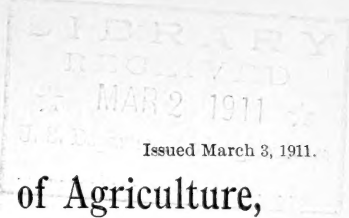


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



United States Department of Agriculture,

DIVISION OF PUBLICATIONS—CIRCULAR No. 13.

JOS. A. ARNOLD, Editor and Chief.

WASHINGTON, February 6, 1911.

PUBLICATIONS OF THE BUREAU OF PLANT INDUSTRY.

NOTE.—Application for publications in this list should be made to the Editor and Chief of the Division of Publications, United States Department of Agriculture, Washington, D. C. The editions of some of the publications are necessarily limited, and when the supply is exhausted and no funds are available for procuring additional copies, applicants are referred to the Superintendent of Documents, Government Printing Office, who has them for sale at a nominal price, under the law of January 12, 1895. Applicants are urgently requested to ask only for those publications in which they are particularly interested. The department can not undertake to supply complete sets, nor is it allowable to send more than one copy of any publication to an applicant.

REPORTS.

Report of the Chief for 1901.

Same, 1906.

Same, 1908.

Same, 1910.

Same, 1907.

Same, 1909.

BULLETINS.

[In applying for these bulletins the name of the bureau as well as the number of the bulletin should be given, as "Bureau of Plant Industry, Bulletin No. 1."]

- Bul. 1. Relation of Lime and Magnesia to Plant Growth: I. Liming of Soils from Physiological Standpoint. II. Experimental Study of Relation of Lime and Magnesia to Plant Growth.
- 2. Spermatogenesis and Fecundation of *Zamia*.
- 4. Range Improvement in Arizona.
- 6. A List of American Varieties of Peppers.
- 10. Records of Seed Distribution and Cooperative Experiments with Grasses and Forage Plants.
- 11. Johnson Grass: Report of Investigations Made during the Season of 1901.
- 17. Some Diseases of the Cowpea: I. The Wilt Disease of the Cowpea and its Control. II. A Cowpea Resistant to Root Knot.
- 18. Observations on the Mosaic Disease of Tobacco.
- 20. Manufacture of Semolina and Macaroni.
- 22. Injurious Effects of Premature Pollination, with General Notes on Artificial Pollination and the Setting of Fruit without Pollination.
- 24. The Manufacture and Preservation of Unfermented Grape Must.
- 25. Miscellaneous Papers. I. The Seeds of Rescue Grass and Chess. II. Saragolla Wheat. III. Plant Introduction Notes from South Africa. IV. Congressional Seed and Plant Distribution Circulars, 1902-3.
- 27. Letters on Agriculture in the West Indies, Spain, and the Orient.
- 29. The Effect of Black-rot on Turnips: A Series of Photomicrographs, Accompanied by an Explanatory Text.
- 31. Cultivated Forage Crops of the Northwestern States.
- 32. A Disease of the White Ash Caused by *Polyporus Fraxinophilus*.
- 33. North American Species of *Leptochloa*.
- 35. Recent Foreign Explorations, as Bearing on the Agricultural Development of the Southern States.

- Bul. 36. The "Bluing" and the "Red-Rot" of the Western Yellow Pine, with Special Reference to the Black Hills Forest Reserve.
37. Formation of the Spores in the Sporangia of *Rhizopus Nigricans* and of *Phycomyces Nitens*.
38. Forage Conditions and Problems in Eastern Washington, Eastern Oregon, Northeastern California, and Northwestern Nevada.
39. The Propagation of the Easter Lily from Seed.
41. The Commercial Grading of Corn.
42. Three New Plant Introductions from Japan.
43. Japanese Bamboos and Their Introduction into America.
45. The Physiological Rôle of Mineral Nutrients in Plants.
51. Miscellaneous Papers: I. The Wilt Disease of Tobacco and Its Control. II. The Work of the Community Demonstration Farm at Terrell, Tex. III. Fruit Trees Frozen in 1904. IV. The Cultivation of the Australian Wattle. V. Legal and Customary Weights per Bushel of Seeds. VI. Golden Seal.
- Same, Part I. The Wilt Disease of Tobacco and Its Control.
- Same, Part II. The Work of the Community Demonstration Farm at Terrell, Tex.
- Same, Part III. Fruit Trees Frozen in 1904.
- Same, Part IV. The Cultivation of the Australian Wattle.
54. Persian Gulf Dates and Their Introduction into America.
55. The Dry-Rot of Potatoes Due to *Fusarium Oxysporum*.
57. Methods Used for Controlling and Reclaiming Sand Dunes.
59. Pasture, Meadow, and Forage Crops in Nebraska.
61. The Avocado in Florida; Its Propagation, Cultivation, and Marketing.
62. Notes on Egyptian Agriculture.
63. Investigations of Rusts.
65. Reclamation of Cape Cod Sand Dunes.
67. Range Investigations in Arizona.
69. American Varieties of Lettuce.
70. The Commercial Status of Durum Wheat.
72. Miscellaneous Papers: I. Cultivation of Wheat in Permanent Alfalfa Fields. II. The Salt Water Limits of Wild Rice. III. Extermination of Johnson Grass. IV. Inoculation of Soil with Nitrogen-Fixing Bacteria.
- Same, Part I. Cultivation of Wheat in Permanent Alfalfa Fields.
- Same, Part II. The Salt Water Limits of Wild Rice.
- Same, Part III. Extermination of Johnson Grass.
73. The Development of Single-Germ Beet Seed.
75. Range Management in the State of Washington.
77. The Avocado: A Salad Fruit from the Tropics.
79. The Variability of Wheat Varieties in Resistance to Toxic Salts.
80. Agricultural Explorations in Algeria.
81. Evolution of Cellular Structures.
82. Grass Lands of the South Alaska Coast.
86. Agriculture without Irrigation in the Sahara Desert.
87. Disease Resistance of Potatoes.
88. Weevil-Resisting Adaptations of the Cotton Plant.
90. Miscellaneous Papers: I. The Storage and Germination of Wild Rice Seed. II. The Crown-Gall and Hairy-Root Diseases of the Apple Tree. III. Peppermint. IV. The Poisonous Action of Johnson Grass.
- Same, Part I. The Storage and Germination of Wild Rice Seed.
- Same, Part II. The Crown-gall and Hairy-root Diseases of the Apple Tree.
- Same, Part III. Peppermint.
- Same, Part IV. The Poisonous Action of Johnson Grass.

- Bul. 91. Varieties of Tobacco Seed Distributed in 1905-6, with Cultural Directions.
100. Miscellaneous Papers: I. Cranberry Spraying Experiments in 1905. II. The Wrapping of Apple Grafts and Its Relation to the Crown-Gall Disease. III. Garlicky Wheat. IV. Methods of Testing the Burning Quality of Cigar Tobacco. V. The Drug Known as Pinkroot. VI. Orchard Grass. VII. The Effect of Copper upon Water Bacteria. VIII. Conditions Affecting Legume Inoculation.
- Same, Part III. Garlicky Wheat.
- Same, Part IV. Methods of Testing the Burning Quality of Cigar Tobacco.
- Same, Part V. The Drug Known as Pinkroot.
- Same, Part VI. Orchard Grass.
- Same, Part VII. The Effect of Copper upon Water Bacteria.
- Same, Part VIII. Conditions Affecting Legume Inoculation.
101. Contents of and Index to Bulletins Nos. 1 to 100, Inclusive.
102. Miscellaneous Papers: I. Summary of Recent Investigations of the Value of Cacti as Stock Food. II. A Successful Dairy Farm. III. Planning a Cropping System. IV. The Application of Vegetative Propagation to Leguminous Forage Plants. V. The Control of Texas Root-Rot of Cotton. VI. The History of the Cowpea and Its Introduction into America. VII. A New Method for the Determination of Nicotine in Tobacco.
- Same, Part I. Summary of Recent Investigations of the Value of Cacti as Stock Food.
- Same, Part II. A Successful Dairy Farm.
- Same, Part IV. The Application of Vegetative Propagation to Leguminous Forage Plants.
107. American Root Drugs.
110. Cranberry Diseases.
111. Miscellaneous Papers: Part I. The Larkspurs as Poisonous Plants. II. The Fibers of Long-Staple Upland Cottons. III. Imported Low-Grade Clover and Alfalfa Seed. IV. Forage Crops for Hogs in Kansas and Oklahoma. V. The Culture and Uses of Brome-Grass.
- Same, Part II. The Fibers of Long-staple Upland Cottons.
- Same, Part IV. Forage Crops for Hogs in Kansas and Oklahoma.
- Same, Part V. The Culture and Uses of Brome-Grass.
114. Sap-Rot and Other Diseases of the Red Gum.
115. The Disinfection of Sewage Effluents for the Protection of Public Water Supplies.
116. The Tuna as Food for Man.
117. The Reseeding of Depleted Range and Native Pastures.
119. The Mulberry and Other Silkworm Food Plants.
120. The Production of Easter Lily Bulbs in the United States.
121. Miscellaneous Papers: I. The Supposed Relationship of White Snakeroot to Milksickness, or "Trembles." II. Mountain Laurel: A Poisonous Plant. III. Results of Loco-Weed Investigations in the Field and Laboratory Work on Loco-Weed Investigations. IV. The Sources of Arsenic in Certain Samples of Dried Hops. V. Apple Leaf-Spot Caused by *Sphaeropsis Malorum*. VI. The Immunity of the Japanese Chestnut to the Bark Disease.
- Same, Part I. The Supposed Relationship of White Snakeroot to Milksickness or "Trembles."
- Same, Part II. Mountain Laurel, a Poisonous Plant.
- Same, Part IV. The Sources of Arsenic in Certain Samples of Dried Hops. Stockberger, Expert, Drug-plant Investigations.
- Same, Part V. Apple Leaf-spot Caused by *Sphaeropsis Malorum*.
- Same, Part VI. The Immunity of the Japanese Chestnut to the Bark Disease.
122. Curly-Top, a Disease of the Sugar Beet.
123. The Decay of Oranges while in Transit from California.

- Bul. 124. The Prickly Pear as a Farm Crop.
125. Dry-Land Olive Culture in Northern Africa.
127. The Improvement of Mountain Meadows.
128. Egyptian Cotton in the Southwestern United States.
129. Barium, a Cause of the Loco-Weed Disease.
130. Dry-Land Agriculture. Papers Read at the Second Annual Meeting of the Cooperative Experiment Association of the Great Plains Area, Held at Manhattan, Kans., June 26-27, 1907.
131. Miscellaneous Papers: I. The Germination of Vegetable Seeds. II. The Botanical History and Classification of Alfalfa. III. The Cross-Inoculation of Fruit Trees and Shrubs with Crown-Gall. IV. Recent Studies of the Olive-Tubercle Organism. V. The Nectaries of Cotton.
- Same, Part I. The Germination of Vegetable Seeds.
- Same, Part II. The Botanical History and Classification of Alfalfa.
- Same, Part III. The Cross-Inoculation of Fruit Trees and Shrubs with Crown-Gall.
- Same, Part IV. Recent Studies of the Olive-tubercle Organism.
- Same, Part V. The Nectaries of Cotton.
133. Peach, Apricot, and Prune Kernels as By-Products of the Fruit Industry of the United States.
134. The Influence of a Mixture of Soluble Salts, Principally Sodium Chlorid, upon the Leaf Structure and Transpiration of Wheat, Oats, and Barley.
135. Orchard Fruits in the Piedmont and Blue Ridge Regions of Virginia and the South Atlantic States.
136. Methods and Causes of Evolution.
137. Seeds and Plants Imported during the Period from January 1 to March 31, 1908. Inventory No. 14; Nos. 21732 to 22510.
139. American Medicinal Barks.
141. Miscellaneous Papers: I. The Relation of Nicotine to the Burning Quality of Tobacco. II. The Granville Tobacco Wilt. III. The Florida Velvet Bean and Its History. IV. The Importance of Broad Breeding in Corn. V. The Present Status of the Chestnut-Bark Disease.
- Same, Part II. The Granville Tobacco Wilt.
- Same, Part III. The Florida Velvet Bean and its History.
- Same, Part IV. The Importance of Broad Breeding in Corn.
- Same, Part V. The Present Status of the Chestnut Bark Disease.
142. Seeds and Plants Imported during the Period from April 1 to June 30, 1908. Inventory No. 15; Nos. 22511 to 23322.
143. Principles and Practical Methods of Curing Tobacco.
144. Apple Blotch, a Serious Disease of Southern Orchards.
145. Vegetation Affected by Agriculture in Central America.
146. The Superiority of Line Breeding over Narrow Breeding.
147. Suppressed and Intensified Characters in Cotton Hybrids.
148. Seeds and Plants Imported during the Period from July 1 to September 30, 1908. Inventory No. 16; Nos. 23323 to 23744.
149. Diseases of Deciduous Forest Trees.
150. The Wild Alfalfas and Clovers of Siberia, with a Perspective View of the Alfalfas of the World.
151. Fruits Recommended by the American Pomological Society for Cultivation in the Various Sections of the United States and Canada.
152. The Loose Smuts of Barley and Wheat.
153. Seeds and Plants Imported during the Period from October 1 to December 31, 1908. Inventory No. 17; Nos. 23745 to 24429.
154. Farm Water Supplies of Minnesota.
155. The Control of Black-Rot of the Grape.
156. A Study of Diversity in Egyptian Cotton.

- Bul. 157. The Truckee-Carson Experiment Farm.
 158. The Root-Rot of Tobacco Caused by *Thielavia Basicola*.
 159. Local Adjustment of Cotton Varieties.
 160. Italian Lemons and Their By-Products. I. The Italian Lemon Industry.
 II. The By-Products of the Lemon in Italy.
 161. A New Type of Indian Corn from China.
 162. Seeds and Plants Imported during the Period from January 1 to March 31,
 1909. Inventory No. 18; Nos. 24430 to 25191.
 163. Varieties of American Upland Cotton.
 164. Promising Root Crops for the South. I. Yautias, Taros, and Dasheens.
 II. Agricultural History and Utility of the Cultivated Aroids.
 166. The Mistletoe Pest in the Southwest.
 168. Seeds and Plants Imported during the Period from April 1 to June 30, 1909.
 Inventory No. 19; Nos. 25192 to 25717.
 169. Variegated Alfalfa.
 170. Traction Plowing.
 171. Some Fungous Diseases of Economic Importance. I. Miscellaneous Dis-
 eases. II. Pineapple Rot Caused by *Thielaviopsis Paradoxa*.
 173. Seasonal Nitrification as Influenced by Crops and Tillage.
 174. The Control of Peach Brown-rot and and Scab.
 175. The History and Distribution of Sorghum.
 176. Seeds and Plants Imported During the Period from July 1 to September 30,
 1909. Inventory No. 20; Nos. 25718 to 26047.
 177. A Protected Stock Range in Arizona.
 178. Improvement of the Wheat Crop in California.
 179. The Florida Velvet Bean and Related Plants.
 180. Agricultural and Botanical Explorations in Palestine.
 181. The Curly-top of Beets.
 182. Ten Years Experience with the Swedish Select Oat.
 183. Field Studies of the Crown-gall of the Grape.
 184. The Production of Vegetable Seeds: Sweet Corn and Garden Peas and
 Beans.
 185. Cold Resistance of Alfalfa and Some Factors Influencing It.
 187. A study of Cultivation Methods and Crop Rotation for the Great Plains
 Area.
 189. The Source of the Drug *Dioscorea*, with a Consideration of the *Dioscorea*
 Found in the United States.
 190. Orchard Green-Manure Crops in California.
 191. The Value of First-generation Hybrids in Corn.
 192. The Drought Resistance of the Olive in the Southwestern States.
 193. Experiments in Blueberry Culture.
 195. The Production of Volatile Oils and Perfumery Plants in the United
 States.
 196. Breeding Drought-resistant Forage Plants for the Great Plains Area.
 198. Dimorphic Branches in Tropical Crop Plants: Cotton, Coffee, Cacao, the
 Central American Rubber Tree, and the Banana.
 199. The Determination of the Deterioration of Maize, with Incidental Refer-
 ence to Pellagra.
 200. Breeding New Types of Egyptian Cotton.
 203. The Importance and Improvement of the Grain Sorghums.

MISCELLANEOUS.

[In applying for these publications the name of the bureau as well as the full title of the publication should be given.]

Crimson Clover Seed.

The Agricultural Grasses and Forage Plants of the United States; and Such Foreign Kinds as have been Introduced.

Nut Culture in the United States.

A New Hollyhock Disease.

Peach Rot and Peach Blight.

A Disease of Almond Trees. Suggestions in Regard to the Treatment of *Cercospora Circumacisea*.

Proceedings of the National Convention for the Suppression of Insect Pests and Plant Diseases by Legislation.

CIRCULARS.

[In applying for these circulars the name of the bureau as well as the number of the circular should be given, as "Bureau of Plant Industry, Circular No. 2."]

Circ. 2. An Improved Method of Separating Buckhorn from Red Clover and Alfalfa Seeds.

3. Some Stem Tumors or Knots on Apple and Quince Trees.

4. The Treatment of Damping-Off in Coniferous Seedlings.

5. Barley Culture in the Northern Great Plains.

6. The Cultivation and Handling of Goldenseal.

7. The Field Treatment of Tobacco Root-rot.

8. The Smuts of Sorghum.

9. Texas Root-Rot of Cotton: Field Experiments in 1907.

10. Notes on Dry Farming.

11. Danger in Judging Cotton Varieties by Lint Percentages.

13. The Work of the San Antonio Experiment Farm in 1907.

15. The Fertilizing Value of Hairy Vetch for Connecticut Tobacco Fields.

16. A New Basis for Barley Valuation and Improvement.

17. Index to Papers Relating to Plant-Industry Subjects in the Yearbooks of the United States Department of Agriculture.

18. Reappearance of a Primitive Character in Cotton Hybrids.

19. The Decay of Florida Oranges while in Transit and on the Market.

20. An Electrical Resistance Method for the Rapid Determination of the Moisture Content of Grain.

21. Farmers' Cooperative Demonstration Work in Its Relation to Rural Improvement.

22. Farm Methods of Applying Land Plaster in Western Oregon and Western Washington.

23. Potato Diseases in San Joaquin County, California.

24. Alfalfa in Cultivated Rows for Seed Production in Semiarid Regions.

25. The Cost of Clearing Logged-Off Land for Farming in the Pacific Northwest.

26. Some Factors Affecting the Keeping Qualities of American Lemons.

27. Lime-Sulphur Mixtures for the Summer Spraying of Orchards

28. Clover-Seed Production in the Willamette Valley, Oregon.

29. Experiments with Egyptian Cotton in 1908.

30. Improvement of the Oat Crop.

31. Notes on the Number and Distribution of Native Legumes in Nebraska and Kansas.

32. Moisture Content and Shrinkage in Grain.

33. The Necessity for New Standards of Hop Valuation.

35. The Present Status of the White-Pine Blights.

36. The Bud-Rot of the Coconut Palm.

- Circ. 37. Comparative Tests of Sugar-Beet Varieties.
41. The South African Pipe Calabash.
 42. Origin of the Hindi Cotton.
 44. Minor Articles of Farm Equipment.
 45. The Utilization of Pea-cannery Refuse for Forage.
 46. The Limitation of the Satsuma Orange to Trifoliolate-orange Stock.
 47. Prickly Comfrey as a Forage Crop.
 48. The Present Status of the Tobacco Industry.
 49. Improvement of Pastures in Eastern New York and the New England States.
 50. Three Much-misrepresented Sorghums.
 51. Fruit Growing for Home Use in the Central and Southern Great Plains.
 52. Wart Disease of the Potato.
 53. Mutative Reversions in Cotton.
 54. The Substitution of the Lime-sulphur Preparations for Bordeaux Mixture in the Treatment of Apple Diseases.
 56. Some Conditions Influencing the Yield of Hops.
 57. The Cultivation of Hemp in the United States.
 58. Experiments on the Apple with Some New and Little-Known Fungicides.
 59. Dry-land Grains for Western North, and South Dakota.
 60. Suggestions to Settlers on the Sandy Soils of the Columbia River Valley.
 61. Dry-land Grains in the Great Basin.
 62. The Separation of Seed Barley by the Specific Gravity Method.
 63. Methods of Legume Inoculations.
 64. Agricultural Conditions in Southern New York.
 65. Grape Spraying Experiments in Michigan.
 66. Cotton Selection on the Farm by the Characters of the Stalks, Leaves, and Bolls.
 67. Seed Sterilization and Its Effects upon Seed Inoculation.
 68. Handling Wheat from Field to Mill.
 70. Additional Notes on the Number and Distribution of Native Legumes in Nebraska and Kansas.
 71. Legume Inoculation and the Litinus Reaction of Soils.
 72. A Moisture Testure for Grains and Other Substances and How to Use it.

DOCUMENTS.

[In applying for these publications the name of the bureau as well as the number of the publication should be given, as "Bureau of Plant Industry, Document A-51."]

- Doc. A-51. Field Instructions for Farmers' Cooperative Demonstration Work.
- A-52. Economize! Cut Down the Expense of the Farm.
 - A-65. Commercial Fertilizers: Their Use and Value.
 - A-67. The Selection of Cotton and Corn Seed for Southern Farms.
 - A-68. Fall Breaking and the Preparation of the Seed Bed.
 - A-69. Field Instructions for Farmers' Cooperative Demonstration Work.
 - A-71. The Production of Cotton Under Boll-Weevil Conditions.
 - A-72. Farm Fertilizers—Barnyard Manures.
 - A-73. Crops for Southern Farms—The Corn Crop.
 241. Brief Cultural Directions for Tobacco.
 338. Distribution of Cotton Seed in 1908.
 416. The Wild Onion.
 433. Directions for Making Winter Gardens.
 438. Cooperative Distribution of New Varieties of Smyrna Figs and Caprifigs.
 452. Hints to Settlers on the Minidoka Project, Idaho.
 457. Agricultural Conditions in Texas.

Doc. 477. American Ginseng.

- 537. Cooperative Distribution of New Varieties of Smyrna Figs and Caprifigs (Revised Edition).
- 578. Suggestions for Setting Permanent Pastures with Bermuda Grass as a Basis.
- 629. The Burning Quality of Tobacco, with Suggestions for Its Improvement in the Flue-cured Types of Eastern North Carolina and South Carolina.

FARMERS' BULLETINS.

[The Farmers' Bulletins are a series of popular treatises issued by the Department of Agriculture. The following list includes only numbers relating to plant industry and should be applied for by number, as "Farmers' Bulletin No. 27."]

- F. B. 27. Flax for Seed and Fiber.
- 28. Weeds: And How to Kill Them.
- 30. Grape Diseases on the Pacific Coast.
- 86. Thirty Poisonous Plants.
- 91. Potato Diseases and Treatment.
- 101. Millets.
- 113. The Apple and How to Grow It.
- 118. Grape Growing in the South.
- 139. Emmer: A Grain for the Semiarid Regions.
- 140. Pineapple Growing.
- 154. The Home Fruit Garden: Preparation and Care.
- 156. The Home Vineyard, with Special Reference to Northern Conditions.
- 157. The Propagation of Plants.
- 164. Rape as a Forage Crop.
- 167. Cassava.
- 174. Broom Corn.
- 175. Home Manufacture and Use of Unfermented Grape Juice.
- 176. Cranberry Culture.
- 181. Pruning.
- 185. Beautifying the Home Grounds.
- 188. Weeds Used in Medicine.
- 194. Alfalfa Seed.
- 195. Annual Flowering Plants.
- 198. Strawberries.
- 204. The Cultivation of Mushrooms.
- 213. Raspberries.
- 218. The School Garden.
- 219. Lessons from the Grain-Rust Epidemic of 1904.
- 220. Tomatoes.
- 221. Fungous Diseases of the Cranberry.
- 224. Canadian Field Peas.
- 229. The Production of Good Seed Corn.
- 232. Okra: Its Culture and Uses.
- 238. Citrus Fruit Growing in the Gulf States.
- 242. An Example of Model Farming.
- 243. Fungicides and Their Use in Preventing Diseases of Fruits.
- 245. Renovation of Worn-Out Soils.
- 246. Saccharine Sorghums for Forage.
- 248. The Lawn.
- 250. The Prevention of Stinking Smut of Wheat and Loose Smut of Oats.
- 253. The Germination of Seed Corn.
- 254. Cucumbers.

- F. B. 255. The Home Vegetable Garden.
 260. Seed of Red Clover and Its Impurities.
 271. Forage-Crop Practices in Western Oregon and Western Washington.
 272. A Successful Hog and Seed-Corn Farm.
 274. Flax Culture.
 278. Leguminous Crops for Green Manuring.
 279. A Method of Eradicating Johnson Grass.
 280. A Profitable Tenant Dairy Farm.
 282. Celery.
 283. Spraying for Apple Diseases and the Codling Moth in the Ozarks.
 284. Insect and Fungous Enemies of the Grape East of the Rocky Mountains.
 286. Comparative Value of Whole Cotton Seed and Cotton-Seed Meal in Fertilizing Cotton.
 288. Nonsaccharine Sorghums.
 289. Beans.
 291. Evaporation of Apples.
 292. Cost of Filling Silos.
 294. Farm Practice in the Columbia Basin Uplands.
 299. Diversified Farming under the Plantation System.
 301. Home-Grown Tea.
 302. Sea Island Cotton.
 304. Growing and Curing Hops.
 306. Dodder in Relation to Farm Seeds.
 307. Roselle: Its Culture and Uses.
 310. A Successful Alabama Diversification Farm.
 312. A Successful Southern Hay Farm.
 313. Harvesting and Storing Corn.
 314. A Method of Breeding Early Cotton to Escape Boll-Weevil Damage.
 318. Cowpeas.
 319. Demonstration Work in Cooperation with Southern Farmers.
 322. Milo as a Dry-Land Grain Crop.
 323. Clover Farming on the Sandy Jack-Pine Lands of the North.
 324. Sweet Potatoes.
 325. Small Farms in the Corn Belt.
 326. Building up a Run-Down Cotton Plantation.
 331. Forage Crops for Hogs in Kansas and Oklahoma.
 333. Cotton Wilt.
 337. Cropping Systems for New England Dairy Farms.
 339. Alfalfa.
 343. The Cultivation of Tobacco in Kentucky and Tennessee.
 347. The Repair of Farm Equipment.
 354. Onion Culture.
 355. A Successful Poultry and Dairy Farm.
 356. Peanuts.
 357. Methods of Poultry Management at the Maine Agricultural Experiment Station.
 361. Meadow Fescue: Its Culture and Uses.
 362. Conditions Affecting the Value of Market Hay.
 364. A Profitable Cotton Farm.
 365. Potato Growing in Northern Sections.
 368. The Eradication of Bindweed, or Wild Morning-Glory.
 370. Replanning a Farm for Profit.
 372. Soy Beans.

- F. B. 380. The Loco-Weed Disease.
 382. The Adulteration of Forage-Plant Seeds.
 386. Potato Culture on Irrigated Farms of the West.
 395. Sixty-day and Kherson Oats.
 398. Farm Practice in the Use of Commercial Fertilizers in the South Atlantic States.
 400. A more Profitable Corn-planting Method.
 401. The Protection of Orchards in the Pacific Northwest from Spring Frosts by Means of Fires and Smudges.
 402. Canada Bluegrass: Its Culture and Uses.
 406. Soil Conservation.
 407. The Potato as a Truck Crop.
 414. Corn Culture.
 415. Seed Corn.
 416. The Production of Cigar-leaf Tobacco in Pennsylvania.
 417. Rice Culture.
 420. Oats: Distribution and Uses.
 422. Demonstration Work on Southern Farms.
 426. Canning Peaches on the Farms.
 427. Barley Culture in the Southern States.
 428. Testing Farm Seeds in the Home and in the Rural School.

SEPARATE REPRINTS FROM THE YEARBOOK.

[In applying for these separates the number should be given, as "Yearbook Separate No. 15."]

- Ybk. Sep. 15. Some Practical Suggestions for the Suppression and Prevention of Bovine Tuberculosis.
 20. Grasses as Sand and Soil Binders.
 47. Small Fruit Culture for Market.
 89. Grass and Forage Experiment Station at Garden City, Kans.; and Cooperative Branch Stations in the South.
 90. Division of Agrostology.
 124. Hybrids and Their Utilization in Plant Breeding.
 128. Millets.
 176. Progress of Economic and Scientific Agrostology.
 203. Commercial Plant Introduction.
 208. Fungous Diseases of Forest Trees.
 266. Top Working Orchard Trees.
 281. Grape, Raisin, and Wine Production in the United States.
 287. Improvement of Corn by Seed Selection.
 290. Fertilizers for Special Crops.
 320. Relation of Sugar Beets to General Farming.
 330. Promising New Fruits.
 346. Agricultural Development in Argentina.
 351. Sugar-beet Seed Breeding.
 354. Some Uses of the Grapevine and its Fruit.
 361. Cotton Culture in Guatemala.
 401. Progress in Drug-plant Cultivation.
 411. The Present Status of the Nitrogen Problem.
 419. Range Management.
 422. Methods of Reducing the Cost of Producing Beet Sugar.
 441. Progress in Some of the New Work of the Bureau of Plant Industry.
 450. Promising New Fruits.
 456. Cropping System for Stock Farms.

- Ybk. Sep. 459. Truck Farming in the Atlantic Coast States.
 463. Diseases of Ornamental Trees.
 483. The Causes of Southern Rural Conditions and the Small Farm as an Important Remedy.
 487. Types of Farming in the United States.
 490. Intensive Methods and Systematic Rotation of Crops in Tobacco Culture.
 501. The Farmers' Cooperative Demonstration Work.
 503. Conditions Influencing the Production of Sugar-beet Seed in the United States.
 509. Farming as an Occupation for City-bred Men.
 515. Progress in Methods of Producing Higher Yielding Strains of Corn.
 518. Comforts and Conveniences in Farmers' Homes.
 519. Prevention of Frost Injury to Fruit Crops.
 520. The Handling of Deciduous Fruits on the Pacific Coast.
 521. Promising New Fruits.

DIVISION OF AGROSTOLOGY.

BULLETINS.

[In applying for these bulletins the name of the division as well as the number of the bulletin should be given, as "Division of Agrostology, Bulletin No. 1."]

- Bul. 1. Notes on Grasses and Forage Plants of the Southeastern States.
 2. Fodder and Forage Plants, Exclusive of the Grasses.
 3. Useful and Ornamental Grasses.
 4. Studies on American Grasses.
 5. Grasses and Forage Plants of Rocky Mountain Region.
 6. Grasses and Forage Plants of the Dakotas.
 8. Studies on American Grasses.
 9. Notes on the Grasses and Forage Plants of Iowa, Nebraska, and Colorado.
 10. A Report upon the Grasses and Forage Plants of Central Texas.
 11. Studies on American Grasses.
 12. Grasses and Forage Plants and Forage Conditions of the Eastern Mountain Region.
 13. The Red Desert of Wyoming and its Forage Resources.
 14. Economic Grasses.
 15. Forage Plants and Forage Resources of the Gulf States.
 16. Grazing Problems in the Southwest and How to Meet Them.
 18. Studies on American Grasses; Synopsis of Genus *Sitanion*.
 19. The Structure of the Caryopsis of Grasses with Reference to Their Morphology and Classification.
 20. American Grasses. III. Descriptions of the Tribes and Genera.
 21. Studies on American Grasses. The North American Species of *Chaetochloa*.
 22. Cooperative Experiments with Grasses and Forage Plants.
 23. Studies on American Grasses. Revision of the North American Species of *Bromus* occurring North of Mexico.
 24. Studies on American Grasses. I. Some Recent Collections of Mexican Grasses. II. Notes on *Panicum nitidum* Lam. and *Panicum pubescens* Lam. III. Miscellaneous Notes and Descriptions of New Species.
 25. Field Work of the Division of Agrostology: A Review and Summary of the Work Done Since the Organization of the Division, July 1, 1895.

[Cir. 13]

CIRCULARS.

[In applying for these circulars the name of the division as well as the number of the circular should be given, as "Division of Agrostology, Circular No. 1."]

- Circ. 1. A Note on Experimental Grass Gardens.
 2. Hairy Vetch, Sand Vetch, or Russian Vetch.
 3. Saltbushes.
 4. The Renewing of Worn-out Native Prairie Pastures.
 8. Experiments in Range Improvements.
 9. New Species of North American Grasses.
 10. *Poa Fendleriana* and Its Allies.
 11. Flat Pea.
 12. Rape as a Forage Crop.
 13. Florida Beggar Weed, Also Known as Beggar Weed, Florida Clover, Giant Beggar Weed.
 14. Velvet Bean.
 15. Recent Additions to Systematic Agrostology.
 18. Smooth Brome-grass.
 19. New or Little Known Mexican Grasses.
 21. Cooperative Range Grass and Forage Plant Experiments at Highmore, S. Dak.
 22. Grass and Forage Plant Investigations on the Pacific Coast.
 23. Progress of Experiments in Forage Crops and Range Improvement at Abilene, Tex.
 25. Turkestan Alfalfa.
 27. Agrostological Notes.
 28. Grasses and Fodder Plants on Potomac Flats.
 30. New and Little Known Grasses.
 31. Bermuda Grass.
 32. Some Arizona Grasses.
 33. Range Grass and Forage Plant Experiments at Highmore, S. Dak. Report of Progress.
 34. *Aristida Purpurea* Nutt (beard grass).
 35. Agrostological Notes.

DIVISION OF BOTANY.

BULLETINS.

[In applying for these bulletins the name of the division as well as the number of the bulletin should be given, as "Division of Botany, Bulletin No. 6."]

- Bul. 6. Grasses of the Arid Districts. Report of an Investigation of the Grasses of the Arid Districts of Texas, New Mexico, Arizona, Nevada, and Utah in 1887.
 8. A Record of Some of the Work of the Division, including Extracts from Correspondence and Other Communications.
 13. Grasses of the Pacific Slope, including Alaska and Adjacent Islands; Plates and Descriptions of Grasses of California, Oregon, Washington, and the Northwestern Coast, including Alaska.
 16. American Ginseng; Its Commercial History, Protection, and Cultivation.
 17. Legislation against Weeds.
 18. Water Hyacinth, and Its Relation to Navigation in Florida.
 21. Vanilla Culture, as Practiced in Seychelles Islands.
 23. Russian Cereals Adapted for Cultivation in the United States.
 25. Shade in Coffee Culture.
 27. Seeds of Commercial Saltbushes.
 28. The Chayote: A Tropical Vegetable.
 29. The Seed Coats of Certain Species of the Genus *Brassica*.

[Cir. 13]

CIRCULARS.

[In applying for these circulars the name of the division as well as the number of the circular should be given, as "Division of Botany, Circular No. 1."]

- Circ. 1. Hungarian Brome Grass.
 5. Giant Knotweed, or Sachaline.
 7. Tumbling Mustard.
 8. Crimson Clover Hair Balls.
 11. The Vitality of Seed Treated with Carbon Bisulphid.
 13. Observations on Recent Cases of Mushroom Poisoning in District of Columbia.
 14. Dodders Infesting Clover and Alfalfa.
 16. The Section of Seed and Plant Introduction.
 19. Hop Cultivation in Bohemia.
 24. Red Clover Seed.
 28. Rubber Cultivation for Porto Rico.

CONTRIBUTIONS FROM THE U. S. NATIONAL HERBARIUM.

[This series is composed of papers of a technical character, treating principally of systematic botany. Vol. VII and subsequent numbers were published by the National Museum. In making application volume and number should be given, as "Contribution from U. S. Nat. Herb., Vol. I, No. 9."]

- Vol. I, No. 3. List of Plants Collected by Dr. Edward Palmer, in 1890, in Lower California and Western Mexico, at (1) La Paz, (2) San Pedro Martin [Martir] Island, (3) Raza Island, (4) Santa Rosalia and Santa Agueda, (5) Guaymas.
 Vol. I, No. 4. List of Plants Collected by Dr. Edward Palmer, in 1890, in Western Mexico and Arizona, at (1) Alamos, (2) Arizona.
 Vol. I, No. 5. List of Plants Collected by Dr. Edward Palmer, in 1890, on Carmen Island. List of Plants Collected by the U. S. S. Albatross, in 1887-1891, along the Western Coast of America. Revision of the North American Species of Hoffmannseggia. Systematic and Alphabetic Index of New Species of North American Phanerogams and Pteridophytes published in 1891.
 Vol. I, No. 6. List of Plants Collected by C. S. Sheldon and M. A. Carleton in the Indian Territory in 1891. Observations on the Native Plants of Oklahoma Territory and Adjacent Districts.
 Vol. I, No. 7. Systematic and Alphabetic Index to New Species of North American Phanerogams and Pteridophytes published in 1892.
 Vol. I, No. 8. 1. Notes on Some Pacific Coast Grasses. 2. Descriptions of New or Noteworthy Grasses from the United States. 3. Descriptions of New Grasses from Mexico. 4. Descriptions of New Plants from Texas and Colorado. 5. List of Plants New to Florida. 6. Descriptions of Three New Plants. 7. List of Lichens from California and Mexico, Collected by Dr. Edward Palmer, from 1888 to 1892.
 Vol. I, No. 9. Report on a Collection of Plants Made in the States of Sonora and Colima, Mexico, by Dr. Edward Palmer, in the years 1890 and 1891.
 Vol. II, No. 1. Manual of the Phanerogams and Pteridophytes of Western Texas. Polypetalae.
 Vol. II, No. 2. Manual of the Phanerogams and Pteridophytes of Western Texas. Gamopetalae.
 Vol. II, No. 3. Manual of the Phanerogams and Pteridophytes of Western Texas. Apetalac, Monocotyledons, Pteridophyta.
 Vol. II. "Botany of Western Texas," containing 3 parts.
 Vol. III, No. 1. Monograph of the Grasses of the United States and British America. 1892.
 Vol. III, No. 2. Preliminary Revision of the North American Species of Cactus, Anhalonium, and Lophophora.
 Vol. III, No. 3. Flora of the Sand Hills of Nebraska.
 Vol. III, No. 4. Report on a Collection of Plants Made by J. H. Sandberg and Assistants in Northern Idaho in the Year 1892.
 Vol. III, No. 5. Report on Mexican Umbelliferae, Mostly from the State of Oaxaca. Recently Collected by C. G. Pringle and E. W. Nelson. Descriptions of Plants, Mostly New, from Mexico and the United States.

- Vol. III, No. 6. Botany of Yakutat Bay, Alaska.
- Vol. III, No. 7. Preliminary Revision of the North American Species of Echinocactus, Cereus, and Opuntia.
- Vol. III, No. 8. Flora of the Black Hills of South Dakota.
- Vol. III, No. 9. 1. Flora of Southwestern Kansas. Report on a Collection of Plants Made by C. H. Thompson in 1893. 2. *Crepis Occidentalis* and Its Allies. 3. Plants from the Big Horn Mountains of Wyoming. 4. *Leibergia*: A New Genus of Umbelliferae from the Columbia River Region. 5. *Roseanthus*: A New Genus of Cucurbitaceae, from Acapulco, Mexico.
- Vol. III. Complete, containing 9 parts under a single cover.
- Vol. IV. Botany of the Death-Valley Expedition. A Report on the Botany of the Expedition sent out in 1891 by the U. S. Department of Agriculture to make a Biological Survey of the Region of Death Valley, California.
- Vol. V, No. 1. General Report on a Botanical Survey of the Cœur d'Alene Mountains in Idaho during the Summer of 1895.
- Vol. V, No. 2. Notes on the Plants used by the Klamath Indians of Oregon.
- Vol. V, No. 3. Studies of Mexican and Central American Plants.
- Vol. V, No. 4. Studies of Mexican and Central American Plants. No. 2. Two New Species of Plants from the Northwestern United States. *Hesperogenia*: A New Genus of Umbelliferae from Mount Rainier. Three New Species of *Tradescantia* from the United States. *Treleasea*: A New Genus of Commelinaceae. Notes on Useful Plants of Mexico.
- Vol. V, No. 5. Plant Covering of Ocracoke Island: A Study in the Ecology of the North Carolina Strand Vegetation.
- Vol. V, No. 6. Report on a Botanical Survey of the Dismal Swamp Region.
- Vol. VII, No. 1. Monograph of the North American Umbelliferae.
- Vol. VII, No. 2. The Origin and Distribution of the Cocoa Palm.
- Vol. VII, No. 3. Plants Used by the Indians of Mendocino County, California.
- Notes on Useful Plants of Mexico. [Reprint from U. S. National Herbarium, Vol. V, No. 4.]

INVENTORIES. ^a

- Inventory 1. Foreign Seeds and Plants Imported by the Section of Seed and Plant Introduction. Numbers 1-1000.
- Inventory 2. Foreign Seeds and Plants Imported by the Section of Seed and Plant Introduction. Numbers 1001-1900.
- Inventory 5. Foreign Seeds and Plants Imported by the Department of Agriculture, and for distribution through the Section of Seed and Plant Introduction. Numbers 1901-2700.
- Inventory 7. Foreign Seeds and Plants Imported by the Department of Agriculture, through the Section of Seed and Plant Introduction, for distribution in cooperation with the State Agricultural Experiment Stations. Numbers 2701-3400.

DIVISION OF POMOLOGY.

BULLETINS.

[In applying for these bulletins the name of the division as well as the number of the bulletin should be given, as "Division of Pomology, Bulletin No. 2."]

- Bul. 2. Report on the Adaption of Russian and Other Fruits to the Extreme Northern Portions of the United States.
6. Catalogue of Fruits Recommended for Cultivation in the Various Sections of the United States.
7. The Fruit Industry and Substitution of Domestic for Foreign-grown Fruits, with Historical and Descriptive Notes on Ten Varieties of Apple Suitable for the Export Trade.
10. Prunes and Prune Culture in Western Europe with Special Reference to Existing Conditions in the Pacific Northwest.

^a For later numbers see B. P. I. Bulletins.

CIRCULARS.

[In applying for these circulars the name of the division as well as the number of the circular should be given, as "Division of Pomology, Circular No. 1."]

- Circ. 1. Nut Culture.
 2. Prune Culture in the Pacific Northwest.
 40. Notes on Peach Culture.

DIVISION OF VEGETABLE PHYSIOLOGY AND PATHOLOGY.

BULLETINS.

[In applying for these bulletins the name of the division as well as the number of the bulletin should be given, as "Division of Vegetable Physiology and Pathology, Bulletin No. 1."]

- Bul. 1. Additional Evidence on the Communicability of Peach Yellows and Peach Rosette.
 2. The California Vine Disease.
 5. The Pollination of Pear Flowers.
 7. Effect of Spraying with Fungicides on Growth of Nursery Stock.
 8. The Principal Diseases of Citrus Fruits in Florida.
 10. Copper Sulphate and Germination. Treatment of Seed with Copper Sulphate to Prevent the Attacks of Fungi.
 11. Legal Enactments for the Restriction of Plant Diseases.
 12. Bacterial Disease of Tomato, Eggplant, and Irish Potato.
 13. Sooty Mold of the Orange and its Treatment.
 14. The Bermuda Lily Disease.
 16. Cereal Rusts of the United States: A Physiological Investigation.
 17. Wilt Disease of Cotton, Watermelon, and Cowpea.
 18. Physiological Rôle of Mineral Nutrients.
 19. Stigmonose: A Disease of Carnations and Other Pinks.
 20. Peach Leaf Curl: Its Nature and Treatment.
 21. Two Diseases of Red Cedar.
 22. Xenia, or Immediate Effect of Pollen, in Maize.
 23. Spot Disease of the Violet (*Alternaria violæ*).
 26. Wackers Hyacinth Germ *Pseudomonas hyacinthi*.
 28. The Cultural Characters of *Pseudomonas hyacinthi*, *Ps. campestris*, *Ps. phaseoli*, and *Ps. stewarti*—Four One-flagellate Yellow Bacteria Parasitic on Plants.
 29. Plant Breeding.

CIRCULARS.

[In applying for these circulars the name of the division as well as the number of the circular should be given, as "Division of Vegetable Physiology and Pathology, Circular No. 6."]

- Circ. 6. Treatment of Black Rot of the Grape.
 15. Treatment for Sooty Mold of the Orange.
 16. Danger of Introducing a Central American Coffee Disease into Hawaii.
 17. New Spraying Devices.
 18. New Wheat Industry for Semiarid West.

JOURNAL OF MICOLOGY.

[Devoted especially to the study of fungi in their relation to plant diseases.]

- | | | | |
|-----------------|-----------------|-------------------|------------------|
| Vol. V, No. 2. | Vol. VI, No. 3. | Vol. VIII, No. 1. | Vol. VII, No. 3. |
| Vol. VI, No. 1. | Vol. VI, No. 4. | Vol. VII, No. 2. | Vol. VII, No. 4. |
| Vol. VI, No. 2. | | | |

[Cir. 13]

OFFICE OF FIBER INVESTIGATIONS.

REPORTS.

[In applying for these publications the name of the office as well as the number of the report should be given, as "Office of Fiber Investigations, Report No. 4."]

- Rept. 4. Report on Flax Culture for Fiber in the United States, including Special Reports on Flax Culture in Ireland, Belgium, and Austria, with Statements Relative to the Industry in Russia.
5. A Report on the Leaf Fibers of the United States, detailing Results of Recent Investigations Relating to Florida Sisal Hemp, the False Sisal Hemp Plant of Florida, and Other Fiber-producing Agaves; Bowstring Hemp, Pineapple Fiber, New Zealand Flax, and Beargrass.
6. A Report on the Uncultivated Bast Fibers of the United States, including the History of Previous Experiments with the Plants or Fibers, and Brief Statements Relating to the Allied Species that are Produced Commercially in the Old World.
7. A Report on the Cultivation of Ramie in the United States, with Statements Concerning the Practice in Foreign Countries, Cost of Cultivation and Percentages of Yield, the Machine Question, and Preparation of the Fiber for Manufacture.
8. A Report on the Culture of Hemp and Jute in the United States, with Statements Concerning the Practice in Foreign Countries, the Preparation of the Fiber for Market, and Remarks on the Machine Question.
9. A Report on the Descriptive Catalogue of Useful Fiber Plants of World, including Structural and Economic Classifications of Fibers.
10. A Report on Flax Culture for Seed and Fiber in Europe and America.
11. A Report on the Culture of Hemp in Europe, including a Special Consular Report on the Growth of Hemp in Italy, received through the Department of State.

[Cir. 13]

