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A LIST OF FUNGI (USTILAGINALES AND UREDINALES) PREPARED FOR EXCHANGE

FLORA W. PATTERSON

Mycologist in Charge

WILLIAM W. DIEHL

Scientific Assistant, and

EDITH K. CASH

Botanical Translator

Office of Pathological Collections

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WM. A. TAYLOR, Chief

Washington, D. C

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A LIST OF FOREIGN CREDITORS
AND CREDITORS PREPARED
FOR EXCHANGE

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A LIST OF FUNGI (USTILAGINALES AND UREDINALES) PREPARED FOR EXCHANGE.

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EXCHANGE OF DUPLICATE SPECIMENS.

Duplicates of mycological specimens in the United States Department of Agriculture have been distributed by exchange since 1886. Although but one list of such specimens has been published,¹ the Mycological Exchange has been in continuous operation. This exchange is intended primarily for those plant pathologists and mycologists to whom such material is valuable from an economic and educational viewpoint. Requests for specimens have always been complied with whenever possible. When species desired for educational purposes were not available, suitable substitutions have been made. Many specimens belonging to other groups than those listed here are at the disposal of those who ask for them. Requests for species which can not be supplied at the time will be filed and the specimens sent when they can be obtained.

It is greatly to be regretted that all the specimens represented in this list are not in sufficient quantity to permit distribution in uniform sets, at least to State agricultural experiment stations. These are exchanged, specimen for specimen, regardless of the fungus group concerned, when those submitted are in satisfactory condition. Specimens can not be accepted unless they are well preserved, in fair quantity, authentically determined, labeled, and placed in herbarium envelopes.

Many species common in certain localities are rare in others. Specimens, both rare and common, are solicited. In regard to the exchange of undetermined specimens and of material in bulk requiring preparation for herbarium use, arrangements may be made by correspondence.

The attention of specialists is called to the desirability of having type specimens deposited in the Pathological Collections of the Bu-

¹ Patterson, Flora W. A collection of economic and other fungi prepared for distribution. U. S. Bur. Plant Indus. Bul. 8, 31 p. 1902.

reau of Plant Industry, where they are preserved in fireproof and insect-proof steel cases. With proper safeguards, such material is always accessible to accredited workers.

Many specimens in the accompanying list have individual significance in that they are duplicates of standard exsiccati sets; in some instances, noted as "Type coll.," they are of special value, because they are from the same collections as the types used in specific descriptions. Some of those here listed are duplicates of numbers in the Mycological Exchange of 1902. Since agricultural experiment stations and many other institutions may have such specimens in their possession, it is requested that they avoid ordering these again, because such action would prevent their more equitable distribution. Holders of specimens issued from the list of 1902 may find it worth while to note changes of name, especially for duplicates of types since used in describing new species. In cases where these duplicates here appear under a name different from that in the list of 1902 the fact is so noted, but where the name and data are identical these alone establish the connection. These specimens have been identified by competent taxonomists, in many cases by specialists in the groups to which they belong. On special request an endeavor will be made to furnish the name of the taxonomist to whom a specimen may have been referred. There are chances for error, and where errors are encountered it is desirable that they be reported to the Office of Pathological Collections for correction and proper record.

The nomenclature of this list is a matter of convenience, usage giving preferential value.

ABBREVIATIONS OF AUTHORS' NAMES.

And.	Anderson, F. W.	Hornem. ---	Hornemann, J. W.
Arth.	Arthur, J. C.	Howe-----	Howe, E. C.
B.	Berkeley, M. J.	Jackson----	Jackson, H. S.
Barth.	Bartholomew, E.	Jacq.	Jacquin, N. J.
Beckm.	Beckmann, J.	Jens.	Jensen, J. L.
Bethel.	Bethel, E.	Johans. ----	Johanson, C. J.
Billings-----	Billings, J. S.	Johnston----	Johnston, J. R.
Biv.	Bivona-Bernardi, A. de.	Kalch.	Kalchbrenner, K.
Bjerk.	Bjerkander, C.	Karst.	Karsten, P. A.
Blytt-----	Blytt, A.	Kell.	Kellerman, W. A.
Br.	Broome, C. E.	Kern-----	Kern, F. D.
Burr.	Burrill, T. J.	Kleb.	Klebahn, H.
Butl.	Butler, E. J.	Klotzsch----	Klotzsch, J. F.
C.	Curtis, M. A.	Koern.	Koernicke, F.
Carleton-----	Carleton, M. A.	Kuehn-----	Kuehn, J.
Cast.	Castagne, L.	Kze.	Kunze, G.
Cda.	Corda, A. C. J.	L.	Linnaeus, C.
Cke.	Cooke, M. C.	Lagh.	Lagerheim, G. von.
Clint.	Clinton, G. P.	Lasch-----	Lasch, W. G.
Cornu-----	Cornu, M.	Lév.	Léveillé, J. H.
Dang.	Dangeard, P. A.	Lindr.	Lindroth, J. I.
Davis-----	Davis, J. J.	Lk.	Link, H. F.
DBy.	DeBary, A.	Long-----	Long, W. H.
DC.	DeCandolle, A. P.	Magn.	Magnus, P.
DeLac.	DeLacroix, l'Abbé S.	Mart.	Martius, C. F. P. von.
Desm.	Desmazières, J. B. H. J.	Miyabe-----	Miyabe, K.
DeToni-----	DeToni, G. B.	Mont.	Montagne, J. F. C.
Diet.	Dietel, P.	Nees-----	Nees von Esenbeck, C. G.
Duby-----	Duby, J. E.	Niels.	Nielsen, P.
Earle-----	Earle, F. S.	Niessl-----	Niessl, G. von.
Ed. Fisch. ---	Fischer, Eduard.	Opiz-----	Opiz, P. M.
Ehrenb.	Ehrenberg, C. G.	Otth-----	Otth, G. H.
Ell.	Ellis, J. B.	Oud.	Oudemans, C. A. J. A.
Eriks.	Eriksson, J.	P.	Persoon, C. H.
Ev.	Everhart, B. M.	Pat.	Patouillard, N.
Farl.	Farlow, W. G.	Pk.	Peck, C. H.
Fckl.	Fuckel, L.	Plow.	Plowright, C. B.
Fisch.	Fischer von Waldheim, A.	Preuss-----	Preuss, C. G. T.
Fr.	Fries, E. M.	Rabh.	Rabenhorst, G. L.
Fromme-----	Fromme, F. D.	Rav.	Ravenel, H. W.
Gall.	Galloway, B. T.	Reb.	Rebentisch, J. F.
Grev.	Greville, R. K.	Rostr.	Rostrup, E.
Hedw. f.	Hedwig, R. A.	Roze-----	Roze, E.
Henn.	Hennings, P.	S.	Schweinitz, L. D. von.
Holw.	Holway, E. W. D.	Sacc.	Saccardo, P. A.

Schl.	Schlechtendahl, D. F. L. von.	Tr.	Tracy, S. M.
Schm.	Schmidt, J. K.	Tranz.	Tranzschel, W. A.
Schr.	Schröeter, J.	Trel.	Trelease, W.
Schultz.	Schultz, C. F.	Trotter.	Trotter, A.
Schum.	Schumacher, C. F.	Tul.	Tulasne, L. R. (or)
Setch.	Setchell, W. A.		Tulasne, C. and L. R.
Seym.	Seymour, A. B.	Underw.	Underwood, L. M.
Sheldon.	Sheldon, J. L.	Ung.	Unger, F.
Shear.	Shear, C. L.	Vester.	Vestergren, T.
Sow.	Sowerby, J.	Vize.	Vize, J. E.
Speg.	Spegazzini, C.	Wallr.	Wallroth, F. W.
Sw.	Swingle, W. T.	Webber.	Webber, H. J.
Syd.	Sydow, H. and P.	West.	Westendorp, G. D.
Thuem.	Thuemen, F. von.	Wint.	Winter, G.

OTHER ABBREVIATIONS AND SYMBOLS.

Econ. F.	Seymour, A. B., and Earle, F. S.: Economic Fungi; Supplement B (Uredineæ) edit. Seymour and Earle; Supplement C (Ustilagineæ) edit. G. P. Clinton.
F. Col.	Fungi Columbiani, edit. Ellis, J. B., and Everhart, B. M.; Shear, C. L.; Bartholomew, E.
F. Dak.	Brenckle, J. F.: Fungi Dakotenses.
N. A. F.	Ellis, J. B., and Everhart, B. M.: North American Fungi.
N. A. Ured.	Bartholomew, E.: North American Uredinales.
Ohio F.	Kellerman, W. A.: Ohio Fungi.
Syd.: Ured.	Sydow, P.: Uredineen.
Ured. exs. et ic.	Arthur, J. C., and Holway, E. W. D.: Uredineæ exsiccatæ et icones.
Vester.: Micr.	Vestergren, T.: Micromycetes rariores selecti.
West A. F.	Griffiths, D.: West American Fungi.
1902 Myc. Ex.	Patterson, F. W., Bureau of Plant Industry Bulletin 8, 1902.
S. P. I.	Introduction number given by Office of Foreign Seed and Plant Introduction, Bureau of Plant Industry.
Type coll.	"Of the type collection" or material similar to the type, and collected at the same locality and time with the type used in describing the species.
O.	Spermatogonial stage of Uredinales.
I.	Æcidial stage of Uredinales.
II.	Uredo stage of Uredinales.
III.	Teleuto stage of Uredinales.
X.	Used without distinction for amphispore or mesospore stage of Uredinales.

USTILAGINALES.

CINTRACTIA.

1. *Cintractia axicola* (B.) Cornu, on *Fimbristylis autumnalis*.
Spiro, Okla., Oct. 22, 1913, E. Bartholomew. Dupl. F. Col. 4406.
2. *C. caricis* (P.) Magn., on *Carex atrata*.
Lake Grinnell, Glacier Nat. Park, Mont., Aug. 27, 1915, E. T. Bartholomew. Dupl. F. Col. 4908.
3. *C. junci* (S.) Trel., on *Juncus tenuis*.
Newark, Del., July 2, 1907, H. S. Jackson. Dupl. F. Col. 2416.
4. *C. junci* (S.) Trel., on *Juncus tenuis*.
Virginia, May, 1910, W. H. Long.

DOASSANSIA.

5. *Doassansia alismatis* (Nees) Cornu, on *Alisma plantago-aquatica*.
Near Skive, Jutland, Denmark, Aug. 16, 1902, J. Lind.
6. *D. opaca* Setch., on *Sagittaria latifolia*.
Cambridge, Mass., Sept. 4, 1897, A. B. Seymour. Dupl. Econ. F. C 12.

ENTYLOMA.

7. *Entyloma compositarum* Farl., on *Lepachis pinnata*.
Ann Arbor, Mich., July 7, 1892, H. L. Merrow.
8. *E. glaucii* Dang., on *Glaucium flavum*.
Near Skive, Jutland, Denmark, Aug. 13, 1902, J. Lind.
9. *E. lineatum* (Cke.) Davis, on *Zizania aquatica*.
Winona, Minn., Aug. 23, 1888, J. M. Holzinger.
10. *E. lobeliae* Farl., on *Lobelia inflata*.
Granville, Mass., Aug., 1889, A. B. Seymour.
11. *E. microsporum* (Ung.) Schr., on *Ranunculus septentrionalis*.
Urbana, Ill., Oct., 1898, G. P. Clinton. Dupl. Econ. F. C 26.
12. *E. thalictri* Schr., on *Thalictrum dioicum*.
Madison, Wis., Sept. 2, 1885, W. Trelease and A. B. Seymour.

MELANOPSICHIMUM.

13. *Melanopsichium austro-americanum* (Speg.) G. Beck, on *Polygonum pennsylvanicum*.
Phillipsburg, Kans., Aug. 23, 1910, E. Bartholomew.

SOROSPORIUM.

14. *Sorosporium ellisii* Wint., on *Andropogon glomeratus*.
Shreveport, La., Oct. 9, 1913, E. Bartholomew.
15. *S. everhartii* Ell. and Gall., on *Andropogon scoparius*.
Highland Park, Alexandria County, Va., Oct. 5, 1919, W. W. Diehl.

16. *S. syntherismae* (Pk.) Farl., on *Cenchrus tribuloides*.
Stockton, Kans., Sept. 10, 1917,
E. Bartholomew.
17. *S. syntherismae* (Pk.) Farl., on *Panicum dichotomiflorum*.
Champaign, Ill., Sept. 18, 1889,
M. B. Waite.
18. *S. syntherismae* (Pk.) Farl., on *Panicum dichotomiflorum*.
18. *S. syntherismae*—Continued.
Emporia, Kans., Oct. 26, 1903,
J. E. Bartholomew. Dupl. Syd.:
Ured. 348.
19. *S. syntherismae* (Pk.) Farl., on *Panicum dichotomiflorum*.
Tryon, N. C., Aug., 1909, H. A.
Edson.
20. *S. syntherismae* (Pk.) Farl., on *Panicum dichotomiflorum*.
Arlington, Va., Sept. 21, 1910,
A. A. Potter.

SPHACELOTHECA.

21. *Sphacelotheca ischaemi* (Fekl.) Clint., on *Andropogon scoparius* (?).
Fostoria, Arlington County,
Va., June 12, 1920, W. W. Diehl.
22. *S. monilifera* (Ell. and Ev.) Clint., on *Heteropogon contortus*.
Santa Rita Mountains, Ariz.,
Oct., 1902, D. Griffiths.
23. *S. occidentalis* Clint., on *Andropogon hallii*.
Anselm, N. Dak., Aug. 13,
1916, J. F. Brenckle. Dupl. F.
Dak. 421.
24. *S. sorghi* (Lk.) Clint., on *Sorghum saccharatum*.
Akron, Colo., 1910, A. A. Potter.
25. *S. sorghi* (Lk.) Clint., on *Sorghum saccharatum technicus*.
Washington, D. C., 1902, C. P.
Hartley.
26. *S. sorghi* (Lk.) Clint., on *Sorghum vulgare*.
Manhattan, Kans., Aug. 19,
1890, W. T. Allen, 1202. Dupl.
1902 Myc. Ex. 198 as *Ustilago sorghi*.
27. *S. sorghi* (Lk.) Clint., on *Sorghum vulgare*.
Manhattan, Kans., Aug. 19,
1890, W. T. Allen, 1208. Dupl.
1902 Myc. Ex. 198 as *Ustilago sorghi*.
28. *S. sorghi* (Lk.) Clint., on *Sorghum vulgare*.
Washington, D. C., Oct. 14,
1902, J. B. Rorer.
29. *S. sorghi* (Lk.) Clint., on *Sorghum vulgare*.
Stockton, Kans., Sept. 18,
1906, E. Bartholomew.
30. *S. sorghi* (Lk.) Clint., on *Sorghum vulgare durra*.
Manhattan, Kans., Sept. 22,
1898, G. L. Clothier. Dupl. F.
Col. 1483.
31. *S. sorghi* (Lk.) Clint., on *Sorghum vulgare durra*.
Arlington Experimental Farm,
Va., Oct. 4, 1902, C. R. Ball.
32. *S. sorghi* (Lk.) Clint., on *Sorghum vulgare durra*.
Arlington Experimental Farm,
Va., Oct. 15, 1902, C. R. Ball.
33. *S. sorghi* (Lk.) Clint., on *Sorghum vulgare roxburghii*.
Amarillo, Tex., 1908, A. A.
Potter.

TILLETIA.

34. *Tilletia asperifolia* Ell. and Ev., on *Sporobolus confusus*.
Gunnison, Colo., Aug. 31, 1899,
E. Bartholomew.
35. *T. controversa* Kuehn, on *Agropyron repens*.
Skive, Jutland, Denmark, Oct.
12, 1902, J. Lind.
36. *T. holci* (West.) Rostr., on *Holcus lanatus*.
Woods Hole, Mass., July 11,
1914, E. F. Smith.
37. *T. holci* (West.) Rostr., on *Holcus mollis*.
Skive, Jutland, Denmark, Aug.
10, 1902, J. Lind.

38. *T. laevis* Kuehn, on *Triticum sativum*.
Lansing, Mich., 1894, W. J. Beal. Dupl. Econ. F. C 50.
39. *T. laevis* Kuehn, on *Triticum sativum*.
Billings, Mo., July 18, 1912, W. W. Shafer.
40. *T. pulcherrima* Ell. and Gall., on *Digitaria sanguinalis*.
Starkville, Miss., Oct. 7, 1895, S. M. Tracy. Dupl. Econ. F. 543.
41. *T. tritici* (Bjerk.) Wint., on *Triticum sativum*.
Pullman, Wash., Aug., 1917, G. L. Zundel.

UROCYSTIS.

42. *Urocystis agropyri* (Preuss) Schr., on *Agropyron divergens*.
Bingen, Wash., May 28, 1899, W. N. Suksdorf.
43. *U. occulta* (Wallr.) Rabh., on *Secale cereale*.
Arlington Experimental Farm, Va., May 24, 1919, G. M. Reed.
44. *U. tritici* Koern., on *Triticum sativum*.
44. *U. tritici*—Continued.
Granite City, Ill., June 6, 1919, G. M. Reed.
45. *U. waldsteiniae* Pk., on *Geum triflorum*.
Maxville, Mont., July 2, 1917, J. A. Hughes.
46. *U. waldsteiniae* Pk., on *Waldsteinia fragarioides*.
Alcove, N. Y., May, 1893, C. L. Shear. Dupl. Econ. F. C 62.

USTILAGO.

47. *Ustilago avenae* Jens., on *Avena sativa*.
Walton, N. Y., Sept. 12, 1913, A. E. Jenkins.
48. *U. boutelouae* Kell. and Sw., on *Bouteloua oligostachya*.
Stockton, Kans., Aug. 15, 1896, E. Bartholomew.
49. *U. bromivora* Fisch., on *Bromus* sp.
Camp Badger, Calif., June 3, 1892, comm. E. W. D. Holway. Dupl. Econ. F. 534.
50. *U. bromivora* Fisch., on *Bromus* sp.
Ukiah, Calif., May 23, 1894, W. C. Blasdale. Dupl. Econ. F. C 65.
51. *U. bromivora* Fisch., on *Bromus hordeaceus*.
Thompson Falls, Mont., June, 1911, H. E. Morris.
52. *U. bromivora* Fisch., on *Bromus hordeaceus*.
Hood River, Oreg., July 13, 1919, G. M. Reed.
53. *U. bromivora* Fisch., on *Bromus marginatus*.
Pullman, Wash., July 21, 1919, G. M. Reed.
54. *U. bromivora* Fisch., on *Bromus secalinus*.
McMinnville, Oreg., July 14, 1919, G. M. Reed.
55. *U. bromivora* Fisch., on *Bromus tectorum*.
Fort Douglas, Utah, July 14, 1918, J. F. Brenckle.
56. *U. crameri* Koern., on *Setaria italica*.
Aberdeen, S. Dak., Oct., 1895, D. Griffiths.
57. *U. cynodontis* Henn., on *Cynodon dactylon*.
Kearney, Calif., June 25, 1919, W. W. Mackie and G. M. Reed.
58. *U. esculenta* Henn., on *Zizania aquatica*.
U. S. Dept. Agr. greenhouse, Washington, D. C., Nov. 15, 1911, comm. C. S. Scofield.
59. *U. grandis* Fr., on *Phragmites communis*.
Viborg, Jutland, Denmark, Oct. 8, 1902, J. Lind.
60. *U. heufleri* Fekl., on *Erythronium americanum*.
Newark, Del., May 7, 1906, H. S. Jackson.

61. *U. hordei* Kell. and Sw., on *Hordeum vulgare*.
Orono, Me., Aug. 14, 1890,
F. L. Harvey.
62. *U. hordei* Kell. and Sw., on *Hordeum vulgare*.
Kulm, N. Dak., Sept., 1908, J.
F. Brenckle.
63. *U. hordei* Kell. and Sw., on *Hordeum vulgare*.
Madison, Wis., Oct. 22, 1910,
E. T. Bartholomew.
64. *U. hordei* Kell. and Sw., on *Hordeum vulgare*.
Arlington Experimental Farm,
Va., May 20, 1919, G. M. Reed.
65. *U. hordei* Kell. and Sw., on *Hordeum vulgare*.
Arlington Experimental Farm,
Va., May 15, 1919, G. M. Reed.
66. *U. hypodytes* (Schl.) Fr., on
Stipa eminens.
Berkeley, Calif., May 18, 1894,
E. W. D. Holway.
67. *U. hypodytes* (Schl.) Fr., on
Stipa spartea.
Ames, Iowa, July 9, 1892, F.
C. Stewart. Dupl. Econ. F. C
70.
68. *U. longissima* (Sow.) Tul., on
Glyceria fluitans.
East Lansing, Mich., July 4,
1891, W. J. Beal and C. F.
Wheeler.
69. *U. longissima* (Sow.) Tul., on
Glyceria grandis.
East Lansing, Mich., June 12,
1891, W. J. Beal. Dupl. Econ.
F. 541.
70. *U. lorentziana* Thuem., on *Hordeum jubatum*.
Kulm, N. Dak., July 5, 1908,
J. F. Brenckle.
71. *U. lorentziana* Thuem., on *Hordeum jubatum*.
Bozeman, Mont., July 26,
1919, G. M. Reed.
72. *U. neglecta* Niessl, on *Setaria glauca*.
Lansing, Mich., Sept. 8, 1891,
W. J. Beal.
73. *U. neglecta* Niessl, on *Setaria glauca*.
Waverley, Mass., Sept., 1903,
A. B. Seymour.
74. *U. neglecta* Niessl, on *Setaria glauca*.
Waverley, Mass., Oct., 1906,
F. C. and E. K. Seymour.
75. *U. ornata* Tr. and Earle, on *Lep-
tochloa filiformis*.
Starkville, Miss., Oct. 1, 1894,
S. M. Tracy.
76. *U. perennans* Rostr., on *Arrhen-
therum elatius*.
Arlington Experimental Farm,
Va., May, 1919, G. M. Reed.
77. *U. pustulata* Tr. and Earle, on
Panicum dichotomiflorum.
Starkville, Miss., Oct. 1, 1894,
S. M. Tracy.
78. *U. pustulata* Tr. and Earle, on
Panicum proliferum.
Washington, D. C., Oct. 29,
1901, P. L. Ricker.
79. *U. rabenhorstiana* Kuehn, on
Digitaria sanguinalis.
Charleston, Mo., Sept. 25,
1889, M. B. Waite. Dupl. 1902
Myc. Ex. 181c as *Sorosporium
syntherismae*.
80. *U. rabenhorstiana* Kuehn, on
Digitaria sanguinalis.
Starkville, Miss., Nov. 11,
1893, S. M. Tracy. Dupl. 1902
Myc. Ex. 181c as *Sorosporium
syntherismae*.
81. *U. rabenhorstiana* Kuehn, on
Digitaria sanguinalis.
Newark, Del., Oct. 18, 1905,
H. S. Jackson.
82. *U. rabenhorstiana* Kuehn, on
Digitaria sanguinalis.
Lanham, Md., Aug. 30, 1910,
R. and E. Cook.
83. *U. rabenhorstiana* Kuehn, on
Digitaria sanguinalis.
Arlington Experimental Farm,
Va., Sept. 21, 1910, A. A. Potter.
84. *U. rabenhorstiana* Kuehn, on
Digitaria sanguinalis.
Hoschton, Ga., Oct., 1910, H.
A. Allard.
85. *U. rabenhorstiana* Kuehn, on
Digitaria sanguinalis.
Jasper, Ark., Sept., 1914, S. J.
Myers.

86. *U. shiraiana* Henn., on *Phyllostachys* sp.
Brooksville, Fla., May 5, 1914,
comm. W. Gomme.
87. *U. shiraiana* Henn., on *Phyllostachys henonis* S. P. I.
24761.
Chico, Calif., Apr., 1910,
comm. P. H. Dorsett.
88. *U. shiraiana* Henn., on *Phyllostachys quilioi*.
Avery Island, La., May 4,
1915, E. A. McIlhenny.
89. *U. sparsa* Underw., on *Dactyloctenium aegyptium*.
Bakerhill, Ala., Dec. 8, 1905,
comm. D. A. Wilson.
90. *U. spermophora* B. and C., on
Eragrostis minor.
Champaign, Ill., Sept. 18, 1889,
M. B. Waite.
91. *U. sphaerogena* Burr., on *Echinochloa crusgalli*.
Littleton, Colo., Sept. 4, 1914,
E. Bartholomew. Dupl. F. Col.
4599.
92. *U. striaeformis* (West.) Niessl,
on *Agrostis alba*.
Granite City, Ill., June 6,
1919, G. M. Reed.
93. *U. uniolae* Ell. and Ev., on *Uniola laxa*.
Biloxi, Miss., Sept. 1, 1891, S.
M. Tracy. Dupl. Econ. F. C 93.
94. *U. utriculosa* (Nees) Tul., on
Polygonum sp.
Champaign, Ill., Sept. 20, 1889,
M. B. Waite.
95. *U. utriculosa* (Nees) Tul., on
Polygonum lapathifolium.
East Lansing, Mich., Sept. 27,
1892, C. F. Wheeler.
96. *U. utriculosa* (Nees) Tul., on
Polygonum lapathifolium.
Washington, D. C., Oct. 25,
1902, J. B. Rorer.
97. *U. utriculosa* (Nees) Tul., on
Polygonum lapathifolium.
Chesapeake Beach, Md., Sept.
21, 1919, H. Hasselbring.
98. *U. utriculosa* (Nees) Tul., on
Polygonum pennsylvanicum.
Champaign, Ill., Sept. 19,
1889, M. B. Waite.
99. *U. zeae* (Beckm.) Ung., on *Zea mays*.
Wilkesboro, N. C., July 23,
1900, C. J. Cowles.
100. *U. zeae* (Beckm.) Ung., on *Zea mays*.
Cambridge City, Ind., 1901, W.
R. Littell.
101. *U. zeae* (Beckm.) Ung. on *Zea mays*.
Washington, D. C., Oct. 5,
1903, M. P. Dyre.

UREDINALES.

CALYPTOSPORA.

102. *Calymptospora goeppertiana*
Kuehn—I, on *Abies lasiocarpa*.
Silver Lake, Colo., Sept. 5,
1914, E. Bartholomew and E.
Bethel. Dupl. F. Col. 4609; N.
A. Ured. 1203.
103. *C. goeppertiana* Kuehn—III, on
Vaccinium oreophilum.
103. *C. goeppertiana*—Continued.
Laggan, Alberta, Canada, Aug.
18, 1902, E. W. D. Holway.
104. *C. goeppertiana* Kuehn—III, on
Vaccinium oreophilum.
Silver Lake, Colo., Sept. 5,
1914, E. Bartholomew and E.
Bethel. Dupl. F. Col. 4610; N.
A. Ured. 1204.

CHRYSOMYXA.

105. *Chrysomyxa cassandrae* Tranz.
—I, on *Picea mariana*.
Lansing, Mich., Sept. 6, 1889,
M. B. Waite.
106. *C. ledicola* Lagh.—I, on *Picea mariana*.
Northeast Harbor, Me., Aug.,
1902, L. McV. Hinton.

107. *C. ledicola* Lagh.—I, on *Picea sitchensis*.

Bainbridge Island, Wash.,
July 29, 1909, E. Bartholomew.
Dupl. F. Col. 3152; N. A. Ured.
113.

CHRYSOPOPSORA.

108. *Chrysopsora gynoxidis* Lagh.—
III, on *Gynoxis pulchella*.

Pichincha, Ecuador, Jan., 1891,
G. von Lagerheim.

COLEOSPORIUM.

109. *Coleosporium elephantopodis*
Thuem.—II and III, on *Elephantopus carolinianus*.

Shreveport, La., Oct. 10, 1913,
E. Bartholomew. Dupl. N. A.
Ured. 907.

110. *C. elephantopodis* Thuem.—II,
on *Elephantopus carolinianus*.

Spiro, Okla., Oct. 23, 1913, E.
Bartholomew. Dupl. N. A. Ured.
4518.

111. *C. elephantopodis* Thuem.—II,
on *Elephantopus carolinianus*.

Camp Pike, Ark., Oct. 1, 1918,
J. F. Brenckle.

112. *C. elephantopodis* Thuem.—III,
on *Elephantopus carolinianus*.

Aurora Heights, Alexandria
County, Va., Sept. 30, 1919, W.
W. Diehl.

113. *C. helianthi* Arth.—II and III, on
Helianthus decapetalus.

West Lafayette, Ind., Sept.
11, 1915, C. A. Ludwig. Dupl.
N. A. Ured. 1402.

114. *C. ipomoeae* Burr.—III, on *Ipomoea pandurata*.

Oregon, Ill., Sept. 11, 1889, M.
B. Waite.

115. *C. ipomoeae* Burr.—II and III,
on *Ipomoea pandurata*.

West Lafayette, Ind., Sept. 29,
1914, C. A. Ludwig. Dupl. F.
Col. 4519; N. A. Ured. 1403.

116. *C. plumierae* Pat.—II, on *Plumiera rubra*.

Santiago de las Vegas, Cuba,
May 9, 1906, C. F. Baker. Dupl.
F. Col. 2217.

117. *C. ribicola* Arth.—III, on *Ribes cereum*.

Palmer Lake, Colo., Sept. 20,
1913, E. Bartholomew and E.
Bethel.

118. *C. ribicola* Arth.—II, on *Ribes longiflorum*.

Boulder, Colo., Aug. 12, 1911,
E. Bartholomew and E. Bethel.
Dupl. N. A. Ured. 306.

119. *C. solidaginis* Thuem.—III, on
Aster conspicuus.

Spokane, Wash., Sept., 1917,
J. R. Weir. Dupl. N. A. Ured.
1709.

120. *C. solidaginis* Thuem.—II, on
Aster cordifolius.

Lancaster, Pa., July 5, 1913,
E. Bartholomew.

121. *C. solidaginis* Thuem.—II, on
Aster eatoni.

Sandcoulee, Mont., Sept., 1888,
F. W. Anderson. Dupl. 1902
Myc. Ex. 29c as *C. sonchi-arvensis*.

122. *C. solidaginis* Thuem.—II, on
Aster laevis (?)

Sentinel Butte, N. Dak., Aug.
30, 1916, J. F. Brenckle.

123. *C. solidaginis* Thuem.—II, on
Aster nebraskensis.

Red Cloud, Nebr., Aug. 9, 1906,
E. Bartholomew.

124. *C. solidaginis* Thuem.—I, on
Pinus rigida.

Sherburne, Mass., June 8,
1889, C. E. Cummings, A. B. and
A. C. Seymour. Dupl. Econ. F.
223.

125. *C. solidaginis* Thuem.—I, on *Pinus rigida*.
Woods Hole, Mass., June 24, 1912, E. T. Bartholomew. Dupl. N. A. Ured. 710.
126. *C. solidaginis* Thuem.—II, on *Solidago altissima*.
Urmeyville, Ind., Oct., 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 29n as *C. sonchi-arvensis*.
127. *C. solidaginis* Thuem.—II, on *Solidago canadensis*.
Urmeyville, Ind., July 24, 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 29n as *C. sonchi-arvensis*.
128. *C. solidaginis* Thuem.—II, on *Solidago canadensis*.
Parklake, Mich., Sept. 1, 1893, W. J. Beal.
129. *C. solidaginis* Thuem.—II, on *Solidago patula*.
Mount Carmel, Ill., Sept. 28, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 29p as *C. sonchi-arvensis*.
130. *C. solidaginis* Thuem.—II, on *Solidago pauciflosculosa*.
Point du Chene, Miss., Jan. 21, 1889, F. S. Earle. Dupl. 1902 Myc. Ex. 29q as *C. sonchi-arvensis*.
131. *C. solidaginis* Thuem.—II, on *Solidago rugosa*.
Washington, D. C., Aug. 8, 1889, D. G. Fairchild.
132. *C. solidaginis* Thuem.—II, on *Solidago serotina*.
Urmeyville, Ind., Sept., 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 29s as *C. sonchi-arvensis*.
133. *C. solidaginis* Thuem.—II and III, on *Solidago squarrosa*.
Ithaca, N. Y., Aug. 6, 1902, W. H. Long.
134. *C. vernoniae* B. and C.—I, on *Pinus echinata*.
Cadet, Mo., May 18, 1891, W. G. Barlow.
135. *C. vernoniae* B. and C.—I, on *Pinus palustris*.
South Jacksonville, Fla., Apr. 6, 1891, L. M. Underwood.
136. *C. vernoniae* B. and C.—II, on *Vernonia baldwini*.
Stockton, Kans., Oct. 7, 1896, E. Bartholomew. Dupl. Syd.: Ured. 1098.
137. *C. vernoniae* B. and C.—II and III, on *Vernonia fasciculata*.
Champaign, Ill., Sept. 19, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 29t as *C. sonchi-arvensis*.
138. *C. vernoniae* B. and C.—II, on *Vernonia fasciculata*.
Camp Pike, Ark., Sept. 22, 1918, J. F. Brenckle.
139. *C. vernoniae* B. and C.—II, on *Vernonia noveboracensis*.
Urmeyville, Ind., Aug., 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 29u as *C. sonchi-arvensis*.
140. *C. viburni* Arth.—III, on *Viburnum lentago*.
Near London, Ontario, Canada, Sept. 3, 1910, J. Dearness.

CRONARTIUM.

141. *Cronartium coleosporioides* Arth.—II and III, on *Castilleja miniata*.
Spokane, Wash., July. 1916, J. R. Weir.
142. *C. comandrae* Pk.—III, on *Comandra pallida*.
Gunnison, Colo., Aug. 24, 1899, E. Bartholomew.
143. *C. comandrae* Pk.—III, on *Comandra pallida*.
Darby, Mont., July 30, 1916, J. R. Weir.
143. *C. comandrae*—Continued.
Gunnison County, Colo., Aug. 25, 1899, E. Bartholomew.
144. *C. comandrae* Pk.—III, on *Comandra pallida*.
Denver, Colo., Aug. 14, 1906, E. Bartholomew.
145. *C. comandrae* Pk.—III, on *Comandra pallida*.
Darby, Mont., July 30, 1916, J. R. Weir.

146. *C. comandrae* Pk.—III, on *Comandra umbellata*.
Oregon, Ill., Sept. 9, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 31b as *C. asclepiadeum* var. *thesii*.
147. *C. comandrae* Pk.—III, on *Comandra umbellata*.
East Lansing, Mich., Sept. 23, 1891, W. J. Beal.
148. *C. comptoniae* Arth.—II and III, on *Myrica asplenifolia*.
148. *C. comptoniae*—Continued.
Plainville, Conn., Aug. 15, 1887, A. B. Seymour.
149. *C. quercuum* Miyabe—II, on *Quercus alba*.
Oregon, Ill., Sept. 11, 1889, M. B. Waite.
150. *C. quercuum* Miyabe—III, on *Quercus velutina*.
Scott Run, Fairfax County, Va., Aug. 18, 1919, W. W. Diehl.

ENDOPHYLLUM.

151. *Endophyllum tuberculatum* (Ell. and Kell.) Arth. and Fromme—III, on *Callirhoe involucrata*.
Stockton, Kans., May 11, 1896, E. Bartholomew.
152. *E. tuberculatum* (Ell. and Kell.) Arth. and Fromme—III, on *Callirhoe involucrata*.
Stockton, Kans., May 25, 1897, E. Bartholomew. Dupl. Syd.: Ured. 1199.

GALLOWAYA.

153. *Gallowaya pini* (Gall.) Arth.—III, on *Pinus virginiana*.
Garrett Park, Md., May 26, 1891, B. T. Galloway. Dupl. Econ. F. 222; 1902 Myc. Ex. 28 as *Coleosporium pini*.
154. *G. pini* (Gall.) Arth.—III, on *Pinus virginiana*.
154. *G. pini*—continued.
Rock Creek Park, Washington, D. C., June 1, 1891, B. T. Galloway.
155. *G. pini* (Gall.) Arth.—III, on *Pinus virginiana*.
Glen Echo Heights, Md., June, 1907, V. K. Charles.

GYMNOCONIA.

156. *Gymnoconia peckiana* (Howe) Trotter—I, on *Rubus* sp.
Dover, Del., spring, 1889, E. F. Smith. Dupl. 1902 Myc. Ex. 102a as *Puccinia peckiana*.
157. *G. peckiana* (Howe) Trotter—I, on *Rubus* sp.
New Brunswick, N. J., May, 1889, D. G. Fairchild. Dupl. 1902 Myc. Ex. 102a as *Puccinia peckiana*.
158. *G. peckiana* (Howe) Trotter—I, on *Rubus* sp.
St. Louis, Mo., 1894, C. H. Thompson.
159. *G. peckiana* (Howe) Trotter—I, on *Rubus* sp.
Notasulga, Ala., Apr., 1907, W. W. Gilbert.
160. *G. peckiana* (Howe) Trotter—I, on *Rubus* sp.
Diamond Springs, Va., May 4, 1916, J. A. McClintock.
161. *G. peckiana* (Howe) Trotter—I, on *Rubus idaeus aculeatissimus*.
Manhattan, Kans., June 3, 1890, M. Varney. Dupl. 1902 Myc. Ex. 102b as *Puccinia peckiana*.
162. *G. peckiana* (Howe) Trotter—O, on *Rubus idaeus aculeatissimus*.
London, Ontario, Canada, May 20, 1911, J. Dearness.

163. *G. peckiana* (Howe) Trotter—
I, on *Rubus villosus*.
Manhattan, Kans., June 3,
1890, M. Varney. Dupl. 1902
Myc. Ex. 102c as *Puccinia*
peckiana.

GYMNOSPORANGIUM.

165. *Gymnosporangium clavariae-*
forme (Jacq.) DC.—I, on
Amelanchier canadensis.
South Sudbury, Mass., June
17, 1902, A. B. Seymour.
166. *G. clavipes* Cke. and Pk.—I, on
Crataegus sp.
Washington, D. C., B. T. Gal-
loway.
167. *G. corniculans* Kern—I, on
Amelanchier canadensis.
Parklake, Mich., Sept. 2, 1890,
W. J. Beal and C. F. Wheeler.
168. *G. globosum* Farl.—I, on *Cratae-*
gus coccinea.
Granville, Mass., Aug. 22, 1888,
C. E. Cummings and A. C. Sey-
mour.
169. *G. globosum* Farl.—I, on *Cratae-*
gus punctata.
London, Ontario, Canada, Oct.,
1903. J. Dearness.
170. *G. globosum* Farl.—I, on *Crata-*
egus spathulata.
Urmeyville, Ind., Aug., 1890,
E. M. Fisher. Dupl. 1902 Myc.
Ex. 33d as *G. clavariaeforme*.
171. *G. globosum* Farl.—I, on *Crata-*
egus tomentosa.
Lansing, Mich., Sept. 6, 1889.
M. B. Waite. Dupl. 1902 Myc.
Ex. 33e as *G. clavariaeforme*.
172. *G. juniperinum* (L.) Mart.—I,
on *Pyrus scopulina*.
Glacier, British Columbia,
Canada, Sept. 2. 1902. E. W. D.
Holway.
173. *G. juniperi-virginianae* S.—III,
on *Juniperus virginiana*.
Willsboro Point, N. Y., June 6,
1903, C. O. Smith.
174. *G. juniperi-virginianae* S.—III,
on *Juniperus virginiana*.
Stockton, Kans., May 23, 1907,
E. Bartholomew.

164. *G. peckiana* (Howe) Trotter—
I, on *Rubus villosus*.
Brannon, Ky., June 1, 1907,
W. W. Gilbert.

175. *G. juniperi-virginianae* S.—III,
on *Juniperus virginiana*.
Stockton, Kans., May 23, 1911,
E. Bartholomew. Dupl. N. A.
Ured. 608.
176. *G. juniperi-virginianae* S.—I,
on *Pyrus coronaria*.
Oregon, Ill., Sept. 11, 1889, M.
B. Waite, 262. Dupl. 1902 Myc.
Ex. 33f as *G. clavariaeforme*.
177. *G. juniperi-virginianae* S.—I, on
Pyrus coronaria.
Oregon, Ill., Sept. 11, 1889,
M. B. Waite, 255. Dupl. 1902
Myc. Ex. 33f as *G. clavariae-*
forme.
178. *G. juniperi-virginianae* S.—I, on
Pyrus ioensis.
Nemaha, Nebr., Aug. 10, 1910,
J. M. Bates. Dupl. N. A. Ured.
107.
179. *G. juniperi-virginianae* S.—I, on
Pyrus ioensis.
Columbia, Mo., Aug. 5, 1914,
E. T. Bartholomew and L.
Keene. Dupl. F. Col. 4631; N.
A. Ured. 1115.
180. *G. juniperi-virginianae* S.—I, on
Pyrus ioensis.
Battle Ground, Ind., Aug. 15,
1914, C. A. Ludwig. Dupl. F.
Col. 4540; N. A. Ured. 1612.
181. *G. juvenescens* Kern—III, on
Juniperus prostrata.
Near Williston, N. Dak., Aug.
12, 1915, O. A. Stevens. Dupl.
F. Dak. 359.
182. *G. kernianum* Bethel—III, on
Juniperus pachyphloea.
Tejano, N. Mex., May 7,
1917, W. H. Long. Dupl. N. A.
Ured. 1718.
183. *G. nelsoni* Arth.—I, on *Amelan-*
chier canadensis botryapi-
um.
Fort Niobrara, Nebr., Aug. 18,
1910, J. M. Bates. Dupl. N. A.
Ured. 510.

184. *G. nelsoni* Arth.—I, on *Amelanchier spicata*.
Valentine, Nebr., Aug. 16,
1910, J. M. Bates.
185. *G. tubulatum* Kern—I, on
Crataegus douglasii.
St. Maries, Idaho, Aug. 21,
1917, J. R. Weir. Dupl. N. A.
Ured. 1719.
186. *G. tubulatum* Kern—III, on
Juniperus scopulorum.
Missoula, Mont., Apr. 27, 1917,
J. R. Weir.
187. *G. tubulatum* Kern—III, on
Juniperus scopulorum.
St. Maries, Idaho, May 20,
1917, J. R. Weir. Dupl. N. A.
Ured. 1720.

HYALOPSORA.

188. *Hyalopsora adianti-capilli-ven-*
eris Syd.—II, on *Adiantum*
capillus-veneris.
Gorizia, Austria, May 27, 1902,
P. Sydow.
189. *H. polypodii* Magn.—II, on
Cystopteris fragilis.
Merrimack, Wis., July 8, 1912,
W. N. Steil.

KUEHNEOLA.

190. *Kuehneola fici* Butl.—II, on
Ficus carica.
Meridian, Miss., Oct. 15, 1888,
S. M. Tracy.
191. *K. fici* Butl.—II, on *Ficus carica*.
Biloxi, Miss., Nov. 16, 1897,
S. M. Tracy.
192. *K. uredinis* (Lk.) Arth.—II, on
Rubus hispidus.
Athelstone, Wis., Aug. 26,
1913, J. J. Davis.
193. *K. uredinis* (Lk.) Arth.—II, on
Rubus villosus.
Mount Carmel, Ill., Sept. 27,
1889, M. B. Waite. Dupl. 1902
Myc. Ex. 25b as *Chrysomyxa*
albida.
194. *K. uredinis* (Lk.) Arth.—II, on
Rubus villosus.
Manhattan, Kans., Nov. 25,
1889, M. Varney. Dupl. 1902
Myc. Ex. 25b as *Chrysomyxa al-*
bida.
195. *K. uredinis* (Lk.) Arth.—II and
III, on *Rubus villosus*.
Urmeyville, Ind., Sept., 1890,
E. M. Fisher. Dupl. 1902 Myc.
Ex. 25b as *Chrysomyxa albida*.

MELAMPSORA.

196. *Melampsora bigelowii* Thuem.—
II, on *Salix* sp.
Saginaw, Mich., Sept. 4, 1889,
M. B. Waite. Dupl. 1902 Myc.
Ex. 41a as *M. farinosa*.
197. *M. bigelowii* Thuem.—II, on
Salix amygdaloides.
Billings, Mont., Aug. 16, 1913,
E. T. and E. Bartholomew.
198. *M. bigelowii* Thuem.—II, on
Salix brachycarpa.
Centennial, Wyo., Aug. 16,
1911, E. T. and E. Bartholomew.
Dupl. F. Col. 3715; N. A. Ured.
1209.
199. *M. bigelowii* Thuem.—II, on
Salix cordata.
Near Sandcoulee, Mont., Sept.,
1888, F. W. Anderson. Dupl.
1902 Myc. Ex. 41b as *M. farinosa*.
200. *M. bigelowii* Thuem.—II, on
Salix cordata.
Urmeyville, Ind., Oct., 1890.
E. M. Fisher.
201. *M. bigelowii* Thuem.—II, on
Salix cordata.
Stockton, Kans., Oct. 14,
1910, E. Bartholomew. Dupl.
N. A. Ured. 110.

202. *M. bigelowii* Thuem.—II, on *Salix discolor*.
Urmeyville, Ind., Oct., 1890,
E. M. Fisher.
203. *M. bigelowii* Thuem.—II, on *Salix exigua*.
Caldwell, Idaho. Sept. 28,
1912, E. Bartholomew. Dupl.
F. Col. 4639.
204. *M. bigelowii* Thuem.—II, on *Salix exigua*.
Billings, Mont., Aug. 21,
1913, E. Bartholomew.
205. *M. bigelowii* Thuem.—II, on *Salix irrorata*.
Baldwin, Colo., Aug. 24,
1899, E. Bartholomew.
206. *M. bigelowii* Thuem.—II, on *Salix lasiandra*.
Bremerton, Wash., Aug. 5,
1912, E. Bartholomew. Dupl.
N. A. Ured. 718.
207. *M. bigelowii* Thuem.—II, on *Salix lutea*.
Billings, Mont., Aug. 20,
1913, E. Bartholomew.
208. *M. bigelowii* Thuem.—II, on *Salix nigra*.
Crawfordsville, Ind., Oct.,
1890, E. M. Fisher.
209. *M. bigelowii* Thuem.—II, on *Salix scouleriana*.
Bremerton, Wash., Sept. 9,
1912, E. Bartholomew.
210. *M. bigelowii* Thuem.—II, on *Salix scouleriana*.
Port Orchard, Wash., Sept. 16,
1912, E. Bartholomew.
211. *M. bigelowii* Thuem.—II, on *Salix scouleriana*.
Goldendale, Wash., Sept. 2,
1915, E. Bartholomew. Dupl.
N. A. Ured. 1815.
212. *M. bigelowii* Thuem.—II, on *Salix sitchensis*.
Victoria, British Columbia,
Canada, Sept. 5, 1912, E. Bar-
tholomew.
213. *M. lini* (Ehrenb.) Desm.—III,
on *Linum lewisii*.
Belgrade, Mont., Sept. 3, 1913,
H. M. Jennison.
214. *M. lini* (Ehrenb.) Desm.—III,
on *Linum lewisii*.
Boulder, Colo., Aug. 3, 1914,
E. Bethel. Dupl. N. A. Ured.
1120.
215. *M. lini* (Ehrenb.) Desm.—II
and III, on *Linum perenne*.
Crested Butte, Colo., Sept. 8,
1899, E. Bartholomew.
216. *M. lini* (Ehrenb.) Desm.—II, on
Linum rigidum.
Marion, Kans., June 26, 1903,
E. Bartholomew.
217. *M. medusae* Thuem.—II, on
Populus deltoides.
Champaign, Ill., Sept. 20,
1889, M. B. Waite. Dupl. 1902
Myc. Ex. 44d as *M. populina*.
218. *M. medusae* Thuem.—II, on
Populus deltoides.
Urmeyville, Ind., July 24,
1890, E. M. Fisher. Dupl. 1902
Myc. Ex. 44d as *M. populina*.
219. *M. medusae* Thuem.—II, on
Populus deltoides.
Parkersburg, Ill., Aug. 16,
1903, P. Spaulding.
220. *M. medusae* Thuem.—II, on *Pop-
ulus deltoides*.
West Lafayette, Ind., Sept. 19,
1914, C. A. Ludwig. Dupl. F.
Col. 4737; N. A. Ured. 1122.
221. *M. medusae* Thuem.—II, on *Pop-
ulus deltoides*.
South Bend, Ind., Sept. 24,
1917, E. Bartholomew.
222. *M. medusae* Thuem.—III, on
Populus grandidentata.
Crawfordsville, Ind., Oct.,
1890, E. M. Fisher. Dupl. 1902
Myc. Ex. 44c as *M. populina*.
223. *M. medusae* Thuem.—II, on *Pop-
ulus sargentii*.
Stockton, Kans., Aug. 30, 1896,
E. Bartholomew.
224. *M. medusae* Thuem.—III, on
Populus sargentii.
Stockton, Kans., May 2, 1899,
E. Bartholomew.

225. *M. medusae* Thuem.—II and III; on *Populus tremuloides*.
Bozeman, Mont., Sept. 4, 1913,
E. T. and E. Bartholomew. Dupl. F. Col. 4329.
226. *M. occidentalis* Jackson—II and III, on *Populus balsamifera*.
226. *M. occidentalis*—Continued.
Bellingham, Wash., Aug. 25,
1916, J. R. Weir.
227. *M. occidentalis* Jackson—II, on *Populus trichocarpa*.
Duckabush River, Wash., Aug.
12, 1912, E. Bartholomew.

MELAMPSORELLA.

228. *Melampsorella caryophyllacearum* Schr.—I. on *Picea engelmanni*.
Coolin, Idaho, July 30, 1914,
J. R. Weir. Dupl. N. A. Ured.
1620.

MELAMPSORIDIUM.

229. *Melampsoridium betulinum* (Tul.) Kleb.—II, on *Betula lutea*.
Indiana, Aug. 12, 1903, W. A. Kellerman.
230. *M. betulinum* (Tul.) Kleb.—II, on *Betula pumila*.
Arnold Arboretum, Jamaica Plain, Mass., Sept. 23, 1892, J. G. Jack.

PHRAGMIDIUM.

231. *Phragmidium americanum* Diet. (?)—III, on *Rosa sayi*.
Kennedy, Nebr., Aug. 25, 1911,
J. M. Bates.
232. *P. andersoni* Shear—II and III, on *Potentilla fruticosa*.
Gunnison County, Colo., Aug.
23, 1899, E. Bartholomew.
233. *P. andersoni* Shear—III, on *Potentilla fruticosa tenuifolia*.
Sentinel Butte, N. Dak., Aug.
30, 1916, J. F. Brenckle. Dupl.
F. Dak. 408.
234. *P. imitans* Arth.—III, on *Rubus idaeus aculeatissimus*.
Steamboat Springs, Colo., Aug.
29, 1914, E. Bartholomew. Dupl.
F. Col. 4554; N. A. Ured. 1622.
235. *P. montivagum* Arth.—II and III, on *Rosa woodsii*.
Centennial, Wyo., Aug. 16,
1911, E. T. and E. Bartholomew.
Dupl. F. Col. 3729.
236. *P. occidentale* Arth.—III, on *Rubus parviflorus*.
Glacier, British Columbia,
Canada, Sept. 3, 1902, E. W. D.
Holway. Dupl. N. A. Ured. 1513.
237. *P. potentillae* (P.) Karst.—III, on *Potentilla pennsylvanica*.
Sandcoulee, Mont., July, 1888,
F. W. Anderson. Dupl. N. A.
Ured. 810.
238. *P. rosae-arkansanae* Diet.—III, on *Rosa virginiana* (?).
Oregon, Ill., Sept. 10, 1889, M.
B. Waite. Dupl. 1902 Myc. Ex.
50d as *P. subcorticium*.
239. *P. rosae-californicae* Diet.—II and III, on *Rosa californica*.
Santa Catalina Island, Calif.,
July 19, 1915, E. and Mrs. E.
Bartholomew. Dupl. N. A.
Ured. 1823.
240. *P. rosae-californicae* Diet.—III, on *Rosa nutkana*.
Portland, Oreg., Aug. 23, 1915,
E. Bartholomew. Dupl. N. A.
Ured. 1626.
241. *P. rosae-setigerarum* Diet.—II, on *Rosa carolina*.
Near Midland, Ontario, Can-
ada, July 5, 1912, J. Dearness.

242. *P. rosae-setigerae* Diet.—II and III, on *Rosa setigera*.
Rock Creek Park, Washington, D. C., Aug. 25, 1889, M. B. Waite.
243. *P. tormentillae* Fekl.—III, on *Potentilla canadensis*.
Bertram, Iowa, Oct. 10, 1886, G. W. Newton.
244. *P. tormentillae* Fekl.—III, on *Potentilla canadensis*.
St. Louis, Mo., Oct. 9, 1894, C. H. Thompson.
245. *P. tormentillae* Fekl.—II, on *Potentilla canadensis*.
Belmont, Mass., Aug. 20, 1898 (?), A. B. Seymour.

PUCCINIA.

246. *Puccinia abrupta* Diet. and Holw.—II, on *Viguiera helianthoides*.
Tula, Mexico, Oct. 5, 1896, E. W. D. Holway. Type coll. Dupl. N. A. Ured. 118.
247. *P. abrupta* Diet. and Holw.—II, on *Viguiera helianthoides*.
Austin, Tex., Oct. 7, 1915, B. C. Tharp.
248. *P. absinthii* DC.—II and III, on *Artemisia* sp.
Sicamous, British Columbia, Canada, Aug. 14, 1901, E. W. D. Holway.
249. *P. absinthii* DC.—III, on *Artemisia aromatica*.
Rimrock Station, Mont., July 20, 1917, E. Bartholomew.
250. *P. absinthii* DC.—II and III, on *Artemisia cana*.
Harrison, Nebr., Aug. 1, 1889, H. J. Webber. Dupl. 1902 Myc. Ex. 191a as *P. tanacetii*.
251. *P. absinthii* DC.—II and III, on *Artemisia cana*.
Billings, Mont., Aug. 18, 1913, E. T. and E. Bartholomew. Dupl. F. Col. 4561.
252. *P. absinthii* DC.—III, on *Artemisia cana*.
Rimrock Station, Mont., Aug. 9, 1917, E. Bartholomew.
253. *P. absinthii* DC.—III, on *Artemisia dracunculoides*.
Hill City, S. Dak., Aug., 1897, D. Griffiths and L. W. Carter. Dupl. West A. F. 248.
254. *P. absinthii* DC.—III, on *Artemisia dracunculoides*.
Crested Butte, Colo., Sept. 8, 1899, E. Bartholomew.
255. *P. absinthii* DC.—II, on *Artemisia dracunculoides*.
Callaway, Nebr., June 13, 1902, J. M. Bates.
256. *P. absinthii* DC.—II, on *Artemisia dracunculoides*.
San Ysidro, Calif., July 5, 1915, E. Bartholomew. Dupl. F. Col. 5046.
257. *P. absinthii* DC.—III, on *Artemisia ludoviciana*.
Silesia, Mont., Sept. 11, 1913, E. T. and E. Bartholomew. Dupl. N. A. Ured. 1022.
258. *P. absinthii* DC.—III, on *Artemisia tridentata*.
Near Gunnison, Colo., Sept. 5, 1899, E. Bartholomew.
259. *P. absinthii* DC.—III, on *Artemisia tridentata*.
Crested Butte, Colo., Sept. 8, 1899, E. Bartholomew.
260. *P. absinthii* DC.—III, on *Artemisia tridentata*.
Fort Douglas, Utah, Nov. 16, 1917, J. F. Brenckle.
261. *P. acetosae* (Schum.) Koern.—II, on *Rumex acetosella*.
Glen St. Mary, Fla., Apr. 17, 1909, W. T. Swingle.
262. *P. agropyri* Ell. and Ev.—II, on *Agropyron repens*.
New Brunswick, N. J., June 5, 1889, D. G. Fairchild. Dupl. 1902 Myc. Ex. 110b as *P. rubigo-vera*.
263. *P. agropyri* Ell. and Ev.—II, on *Agropyron tenerum*.
Sicamous, British Columbia, Canada, Aug. 14, 1901, E. W. D. Holway.

264. *P. agropyri* Ell. and Ev.—II, on *Bromus carinatus*.
Portland, Oreg., Aug. 23, 1915,
E. Bartholomew. Dupl. F. Col.
4846; N. A. Ured. 1836.
265. *P. agropyri* Ell. and Ev.—II
and III, on *Bromus hooker-*
ianus.
Bremerton, Wash., July 31,
1912, E. Bartholomew.
266. *P. agropyri* Ell. and Ev.—II, on
Bromus villosus.
Golden Gate Park, Calif.,
Aug. 10, 1915, E. Bartholomew.
Dupl. N. A. Ured. 1631.
267. *P. agropyri* Ell. and Ev.—I, on
Clematis sp.
Barranca, Mexico, Aug. 28,
1900, C. G. Pringle.
268. *P. agropyri* Ell. and Ev.—I, on
Clematis ligusticifolia.
Pecos, N. Mex., 1903, T. D. A.
Cockerell.
269. *P. agropyri* Ell. and Ev.—I, on
Clematis ligusticifolia.
Rimrock Station, Mont., July
20, 1917, E. Bartholomew.
270. *P. agropyri* Ell. and Ev.—I, on
Clematis virginiana.
St. Johnsbury, Vt., June 10,
1911, W. P. Carr. Dupl. F. Col.
3469.
271. *P. agropyri* Ell. and Ev.—I, on
Clematis virginiana.
Ithaca, N. Y., June 21, 1911,
B. B. Higgins.
272. *P. agropyri* Ell. and Ev.—II and
III, on *Elymus canadensis*.
Billings, Mont., Aug. 21, 1913,
E. Bartholomew.
273. *P. agropyri* Ell. and Ev.—III, on
Elymus condensatus.
Billings, Mont., Aug. 21, 1913,
E. T. and E. Bartholomew.
Dupl. F. Col. 4354; N. A. Ured.
1231.
274. *P. agropyri* Ell. and Ev.—II, on
Elymus condensatus.
Palo Alto, Calif., June 1, 1918,
E. T. Bartholomew.
275. *P. agropyri* Ell. and Ev.—II and
III, on *Elymus triticoides*.
Watts, Calif., July 15, 1915, E.
Bartholomew.
276. *P. agropyri* Ell. and Ev.—I, on
Thalictrum fendleri.
Cow Camp Canyon, Gunnison
County, Colo., Sept. 2, 1899, E.
Bartholomew.
277. *P. agropyri* Ell. and Ev.—II and
III, on *Triticum junceum*.
Ruegen Island, Pomerania,
Aug. 1, 1899, P. Sydow.
278. *P. aletridis* B. and C.—III, on
Aletris farinosa.
Granville, Mass., Aug. 14, 1883,
A. B. Seymour.
279. *P. amphigena* Diet.—III, on *Cal-*
amovilfa longifolia.
Silesia, Mont., Sept. 11, 1913,
E. Bartholomew.
280. *P. amphigena* Diet.—III, on *Cal-*
amovilfa longifolia.
Billings, Mont., Sept. 10, 1915,
E. Bartholomew.
281. *P. andropogonis* S.—III, on *An-*
dropogon sp.
Auburn, Ala., Oct. 14, 1897,
F. S. Earle and C. F. Baker.
282. *P. andropogonis* S.—III, on *An-*
dropogon furcatus.
Oregon, Ill., Sept. 10, 1889,
M. B. Waite.
283. *P. andropogonis* S.—III, on *An-*
dropogon furcatus.
Angola, Ind., Aug. 12, 1903,
W. A. Kellerman.
284. *P. andropogonis* S.—III, on *An-*
dropogon hallii.
Delaney's Ranch, Logan
County, N. Dak., Aug. 27, 1915,
J. F. Brenckle.
285. *P. andropogonis* S.—III, on
Andropogon scoparius.
Oregon, Ill., Sept. 9, 1889,
M. B. Waite.
286. *P. andropogonis* S.—III, on
Andropogon scoparius.
Starkville, Miss., Nov. 11,
1893, S. M. Tracy.
287. *P. andropogonis* S.—III, on
Andropogon scoparius.
West Suffield, Conn., Aug. 9,
1910, A. B. Seymour.
288. *P. andropogonis* S.—III, on
Andropogon scoparius.
Red Cloud, Nebr., Aug. 15,
1914, J. M. Bates.

289. *P. andropogonis* S.—III, on *Andropogon scoparius*.
Camp Pike, Ark., Dec. 4, 1918,
J. F. Brenckle.
290. *P. andropogonis* S.—I, on *Comandra umbellata*.
Madison, Wis., June 4, 1912,
E. T. Bartholomew. Dupl. F.
Col. 3964.
291. *P. anemones-virginianae* S.—
III, on *Anemone virginiana*.
East Lansing, Mich., June 17,
1894, W. J. Beal.
292. *P. angelicae* (Schum.) Fekl.—
III, on *Angelica sylvestris*.
Near Vinderup, Jutland, Den-
mark, June 6, 1902, J. Lind.
293. *P. angustata* Pk.—III, on *Scirpus atrovirens*.
Needham, Ind., Nov., 1890, E.
M. Fisher.
294. *P. angustata* Pk.—III, on *Scirpus cyperinus*.
Oregon, Ill., Sept. 11, 1889,
M. B. Waite.
295. *P. angustata* Pk.—III, on *Scirpus cyperinus*.
West Roxbury, Mass., Aug. 24,
1908, A. B. Seymour.
296. *P. antirrhini* Diet. and Holw.—
II, on *Antirrhinum* sp.
Lake Forest, Ill., Nov. 15, 1912,
J. O. Heyworth.
297. *P. antirrhini* Diet. and Holw.—
II and III, on *Antirrhinum majus*.
Berkeley, Calif., July 17, 1896,
W. C. Blasdale.
298. *P. antirrhini* Diet. and Holw.—
II and III, on *Antirrhinum majus*.
Berkeley, Calif., June, 1902,
W. C. Blasdale.
299. *P. antirrhini* Diet. and Holw.—
III, on *Antirrhinum majus*.
Berkeley, Calif., Sept., 1902,
W. C. Blasdale.
300. *P. antirrhini* Diet. and Holw.—
II and III, on *Antirrhinum majus*.
Hollister, Calif., July 29, 1907,
A. J. Pieters.
301. *P. antirrhini* Diet. and Holw.—
II, on *Antirrhinum majus*.
Manitowoc, Wis., Dec., 1915,
comm. H. Rudolph.
302. *P. aplopappi* Syd.—III, on *Aplopappus spinulosus*.
Sandcoulee, Mont., Aug., 1888,
F. W. Anderson. Dupl. 1902
Myc. Ex. 123 as *P. variolans*.
303. *P. appendiculata* Wint.—III, on
Tecoma stans.
Oaxaca, Mexico, Oct. 25, 1899,
E. W. D. Holway.
304. *P. arenariae* (Schum.) Wint.—
III, on *Dianthus barbatus*.
Manchester, Mass., Nov. 11,
1913, G. M. Lane.
305. *P. argentata* Wint.—II and III,
on *Impatiens biflora*.
Oregon, Ill., Sept. 14, 1889,
M. B. Waite.
306. *P. argentata* Wint.—II, on *Impatiens biflora*.
Alexandria, Va., Oct., 1890,
M. B. Waite.
307. *P. argentata* Wint.—II, on *Impatiens pallida*.
Kanawha Falls, W. Va., Oct.
1, 1889, M. B. Waite.
308. *P. asparagi* DC.—III, on *Asparagus officinalis*.
Columbia, Tenn., comm. H.
Rainey.
309. *P. asparagi* DC.—II and III, on
Asparagus officinalis.
Camanche, Iowa, July 10,
1900, S. C. Brown.
310. *P. asparagi* DC.—III, on *Asparagus officinalis*.
Griffin, Ga., Nov., 1901, H. W.
McWilliams.
311. *P. asparagi* DC.—III, on *Asparagus officinalis*.
Washington, D. C., Oct. 1,
1904, V. K. Charles and M. P.
Dyre.
312. *P. asparagi* DC.—III, on *Asparagus officinalis*.
Concord, Mass., Sept. 28,
1908, J. B. Norton.
313. *P. asparagi* DC.—III, on *Asparagus officinalis*.
Concord, Mass., July, 1911,
J. B. Norton.

314. *P. asparagi* DC.—III, on *Asparagus officinalis*.
Morrison, Colo., Sept. 3, 1914,
E. Bartholomew. Dupl. F. Col.
4659; N. A. Ured. 1427.
315. *P. asteris* Duby—III, on *Aster corymbosus*.
Near Windham, N. Y., July 13,
1893, C. L. Shear.
316. *P. asteris* Duby—III, on *Aster macrophyllus*.
Ann Arbor, Mich., July 9,
1892, H. L. Merrow.
317. *P. asteris* Duby—III, on *Aster multiflorus*.
Stockton, Kans., Oct. 2, 1903,
E. Bartholomew.
318. *P. asteris* Duby—III, on *Aster shortii*.
Oregon, Ill., Sept. 11, 1889,
M. B. Waite.
319. *P. bardanae* Cda.—II and III,
on *Arctium minus*.
New Britain, Conn., Aug. 4,
1910, A. B. Seymour.
320. *P. bartholomaei* Diet.—I, on
Acerates viridiflora.
Webster, Kans., June 12,
1906, E. Bartholomew.
321. *P. bartholomaei* Diet.—I, on
Asclepias tuberosa.
Glade, Kans., July 9, 1910, E.
Bartholomew.
322. *P. bartholomaei* Diet.—III, on
Bouteloua oligostachya.
Amarillo, Tex., Oct. 15, 1905,
E. C. Johnson.
323. *P. bolleyana* Sacc.—III, on *Carex frankii*.
St. Louis, Mo., Jan. 11, 1894,
C. H. Thompson.
324. *P. bolleyana* Sacc.—III, on *Carex frankii*.
Columbus, Ohio, Oct. 30, 1902,
W. A. Kellerman.
325. *P. calthae* Lk.—III, on *Caltha palustris*.
Penetanguishene, Ontario, Can-
ada, Aug. 5, 1912, J. Dearness.
326. *P. caulicola* Tr. and Gall.—III,
on *Salvia lanceolata*.
Hot Springs, N. Mex., Sept. 13,
1896, E. W. D. Holway.
327. *P. caulicola* Tr. and Gall.—II,
on *Salvia lanceolata*.
Red Cloud, Nebr., July 18,
1912, J. M. Bates.
328. *P. chloridis* Speg.—III, on *Chloris verticillata*.
Stockton, Kans., Sept. 13, 1902,
E. Bartholomew.
329. *P. chrysanthemi* Roze—II, on
Chrysanthemum sp.
Cartwrights Wharf, Nanse-
mond County, Va., Dec., 1903,
M. L. Cartwright.
330. *P. chrysanthemi* Roze—II, on
Chrysanthemum indicum.
Tuskegee, Ala., Nov. 24, 1904,
G. W. Carver.
331. *P. chrysosplenii* Grev.—III, on
Chrysosplenium alternifolium.
Near Frederikshavn, Jutland,
Denmark, July 26, 1902, J. Lind.
332. *P. cicutae* Lasch—II, on *Cicuta maculata*.
Eustis, Fla., Apr. 6, 1889, L. M.
Underwood.
333. *P. cinerea* Arth.—III, on *Puccinellia airoides*.
Hille Lake, Dickey County, N.
Dak., July 25, 1912, J. F.
Brenckle. Dupl. F. Dak. 185a.
334. *P. cinerea* Arth.—I, on *Ranunculus cymbalaria*.
Hille Lake, Dickey County, N.
Dak., June 25, 1912, J. F.
Brenckle. Dupl. F. Dak. 185.
335. *P. circaeae* P.—III, on *Circaea lutetiana*.
Glen Echo Heights, Md., July
28, 1907, V. K. Charles.
336. *P. circaeae* P.—III, on *Circaea lutetiana*.
Glen Echo Heights, Md., Aug.
4, 1907, V. K. Charles.
337. *P. cirsii-lanceolati* Schr.—III,
on *Cirsium lanceolatum*.
London, Ontario, Canada, Sept.
5, 1912, J. Dearness.
338. *P. cognata* Syd.—III, on *Actinomeris tetraptera*.
City of Mexico, Mexico, Oct.
11, 1898, E. W. D. Holway.
Dupl. F. Col. 4567.

339. *P. cognata* Syd.—III, on *Verbesina virginica*.
Camp Pike, Ark., Oct. 1, 1918,
J. F. Brenckle.
340. *P. commelinae* Holw.—II and
III, on *Commelina* sp.
Cuernavaca, Mexico, Sept. 25,
1898, E. W. D. Holway.
341. *P. conjuncta* Diet. and Holw.—
III, on *Lippia pringlei*.
Oaxaca, Mexico, Oct. 23, 1899,
E. W. D. Holway. Type coll.
Dupl. N. A. Ured. 1316.
342. *P. conoclinii* Seym.—II and III,
on *Eupatorium* sp.
Mounds, Ill., Oct. 3, 1891, A. B.
and A. C. Seymour. Dupl. Econ.
F. B. 9b.
343. *P. conoclinii* Seym.—II and III,
on *Eupatorium coelestinum*.
Kanawha Falls, W. Va., Oct.
1, 1889, M. B. Waite.
344. *P. convolvuli* Cast.—II and III,
on *Convolvulus sepium*.
Winona, Minn., Aug. 24, 1888,
J. M. Holzinger.
345. *P. convolvuli* Cast.—II and III,
on *Convolvulus sepium*.
Champaign, Ill., Sept. 18, 1889,
M. B. Waite.
346. *P. convolvuli* Cast.—I, on *Convolvulus sepium*.
St. Louis, Mo., June 1, 1894,
C. H. Thompson.
347. *P. convolvuli* Cast.—II, on *Convolvulus sepium*.
Stockton, Kans., Sept. 22, 1897,
E. Bartholomew.
348. *P. convolvuli* Cast.—I, on *Convolvulus sepium*.
North Beach, Md., June 2,
1919, W. W. Diehl.
349. *P. convolvuli* Cast.—III, on *Convolvulus sepium*.
North Beach, Md., June 2,
1919, W. W. Diehl.
350. *P. convolvuli* Cast.—II, on *Convolvulus sepium*.
North Beach, Md., June 27,
1919, W. W. Diehl.
351. *P. coronata* Cda.—II, on *Avena sativa*.
Manhattan, Kans., Oct. 11,
1889, M. Varney.
352. *P. coronata* Cda.—II, on *Avena sativa*.
Manhattan, Kans., Oct. 15,
1889, M. Varney.
353. *P. coronata* Cda.—III, on *Avena sativa*.
Manhattan, Kans., Oct. 15,
1889, M. Varney.
354. *P. coronata* Cda.—II and III, on *Avena sativa*.
Manhattan, Kans., Oct. 18,
1889, M. Varney.
355. *P. coronata* Cda.—II and III, on *Avena sativa*.
San Antonio, Tex., June 12,
1910, W. P. Carr.
356. *P. coronata* Cda.—II, on *Avena sativa*.
San Antonio, Tex., May 17,
1911, W. P. Carr.
357. *P. coronata* Cda.—II and III, on *Calamagrostis canadensis*.
Kennedy, Nebr., July 27, 1914,
J. M. Bates.
358. *P. coronata* Cda.—II, on *Festuca elatior*.
Berlin, Conn., Aug. 4, 1910,
A. B. Seymour.
359. *P. coronata* Cda.—I, on *Rhamnus lanceolata*.
Weeping Water, Nebr., June
1, 1898, comm. M. A. Carleton.
360. *P. crepidis-acuminatae* Syd.—II
and III, on *Crepis acuminata*.
Fort Douglas, Utah, May 30,
1918, J. F. Brenckle.
361. *P. crepidis-acuminatae* Syd.—II
and III, on *Crepis occidentalis*.
Fort Douglas, Utah, June 7,
1918, J. F. Brenckle.
362. *P. cryptandri* Ell. and Barth.—
II, on *Sporobolus cryptandrus*.
Stockton, Kans., Oct. 12, 1897,
E. Bartholomew.
363. *P. cryptandri* Ell. and Barth.—
II, on *Sporobolus cryptandrus*.
Dodge City, Kans., July 15,
1910, H. W. Baker.

364. *P. curtipes* Howe—III, on *Mitella pentandra*.
Eldora, Colo., Aug. 14, 1907,
E. Bartholomew.
365. *P. cynodontis* DeLac.—II, on
Cynodon dactylon.
Long Beach, Calif., Aug., 1915,
E. Bethel. Dupl. N. A. Ured.
1646.
366. *P. cyperi* Arth.¹—II and III, on
Cyperus sp.
Lansing, Mich., Sept. 6, 1889,
M. B. Waite.
367. *P. cyperi* Arth.—III, on *Cyperus* sp.
College Station, Tex., 1890,
H. S. Jennings.
368. *P. cyperi* Arth.—III, on *Cyperus erythrorhizos*.
Saginaw, Mich., Sept. 4, 1889,
M. B. Waite.
369. *P. cyperi* Arth.—III, on *Cyperus esculentus*.
Toluca, Mexico, Sept. 17,
1898, E. W. D. Holway.
370. *P. cyperi* Arth.—II, on *Cyperus esculentus*.
Grand Island, Nebr., July 25,
1905, J. M. Bates.
371. *P. cyperi* Arth.—II, on *Cyperus esculentus*.
Stockton, Kans., July 15,
1910, E. Bartholomew. Dupl.
N. A. Ured. 136.
372. *P. dichelostemmae* Diet. and
Holw.—III, on *Brodiaea congesta*.
Bingen, Wash., May, 1899.
W. N. Suksdorf.
373. *P. difformis* Kze. and Schm.—
III, on *Galium aparine*.
Beaver Lake, N. Dak., July
18, 1909, J. F. Brenckle.
374. *P. dispersa* Eriks. and Henn.—
II, on *Secale cereale*.
New Brunswick, N. J., June
10, 1889, D. G. Fairchild. Dupl.
1902 Myc. Ex. 110g as *P. rubig-
osa*.
375. *P. distichlidis* Ell. and Ev.—II,
on *Spartina cynosuroides*.
St. Augustine, Fla., Apr. 28,
1905, E. W. D. Holway. Dupl.
N. A. Ured. 1039.
376. *P. distichlidis* Ell. and Ev.—III,
on *Spartina gracilis*.
Near Helena, Mont., Oct.,
1888, F. W. Anderson. Dupl.
1902 Myc. Ex. 103 as *P. phrag-
mitis*, on *Spartina cynosuroides*.
377. *P. distichlidis* Ell. and Ev.—III,
on *Spartina michauxiana*.
Aberdeen, S. Dak., Aug., 1896,
comm. D. Griffiths.
378. *P. distichlidis* Ell. and Ev.—III,
on *Spartina michauxiana*.
Wood River, Nebr., Aug. 28,
1906, J. M. Bates.
379. *P. distichlidis* Ell. and Ev.—III,
on *Spartina michauxiana*.
Silesia, Mont., Sept. 11, 1913,
E. Bartholomew.
380. *P. eatoniae* Arth.—III, on *Sphenopholis nitida*.
Keowee, Oconee County, S. C.,
May 17, 1900, P. H. Rolfs.
381. *P. eatoniae* Arth.—III, on *Sphenopholis obtusata*.
Stockton, Kans., June 24, 1898,
E. Bartholomew.
382. *P. eatoniae* Arth.—II and III, on
Sphenopholis obtusata.
Norderhof, Logan County, N.
Dak., July 11, 1912, J. F.
Brenckle.
383. *P. eatoniae* Arth.—II, on *Sphenopholis obtusata*.
St. Paul, Nebr., May 29, 1914,
J. M. Bates.
384. *P. eatoniae* Arth.—III, on *Sphenopholis pallens*.
Decorah, Iowa, July 12, 1903,
E. W. D. Holway.
385. *P. elegans* Schr.—III, on *Tecoma*
sp.
Cojimar, Habana, Cuba, May,
1906, C. F. Baker.
386. *P. eleocharidis* Arth.—III, on
Eleocharis ovata.
White Sulphur Springs, W.
Va., Oct. 3, 1889, M. B. Waite.

¹ *Puccinia cyperi* Arth. as here used includes *P. caniculata* (S.) Lagh.

387. *P. eleocharidis* Arth.—III, on *Eleocharis palustris glaucescens*.
Kennedy, Nebr., Aug. 21, 1912,
J. M. Bates.
388. *P. enceliae* Diet. and Holw.—II and III, on *Encelia mexicana*.
Cuernavaca, Mexico, Sept. 25, 1896, E. W. D. Holway. Type coll. Dupl. N. A. Ured. 1240.
389. *P. espinosarum* Diet. and Holw.—II and III, on *Eupatorium espinosarum*.
Oaxaca, Mexico, Oct. 17, 1899, E. W. D. Holway. Type coll. Dupl. N. A. Ured. 1241.
390. *P. exitiosa* Syd. and Holw.—III, on *Tecoma mollis*.
Patzcuaro, Mexico, Oct. 18, 1898, E. W. D. Holway. Dupl. F. Col. 4568; N. A. Ured. 140.
391. *P. extensicola* Plow.—III, on *Carex festivella*.
Tolland, Colo., Aug., 1909, E. Bethel. Dupl. N. A. Ured. 25.
392. *P. extensicola* Plow.—III, on *Carex festivella*.
Silver Lake, Colo., Sept. 5, 1914, E. Bartholomew and E. Bethel. Dupl. F. Col. 4564.
393. *P. extensicola* Plow.—II, on *Carex laeviculmis*.
Bremerton, Wash., July 22, 1912, E. Bartholomew. Dupl. N. A. Ured. 827.
394. *P. extensicola* Plow.—II and III, on *Carex muhlenbergii*.
Camp Pike, Ark., Dec. 4, 1918, J. F. Brenckle.
395. *P. extensicola* Plow.—II and III, on *Carex panicea*.
Ithaca, N. Y., Sept. 13, 1911, B. B. Higgins.
396. *P. extensicola* Plow.—III, on *Carex stipata*.
Buckeye Lake, Ohio, Nov. 1, 1902, W. A. Kellerman.
397. *P. extensicola* Plow.—I, on *Eriogon canadensis*.
Stockton, Kans., June 28, 1904, E. Bartholomew.
398. *P. extensicola* Plow.—I, on *Eriogon ramosus*.
Stockton, Kans., June 15, 1904, E. Bartholomew.
399. *P. extensicola* Plow.—I, on *Eriogon ramosus*.
St. Libory, Nebr., May 22, 1915, J. M. Bates.
400. *P. extensicola* Plow.—I, on *Solidago caesia*.
St. Johnsbury, Vt., June 18, 1911, W. P. Carr. Dupl. N. A. Ured. 626.
401. *P. extensicola* Plow.—I, on *Solidago serotina*.
Stockton, Kans., June 6, 1913, E. Bartholomew.
402. *P. extensicola* Plow.—I, on *Solidago serotina*.
St. Paul, Nebr., May 25, 1914, J. M. Bates.
403. *P. extensicola* Plow.—I, on *Solidago serotina*.
Minnesota, near Fargo, N. Dak., July 7, 1915, O. A. Stevens.
404. *P. festucae* Plow.—II and III, on *Festuca elatior*.
Sargent, Nebr., Oct. 17, 1905, J. M. Bates.
405. *P. flaccida* B. and Br.—II, on *Echinochloa crusgalli*.
Orleans, Nebr., Oct. 3, 1905, J. M. Bates.
406. *P. gayophyti* Billings—III, on *Gayophytum racemosum*.
Eldora, Colo., Aug. 13, 1907, E. Bartholomew.
407. *P. gentianae* Lk.—III, on *Gentiana affinis*.
Montrose, Colo., Oct. 9, 1912, E. Bartholomew.
408. *P. gentianae* Lk.—III, on *Gentiana andrewsii*.
Lansing, Mich., Sept. 5, 1889, M. B. Waite.
409. *P. gentianae* Lk.—III, on *Gentiana bigelovii*.
Boulder, Colo., Aug. 12, 1911, E. Bartholomew and E. Bethel. Dupl. N. A. Ured. 342.

410. *P. gentianae* Lk.—III, on *Gentiana calycosa*.
Tolland, Colo., Aug. 27, 1906,
E. Bethel.
411. *P. geranii-silvatici* Karst.—III,
on *Geranium viscosissimum*.
Near Bozeman, Mont., July
17, 1912, H. M. Jennison.
412. *P. gerardiae* Syd.—III, on *Gerardia tenuifolia*.
Mount Carmel, Ill., Sept. 28,
1889, M. B. Waite. Type coll.
Dupl. Syd.: Ured. 1717; 1902
Myc. Ex. 113a as *P. seymeriae*.
413. *P. gigantea* Karst.—III, on *Epilobium angustifolium*.
Banff, Alberta, Canada, Sept.
14, 1906, E. W. D. Holway.
414. *P. glumarum* Eriks. and Henn.—
III, on *Hordeum nodosum*.
Cripple Creek, Colo., Aug. 29,
1916, E. Bartholomew.
415. *P. gonolobi* Rav.—III, on *Vincetoxicum hirsutum*.
Starkville, Miss., July 17,
1895, S. M. Tracy.
416. *P. gonolobi* Rav.—III, on *Vincetoxicum palustre*.
Biloxi, Miss., July 1, 1895,
S. M. Tracy.
417. *P. gouaniae* Holw.—II and III,
on *Gouania lupuloides*.
Mayaguez, Porto Rico, Jan.
30, 1913, F. L. Stevens.
418. *P. graminis* P.—III, on *Agropyron repens*.
Waverley, Mass., Apr., 1900,
A. B. Seymour.
419. *P. graminis* P.—III, on *Agrostis alba*.
Mount Ann, Mass., Aug. 22,
1903, A. B. Seymour and F. W.
Patterson.
420. *P. graminis* P.—II and III, on
Avena sativa.
Manhattan, Kans., Oct. 11,
1889, M. Varney.
421. *P. graminis* P.—II and III, on
Avena sativa.
Manhattan, Kans., Oct. 15,
1889, M. Varney, 1197.
422. *P. graminis* P.—III, on *Avena sativa*.
Manhattan, Kans., Oct. 15,
1889, M. Varney, 1185.
423. *P. graminis* P.—III, on *Avena sativa*.
Manhattan, Kans., Oct. 18,
1889, M. Varney.
424. *P. graminis* P.—III, on *Avena sativa*.
Cambridge, Mass., Oct. 29,
1894, T. D. Bergen.
425. *P. graminis* P.—III, on *Avena sativa*.
Walton, N. Y., Sept. 12, 1913,
A. E. Jenkins.
426. *P. graminis* P.—III, on *Avena sterilis*.
East Lansing, Mich., Oct. 20,
1891, C. F. Wheeler.
427. *P. graminis* P.—I, on *Berberis vulgaris*.
New Brunswick, N. J., May,
1889, D. G. Fairchild.
428. *P. graminis* P.—I, on *Berberis vulgaris*.
East Lansing, Mich., May 11,
1896, comm. W. J. Beal.
429. *P. graminis* P.—I, on *Berberis vulgaris*.
St. Johnsbury, Vt., June 22,
1911, W. P. Carr. Dupl. F. Col.
3461.
430. *P. graminis* P.—III, on *Elymus canadensis*.
Stockton, Kans., Aug. 10, 1898,
E. Bartholomew.
431. *P. graminis* P.—III, on *Hordeum jubatum*.
Oregon, Ill., Sept. 10, 1889,
M. B. Waite.
432. *P. graminis* P.—III, on *Hordeum jubatum*.
Champaign, Ill., Sept. 19, 1889,
M. B. Waite.
433. *P. graminis* P.—III, on *Hordeum jubatum*.
Stockton, Kans., Aug. 10, 1898,
E. Bartholomew. Dupl. Ured.
exs. et ic. 30.

434. *P. graminis* P.—III, on *Hordeum vulgare*.
Loyalton, S. Dak., Aug., 1896,
R. Bowen.
435. *P. graminis* P.—II, on *Phleum pratense*.
Billings, Mont., Sept. 8, 1915,
E. Bartholomew. Dupl. F. Col.
4850.
436. *P. graminis* P.—III, on *Sphe-
nopholis obtusata*.
Stockton, Kans., Aug. 10, 1898,
E. Bartholomew.
437. *P. graminis* P.—III, on *Triticum
sativum*.
Calf Mountain, Manitoba, Can-
ada, 1904 (?), comm. M. A.
Carleton.
438. *P. graminis* P.—III, on *Triti-
cum sativum*.
Red Cloud, Nebr., July 13,
1904, comm. C. F. Cather.
439. *P. grindeliae* Pk.—III and X, on
Bigelovia veneta.
Pachuca, Mexico., Oct. 27,
1903. E. W. D. Holway.
440. *P. grumosa* Syd. and Holw.—III,
on *Zygadenus elegans*.
Banff, Alberta, Canada, Aug.
16, 1902, E. W. D. Holway. Type
coll.
441. *P. guillemineae* Diet. and Holw.—
III, on *Guilleminea* sp.
City of Mexico, Mexico, Oct.
7, 1896. E. W. D. Holway. Type
coll.
442. *P. helianthi* S.—II, on *Helian-
thus* sp.
Near Arlington, Va., Oct. 7,
1908. V. K. Charles.
443. *P. helianthi* S.—III, on *Helian-
thus annuus*.
Sandcoulee, Mont., Aug., 1888,
F. W. Anderson. Dupl. 1902
Myc. Ex. 121e as *P. tanacetii*.
444. *P. helianthi* S.—II and III, on
Helianthus annuus.
Urmeyville, Ind., Sept., 1890,
E. M. Fisher. Dupl. 1902 Myc.
Ex. 121e as *P. tanacetii*.
445. *P. helianthi* S.—III, on *Helian-
thus annuus*.
Pineridge, Calif., Oct., 1892, G.
Mainwaring.
446. *P. helianthi* S.—III, on *Helian-
thus annuus*.
Red Cloud, Nebr., Aug. 1,
1911, J. M. Bates.
447. *P. helianthi* S.—III, on *Helian-
thus annuus*.
Denver, Colo., Sept., 1911, E.
Bartholomew.
448. *P. helianthi* S.—II and III, on
Helianthus annuus.
Bellefourche, S. Dak., Aug.
31, 1913, C. R. Ball.
449. *P. helianthi* S.—III, on *Helian-
thus annuus*.
West Lafayette, Ind., Sept.
13, 1915, C. A. Ludwig. Dupl.
F. Col. 4851; N. A. Ured. 1448.
450. *P. helianthi* S.—III, on *Helian-
thus decapetalus*.
West Lafayette, Ind., Sept. 4,
1915, C. A. Ludwig. Dupl. N. A.
Ured. 1550.
451. *P. helianthi* S.—II and III, on
Helianthus giganteus.
West Lafayette, Ind., Sept.
14, 1914, C. A. Ludwig. Dupl.
F. Col. 4666; N. A. Ured. 1549.
452. *P. helianthi* S.—III, on *Helian-
thus grosseserratus*.
Arvada, Colo., Aug. 12, 1910,
E. Bartholomew and E. Bethel.
Dupl. F. Col. 3255.
453. *P. helianthi* S.—II and III, on
Helianthus petiolaris.
Sandcoulee, Mont., Aug. 25,
1888, F. W. Anderson. Dupl.
1902 Myc. Ex. 121i as *P. tanacetii*.
454. *P. helianthi* S.—II, on *Helian-
thus petiolaris*.
Rimrock Station, Mont., Aug.
1, 1917, E. Bartholomew.
455. *P. helianthi* S.—III, on *Helian-
thus strumosus*.
Byron, Ill., R. E. Blount.
456. *P. helianthi* S.—II and III, on
Helianthus strumosus.
Urmeyville, Ind., Aug., 1890,
E. M. Fisher. Dupl. 1902 Myc.
Ex. 121j as *P. tanacetii*.
457. *P. helianthi* S.—I, on *Helian-
thus strumosus*.
Madison, Wis., June 4, 1912,
E. T. Bartholomew. Dupl. F.
Col. 3941; N. A. Ured. 1347.

458. *P. helianthi* S.—III, on *Helianthus trachelifolius*.
Crawfordsville, Ind., Oct. 3, 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 121k as *P. tanacetii*.
459. *P. helianthi* S.—II and III, on *Helianthus trachelifolius*.
Brookfield, Ind., Nov., 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 121k as *P. tanacetii*.
460. *P. helianthi* S.—I, on *Helianthus tuberosus*.
Stockton, Kans., May 31, 1902, E. Bartholomew.
461. *P. helianthi* S.—III, on *Helianthus tuberosus*.
Superior, Nebr., Sept. 11, 1914, J. M. Bates.
462. *P. hemisphaerica* Lindr.—I, on *Lactuca pulchella*.
Kulm, N. Dak., June, 1916, J. F. Brenckle.
463. *P. heterospora* B. and C.—III and X, on *Abutilon incanum*.
Ithaca, N. Y., Aug., 1901, W. H. Long.
464. *P. heterospora* B. and C.—III, on *Abutilon theophrasti*.
Emporia, Kans., Oct. 9, 1905, J. E. Bartholomew.
465. *P. heterospora* B. and C.—III and X, on *Sida* sp.
Bard, Calif., Nov. 8, 1911, R. M. Meade.
466. *P. heterospora* B. and C.—III and X, on *Sida spinosa*.
Charleston, Mo., Sept. 25, 1889, M. B. Waite, 470.
467. *P. heterospora* B. and C.—III and X, on *Sida spinosa*.
Starkville, Miss., Sept. 14, 1894, S. M. Tracy.
468. *P. holboellii* (Hornem.) Rostr.—III, on *Arabis holboellii*.
Fort Douglas, Utah, May 10, 1918, J. F. Brenckle.
469. *P. holcina* Eriks.—II, on *Holcus lanatus*.
Tacoma, Wash., Aug. 18, 1901, E. W. D. Holway.
470. *P. holcina* Eriks.—II, on *Holcus lanatus*.
Woodside, Calif., June 29, 1918, E. T. and Mrs. E. T. Bartholomew.
471. *P. huberi* Henn.—II, on *Panicum trichoides*.
Maricao, Porto Rico, Jan. 10, 1912, F. L. Stevens.
472. *P. hyssopi* S.—III, on *Agastache scrophulariaefolia*.
Swago Mountain, Pocahontas County, W. Va., Aug. 20, 1902, W. A. Kellerman.
473. *P. inflata* Arth.—III, on *Stigmaphyllon periplocifolium*.
Baracoa, Cuba, Mar. 13, 1903, E. W. D. Holway. Type coll. Dupl. N. A. Ured. 42.
474. *P. intermixta* Pk.—III, on *Iva axillaris*.
Bellevue, S. Dak., Sept. 3, 1913, C. R. Ball.
475. *P. invaginata* Arth. and Johnston—II, on *Gouania lupuloides*.
Guanica, Porto Rico, Feb. 3, 1913, F. L. Stevens.
476. *P. iridis* Wallr.—II, on *Iris versicolor*.
Newport, R. I., Oct. 18, 1890, H. M. Richards.
477. *P. iridis* Wallr.—II, on *Iris versicolor*.
Bradley, Me., Oct. 13, 1899, P. L. Ricker.
478. *P. jonesii* Pk.—I, on *Leptotaenia multifida*.
Near Fort Douglas, Utah, Apr. 28, 1918, J. F. Brenckle.
479. *P. jonesii* Pk.—III, on *Leptotaenia multifida*.
Fort Douglas, Utah, May 30, 1918, J. F. Brenckle.
480. *P. kansensis* Ell. and Barth.—III, on *Buchloe dactyloides*.
Saline River, Ellis County, Kans., Sept. 9, 1895, E. Bartholomew.
481. *P. lantanae* Farl.—III and X, on *Lantana involucrata*.
Boqueron, Porto Rico, Feb. 15, 1913, F. L. Stevens.

482. *P. lateripes* B. and Rav.—III, on *Ruellia ciliosa*.
Champaign, Ill., Sept. 19, 1889,
M. B. Waite.
483. *P. lateritia* B. and C.—II and III, on *Diodia maritima*.
Mayaguez, Porto Rico, Feb. 8,
1913, F. L. Stevens.
484. *P. lippiae* Speg.—II, on *Lippia pringlei*.
Oaxaca, Mexico, Oct. 23, 1889,
E. W. D. Holway.
485. *P. lithospermi* Ell. and Kell.—II and III, on *Evolvulus argenteus*.
Hill City, Kans., Aug. 30, 1904,
E. Bartholomew.
486. *P. ludibunda* Ell. and Ev.—III, on *Carex sparganioides*.
Stockton, Kans., Sept. 28,
1897, E. Bartholomew. Dupl. N. A. Ured. 47.
487. *P. ludibunda* Ell. and Ev.—I, on *Gaura brachycarpa*.
Denton, Tex., Apr. 3, 1907, R. Richardson.
488. *P. ludibunda* Ell. and Ev.—I, on *Oenothera biennis*.
Stockton, Kans., June 16, 1893,
E. Bartholomew.
489. *P. lycii* Kalch.—II and III, on *Lycium halimifolium*.
Stockton, Kans., Oct. 10, 1910,
E. Bartholomew.
490. *P. lygodesmiae* Ell. and Ev.—III, on *Lygodesmia juncea*.
Stockton, Kans., June 24, 1903,
E. Bartholomew.
491. *P. lygodesmiae* Ell. and Ev.—III, on *Lygodesmia juncea*.
Stockton, Kans., July 20, 1910,
E. Bartholomew. Dupl. F. Col. 3359; N. A. Ured. 351.
492. *P. macclatchieana* Diet. and Holw.—III, on *Scirpus microcarpus*.
San Francisco, Calif., Aug. 11,
1915, E. Bartholomew.
493. *P. maculosa* S.—III, on *Krigia amplexicaulis*.
St. Louis, Mo., June 1, 1894,
C. H. Thompson.
494. *P. major* Diet.—I, II, and III, on *Crepis paludosa*.
Near Skive, Jutland, Denmark, 1902, J. Lind.
495. *P. malvacearum* Mont.—III, on *Althaea rosea*.
San Diego, Calif., May 14,
1889, E. Palmer.
496. *P. malvacearum* Mont.—III, on *Althaea rosea*.
Woods Hole, Mass., Aug. 21,
1900, E. F. Smith.
497. *P. malvacearum* Mont.—III, on *Althaea rosea*.
Waverley, Mass., July 4, 1902,
C. L. Shear.
498. *P. malvacearum* Mont.—III, on *Malva rotundifolia*.
Roxbury, Mass., July 24, 1902,
A. B. and R. M. Seymour.
499. *P. melanocephala* Syd.—II and III, on *Phyllostachys newii hupehensis* (S. P. I. 23234).
Brooksville, Fla., Feb., 1920,
D. Bissett.
500. *P. menthae* P.—III, on *Mentha arvensis canadensis*.
Sandcoulee, Mont., Sept., 1888,
F. W. Anderson.
501. *P. menthae* P.—II and III, on *Mentha arvensis canadensis*.
Oregon, Ill., Sept. 11, 1889,
M. B. Waite.
502. *P. menthae* P.—III, on *Mentha arvensis canadensis*.
Bradley, Me., Oct., 1900, P. L. Ricker. Dupl. F. Col. 1461.
503. *P. menthae* P.—II, on *Mentha arvensis canadensis*.
Billings, Mont., Sept. 8, 1915,
E. Bartholomew.
504. *P. menthae* P.—III, with *Darluca flum* (Biv.) Cast., on *Monarda fistulosa*.
Crawfordsville, Ind., Oct., 1890, E. M. Fisher.
505. *P. menthae* P.—III, on *Monarda fistulosa*.
Rapid City, S. Dak., Aug., 1897, D. Griffiths and L. W. Carter.

506. *P. menthae* P.—III, on *Monarda menthaefolia*.
Absarokee, Mont., Sept. 15, 1915, E. Bartholomew.
507. *P. menthae* P.—III, on *Pycnanthemum flexuosum*.
Mount Carmel, Ill., Sept. 28, 1889, M. B. Waite.
508. *P. menthae* P.—II and III, on *Pycnanthemum flexuosum*.
Lake Huron, Ontario, Canada, Aug. 11, 1911, J. Dearness.
509. *P. menthae* P.—II, on *Pycnanthemum muticum*.
Swago Mountain, Pocahontas County, W. Va., Aug. 18, 1902, W. A. Kellerman.
510. *P. mesomegala* B. and C.—III, on *Clintonia uniflora*.
Millwood, Colo., Feb., 1908, J. D. Culbertson.
511. *P. mirifica* Diet. and Holw.—III and X, on *Borrichia frutescens*.
St. Petersburg, Fla., July, 1894, P. H. Rolfs.
512. *P. montanensis* Ell.—III, on *Elymus canadensis*.
Callaway, Nebr., Aug. 2, 1902, J. M. Bates.
513. *P. muhlenbergiae* Arth. and Holw.—I, on *Callirhoe involucrata*.
Rockport, Kans., July 17, 1894, E. Bartholomew.
514. *P. muhlenbergiae* Arth. and Holw.—I, on *Callirhoe involucrata*.
Stockton, Kans., May 10, 1911, E. Bartholomew. Dupl. N. A. Ured. 248.
515. *P. muhlenbergiae* Arth. and Holw.—I, on *Hibiscus moscheutos*.
Buckeye Lake, Ohio, W. A. Kellerman.
516. *P. muhlenbergiae* Arth. and Holw.—I, on *Hibiscus moscheutos*.
Bowmans Bluff, N. C., May, 1902, A. W. Edson.
517. *P. muhlenbergiae* Arth. and Holw.—III, on *Muhlenbergia mexicana*.
Oregon, Ill., Sept. 14, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 127a as *P. windsorise*, on *Muhlenbergia* sp.
518. *P. muhlenbergiae* Arth. and Holw.—III, on *Muhlenbergia mexicana*.
Manhattan, Kans., Dec. 5, 1889, M. Varney. Dupl. 1902 Myc. Ex. 127b as *P. windsorise*.
519. *P. muhlenbergiae* Arth. and Holw.—III, on *Muhlenbergia mexicana*.
Stockton, Kans., Oct. 13, 1897, E. Bartholomew.
520. *P. muhlenbergiae* Arth. and Holw.—III, on *Muhlenbergia mexicana*.
Stockton, Kans., Oct. 14, 1910, E. Bartholomew. Dupl. N. A. Ured. 49.
521. *P. obscura* Schr.—II, on *Luzula parviflora*.
Bremerton, Wash., July 31, 1912, E. Bartholomew.
522. *P. obtecta* Pk.—III, on *Scirpus americanus*.
Near Billings, Mont., Aug. 29, 1912, D. B. Swingle.
523. *P. obtecta* Pk.—III, on *Scirpus americanus*.
Silesia, Mont., Sept. 11, 1913, E. T. and E. Bartholomew. Dupl. F. Col. 4365; N. A. Ured. 1261.
524. *P. obtecta* Pk.—III, on *Scirpus validus*.
Wolhurst, Colo., Apr. 9, 1916, E. Bethel. Dupl. N. A. Ured. 1663.
525. *P. obtecta* Pk.—III, on *Scirpus validus*.
Wolhurst, Colo., Sept., 1916, E. Bethel.
526. *P. oenotherae* Vize—II and III, on *Boisduvalia densiflora*.
Berkeley, Calif., June 25, 1893, W. C. Blasdale.

527. *P. ornata* Arth. and Holw.—III, on *Rumex britannica*.
Orono, Me., Oct. 17, 1900, P. L. Ricker.
528. *P. osmorrhizae* Lindr.—III, on *Osmorhiza claytoni*.
Lancaster, Pa., May 31, 1910, E. Bartholomew. Dupl. N. A. Ured. 51.
529. *P. osmorrhizae* Lindr.—III, on *Osmorhiza divaricata*.
Messler's Ranch, Mount Rainier, Wash., Aug. 27, 1901, E. W. D. Holway.
530. *P. panici* Diet.—I, on *Euphorbia hexagona*.
Callaway, Nebr., June 11, 1902, J. M. Bates. Dupl. F. Col. 1706.
531. *P. panici* Diet.—I, on *Euphorbia marginata*.
Stockton, Kans., May 31, 1902, E. Bartholomew.
532. *P. panici* Diet.—I, on *Euphorbia marginata*.
Stockton, Kans., June 5, 1911, E. Bartholomew. Dupl. F. Col. 3855; N. A. Ured. 250.
533. *P. panici* Diet.—III, on *Panicum virgatum*.
Stockton, Kans., Oct. 12, 1897, E. Bartholomew.
534. *P. parkerae* Diet. and Holw.—III, on *Ribes lacustre*.
Seattle, Wash., June 5, 1894, A. M. Parker and E. W. D. Holway. Type coll. Dupl. N. A. F. 3242; N. A. Ured. 52; Vester.: Micr. 562.
535. *P. patruelis* Arth.—III, on *Carex conjuncta*.
Kulm, N. Dak., Mar. 24, 1912, J. F. Brenckle.
536. *P. pattersoniae* Syd.—III, on *Tripsacum dactyloides*.
Manhattan, Kans., Dec. 5, 1889, M. Varney. Type coll. Dupl. Syd.: Ured. 1729; 1902 Myc. Ex. 116b as *P. sorghi*.
537. *P. pattersoniana* Arth.—II and III, on *Agropyron spicatum*.
Sandcoulee, Mont., July, 1888, F. W. Anderson. Type coll.
537. *P. pattersoniana*—Continued.
Dupl. 1902 Myc. Ex. 110a as *P. rubigo-vera*, on *Agropyron divergens*.
538. *P. peridermiospora* Arth.—I, on *Fraxinus pennsylvanica lanceolata*.
Lincoln, Nebr., June 5, 1898, comm. M. A. Carleton.
539. *P. peridermiospora* Arth.—I, on *Fraxinus pennsylvanica lanceolata*.
Lincoln, Nebr., June 8, 1898, comm. M. A. Carleton.
540. *P. peridermiospora* Arth.—I, on *Fraxinus pennsylvanica lanceolata*.
Wirth Lake, N. Dak., June 6, 1908, J. F. Brenckle. Dupl. F. Dak. 2.
541. *P. peridermiospora* Arth.—II, on *Spartina cynosuroides*.
North Beach, Md., June 27, 1919, W. W. Diehl.
542. *P. peridermiospora* Arth.—II and III, on *Spartina cynosuroides*.
North Beach, Md., July 30, 1919, W. W. Diehl.
543. *P. peridermiospora* Arth.—III, on *Spartina michauxiana*.
Manhattan, Kans., Apr. 3, 1889, W. A. Kellerman.
544. *P. peridermiospora* Arth.—III, on *Spartina michauxiana*.
El Reno, Okla., Dec. 25, 1909, W. H. Long. Dupl. F. Col. 3354.
545. *P. peridermiospora* Arth.—III, on *Spartina michauxiana*.
Stockton, Kans., Oct. 14, 1910, E. Bartholomew. Dupl. N. A. Ured. 739.
546. *P. petasitis* Vester.—III, on *Petasites frigida*.
Banff, Alberta, Canada, July 24, 1901, E. W. D. Holway. Dupl. N. A. Ured. 1564.
547. *P. phragmitis* (Schum.) Koern.—III, on *Phragmites communis*.
Callaway, Nebr., July 9, 1902, J. M. Bates.

548. *P. phragmitis* (Schum.) Koern.—III, on *Phragmites communis*.
Near Anselm, N. Dak., Aug. 13, 1916, J. F. Brenckle.
549. *P. phragmitis* (Schum.) Koern.—I, on *Rheum rhaponticum*.
Callaway, Nebr., June 2, 1902, J. M. Bates.
550. *P. physalidis* Pk.—III, on *Physalis heterophylla*.
Callaway, Nebr., July 17, 1902, J. M. Bates. Dupl. F. Col. 1652.
551. *P. physalidis* Pk.—III, on *Physalis heterophylla*.
Grand Island, Nebr., June 27, 1907, J. M. Bates.
552. *P. physalidis* Pk.—III, on *Physalis heterophylla*.
Grand Island, Nebr., July 31, 1907, J. M. Bates.
553. *P. plumbaria* Pk.—III, on *Gilia gracilis*.
Waitsburg, Wash., Apr. 5, 1900, R. M. Horner.
554. *P. plumbaria* Pk.—III, on *Phlox longifolia*.
Salt Lake City, Utah, June 12, 1903, A. O. Garrett.
555. *P. plumbaria* Pk.—I, on *Phlox longifolia*.
Fort Douglas, Utah, Apr. 28, 1918, J. F. Brenckle.
556. *P. plumbaria* Pk.—III, on *Phlox longifolia*.
Fort Douglas, Utah, June 20, 1918, J. F. Brenckle.
557. *P. poarum* Niels.—II, on *Catabrosa aquatica*.
Centennial, Wyo., Aug. 16, 1911, E. T. and E. Bartholomew.
558. *P. poarum* Niels.—II, on *Poa pratensis*.
Bainbridge Island, Kitsap County, Wash., Aug. 4, 1909, E. and Mrs. E. Bartholomew. Dupl. F. Col. 3175.
559. *P. poarum* Niels.—II, on *Poa pratensis*.
Caldwell, Idaho, Sept. 30, 1912, E. Bartholomew. Dupl. N. A. Ured. 958.
560. *P. podophylli* S.—I, on *Podophyllum peltatum*.
High Island, Md., Apr. 23, 1889, M. B. Waite.
561. *P. podophylli* S.—III, on *Podophyllum peltatum*.
New Brunswick, N. J., May, 1889, D. G. Fairchild.
562. *P. podophylli* S.—III, on *Podophyllum peltatum*.
Louisiana (?), Apr. 8, 1890, A. B. Langlois.
563. *P. podophylli* S.—III, on *Podophyllum peltatum*.
Urmeville, Ind., July 15, 1890, E. M. Fisher.
564. *P. podophylli* S.—I, on *Podophyllum peltatum*.
St. Louis, Mo., Apr. 25, 1894, C. H. Thompson.
565. *P. podophylli* S.—III, on *Podophyllum peltatum*.
St. Louis, Mo., May 19, 1894, C. H. Thompson.
566. *P. podophylli* S.—I, on *Podophyllum peltatum*.
High Island, Md., Apr. 29, 1899, E. A. Bessey.
567. *P. podophylli* S.—I, on *Podophyllum peltatum*.
Glen Echo, Md., May 9, 1904, V. K. Charles.
568. *P. podophylli* S.—III, on *Podophyllum peltatum*.
Eldon, Mo., June 3, 1906 (?), P. Spaulding.
569. *P. podophylli* S.—III, on *Podophyllum peltatum*.
Fairport, Iowa, June 4, 1913, R. Coker (?).
570. *P. podophylli* S.—III, on *Podophyllum peltatum*.
Ann Arbor, Mich., July 2, 1917, C. A. Ludwig. Dupl. N. A. Ured. 1807.
571. *P. polygoni-amphibii* P.—I, on *Geranium maculatum*.
Madison, Wis., May 24, 1911, E. T. Bartholomew. Dupl. N. A. Ured. 3961.
572. *P. polygoni-amphibii* P.—III, on *Polygonum* sp.
Sandcoulee, Mont., Sept., 1888, F. W. Anderson.

573. *P. polygoni-amphibii* P.—III, on *Polygonum* sp.
Aberdeen, S. Dak., Aug., 1895,
comm. D. Griffiths.
574. *P. polygoni-amphibii* P.—II, on *Polygonum acre*.
Eustis, Fla., Apr. 6, 1889, L. M.
Underwood.
575. *P. polygoni-amphibii* P.—III, on *Polygonum amphibium*.
Spout Run, Alexandria Coun-
ty, Va., Oct., 1889, M. B. Waite.
576. *P. polygoni-amphibii* P.—III, on *Polygonum amphibium*.
Alexandria, Va., Oct., 1890,
M. B. Waite.
577. *P. polygoni-amphibii* P.—III, on *Polygonum amphibium hartwrightii*.
Billings, Mont., D. B. Swingle.
578. *P. polygoni-amphibii* P.—II and
III, on *Polygonum amphibium hartwrightii*.
South Chicago, Ill., Sept. 7,
1889, M. B. Waite.
579. *P. polygoni-amphibii* P.—II, on *Polygonum lapathifolium*.
London, Ontario, Canada,
Aug. 29, 1910, J. Dearness.
580. *P. polygoni-amphibii* P.—III,
on *Polygonum muhlenbergii*.
Huron, S. Dak., Sept., 1897,
D. Griffiths.
581. *P. polygoni-amphibii* P.—II, on *Polygonum scandens*.
Middlegrove, Ill., Sept. 21,
1907, E. Bartholomew.
582. *P. polygoni-amphibii* P.—III,
on *Polygonum virginianum*.
Washington, D. C., Aug. 8,
1889, D. G. Fairchild.
583. *P. polygoni-amphibii* P.—II and
III, on *Polygonum virginianum*.
Rock Creek Park, Washing-
ton, D. C., Aug. 25, 1889, M. B.
Waite.
584. *P. polygoni-amphibii* P.—III,
on *Polygonum virginianum*.
Lansing, Mich., Sept. 6, 1889,
M. B. Waite.
585. *P. polygoni-amphibii* P.—III,
on *Polygonum virginianum*.
Mount Carmel, Ill., Sept. 27,
1889, M. B. Waite.
586. *P. polygoni-amphibii* P.—II
and III, on *Polygonum vir-
ginianum*.
East Lansing, Mich., Aug. 9,
1891, W. J. Beal.
587. *P. polygoni-amphibii* P.—III,
on *Polygonum virginianum*.
Marlinton, W. Va., Aug. 12,
1902, W. A. Kellerman.
588. *P. porteri* Pk.—I, on *Veronica
cusickii*.
Paradise Valley, Mount Rai-
nier, Wash., Aug. 22, 1901, E. W.
D. Holway.
589. *P. pringsheimiana* Kleb.—III,
on *Carex* sp.
Janesville, Wis., Sept. 15,
1917, E. Bartholomew.
590. *P. pringsheimiana* Kleb.—II
and III, on *Carex laxiflora*.
Decorah, Iowa, Nov. 20, 1892,
E. W. D. Holway.
591. *P. pringsheimiana* Kleb.—III,
on *Carex laxiflora blanda*.
Long Pine, Nebr., Oct. 30,
1902, J. M. Bates.
592. *P. pringsheimiana* Kleb.—I, on
Ribes gracile.
Weeping Water, Nebr., June
1, 1890, comm. M. A. Carleton.
593. *P. pringsheimiana* Kleb.—I, on
Ribes grossularia.
McLean, N. Y., June 15, 1912,
B. B. Higgins.
594. *P. pringsheimiana* Kleb.—I, on
Ribes longiflorum.
Stockton, Kans., June 6, 1913,
E. Bartholomew. Dupl. F. Col.
4147; N. A. Ured. 844.
595. *P. prionosciadii* Lindr.—III, on
Coulterophytum laxum.
Chapala, Mexico, Sept. 19,
1899, E. W. D. Holway. Dupl.
F. Col. 3463.
596. *P. prionosciadii* Lindr.—III, on
Coulterophytum laxum.
Urapam, Mexico, Oct. 11,
1899, E. W. D. Holway. Dupl.
N. A. Ured. 1567.

597. *P. prionosciadii* Lindr.—III, on *Prionosciadium dissectum*.
Guadalajara, Mexico, Sept. 29, 1903, E. W. D. Holway. Dupl. N. A. Ured. 55; Syd.: Ured. 1827; Vester.: Micr. 866.
598. *P. procera* Diet. and Holw.—II and III (*P. perminuta* Arth.), on *Cinna arundinacea*.
North Beach, Md., July 30, 1919, W. W. Diehl.
599. *P. procera* Diet. and Holw.—I (*P. perminuta* Arth.), on *Impatiens* sp.
Washington, D. C., May 22, 1890, D. G. Fairchild and E. A. Southworth.
600. *P. procera* Diet. and Holw.—I (*P. perminuta* Arth.), on *Impatiens biflora*.
St. Louis, Mo., June 1, 1894, C. H. Thompson.
601. *P. procera* Diet. and Holw.—I (*P. perminuta* Arth.), on *Impatiens pallida*.
Decorah, Iowa, June 28, 1885, E. W. D. Holway.
602. *P. pruni-spinosae* P.—III, on *Prunus* sp.
Manhattan, Kans., Sept. 28, 1889, M. Varney.
603. *P. pruni-spinosae* P.—III, on *Prunus americana*.
Manhattan, Kans., Oct. 3, 1889, M. Varney.
604. *P. pruni-spinosae* P.—II, on *Prunus persica*.
Griffin, Ga., Nov. 14, 1891, E. F. Smith.
605. *P. pruni-spinosae* P.—II, on *Prunus persica*.
Auburn, Ala., Oct. 20, 1897, F. S. Earle.
606. *P. pruni-spinosae* P.—II, on *Prunus persica*.
Biloxi, Miss., Oct. 23, 1897, S. M. Tracy.
607. *P. pruni-spinosae* P.—II, on *Prunus persica*.
Waco, Tex., Aug. 26, 1915, B. C. Tharp.
608. *P. pruni-spinosae* P.—II, on *Prunus persica davidiana*.
San Antonio, Tex., Jan. 1, 1911, W. P. Carr.
609. *P. pulsatillae* (Opiz) Rostr.—III, on *Anemone patens wolfgangiana*.
Kulm, N. Dak., June 30, 1915, J. F. Brenckle.
610. *P. pulverulenta* Grev.—III, on *Epilobium* sp.
Bingen, Wash., Sept. 15, 1898, W. N. Suksdorf.
611. *P. pulverulenta* Grev.—III, on *Epilobium paniculatum*.
Eldorado Springs, Colo., Aug. 30, 1911, E. Bartholomew.
612. *P. punctata* Lk.—I, on *Galium aparine*.
Decorah, Iowa, June 9, 1901, E. W. D. Holway.
613. *P. punctata* Lk.—I and III, on *Galium aparine*.
Decorah, Iowa, June 22, 1902, E. W. D. Holway.
614. *P. punctata* Lk.—III, on *Galium concinnum*.
Winona, Minn., Aug. 24, 1888, J. M. Holzinger.
615. *P. punctata* Lk.—III, on *Galium concinnum*.
Mount Carmel, Ill., Sept. 29, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 74c as *P. galii*.
616. *P. punctiformis* Diet. and Holw.—III, on *Rumex mexicanus*.
San Antonio, Tex., Mar. 31, 1911, W. P. Carr.
617. *P. pyrolae* Cke.—III, on *Polygala paucifolia*.
Alcove, N. Y., Sept., 1892, C. L. Shear.
618. *P. pyrrhopappi* Syd.—III, on *Pyrrhopappus carolinianus*.
Greenville, Tex., July 3, 1913, D. A. Saunders.
619. *P. redfieldiae* Tr.—III, on *Redfieldia flexuosa*.
Kennedy, Nebr., July 8, 1896, J. M. Bates.

620. *P. rhaetica* Ed. Fisch.—III, on *Veronica cusickii*.
Paradise Valley, Mount Rainier, Wash., Aug. 25, 1901, E. W. D. Holway.
621. *P. rhaetica* Ed. Fisch.—III, on *Veronica cusickii*.
Mount Rainier, Wash., Sept. 1, 1909, E. W. D. Holway.
622. *P. rubefaciens* Johans.—III, on *Galium boreale*.
Tacoma Park, S. Dak., June, 1895, D. Griffiths.
623. *P. rubefaciens* Johans.—III, on *Galium boreale*.
Decorah, Iowa, June 4, 1899, E. W. D. Holway.
624. *P. ruelliae* Lagh.—III, on *Ruellia strepens*.
Champaign, Ill., Sept. 21, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 92b as *P. lateripes*.
625. *P. ruelliae* Lagh.—II, on *Ruellia strepens*.
Urmeyville, Ind., July 20, 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 92b as *P. lateripes*.
626. *P. schedonnardi* Kell. and Sw.—III, on *Schedonnardus paniculatus*.
Stockton, Kans., Oct. 28, 1901, E. Bartholomew. Dupl. Syd.: Ured. 2384; Vester.: Micr. 1126.
627. *P. schedonnardi* Kell. and Sw.—II and III, on *Schedonnardus paniculatus*.
Yuma, Colo., July, 1907, H. L. Shantz.
628. *P. schedonnardi* Kell. and Sw.—III, on *Schedonnardus paniculatus*.
Stockton, Kans., July 30, 1910, E. Bartholomew. Dupl. F. Col. 3264; N. A. Ured. 365.
629. *P. semiinsculpta* Arth.—III, on *Vernonia alamani*.
Patzcuaro, Mexico, Oct. 17, 1898, E. W. D. Holway.
630. *P. senecionicola* Arth.—II and III, on *Senecio angustifolius*.
Oaxaca, Mexico, Oct. 22, 1899, E. W. D. Holway.
631. *P. seymeriae* Burr.—III, on *Seymeria macrophylla*.
Cedar Point, Ohio, July 23, 1903, W. A. Kellerman.
632. *P. seymouriana* Arth.—I, on *Cephalanthus occidentalis*.
Eustis, Fla., Apr. 6, 1889, L. M. Underwood.
633. *P. seymouriana* Arth.—I, on *Cephalanthus occidentalis*.
Tavares, Fla., Mar. 30, 1891, L. M. Underwood.
634. *P. seymouriana* Arth.—I, on *Cephalanthus occidentalis*.
Stockton, Kans., July 20, 1910, E. Bartholomew and E. Bethel. Dupl. F. Col. 3369; N. A. Ured. 261.
635. *P. seymouriana* Arth.—III, on *Spartina michauxiana*.
Champaign, Ill., Sept. 19, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 103 as *P. phragmitis*, on *Spartina cynosuroides*.
636. *P. sherardiana* Koern.—III, on *Malvastrum coccineum*.
Sandcoulee, Mont., July, 1888, F. W. Anderson.
637. *P. sherardiana* Koern.—III, on *Malvastrum coccineum*.
Aberdeen, S. Dak., Aug., 1895, comm. D. Griffiths.
638. *P. sherardiana* Koern.—III, on *Malvastrum coccineum*.
Aberdeen, S. Dak., Sept., 1897, D. Griffiths.
639. *P. sherardiana* Koern.—III, on *Malvastrum coccineum*.
Stockton, Kans., July 2, 1898, E. Bartholomew. Dupl. Syd.: Ured. 1276.
640. *P. sherardiana* Koern.—III, on *Malvastrum coccineum*.
Stockton, Kans., July 8, 1910, E. Bartholomew. Dupl. N. A. Ured. 367.
641. *P. silphii* S.—III, on *Silphium integrifolium*.
Stockton, Kans., June 5, 1911, E. Bartholomew. Dupl. N. A. Ured. 262.

642. *P. silphi* S.—III, on *Silphium perfoliatum*.
Fargo, N. Dak., July 22, 1914,
J. F. Brenckle. Dupl. F. Dak.
262.
643. *P. simplex* Eriks. and Henn.—
III, on *Hordeum jubatum*.
Aberdeen, S. Dak., July, 1896,
D. Griffiths.
644. *P. smilacis* S.—II and III, on
Smilax sp.
Starkville, Miss., Nov. 3, 1893,
S. M. Tracy.
645. *P. smilacis* S.—II and III, on
Smilax bona-nox.
Spiro, Okla., Oct. 21, 1913, E.
Bartholomew. Dupl. N. A. Ured.
968.
646. *P. smilacis* S.—II and III, on
Smilax glauca.
Orange Bend, Fla., Mar. 27,
1891, L. M. Underwood.
647. *P. smilacis* S.—II and III, on
Smilax glauca.
Camp Pike, Ark., Oct. 1, 1918,
J. F. Brenckle.
648. *P. smilacis* S.—III, on *Smilax*
rotundifolia (?).
Takoma Park, D. C., Nov. 10,
1901, H. J. Webber.
649. *P. sorghi* S.—I, on *Oxalis stricta*.
Hoxie, Kans., June 24, 1907,
E. Bartholomew.
650. *P. sorghi* S.—III, on *Zea mays*.
Champaign, Ill., Sept. 19, 1889,
M. B. Waite.
651. *P. sorghi* S.—II, on *Zea mays*.
Colby, Kans., Sept. 13, 1906,
E. Bartholomew.
652. *P. sorghi* S.—III, on *Zea mays*.
Bethel, Vt., Oct. 10, 1906, P.
Spaulding.
653. *P. sporoboli* Arth.—III, on *Sporo-*
bolus heterolepis.
Dickey County, N. Dak., Mar.,
1916, J. F. Brenckle.
654. *P. sporoboli* Arth.—III, on
Sporobolus heterolepis.
Bridge Gully, Dickey County,
N. Dak., Sept. 10, 1916, J. F.
Brenckle.
655. *P. stipae* Arth.—I, on *Solidago*
missouriensis.
Near Kulm, N. Dak., June 5,
1912, J. F. Brenckle. Dupl. F.
Dak. 188.
656. *P. stipae* Arth.—III, on *Stipa*
comata.
Sandcoulee, Mont., Aug. 26,
1888, F. W. Anderson.
657. *P. striatula* Pk.—III, on *Calama-*
grostis canadensis.
Spooner, Wis., Sept. 24, 1912,
J. J. Davis.
658. *P. suaveolens* Rostr.—II and III,
on *Cirsium arvense*.
New Brunswick, N. J., May
21, 1889, D. G. Fairchild.
659. *P. suaveolens* Rostr.—II, on
Cirsium arvense.
New Brunswick, N. J., June,
1889, D. G. Fairchild.
660. *P. suaveolens* Rostr.—III, on
Cirsium arvense.
Orono, Me., Oct. 17, 1900, P. L.
Ricker.
661. *P. suaveolens* Rostr.—II, on *Cir-*
sium arvense.
Niagara Falls, N. Y., July 15,
1913, E. Bartholomew and Mrs.
J. D. Fink. Dupl. F. Col. 4155;
N. A. Ured. 1664 and 1957.
662. *P. subcircinata* Ell. and Ev.—
III, on *Senecio perplexus*
dispar.
Fort Douglas, Utah, May 20,
1918, J. F. Brenckle.
663. *P. subnitens* Diet.—I, on *Cheno-*
podium album.
Callaway, Nebr., May 7, 1901,
J. M. Bates. Dupl. F. Col. 1501.
664. *P. subnitens* Diet.—II and III,
on *Distichlis spicata*.
Billings, Mont., Sept. 4, 1884,
comm. A. B. Seymour.
665. *P. subnitens* Diet.—III, on *Dis-*
tichlis spicata.
Helena, Mont., Oct., 1888,
F. W. Anderson. Dupl. 1902
Myc. Ex. 68 as *P. distichlidis*.

666. *P. subnitens* Diet.—III, on *Distichlis spicata*.
Aberdeen, S. Dak., Apr. 14, 1894, D. Griffiths.
667. *P. subnitens* Diet.—III, on *Distichlis spicata*.
Aberdeen, S. Dak., Sept., 1895, comm. D. Griffiths.
668. *P. subnitens* Diet.—III, on *Distichlis spicata*.
Saline River, Ellis County, Kans., Sept. 9, 1895, E. Bartholomew.
669. *P. subnitens* Diet.—III, on *Distichlis spicata*.
Fallon, Nev., Aug. 21, 1907, L. L. Harter.
670. *P. subnitens* Diet.—III, on *Distichlis spicata*.
Dodge City, Kans., Aug. 2, 1910, H. W. Baker.
671. *P. subnitens* Diet.—III, on *Distichlis spicata*.
Billings, Mont., Aug. 6, 1917, E. Bartholomew.
672. *P. substerilis* Ell. and Ev.—II and X, on *Stipa vaseyi*.
Seven Falls, Colo., Aug. 30, 1916, E. Bartholomew.
673. *P. substerilis* Ell. and Ev.—III and X, on *Stipa viridula*.
Kulm, N. Dak., Sept. 30, 1911, J. F. Brenckle.
674. *P. substerilis* Ell. and Ev.—III and X, on *Stipa viridula*.
Kulm, N. Dak., Nov. 6, 1911, J. F. Brenckle.
675. *P. sydowiana* Diet.—II, on *Sporobolus asper*.
Stockton, Kans., Aug. 10, 1898, E. Bartholomew. Dupl. Ured. exs. et ic. 26d; Syd.: Ured. 1280.
676. *P. sydowiana* Diet.—III, on *Sporobolus asper*.
Stockton, Kans., Apr. 10, 1900, E. Bartholomew.
677. *P. sydowiana* Diet.—II, on *Sporobolus asper*.
Logan, Kans., Aug. 6, 1907, E. Bartholomew.
678. *P. sydowiana* Diet.—II, on *Sporobolus asper*.
678. *P. sydowiana*—Continued.
Stockton, Kans., June 30, 1910, E. and Mrs. E. Bartholomew. Dupl. N. A. Ured. 476.
679. *P. sydowiana* Diet.—I, on *Verbena bracteosa*.
Stockton, Kans., June 25, 1904, E. Bartholomew.
680. *P. sydowiana* Diet.—I, on *Verbena bracteosa*.
Hoxie, Kans., June 24, 1907, E. Bartholomew.
681. *P. sydowiana* Diet.—I, on *Verbena hastata*.
Stockton, Kans., June 6, 1906, E. Bartholomew. Dupl. Syd.: Ured. 2131; Vester.: Micr. 1302.
682. *P. tageticola* Diet. and Holw.—III, on *Tagetes filifolia*.
Guadalajara, Mexico, Sept. 23, 1903, E. W. D. Holway.
683. *P. tageticola* Diet. and Holw.—III, on *Tagetes tenuifolia*.
Guadalajara, Mexico, Oct. 12, 1896, E. W. D. Holway.
684. *P. tageticola* Diet. and Holw.—III, on *Tagetes tenuifolia*.
Oaxaca, Mexico, Oct. 20, 1899, E. W. D. Holway.
685. *P. taraxaci* Plow.—II, on *Taraxacum* sp.
Eldora, Colo., Aug. 13, 1907, E. Bartholomew.
686. *P. taraxaci* Plow.—II, on *Taraxacum officinale*.
New Brunswick, N. J., June 3, 1889, D. G. Fairchild.
687. *P. taraxaci* Plow.—II, on *Taraxacum officinale*.
New Brunswick, N. J., June 7, 1889, D. G. Fairchild. Dupl. 1902 Myc. Ex. 85d as *P. hieracii*.
688. *P. taraxaci* Plow.—II, on *Taraxacum officinale*.
London, Ontario, Canada, Oct., 1892, J. Dearness (?).
689. *P. taraxaci* Plow.—II, on *Taraxacum officinale*.
St. Louis, Mo., Oct. 11, 1894, C. H. Thompson.

690. *P. taraxaci* Plow.—II and III, on *Taraxacum officinale*.
Gunnison County, Colo., Aug. 24, 1899, E. Bartholomew. Dupl. N. A. Ured. 768.
691. *P. taraxaci* Plow.—II, on *Taraxacum officinale*.
Boulder, Colo., Aug. 15, 1907, E. Bartholomew.
692. *P. taraxaci* Plow.—II, on *Taraxacum officinale*.
Lancaster, Pa., May 31, 1910, E. Bartholomew. Dupl. N. A. Ured. 575.
693. *P. taraxaci* Plow.—II and III, on *Taraxacum officinale*.
Ord, Nebr., Sept. 24, 1912, J. M. Bates. Dupl. N. A. Ured. 1273.
694. *P. tenuis* Burr.—III, on *Eupatorium urticaefolium*.
Decorah, Iowa, Sept. 15, 1895, E. W. D. Holway. Dupl. N. A. Ured. 65.
695. *P. tenuistipes* Rostr.—III, on *Carex* sp.
London, Ontario, Canada, Oct., 1903, J. Dearness.
696. *P. tithoniae* Diet. and Holw.—II and III, on *Tithonia tubaeformis*.
Near Tula, Mexico, Sept. 20, 1898, E. W. D. Holway. Dupl. N. A. Ured. 1274.
697. *P. tosta* Arth.—III, on *Sporobolus brevifolius*.
Oconto, Nebr., Sept. 24, 1902, J. M. Bates.
698. *P. tosta* Arth.—III, on *Sporobolus brevifolius*.
Kulm, N. Dak., Oct. 20, 1909, J. F. Brenckle.
699. *P. triodiae* Ell. and Barth.—II and III, on *Triplasis purpurea*.
Stockton, Kans., Aug. 20, 1896, E. Bartholomew.
700. *P. triticea* Eriks.—II, on *Triticum sativum*.
Manhattan, Kans., Dec. 5, 1889, M. Varney. Dupl. 1902 Myc. Ex. 110i as *P. rubigo-vera*.
701. *P. triticea* Eriks.—II, on *Triticum sativum*.
Manhattan, Kans., Dec. 14, 1889, M. Varney. Dupl. 1902 Myc. Ex. 110i as *P. rubigo-vera*.
702. *P. triticea* Eriks.—II and III, on *Triticum sativum*.
Sleepy Eye, Minn., Aug., 1891, E. P. Sheldon.
703. *P. tuberculans* Ell. and Ev.—III, on *Aplopappus nuttallii*.
Rimrock Station, Mont., Aug. 9, 1917, E. T. and E. Bartholomew. Dupl. N. A. Ured. 1875.
704. *P. tumidipes* Pk.—II, on *Lycium halimifolium*.
Stockton, Kans., Sept. 26, 1910, E. Bartholomew. Dupl. N. A. Ured. 66.
705. *P. tumidipes* Pk.—III, on *Lycium halimifolium*.
Stockton, Kans., Oct. 20, 1910, E. Bartholomew. Dupl. N. A. Ured. 67.
706. *P. universalis* Arth.—I, on *Artemisia frigida*.
Kulm, N. Dak., May 30, 1915, J. F. Brenckle.
707. *P. universalis* Arth.—I, on *Artemisia ludoviciana*.
Kulm, N. Dak., May 28, 1915, J. F. Brenckle.
708. *P. urticata* Kern—I and III, on *Carex aquatilis*.
Billings, Mont., Aug. 16, 1913, E. Bartholomew. Dupl. F. Col. 5079.
709. *P. urticata* Kern—II, on *Carex stricta*.
Near Fargo, N. Dak., Oct. 7, 1914, O. A. Stevens.
710. *P. urticata* Kern—III, on *Carex trichocarpa aristata*.
Plana, S. Dak., Aug., 1898, comm. D. Griffiths.
711. *P. urticata* Kern—III, on *Carex trichocarpa imberbis*.
Arcadia, Nebr., June 25, 1912, J. M. Bates.

712. *P. urticata* Kern—I, on *Urtica gracilis*.
Summit County, Utah, June 29, 1915, E. Bartholomew and A. O. Garrett. Dupl. N. A. Ured. 1673.
713. *P. veratri* Niessl—III, on *Veratrum viride*.
Cheat Bridge, Pocahontas County, W. Va., Aug. 30, 1902, W. A. Kellerman.
714. *P. verbesinae* S.—II and III, on *Verbesina occidentalis*.
Gauley Mountains, Fayette County, W. Va., July–Aug., 1901, W. A. Kellerman.
715. *P. verbesinae* S.—III, on *Verbesina occidentalis*.
Glen Echo, Md., Oct. 17, 1919, V. K. Charles and W. W. Diehl.
716. *P. vernoniae* S.—III, on *Vernonia baldwini*.
Stockton, Kans., Sept. 4, 1901, E. Bartholomew.
717. *P. vexans* Farl.—II and X, on *Bouteloua* sp.
Decorah, Iowa, Aug. 27, 1890, E. W. D. Holway.
718. *P. vexans* Farl.—X, on *Bouteloua curtipendula*.
Ames, Iowa, Dec. 29, 1890, L. H. Pammel. Dupl. Econ. F. 532b.
719. *P. vexans* Farl.—X, on *Bouteloua curtipendula*.
Aberdeen, S. Dak., Sept., 1896, comm. D. Griffiths.
720. *P. vexans* Farl.—III, on *Bouteloua curtipendula*.
Aberdeen, S. Dak., Sept., 1897, D. Griffiths.
721. *P. vexans* Farl.—X, on *Bouteloua curtipendula*.
Stockton, Kans., Nov. 27, 1899, E. Bartholomew.
722. *P. vexans* Farl.—III and X, on *Bouteloua curtipendula*.
Stockton, Kans., Nov. 27, 1899, E. Bartholomew.
723. *P. vexans* Farl.—X, on *Bouteloua curtipendula*.
Dickey County, N. Dak., Feb. 23, 1908, J. F. Brenckle.
724. *P. violae* (Schum.) DC.—III, on *Viola pubescens*.
Ithaca, N. Y., July 20, 1901, W. H. Long. Dupl. N. A. Ured. 774.
725. *P. virgata* Ell. and Ev.—III, on *Sorghastrum nutans*.
Rooks County, Kans., Sept. 23, 1895, E. Bartholomew. Dupl. Econ. F. 535.
726. *P. virgata* Ell. and Ev.—II, on *Sorghastrum nutans*.
Stockton, Kans., Aug. 26, 1896, E. Bartholomew.
727. *P. windsoriae* S.—III, on *Tridens flavus*.
Mount Carmel, Ill., Sept. 27, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 70c as *P. emaculata*.
728. *P. windsoriae* S.—II and III, on *Tridens flavus*.
Stockton, Kans., Aug. 26, 1910, E. Bartholomew. Dupl. N. A. Ured. 173.
729. *P. windsoriae* S.—III, on *Tridens flavus*.
Camp Pike, Ark., Dec. 4, 1918, J. F. Brenckle.
730. *P. xanthii* S.—III, on *Ambrosia psilostachya*.
Stockton, Kans., June 20, 1901, E. Bartholomew.
731. *P. xanthii* S.—III, on *Ambrosia psilostachya*.
Stockton, Kans., Sept. 18, 1906, E. Bartholomew.
732. *P. xanthii* S.—III, on *Ambrosia psilostachya*.
Kennedy, Nebr., Aug. 8, 1914, J. M. Bates.
733. *P. xanthii* S.—III, on *Xanthium* sp.
North Beach, Md., July 30, 1919, W. W. Diehl.
734. *P. xanthii* S.—III, on *Xanthium canadense*.
Spiro, Okla., Oct. 21, 1913, E. Bartholomew. Dupl. N. A. Ured. 1276.
735. *P. xanthii* S.—III, on *Xanthium echinatum*.
Enderlin, N. Dak., Aug. 20, 1918, O. A. Stevens.

PUCCINIASTRUM.

736. *Pucciniastrum agrimoniae* (Diet.) Tranz.—II, on *Agrimonia hirsuta*.
Swago Mountain, Pocahontas County, W. Va., Aug. 18, 1902, W. A. Kellerman.
737. *P. agrimoniae* (Diet.) Tranz.—II, on *Agrimonia parviflora*.
Fostoria, Alexandria County, Va., Sept. 30, 1919, W. W. Diehl.
738. *P. arcticum* Tranz. var. *americanum* Farl.—II and III, on *Rubus idaeus aculeatissimus*.
London, Ontario, Canada, Dec., 1913, J. Dearness.
739. *P. epilobii* Otth—I, on *Abies pectinata*.
Krabbesholm, near Skive, Jutland, Denmark, July 8, 1902, J. Lind.
740. *P. epilobii* Otth—II and III, on *Epilobium* sp.
Livingston, Mont., Sept. 6, 1884, A. B. Seymour.
741. *P. epilobii* Otth—II, on *Epilobium adenocaulon*.
Studley, Kans., Aug. 29, 1904, E. Bartholomew.
742. *P. epilobii* Otth—II, on *Epilobium adenocaulon*.
Bozeman, Mont., Sept. 4, 1913, E. Bartholomew. Dupl. F. Col. 4334.
743. *P. epilobii* Otth—II and III, on *Epilobium angustifolium*.
Kootenai, Idaho, Sept. 18, 1884, A. B. Seymour.
744. *P. epilobii* Otth—II and III, on *Epilobium angustifolium*.
Messler's Ranch, Mount Rainier, Wash., Aug. 27, 1901, E. W. D. Holway.
745. *P. epilobii* Otth—II and III, on *Epilobium angustifolium*.
Krabbesholm, near Skive, Jutland, Denmark, Aug. 20, 1902, J. Lind.
746. *P. epilobii* Otth—II and III, on *Epilobium angustifolium*.
Guatemala, 1907 (?), W. A. Kellerman, 4931.
747. *P. epilobii* Otth—II, on *Epilobium angustifolium*.
Ithaca, N. Y., July 21, 1911, B. B. Higgins.
748. *P. epilobii* Otth—III, on *Epilobium angustifolium*.
Palmer Lake, Colo., Sept. 20, 1913, E. Bartholomew and E. Bethel. Dupl. N. A. Ured. 877.
749. *P. hydrangeae* (Farl.) Arth.—II, on *Hydrangea arborescens*.
Mount Carmel, Ill., Sept. 27, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 42 as *Melampsora hydrangeae*.
750. *P. hydrangeae* (Farl.) Arth.—II, on *Hydrangea arborescens*.
Waveland, Ind., Aug., 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 42 as *Melampsora hydrangeae*.
751. *P. hydrangeae* (Farl.) Arth.—II and III, on *Hydrangea arborescens*.
Crawfordsville, Ind., Oct., 1890, E. M. Fisher. Dupl. 1902 Myc. Ex. 42 as *Melampsora hydrangeae*.
752. *P. hydrangeae* (Farl.) Arth.—II, on *Hydrangea arborescens*.
Scott Run, Fairfax County, Va., Aug. 28, 1919, A. E. Jenkins and W. W. Diehl.
753. *P. minimum* Arth.—II, on *Rhododendron nudiflorum*.
Scott Run, Fairfax County, Va., Aug. 28, 1919, W. W. Diehl.
754. *P. sparsum* (Wint.) Ed. Fisch.—II, on *Arctostaphylos alpina*.
Field, British Columbia, Canada, Aug. 5, 1901, E. W. D. Holway.
755. *P. vacciniorum* (Karst.) Lagh.—II, on *Vaccinium membranaceum*.
Bozeman, Mont., Sept. 4, 1913, E. T. and E. Bartholomew. Dupl. F. Col. 4333; N. A. Ured. 1278.

RAVENELIA.

756. *Ravenelia annulata* Long—II and III, on *Lysiloma latissilqua*.
Miami, Fla., Mar. 12, 1914,
W. H. Long. Type coll. Dupl.
N. A. Ured. 1882.
757. *R. arizonica* Ell. and Ev.—III,
on *Prosopis glandulosa*.
Austin, Tex., Oct. 10, 1915,
B. C. Tharp.
758. *R. brongniartiae* Diet. and
Holw.—III, on *Brongniartia* sp.
Iguala, Mexico, Oct. 4, 1900,
E. W. D. Holway.
759. *R. epiphylla* (S.) Diet.—III, on
Tephrosia virginiana.
759. *R. epiphylla*—Continued.
Oregon, Ill., Sept. 9, 1889, M.
B. Waite. Dupl. 1902 Myc. Ex.
132 as *R. glandulaeformis*.
760. *R. mimosae-caeruleae* Diet.—
III, on *Mimosa caerulea*.
Cuernavaca, Mexico, Oct. 30,
1903, E. W. D. Holway.
761. *R. papillifera* Syd.—II, on
Cassia lindheimeriana.
Marble Falls, Tex., Mar. 30,
1901, W. H. Long.
762. *R. roemerianae* Long—II, on
Acacia roemeriana.
San Antonio, Tex., May 31,
1916, W. H. Long. Dupl. N. A.
Ured. 1885.

ROSTRUPA.

763. *Rostrupia elymi* (West.) Lagh.—
III, on *Elymus arenarius*.
Goehren, Ruegen Island, Pom-
erania, Aug. 10, 1899, P. Sydow.
Dupl. Syd.: Ured. 1329 (?);
Vester.: Micr. 270 (?).

TRIPHRAGMIMUM.

764. *Triphragmium clavellousum* B.—
III, on *Aralia nudicaulis*.
Thunder Bay Island, Lake
Huron, Mich., July 18, 1895,
C. F. Wheeler.

UREDINOPSIS.

765. *Uredinopsis mirabilis* Magn.—
II, on *Onoclea sensibilis*.
Waverley, Mass., Aug. 29,
1904, A. B. Seymour.
766. *U. mirabilis* Magn.—II, on *Ono-
clea sensibilis*.
London, Ontario, Canada,
Sept. 21, 1910, J. Dearness.
767. *U. mirabilis* Magn.—II, on *Ono-
clea sensibilis*.
Glen Echo, Md., Oct. 30, 1919,
V. K. Charles and W. W. Diehl.
768. *U. pteridis* Diet. and Holw.—II,
on *Pteris aquilina pubes-
cens*.
Sisson, Calif., July 28, 1894,
W. C. Blasdale.

UROMYCES.

769. *Uromyces acuminatus* Arth.—
III, on *Spartina michauxi-
ana*.
Racine, Wis., Oct., 1890, J. J.
Davis.
770. *U. acuminatus* Arth.—III, on
Spartina michauxiana.
Angola, Ind., Aug. 12, 1903,
W. A. Kellerman.

771. *U. acuminatus* Arth.—III, on *Spartina michauxiana*.
Grand Island, Nebr., Mar. 27, 1907, J. M. Bates. Dupl. F. Col. 2490.
772. *U. acuminatus* Arth.—III, on *Spartina michauxiana*.
Silesia, Mont., Sept. 11, 1913, E. T. and E. Bartholomew. Dupl. F. Col. 4393; N. A. Ured. 1294.
773. *U. acuminatus* Arth.—II, on *Spartina patens*.
North Beach, Md., July 30, 1919, W. W. Diehl.
774. *U. acuminatus* Arth.—I, on *Steironema ciliatum*.
Grand Island, Nebr., May 26, 1906, J. M. Bates. Dupl. F. Col. 2288.
775. *U. albus* Diet. and Holw.—I, on *Vicia americana angustifolia*.
Yankton, S. Dak., May 13, 1897, D. Griffiths.
776. *U. albus* Diet. and Holw.—I, on *Vicia americana angustifolia*.
Stockton, Kans., May 21, 1898, E. Bartholomew.
777. *U. alopecuri* Seym.—II, on *Alopecurus fulvus*.
Denver, Colo., Sept. 22, 1915, E. Bartholomew and E. Bethel. Dupl. F. Col. 4885; N. A. Ured. 1583.
778. *U. amphidymus* Syd.—III, on *Glyceria septentrionalis*.
Oregon, Ill., Sept. 11, 1889, M. B. Waite. Type coll. Dupl. 1902 Myc. Ex. 154a as *U. graminicola*, on *G. fluitans*.
779. *U. andropogonis* Tr.—III, on *Andropogon virginicus*.
Silver Spring, Md., Oct. 10, 1890, D. G. Fairchild.
780. *U. andropogonis* Tr.—III, on *Andropogon virginicus*.
Camp Pike, Ark., Dec. 4, 1918, J. F. Brenckle.
781. *U. andropogonis* Tr.—I, on *Viola cucullata*.
Stockton, Kans., June 5, 1911, E. Bartholomew. Dupl. N. A. Ured. 204.
782. *U. caladii* Farl.—I, on *Arisaema dracontium*.
Spillville, Iowa, July 25, 1899, A. F. Kovank. Dupl. N. A. Ured. 1586.
783. *U. caladii* Farl.—III, on *Arisaema triphyllum*.
Ann Arbor, Mich., July 23, 1892, H. L. Merrow.
784. *U. caladii* Farl.—I, on *Arisaema triphyllum*.
Waltham, Mass., May 31, 1902, comm. A. B. Seymour.
785. *U. caryophyllinus* Wint.—II and III, on *Dianthus caryophyllus*.
Flint, Mich., June 5, 1915, H. Hasselbring.
786. *U. coluteae* Arth.—II and III, on *Colutea arborescens*.
Manhattan, Kans., Sept. 1, 1890, W. T. Allen. Dupl. 1902 Myc. Ex. 152 as *U. genestae-tinctoriae*.
787. *U. elegans* Lagh.—I, on *Trifolium carolinianum*.
Auburn, Ala., Apr., 1890, G. F. Atkinson. Dupl. Econ. F. 508b.
788. *U. euphorbiae* Cke. and Pk.—III, on *Euphorbia maculata*.
East Lansing, Mich., Sept. 26, 1892, G. H. Hicks.
789. *U. euphorbiae* Cke. and Pk.—III, on *Euphorbia maculata*.
East Lansing, Mich., 1893, W. J. Beal.
790. *U. euphorbiae* Cke. and Pk.—III, on *Euphorbia marginata*.
Callaway, Nebr., Aug. 23, 1902, J. M. Bates.
791. *U. euphorbiae* Cke. and Pk.—I, on *Euphorbia preslii*.
Stockton, Kans., July 10, 1895, E. Bartholomew.
792. *U. euphorbiae* Cke. and Pk.—I, on *Euphorbia preslii*.
Thamesville, Ontario, Canada, Aug. 13, 1913, J. Dearness.

793. *U. euphorbiae* Cke. and Pk.—III, on *Euphorbia preslii*.
Thamesville, Ontario, Canada,
Aug. 13, 1913, J. Dearness.
794. *U. euphorbiae* Cke. and Pk.—III, on *Euphorbia serpyllifolia*.
Great Falls, Mont., Sept.,
1888, F. W. Anderson.
795. *U. fabae* DBy.—III, on *Lathyrus venosus*.
Angola, Ind., Aug. 10, 1903,
W. A. Kellerman.
796. *U. fabae* DBy.—I, on *Vicia americana*.
Fort Douglas, Utah, May 30,
1918, J. F. Brenckle.
797. *U. fallens* Kern—II, on *Trifolium pratense*.
New Brunswick, N. J., June,
1889, D. G. Fairchild. Dupl.
1902 Myc. Ex. 168c as *U. trifolii*.
798. *U. fallens* Kern—II, on *Trifolium pratense*.
Forestville, N. Y., Aug., 1899,
E. A. Southworth. Dupl. 1902
Myc. Ex. 168c as *U. trifolii*.
799. *U. fallens* Kern—II, on *Trifolium pratense*.
Washington, D. C., Aug. 8,
1889, D. G. Fairchild.
800. *U. fallens* Kern—II, on *Trifolium pratense*.
Vineland, N. J., Sept. 17,
1889, D. G. Fairchild. Dupl.
1902 Myc. Ex. 168c as *U. trifolii*.
801. *U. fallens* Kern—II, on *Trifolium pratense*.
Breese Hill, Md., Oct. 18,
1889, B. T. Galloway and D. G.
Fairchild.
802. *U. fallens* Kern—II, on *Trifolium pratense*.
East Lansing, Mich., Sept. 6,
1890, W. J. Beal (?).
803. *U. fallens* Kern—II, on *Trifolium pratense*.
Geneva, N. Y., Sept. 30, 1892,
D. G. Fairchild.
804. *U. fallens* Kern—II, on *Trifolium pratense*.
Sharon, Mass., Oct. 13, 1909,
A. P. D. Piguet.
805. *U. fallens* Kern—II, on *Trifolium pratense*.
Walton, N. Y., Sept. 10, 1914,
A. E. Jenkins.
806. *U. glycyrrhizae* (Rab h.)
Magn.—III, on *Glycyrrhiza lepidota*.
Western Klickitat County,
Wash., Nov. 19, 1894, W. N.
Suksdorf.
807. *U. glycyrrhizae* (Rab h.)
Magn.—III, on *Glycyrrhiza lepidota*.
Aberdeen, S. Dak., June, 1896,
D. Griffiths.
808. *U. glycyrrhizae* (Rab h.)
Magn.—II, on *Glycyrrhiza lepidota*.
Kulm, N. Dak., Sept., 1908,
J. F. Brenckle.
809. *U. glycyrrhizae* (Rab h.)
Magn.—II, on *Glycyrrhiza lepidota*.
Rimrock Station, Mont., July
20, 1917, E. Bartholomew.
810. *U. graminicola* Burr.—III, on
Panicum virgatum.
Champaign, Ill., Sept. 19,
1889, M. B. Waite.
811. *U. graminicola* Burr.—III, on
Panicum virgatum.
Manhattan, Kans., Dec. 4,
1889, M. Varney.
812. *U. hedysari-paniculati* (S.)
Farl.—III, on *Desmodium*
sp.
Starkville, Miss., Nov. 11,
1890, S. M. Tracy.
813. *U. hedysari-paniculati* (S.)
Farl.—III, on *Desmodium canescens*.
Charleston, Mo., Sept. 25, 1889,
M. B. Waite.
814. *U. hedysari-paniculati* (S.)
Farl.—III, on *Desmodium canescens*.
Louisville, Kans., Oct. 14,
1911, E. Bartholomew. Dupl.
N. A. Ured. 386.
815. *U. hedysari-paniculati* (S.)
Farl.—III, on *Desmodium paniculatum*.
Champaign, Ill., Sept. 21,
1889, M. B. Waite.

816. *U. hedysari-paniculati* (S.)
Farl.—II, on *Desmodium paniculatum*.
Urmeyville, Ind., July 26, 1890, E. M. Fisher.
817. *U. hedysari-paniculati* (S.)
Farl.—III, on *Desmodium paniculatum*.
Urmeyville, Ind., Oct., 1890, E. M. Fisher.
818. *U. hedysari-paniculati* (S.)
Farl.—II, on *Desmodium viridiflorum*.
Eustis, Fla., Apr. 4, 1891, L. M. Underwood.
819. *U. hedysari-paniculati* (S.)
Farl.—III, on *Desmodium viridiflorum*.
Fostoria, Alexandria County, Va., Sept. 30, 1919, W. W. Diehl.
820. *U. hordei* Tr.—II and III, on *Hordeum nodosum*.
Austin, Tex., Apr. 26, 1901, W. H. Long.
821. *U. hordei* Tr.—II and III, on *Hordeum nodosum*.
Stockton, Kans., June 5, 1916, E. Bartholomew.
822. *U. houstoniatus* Sheldon—I, on *Houstonia angustifolia*.
Austin, Tex., Mar. 2, 1901, W. H. Long.
823. *U. howei* Pk.—III, on *Asclepias syriaca*.
Camp Point, Ill., Oct. 2, 1884, A. B. Seymour.
824. *U. howei* Pk.—III, on *Asclepias syriaca*.
Oregon, Ill., Sept. 14, 1889, M. B. Waite.
825. *U. howei* Pk.—III, on *Asclepias syriaca*.
Champaign, Ill., Sept. 19, 1889, M. B. Waite.
826. *U. howei* Pk.—II and III, on *Asclepias syriaca*.
Crawfordsville, Ind., July 28, 1890, E. M. Fisher.
827. *U. howei* Pk.—III, on *Asclepias syriaca*.
Urmeyville, Ind., Aug., 1890, E. M. Fisher.
828. *U. howei* Pk.—III, on *Asclepias syriaca*.
Luray, Va., Sept., 1910, R. and M. Cook.
829. *U. howei* Pk.—III, on *Asclepias syriaca*.
Superior, Nebr., Sept. 11, 1914, J. M. Bates.
830. *U. howei* Pk.—III, on *Asclepias syriaca* (?).
Glen Echo, Md., Oct. 29, 1919, V. K. Charles and W. W. Diehl.
831. *U. intricatus* Cke.—II and III, on *Eriogonum compositum*.
Goldendale, Wash., Sept. 1, 1915, E. Bartholomew and S. T. Shell. Dupl. F. Col. 4790; N. A. Ured. 1695 and 1696.
832. *U. intricatus* Cke.—I, on *Eriogonum heracleoides*.
Idaho City, Idaho, June 2, 1917, J. R. Weir. Dupl. N. A. Ured. 1890.
833. *U. intricatus* Cke.—I, on *Eriogonum heracleoides*.
Fort Douglas, Utah, May 30, 1918, J. F. Brenckle.
834. *U. junci* (Desm.) Tul.—I, on *Helianthus scaberrimus*.
Kennedy, Nebr., July 28, 1913, J. M. Bates. Dupl. N. A. Ured. 1291.
835. *U. junci* (Desm.) Tul.—III, on *Juncus balticus*.
Kulm, N. Dak., Dec., 1907, J. F. Brenckle.
836. *U. junci-effusi* Syd.—III, on *Juncus effusus*.
White Sulphur Springs, W. Va., Oct. 5, 1889, M. B. Waite. Dupl. 1902 Myc. Ex. 159a as *U. junci*.
837. *U. junci-effusi* Syd.—III, on *Juncus effusus*.
Knoxville, Tenn., Nov. 10, 1914, E. Bartholomew. Dupl. F. Col. 4791; N. A. Ured. 1391.
838. *U. junci-effusi* Syd.—II and III, on *Juncus ensifolius*.
Ukiah, Calif., May 23, 1894, W. C. Blasdale.

839. *U. junci-effusi* Syd.—II and III, on *Juncus ensifolius*.
Near Fort Douglas, Utah,
July 28, 1918, J. F. Brenckle.
840. *U. lespedezae-procumbentis* (S.)
C.—III, on *Lespedeza capitata*.
Oregon, Ill., Sept. 9, 1889, M.
B. Waite. Dupl. 1902 Myc. Ex.
160a as *U. lespedezae*.
841. *U. lespedezae-procumbentis* (S.)
C.—III, on *Lespedeza capitata*.
Oregon, Ill., Sept. 10, 1889,
M. B. Waite, Dupl. 1902 Myc.
Ex. 160a as *U. lespedezae*.
842. *U. lespedezae-procumbentis* (S.)
C.—III, on *Lespedeza capitata*.
Waltham, Mass., Sept. 25,
1903, A. B. Seymour.
843. *U. lespedezae-procumbentis* (S.)
C.—I, on *Lespedeza frutescens*.
Eustis, Fla., Apr. 4, 1891, L.
M. Underwood.
844. *U. lespedezae-procumbentis* (S.)
C.—III, on *Lespedeza frutescens*.
Marlinton, W. Va., Aug. 23,
1902, W. A. Kellerman.
845. *U. lespedezae-procumbentis* (S.)
C.—III, on *Lespedeza hirta*.
White Sulphur Springs, W.
Va., Oct. 4, 1889, M. B. Waite.
Dupl. 1902 Myc. Ex. 160b as *U. lespedezae*.
846. *U. lespedezae-procumbentis* (S.)
C.—III, on *Lespedeza hirta*.
East Lansing, Mich., Sept. 10,
1891, G. H. Hicks.
847. *U. lespedezae-procumbentis* (S.)
C.—III, on *Lespedeza hirta*.
Marlinton, W. Va., Aug. 18,
1902, W. A. Kellerman.
848. *U. lespedezae-procumbentis* (S.)
C.—III, on *Lespedeza procumbens*.
Mount Carmel, Ill., Sept. 28,
1889, M. B. Waite.
849. *U. lespedezae-procumbentis* (S.)
C.—III, on *Lespedeza stuvei*.
Charleston, Mo., Sept. 26, 1889,
M. B. Waite. Dupl. 1902 Myc.
Ex. 160e as *U. lespedezae*.
850. *U. lespedezae-procumbentis* (S.)
C.—III, on *Lespedeza virginica*.
Scott Run, Fairfax County,
Va., Aug. 18, 1919, W. W. Diehl.
851. *U. lupini* B. and C.—II and III,
on *Lupinus formosus*.
Palo Alto, Calif., Dec. 12,
1917, E. T. Bartholomew.
852. *U. lupini* B. and C.—II, on *Lupinus kingii*.
Ohio Creek, Gunnison County,
Colo., Aug. 22, 1899, E. Bartholomew.
853. *U. lupini* B. and C.—III, on *Lupinus laxiflorus*.
Little Missouri Buttes, Wyo.,
Aug., 1897, D. Griffiths and L.
W. Carter.
854. *U. lupini* B. and C.—III, on *Lupinus laxiflorus*.
Inyankara, Wyo., Aug. 23,
1897, D. Griffiths and L. W.
Carter.
855. *U. mexicanus* Diet. and Holw.—
III, on *Desmodium* sp.
City of Mexico, Mexico, Oct.
7, 1896, E. W. D. Holway. Type
coll.
856. *U. mysticus* Arth.—II, on *Hordeum jubatum*.
Denver, Colo., Sept. 20, 1915,
E. Bartholomew and E. Bethel.
Dupl. N. A. Ured. 1494.
857. *U. patzcuarensis* Holw.—II and
III, on *Rhus schmidelioides*.
Patzcuaro, Mexico, Oct. 17,
1898, E. W. D. Holway. Type
coll. Dupl. N. A. Ured. 1321.
858. *U. peckianus* Farl.—II, on *Distichlis spicata*.
Palo Alto, Calif., May 16, 1918,
E. T. Bartholomew.
859. *U. phaseoli* (Reb.) Wint.—II
and III, on *Phaseolus* sp.
Vineland, N. J., Sept. 17, 1889.
D. G. Fairchild. Dupl. 1902
Myc. Ex. 144a as *U. appendiculatus*.

860. *U. phaseoli* (Reb.) Wint.—III, on *Phaseolus* sp.
Starkville, Miss., Oct. 1,
1892, S. M. Tracy. Dupl. 1902
Myc. Ex. 144a as *U. appendic-
ulatus*.
861. *U. phaseoli* (Reb.) Wint.—II
and III, on *Phaseolus diso-
phyllus*.
Chapala, Mexico, Sept. 18,
1899, E. W. D. Holway.
862. *U. phaseoli* (Reb.) Wint.—III,
on *Phaseolus vulgaris*.
Champaign, Ill., Sept. 19,
1889, M. B. Waite. Dupl. 1902
Myc. Ex. 144e as *U. appendicu-
latus*.
863. *U. phaseoli* (Reb.) Wint.—II
and III, on *Phaseolus vul-
garis*.
East Lansing, Mich., Sept. 27,
1892, W. J. Beal.
864. *U. phaseoli* (Reb.) Wint.—II,
on *Phaseolus vulgaris*.
Near San Antonio, Tex., Oct.,
1908, S. H. Hastings.
865. *U. phaseoli* (Reb.) Wint.—III,
on *Phaseolus vulgaris*.
Sharon, Mass., Oct. 13, 1909,
A. P. D. Piguet.
866. *U. phaseoli* (Reb.) Wint.—II,
on *Phaseolus vulgaris na-
nus*.
St. Paul, Nebr., Sept. 26,
1914, J. M. Bates. Dupl. F. Col.
4590.
867. *U. phaseoli* (Reb.) Wint.—III,
on *Strophostyles helvola*.
Crawfordsville, Ind., Oct. 2,
1890, E. M. Fisher.
868. *U. phaseoli* (Reb.) Wint.—II
and III, on *Strophostyles
helvola*.
La Fayette, Ind., Sept. 23,
1895, J. C. Arthur.
869. *U. phaseoli* (Reb.) Wint.—III,
on *Strophostyles pauciflora*.
Mount Carmel, Ill., Sept. 28,
1889, M. B. Waite. Dupl. 1902
Myc. Ex. 144c as *U. appendicu-
latus*.
870. *U. phyteumatum* Ung.—III, on
Phyteuma spicatum.
Horsens, Jutland, Denmark,
May 24, 1902, J. Lind.
871. *U. plumbarius* Pk.—II, on
Gaura biennis.
Fort Scott, Kans., Aug. 6,
1902, A. O. Garrett.
872. *U. plumbarius* Pk.—I, on *Gaura
coccinea*.
St. Paul, Nebr., May 22, 1905,
J. M. Bates.
873. *U. plumbarius* Pk.—I, on *Gaura
coccinea*.
St. Paul, Nebr., May 26, 1906,
J. M. Bates.
874. *U. plumbarius* Pk.—I, on *Gaura
coccinea*.
Austin, Tex., Mar. 23, 1915, B.
C. Tharp.
875. *U. plumbarius* Pk.—I and II, on
Gaura sinuata.
Austin, Tex., Mar. 16, 1901,
W. H. Long.
876. *U. polygoni* (P.) Fckl.—II and
III, on *Polygonum avicu-
lare*.
Oregon, Ill., Sept. 10, 1889,
M. B. Waite.
877. *U. polygoni* (P.) Fckl.—II, on
Polygonum aviculare.
Alcove, N. Y., Aug., 1892, C. L.
Shear.
878. *U. polygoni* (P.) Fckl.—II, on
Polygonum hydropiperoides.
Oregon, Ill., Sept. 11, 1889,
M. B. Waite.
879. *U. polymniae* Diet. and Holw.—
III, on *Polymnia maculata*.
Patzcuaro, Mexico, Oct. 10,
1899, E. W. D. Holway.
880. *U. psoraleae* Pk.—I, on *Psoralea
lanceolata*.
Stockton, Kans., May 24, 1898,
E. Bartholomew.
881. *U. psoraleae* Pk.—III, on *Psora-
lea tenuiflora*.
Stockton, Kans., July 15, 1895,
E. Bartholomew.
882. *U. psoraleae* Pk.—I, on *Psoralea
tenuiflora*.
Lincoln, Nebr., Mar. 27, 1899,
W. T. Horne and A. T. Bell.

883. *U. psoraleae* Pk.—I, on *Psoralea tenuiflora*.
Graham County, Kans., June 20, 1903, E. Bartholomew.
884. *U. punctatus* Schr.—II, on *Astragalus hypoglottis*.
Billings, Mont., Sept. 16, 1913, E. Bartholomew.
885. *U. pyriformis* Cke.—III, on *Acorus calamus*.
Waterloo, Ind., Aug. 10, 1903, W. A. Kellerman.
886. *U. rhynchosporae* Ell.—III, on *Rhynchospora macrostachya*.
Jacksonboro, S. C., Sept. 30, 1909, C. E. Chambliss.
887. *U. rudbeckiae* Arth. and Holw.—III, on *Rudbeckia laciniata*.
Silver Spring, Md., Oct. 10, 1890, D. G. Fairchild.
888. *U. rudbeckiae* Arth. and Holw.—III, on *Rudbeckia laciniata*.
Near Fargo, N. Dak., Aug. 22, 1914, O. A. Stevens.
889. *U. scirpi* (Cast.) Burr.—II and III, on *Scirpus campestris paludosus*.
Escondido, Calif., July 12, 1915, E. Bartholomew. Dupl. F. Col. 4997: N. A. Ured. 1898.
890. *U. scirpi* (Cast.) Burr.—III, on *Scirpus fluvialis*.
Kulm, N. Dak., Sept., 1915, J. F. Brenckle.
891. *U. silphii* Arth.—III, on *Juncus longistylis*.
Whitman, Nebr., July 21, 1914, J. M. Bates.
892. *U. silphii* Arth.—III, on *Juncus tenuis*.
Oregon, Ill., Sept. 9, 1889, M. B. Waite. Dupl. 1502 Myc. Ex. 159c as *U. junci*.
893. *U. silphii* Arth.—III, on *Juncus tenuis*.
Kulm, N. Dak., Mar., 1908, J. F. Brenckle.
894. *U. silphii* Arth.—I, on *Silphium laciniatum*.
Louisville, Kans., May 21, 1900, E. Bartholomew. Dupl. F. Col. 1478.
895. *U. sparganii* Cke. and Pk.—III, on *Sparganium eurycarpum*.
Buckeye Lake, Ohio, Oct. 26, 1904, W. A. Kellerman. Dupl. Ohio F. 200.
896. *U. spermacoces* (S.) C.—III, on *Diodia teres*.
Alexandria, Va., Oct., 1890, M. B. Waite.
897. *U. spermacoces* (S.) C.—III, on *Diodia teres*.
Camp Pike, Ark., Oct. 1, 1918, J. F. Brenckle.
898. *U. splendens* Blytt—I, on *Astragalus macounii*.
Banff, Alberta, Canada, July 7, 1907, E. W. D. Holway.
899. *U. sporoboli* Ell. and Ev.—III, on *Sporobolus asper*.
Stockton, Kans., Oct. 30, 1898, E. Bartholomew.
900. *U. sporoboli* Ell. and Ev.—II and III, on *Sporobolus asper*.
Stockton, Kans., Oct. 9, 1911, E. Bartholomew. Dupl. N. A. Ured. 300.
901. *U. striatus* Schr.—II, on *Medicago sativa*.
Beach Island, S. C., June 26, 1903, H. Hammond.
902. *U. striatus* Schr.—II and III, on *Medicago sativa*.
Brownsville, Tex., May 19, 1911, D. Griffiths.
903. *U. toxicodendri* B. and Rav.—II and III, on *Rhus diversiloba*.
Escondido, Calif., July 13, 1915, E. and Mrs. E. Bartholomew.
904. *U. toxicodendri* B. and Rav.—III, on *Rhus diversiloba*.
Avalon, Catalina Island, Calif., July 19, 1915, E. and Mrs. E. Bartholomew. Dupl. N. A. Ured. 1515.
905. *U. toxicodendri* B. and Rav.—II and III, on *Rhus rydbergii*.
Stockton, Kans., Sept. 21, 1896, E. Bartholomew.

906. *U. toxicodendri* B. and Rav.—III, on *Rhus toxicodendron*. London, Ontario, Canada, Sept. 2, 1892, J. Dearness.
907. *U. toxicodendri* B. and Rav.—III, on *Rhus toxicodendron*. East Lansing, Mich., Sept. 27, 1892, G. H. Hicks.
908. *U. toxicodendri* B. and Rav.—III, on *Rhus toxicodendron*. Waverley, Mass., Oct., 1892, A. B. Seymour. Dupl. Econ. F. 505.
909. *U. toxicodendri* B. and Rav.—III, on *Rhus toxicodendron*. Amherst, Mass., Oct. 1, 1892, comm. A. B. Seymour.
910. *U. toxicodendri* B. and Rav.—III, on *Rhus toxicodendron*. Woods Hole, Mass., July 11, 1912, E. T. Bartholomew.
911. *U. trifolii* (Hedw. f.) Lév.—II and III, on *Trifolium hybridum*. Niagara Falls, Ontario, Canada, July 19, 1913, E. Bartholomew. Dupl. F. Col. 4597.
912. *U. trifolii* (Hedw. f.) Lév.—III, on *Trifolium repens*. Near London, Ontario, Canada, Oct. 2, 1910, J. Dearness.
913. *U. trifolii* (Hedw. f.) Lév.—I and II, on *Trifolium repens*. St. Johnsbury, Vt., June 18, 1911, W. P. Carr. Dupl. F. Col. 3498.
914. *U. triquetrus* Cke.—I, on *Hypericum canadense*. Fort Scott, Kans., June 15, 1901, A. O. Garrett.
915. *U. triquetrus* Cke.—II, on *Hypericum fasciculatum*. Eustis, Fla., Mar. 22, 1891, L. M. Underwood.
916. *U. triquetrus* Cke.—III, on *Hypericum mutilum*. Cowen, W. Va., Sept. 17, 1903, W. A. Kellerman.
917. *U. zygaeni* Pk.—I and III, on *Zygadenus venenosus*. Bozeman, Mont., May 24, 1913, D. B. Swingle.
918. *U. zygaeni* Pk.—I and III, on *Zygadenus venenosus*. Greycliff, Mont., June 5, 1913, C. D. Marsh.

UROPYXIS.

919. *Uropyxis amorphae* (C.) Schr.—III, on *Amorpha canescens*. Oregon, Ill., Sept. 9, 1889, M. B. Waite.
920. *U. amorphae* (C.) Schr.—III, on *Amorpha canescens*. Aberdeen, S. Dak., Aug., 1896, D. Griffiths.
921. *U. amorphae* (C.) Schr.—II and III, on *Amorpha fruticosa*. Oregon, Ill., Sept. 11, 1889, M. B. Waite.
922. *U. amorphae* (C.) Schr.—III, on *Amorpha fruticosa*.
922. *U. amorphae*—Continued. Stockton, Kans., Sept. 24, 1894, E. Bartholomew.
923. *U. amorphae* (C.) Schr.—III, on *Amorpha fruticosa*. Rooks County, Kans., Sept. 20, 1895, E. Bartholomew.
924. *U. amorphae* (C.) Schr.—III, on *Amorpha fruticosa*. Stockton, Kans., Sept. 25, 1911, E. Bartholomew.
925. *U. petalostemonis* (Farl.) De Toni—II and III, on *Petalostemum multiflorum*. Stockton, Kans., July 1, 1910, E. Bartholomew.

AECIDIUM.

926. *Aecidium alliicolum* Wint., on *Allium reticulatum*. Stockton, Kans., May 28, 1904, E. Bartholomew.
927. (Omitted.)
928. (Omitted.)
929. *A. cimicifugatum* S., on *Cimicifuga racemosa*. Plummers Island, Montgomery County, Md., May 30, 1903, C. F. Wheeler.

930. *A. daleae* Kell. and Sw., on *Dalea enneandra*.
Stockton, Kans., June 15, 1904,
E. Bartholomew.
931. *A. daleae* Kell. and Sw., on *Dalea enneandra*.
Stockton, Kans., June 12, 1906,
E. Bartholomew.
932. *A. delphinii* Barth., on *Delphinium bicolor*.
Greycliff, Mont., June, 1913,
C. D. March.
933. *A. galasiae* Syd., on *Galasia villosa*.
St. Gendra, Gorizia, Austria,
May 25, 1902, P. Sydow.
934. *A. hepaticatum* S., on *Hepatica triloba*.
Near Newark, Del., May 22,
1907, H. S. Jackson.
935. *A. hydrophylli* Pk. on *Ellisia nyctelea*.
Stockton, Kans., May 14, 1900,
E. Bartholomew. Dupl. Syd.:
Ured. 1544.
936. *A. hydrophylli* Pk., on *Hydrophyllum capitatum*.
Near Bozeman, Mont., May 30,
1913, H. M. Jennison.
937. *A. kellermannii* DeToni, on *Baptisia leucophaea*.
Fort Scott, Kans., June 21,
1902, A. O. Garrett.
938. *A. liatridis* Ell. and And., on *Liatris punctata*.
Norderhof, N. Dak., June 10,
1912, J. F. Brenckle.
939. *A. lygodesmiae* (Webber) Shear,
on *Lygodesmia juncea*.
Rimrock Station, Mont., June
20, 1917, Mrs. E. Bartholomew.
940. *A. obesum* Arth., on *Apocynum cannabinum hypericifolium*.
Red Cloud, Nebr., June 25,
1913, J. M. Bates. Dupl. F.
Col. 4103; N. A. Ured. 1301.
941. *A. onosmodii* Arth., on *Onosmodium molle*.
Callaway, Nebr., May 25, 1902,
J. M. Bates. Type coll.
942. *A. onosmodii* Arth., on *Onosmodium molle*.
Stockton, Kans., May 20,
1904, E. Bartholomew.
943. *A. petalostemonis* Kell. and Carleton, on *Petalostemum candidum*.
Scotia, Nebr., June 19, 1907,
J. M. Bates.
944. *A. physalidis* Burr., on *Physalis lanceolata*.
Stockton, Kans., June 7, 1899,
E. Bartholomew.
945. *A. physalidis* Burr., on *Physalis lanceolata*.
Stockton, Kans., May 15,
1914, E. Bartholomew.
946. *A. proserpinacae* B. and C., on *Proserpinaca palustris*.
Cuttyhunk Island, Mass., July
8, 1912, E. T. Bartholomew.
947. *A. recedens* Arth., on *Solidago mollis*.
Callaway, Nebr., June 7, 1902,
J. M. Bates. Type coll. Dupl.
F. Col. 1804.
948. *A. roestelioides* Ell. and Ev., on *Sidalcea malvaeflora*.
Pasadena, Calif., Apr., 1894,
A. J. McClatchie.
949. *A. uvulariae* S., on *Uvularia grandiflora*.
Minneapolis, Minn., June 17,
1914, E. Bartholomew and E.
W. D. Holway.

URED. O.

950. *Uredo ammophilae* Syd. on *Ammophila arenaria*.

Ruegen Island, Pomerania,
July 28, 1899, P. Sydow.