ 20.00\\ 25.00\\ 9.33\\ 25.00 \end{array}$
	EAST	ORANGE,	N. J.—SALARY.		<u> </u>
Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Smarzo, W. S	\$70.00			-	
	MAD	ISON, WI	S.—SALARIES.		
Moore, J. W.	\$750.01	\$131.30	Sammis J. L.	. \$1,200.00	\$68.98
MADI	SON, WI	SMISCE	LLANEOUS EXPENSES.		
Payee.			Article.		Amount.
Do. Do. Do. C. Percival (Incorporated) Do. University of Wisconsin Do.			Jars, barley and jelly Cheese.		\$1.04 41.03 55.08 62.31 .30 1.60 246.89 233. $\$5$ 84.90
Do			do		121.16 110.08

#### NEW YORK, N. Y.-SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Kieffer, P. H	\$23.00	\$19.05	Smarzo, W. S.	\$1,380.00	\$115.32

#### INVESTIGATIONS AND EXPERIMENTS IN DAIRY INDUSTRY-Continued.

#### NEW YORK, N. Y.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Illinois Central R. R. Co., W. S. Smarzo. Lake Shore and Michigan Southern Rwy. Co., W. S. Smarzo. Michigan Central R. R. Co., W. S. Smarzo. New York Central and Hudson River R. R. Co.: W. S. Smarzo. Do. Pennsylvania R. R. Co.: W. S. Smarzo.	$20.00 \\ 15.68 \\ 26.75 \\ 16.60$	Pennsylvania R. R. Co.—Continued. W. S. Smarzo. Do. Do. Do. The Pullman Co.: W. S. Smarzo. Do. Do. Do. Do. Do. Do. Do. Do.	\$6.74 10.00 8.20 10.00 5.00 5.00 1.50 4.00 4.00

#### NEW YORK, N. Y.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
New York Telephone Co. Smarzo, W. S. New York Telephone Co. Eimer & Amend. Do. Smarzo, W. S. Yawman & Erbe Manufacturing Co. Fryhofer, C. W. Dyett, F. G.	Car fare and ferriage. Telephone service. Laboratory supplies. do. Car fare, paper, and labor. Sections for filing case. Water and gasoline.	$5.17 \\ 9.30 \\ 29.08 \\ 13.22 \\ 7.22 \\ 56.27 \\ 2.80$

#### PLYMOUTH, WIS.-SALARIES.

Payee.	Salary.	Payee.	Salary.
Johnston, R	\$35.00	White, C. A	\$28.00

#### PLYMOUTH, WIS.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Plymouth Refrigerator W. L. & P. Co Do. The Draper Mfg. Co Plymouth Refrigerator W. L. & P. Co Do. Do. Do. Do. Do. Do. Do. Do.	do. Wires for thermometers Rent. Rent and heat. do do do do Rent.	$\begin{array}{c} & \$40.00 \\ & 40.00 \\ & .27 \\ & 40.00 \\ & 47.46 \\ & 48.79 \\ & 49.40 \\ & 46.00 \\ & 40.00 \\ & 40.00 \end{array}$
Do Do	do	40.00 40.00 40.00 40.00

#### SEATTLE, WASH.-SALARY.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
McDonald, E. A	*\$125.00				

#### STORRS, CONN.-SALARY.

Dox, A. W	Thom, C.       \$1,500.00       \$94.11         Thomson, F. R.       60.00
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### INVESTIGATIONS AND EXPERIMENTS IN DAIRY INDUSTRY-Continued.

#### STORRS, CONN.-TRANSPORTATION.

Payee.	Amount.
Lake Shore and Michigan Southern C. Thom. Rwy. Co	\$20.95
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#### STORRS, CONN.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Storrs Agricultural Experiment Station	Milk	\$14.30

#### WASHINGTON, D. C.-SALARIES.

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Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
1 uj 001	surury.			istatur j •	·
Bell, M. E.	\$500.00		Parks, K. E.	\$466.67	
Bonde, B. J.		\$8.35	Phillips, E. M.	50.00	
Burgess, J. R.	70.00		Pirtle, T. R.	766.67	
Davis, B. J	334.67		Rawl, B. H.	133.33	
Dexter, W. H.	1,400.00	105.08	Ridley, C. M.		
Doane, C. F.	1,333.33	292.74	Rogers, L. A.	1,600.00	\$218.53
Douglass, A. H		[	Santee, E. M	1,262.22	845.26
Fletcher, A. E	103.00		Sherman, C. B	280.00	
Fryhofer, C. W	937.50	384.33	Snyder, H.	1,000.00	
Gray, C. E	2,000.00	319.30	Stuart, D	516.66	
Griffith, G. L.	263.00		Timberlake, T. O	165.00	
Kieffer, P. H.	33.00		Webster, E. H.	2,500.00	464.26
Lane, C. B	1,800.00	274.50	Weld, I. C.	1, 137. 78	208.91
Latimer, W. J.			Whitaker, G. M	333.33	82.29
Lockie, J. A.	249.99		White, B. D.	1,922.21-	440.07
Parks, G. H.	900.00	4.25	•		

### WASHINGTON, D. C.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Atchison, Topeka and Santa Fe Rwy.	-	Baltimore and Ohio R. R. CoCon.	
Co.: B. D. White	\$4.48	B. D. White.	\$17.50 17.00
Do	4.05	T. O. Timberlake B. J. Davis	17.00
E. H. Webster	7.08	Boston and Maine R. R. Co.:	11.00
Baltimore and Ohio R. R. Co.:	1.00	C. B. Lane	2, 50
C. E. Gray	17.00	Do.	
E. M. Santee	8.25	G. M. Whitaker	7.20
E. H. Webster	17.50	C. B. Lane	4.68
C. E. Gray	17.50	I. C. Weld	5.48
Do.	17.00	B. D. White	9.45
E. M. Santee	3.06	G. M. Whitaker	2.30
E. H. Webster Do	$17.00 \\ 17.00$	Central Vermont Rwy. Co.:	3.80
B. D. White.	17.50	W. H. Dexter Do	3. 30
C. E. Gray.	17.00	Chesapeake and Ohio Rwy. Co.:	0.01
C. W. Fryhofer	17.50	C. B. Lane	19.20
W. H. Dexter	2.80	Do.	19.25
E. H. Webster	17.00	E. H. Webster	23.85
C. E. Grav.	5.65	B. D. White	27.00
Do	5.65	C. F. Doane.	24.50
C. F. Doane	10.00	W. H. Dexter.	15.30
C. E. Gray. B. D. White	10.00	C, B. Lane	
C. F. Doane	$\begin{array}{c c} 17.\ 50\\ 19.\ 55\end{array}$	Do Chicago and Alton R. R. Co.:	15.00
Do	13.50 17.50	C. F. Doane.	7.50
W. H. Dexter.	4.45	C. B. Lane.	10.75
Do	10.67	Chicago, Burlington and Quincy R. R.	10
L. A. Rogers	17.00	Co.:	
G. M. Whitaker	3.06	B. D. White	4.21
E. M. Santee	3.06	Do	3.30

INVESTIGATIONS AND EXPERIMENTS IN DAIRY INDUSTRY-Continued.

WASHINGTON, D. C.—TRANSPORTATION—Continued.

Payee.	Amount.	Payee.	Amount
Chicago, Burlington and Quincy R.R.		Delaware, Lackawanna and Western	
Co.—Continued. B. D. White	\$27.75	R. R. Co.: E. M. Santee	\$9.9
Do	8.31	Do	8.9
Do. Chicago Great Western Rwy. Co.:	14.40	E. H. Webster E. M. Santee	$\begin{array}{c} 6.1 \\ 2.3 \end{array}$
B. D. White	3.21	Detroit and Cleveland Navigation Co.,	2.0
Do Chicago, Milwaukee and St. Paul Rwy.	4.38	B. D. White Erie R. R. Co.:	1.5
Co.:		E. M. Santee.	5.8
E. H. Webster	$\begin{array}{c} 6.10\\ 4.04 \end{array}$	C. B. Lane.	6.1
B. D. White. C. F. Doane	4.04	C. E. Gray. C. F. Doane	1.2 2.6
Do		Great Northern Rwy. Co., B. D. White.	4.4
Do Do	$3.43 \\ 3.43$	Houston and Texas Central R. R. Co.: B. H. Rawl.	7.3
Do	21.42	Do	7.1
B. D. White. E. H. Webster	$\begin{array}{c} 4.98\\ 3.92 \end{array}$	Hudson River Day Line, W. H. Dexter. Illinois Central R. R. Co.:	1.0
C. F. Doane.		C. B. Lane	3.8
E. H. Webster.		C. F. Doane	
B. D. White. Chicago and Northwestern Rwy. Co.:	4.68	E. H. Webster B. D. White	
B. D. White	4.31	Do	10.5
C. B. Lane C. F. Doane	$\begin{array}{c} 11.50\\ 3.95\end{array}$	E. H. Webster. C. E. Gray	
C. E. Gray.	10.15	B. D. White.	3.
E. H. Webster	6.75	Do	4.
C. F. Doane Do		L. A. Rogers. C. E. Gray.	
E. H. Webster	3.30	Do.	6.
C. E. Gray E. H. Webster	3.30 3.92	Do	3.
C. E. Gray		Lake Shore and Michigan Southern	4.
B. D. White	4.54	Rwy, Co.:	
Do Do		C. B. Lane Do	
Chicago, Rock Island and Gulf Rwy.		C. F. Doane.	10.
Co., E. H. Webster Chicago, Rock Island and Pacific Rwy.	6.30	Lehigh Valley R. R. Co.:	
Co.:		E. M. Santee E. H. Webster	
B. D. White.		C. F. Doane	6.
E. H. Webster C. E. Gray		E. H. Webster C. B. Lane	
B. D. White	. 29.00	E. M. Santee	6.
C. E. Gray B. D. White		Louisville and Nashville R. R. Co.,	11.
E. H. Webster.	4.54	B. H. Rawl. Manchester and Oneida Rwy. Co.:	<b>1</b> 1.
B. D. White.		E. H. Webster	
Do C. E. Gray		C. W. Fryhofer. Maine Central R. R. Co., G. M. Whit-	8.
E. H. Webster	. 6.15	aker	3.
C. E. Gray.	4.03	Michigan Central R. R. Co.: C. E. Gray	6.
B. D. White	. 5.25	Do	14.
C. E. Gray		E. H. Webster	
Do Chicago, St. Paul, Minneapolis and	4.10	C. E. Gray. Minneapolis and St. Louis R. R. Co.:	19.
Omaha Rwy. Co.:	11 50	C. É. Gray	
C. B. Lane B. D. White		B. D. White C. E. Gray.	
L. A. Rogers	9.80	Do	1
C. W. Fryhofer Do	$3.52 \\ 2.90$	Missouri, Kansas and Texas Rwy. Co.:	
C. F. Doane	. 7.80	E. H. Webster C. B. Lane	
C. E. Gray	. 7.80	Missouri Pacific Rwy. Co.:	1.
E. H. Webster. Cleveland, Cincinnati, Chicago and St.	- 7.80	E. H. Webster.	
Louis Rwy. Co.:		B. D. White	
L. A. Rogers. C. B. Lane.		Do	. 3.
W. H. Dexter	. 2.75	E. H. Webster	. 6.
Do	. 2.75	New York Central and Hudson River R. R. Co.:	
Do E. H. Webster		$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	. 7.
B. D. White.	. 2.75		

### INVESTIGATIONS AND EXPERIMENTS IN DAIRY INDUSTRY-Continued.

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WASHINGTON, D. C.-TRANSPORTATION-Continued.

Payee.	Amount.	Payee.	Amou
ew York Central and Hudson River		Pennsylvania R. R. CoContinued.	
R. R. Co.—Continued.	@# 00	B. D. White	\$5.
E. M. Santee	\$5.69	Do	5.
C. F. Doane E. M. Santee	$\begin{array}{c}13.27\\3.10\end{array}$	C. F. Doane. W. H. Dexter.	10. 13.
Do.	9.12	Do	$\begin{vmatrix} 10.\\ 3. \end{vmatrix}$
W. H. Dexter	13.00	Do	3.
E. M. Santee	3.45	C. B. Lane	3.
Do	4.40	C. F. Doane.	11.
Do	3.10	C. B. Lane.	11.
E. H. Webster Do	6.93 6.06	I. C. Weld. C. B. Lane.	13.     13.     13.
E. M. Santee	14.85	C. W. Fryhofer.	$\begin{vmatrix} 10.\\5. \end{vmatrix}$
w York, New Haven and Hartford		I. C. Weld	12.
R. R. Co.:		E. H. Webster.	10.
I. C. Weld.	6.65	W. H. Dexter	12.
	14.05     2.60	C. W. Fryhofer	10. 8.
C. F. Doane Do	2.00	C. F. Doane. B. D. White.	29.
E. H. Webster.	2.90	C. B. Lane.	11.
G. M. Whitaker.	10.35	Do	13.
orfolk and Washington S. S. Co.:		E. M. Santee	5.
W. H. Dexter	1.00	I. C. Weld.	11.
Do	16.00	E. H. Webster.	5.
orfolk and Western Rwy. Co.: E. H. Webster	13.30	C. E. Gray. C. F. Doane.	
E. M. Santee	3.35	C. W. Fryhofer.	
nnsylvania R. R. Co.:		L. A. Rogers.	5
C. B. Lane	5.90	L. A. Rogers. E. M. Santee	5
E. H. Webster	6.50	I. C. Weld	
L. A. Rogers.	8.12	Do	
Do C. E. Gray	8.12 10.00	W. H. Dexter L. A. Rogers	
E. H. Webster.	10.00	C. W. Fryhofer	28
C. B. Lane	11.00	C. E. Gray.	10
E. H. Webster	23.75	E. H. Webster	
Do	6.01	Do	
	153.80	G. M. Whitaker	5.
I. C. Weld	5.65	C. B. Lane.	5.
E. M. Santee	6.81	B. D. White	12
C. B. Lane.	5.65	E. M. Santee	
Do	5.65	E. H. Webster	5.
C. F. Doane.	8.00	Pere Marquette R. R. Co., B. D. White.	16.
E. H. Webster E. M. Santee	6.50 6.50	The Pullman Co.: C. B. Lane	4
B. D. White	35.60	Do	
I. C. Weld	4.00	E. H. Webster	
C. B. Lane	9.25	C. B. Lane	2
W. H. Dexter	3.00	E. H. Webster	2
Do E. H. Webster	15.00 17.50		5
B. D. White	17.50	C. B. Lane Do	
I. C. Weld	12.05	Do.	
W. H. Dexter	9.40	Do	2
Do	7.78	B. D. White	
Do	3.40	E. H. Webster	
B. D. White. L. A. Rogers.	9.45 5.65	E. M. Santee B. D. White	2.5
C. B. Lane	11.05	E. H. Webster	5
C. E. Gray.	10.65	Do.	
Do	10.65	Do	5
Do.	10.00	Do	5.
C. F. Doane.	7.40	C. B. Lane.	
E. M. Santee I. C. Weld	5.65	E. M. Santee	
Do	5.65	B. D. White.	
C. B. Lane	7.40	E. H. Webster	4.
Do	4.88	Do	7.
Do	4.88	Do	
W. H. Dexter.	11.00	Do	5.
B. D. White I. C. Weld	25.35 3.11	E. M. Santee W. H. Dexter	1. 2.
Do.	3. 11	Do.	2.
E. H. Webster	5. 65	B. D. White	5.
E. M. Santee	11.45	C. B. Lane.	1.

## INVESTIGATIONS AND EXPERIMENTS IN DAIRY INDUSTRY-Continued.

WASHINGTON, D. C.-TRANSPORTATION-Continued.

Payee.	Amount.	Payee.	Amount.
The Pullman Co.—Continued.		The Pullman CoContinued.	
C. B. Lane	\$2.00	E. H. Webster.	\$5.00
B. D. White.	5.00	C. E. Gray	5.00
E. M. Santee	2.00	B. D. White.	5.00
C. B. Lane	5.00	E. H. Webster.	5.00
Do	2.00	H. J. Credicott.	5.00
B. D. White	5.00	W. H. Dexter.	2.00
E. H. Webster	3.50	E. H. Webster	5.00
C. F. Doane	5.00	B. D. White.	5.00
Do	5.00	W. H. Dexter	2.00
W. H. Dexter	3.00	B. D. White.	3.00
Do	1.50	Richmond, Fredericksburg and Poto-	
Do	2.00	mac R. R. Co., E. M. Santee	3.50
Do	4.00	Southern Rwy. Co.:	
	1.50	J. E. Dorman	7.09
B. D. White.	5.00		2.93
E. M. Santee	2.00	B. H. Rawl	14.55
C. B. Lane	5.00		14.55
Do	2.00	E. M. Santee.	2.75
B. D. White.	5.00	B. H. Rawl	15.97
E. H. Webster	3.50	Do	14.55
C. F. Doane	5.00	Do.	18.15
Do	5.00	E. M. Santee.	3.15
W. H. Dexter	3.00	St. Louis Southwestern Rwy. Co., B.	10.15
Do	1.50	H. Rawl	13.15
Do	2.00	Union Pacific R. R. Co.:	0.55
Do	4.00	E. H. Webster.	3.55
B. H. Rawl	3.00	B. D. White	5.68
I. C. Weld.	3.00	E. H. Webster.	3.89
E. H. Webster	2.50	Do	3.55
W. H. Dexter	4.00	Do	3.89
Do	3.00	Vandalia R. R. Co., E. H. Webster	20.25
C. B. Lane.	$\begin{array}{c} 3.50\\ 2.50\end{array}$	Wabash R. R. Co.: B. D. White	F 15
C. E. Gray		D. D. White.	5.15
E. M. Santee.	$\begin{array}{c}1.50\\3.00\end{array}$	C. B. Lane.	12.50
I. C. Weld.	1.50	E. H. Webster.	$4.50 \\ 7.09$
W. H. Dexter.	$\frac{1.50}{2.00}$	C. E. Gray.	7.09
C. B. Lane.	2.00 2.50	Do Washington Southern Rwy Co.:	0.48
Do	2. 50	E. H. Webster.	8.30
Do I. C. Weld	2.50	E. M. Santee.	8.30 3.50
<b>I.</b> U. Welu	2.00	12. M. Danvee	5.00

#### WASHINGTON, D. C.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
F. A. Schmidt.	Tracing cloth	\$6.85
Globe Printing Co	Reinforcing sheets.	1.50
W. B. Moses & Sons	Linoleum	118.13
Church & Stephenson.		18.00
Draper Manufacturing Co	Thermometers.	40.00
E. G. Schafer & Co.	Pipe fittings.	
Lutz & Co.	Mail bag.	
Kellogg Switchboard and Supply Co.	Telephone supplies	
F. S. Lincoln.	Section of book case	
Keuffel & Esser		
Globe Printing Co		
F. A. Schmidt.		5.96
G. W. Baist	Map	15.00
Remington Typewriter Co	. Typewriter	81.00
Do		-4.15
Do	Typewriter	81.00
United States Envelope Co	Envelopes	109.89
J Bishop & Co.	Platinum foil	1.92
Barber & Ross		2.60
Do		
Do	Blank keys	
W. H. Hoeke	. Desks	
Do		67.04
Do	do	22.35
Do		
D. F. Parker	. Pads	
C. J. McCubbin	. Plumbers' supplies	3.15

INVESTIGATIONS AND EXPERIMENTS IN DAIRY INDUSTRY-Continued.

WASHINGTON, D. C.-MISCELLANEOUS EXPENSES-Continued.

Payec.	Article.	Amount.	
M. Du Perow	. Tubing, collars, and folders	\$4. 3	
Rochester Optical Co.		1.0	
Niagara Radiator Co.		58.3 43.5	
Library Bureau Do		30.2	
Do		16.0	
Do	. Tablet	1.2	
W. L. Swayze	. Desk pads	2.8	
W. H. Moses & Sons.		6.0 26.2	
E. J. Pullman Do	dodo	20.2 22.0	
Friedenwald Co.		90.0	
Γ. Somerville Co	Lavatory	9.0	
M. Du Perow.		3.5	
J. Bernasco Do	. Copper steam cup.	2.5 3.0	
Church & Stephenson	- Tin cover skylight. Lumber.	40.0	
Draper Manufacturing Co.		7.5	
Lamb & Tilden	. Band daters	.2	
W. L. Swayze		.2	
Do.		14.0	
E. A. Bromley. W. B. Moses & Sons.	<ul> <li>Photographs.</li> <li>Rubber matting, laying and nosing</li> </ul>	16.2 9.3	
E. G. Schafer & Co	Closet and tank.	9. 3 14. 0	
C. Rau		15.1	
A. L. Johnson.	Hardware.	5.0	
W. B. Moses & Sons.		44.6	
Do. Library Bureau		15. 9 24. 0	
Do	Library cards	24.0	
Do.		32.0	
1. Joyce Engraving Co	Engraving.	2.9	
L. Johnson	Hardware	8.7	
V. L. Swayze		2.9	
C. Somerville & Co Aonarch Typewriter Co	Enameled iron plate	9.1 80.0	
A. Roeblings Sons.	Silk cord.	30.0	
Rudolph & West Co.	Nail puller.	. 4	
Remington Typewriter Co	Felt pad	1.0	
Barber & Ross.	Metal tape	2.2	
Do. Do.		$2.5 \\ 1.0$	
Do	Hardware.	6.9	
Yawman & Erbe Manufacturing Co	Cloth covered box	. 4	
bibrary Bureau	Folders and sections for filing case	27.5	
	. Tin trays.	$3.9 \\ 31.7$	
E. J. Pullman E. Morrison Paper Co	Photographic supplies Journals, indices, and paper	31.7 3.8	
E. J. Pullman.	Photographic supplies.	24.0	
Somerville Co	Hardware.	15.0	
V. B. Moses & Sons.	Linoleum	33.7	
C. Morrison Paper Co The Moore Co	Wrapping paper Typewriter equipment	$1.4 \\ 1.2$	
L. J. Pullman	Photographic supplies	24.0	
ibrary Bureau	Pamphlet cases.	12.0	
Do	Cards.	14.0	
V. B. Moses & Sons.	Window shades.	. 5	
Do. 1. Joyce Engraving Co.	Hassocks Zinc line cuts	1.1 $1.9$	
J. Pullman.	Photographic paste.	6.6	
). F. Parker	. Mimeograph supplies.	3.0	
P. S. Angle & Co.	Opening case and fitting key to lock	1.0	
ibrary Bureau	. Cârds.	21.0	
Inderwood Typewriter Co ibrary Bureau	Rubber keys Oak case, rods, and rules	2.5 13.3	
Do	Cards.	3.0	
awman & Erbe Manufacturing Co	Filing-case sections	31.3	
. A. Nicholson & Son	Awnings	19.0	
Remington Typewriter Co	Typewriter	80.0	
'. Somerville Co Voodward & Lothrop	Pipe fittings	6.3 20.9	
Do		20.9	
Do	Chairs	10.8	
Do	Window shades	4.3	
Do. Do.	Chairs	24.1	
		4.8	

INVESTIGATIONS AND EXPERIMENTS IN DAIRY INDUSTRY-Continued.

WASHINGTON, D. C.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount.	
Howard Label Co	Meat-inspection labels	\$12.0	
Palais Royal	Sheeting	7.5	
Gaylord Bros W. G. Johnson & Co	Parchment paper	.7	
Library Bureau.	Magazine holders Label holders	15.0 2.5	
Do	Labels	.2	
Do.	Cards	35.0	
Dulin & Martin. Keuffel & Esser Co.	Coolers Calculating instrument	6.3 33.2	
Great Bear Spring Co	Water	2.0	
Yawman & Erbe Manufacturing Co	Water. Section for filing case and cloth boxes	12.3	
E. J. Pullman Library Bureau	Photographic supplies	37.9 8.0	
Do	Cards and book supports	9.8	
Dulin & Martin	Jar for cooler	. 5	
Yawman & Erbe Manufacturing Co	Section for filing case	16.8	
E. J. Pullman Remington Typewriter Co	Photographic supplies Card holders	45.9	
Burroughs Adding Machine Co.	Adding machine with stand	235.0	
Remington Typewriter Co	Repairs to typewriter	14.2	
Woodward & Lothrop	Chairs.		
Standard Oil Co Brentano's	Benzine. Chemical technology and analysis of	.1 $     8.9 $	
	oils:	0.9	
G. E. Steckert	Reference books	6.7	
Library Bureau	Oak case and tin tray	9.0	
Do Do	Library cardsdo	$6.0 \\ 5.0$	
W. Ballantyne & Sons.	Allen's analysis	38.6	
Library Bureau	Sections for filing cases	83.0	
J. D. Sturges.	Cow-tail holder.		
J. S. Topham Draper Manufacturíng Co	Leather case Thermometer record	18.5 $60.0$	
J. Bernasco	Copper milk box.	10.0	
Globe Printing Co	Leather card cases	3.0	
H. J. Green	Psychrometers.	9.0	
E. H. Becker C. W. Knight	Leather case Pail and cover	7.0	
Barber & Ross		2.2	
W. B. Moses & Sons.	Oak stool	2.5	
Globe Printing Co	Leather cases.	$   \begin{array}{c}     3.0 \\     7.3   \end{array} $	
J. A. Nicholson & Son D. H. Burnell & Co	Canvas bag ''Facile, jr.,'' tester	4.0	
Do	Babcock tester complete	3.5	
Globe Printing Co	Labor, arranging photographs on linen.	1.5	
J. S. Topham.	Sewing photographs on linen Note books	13.2 4.0	
E. Morrison Paper Co Palais Royal	Muslin	7.5	
Library Bureau	Guides.	4.0	
Do.	do	1.4	
E. J. Pullman	Photograph paperdo	48.0	
Do W. S. Sheetz	Plate holders	22.5	
Yawman & Erbe Manufacturing Co	Sections for filing cases	56.2	
M. Joyce Engraving Co.	Engraving.	.5	
Fritzsche Bros Wagner Glass Works	Acetate and amyl valerianate Extraction apparatus	26.2 5.4	
Underwood Typewriter Co	Typewriter and cover	82. 5	
Bucyrus Copper Kettle Works	Copper kettle	98.7	
H. J. Bamford	Paraffining cheese.		
Keuffel & Esser Co F. A. Schmidt	Miscellaneous rubbers Drawing and tracing paper	5.2	
W. B. Moses & Sons	Oak stool.	2.5	
F. A. Schmidt	Tracing cloth	6.8	
G. F. Muth & Co	Drawing table:	29.6 12.6	
Library Bureau Do	Guides		
Do	Cards, tray, and guides	2.5	
F. A. Schmidt	Tracing cloth	6.8	
Do.	Blueprint.		
A. J. McKee Co W. B. Moses & Sons	Enamel graduates Oak stools	$   \begin{array}{c}     2.8 \\     10.2   \end{array} $	
Whitall-Tatum Co.	Corks		
E. Leitz	Microscope	80.0	
Barber & Ross	Stone jars		
D. H. Burrell & Co	Thermometers		

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## INVESTIGATIONS AND EXPERIMENTS IN DAIRY INDUSTRY-Continued.

WASHINGTON, D. C.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount.	
J. H. Corning.	Paint	\$1.75	
D. H. Burrell & Co	Laboratory supplies	32.16	
A. H. Thomas Co E. Betz	Funnels. Copper tubes	1.67 $4.00$	
Dulin & Martin	Freezers	3.90	
Bramhall, Dean Co	Autoclave	109.00	
D. H. Burrell & Co Z. D. Gilman	Freight Drugs and chemicals	40 - 27.10	
Keasbey & Mattison Co.	Lumber.	5. 20	
Vermont Farm Machine Co	Agos tester	42.00	
Mackall Bros. Wm. Gaertner & Co	Drugs. Labaratory supplies.	. 90 14. 10	
DeLaval Separator Co.	Separator and bowl.	106.88	
Franklin & Co	Reading glasses	3.50	
E. Greiner Co.	Laboratory supplies	19.20	
National Electrical Supply Co A. H. Thomas Co	Motordo	65.00 5.80	
Wagner Glass Works.	Laboratory supplies	26.50	
Rudolph & West Co	Hammers and snips.	2.44	
Do. Church & Stephenson	Saw, vise, pliers.	3. 92 30. 00	
Bausch & Lomb Optical Co.	Laboratory supplies and chemicals	67.21	
J. Bernasco.	Tube, pan, and wire baskets	18.60	
W. D. Allen Manufacturing Co J. Bernasco	Leather belt Funnels	10.75 $6.50$	
Mackall Bros.	Drugs and chemicals	30.15	
J. Bernasco	Galvanized iron tank	3.00	
H. Muller Manufacturing Co	Gas cocks	12.00	
J. Bernasco.	Tanks Tin tube, cream pasteurizers	40.00 21.00	
Do	Repairs to sterilizer.	. 75	
Fries, Beall & Sharp Co	Tinned copper	10.00	
J. Bernasco. T. Somerville Co.	Copper box. Brass boxes.	1.50 19.00	
Yawman & Erbe Manufacturing Co.	Cloth-covered boxes.	13.00	
J. B. Lambie Co.	Copper wire	. 80	
Z. D. Gilman Mackall Bros	Bottles Drugs	1.20 $2.83$	
Bausch & Lomb Optical Co.	Microscope	2. 83 90. 00	
W. H. Dyer	Windows	3.00	
G. F. Muth & Co Do	Gasoline, can, and spout White lead	1.60 13.80	
Do	Zinc.	4.38	
Int. Instrument Co.	Centrifuge and case	69.50	
J. A. Nicholson & Son J. Bernasco	Canvas bag. Labor and material.	1.50 22.50	
Potomac Electric Power Co.	Labor and material	22.50	
T. Somerville Co.	Plumbers' supplies	13.75	
J. Bernasco. Z. D. Gilman	Copper work	14.00 8.57	
Do.	Drugs, chemicalsdo	2.20	
Bausch & Lomb Optical Co	Eyepiece for micrometer	1.80	
Do	Brushes.	1.92	
Do Library Bureau	Test tubes and pencils	6. 90 3. 60	
D. H. Burrell & Co	Guides. Brushes, dippers, and sieve.	4. 50	
Frics, Beall & Sharp Co.	Sheet copper.	10.00	
T. Somerville Co A. H. Thomas Co	Hardware and plumbers' supplies Flasks and tubing	17.06 9.09	
J. Bishop & Co.	Laboratory supplies	413. 32	
M. Lindsay Rubber Co.	Hard rubber.	. 90	
Bausch & Lomb Optical Co W. Leonard Electrical Co	Laboratory supplies Resistance units	36. 43 3. 07	
D. H. Burrell & Co	Pipettes	1.15	
Mackall Bros.	Drugs and chemicals	11.52	
J. Bernasco Mackall Bros	Repairs to cooler and separator Absorbent cotton	2.50 1.00	
G. F. Muth & Co.	Gasoline	. 85	
Barber & Ross	Tin buckets	. 90	
J. Bishop & Co. J. C. Rau	Platinum wire Cabot bells and switches	. 9 <b>1</b> 13. 63	
Tersian Balance Co	Balance.	13.03	
Whitall-Tatum Co	Pint flasks	. 43	
Franklin Co	Thermometers	1.50	

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#### INVESTIGATIONS AND EXPERIMENTS IN DAIRY INDUSTRY-Continued.

WASHINGTON, D. C.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Artiele.	Amount.	
J. B. Lambie & Co.	Hinges.	\$9.60	
J. C. Rau	Brushes	. 72	
T. Somerville Co	Lead tubing	2.64	
Hugh Reilly.	Glass	3.00	
National Electrical Supply Co	Fan and pulleys	25.06	
E. G. Schafer & Co	Tin pipe.	6.30	
Woodward & Lothrop	Rice boiler	2.10	
A. J. MeKee & Co.	Graduates	3.40	
Church & Stephenson	Lumber	67.50	
Do. J. B. Lambie Co.	do Exeelsior	31.00	
Z. D. Gilman.	Potassium sulphate	2.74	
Rudolph & West Co.	Wrenehes and saw.	1.75 $1.84$	
Do	Plumbers' materials and tools	5.76	
Wm. Gaertner & Co.	Laboratory supplies and apparatus	14.33	
J. Bernaseo.	Laboratory apparatus	35. 55	
W. S. Hutehinson.	Soapstone slab.	2.85	
J. Bernaseo.	Tin and copper work.	36.42	
Z. D. Gilman.	Laboratory supplies and drugs.	30.27	
T. Somerville Co.	Hardware and plumbers' supplies	26.86	
Bauseh & Lomb Optieal Co	Laboratory supplies and apparatus	165.65	
Westinghouse Air Brake Co	Compressor, lubricator, and governor.	80.50	
C. J. McCubbin Co	Sink.	4.15	
J. Bernasco	Copper and work	26.80	
Eimer & Amend	Laboratory supplies and apparatus	132.48	
H. Mueller Manufacturing Co	Hose cocks	33.30	
Mackall Bros.	Chemicals and laboratory apparatus	80.70	
E. Greiner Co.	Laboratory supplies.	49.77	
G. E. Steehert & Co.	Chemistry handbook.	4.07	
E. Steiger & Co.	Copy "Mason on Examination of Water."	. 88	
A. H. Thomas Co.	Laboratory supplies	75.66	
Barber & Ross.	Hardware	<b>24.50</b>	
Brentano's.	Reference books	42.05	
Eimer & Amcnd.	Analytical balance.	64.00	
Lemcke & Bucchner	Reference works on chemistry	11.05	
Bausch & Lomb Optical Co	Chemicals, laboratory apparatus, and	216.60	
	supplies.		
Seltman, P	Three wood patterns	8.00	
T. Somerville Co.	Repairs to regulator	4.00	
Merchants and Storage Co	Freight and drayage	11.42	
Doane, C. F	Milk	.75	
Do	Cheese	1.10	
Whitaker, G. M.	Livery service and ear fare	4.42	
Smith, R. L.	Mink and cream.	2.90	
Gheen, P. P. Roby, Jas	do	1.44 $2.80$	
Gedney Farm	Milk	3.45	
Freneh Bros		. 56	
Biesecker, J. S.		5.90	
National Enamel and Stamp Co.	Milk pail.	3.50	
Dairymen's Supply Co		1.50	
Krebe, J. F.	Photographic supplies.	3.80	
Reed Manufacturing Co.	Pail and can	1.11	
Rogers, L. A.	Butter	2.70	
Thompson, C	Milk	5.00	
C. A. Schneider Sons.	Strap and casting	2.75	
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#### INSPECTION OF RENOVATED BUTTER FACTORIES AND MARKETS.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel
Brown, A. O	\$732.67	\$816.04	Lang, M. W	\$2,000.00	

### CHICAGO, ILL.—SALARIES.

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## Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907-Continued.

INSPECTION OF RENOVATED BUTTER FACTORIES AND MARKETS-Continued.

CHICAGO, ILL.—TRANSPORTATION.

Payee.	Amount.	· Payee.	Amount.
Atchison, Topeka and Santa Fe Rwy.	\$15.90	Chicago, Rock Island and Pacific Rwy.	
Co., M. W. Lang Chicago and Alton R. R. Co.:	\$15.90	Co.—Continued. M. W. Lang	\$5.00
M. W. Lang.	7.50	Do	5.00
Do	7.50	Do Great Northern Rwy. Co.:	0.00
Chicago, Burlington and Quincy R. R.		M. W. Lang.	4.30
Co.:		Do	4.97
M. W. Lang	5.20	Illinois Central R. R. Co.:	0.50
Do	5.00	M. W. Lang.	6.76
Do	5.80	Do	2.45
Do Do	5.00 $5.00$	Lake Shore and Michigan Southern Rwy. Co., M. W. Lang	7.75
Do	5.00	Michigan Central R. R. Co.:	
Do.	3.93	M. W. Lang.	5.50
Do	5.00	Do	4.70
Do	5.00	Minneapolis and St. Louis R. R. Co.:	
Do	7.50	M. W. Lang.	8.00
Do	5.00	Do. Minneapolis, St., Paul and Sault Ste.	6.76
Chicago and Eastern Illinois R. R. Co.: M. W. Lang.	7.50	Marie Rwy. Co., M. W. Lang	4.45
Do	7.50	Nashville, Chattanooga and St. Louis	3. 10
Do	7.50	Rwy. Co., M. W. Lang.	4.10
Do	7.50	New York Central and Hudson River	
Chicago, Indianapolis and Louisville		R. R. Co.:	
Rwy. Co., M. W. Lang.	4.40	M. W. Lang.	8.58
Chicago, Milwaukee and St. Paul Rwy.		Do   Pennsylvania R. R. Co.:	6.38
Co.: M. W. Lang	2.91	M. W. Lang.	3.25
Do.	3.15	Do.	12.45
Chicago and Northwestern Rwy. Co.:	0,10	Do	10.30
M. W. Lang	30.00	Pere Marquette R. R. Co.:	
Do	6.42	M. W. Lang.	4.70
$\mathbf{Do}$	6.42	Do.	4.70
Do Do	$5.00\\10.25$	The Pullman Co.: M. W. Lang	6,00
Do	3.21	Do	3.50
Do	11.50	Do	2.00
Chicago, Rock Island and Pacific Rwy.		Do	3. 50
Co.:		Southern Rwy. Co., M. W. Lang	15.50
M. W. Lang	5.25	Union Pacific Rwy. Co., M. W. Lang.	16.13
Do	5.00	Wheeling and Lake Erie R. R. Co.:	6 70
.Do	5.00	M. W. Lang. Do	$\begin{array}{c} 6.75 \\ 6.75 \end{array}$
Do	5.00	<u> </u>	0.76

#### CHICAGO, ILL.--MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount,
Chicago Insulated Wire Co. A. H. Revell & Co. Crilly, D. F. Do.	Office furniture Rentdo	
Do. Lang, M. W. Crilly, D. F. Chicago Insulated Wire Co.	Wardrobe, umbrella stand, rug and cord. Rent	$25.00 \\ 23.95 \\ 25.00 \\ 21.00 \\$
Crilly, D. F. Do Do	do do do do	25.00
Do Do Do Do Lang, M. W.	do	$\begin{array}{c} 25.00\\ 25.00\\ 25.00\\ 25.00\\ 34.67\end{array}$

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INSPECTION OF RENOVATED BUTTER FACTORIES AND MARKETS-Continued.

#### LACEYVILLE, PA.-SALARY.

Payee.	Salary.	Travel.
Wells, L	\$1,385.00	\$1,108.36

#### LACEYVILLE, PA.-TRANSPORTATION.

. Payee.	Amount.	Payee.	Amount.
Baltimore and Ohio R. R. Co.: Levi Wells. Do. Pennsylvania R. R. Co.: Levi Wells. Do. Do. Do.	$\begin{array}{c} 4.\ 57\\ 3.\ 15\\ 3.\ 51\\ 4.\ 94 \end{array}$	Pennsylvania R. R. Co.—Continued. Levi Wells. Do. Do. Do. Do. Do. Do. The Pullman Co., Levi Wells.	

#### NEW YORK, N. Y.-SALARIES.

Payee.	Salary.	Travel.		Payce.	Salary.	Travel.
Barrett, J. H Clarke, M. H.	\$5.00 690.00		Cole Wel	, E. J. A ls, L	\$207.50     415.00	\$288.57

## NEW YORK, N. Y.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Chicago & Northwestern Rwy. Co., Levi Wells. Delaware & Lackawanna R. R. Co., Levi Wells. Illinois Central R. R. Co., Levi Wells.	3.65	Northern Pacific Rwy. Co., Levi Wells. Pennsylvania R. R. Co.: Levi Wells. Do.	\$3.04 5.45 22.00

## NEW YORK, N. Y.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
New York Mercantile Exchange.         Do.         Empire Towel Supply and Laundry Co.         Do.         New York Telephone Co.         New York Mercantile Exchange.         New York Telephone Co.         Do.         Empire Towel Supply and Laundry Co.         New York Telephone Co.         New York Telephone Co.         New York Mercantile Exchange.         New York Mercantile Exchange.         New York Mercantile Exchange.         New York Telephone Co.	Laundry. do Telephone service. Rent. Telephone service. do Laundry. Telephone service. Rent.	$\begin{array}{c} 72.50\\ 3.00\\ 3.00\\ 12.95\\ 72.50\\ 12.00\\ 8.70\\ 3.00\\ 10.90\\ 72.50\end{array}$

#### ROME, N. Y.-SALARY.

Payee.	Salary.	Travel.
McAdam, R	\$1,500.00	\$1,303.66

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Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

INSPECTION OF RENOVATED BUTTER FACTORIES AND MARKETS-Continued.

ROME, N. Y.-TRANSPORTATION.

Payce.	Amount.	Payec.	Amount.
Ann Arbor R. R. Co., Robt. McAdam	\$3.22	Eric R. R. Co.:	
Atchison, Topeka and Sante Fe Rwy. Co.:		Robt. McAdam Do	\$5.10 .85
Robt. McAdam Do	$\begin{array}{r} 3.60\\ 15.90\end{array}$	Great Northern Rwy. Co.: Robt. McAdam	4.30
Baltimore and Ohio R. R. Co.:		Do	4.30
Robt. McAdam Do	8.00 10.70	Do Do	4.30
Do Chicago and Alton R. R. Co., Robt.	11.00	Illinois Central R. R. Co.:	16.00
McAdam	7.50	Robt. McAdam Do	16.00 16.00
Chicago, Burlington and Quincy R. R.		Do Do	$6.30 \\ 6.76$
Co.: Robt. McAdam	4.88	Do	6.76
Do Do	$5.00 \\ 5.80$	Lake Erie and Western R. R. Co., Robt. McAdam.	2.45
Do	4.58	Lake Shore and Michigan Southern	2. 20
Do Do	$28.65 \\ 5.80$	Rwy. Co.: Robt. McAdam	2.18
Do	23.60	Do	2.15
Do Do		Do Michigan Central R. R. Co.:	2.18
Do		Robt. McAdam	5.40
Do Chicago Great Western Rwy. Co.:		Do Do	5.40
Robt. McAdam		Do Minneapolis and St. Louis R. R. Co.:	4.70
Do Do	4.40	Robt. McAdam	
Chicago, Milwaukee and St. Paul Rwy. Co.:		Do Minneapolis, St. Paul and Sault Ste.	8.00
Robt. McAdam		Marie Rwy. Co., Robt. McAdam	4. 4
Do Do		New York Čentral and Hudson River R. R. Co.:	
Do		Robt. McAdam	
Chicago and Northwestern Rwy. Co.: Robt. McAdam	2.18	Do Do	
Do Do	0.10	Do Do	
Do	3.15	Do	5.63
Do Do	$\begin{array}{c} 3.15\\ 6.75\end{array}$	Do New York, New Haven and Hartford	16.12
Do	6.42	R. R. Co.:	
Do Do		Robt. McAdam Do	
Do	5.00	Do	
Do Chicago, Rock Island and Pacific Rwy.	6.30	Pennsylvania R. R. Co.: Robt. McAdam	5. 30
Co.: Robt. McAdam		Do Do	
$D_0$	15.90	Do	1.70
Do Do		Do Pere Marquette R. R. Co.:	5.6
Do	16.15	Robt. McAdam	
Do Cleveland, Cincinnati, Chicago and St.	2.46	Do Do	
Louis Rwy. Co.:	0.17	The Pullman Co., Robt. McAdam	6. 00
Robt. McAdam Do			

#### SEATTLE, WASH.—SALARY.

Payee.	Salary.	Travel.
McDonald, E. A.	\$1,375.00	\$752.65

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#### **INSPECTION OF RENOVATED BUTTER FACTORIES AND MARKETS**—Continued.

SEATTLE, WASH.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Alaska S. S. Co., E. A. McDonald Baltimore and Ohio R. R. Co.: E. A. McDonald. Do Chicago and North Western Rwy.Co., E. A. McDonald. Denver and Rio Grande R. R. Co., E. A. McDonald. Great Northern Rwy. Co., E. A. Mc- Donald. Northern Commercial Co.: E. A. McDonald. Do Northern Pacific Rwy. Co.: E. A. McDonald. Do Do Do Do Do Do		Oregon Short Line R. R. Co.: E. A. McDonald. Do. Pacific Coast S. S. Co.: E. A. McDonald. Do. Southern Pacific Rwy. Co.: E. A. McDonald. Do. Do. Do. Steamer Monarch, E. R. Soudheim, owner, E. A. McDonald. White Pass and Yukon Route: E. A. McDonald. Do. Do.	$22.\ 00\\10.\ 00\\14.\ 00\\3.\ 15\\8.\ 80$

#### SEATTLE, WASH.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
E. A. McDonald. But	ter do	2.50 2.15

#### WASHINGTON, D. C.—SALARY.

Payee.	Salary.
Willis, S. B.	\$110.00

#### INVESTIGATIONS AND EXPERIMENTS IN ANIMAL HUSBANDRY.

BETHESDA, MD.-TRAVEL.

Payee.	Travel.
Riley, E. H.	\$64.55

#### HALETHORPE, MD.-SALARY.

Payee.	Salary.	Travel.
Davis, T. A.	\$630.00	

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INVESTIGATIONS AND EXPERIMENTS IN ANIMAL HUSBANDRY-Continued.

HALETHORP, MD.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
C. C. Cabermanham & Can	Dran brown middling and meal	
C. S. Schermerhorn & Son Newmyer Co	Bran, brown middling, and meal Wire fencing	\$40.00     6.80
F. S. Burch & Co.	Wire fencing. Ear buttons, punch, and pliers	2.95
J. H. Toomey & Sons	Fence and material	7.67
C. S. Schermerhorn & Son.	Chops and feed	$7.25 \\ 1.95$
J. H. Toomey & Sons Baltimore Paint and Glass Co	Lumber. Paint and brushes	5.18
C. S. Schermerhorn & Son	Meal, chops, and middlings	26.08
Davies, L. R.	Labor	3.00
T. M. Dinsmore & Co Baltimore Paint and Glass Co	Meal Paint	$\begin{array}{c}17.00\\5.00\end{array}$
C. S. Schermerhorn & Son	Meal and bran.	17.16
Stewart-Crook Hardware Co	Carpenter supplies	3.45
	Hardware.	7.85
C. S. Schermerhorn & Son. Davies, L. R.	Feed Stove, oil can, fan, and express	$\begin{array}{c} 26.40\\ 9.45\end{array}$
C. S. Schermerhorn & Son.	Meal	9.00
Do	Bran and straw	10.54
Stewart-Crook Hardware Co	Carpenters' supplies	11.41
Eisinger Bros. C. S. Schermerhorn & Son.	Paint Feed	$\begin{array}{r} 3.75 \\ 19.10 \end{array}$
Do.	do	11.04
Do	Straw and bran	8.35
Do	Middlings.	$5.65 \\ 13.05$
Do S. L. Lamberd Co	Prepared food Wire and staples	15.05 6.05
C. S. Schermerhorn & Son	Feed	24.20
M. Schuler & Son	Chopped corn	40.50
Do. S. Thos. Brown	Feed	$\begin{array}{c}13.00\\37.50\end{array}$
Anderson & Ireland Co.	Pigs Tools	16.15
T. M. Dinsmore Co.	Meal	41.25
Davis, T. A.	Car fare and oil	3.01
Barber & Ross. Eisinger Bros.	Carpenters supplies Ruberoid	$\begin{array}{c} 26.33\\ 18.50 \end{array}$
Church & Stephenson.	Posts.	18.86
Slocum, R. R.	Subsistence, carpenter supplies, and	
I We gamer & Co	muslin.	23.47
L. Waggner & Co. C. S. Schermerhorn & Son	Lumber. Feed.	$81.51\\28.51$
C. H. Torsch & Co.	Hardware	2.73
U. R. Fishel.	Chickens and express	133.29
Stewart-Crook Hardware Co Griffith Turner Co	Hardware. Feed hoppers and boxes	$\begin{array}{c} 3.26\\ 3.32 \end{array}$
C. S. Schermerhorn & Son	Chopped feed	9.82
Do	Prepared food	
Stewart-Crook Hardware Co	Nails.	1.56
M. F. Delano Prairie State Incubator Co	Fowls Brooders	$\begin{array}{c} 17.50\\ 21.40 \end{array}$
Johns-Manville Co.	Asbestos roofing	21.40 20.52
C. A. Cyphers	Incubator	23.81
S. C. Lombard Co C. S. Schermerhorn & Son	Wire netting	$\begin{array}{c} 2.75\\ 9.56\end{array}$
E. S. Schmid.	Feed Leg bands	$9.50 \\ 2.50$
L. Kellum & Co.	Feed	4.90
Cornell Incubator Co.	Brooders and colony house	25.36
C. S. Schermerhorn & Son Cyphers Incubator Co	Feed. Incubators, brooders, and trays	11.25 24.26
Darling & Co	Beef scrap and freight.	2.88
R. R. Šlocum	Board, oil, car fare, and gauze	23.54
S. L. Lamberd Co.	Food and scythe	$\begin{array}{c} 7.50 \\ 4.50 \end{array}$
E. S. Schmid C. S. Schermerhorn & Son	Open leg bands. Straw and feed	4.50
Prairie State Incubator Co	Brooder	11.09
Cyphers Incubator Co.	Brooders	14.84
S. L. Lamberd Co. C. S. Schermerhorn & Son.	reed	$\begin{array}{c} 6.00\\ 11.70\end{array}$
S. L. Lamberd Co.	do	4.75
Do	do	2.75
Do. M. Schuler & Son	Wire mesh and feed	9.00
M. Schuler & Son Cyphers Incubator Co	reed. Canvas houses	$\begin{array}{c} 31.73\\ 21.36 \end{array}$
Excelsior Wire and Poultry Supply Co	Lcg bands.	4.40
S. L. Lamberd Co.	Chiekcn feed	5.65

INVESTIGATIONS AND EXPERIMENTS IN ANIMAL HUSBANDRY-Continued.

STATE COLLEGE, PA.-TRAVEL.

	Payce.	•	Travel.
Armsby, H. P.			\$83.39

WASHINGTON, D. C.-SALARY.

Payec.	Salary.	Travel.	Payce.	Salary.	Travel.
Bell, G. A. Cave, R. A. Davies, L. R. Rommel, G. M. Samson, G. R.	550.00 960.00	$\begin{array}{r} 38.48\\315.60\end{array}$	Shaw, E. L. Slocum, R. R. Van Es, L. Baldwin, H. B. Phillips, E. F.	1,153.33 312.00	\$243.60

#### WASHINGTON, D. C.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Atchison, Topeka and Santa Fe Rwy.	-	Pennsylvania R. R. Co.—Continued.	
Co., L. R. Davies	\$4.36	R. R. Slocum	\$17.50
Baltimore and Ohio R. R. Co., G. M.	10.00	G. M. Rommel.	15.00
Rommel Boston and Maine R. R. Co., R. R.	10.00	E. H. Riley. G. M. Rommel.	17.50
Slocum	6.00	E H Riley	17.00 10.00
Chicago, Rock Island and Pacific Rwy.	0.00	E. H. Riley. G. M. Rommel.	10.00 15.30
Co.:		Do	12.05
L. R. Davies	4.31	R. R. Slocum	6.00
	3.35	E. H. Riley	12.09
Cleveland, Cincinnati, Chicago and St.	2.75	Do The Pullman Co.:	3.40
Louis Rwy. Co., G. M. Rommel Houston and Texas Central R. R. Co.,	2.10	G. M. Rommel.	5.00
L. R. Davies	3.95	L. R. Davies	5.00
Illinois Central R. R. Co.:	0.00	E. H. Riley.	5.00
G. M. Rommel	3.83	Do	5.00
Do	3.83	G. M. Rommel	5.00
Lake Shore and Michigan Southern	14 40	Do	4.00
Rwy. Co., G. M. Rommel. Maine Central R. R. Co., R. R. Slocum.	$\begin{array}{c}14.40\\6.00\end{array}$	L. R. Davies. G. M. Rommel.	$6.50 \\ 4.00$
Missouri, Kansas and Texas Rwy. Co.,	0.00	Do	3.00
L. R. Davies	4.35	Do	
New York Central and Hudson River		L. R. Davies	6.50
R. R. Co.:		G. M. Rommel	
R. R. Slocum	6.58	Do	3.00
Do Do	$22.00 \\ 7.56$	Do Rutland R. R. Co., E. H. Riley	$3.00 \\ 3.85$
New York, New Haven and Hartford	1.00	Southern Rwy. Co.:	0.00
R. R. Co.:		L. R. Davies.	37.05
G. M. Rommel	10.30	G. M. Rommel	14.55
E. H. Riley.	7.65	Do	14.55
Pennsylvania R. R. Co.:	17 50	St. Louis and San Francisco Rwy. Co.:	0.01
G. M. Rommel Do	$\begin{array}{c}17.50\\17.00\end{array}$	L. R. Davies.	$\begin{array}{c} 6.91 \\ 10.50 \end{array}$
E. H. Riley.	$17.00 \\ 17.00$	Wabash R. R. Co.:	10.30
L. R. Davies.	17.00	L. R. Davies	5.15
Do	10.00	Do	
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## 148 OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY.

## Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

#### INVESTIGATIONS AND EXPERIMENTS IN ANIMAL HUSBANDRY-Continued.

WASHINGTON, D. C.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
J. Lansburgh Furniture and Carpet Co	Dcsk	\$30.50
E. J. Pullman.	Photographic supplies	
R. P. Andrews Paper Co.	Binder, index, and paper	
E. J. Pullman.	Photographic supplies	10.92
W. L. Swayze.	Arm rest.	. 25
W. B. Moses & Sons	Rubber matting, laying and nosing	9.31
E. J. Pullman.	Photographie supplies	10.88
Library Bureau	Labels and holders.	7.60
E. J. Pullman	Photographic supplies	
National Electrical Supply Co	Electrical supplies	4.20
W. L. Swayze	Numbering machine	3.25
W. L. Swayze. National Electrical Supply Co	Portables	4.20
Remington Typewriter Co	Typewriter and cover	
Do		79.00
Potomac Electric Power Co.	Lamps	5 20
W. H. Hoeke	Dcsk.	
S. Sheetz	Photographie supplies	4.80
Yawman & Erbe Manufacturing Co	Handy outfit	1.85
Do.	Cards and cabinet	16.20
D. F. Parker	Mimeograph supplies	3.00
Library Bureau	Cards.	4, 50
Woodward & Lothrop.	Chair.	6.98
Do	do	6.98
Yawman & Erbe Manufacturing Co	Folders.	4.50
Library Bureau.	Cards.	6,00
Dulin & Martin	Oak stand and cooler	
Yawman & Erbe Manufacturing Co	Desk tray	
Woodward & Lothrop.	Chair	6.98
Great Bear Spring Co		
W. H. Hoeke.	Desk	39.76
C. H. Bell		300.00
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#### SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS.

#### AMES, IOWA.-SALARIES.

Payee.	Salary.	Travel.
Copeland, J. Hambleton, G. H. Niles, W. B.	\$722.00 468.00 1,716.66	\$37.62

#### AMES, IOWA.-MISCELLANEOUS EXPENSES.

•	1	
Payee.	Article.	Amou
Copeland, J	Livery service	\$7.
Do	do	15. 15.
Do	do	15. 15.
fisher, W. T.	do Pigs	15. 30.
Higginbotham, A. L raig, I	do	120. 49.
	do	49. 36.
Robb, J	do	36. 24.
faroney, T.	do	40. 36.
owler, F		48. 47.
Do Fraham, G. H	Shelled eorn and wheat shorts	48. 48.
Do	do	40. 42.
	do	49.

SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS-Continued.

AMES, IOWA-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount
Carpenter. F. L.	Pigs	\$48.00
Carpenter, F. L. Graham, G. H.	do	24.00
Heistand, A. B. Duncanson, J. A.	do	14.00     49.92
Nieswander, J. L.	. do	39.10
Whitinger, A. A.	do	23.00
Fowler, F Do	Shelled corn   Shelled corn and wheat shorts	47.00
Carr, J. H.	Pigs	28.00
Grove, W. S.	do	
O'Brien, G. W Boone County Telephone Co	Wire fence Telephone service	$   \begin{array}{c}     15.00 \\     3.00   \end{array} $
Bosworth, L. M.	Chloro-naptholeum, gauze, and lime	40.3
Hambleton, G. H	Pigs	21.00
Carr, J. H. Do.	do	44.00
Munn, Fred.	Lumber.	49.30
Do	do	48.30
Hill, L. B. & D. B. Scott, Guy.	Pios	$\begin{vmatrix} 75.06\\25.06\end{vmatrix}$
Lawson, W. M.		15.00
Parks, É.		
Kelley, A Mauhart, T. E	do	$     28.00 \\     36.00 $
Niles, N. L.	do	28.00
Hambleton, G. H Do	do	$   \begin{array}{c}     36.00 \\     20.50   \end{array} $
Niles, W. B.	Pigs and repairs to wagon	10.90
Fowler, F.	.   Corn	46.23
Taylor, J. A Do	l Pigs	$   \begin{array}{c}     15.00 \\     37.50   \end{array} $
Briley, A. S.	do	40.00
Do	do	20.00
Fowler, F Do	do	48.50
Hambleton, G. H.	Pigs	18.00
Johnson, O.	do	32.84
Lowman, H. S.		49.50
Newlen, A. E.	do	20.00
McDaniel, W. F. Kelley, G. W.		12.50 30.00
Carpenter, F. L.	do	27.00
Davis. H. C.	do	44.0
McDonald, W. A. O'Brien, G. W.	Wire fence	40.00
Potter, A. L.	.  Pails, pans, boiler	2.00
Do	. Refrigerator and pails	18.68
Carpenter, F. L Fowler, F.		49.9
Do	do	48.10
Carpenter, F. L Bosworth, L. M	Laboratory supplies	$19.13 \\ 13.11$
Perry, J. É.	Pigs.	45.0
Dodds. G	do	45.00
Coe, S. R. Johnson, O.	do	
Perry, J. E.	do	30.00
Johnson, O Dodds, G	do	24.00
Boone County Telephone Co	Telephone service	3.00
Hill, L. B. & D. B.	.  Rent	75.0
Munn, Fred Do		27.3
Fowler, F.	Corn, wheat shorts	261.2
Niles, N. L.	. Pigs.	40.00
Kooser, Capt Niles, N. L.		145.00 8.40
Do	do	23.10
Niles, W. B.	Livery, salt, gasoline	19.10
Fowler, F	do	148.0
Do	do	48.00
Boone County Telephone Co	.] Telephone service	3.0
Hill, L. B. & D. B. Fowler, F.	Shelled corn	49.60
De		49.20

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#### SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS—Continued.

AMES, IOWA-MISCELLANEOUS EXPENSES-Continued.

Bosworth, L. M.       Tonic powder.       16.75         Fowler, F.       Shelled corn and wheat shorts.       130.00         Hambleton, G. H.       Pigs.       19.00         Johnston, O.      do.       45.00         Hill, L. B. & D. B.       Rent.       75.00         Willman, L.       Pigs.       17.00	Payee.	Article.	Amount.
Niles, W. B	Lenge, A. Dalc, Jas. Carr, J. F. Carpenter, F. L. Campbell, J. E. Hambleton, G. H. Rowland, J. B. Do. Fowler, F. Do. Niles, W. B. Boone County Telephone Co. Bosworth, L. M. Fowler, F. Hambleton, G. H. Johnston, O. Hill, L. B. & D. B. Willman, L.	<ul> <li>Pigs.</li> <li>Pigs.</li> <li>do.</li> <li>Rent.</li> <li>Pigs.</li> <li>do.</li> </ul>	$\begin{array}{c} 30.00\\ 25.00\\ 25.00\\ 45.00\\ 45.00\\ 20.00\\ 30.00\\ 40.00\\ 49.50\\ 49.50\\ 49.50\\ 35.91\\ 3.00\\ 16.75\\ 130.00\\ 19.00\\ 45.00\\ 75.00\\ 17.00\end{array}$

#### AUBURN, ALA.—SALARY.

Payee.	Salary.	Payee.	Salary.
Graybill, H. W	\$100.00		

#### BETHESDA, MD.—SALARIES.

	1	1	
Brett, G. W.	\$1,200.00	Mason, S.	\$18.67
Brooks, W		Matthews, F	570.00
Caywood, E. V.	600.00	Matchews, T Moxley, J. A.	750.00
Clipper, C.	277.00	Myorg H B	720.00
Clipper, U.		Myers, H. B.	720.00
Clipper, W.	540.00	Poore, W. R.	
Coleman, G. F.	1 800 00	Pugh, A. D.	89.00
Cotton, W. E.		Pugh, J. R.	67.00
Crist, F.		Pugh, W. T.	720.00
Darr, H.	540.00	Richards, J.	354.16
Drummond, W	390.00	Richardson, C. L.	58.00
Fogarty, J. P.	79.33	Riley, E. H.	770.00
Forrest, L. D.	5.25	Robinson, W. P.	3.50
Fox, C. W	22.67	Samuel, J.	510.00
Gingell, C. E.	600.00	Schroeder, E. C.	2,500.00
Gingell, W. E.	173.00	Seek, R. É. Shipley, J. W.	750.00
Golladay, L. C.	544.75	Shipley, J. W	84.00
Harris, P	13.33	Spalding, A. C	60.00
Henderson, H	600.00	Stadler, G. M.	690.00
Herbert, G. F.	91.50	Trice, T	840.00
Holmes, A		Voigt, A	450.00
Houser, L.	263.15	Voigt, F	780.00
Keene, G. W.	80.00	White, G	281.00
Lancaster, F	480.00	Wilson, C.	22.67
Lane, C.	5.33	Woodland, R.	93.33
Leftwich, J	450.00		
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#### BETHESDA, MD.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Hoge & McDowell Co. Stewart & Co. W. L. Swayze. Lutz & Co. Hugh Reilly. Do.	Bran. Tissue paper. Bridle. Paint.	$\begin{array}{r} 88.00 \\ 1.16 \\ 7.50 \\ 12.50 \end{array}$
National Electrical Supply Co	Brushes	1.10

SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS-Continued.

BETHESDA, MD.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount
Rudolph & West Co	Shears, chalk, catches, snaps	\$2.7
F. W. Bolgiano	Sced	18.3
Lutz & Co W. J. Zeh Co	Harness supplies Coal	3.6 858.6
Rudolph & West Co	Staples	1.0
Z. D. Gilman	Knives	8.5
Do. Stewart & Co.	Chloroform. Hay and straw.	3.7 338.1
Lutz & Co	Horse boots	2.0
E. Morrison Paper Co Z. D. Gilman	Cards.	.2
Do.	Lamp, plug, syringe Methylene blue	$\begin{array}{c} 16.0\\ 1.6\end{array}$
National Electrical Supply Co	Repairing pump	.7
Hoge & McDowell Co. F. W. Bolgiano.	Oats Grass seed	$\begin{array}{c} 240.0\\ 18.5 \end{array}$
Stewart & Co	Bran, shelled corn	218.0
Do	Bran.	88.0
Do. F. W. Bolgiano.	Rye straw Harness.	1.6 $11.2$
E. G. Schafer & Co.	Chain tongs	5.5
Do	Packing	2.7
Do. M. C. Mitchell Co.	Pipe Steam joint	18.4 5.2
Keasbey & Mattison Co	Air-cell cover	36.0
Hoge & McDowell Co	Flax meal	17.5
Do. F. Somerville Co.	Corn meal. Gate valve.	106.4
M. C. Mitchell Co.	Steam-expansion joints	15.7
J. B. Lambie Co	Nails	4.9
E. C. Schafer & Co. Do.	Plumbers' suppliesdo	$1.3 \\ 3.3$
Church & Stephenson.	Lumber	157.3
M. Du Perow.	Silk cord	2.2
C. A. Forker & Co. Lutz & Co.	Flag. Oil	$3.8 \\ 1.5$
M. C. Mitchell Co.	Expansion joint.	
Do	Hot-water boiler and equipment	252.7
Do. Rudolph & West Co.	Supplies for boiler Currycombs	$\begin{vmatrix} 2.3\\ 1.0 \end{vmatrix}$
Do.	Carpenter supplies.	$1.0 \\ 17.9$
Do	do	1.8
Do. Do.	Bolts, washers Bolts, saw blades	$\begin{array}{c}1.9\\1.9\end{array}$
Do.	Brass hose nozzles	.8
J. C. Rau	Tape.	1.3
C. A. Schneiders' Sons. Do.	Manhole and cover Frames and cover	
Z. D. Gilman	Syringe barrels	12.0
Do.	Mercury chloride.	
Hoge & McDowell	Corn meal Oats	106.4 240.0
Do. E. G. Schafer & Co.	Hardware	.7
M. C. Mitchell Co Hoge & McDowell Co	Grate bars Clover hay	
Do.	Corn meal	
L. Hartig	Hinges	7.5
Do. M. Du Perow.	Iron Electrical supplies	$2.2 \\ 5.4$
A. St. John	Plumbers' supplies	
Do	Stove	12.0
Do. Stewart & Co.	Stovepipe Bran	$5.0 \\ 66.0$
Do	do	22.0
M. C. Mitchell Co	Radiator valves	7.2
Hoge & McDowell Co L. Hartig	Oats Hoop iron	$\begin{array}{c} 240.0\\ 1.8\end{array}$
Armour & Co	Soap.	1.9
Barber & Ross	Iron pipe	14.0
J. B. Lambie Co T. Somerville Co	Wheelbarrows	$\begin{array}{c} 25.0\\ 3.7\end{array}$
Do	do	1.6
Keasbey & Mattison Co	Pipe cover, cement	27.2
J. B. Lambie Co T. Somerville Co	Nails Hardware	7.5 1.6
Do	dodo	2.2
	do	2.0

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SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS—Continued.

- BETHESDA, MD.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount.
T. Somerville Co	Hardware	\$0.34
Do		20. 42
Do		3.80
Do. Do.	-	2.10 4.58
Do.		1.10
M. C. Mitchell Co	Boiler sections.	45.00
National Mortar Co	Cement	
C. G. Schafer & Co		. 81
T. Somerville Co Do	Hardwaredo	1.33 2.40
Stewart & Co.	Bran	88.00
Rudolph & West Co.	Saw blades.	.90
Do	Axle grease	
Do		
Do Do		68.00 6.10
Do		
Lutz & Co	Horse blankets	18.00
E. C. Schafer & Co	Oak tank	3.64
C. M. Woolf & Co.	Wagon	72.50
Rudolph & West Co		1.25 14.70
Do Do		
Do		3.60
Do	Repairs to stove	1.90
Do.	Hardware.	4.10
T. W. Smith	Sash and frames.	$     18.00 \\     671.28 $
Church & Stephenson Z. D. Gilman		
Do		2.40
Do	Creosote oil	12.87
Do	Thermometers	
National Electrical Supply Co.	Shades.	1.94
H. R. Watson Stewart & Co		20.00
National Mortar Co.	Cement.	28.50
T. Somerville Co	Pipe	.81
Do	Unions.	. 50
Do	Nipple.	.10
Do G. F. Muth & Co	Pipe fittings Lanterns	$\begin{vmatrix} 3.13\\ 13.80 \end{vmatrix}$
Do	Putty.	.60
Do. Holtzer-Cabot Electric Co.	Telephones	22.00
Stewart & Co.	Bran	88.00
T. Somerville Co Hugh Reilly		1.20 $2.50$
Do.	Rib glass.	
W. H. Coon.	Wall paper and labor	9.00
Hugh Reilly	Varnish, pumice stone	1.95
Do		2.25
Mackall Bros. J. B. Lambie Co	Iodide of potassium Mouse traps	$4.70 \\ 1.75$
Do	Ladders.	14.00
L. Hartig	Brass hinges	1.00
Stewart & Co.	Straw	280.00
G. F. Muth & Co. E. G. Schafer & Co.	Paint and brushes.	
Mackall Bros.	<ul> <li>Plumbing and material.</li> <li>Hydrodioxide</li> </ul>	4.79 2.00
M. C. Mitchell Co.	Cement and wicking	1.14
Do	Grate	1.00
Hoge & McDowell Co	Oats and meal	373.00
Do Do	do	373.00
H. R. Watson	Corn meal.	133.00 $28.00$
J. B. Lambie Co	Saw and flat files	5.15
National Electrical Supply Co	Wire and floor receptacles	3.20
Rudolph & West Co	Hardware and carpenters' supplies	12.20
Do Do		$6.20 \\ 1.00$
Do	do	1.00
Do	do	1.70
Do	do	. 75
Chinach & Stophongon	Lumber	12.00
W H Goop		
W. H. Coon Einil Greiner Co	Papering room	7 00

## SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS-Continued.

#### BETHESDA, MD.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount
M. Duperow	Electrical supplies	\$1.20
J. B. Lambie Co M. Lindsay Rubber Manufacturing Co	Nails	2.13
Okonite Co	Gloves.	
J. C. Rau	Wire Gongs	4.80 1.77
National Electrical Supply Co	Buzzers	1.13
Hugh Kelliv	Asbestine	11.00
Stewart & Čo H. R. Watson	Hay	730.00
Stewart & Co	Cabbage Wheat	$\frac{35.00}{27.72}$
Church & Stephenson	Lumber.	451.84
F. W. Bolgiano	Clover seed	17.18
Dulin & Martin.	Churn.	2.50
J. B. Lambie Co National Electrical Supply Co	Nails Wire	4.30 3.15
	Electrical supplies and repairs	4.58
Mineralized Rubber Co	Hose	45.00
G. Freeman	Rubber gloves	1.00
F. A. Schmidt J. Baumgarten & Sons	India ink Stamp rack	1.80 1.50
National Electrical Supply Co	Floor receptacles.	2.64
T. Somerville Co	Supply and flush pipes and labor	9.00
Z. D. Gilman	Drugs, chemicals.	28.40
W. H. Douglas.	Repairs to fire extinguishers	9.60
J. Elliott & Co Holtzer-Cabot Electrical Co	RoÎler towels Telephones	18.00 44.00
Rudolph & West Co	Copper rivets and burrs.	1.3
Do	Water buckets	7.72
Do.	Desk locks and tacks	1.50
National Mortar Co	Cementdo	30.4( 30.4(
Do Rudolph & West Co	Screws.	1.08
Do.	Shears	1.90
Do	Hatchet handles and buckets	9.07
Do	Pliers.	5.30
Stewart & Co Z. D. Gilman	Wheat straw Shaking apparatus and flasks	140.00 18.00
Do	Catheters and bulbs	3.80
J. B. Lambie Co	Hardware and trowels	14.38
Do.	Rakes	5.00
P. H. Heiskell & Co Hoge & McDowell Co.	Sweeps Meal and oats	3.00 346.40
W. B. Moses & Sons.	Door mats.	6.30
Okonite Co	Wire	31.30
Probey Carriage Co	Repairs to wagon	22.00
Stewart & Co	Bran Corn and rock salt	$66.00 \\ 382.80$
Do. Do.	Bran	110.00
Do	Corn	325.00
American Felt Co	Black felt	4.50
Mackall Bros	Rubber stoppers.	3.90
Do Library Bureau	Drags, chemicals Cards	$15.13 \\ 4.50$
National Electrical Supply Co	Copper wire	73.50
Fairbanks Co	Wagon scales	100.00
Emil Greiner Co	Test tubes.	3.60
Mayfield & Brown A. H. Thomas Co	Land roller, seed sower Flasks, tube	$\begin{array}{c} 24.23 \\ 6.79 \end{array}$
G. F. Muth & Co	Putty	.90
	Gasoline	.8
Do	Brushes, dusters	2.8
Hugh Reilly	Glass.	4.62 45.90
F. W. Bolgiano Woodward & Lothrop	Hay rake, cultivator Sapolio	45.90
Do	Pans and dishes.	20.70
C. Becker & Co	Paint	2.00
Church & Stephenson	Lumber.	45.00
J. L. Holcombe	Horse brushes Hasps and glazier's tools	$6.00 \\ 5.40$
J. B. Lambie Co Lansburgh Bro	Sheeting	5.40
Lutz & Co	Jug	1.50
C. Becker & Co	Linseed oil.	42.57
Hoge & McDowell Co.	Oats and corn meal	253.00 19.25
Lutz & Co. National Electrical Supply Co.	Halters and lash Lamps	<b>3.</b> 60
Hanonal Electrical Supply Comments		.96
Woodward & Lothrop Do	1 meau	

SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS-Continued.

BETHESDA, MD.--MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount.
Bausch & Lomb Optical Co	Dishes.	\$2.91
Z. D. Gilman	Oil, syringe, pincers, tube Thermometers and handbrushes	39.52 17.40
N. W. Chappel Potomac Lime and Stone Co	Painting at station Crushed stone	225.00 44.91
Do	Do	450.00
F.W. Bolgiano Hugh Reilly	Breast chains. Push plate.	2.40 1.50
A. H. Thomas Co. National Electrical Supply Co.	Glass rods and tubes Electric ceiling lights	$\begin{array}{r} 2.30\\ 23.00 \end{array}$
J. B. Lambie Co.	Nails	2.45
Do. National Mortar Co	Hinges and nails	$34.85 \\ 235.00$
Holtzer-Cabot Electric Co. J. B. Lambie Co.	Arresters. Poultry wire	$6.75 \\ 23.59$
Do	Paper and cattle punch	18.50
G. F. Muth & Co Mackall Bros	Paint, bronze and brushes Hydrodioxide	$\begin{array}{c} 4.28 \\ 4.00 \end{array}$
Keuffel & Esser Co. J. Lansburgh Furniture and Carpet Co	Builders' transit Desk	95.35 22.50
Hugh Reilly Hoge & McDowell Co.	Drier	1.45
Hugh Reilly	Clover hay Varnish, lampblack, aluminum	1,638.48 10.20
Lutz & Co. T. W. Smith	Collar and traces Lumber	10.00 36.00
E. G. Schafer & Co	Pipe	27.75
W. B. Moses & Sons. J. B. Lambie Co	Repair cover and floors at station Crowbars and wire	$278.40 \\ 29.85$
Z. D. Gilman Rudolph & West Co	Creosote Cold chisels	$\begin{array}{c} 25.48\\ 4.00 \end{array}$
Do	Hardware, tools	6.15
Do. Do.	Screw drivers. Crow bars and scythe blades	$3.40 \\ 20.80$
Do Do	Wire fencing. Fencing and staples	$\begin{array}{r}132.00\\63.00\end{array}$
Do	Wire.	24.00
Do. Do.	Rubberoid. Manila halyards	28.80 16.00
J. Bishop Co Woodward & Lothrop	Wire. Dog biscuits.	3.86
E. G. Schafer & Co. National Electrical Supply Co.	Plumbers' supplies Brackets, fuses, and insulators	7.83 22.52
Hoge & McDowell Co.	Oats	240.00
W. H. Coon F. A. Schmidt	Repairs and repapering Steel tape	32.40 6.00
E. G. Schafer & Co L. Hartig.	Gate valves. Hinges, locks, and keys.	6.30 16.70
F. W. Bolgiano.	Mower	39.00
Hugh Reilly Do	Whiting and putty knives Japalac	$1.00 \\ 2.50$
T. Somerville Co Do.	Pumps Hydrants.	31.24 13.92
G. F. Muth & Co	White lead	69.00
Do. Do.	Green and yellow chrome. Bronze, shellac, and gasoline	$1.37 \\ 7.55$
C. A. Fofker & Co T. W. Smith.	Flag Door	3.80 3.36
M. C. Mitchell Co Hoge & McDowell Co	Pipe joint	5.47 133.00
J. B. Lambie Co	Brads	1.12
Woodward & Lothrop Stewart & Co.	Chairs, buckets, and tables Bran and hay	36.66 290.00
Hoge & McDowell Co F. W. Bolgiano.	Corn meal and hay Hame straps and sections for sickle	$297.00 \\ 1.95$
C. Becker & Co	Linseed oil.	43.00
Holtzer-Cabot Electric Co. J. B. Lambie Co.	Arresters. Nozzles, washers, and gate hooks	9.00 5.45
Do. Lutz & Co.	Hardware. Repairs to harness, whip	$\begin{array}{c} 31.88 \\ 4.00 \end{array}$
W. B. Moses & Sons. Remington Typewriter Co.	Repairs to awnings. Typewriter	12.00 80.00
E. G. Schafer & Co	Wrenches	2.30
Stewart & Co Do	Bran, rock salt, wheat, shelled corn Wheat straw	192.38 280.00
T. Somerville Co Mackall Bros.	Hydrants. Cotton.	30.64 2.00
Remington Typewriter Co	Typewriter and cover	82.00

## SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS--Continued.

BETHESDA, MD.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amoun
D. Gilman	Laboratory supplies.	\$3.
Do	do	32.
Do		5.
Do ugh Reilly	Drier	11. 1.
nurch & Stephenson	Lumber	370.
Do	do	51.
Do.	do	118.
H. Heiskell Co. Hartig.	Plow, rakes, and horse clippers Hardware	30.     26.
oodward & Lothrop.	Dishes.	20.
F. Muth & Co	White lead	34.
. B. Moses & Sons.	Glass, brushes, and cups	5.
ausch & Lomb Optical Co	Laboratory supplies.	$\begin{bmatrix} 6.\\ 8. \end{bmatrix}$
Do. D. Gilman	Forceps	$\begin{vmatrix} 8.\\2. \end{vmatrix}$
Do	Forceps. Syringe, scissors, milk-fever outfit	8.
nurch & Stephenson	Lumber	458.
Do Do.	do	414.
Do udolph & West Co	Combs and brushes.	337.
B. Lambie Co.	Shutter bars.	6.
. DuPerow.	Switchboard	45.
udolph & West Co	Wire fencing.	141.
Do. Do.	Hinges.	· 8. 187.
Do.	Fencing. Fencing, staples, and hinges	187. 234.
Do	Buckets, hatchets, hammers, etc	14.
Do	Scythe stones and weather strips	2.
Do.	Screws, dies, guides, and wire stretchers.	14.
H. Thomas Co.	Cylinders Scale	$\frac{2.}{72.}$
H. Heiskell, jr . H. Hoeke.	Desk.	$\frac{72.}{39.}$
ewart & Co	Bran, hay, and straw.	356.
ational Electrical Supply Co	Electrical apparatus	238.
senger Bros.	Lumber.	38.
. C. Mitchell Co Somerville Co	Glands for expansion joints Pipe and fittings	$\begin{vmatrix} 3.\\ 272. \end{vmatrix}$
airbanks Co	Scale, weights, and scoops	46.
B. Lambie Co	Locks and bolts	23.
nurch and Stephenson	Lumber	346.
.H. Lowdermilk Co.		22.2 16.
Do Do		10.25.
ackall Bros.	Filters	3.
Do	Hydroxide and ether	7.3
Do.	Bottles.	18.
ochte, L. L chroeder, E. C	Shoeing horses Laundry and shoeing horses	9. 8.
hmid, E. S.	Prepared stock food.	14.
ochte, L. L	Shoeing horses	10.
chroeder, E. C	Shoeing horses, laundry service	4.
behte, L. L	Shoeing horses Laundry and coment	15. 5.
ehroeder, E. Ceiser, L	Pigs	112.
Do	do	88.
Do	do	52.
hmid, E.S.	Prepared stock food	14. 84.
eiser, L hroeder, E. C	Pigs. Laundry, repairs to pump	84. 4.
hea, F. P.	Cattle	100.
eiser, L	Hogs	64.
ochté, L. L	Shoeing horses	9. 64
eiser, L	Hogs. Shoeing horses.	- 64. 9.
chreeder, E. C.	Laundry, oil, and salt	9. 6.
niceden, M.	Cattle	100.
eiser, L	Hogs	136.
hroeder, E. C.	Repairs to boiler, closet, and plow	6. 12
ochte, L. L	Shocing horses.	$\begin{array}{c} 12.\\ 14. \end{array}$
chmid, E. S		4.
ochte, L. L.	Shoeing horses	15.
Do	do	10.
chroeder, E. C.	Laundry, oil, and screw cyes	4. 9.
ochte, L. L	Shoeing horses Kerosene and laundry	

SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS—Continued.

BETHESDA, MD.-MISCELLANEOUS EXPENSES-Continued.

Payee	Article.	Amount.
Shea, F. P.	Cows	\$144.00
Shea, M	Cattle	200.00
Woodward & Lothrop		11.90
Watson, H. R.	Turkeys	29.25
Shea, F. P.	Cattle	48.00
Do	do	72.00
Do	Hogs	68.00
Coon, W. H	Papering rooms at experiment station.	50.00
Schroeder, E. C.	Laundry, oil, and shoeing horses	8.99
Shea, F. P.	Hogs	52.00
Lochte, L. L.	Shoeing horses	12.25
Union Stock Yards. Co. of District of Columbia	Yarding and feeding	1.30
Woodward & Lothrop	Prepared feed	5.95
Do	do	11.90
Shea, F. P.	Hogs	65.00
Do	do	35.00
Do	Cattle	120.00
Schroeder, E. C.		7.54
Lochte, L. L.	Shoeing horses	23.05
Watson, H. R.	Turkeys	20.75
Keiser, L	Hogs	80.00
Rock Ćreek A. & W. Co	Repairs to buggy	50.00
Shea, F. P.	Sheep.	300.00
Do	1 mare	100.00
Schroeder, E. C.	Towels, oil, and wicks	6. 43
Wilson, E. J.	Rent.	30.00
Do	do	90.00
Lochte, L. L.	Shoeing horses	19.75
Shea, F. P	1 mare	125.00
Do	Cattle	120.00
Keiser, L	Hogs	90.00
Columbia Pump and Well Co	Pump, tower, and tank	2,152.50

#### BISMARCK, N. DAK.-SALARY.

Payee.	Salary.	Travel.
Foster, J. P	\$34.85	
· CHICAGO, ILLTRAVEL.		
. Payee.		Travel.
Day, L. E	·····	\$1.07

#### CLEMSON COLLEGE, S. C.-SALARY.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Klein, L. A.	\$16.66				
KINGSTON, R. I.—SALARY.					
Cole, L. J Kirkpatrick, W. F	\$174.99225.00		Kolbe, D. W	\$111.00	
LOGAN, UTAH.—SALARY.					
Frederick, H. J	\$25.00	\$58.85			

#### SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS-Continued.

WASHINGTON, D. C.-SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Alexander, W. Andrews, A. A. Bolton, B. M. Brown, E. W. Brereton, L. Buckley, J. S. Dorset, M. Douglas, L. Duvall, L. Eichhorn, A. Emery, J. A. Flocken, C. F. Formad, R. J. Gill, C. T. Graybill, H. W. Hall, M. C. Harbaugh, K. L. Harris, A. V. Hart, G. H. Hassall, A.	$\begin{array}{c} \$600.\ 00\\ 100.\ 00\\ 2,000.\ 00\\ 1,400.\ 00\\ 1,800.\ 00\\ 3,000.\ 00\\ 44.\ 67\\ 360.\ 00\\ 1,579.\ 17\\ 2,000.\ 00\\ 128.\ 33\\ 1,248.\ 89\\ 480.\ 00\\ 875.\ 00\\ 30.\ 56\\ 25.\ 00\\ 28.\ 00\\ 1,600.\ 00\\ 1,800.\ 00\\ \end{array}$	\$82.44 6.20 276.90	Kerr, R. H. McAuley, M. S. McBryde, C. N. Mohler, J. R. Obcrly, B. C. Price, T. M. Ransom, B. H. Raub, R. D. Reamy, T. B. Rector, F. L. Shore, H. J. Stamper, W. S. Stein, S. B. Stevenson, E. C. Sullivan, M. E. Swanger, C. H. Tilley, F. W. Washburn, H. J. West, A. M. White, G. F.	$\begin{array}{c} \$600.\ 00\\ 720.\ 00\\ 1,\ 800.\ 00\\ 3,\ 000.\ 00\\ \end{array}\\\\ \begin{array}{c} 1,\ 800.\ 00\\ 2,\ 000.\ 00\\ 585.\ 01\\ 720.\ 00\\ 536.\ 67\\ 1,\ 033.\ 34\\ 1,\ 200.\ 00\\ 41.\ 67\\ 902.\ 78\\ 575.\ 00\\ 459.\ 00\\ 53.\ 33\\ 2,\ 000.\ 00\\ 725.\ 00\\ 600.\ 00\\ \end{array}$	\$91.60 224.76 31.08 25.94 208.88 73.90 31.07
Hughes, M. L. Ingersoll, E. H. Jones, J.			Wilson, J. Morse, G. B.	$\begin{array}{c} 44.33 \\ 1,800.00 \end{array}$	

#### WASHINGTON, D. C.-TRANSPORTATION.

. Payee.	Amount.	Payee.	Anrount.
Baltimore and Ohio R. R. Co.:	\$3.06	Pennsylvania R. R. Co.—Continued.	005 55
B. M. Bolton Do	•••• 3, 06	R.J. Formad H. J. Washburn	\$65.75
Do	3.06	B. H. Ransom	10.00 17.50
B. H. Ransom	15.75	E. C. Stevenson	17.50 37.90
Do	12.75	B. H. Ransom	7.65
Butte, Anaconda and Pacific Rwy. Co.,	. 12.10	Do	
R. J. Formad.	60.00	The Pullman Co.:	01.00
Chicago, Burlington and Quincy R. R.	00.00	B. H. Ransom	1.50
Co., B. H. Ransom	31.65	E. C. Stevenson	2.50
Chicago, Milwaukee and St. Paul Rwy.		B. H. Ransom	2.50
Co.:		Do	
B. H. Ransom	16.75	Do	
Do	4.93	Do	
Chicago and North Western Rwy. Co.:		Do	2.50
C. N. McBryde	27.30	Do	5.00
B. H. Ransom	7.77	Do	1.50
E. C. Stevenson	33.40	Do	
B. H. Ransom	9.95	Do	4.00
Chicago, St. Paul, Minneapolis and	0.40	Southern Rwy. Co.:	
Omaha Rwy. Co., B. H. Ransom	6.40	H. J. Washburn	18.50
Great Northern Rwy. Co., R. J. Formad.	5.15	Do	18.50
Nashville, Chattanooga and St. Louis	4 10	Do	17.50
Rwy. Co., B. H. Ransom	4.10	Do	
Norfolk and Western Rwy. Co., B. M.	9.95	B. M. Bolton	3.15
Bolton.	3, 35	B. H. Ransom	
Oregon Short Line R. R. Co., R. J.	13.05	Do	17.50
Formad	15.05	Western Rwy. of Alabama, B. H. Ran-	3, 48
Pennsylvania R. R. Co.: R. H. Kerr	37.90	som	5. 48
IV. II. IXCII	01.00		

#### WASHINGTON, D. C.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
W. H. Butler Co. Mackall Bros. Do. Do. Eimer & Amend. Barrett Manufacturing Co.	Rosin Ether and calcium carbonate. Hydroperoxide. Flasks.	$   \begin{array}{r}     2.50 \\     11.95 \\     2.00 \\     8.00   \end{array} $

SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS-Continued.

WASHINGTON, D. C.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount.
C. R. Edmonston	Filter tubes and jugs	\$9.00
Do	Buckets and pans.	1.00
J. P. Naurath	Cable twine	2.80
Mineralized Rubber Co.	Rubber hose	
E. Greiner Co.	Ferment tubes	8.00
A. H. Thomas Co.	Folded filters	8.00
R. C. Ballantyne	Sealing wax	2.78
Z. D. Gilman	Calcium chloride and tumeric powder	.81
Do	Glycerine	13.75
$\mathbb{D}_{0}$	Chloroform	3.70
Do	Naphthaline	.25
Do	Chemicals	
Do	Oxide	$\begin{array}{c} - & 1.50 \\ 2.20 \end{array}$
Do. Eimer & Amend	Tarola Filter paper	4.50
Do	Chemical supplies.	
Do	Iron chloride	1.15
E. Greiner Co.	Burettes	4.20
J. M. Beavers.	Barrel.	1.00
Hugh Reilly.	Glass.	14.40
J. M. Beavers.	Keg.	. 50
Bausch & Lomb Optical Co.	Peptone	10.60
Do	Sodium hydrate	
Do	Tincture bottles	9.96
Do	Laboratory supplies	
$\underline{D}$ o	do	
Do	do	6.50
	do	7.63
Mackall Bros.	Chemicals, drugs	
Do	do	14.25
Do W. B. Moses & Sons	do	$37.00 \\ 12.50$
Oliver Typewriter Co.	Oak table Repairs to typewriter	$\begin{vmatrix} 12.50\\ 3.10 \end{vmatrix}$
Randall & Faichney Co.	Hypodermic needles.	1.25
Eimer & Amend.	Phosphoric acid.	4.05
Do	Curcumin	2.50
Do	Calcium bisulphite	.90
Do	Flasks	23.17
Do	Sodium benzoate	. 55
Church & Stephenson	Lumber	48.00
J. Bernasco	Iron hood	3.00
American Distributing Co		22.70
Do.	do	22.70
J. M. Beavers.	Barrel and kegs.	2.00
M. Lindsay Rubber Co.	Rubber gloves.	
C. R. Edmonston Do		
Do	Stone jugsdo	
Do	do	2.88
Do	do	
Do	Filter tubes	
Do	Stone jugs	5. 40
A. H. Thomas Co	Flasks.	16.20
Do	do	16.20
Do	Filters	2.95
Kny-Sheerer Co.	Laboratory supplies	4.60
Rudolph & West Co	Wrench, screw drivers	.85
Mackall Bros.	Chemicals	19.35
Z. D. Gilman.	do.	19.45
E. Greiner Co	Laboratory supplies	
Do	do	1.68
Longmans, Green & Co	Copy of "Crooks Select Method of	
MacMillan Co	Chemical Analyses.".	5.25 12.00
Mackall Bros.	Oils, waxes, and fats Cotton and rubber stoppers	12.00 23.20
Do	Filters	23.20 2.60
Do.	Vials and cork.	37.00
Do	Hydro acid	5. 52
Bausch & Lomb Optical Co.	Laboratory supplies	10.16
Do	Flasks	2.38
Do	Petri dishes	
Do	Peptone	10.00
Do	Barium chloride	. 51
A. H. Thomas Co	Dishes	4.14
$D_0$	Beakers	21.80
Library Bureau	Cards.	4.25
R. C. Ballantyne	Labels	3.25
	Kegs and barrel	i 3.00

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SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS-Continued.

WASHINGTON, D. C.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount	
Bedell Manufacturing Co.	Repairs to chairs	\$2.50	
Okonite Co	Wire.	$p_{2.50} = 15.65$	
Eimer & Amend.	Wire gauge	3.80	
Densmore Typewriter Co	Repairs to typewriter	. 95	
Mackall Bros.	Ether, hydrodioxide.	22.00	
J. Bishop & Co Bausch & Lomb Optical Co	Remaking platinum dishes Rubber bulbs and bottles	17.25	
Do	Incubator	$\begin{array}{c}1.67\\195.00\end{array}$	
Do	Funnels	135.00 12.18	
Lansburgh & Bro Nickerson & Collins Co	Sheeting	4.20	
	Copy of "Modern Packing House."	10.00	
J. Wiley & Sons.	Copy each "Examination of Water," and "Water Supply."	3.94	
Eimer & Amend Do	Mannit and bottles.	4.33	
J. B. Lambie Co	Sulphite	1.00 $1.27$	
Bausch & Lomb Optical Co.	Test tubes.	11. 34	
Barber & Ross	Twine	3.20	
Do	Knives	1.50	
Chas. Becker & Co.	Turpentine	. 75	
Z. D. Gilman	Soap Soda hydroxide	3.00	
Do Do	Acetic acid	$1.10 \\ 3.50$	
Do	Sulphuric acid	5. 54	
Library Bureau	Cards and sections for filing cases	35. 00	
Do	Cards	6.50	
J. B. Lambie Co	Bronze.	. 81	
J. Bernasco.	Tin trough.	4.00	
R. C. Ballantyne J. Bernasco	Sealing wax	1.85 8.40	
Do.	Iron trays. Braces for trays	2.00	
Z. D. Gilman.	Drugs and alcohol	20.70	
Do	Drugs.	13.10	
Do	Alcohol	20.25	
H. Muller Manufacturing Co	Gas cocks	12.00	
Barber & Ross	Rings.	.25	
T. Somerville Co.	Repairing autoclave.	1.80	
Peoples' Pharmacy E. Betz.	Rubber gloves and soapstone Repair to sterilizer	$2.10 \\ 5.00$	
R. C. Ballantyne.	Labels	. 45	
Church & Stephenson	Shelving.	35.00	
Mackall Bros.	Ammonium hydroxide	3.90	
Do	Vials and corks	40.00	
Bausch & Lomb Optical Co	Condensers	9.00	
C. R. Edmonston	Saucepans	1.50     6.00	
Z. D. Gilman.	Jugs. Enterotome and costotome	5.75	
Do	Paste	. 40	
Bausch & Lomb Optical Co	Microscopes	89.10	
Do	Sodium hydroxide and peptone	14.00	
Library Bureau.	Cards.	3.50	
Eimer & Amend	Chemicals.	1.95 $2.30$	
Do J. C. Rau	Laboratory supplies Molding and fuse plugs	16.75	
J. Bernasco	Labor and material.	12. 90	
Do	do	6. 00	
C. R. Edmonston	Waste jars	1.80	
Do.	Filter tubes	24.00	
Bausch & Lomb Optical Co	Lens paper	$1.02 \\ 7.20$	
E. Greiner Co Bausch & Lomb Optical Co	Thermometers	7.20 9.80	
Mackall Bros.	Drugs	9.00 2.75	
Do.	do	19.60	
J. Bernasco	Tin case lining	3, 50	
Potomac Electric Power Co	Lamps.	3.00	
Mackall Bros.	Vials.	$     14.00 \\     4.49 $	
Z. D. Gilman. Do	Drugs and chemicalsdo	4. 49 8. 55	
D0	do	6. 50	
A. H. Thomas Co	Glass tubing.	11. 50	
Do	Filters	8.00	
Mackall Bros	Drugs	4.50	
Z. D. Gilman	Glycerine	12.50	
A. L. Webb & Sons	Alcohol	$23.03 \\ 12.50$	
Z. D. Gilman Eimer & Amend	Flasks	12.50 3.60	
	Pipettes and glass.	4.00	
Do			
Do Do	do		
Do Do R. C. Ballantyne. E. Greiner Co.	Sealing wax.	3.00 5.55 8.00	

#### SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS-Continued.

WASHINGTON, D. C.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount	
Bausch & Lomb Optical Co	Paraffin and paper	\$4.	
Do	Flasks and beakers	10.	
Jibrary Bureau	Folders	5.	
. B. Lambie Co		<b>9</b> .	
Keasbey & Mattison Co			
A. H. Thomas Vhitall-Tatum Co	Flasks.	$\frac{10.}{2.}$	
E. Greiner Co	Thermometers.	4.	
P. Fireman	. Oil dye		
hurch & Stephenson	Lumber	60.	
fackall Bros	Vials.	47.	
Do Cimer & Amend	- Rubber tube and cotton	6. 3.	
Do			
fackall Bros.		14.	
. H. Thomas Co	Flasks	12.	
<u>D</u> o		10.	
Do.	.  Flasks	16.	
Lygienic Soap Granulator Co.			
C. Ballantyne fackall Bros	Labels   Flasks and hydrochloric acid	1.12.	
Voodward & Lothrop.	Stool.	$\frac{12.}{2.}$	
Sarber & Ross.	Rope.	2.	
. Bernasco		20.	
'ries, Beall & Sharp Co	. Copper and iron sheets	38.	
. S. Topham.	. Case handles	1.	
C. Ballantyne	. Labels		
Bishop & Co.	. Repairs to dishes and crucibles	13.	
C. Greiner Co Bausch & Lomb Optical Co	Burettes and pipettes Burners	4. 15.	
Do			
$\mathbf{D}_{0}$	Gas regulators		
Do		3.	
hurch & Stephenson	. Lumber.	85.	
D. Gilman.	. Bottles		
Cimer & Amend	. Tubes.	16.	
Do Do		27.	
Mackall Bros.		3. 27.	
Do	Ammonium hydroxide	6.	
E. Morrison Paper Co	. Paper bags		
A. H. Thomas Co	. Filters	11.	
. S. Topham.	Case handles	1.	
Bausch & Lomb Optical Co	Petri dishes.	10.	
fackall Bros	Laboratory supplies Filter tubes	45. 12.	
Do			
Do	do	24.	
Do	Saucepan		
E. Stechert & Co	. Copy of "Flesh Foods"	2.	
hurch & Stephenson	Lumber	65.	
D. Gilman. Do	. Glycerin Sulphuric acid	12. 9.	
Barber & Ross.	Alcohol stove	9.	
R. C. M. Burton & Son.	Awning		
ausch & Lomb Optical Co	. Peptone and gas regulator	35.	
Do	. Carbolic acid	7.	
Do	do	7.	
Do iternational Instrument Co		5. 84.	
. H. Thomas Co	Force pump Filter papers and rubber tube		
Do	Flasks and burners.	21.20.	
Do	Cylinders on glass feet	1.	
imer & Amend	. Laboratory supplies.	1.	
Do	. Agar.	3.	
Do Bornasso	. Glass wool and flasks	7.	
Bernasco lackall Bros		15.	
B. Lambie Co	<ul> <li>Rosin.</li> <li>Padlocks, hasps, and straps.</li> </ul>		
lackall Bros.	Vials and corks.	32.	
arber & Ross.	Box corners and hinges.		
Do	. Twine	3.	
Sarrett Mfg Co	.] Oil	25.	
Vhitall-Tatum Co	Flint.	1.	
D. Gilman.	.  Sodium bicarbonate	2.	
Do C. Ballantyne	. Aluminum sulphate	- 1. 8.	
R. C. Ballantyne. Fries, Beall & Sharp Co	Hardware	8. 48.	
	at around water a construction and a construction of the construct	30.	

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## Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

### SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS—Continued.

WASHINGTON, D. C.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount	
Bausch & Lomb Optical Co	Laboratory supplies	\$37.2	
A. Giese & Son	Filter cylinders	18.0	
Z. D. Gilman Do	Laboratory supplies. Sulphuric acid	$\begin{array}{c} 21.0\\ 4.6\end{array}$	
T. Somerville Co	Plumbers supplies.	4.0	
Eimer & Amend	Laboratory supplies	12.8	
Do Mackall Bros	Chemicals for laboratory	10.1 $49.0$	
Fries, Beall & Sharp Co	Copper and iron sheets.	$49.0 \\ 48.7$	
Mackall Bros	Acid	1.4	
Do E. Greiner Co	Filters. Thermometers.	10.7 $20.1$	
J. Bernasco	Labor on incubator.	20.1 25.0	
Do.	do	25.0	
G. E. Stechert & Co	Analyst and Journal of Chemistry In- dustry.	14.2	
Bausch & Lomb Optical Co	Laboratory supplies	10.6	
Do	do	35.8	
Do Do		$\begin{array}{c} 1.6\\ 3.1\end{array}$	
Do	Paraffin	3.9	
Do	Laboratory supplies	3.1	
C. R. Edmonton Barber & Ross	Filter tubes Meat saw	$\begin{array}{c} 12.0\\ 1.2\end{array}$	
Do	Clasps, hinges, and box corners	6.9	
Bausch & Lomb Optical Co	Bottles	19.6	
Do A. H. Thomas Co	Beakers Flasks and filters	$25.4 \\ 15.0$	
J. Bernasco	Work on incubators	25.0	
Eimer & Amend	Tubes.	5.3	
Do Do	Flasks and funnelsdo	$ \begin{array}{c} 13.3\\ 15.6 \end{array} $	
Z. D. Gilman	Tarola	5.7	
E. S. Schmid.	Pigeons.		
A. H. Thomas Co Do	Beakers. Rubber tubing	6.6 5.1	
National Electrical Supply Co	Iron pulleys	2.2	
Typewriter and Office Supply Co	Repairs to typewriter.	1.0	
Z. D. Gilman Do	Acetic acid Alcohol	$\begin{array}{c}1.1\\8.1\end{array}$	
Do	Hypodermic needles	1.3	
National Electrical Supply Co Dulin & Martin	Leather belt	2.2.6	
Kny-Sheerer Co	Enamel pan Giemsa stain	.7	
Bausch & Lomb Optical Co	Potassium nitrate and alcohol	3.9	
Do Do	Acid fuchsin Fermentation tubes	1.7 5.4	
	Test tubes	6.3	
F. A. Schmidt	Water colors	6.7	
Mackall Bros Eimer & Amend	Ammonium chloride Chemicals	.3	
West Disinfecting Co.	Soap	8.7	
Keasbey & Mattison Co	Asbestos paper and board	8.0 2.4	
Mackall Bros J. S. Topham	Chemicals.		
F. A. Schmidt	Ink	1.6	
Z. D. Gilman.		$1.4 \\ 1.8$	
Do Dulin & Martin	Sulphuric acid Knives		
Bausch & Lomb Optical Co	Disks	1.0	
Do.	Paraffin Sodium hydroxide	$\begin{array}{c c} 1.2\\ 1.2 \end{array}$	
Do Do			
Do	Carbolic acid	3.5	
Do A. H. Thomas Co	Bottles Paraffin		
W. B. Moses & Sons		$\begin{vmatrix} 1.4\\22.5 \end{vmatrix}$	
Library Bureau	Cards	9.5	
Mackall Bros		.3	
Bausch & Lomb Optical Co Do		18.0	
A. L. Johnson	Screws and wire	1.4	
Bausch & Lomb Optical Co	Disks	1.3     8.9	
Do. Z. D. Gilman			
E. Greiner Co. Hoge & McDowell Co.	Tubes Oats		

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SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS-Continued.

WASHINGTON, D. C.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount	
Z. D. Gilman	Drugs	\$2.8	
Do	Hypodermic needles	3.0	
E. G. Schafer	Oak closet seat	1.2	
Z. D. Gilman	Calcium chloride	.7	
Do Do	Potassium acetate Alcohol	.9	
Do	Glycerin.	1.2	
Do.	Zinc and chloroform.	4.1	
Whitall-Tatum Co.	Corks	5.2	
Mackall Bros	Drugs	2.2	
	Ammonia	.2	
Bausch & Lomb Optical Co	Microtome	14.4	
Do. Do.	Bottles Laboratory supplies		
Do.	do	2.7	
E. Greiner Co.	Test tubes	1.6	
Bausch & Lomb Optical Co	Laboratory supplies	20.2	
Mackall Bros	Rubber bulbs	.7	
Do.	Absorbent cotton	5.0	
Eimer & Amend A. H. Thomas Co	Filter paper Glass tubing and rods	7.4 11.2	
E. S. Schmidt.	Quail	11. 0	
Bausch & Lomb Optical Co	Laboratory supplies.	9.8	
Do.	do		
Do	do	1. 7	
Do'			
Whitall-Tatum Co.	Corks	4.3	
W. H. Lowdermilk Co.		14.1	
Z. D. Gilman Do	Glycerin Drugs and chemicals		
Do.	do	4.7	
$D_0$	Arsenious acid.	.1	
Do	Glycerin.	2.5	
A. H. Thomas Co	Glass dishes		
	Glass jars		
Whitall-Tatum Co Eimer & Amend	DroppersBottles		
Bausch & Lomb Optical Co	Test tubes.	8.6	
E. S. Schmidt	White mice.		
Z. D. Gilman	Chloroform	3.7	
Bausch & Lomb Optical Co		1.0	
R. P. Andrews Paper Co	Envelopes	12.4	
, Do A. H. Thomas Co	Chemicald	11. (	
Do	Chemicals. Laboratory supplies.		
Do		1.5	
Mackall Bros	Formaldehyde	1.0	
Woodward & Lothrop	Chair.	5.5	
Do. Bausch & Lomb Optical Co	Cheese cloth	2.5	
Bausch & Lomb Optical Co	Peptone.	5.0	
Do			
Do		$1.3 \\ 2.5$	
$\mathbf{D}_{0}$		1.8	
Do	Sodium chloride		
Mackall Bros	Hydrogen dioxide	1.0	
A. H. Thomas Co	Forceps, suction lifters	9. 3	
D. J. Kaufman	Coats	2.2	
Z. D. Gilman. A. H. Thomas Co	Glycerin. Aniline violet	2.3 1.1	
Do	Flasks.	2.6	
Hoge & McDowell Co	Oats	44. (	
F. A. Schmidt	Painters supplies	26.8	
Mackall Bros	Absorbent cotton	5.0	
Dulin & Martin	Dish pan	1. 1	
Lenz & Lassau		30.9	
J. S. Topham Whitall-Tatum Co	Leather bag Jars	6. 5 49. 5	
Z. D. Gilman.	Alcohol	49.5	
Do	Hypodermic needles.		
Do	do	5.0	
A. H. Thomas Co	Regulators	6.0	
Do	Incubator and regulator	49.2	
Library Bureau.	Cards.	9.5	
Wilcox & Harvey Mineralized Rubber Co	Cattle earmarkers		
H. A. Moyer.	Hose. Ear tags.	6.0 19.0	
		19.0	

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Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

## SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS-Continued.

WASHINGTON, D. C.-MISCELLANEOUS EXPENSES-Continued.

Payce.	Article.	Amount	
. D. Gilman	Potassium acetate	\$2.2	
Branhall-Deane Co	Autoclave	110.1	
fackall Bros.	Ether	2.0	
. H. Thomas Co	Oven.	87.0	
Do. Bausch & Lomb Optical Co	Laboratory supplies.	47.6	
Do	Pipettes and knives	$\begin{array}{c} 42.3\\ 1.7\end{array}$	
Do.	Jars.	1.7 195.5	
Do.	Paraffin bath and camera	37.8	
tandard Oil Co	Engine oil	5.0	
Bausch & Lomb Optical Co	Slide of diatome	. 4	
Queen & Co	Microscope complete	251.9	
ausen & Lomb Optical Co		38.9	
Do. . H. Thomas Co.	Jars. Rubber tubing.	$\begin{array}{c} 7.2 \\ 2.2 \end{array}$	
2. Morrison Paper Co	Index.	7.5	
D. Gilman.			
. C. Rau	Water heater.	5.0	
I. F. Seamark	Bicycle	44.2	
Vhitall-Tatum Co	Jars	21.3	
ausch & Lomb Optical Co	Slides	6.5	
A. Schmidt	Bristol board	5.4	
V. L. Swayze Do.		1.4	
. D. Gilman	Chloroform	1.1	
C. Thompson	Sheep	137.5	
ausch & Lomb Optical Co	Laboratory supplies	3.3	
. D. Gilman	.   Tarola	1.2	
lemington Typewriter Co	Copyholder	2.5	
A. Schmidt	Bristol board	6.0	
edell Manufacturing Co	Chair cushions.	7.5	
ibrary Bureau		$   \begin{array}{c}     20.7 \\     7.5   \end{array} $	
Do R. Edmonston	doStone jars		
Inderwood Typewriter Co		10.3	
. D. Gilman.	Pipette bulbs.	. 6	
Do	Sheep dip	10.0	
Bausch & Lomb Optical Co	Beakers	4.9	
amb & Tilden		6.7	
fackall Bros.		.5	
. H. Thomas Co The Moore Co	Beakers, filters Typewriter	1.9 85.0	
. Morrison Paper Co.	Punches.		
A. Schmidt	Ink.	1.9	
Sausch & Lomb Optical Co.	Laboratory supplies.	4.0	
pencer Lens Co	. Cabinet	15.0	
V. L. Swayze	Pencils	.7	
D. Gilman.	- Glycerin	1.2	
. H. Thomas Co Do		26.3     15.5	
ausch & Lomb Optical Co	Microscope and lens holder.		
ueen & Co.		123. 4	
V. B. Moses & Sons.	Felt cloth	1.3	
ibrary Bureau	. Cards, guides	37.1	
lemington Typewriter Co	. Copyholders	7.5	
lugh Reilly	. Glass		
Voodward & Lothrop			
Do. Do.		$\begin{array}{c} 6.6\\ 6.1 \end{array}$	
Do.		13. 3	
ibrary Bureau		76.8	
Voodward & Lothrop		7.5	
Remington Typewriter Co	. Repairs to typewriter	3.4	
Do	Typewriter	80.0	
ibrary Bureau	Oak case.	125.(	
Remington Typewriter Co	. Repairs to typewriter.	13.5 17.3	
Dorset, M	. Meat, eggs, bread, lard, and milk		
Do.	do	7.6	
Do	do	16.8	
Do.	do	12.1	
Do	do	9.3	
Eimer & Amend	. Saprol.	1. (	
Dorset, M	. Meat, eggs, bread, and milk	14.1	
Do	do	20.8	
100	do	29.3 29.9	

SCIENTIFIC INVESTIGATIONS IN DISEASES OF ANIMALS-Continued.

WASHINGTON, D. C.-MISCELLANEOUS EXPENSES-Continued.

Dorset, M Meat,		Amount.	
Dolade, MartindoDo.Meat,doDo.Meat,doDo.Meat,doDodoShea, F. PdoShea, M.Meat,doMohler, J. R.Meat,doShea, MdoShea, MdoShea, MdoShea, MdoShea, MdoShea, MdoShea, MdoShea, MdoJollife, S. MdoJolliffe, S. MdoBaker, L. WdoShea, MdoCovert, J. RdoBurgdorf, EdoShea, MdoLiver, Shea, MdoJolliffe, S. MdoBurgdorf, EdoShea, MdoCovert, J. PdoBurgdorf, EdoMohler, J. R.Eggs,Shea, MdoLiver, CattledoBurgdorf, EdoBurgdorf, EdoBurgdorf, EdoDodoBodoDodoBoodoDodoBeef, DodoDodoBeef, EdoBoodoBoodoBoodoBoodo	bread, eggs, and eabbage bread, and milk. eggs, and bread. eggs, and eabbage.	$\begin{array}{c} \$19.32\\ 21.13\\ 3.16\\ 2.50\\ 3.73\\ 180.00\\ 80.00\\ 120.00\\ 120.00\\ 120.00\\ 120.00\\ 125.00\\ 150.00\\ 125.00\\ 1.38\\ 2.41\\ 6.35\\ 75.00\\ 3.00\\ 90.00\\ 50.00\\ 3.00\\ 50.00\\ 25.00\\ 25.00\\ 3.00\\ 50.00\\ 25.00\\ 25.00\\ 25.00\\ 25.00\\ 3.00\\ 5.92\\ 4.50\\ 1.90\\ 1.00\\ 8.00\\ \end{array}$	

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry (animal breeding and feeding), for the fiscal year ended June 30, 1907.

[Includes vouchers approved for payment prior to March 1, 1908.]

## COOPERATIVE EXPERIMENTS IN BREEDING AND FEEDING.

AUBURN, ALA.-SALARIES.

Payee.	Salary.	Travel.
Duggar, J. F. Gray, D. T. Kernaehan, J. S. Ward, W. F.	$\begin{array}{c} 225.00 \\ 100.00 \end{array}$	\$48. 51 189. 83

### BETHESDA, MD.-MISCELLANEOUS EXPENSES.

. Payee.	Article.	Amount.
Knox Express Co	Drayage on zebra	\$10.00
Harrison, A. S.	One jennet	200.00

### BURLINGTON, VT.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
New York Central and Hudson River R. R. Co., G. M. Rommel	\$7.44	Rutland R. R. of Vermont, G. M. Rom- mel	<b>\$6.44</b>

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry (animal breeding and feeding), for the fiscal year ended June 30, 1907—Con.

**COOPERATIVE EXPERIMENTS IN BREEDING AND FEEDING**—Continued.

#### BURLINGTON, VT.-MISCELLANEOUS EXPENSES.

Derroe			Antiala		
Payee.		Article.		Amount.	
Ryder, E. C.			Service of stallion		\$15.00
•	FORT CO	OLLINS, C	OLOSALARIES.		
	Pa	yee. ·		Salary.	Travel.
Gilbert, L. C Hutton, J Stannard, C. A				\$132.42 	
FOR	T COLLI	NS, COLO	-TRANSPORTATION.		
Payee.		Amount.	Payee.		Amount.
Chesapeake and Ohio Rwy. C Bell	co., G. A.	\$15.00	Chicago, Burlington and Qui Co., G. A. Bell	ncy R. R.	\$28.65
FORT CO	LLINS, C	OLOMIS	SCELLANEOUS EXPENSE:	з.	
Payee.			Article.		Amount.
W. L. Carlyle Moore-Jackson Grain Co Greenacre Bros			Oats		\$161.95 488.10 1,043.98
	KING	STON, R.	I.—SALARIES.		
Payce.	Salary.	Travel.	Payee.	Salary.	Travel.
Cole, L. J. Curtice, C.	\$408.34 20.83		Kirkpatrick, W. F Kolbe, D. W	\$675.00 333.00	
	LARA	MIE, WY	O.—SALARIES.		
Buffum, B. C King, F. S	$$40.00 \\ 120.00$	$\$49.15\143.32$	Bell, G. A		\$349.57 290.20
Ľ	ARAMIE	, WYO.—1	PRANSPORTATION.		
Payee. Amount		Amount.	Payee.		Amount.
Chicago, Burlington and Quin Co.: G. A. Bell. Do G. E. Morton. Do Chicago, Indianapolis and I Rwy. Co., G. A. Bell. Chicago and North Western I G. E. Morton. Do G. A. Bell. Do	Louisville Rwy. Co.:	6.20	Denver and Rio Grande R. R. Morton Great Northern Rwy. Co., G Northern Pacific Rwy. Co.: G. A. Bell Do. Do. G. F. Morton Do. G. A. Bell Oregon R. R. and Navigatic G. A. Bell	A. Bell on Co.:	11. 50 4. 40

## Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry (animal breeding and feeding), for the fiscal year ended June 30, 1907—Con.

### COOPERATIVE EXPERIMENTS IN BREEDING AND FEEDING-Continued.

LARAMIE, WYO.-TRANSPORTATION-Continued.

Payee.	Amount.	Payee.	Amount.
Oregon R. R. and Navigation Co.—Con. G. A. Bell G. E. Morton G. A. Bell Do G. E. Morton Do Oregon Short Line R. R. Co.: G. A. Bell G. E. Morton G. A. Bell The Pullman Co.: G. A. Bell G. E. Morton G. A. Bell Southern Pacific Rwy. Co.: G. E. Morton Do Do		Southern Pacific Rwy. Co.—Cont'd. G. E. Morton Do. G. A. Bell. Do. Do. Do. Do. Do. San Pedro, Los Angeles and Salt Lake R. R. Co.: G. E. Morton. G. A. Bell. Union Pacific R. R. Co.: G. A. Bell. G. E. Morton. Do. Do. Do. Do. Do. Do. Do. Do	$ \begin{array}{c} 14.05\\ 3.54\\ 6.64\\ 7.55\\ 6.65\\ 4.90\\ 30.00\\ 30.00\\ 8.55\\ \end{array} $

#### LARAMIE, WYO.-MISCELLANEOUS EXPENSES.

Payee.	· Article.	Amount.
Baldwin S. & L. Co. Butterfield L. S. Co. Forbes Bros. H. F. Trout. C. A. Kimble. F. S. King Bro. Co. Pacific Express Co. Do. Do. Do. J. H. Seeley. Robt. Raylor. A. A. Woods & Sons. E. M. Moore. M. C. Chapman.	do do do do do Express on sheep. do	$112.00 \\ 42.00 \\ 75.00 \\ 375.00 \\ 91.00$

#### MIDDLEBURY, VT.-SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Hammond, W. F Peck, C	988.89 75.00	\$183.62	Desjadon, S. Cosgrove, C. J. Bell, G. A. Rommel, G. M.	100.00	\$41.35
Lee, F. M Lee, W. T	$97.33 \\ 97.33$		Bell, G. A Rommel, G. M		7.25 $37.61$

#### MIDDLEBURY, VT.—TRANSPORTATION.

•

Payee.	Amount.
Chicago & Northwestern Rwy. Co., G. A. Bell	\$8.85

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry (animal breeding and feeding), for the fiscal year ended June 30, 1907—Con.

**COOPERATIVE EXPERIMENTS IN BREEDING AND FEEDING**—Continued.

MIDDLEBURY, VT.-MISCELLANEOUS EXPENSES.

Payee.	Artiele.	Amount.
Vermont Agricultural Experiment Station	Construction, labor, material	\$304.00
Do Do	do	8.87
Do	do	$322.11 \\79.08$
Do	do	63.27
Do Do	do	$82.33 \\ 13.00$
Do	do	0.31
Do C. F. White	Gray horses.	149.35
Ferguson & Adsit Co.	Blankets, brush, combs	$\begin{array}{c} 695.\ 00\\ 16.\ 45\end{array}$
J. H. Orvis.	Seeder	37.00
Tuee Kidder L. O. Allen	Harness. Harness, soap, sponges	$47.00 \\ 2.00$
Do	Harness	49.75
J. H. Stewart Champlain Valley Phone Co	Plow, grindstone, oil, plane	22.45
J. E. Buttalph.	Telephone. Phosphate.	$\begin{array}{c} 3.43\\ 255.00\end{array}$
John Elmer.	Hay	40.98
E. D. Hinds & Son. E. H. Thomas.	Services Livery	$35.00 \\ 137.00$
Do	Farm wagon.	110.00
Thomas & Weeks.	Feed.	48.77
New England Telegraph and Telephone Co Thomas & Weeks.	Telephone Feed	$3.95 \\ 40.45$
W. N. Cady	Hay	24.30
James Hughes. H. C. Walker	Labordo	$\begin{array}{c} 3.00\\ 13.50 \end{array}$
T. F. Moroney	do	13.50 13.50
John Sears.		10.50
G. C. Woodworth. Henry Cato.	do	$7.50 \\ 6.00$
Charles Cato	do	6.00
Rutland R. R. Co F. W. Bissonett.		13.00
L. B. Dodge.	Wire fenee Straw.	$560.00 \\ 10.05$
J. H. Orvis.	Harrows	42.00
Champlain Valley Phone Co Farnsworth & Co	Telephone Nails, rakes, pump, spades, auger,	$\begin{array}{r} 4.11\\ 46.85\end{array}$
	seythe.	20.00
Thomas & Weeks.		45.45
Rutland R. R. Co H. C. Walker		$7.00 \\ 37.50$
T. F. Moroney	do	37.50
John Sears. F. Y. Yarter		$     \begin{array}{r}       1.50 \\       19.50     \end{array} $
G. C. Woodworth	do	37.50
Henry Cato.		37.50
Charles Cato. A. W. Guyette.		37.50 33.00
C. G. Langworthy	do	27.00
James Hughes Ed. J. Hughes	do	$34.50 \\ 33.00$
W. S. Walker	do	4.00
J. W. Pinney.	do	14.25
L. O. Allen. J. H. Stewart	Paint, hardware, and nails	$\begin{array}{c} 6.45\\ 35.02 \end{array}$
Do	]do	43.10
A. W. Carey. Robinson Edwards Co.	Shoeing horses Posts	$\begin{array}{c} 11.60\\ 360.00\end{array}$
Chapman Lumber Co.	Lumber	47.68
Farnsworth & Co	Cement, saws, files, hammers, and	41.11
Rogers & Wells. W. H. Sheldon	wire. Lime, lumber, and paint Witeh hazel, aleohol, sponge, and oint-	$\begin{array}{c} 20.35\\ 2.79 \end{array}$
	ment. Repairs to wagon saws and tampers	16.35
E. H. Thomas Thomas & Weeks	Repairs to wagon, saws, and tampers Feed	21.98
C. J. Cosgrove.	Labor	12.00
E. H. Thomas. New England Telegraph and Telephone Co	Wagon. Telephone	$\begin{array}{c}110.00\\1.26\end{array}$
Champlain Valley Telephone Co		6.39
F. W. Bissonett	Gates and tools	49.75
Vermont Experiment Station C. J. Cosgrove	Harness, halters, and blankets Freight, forage, and horse blankets	$\begin{array}{c} 49.75\\ 29.23 \end{array}$
J. H. Orvis	Mower	34.50
Vermont Experiment Station		5.00 $47.15$

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry (animal breeding and feeding), for the fiscal year ended June 30, 1907—Con.

#### **COOPERATIVE EXPERIMENTS IN BREEDING AND FEEDING**—Continued.

MIDDLEBURY, VT.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount.
L. O. Allen. A. Calhoun & Son. Vermont Agricultural Experiment Station Joseph Battell. E. D. Battell. E. D. Hinds & Sons.	Iron Construction, material, labor, and mis- cellaneous. Services of stallion	$ \begin{array}{r} 3.92 \\ 401.48 \\ 54.00 \\ 120.10 \end{array} $

#### ORONO, ME.-SALARY.

•

Payee.	Salary.	Travel.
Gowell, G. M.	\$600.00	

#### ORONO, ME.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
J. C. Towle & Co Do Do	Oats and corn. Oats, corn, and wheat Corn	\$176.55     146.69     76.47

#### ST. ANTHONY PARK, MINN.—SALARIES.

Payee.	Salary.	Travel.
Gaumnitz, D. A. Boss, A	\$300.00	\$73.81 92.47
Boss, A. Farley, F. A.		44.11

#### STATE COLLEGE, PA.—SALARIES.

Armsby, H. P.	\$1,000.00	
Braman, W.W. Christensen, F.W.	840.00	
Fries, J. A.	840.00	

#### STATE COLLEGE, PA.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
W. Edmiston		\$12.00 18.00
N. N. Hartswick.	do	
W. Edmiston C. N. Bainbridge G. C. Given	do	$\begin{array}{c}18.00\\3.95\end{array}$
G. C. Given	do	12.00

#### WASHINGTON, D. C.-TRAVEL.

Payee.	Salary.	Travel.
Bell, G. A. Rommel, G. M.		\$261.01
Rommel, G. M. Shaw, E. L		149.22 19.97
· ·		

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry (animal breeding and feeding), for the fiscal year ended June 30, 1907—Con.

## **COOPERATIVE EXPERIMENTS IN BREEDING AND FEEDING**—Continued.

WASHINGTON, D. C.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Chicago and Alton R. R. Co.: G. A. Bell. G. M. Rommel. Chicago, Burlington and Quincy R. R. Co.: G. R. Rommel. Do. Chicago, Milwaukee and St. Paul Rwy. Co., G. A. Bell. Chicago and North Western Rwy. Co., G. A. Bell. Chicago, Rock Island and Pacific Rwy. Co., G. A. Bell. Chicago, St. Paul, Minneapolis and Omaha Rwy. Co., G. A. Bell. Cleveland, Cincinnati, Chicago and St. Louis Rwy. Co., G. M. Rommel. Colorado and Southern Rwy. Co., G. A. Bell. Denver and Rio Grande R. R. Co., G. A. Bell. Michigan Central R. R. Co., G. A. Bell. New York Central and Hudson River R. R. Co., G. M. Rommel. Pennsylvania R. R. Co.: G. M. Rommel. G. A. Bell.	\$5.05 8.95 21.65 24.36 11.50 21.75 9.50 11.50 17.50 16.15 17.75 5.70 6.44	Pennsylvania R. R. Co.—Continued. G. A. Bell Do. G. M. Rommel. Do. Do. Do. Do. The Pullman Co.: G. M. Rommell Do. G. A. Bell. Do. G. A. Bell. Do. Rutland R. R. Co., G. M. Rommel. Southern Rwy. Co.: G. M. Rommel. Do. Do. Do. Do. Co. Co. Co. Co. Co. Co. Co. C	$\begin{array}{c} \$12.\ 05\\ 17.\ 00\\ 10.\ 00\\ 10.\ 00\\ 25.\ 35\\ 5.\ 00\\ 4.\ 00\\ 5.\ 00\\ 5.\ 00\\ 5.\ 00\\ 5.\ 00\\ 5.\ 00\\ 6.\ 44\\ 4.\ 75\\ 15.\ 75\\ 21.\ 00\\ 3.\ 55\\ 3.\ 40\\ 23.\ 40\\ \end{array}$
Do	26.80	Washington Southern Rwy. Co., G. M. Rommel	8. 30

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry (southern dairy work), for the fiscal year ended June 30, 1907.

[Includes vouchers approved for payment prior to March 1, 1908.]

COOPERATIVE INVESTIGATIONS OF THE DAIRY INDUSTRY IN THE SOUTHERN STATES. AGRICULTURAL COLLEGE, MISS.—SALARY.

	Salary.	Travel.
Ridgeway, J. W	\$958.34	\$855.26

AGRICULTURAL COLLEGE, MISS.—TRANSPORTATION.

1	1	1
Amount.	Payee.	Amount.
$\begin{array}{c} \$3.15\\ 2.65\\ 4.54\\ 4.43\\ 3.58\\ 5.20\\ 3.50\\ 3.00\\ 3.11\\ 17.50\\ 14.95\\ 16.05\\ 4.49\\ 4.30\\ 7.55\end{array}$	Do. Do. Do. Mobile, Jačksonville and Kansas City R. R. Co., J. W. Ridgeway. Mobile & Ohio R. R. Co.: J. W. Ridgeway. Do. Do. Do. Do. New Orleans and Northeastern R. R. Co.: J. W. Ridgeway. Do. Do. Do. Do. Do.	$\begin{array}{c} 7.80\\ 3.90\\ 3.15\\ 1.00\\ .97\\ .97\\ 4.23\\ 3.27\\ 3.04\\ 5.20\\ 1.95\end{array}$
	$\begin{array}{c} \$3.15\\ 2.65\\ 4.54\\ 4.43\\ 3.58\\ 5.20\\ 3.50\\ 3.00\\ 3.11\\ 17.50\\ 14.95\\ 16.05\\ 4.49\\ \end{array}$	\$3.15       Illinois Central R. R. Co.: J. W. Ridgeway.         2.65       Do         4.54       Do         4.43       Mobile, Jacksonville and Kansas City         3.58       R. R. Co., J. W. Ridgeway.         Mobile & Ohio R. R. Co.: J. W. Ridgeway.         5.20       Do         3.50       Do         3.00       Do         3.11       New Orleans and Northeastern R. R. Co.: Do         17.50       J. W. Ridgeway.         16.05       Do         4.30       Do

#### COOPERATIVE INVESTIGATIONS OF THE DAIRY INDUSTRY IN THE SOUTHERN STATES— Continued.

COLLEGE STATION, TEX.-SALARY.

	Payee.	Salary.	Travel.
Moser, C. O		\$350.00	. \$57.75

#### COLLEGE STATION, TEX.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Galveston, Harrisburg and San An- tonio Rwy. Co., C. O. Moser Gulf, Colorado and Santa Fe Rwy. Co., C. O. Moser Houston and Texas Central R. R. Co.: C. O. Moser	3.90	Houston and Texas Central R. R. Co.— Continued. C. O. Moser Do Do St. Louis Southwestern Rwy. Co., C. O. Moser	\$4.95 10.10 7.15 4.10

#### COLUMBIA, MO.-SALARY.

	Payee.	Salary.	Travel.
Woodward, T. E		\$336.67	\$96.52

#### COLUMBIA, MO.-TRANSPORTATION.

Payee.	Amount.
The Pullman Co., T. E. Woodward	\$6. 50
Southern Rwy. Co., T. E. Woodward	27. 50

#### EXPERIMENT, GA.-SALARY.

Payee.	Salary.	Travel.
Dorman, J. E.	\$700.00	\$545.27

#### EXPERIMENT, GA.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Columbia, Newberry and Laurens R. R. Co., J. E. Dorman. Georgia R. R. Co.: J. E. Dorman. Do. Southern Rwy. Co.: J. E. Dorman, Do.	5. 13 5. 13 3. 90	Southern Rwy. Co.—Continued. J. E. Dorman. Do. Do. Do. Do. Do. Do. Do.	3.90 3.60 17.50 12.40

#### KNOXVILLE, TENN.—SALARIES.

Payee.	Salary.	Travel.
Risser, A. K.	\$116. 67	\$92. 09
Barnes, S. E.	1, 479. 17	682. 41

COOPERATIVE INVESTIGATIONS OF THE DAIRY INDUSTRY IN THE SOUTHERN STATES— Continued.

KNOXVILLE, TENN.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Cincinnati, New Orleans and Texas Pacific Rwy. Co., S. E. Barnes. Louisville and Nashville R. R. Co.: S. E. Barnes. Do. Nashville, Chattanooga and St. Louis Rwy. Co., S. E. Barnes. The Pullman Co.: S. E. Barnes. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do	\$1.15 6.70 5.90 5.65 2.00 2.00 1.50 3.00 2.00 2.00 2.00 3.0	Southern Rwy. Co.—Continued.         S. E. Barnes.         Do.         Do.<	

RALEIGH, N. C.—SALARY.

Payee.	Salary.	Travel.
Conover, J. A	\$575.00	\$368.45

#### RALEIGH, N. C.-TRANSPORTATION.

· Payee.	Amount.	Payee.	Amount.
Atlantic Coast Line R. R. Co.: J. A. Conover. Do. Do. Norfolk and Southern Rwy.: J. A. Conover. Do. Do. Seaboard Air Line Rwy. Co.: J. A. Conover. Southern Rwy. Co.: J. A. Conover.	$\begin{array}{c} 3.20 \\ 4.65 \\ 3.20 \\ 3.45 \\ 3.20 \\ 3.45 \\ 4.65 \end{array}$	Southern Rwy. Co.—Continued. J. A. Conover. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do	$\begin{array}{c} 3.\ 45\\ 3.\ 55\\ 3.\ 10\\ 3.\ 55\\ 3.\ 45\\ 5.\ 65\end{array}$

#### WASHINGTON, D. C.-SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Conover, J. A. Dorman, J. E. Lykes, H. P. Michels, J. Rawl, B. H.	$\begin{array}{r} 641.\ 67\\ 37.\ 33\\ 26.\ 93\end{array}$	$ \begin{array}{r} 374.46\\ 43.47\\ 7.59 \end{array} $	Slater, H. N Stuart, D. Webster, E. H. Whitaker, G. M.	875.01	

### COOPERATIVE INVESTIGATIONS OF THE DAIRY INDUSTRY IN THE SOUTHERN STATES— Continued.

WASHINGTON, D. C.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Alabama Great Southern R. R. Co.,		Louisville and Nashville R. R. Co	
D. Stuart Atlantic Coast Line R. R. Co.:	\$4.60	Continued. B. H. Rawl	\$9. 55
D. Stuart	5.70	D. Stuart	6.90
Do B. H. Rawl	$\begin{array}{c} 6.35\\ 9.45\end{array}$	B. H. Rawl.	
J. A. Conover.	6.15	Do Do	11.60 25.40
J. E. Dorman	3.45	Missouri, Kansas and Texas Rwy. Co.:	
B. H. Rawl J. E. Dorman	8.60 $4.92$	H. N. Slater. Do.	22.40 8.60
J. A. Conover.	3.60	Do.	8.60
J. E. Dorman	8.15	Do	2.65
Baltimore and Ohio R. R. Co., D. Stuart.	3.60	Do D. Stuart	3. 00 5. 90
Central of Georgia Rwy. Co.:	0.00	Do.	2.65
D. Stuart	5.17	V Do	3.00
J. E. Dorman B. H. Rawl	$\begin{array}{c} 3.16\\ 8.95\end{array}$	Do E. H. Webster.	5.65 5.15
J. E. Dorman	9.20	H. N. Slater	17.00
B. H. Rawl.	15.00	Do	
Chesapeake and Ohio Rwy. Co.: B. H. Rawl	15.00	Do Do	2.65 17.00
Do	15.00	Do	12.50
D. Stuart.	11.40	B. H. Rawl.	4.35
Do Do	$5.70\\5.90$	Missouri Pacific Rwy. Co., D. Stuart Mobile and Ohio R. R. Co.:	4.74
Do	2.90	B. H. Rawl.	5.76
Chicago, Milwaukee and St. Paul Rwy.		E. H. Webster.	2.80
Co.: J. E. Dorman	23.20	Morgan's Louisiana and Texas Rail- road and Steamship Co.:	
H. N. Slater	6.10	B. H. Rawl	13.55
Chicago, Rock Island and Pacific Rwy.		D. Stuart	10.85
Co.: D. Stuart.	4.15	B. H. Rawl. Do.	6.55 11.65
B. H. Rawl	37.25	Nashville, Chattanooga and St. Louis	11.00
Florida East Coast Rwy. Co., D. Stuart	5.95	Rwy. Co., D. Stuart	4.50
Fort Worth and Denver City Rwy. Co.: H. N. Slater	10.05	Pennsylvania R. R. Co.: B. H. Rawl	10.00
Do	10.05	Do	10.00
Galveston, Harrisburg and San Anto-		The Pullman Co.:	1.00
nio Rwy. Co.: H. N. Slater	3, 40	H. N. Slater. Do.	4.00
`• Do	3.80	D. Stuart	2.50
D. Stuart. B. H. Rawl	$\begin{array}{c} 7.20\\ 3.80\end{array}$	H. N. Slater. E. H. Webster.	4.00
Georgia R. R. Co.:	0.00	Do	2.00
B. H. Rawl	3.75	B. H. Rawl.	5.00
D. Stuart. J. E. Dorman	$5.13 \\ 5.13$	Do G. M. Whitaker	6.50 4.00
Georgia Southern and Florida Rwy.	0.10	B. H. Rawl.	4.00
Co., B. H. Rawl	17.40	Do G. M. Whitaker.	4.50
Houston East and West Texas Rwy. Co., B. H. Rawl.	6.95	B. H. Rawl.	2.00 3.00
Houston and Texas Central R. R. Co.:		Seaboard Air Line Rwy. Co.:	0.00
H. N. Slater	5.25	B. H. Rawl.	6.40
Do Do	5.10 $5.10$	J. A. Conover. Do.	6.05 4.30
Do.	2.80	D. Stuart	5. 15
Do.	5.10	Do	7.50
B. H. Rawl. Do.	$4.95 \\ 7.15$	Do. J. A. Conover.	$\begin{bmatrix} 7.75\\3.10 \end{bmatrix}$
Do.	13.65	Do	3.70
Do.	7.15	Do	3.70
Do Illinois Central R. R. Co.:	13.25	Do Do	3. 70 8. 30
D. Stuart	3.75	Do	4. 30
B. H. Rawl.	9.20	B. H. Rawl	14.55 4.30
Do. Do.	3.90 3.90	J. A. Conover. Do.	4.30
E. H. Webster	9.20	B. H. Rawl	8.30
B. H. Rawl	18.00	Southern Railway Co.:	8.10
Kansas City Southern Rwy. Co., D. Stuart.	8.00	J. E. Dorman D. Stuart	8.10 4.15
Louisville and Nashville R. R. Co.:		Do	3. 30
D. Stuart	3.09	B. H. Rawl	11.20

## **COOPERATIVE INVESTIGATIONS OF THE DAIRY INDUSTRY IN THE SOUTHERN STATES**— Continued.

#### WASHINGTON, D. C.-TRANSPORTATION-Continued.

Payec.	Amount.	Payee.	Amount.
Southern Railway Co Continued.           B. H. Rawl           Do           J. A. Conover.           Do           B. H. Rawl           Do           Do           E. H. Webster           J. A. Conover           Do           Do           Do           Do           Do           J. A. Conover           Do           J. A. Conover           Do           J. A. Conover           Do           J. A. Conover	\$8.10 3.72 3.45 3.75 9.10 3.86 4.15 6.20 7.58 7.05 3.40 4.10 3.222 .70 7.35 5.65 5.00 4.23 4.23 4.23 4.20 4.15 8.90 3.60 3.20 3.45 17.50 17.50 3.60 23.00 3.15	Southern Railway Co.—Continued. J. E. Dorman. Do Do Do E. H. Webster. Do. D. Stuart. Do. B. H. Rawl. Do. G. M. Whitaker B. H. Rawl G. M. Whitaker Do. B. H. Rawl Do. St. Louis and San Francisco R. R. Co.: B. H. Rawl Do. E. H. Webster. Wabash R. R. Co.: H. N. Slater. Do. E. H. Webster. B. H. Rawl. Washington Southern Rwy. Co., D. Stuart. Western Railway of Alabama: B. H. Rawl. Do. Yazoo and Mississippi Valley R. R. Co., B. H. Rawl	$\begin{array}{c} \$3.36\\ 3.90\\ 3.45\\ 3.45\\ 18.15\\ 14.55\\ 9.65\\ 4.00\\ 27.50\\ 17.50\\ 17.50\\ 20.95\\ 8.15\\ 11.75\\ 8.50\\ 15.05\\ 7.50\\ 7.50\\ 7.50\\ 7.50\\ 7.50\\ 7.50\\ 8.30\\ 20.75\\ 4.35\\ 8.30\\ 20.75\\ 4.85\\ 7.50\end{array}$

#### WASHINGTON, D. C.-MISCELLANEOUS EXPENSES.

Payec.	Article.	Amount.
<ul> <li>D. H. Burrell &amp; Co.</li> <li>A. H. Barber Co.</li> <li>Do.</li> <li>D. H. Burrell &amp; Co.</li> <li>Do.</li> <li>A. H. Barber Co.</li> <li>Wagner Glass Works.</li> <li>A. H. Barber Co.</li> <li>Yawman &amp; Erbe Manufacturing Company.</li> <li>Do.</li> <li>A. H. Barber Co.</li> <li>E. J. Pullman.</li> <li>H. D. Feast &amp; Co.</li> <li>Taylor, Taylor &amp; Hobson.</li> <li>J. S. Topham.</li> <li>A. L. Thomas Co.</li> </ul>	do do Traveling outfits do Milk scales. Test bottles and pipettes Milk scales. Card cases. Handy outfits Milk scales. Camera and tripod. Photographic supplies. do Camera cases.	$\begin{array}{c} 37.50 \\ 18.75 \\ 12.44 \\ 37.50 \\ 2.00 \\ 2.00 \\ 37.50 \\ 28.99 \\ 174.15 \\ 39.09 \end{array}$

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## 174 OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY.

Statement of disbursements from the appropriation for general expenses, Bureau of Animal Industry (diseases of domestic animals, Minnesota), for the fiscal year ended June 30, 1907.

[Includes vouchers approved for payment prior to March 1, 1908.]

COOPERATIVE EXPERIMENTS AND INVESTIGATIONS IN DISEASES OF DOMESTIC ANIMALS IN MINNESOTA.

#### ST. ANTHONY PARK, MINN.-SALARIES.

Payee.		Travel.
Flocken, C. F. Mohler, J. R.	\$1, 275.00	\$25.59 16.05

#### ST. ANTHONY PARK, MINN.-TRANSPORTATION.

Payee.	Amount.
Chicago, Milwaukee and St. Paul Rwy. Co., C.F. Flocken. Chicago and Northwestern Rwy. Co., J. R. Mohler. Pennsylvania R. R. Co., C. F. Flocken.	23.00

#### ST. ANTHONY PARK, MINN.-MISCELLANEOUS EXPENSES.

. Payee.	· Article.	Amount.
New England Furniture and Carpet Co. Frank Miller. Noyes Bros. & Cutler. Do. Kung Oil Co. C. E. Cotton. Noyes Bros. & Cutler. Do. Do. Do. Do. Do. Do. Do. Do	Pigs. Laboratory supplies. do. Gasoline. 1 horse. Laboratory supplies. do. do. do. Knife and case. Laboratory supplies. do. do. Rabbits Telephone service. Meat, eggs, and potatoes. Horse. 3 horses. Calf. Jars. Laboratory supplies. Laboratory supplies. Lamp, laboratory supplies, and labor. Laboratory supplies. do.	$\begin{array}{c} 6.24 \\ 12.00 \\ 10.00 \\ 24.62 \\ 13.95 \\ 5.56 \\ 2.46 \\ 4.70 \\ 3.83 \\ 9.21 \end{array}$

Statement of disbursements from the appropriation for eradicating cattle ticks, Bureau of Animal Industry, for the fiscal year ended June 30, 1907.

[Includes vouchers approved for payment prior to March 1, 1908.] ERADICATION OF SOUTHERN CATTLE TICKS.

ATLANTA, GA.—SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Baumann, E. H. Ellis, J. F. Foster, I. N. Fry, D. W. S. Hudson, J. S. Klein, L. A. McClure, R. B. Meaders, F. M. Mize, T. W.	$70.00 \\ 352.00 \\ 105.00 \\ 253.33 \\ 53.33 \\ \ldots$	\$259.66 147.00 131.61 241.18 137.00 100.43 22.50 30.30 193.73	Myers, W. A. Nighbert, E. M. Park, A. B. Payne, A. J. Quillian, C. M. Shelton, E. W. Smith, J. S. Underwood, H. B. Waters, J. T.	$\begin{array}{c} 318.\ 89\\ 130.\ 00\\ 590.\ 55\\ 150.\ 00\\ 146.\ 67\\ 93.\ 33\\ 312.\ 00\\ \end{array}$	\$412.47 471.60 198.57 176.72 194.64 238.80 109.75 174.10 24.85

Statement of disbursements from the appropriation for cradicating cattle ticks, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

#### ERADICATION OF SOUTHERN CATTLE TICKS-Continued.

ATLANTA, GA.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Louisville and Nashville R. R. Co., A. J. Payne. Nashville, Chattanooga and St. Louis Rwy. Co.: A. J. Payne. Do. Do. Do.	4.10 4.10	Pennsylvania R. R. Co., E. H. Bau- mann. Southern Rwy. Co.: A. J. Payne. Do. Do.	\$21.30 3.90 3.00 3.90

#### AUBURN, ALA.—SALARY.

Payee.	Salary.	Travel.
Cary, C. A.	\$186.67	\$214.93

#### FAYETTEVILLE, ARK.—SALARIES.

Norwood A. D.	\$78.00	
Norwood W. M	92.00	
		1

#### CINCINNATI, OHIO-SALARY.

Ellenberger, W. P \$1:	25.00	
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## CINCINNATI, OHIO-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Louisville and Nashville R. R. Co.: F. W. Hopkins. W. P. Ellenberger. Do. Do.	9.00	Mobile and Ohio R. R. Co., W. P. Ellen- berger. Western Rwy. of Alabama, W. P. Ellen- berger.	

#### CLEMSON COLLEGE, S. C.-SALARY.

Payee.	Salary.	Travel.
Klein, L. A	\$365.54	\$108.00

#### EXPERIMENT, GA.-SALARY.

Willoughby, C. L.	\$10.00	\$110.22
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## ERADICATION OF SOUTHERN CATTLE TICKS-Continued.

KANSAS CITY, KANS.-SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Payee.Allen, L. J.Beattie, R. S.Benson, T. H.Buffington, R. M.Burgett, J. L.Chapin, D. C.Clawson, C. A.Cole, W. W.Conley, C. C.Dean, A.Dennis, V. A.Drummond, R. H.Dumbauld, H.Eldridge, R. W., sr.Eldridge, R. W., jr.Fry, W. A.Getty, O. H.	\$1,056.67 610.00 376.67 291.66 322.00 533.33 189.00 $\cdot 250.00$ $\cdot 250.00$ $\cdot 611.67$ 276.67 350.00 333.33 291.67 711.67	Travel.         \$269. 60         146. 10         12. 25         96. 86         75. 08         216. 66         107. 46         76. 39         29. 30         31. 65         184. 85         223. 41         113. 04         211. 23         33. 20         463. 04         24. 00	Payee.Hahn, R. H.Hiatt, W. L.Hunt, E. D.Jorden, W. D.Kooken, M.Lane, G.Lukens, C. F.McCunningham, D.Merritt, J. G.Miller, I.Morledge, R.Parker, J. W.Rigdon, F.Robards, J.Treeman, F. D.Wallace, W. A.Warner, D. E.	\$591.66 \$59.44 441.67 770.00 250.00 527.77 527.78 692.22 300.00 558.33 946.66 200.00 250.00 217.00	\$584. 81 202. 28 91. 00 279. 90 256. 76 69. 10 229. 66 334. 13 60. 10 7. 75 363. 87 496. 11 86. 06 75. 04 77. 73 24. 40 254. 62
Gibson, C. H. Gourley, T. M. Graham, R.	$591.\ 66 \\ 413.\ 88$	$   \begin{array}{r}     177.00 \\     193.00 \\     64.83   \end{array} $	Thrower, J. D Rodibaugh, S. I	100.00	51.89

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,	Payee.	Amount.
Missouri, Kansas an L. J. Allen	nd Texas Rwy. Co.:	\$10.25
Do		. 10.25

#### KANSAS CITY, KANS .- MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
Dean, Albert	Livery service	\$75.00
Allen, L. J.	do.	75.00
Do		60.00
$\overline{\mathrm{Do}}$	do	20.00
Do	do	12.50
Do	.do	35.00
Beattie, R. S.	.dodo	35.00
Do		35.00
$\underline{\mathrm{D}}\mathrm{o}$		35.00
$\mathbb{D}_{\mathbf{D}}$		35.00
$\mathbf{D}_{\mathbf{D}}$		35.00
		3.50
Buffington, R. M.		85.00
Do		75.00
		75.00
Do. Burgett, J. L.		$\begin{array}{r} 37.50\\ 35.00\end{array}$
Do		35.00
Do.		17.50
Chapin, D. D.		37.50
		75.00
$D_0$		75.00
Do		75.00
Do		75.00
$\overline{\mathrm{Do}}$		7.50
Clawson, C. A		77.50
Do		75.00
Do	do	75.00
Do	do	75.00
Cole, W. W.	do	52.50
$\mathbf{D}_{\mathbf{D}}$		75.00
Do		. 75.00
Conley, C. C.		35.00
$\mathbf{D}0$	do	35.00
Do	do	17.50

## ERADICATION OF SOUTHERN CATTLE TICKS-Continued.

## KANSAS CITY, KANS.-MISCELLANEOUS EXPENSES-Continued.

Payee. •	Article.	Amou
ean, Albert	Tents, cots, beds (camp)	\$64
etty, W. M., & Co	Livery service.	77
ation, W. E.	Harness	34
he Johnston Co.	Chairs.	26
& H. Fur. and Car. Co		47
ennis, V. A Do		35
Do		35 35
Do	do	35
Do	do	35
Do	do	35
Do		6
imbauld, H		75
		75
Do y, W. A	do	37
	do do	$\frac{7}{35}$
Do	do	17
Do.	do	35
Do	do	35
Do	do	35
Do.	do.	3
oson, C. H	do	17
Do		35
Do	do	35
Do Do	do	35 35
Do.	do	35
Do.	do	1
urley, T. M.	do	30
Do	do	35
Do	do	35
	do	35
Do Do	do	35
aham, Ralph.	do	$6 \\ 75$
Do	do	75
	do	37
	do	95
Do	do	75
Do		75
Do		75
Do Do		75 75
Do	do	75
Do	do	7
nt, E. D.	do.	17
Do	do	35
Do		35
Do	do	35
Do		$16 \\ 75$
den, W. D	do.	75 17
Do	do	35
Do	do.	35
Do	do	3
ne, Givens		17
Do Do	do	35
Do	do	
Do	do	35
Do	do	35
Do	do	3
kens, C. F.	do	37
Do	do	75
Do	do	$10 \\ 75$
Do Do	do	$\frac{75}{22}$
Do	do	$\frac{22}{25}$
Cunningham, Dan	do	29.
Do	Tent and supplies	53.
Do	Livery service	35.
	dŏ	35

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## 178 OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY.

## Statement of disbursements from the appropriation for eradicating cattle ticks, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

#### ERADICATION OF SOUTHERN CATTLE TICKS-Continued.

KANSAS CITY, KANS.-MISCELLANEOUS EXPENSES-Continued.

Payee.	Article.	Amount
McCunningham, Dan		\$35.00
Do Do		35.00
Do		35.00 3.50
Merritt, J. G	do	17.50
Do	do	35.00
Do Do		35.00 35.00
Do	do	3.50
Morledge, Ralph Do		75.00 75.00
Do		75.00
Do		60.00
Do Rigdon, Frank		75.00 37.50
Do	do	75.00
	do	37.50
Robards, Jesse Do		30.00 30.00
Do	do	15.00
Freeman, F. D.		35.00
Do Do		35. 00 35. 00
Do	do	<b>3.</b> 50
Warner, Dick E		85.00
Do		75.00 75.00
Do	do	75.00
Dean, Albert Do		18.75 15.20
		10.20

#### LOS ANGELES, CAL.—SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Coffy, J. P. Coleman, A. T. Echols, B. C. Harrington, D. W. Hill, W. E. Hood, H. B. MacKellar, W. M.	\$132.23 566.67 83.33 620.00	$99.\ 20\\3.\ 75\\235.\ 05$	Murray, F. E. Paul, A. Raque, C. A. Rosenberger, M. Rubel, C. W. Schofield, M.	600.00 700.00 610.00	\$336.37 403.00 322.37 458.17 122.00 425.71

#### LOS ANGELES, CAL.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Chicago and North Western Rwy. Co.: A. Paul. C. A. Raque. Oregon Short Line R. R. Co., H. B. Hood. Southern Pacific Rwy. Co.: W. M. MacKellar. Do. Do. Do. A. T. Coleman. M. Schofield. W. M. MacKellar. Do. Do. C. A. Raque. A. Paul. M. Rosenberger. W. M. MacKellar.	$\begin{array}{c} 7.30\\ 9.34\\ 9.34\\ 6.70\\ 13.85\\ 9.34\\ 6.70\\ 8.30\\ 4.40\\ 6.70\end{array}$	$\begin{array}{c} \text{Southern Pacific Rwy CoCont'd.} \\ \text{M. Rosenberger.} \\ \text{W. M. MacKellar} \\ \text{Do.} \\ \ \text{Do.} \\ \text{Do.} \\ \text{Do.} \\ \text{Do.} \\ \text{Do.} \\ \ \ \text{Do.} \\ \ \text{Do.} \\ \ \ \text{Do.} \\ \ \ \text{Do.} \\ \ \ \text{Do.} \\ \ \ \ \text{Do.} \\ \ \ \ \ \text{Do.} \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	$\begin{array}{c} 6.70\\ 3.60\\ 5.15\\ 7.55\\ 6.70\\ 3.15\\ 3.60\\ 6.70\\ 3.60\\ 7.35\\ 7.35\\ 8.30\\ 7.05\\ 6.70\end{array}$

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# Statement of disbursements from the appropriation for eradicating cattle ticks, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

# ERADICATION OF SOUTHERN CATTLE TICKS-Continued.

LOS ANGELES, CAL.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
MacKellar, W. M.	Desk and chair	\$42.00

## LYNCHBURG, VA.—SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Baldwin, W. A. Caldwell, H. Connell, R. N. Curtice, C. Eagle, A. F. Emery, F. E. Everly, O. W. Gallagher, B. A. Harris, A. E. Henderson, E. P. Kiernan, J. A. McFarland, C. M.	$\begin{array}{c} 698.25 \\ \hline 946.67 \\ 256.67 \\ 940.00 \\ 439.44 \\ 421.94 \\ 402.78 \end{array}$		Marshall, H. Musser, R. C. Myers, W. A. Nighbert, E. M. Owen, T. M. Payne, A. J. Patton, D. W. Pratt, R. T. Saunders, J. B. Squires, J. H. West, W. L. Williams, J. S.	$\begin{array}{c} 156.67\\ 221.67\\ 824.45\\ 391.11\\ 355.55\\ 403.67\\ 204.25\\ 552.77\\ 306.10\\ \end{array}$	\$146.48 24.10 41.75 66.05 298.30 325.31 129.25 103.16 342.58 317.11

# LYNCHBURG, VA.-TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Payee. Atlantic Coast Line R. R. Co.: C. Curtice. Do. Baltimore and Ohio R. R. Co.: H. Caldwell. C. Curtice. A. F. Eagle. Chesapeake and Ohio Rwy. Co.: C. Curtice. J. A. Kiernan. A. E. Harris. Chicago and Alton R. R. Co., G. A. Gal- lagher. Chicago, Burlington and Quincy R. R. Co.: W. A. Myers. O. W. Everly. C. M. McFarland. Chicago, Milwaukee and St. Paul Rwy. Co.: J. A. Kiernan. R. C. Musser. Cleveland, Cincinnati, Chicago and St. Louis Rwy. Co.: D. W. Patton. E. P. Henderson. Louisville and Nashville R. R. Co., C.	\$6.30 3.75 21.00 20.75 21.00 7.10 13.00 15.75 27.75	Merchants and Miners' Transportation Co., W. A. Baldwin Missouri Pacific Rwy. Co.: A. J. Payne. W. L. West. Norfolk and Western Rwy. Co.: C. Curtice. Do. W. A. Myers. C. Curtice. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do	\$13.70 27.75 27.75 27.75 7.10 20.65 2.25 4.40 6.10 5.05 6.10 26.00 15.75 14.50 4.40 5.20 5.20 5.20 6.10 6.10 5.05 6.10 26.00 15.75 14.50 4.40 5.20
Curtice	26.00	Curtice	3.50

# Statement of disbursements from the appropriation for eradicating cattle ticks, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

# ERADICATION OF SOUTHERN CATTLE TICKS-Continued.

LYNCHBURG, VA.-MISCELLANEOUS EXPENSES.

Payee.	- Artiele.	Amount.
Curtice, Cooper. Krise, P. A Elkins Hardware Co. Curtiee, Cooper. Chesapeake and Ohio Rwy. Co. Curtice, Cooper. Fleenor Furniture Co. Do. W. B. Ryan Co. J. P. Bell Co. Gallagher, B. A. Do. Do. Krise, P. A.	Rent. Soap, oil, ehurn, and funnel. Porter, water, and duster. Freight. Freight, labor, drayage, pumps, spigots and cans. Table. Cards, file, and cabinet. Letter press. Copying bath. Livery service. do. do.	$15.00 \\ 11.25 \\ 3.70 \\ 4.90 \\ 44.49 \\ 4.50 \\ 45.80 \\ 5.00 \\ 3.75 \\ 37.50 \\ 37.50 \\ 37.50 \\ 12.50 \\ 1$

#### NASHVILLE, TENN.—SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Andress, W. R.		\$34.25	Murphy, W. J.	\$973 .4	<b>\$796, 89</b>
Reattie I G		41.17	Myers, M. J.	430 00	642.92
Beattie, J. G Boazman, J. B	\$333 33	172.30	Noyes, R. E.	100.00	27.20
Bowers, S. B.	ψ000.00	9.70	Paek, B.		13.85
Browning G. W			Parker, A. O.	197.22	159.60
Browning, G. W. Burkhalter, J. D.		6.56	Pennington, J. F	1010-22	19.60
Bushong, J. A.	72.00	8.30	Pettibone, A. H.	875.00	343.80
Davis, H. F.		18.80	Pfaffman, G. A.		21.25
Davis, J. H.		14.25	Potter, G. M.		45.75
Ellenberger, W. P	990.00	275.83	Price, J. O. F		29.50
Enoehs, N.		25.70	Robbins, H		96.75
Frazier, F. A.		7.97	Safley, J. C		19.60
Good, H. H		16.70	Shipley, H. R.		11.40
Hanawalt, D. C	879.99	573.11	Skrable, F. L	123.33	73.00
Harbison, G. W		11.02	Smallmon, D. M		11.30
Haston, D. L.		14.25	Sparkman, I. L		37.80
Holloway, J. H.		9.57	Stewart, C. A.		160.85
Hopkins, F. W	291.67	95. 57	Stewart, W. J.		563.60
Jackson, R. E.	938.33	372.31	Storie, I. R.		20.80
Jarvis, D. A.		15.35	Swaim, J. L.		14.33
Jarvis, G. W		7.97	Thomason, H		298.03
Kelsaý, T. R.	154.00	28.40	Ulman, O.		
Lentz, E. S.	487.00	209. 82	Washburn, L.		101. 49
Lentz, G. W.		14.50	Weagly, C. B.		182. 51
Lineoln, W. B.		192.23	Weihe, W. E.		
Lowrey, E. H.		15.35	Whitson, M. E.	407 67	20.40
Martin, R. M.	249 79	35.36	Lewallen, W. M.	487.67	291.98
Meadors, W. H	342.78	189.77			

#### NASHVILLE, TENN.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Chieago Great Western Rwy. Co., C. A. Stewart. Cineinnati, New Orleans and Texas Pa- cifie Rwy. Co.:	\$21.50	Louisville and Nashville R. R. Co.— Continued. W. P. Ellenberger. Do.	9.13
W. P. Ellenberger. A. H. Pettibone. W. P. Ellenberger. Illinois Central R. R. Co., L. Washburn.	$egin{array}{c} 6.\ 62 \\ 6.\ 62 \\ 6.\ 62 \\ 13.\ 50 \end{array}$	Do. Do. Do. Do.	$9.13 \\ 3.24 \\ 3.24 \\ 3.24 \\ 3.24$
Louisville and Nashville R. R. Co.: R. E. Jaekson M. J. Myers.	$10.00\\3.24$	- Nashville, Chattanooga and St. Louis Rwy. Co.: W. M. Lewallen	3.30
F. L. Skrable. W. P. Ellenberger. Do. W. H. Meadors.	$\begin{array}{c} 3.24 \\ 3.24 \\ 3.24 \\ 3.24 \\ 9.75 \end{array}$	W. B. Lineoln. Do. W. J. Murphy. C. A. Stewart.	$3.15 \\ 3.30 \\ 3.15 \\ 5.85$
C. E. Mauldin.	14.05	W. P. Ellenberger	3.15

Statement of disbursements from the appropriation for cradicating cattle ticks, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

# ERADICATION OF SOUTHERN CATTLE TICKS-Continued.

NASHVILLE, TENN.-TRANSPORTATION-Continued.

Payee.	Amount.	Payee.	Amount.
Nashville, Chattanooga and St. Louis         Rwy Co.—Continued.         A. H. Pettibone.         W. P. Ellenberger.         A. H. Pettibone.         Do.         W. P. Ellenberger.         Do.         W. P. Ellenberger.         Do.         W. P. Ellenberger.         Do.         W. B. Lincoln.         Do.         Do.	3.30 3.15 5.85 3.85 4.50 4.50 5.19 3.95 5.85 3.95 3.95 3.95 3.95 5.20 5.45 5.85 5.85 5.85 4.50 4.55 5.85 5.85 4.50 5.85 4.50 4.50 5.85 5.85 5.85 5.85 5.85 4.50 5.85 5.85 5.85 5.85 5.85 5.85 5.85 5.85 5.85 5.85 5.85 5.85 5.85 5.85 5.85 5.85 5.85 5.85 5.85 5.65 4.50 4.50 5.65 4.50 4.50 5.50 5.65 5.50 5.65 5.50 5.65 5.50 5.65 5.50 5.65 5.50 5.50 5.65 5.50 5.65 5.50 5.50 5.50 5.65 5.50	Nashville, Chattanooga and St. Louis Rwy Co.—Continued.         'W. P. Ellenberger.         Do         A. H. Pettibone.         Do         New York Central and Hudson River         R. R. Co., W. J. Murphy.         Oregon Short Line R. R. Co., D. C.         Hanawalt.         Southern Rwy. Co.:         W. H. Meadors.         D. C. Hanawalt.         J. B. Boazman         A. O. Parker.         A. H. Pettibone.         Do.         Do.	$\begin{array}{c} \$3.15\\5.85\\3.30\\3.30\\26.45\\47.50\\3.92\\6.62\\4.97\\6.62\\4.97\\6.62\\4.97\\4.71\\4.97\\5.10\\5.21\\6.62\\4.97\\5.10\\5.21\\6.62\\4.97\\5.60\\15.40\\15.50\end{array}$
Do Do W. P. Ellenberger	$\begin{array}{c} 4. \ 60 \\ 4. \ 55 \\ 4. \ 50 \end{array}$	Do Do Do	$\begin{array}{r} 4.97 \\ 5.60 \\ 15.40 \\ 15.50 \\ 4.60 \\ 8.52 \end{array}$

## NEW ORLEANS, LA.—TRAVEL.

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•	-	Payee.	Travel.
Mauldin, C. E		•••••	 \$24.45

# NEW ORLEANS, LA.—TRANSPORTATION.

Payee.	Amount.	Payee.	Amount.
Louisville and Nashville R. R. Co.: C. E. Mauldin. Do. Louisiana & Northwest R. R. Co., C. E. Mauldin. Morgan's Louisiana and Texas R. R. and S. S. Co., C. E. Mauldin.	$\begin{array}{c} 16.75\\ 2.40\end{array}$	Texas & Pacific Rwy. Co.: C. E. Mauldin. Do. Do. Yazoo and Mississippi Valley R. R. Co.: C. E. Mauldin. Do.	$\begin{array}{c} 6.15 \\ 3.05 \end{array}$

## NORFOLK, VA.—TRAVEL.

Payee.	Travel.
Faville, G. C.	\$42.75

# RALEIGH, N. C.-SALARY.

Payee.	Salary.	Travel.
Butler, T	\$120.06	\$114.19

# 182 OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY.

Statement of disbursements from the appropriation for eradicating cattle ticks, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

# ERADICATION OF SOUTHERN CATTLE TICKS-Continued.

RALEIGH, N. C.-TRANSPORTATION.

3	
Payee.	Amount.
Seaboard Air Line Rwy. Co., C. Curtice.	\$4.80

#### WASHINGTON, D. C.-SALARIES.

Payee.	Salary.	Travel.	Payee.	Salary.	Travel.
Abel, J Lenton, W McCabe, G. P	\$88.89	\$22.85 9.00	Steddom, R. P Melvin, A. D Ransom, B. H	·····	

Payee.	Amount.	Payee.	Amount.
Baltimore and Ohio R. R. Co.: Jos. Abel. Do. Louisville and Nashville R. R. Co.: Jos. Abel. B. H. Ransom. Nashville, Chattanooga and St. Louis Rwy. Co., G. P. McCabe. Pennsylvania R. R. Co., Jos. Abel. The Pullman Co.: B. H. Ransom. Do.	$21.35 \\ 20.15 \\ 14.45$	The Pullman Co.—Continued. G. P. McCabe. Do. B. H. Ransom. R. P. Steddom. Southern Rwy. Co.: B. H. Ransom. R. P. Steddom. G. P. McCabe. B. H. Ransom. Yazoo and Mississippi Valley R. R. Co., B. H. Ransom.	$5.00 \\ 5.00 \\ 5.00 \\ 27.50 \\ 19.95$

# WASHINGTON, D. C.-TRANSPORTATION.

## WASHINGTON, D. C.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
J. Lansburgh Furniture and Carpet Co. Barber & Ross. M. Joyce Engraving Co. Bausch & Lomb Optical Co. Woodward & Lothrop. Underwood Typewriter Co. Do. D. F. Parker.	Set of figures. Engraving of signatúre. Aplanatic lenses. Chairs. Typewriter key tops Typewriter.	$\begin{array}{r} .50\\ 43.88\\ 16.33\\ 2.50\\ 80.00 \end{array}$

Statement of disbursements from the appropriation for eradicating cattle ticks, Bureau of Animal Industry, 1907–8, for the fiscal year ended June 30, 1907.

[Includes vouchers approved for payment prior to March 1, 1908.]

#### ERADICATION OF SOUTHERN CATTLE TICKS.

ATLANTA, GA.-SALARIES.

Payee.	Salary.	Payee.	Salary.
Fry, D. W. S.	$$276.00\ 380.00$	Payne, A. J.	\$618.34
Mize, T. W.		Underwood, H. B.	376.00

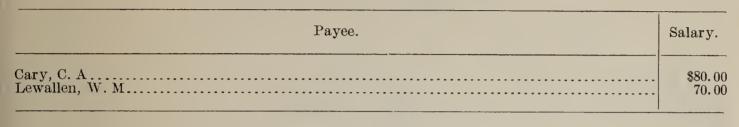
# OPERATIONS OF THE BUREAU OF ANIMAL INDUSTRY. 183

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Statement of disbursements from the appropriation for eradicating cattle ticks, Bureau of Animal Industry, 1907–8, for the fiscal year ended June 30, 1907–Continued.

# ERADICATION OF SOUTHERN CATTLE TICKS-Continued.

### AUBURN, ALA.—SALARIES.



# CLEMSON COLLEGE, S. C.-SALARY.

Klein, L. A.	\$50.00
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## KANSAS CITY, KANS.—SALARIES.

Payee.	Salary.	Payee.	Salary.
Allen, L. J. Beattie, R. S. Chapin, D. C. Dennis, V. A. Fry, W. A. Gibson, C. H. Gourley, T. M. Hahn, R. H.	$\begin{array}{r} 90.\ 00\\ 249.\ 67\\ 455.\ 00\\ 505.\ 00\\ 75.\ 01\\ 325.\ 01\end{array}$	Hiatt, W. L. Jorden, W. D. Lane, G. McCunningham, D. Merritt, J. G. Morledge, R. Parker, J. W. Treeman, F. D.	$\begin{array}{c} 455.00\\ 75.01\\ 105.00\\ 75.01\\ 325.01\\ 570.01 \end{array}$

#### KANSAS CITY, KANS.-MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount
L. J. Allen	Livery	\$75.0
Do	dŏ	60.0
Do	do	57.5
D. D. Chapin	do	67.5
Do	do	60.0
Do	do	60.0
Do.	do	7.5
V. A. Dennis.	do	54.0
	do	$60.0 \\ 31.5$
W. A. Fry Do	do	31.0 35.0
Do.	do	35.0
Do.	do	35.0
C H. Gibson	do	31.5
T. M. Gourley.	do	54.0
Do	do	60.0
Do	do	60.0
Do.	do	60.0
R. H. Hahn	do	30.0
Do	do	56.0
Do	do	60.0
W. L. Hiatt	do	67.5
Do	do	60.0
Do	do	60.0
Do.	do	75.0
W. D. Jorden.	do	31.5
Do	do	35. 0 35. 0
Do	do	35.0
Do D. McCunningham	do	31.5
D. McCunningham J. G. Merritt	do	31.5
Ralph Morledge	do	17.5
Do.	do	60.0
Do.	do	60.0
Do.	do	75.0
F. D. Freeman.	do	31.5
Do	do	35.0
Do	do	35.0
Do	do	35.0
R. S. Beattie	do	31.5
Givens Lane	do	31.5

Statement of disbursements from the appropriation for eradicating cattle ticks, Bureau of Animal Industry, 1907–8, for the fiscal year ended June 30, 1907–Continued.

# ERADICATION OF SOUTHERN CATTLE TICKS-Continued.

## LOS ANGELES, CAL.—SALARIES.

Payee.	Salary.	Payee.	Salary.
Harrington, D. W. Hood, H. B. MacKellar, W. M. Paul, A.	603.35	Raque, C. A. Rosenberger, M. Schofield, M.	5555.00 430.00 505.00

#### LYNCHBURG, VA.—SALARIES.

Emery, F. E	50 Pratt, R. T. 00 Squires, J. H. 00 Williams, J. S.	325.01
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#### LYNCHBURG, VA. MISCELLANEOUS EXPENSES.

Payee.	Article.	Amount.
R. M. Connell.	Livery servicedo	\$37.50 37.50

#### NASHVILLE, TENN.—SALARIES.

Payee.	Salary.	Payee.	Salary.
Ellenberger, W. P. Hanawalt, D. C. Jackson, R. E. Lentz, E. S. Murphy, W. J.	570.01 570.01 280.50	Stewart, W. J Thomason, H. Lewallen, W. M.	585.00 206.67 203.00

#### RALEIGH, N. C.-SALARY.

Payee.	Salary.
Butler, T.	\$86.71

Statement of disbursements from the appropriation for salaries, Bureau of Animal Industry, for the fiscal year ended June 30, 1907.

[Includes vouchers approved for payment prior to March 1, 1908.]

# STATUTORY ROLL.

# WASHINGTON, D. C.-SALARIES.

Payee.	Salary.	Payee.	Salary.
Abel, J. Allen, Burr. Arlitt, J. L. Bennett, E. A. Berlin, S. S. Brez, Colman. Brown, G. S. Browning, A. J. Carroll, C. C. Cassell, A. C. Castleman, S. D. Chase, Jas. L.	$\begin{array}{c} 1,066.\ 66\\ 916.\ 67\\ 291.\ 67\\ 540.\ 00\\ 1,200.\ 00\\ 888.\ 90\\ 450.\ 00\\ 1,800.\ 00\\ 660.\ 00\\ 210.\ 00\\ \end{array}$	Cohran, J. R. Coleman, I. E. Cross, C. H. Dent, Mary T. Dyer, R. W. Edsall, H. M. Fagan, M. E. Field, J. E. Fossum, A. Gibbs, B. H. Gibbs, H. C. Goetz, L. B.	$\begin{array}{c} 306.94\\ 1,400.00\\ 1,140.00\\ 443.33\\ 1,400.00\\ 1,200.00\\ 650.00\\ 440.00\\ ,596.67\\ 230.00\end{array}$

Statement of disbursements from the appropriation for salaries, Bureau of Animal Industry, for the fiscal year ended June 30, 1907—Continued.

# STATUTORY ROLL—Continued.

WASHINGTON, D. C.—SALARIES—Continued.

Graves, J. M. $1,020.00$ Phillips, A. E. $540.00$ Haines, W. S. D. $1,400.00$ Pickens, J. M. $2,000.00$ Haughton, N. F. $1,200.00$ Rapp, E. V. $895.00$ Henderson, A. $990.00$ Reeves, S. R. $300.00$ Hollidge, A. H. $150.00$ Rice, J. A. $1,600.00$ Housman, A. M. $1,383.34$ Roberts, John. $1,600.00$ Johnson, V. E. $596.67$ Russell, G. H. $1,200.00$ Johnson, V. E. $2,000.00$ Rederer, G. W. $350.00$ Johnson, V. E. $2,000.00$ Roberts, John. $1,600.00$ Johnson, V. E. $1,400.00$ Sartz, R. S. N. $350.00$ Johnson, V. E. $2,000.00$ Scheerer, G. W. $350.00$ Johnston, E. C. $1,400.00$ Sartz, R. S. N. $350.00$ Johnston, E. C. $1,400.00$ Scheerer, G. W. $350.00$ Johnston, K. H. $1,200.00$ Scheerer, G. W. $360.00$ Johnston, M. H. $1,200.00$ Scheerer, G. W. $360.00$ Maloy, E. J. $250.00$ Stedman, R. G. $768.00$ Maloy, E. J. $250.00$ Stedman, W. P. $840.00$ Moran, H. E. $1,283.34$ Thompson, R. E. L. $1,100.00$ More, F. C. </th <th>Payee.</th> <th>Salary.</th> <th>Payee.</th> <th>Salary.</th>	Payee.	Salary.	Payee.	Salary.
Oberly, B. C. (see B. O. Rogers below).         373.33         Williams, F. S.         702.00           Patton, H. M.         600.00         Woodin, G. L.         183.33	Graves, J. M. Haines, W. S. D. Haley, J. Haughton, N. F. Henderson, A. Hickey, E. J. Hollidge, A. H. Hornbaker, J. N. Housman, A. M. Johnson, V. E. Johnston, E. C. Jones, E. B. Jones, W. W. La Pelle, Z. Magee, R. W. Mahon, M. H. Maloy, E. J. Melvin, A. D. Meyst, F. W. Moran, H. E, More, F. C. Newmyer, E. J. Nicholas, J. Oberly, B. C. (see B. O. Rogers below). Patton, H. M.	$\begin{array}{c} 1,020.00\\ 1,400.00\\ 800.00\\ 1,200.00\\ 900.00\\ 991.67\\ 150.00\\ 1,383.34\\ 1,400.00\\ 596.67\\ 1,400.00\\ 2,000.00\\ 720.00\\ 1,466.67\\ 1,263.89\\ 1,200.00\\ 250.00\\ 4,500.00\\ 1,008.33\\ 1,283.34\\ 1,217.23\\ 1,400.00\\ 1,600.00\\ 720.00\\ 373.33\\ 600.00\\ \end{array}$	Pfender, C. A.Phillips, A. E.Pickens, J. M.Price, H. N.Rapp, E. V.Reeves, S. R.Reynolds, McP.Rice, J. A.Roberts, John.Rogers, B. O. (née B. C. Oberly).Russell, G. H.Sartz, R. S. N.Scheerer, G. W.Schwahn, E.Shimoneck, W. C.Simonton, L. J.Stedman, R. G.Stedman, Wm. P.Summer, L. C.Swank, W. R.Thompson, R. E. L.Tyson, Fanny.Walters, M. E.Waring, J. H.Wesley, Charles.Williams, F. S.Woodin, G. L.	$\begin{array}{c} \$1, 200, 00\\ 540, 00\\ 2, 000, 00\\ 140, 00\\ 895, 00\\ 300, 00\\ 1, 558, 33\\ 1, 600, 00\\ 1, 558, 33\\ 1, 600, 00\\ 913, 89\\ 1, 200, 00\\ 350, 00\\ 660, 00\\ 218, 00\\ 720, 00\\ 840, 00\\ 768, 00\\ 840, 00\\ 655, 56\\ 1, 183, 33\\ 1, 100, 00\\ 1, 000, 00\\ 1, 000, 00\\ 863, 34\\ 250, 00\\ 300, 00\\ 702, 00\\ \end{array}$

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