

REPORT OF THE BOTANIST.

30 Reg Rep

S. B. WOOLWORTH, LL. D., *Secretary of the Board of Regents of the University:*

SIR.—Since the date of my last report, specimens of one hundred and sixty-five species of plants have been mounted and placed in the Herbarium, of which one hundred and thirty were not before represented therein. A list of these is marked (1).

Specimens have been collected in the counties of Albany, Essex, Greene, Hamilton, Otsego, Rensselaer and Saratoga. These represent *one hundred and thirty-two* species new to the Herbarium, one hundred and twenty-nine of which are fungi. Of these, sixty-nine are regarded as new or previously undescribed species. A list of plants collected is marked (2).

Specimens of thirty-six New York species, new to the Herbarium and not among my collections of the past season, have been furnished by correspondents. These added to those collected make the whole number of additions *one hundred and sixty-eight*. There are besides a considerable number of extralimital contributions. A list of the contributors and their contributions is marked (3).

New species with their descriptions and previously unreported species are given in a section marked (4). New stations of rare plants, remarks and observations are given in a section marked (5).

While on a collecting trip in the Adirondack region, in July and August, my attention was repeatedly arrested by the extensive ravages of the spruce-destroying beetle, *Hylurgus rufipennis* Kirby, of which a partial account was given in the twenty-eighth report. The green slopes of Mt. Emmons, commonly called Blue Mountain, and of several mountains to the north of it had their beauty, and their value too, greatly impaired by the abundant intermixture of the brown tops of dead spruces. The destruction was also visible along the road between Newcomb and Long Lake, and on the mountain slopes

far to the north of this road. Again, on the trail from Adirondack to Calamity Pond, there was sad evidence that the little destroyer had invaded also the forests of Essex county. From what I have seen at Lake Pleasant, in the southern part, and in the vicinity of Long Lake, in the northern part, and from information concerning the Cedar river region, in the central part of Hamilton county, there is reason to believe that much of the spruce timber of this county has already been invaded by the beetle. How much farther this destructive work has extended, or will extend, it is impossible to say. But one thing is certain, it is still in progress.

For the purpose of gaining more knowledge of the insect, I cut down, at South Pond, a tree that had recently been attacked by it. It was about twenty inches in diameter at the base; the foliage was still fresh and green, and there was nothing, except the perforations in the bark, to indicate that it was at all affected. The bark peeled from the trunk without much difficulty, the sap wood was perfectly sound, and the heart wood also, except a small portion in which there was a slight appearance of incipient decay. Longitudinal furrows, varying from one to six inches in length, were found under the bark, and each furrow was occupied by one or two beetles. The furrows are excavated from below upwards. In the short ones but one beetle was found, and but one perforation communicating with the external air. In the longer ones two beetles (probably the two sexes), were usually found, and from two to four perforations afforded means of ingress and egress. The lowest perforation, which is the one by which the beetle first enters and commences its furrow, is often found closed or "blocked up" by the dust and debris thrown down by the excavator in the progress of the work. The second perforation is generally one or two inches above the first. I failed to discover whether it is made by the second beetle for the purpose of ingress or by the first beetle. The third and fourth perforations are in a nearly direct line above the other two and are probably made from within outwardly, but for what purpose is uncertain. In one instance the two beetles were found at work making these perforations, boring through from the inner surface of the bark. In one instance the third was less than half an inch above the second, so that there would seem to be no particular necessity for it.

The eggs of the insect are deposited along both sides of the upper part of the furrow. They lie close together, almost or quite in contact with each other. When the larvæ emerge from the eggs they begin to feed upon the soft cambium and to work their way under the bark at right angles to the main furrow. They are, at first, so minute and work so close together that they make no distinct furrows but seem rather to devour entirely a very thin layer of the cambium. But as they increase in size they begin gradually to form distinct furrows and to take directions more divergent from each other and from their original course. In this way colonies from contiguous furrows at length run together and in time the whole trunk is surrounded by their multitudinous pathways, and the death of the tree is accomplished. Great care is taken by the parent beetles to keep *their* furrows separate. No instance was observed in which they ran together. In one instance the course of a furrow was changed to avoid running into the lateral furrows of a colony of larvæ just above. No furrows were found in the tree more than ten or twelve feet from its base, thus indicating that the attacks are made upon the lower part of the trunk. The attacks are not made simultaneously. Some of the furrows in this tree were scarcely more than an inch long, and evidently had been just commenced. Others were fully excavated and contained eggs, and in others still the larvæ had hatched and commenced their work, but in none were they fully grown. In another tree, a few rods distant from the first, the attack had evidently been made earlier in the season, for the larvæ were farther advanced in size and the bark, on one side of the tree was well loosened, though, strange to say, the other side of the trunk was comparatively unharmed. I was unable to discover why, in this instance, the attack was limited to one side of the trunk. It is pretty evident, therefore, that the trees are attacked all along during the months of June and July and possibly as late as August. I suspect, also, that the parent beetle, after having established a colony in one place may emerge from her furrow to repeat the operation in another place, either in the same trunk or in a different one, but this I was not able to ascertain definitely.

A whitish fungus, *Polyporus volvatus* Pk., scarcely larger than a hickory nut, occurs in considerable abundance on the

trunks of spruces killed by this beetle. The mycelium of the fungus grows beneath the bark, and the external plant is connected with it through the perforations made by the insect. Hence this fungus becomes a conspicuous indicator of the track of the beetle and tells the tale of its destructive power.

(1.)

PLANTS MOUNTED.

Not new to the Herbarium.

Nuphar Kalmiana Pursh.
 Xanthoxylum Americanum
 Ceanothus Americanus L.
 Melilotus officinalis Willd.
 M. alba Lam.
 Desmodium acuminatum DC.
 Aster puniceus L.
 Solidago gigantea Ait.
 Taraxacum Dens-leonis Desf.
 Azalea viscosa L.
 Nemopantes Canadensis DC.
 Allium vineale L.
 Scirpus maritimus L.
 Oryzopsis Canadensis Torr.
 Agrostis scabra Willd.
 Agaricus cæsareus Scop.
 A. granulatus Batsch.
 A. mollis Schæff.
 A. vulgaris Pers.
 A. Orcella Bull.
 Cantharellus cinnabarinus
 Merulius bellus B. & C.
 Tremellodon gelatinosum Pers.
 Thelephora caryophyllea Fr.
 Clavaria Botrytis Pers.
 Solenia ochracea Hoffm.
 Tremella Fungicola Pk.
 Lycoperdon pusillum Fr.
 Phoma Verbascicola Schw.

Nemaspora Russellii B. & C.
 Melanconium bicolor Nees.
 Cladosporium Herbarum Lk.
 Helotium rugipes Pk.
 Diatrype prominens Howe.
 Valsa nivea Fr.

New to the Herbarium.

Omphalaria pulvinata Nyl.
 Agaricus Peckii Howe.
 A. transmutans Pk.
 A. sapidus Kalchb.
 A. tremulus Schæff.
 A. abundans Pk.
 A. citrinellus Pers.
 A. Stylobates Pers.
 A. pubescentipes Pk.
 A. pruinatipes Pk.
 A. teneroides Pk.
 A. placomyces Pk.
 A. squalidellus Pk.
 A. elongatipes Pk.
 A. atomatoides Pk.
 A. incertus Pk.
 Coprinus pulchrifolius Pk.
 C. plumbeus Pk.
 Cortinarius splendidus Pk.
 C. sphagnophilus Pk.
 C. robustus Pk.
 Gomphidium rhodoxanthus

- Hygrophorus speciosus *Pk.*
 Lactarius subpurpureus *Pk.*
 L. parvus *Pk.*
 Marasmius spongiosus *B & C.*
 Boletus badius *Fr.*
 B. parasiticus *Bull.*
 B. Russellii *Frost.*
 B. Peckii *Frost.*
 B. nigrellus *Pk.*
 B. Ravenelii *B. & C.*
 B. griseus *Frost.*
 Corticium sulphureum *Fr.*
 Exobasidium Cassandræ *Pk.*
 Lycoperdon constellatum *Fr.*
 L. coloratum *Pk.*
 Chondrioderma Michellii *Lib.*
 Lamproderma physaroides
 Phoma nebulosum *Berk.*
 Cryptosporium Caricis *Cd.*
 C. Noveboracense *B. & C.*
 Melasmia alnea *Lev.*
 Peckia Clintonii *Pk.*
 P. Sarraceniæ *P. & C.*
 Vermicularia concentrica
 Excipula leucotricha *Pk.*
 Septoria cerasina *Pk.*
 S. Polygalæ *P. & C.*
 S. emaculata *P. & C.*
 S. difformis *C. & P.*
 S. Ulmi *Kze.*
 Discella Kalmiæ *Pk.*
 D. Platani *Pk.*
 D. macrosperma *Pk.*
 Melanconium pallidum *Pk.*
 Sporidesmium concinnum
 Clasterisporium uncinatum
 Puccinia Calthæ *Lk.*
 P. Gentianæ *Strauss.*
 P. Physostegiæ *P. & C.*
 Uromyces Claytoniæ *C. & P.*
 Ustilago Candollei *Tul.*
- Graphiola Phœnicis *Poir.*
 Stilbum vulgare *Tode.*
 S. smaragdinum *A. & S.*
 Epicoccum neglectum *Desm.*
 Ægerita candida *Pers.*
 Periconia truncata *C. & P.*
 P. corticalis *C. & P.*
 Cercospora Callæ *P. & C.*
 Helminthosporium oösporium
 H. episphæricum *C. & P.*
 Polyactis pulvinata *B. & C.*
 Ramularia Nemopanthis
 Stysanus Stemonitis *Cd.*
 Dactylium roseum *Berk.*
 Fusisporium phyllogenum
 F. parasiticum *Pk.*
 Chætomium funiculum *Ck.*
 Uncinula geniculata *Ger.*
 Peziza imperialis *Pk.*
 P. griseo-rosea *Ger.*
 P. bronca *Pk.*
 P. longipes *C. & P.*
 P. Pinastri *C. & P.*
 P. agrostina *Pk.*
 P. Thalictri *Pk.*
 P. virginella *Ck.*
 P. subtilissima *Ck.*
 Helotium hydrogenum *Pk.*
 Ascobolus ciliatus *Schw.*
 A. furfuraceus *Pers.*
 Stictis versicolor *Fr.*
 S. filicina *Pk.*
 Tympanis gyrosa *B. & C.*
 Hypocrea Patella *C. & P.*
 H. chromosperma *C. & P.*
 H. apiculata *C. & P.*
 Hypomyces transformans *Pk.*
 Melogramma superficialis *Pk.*
 Dothidea filicina *Fr.*
 Diatrype Smilacicola *Schw.*
 D. Cephalanthi *Schw.*

Valsa Linderæ <i>Pk.</i>	Sphæria obtusissima <i>B. & C.</i>
V. Fraxinicola <i>C. & P.</i>	S. interstitialis <i>C. & P.</i>
V. cinctula <i>C. & P.</i>	S. squalidula <i>C. & P.</i>
V. tumidula <i>C. & P.</i>	S. Fimeti <i>Pers.</i>
V. trichispora <i>C. & P.</i>	S. spiculosa <i>Pers.</i>
V. leptasca <i>P. & C.</i>	S. ceanothina <i>Pk.</i>
Sphæria cæsariata <i>C. & P.</i>	S. melanassa <i>Pk.</i>
S. exilis <i>A. & S.</i>	S. fulgida <i>C. & P.</i>
S. spermoides <i>Hoffm.</i>	S. minutella <i>Pk.</i>
S. salebrosa <i>C. & P.</i>	S. culmifraga <i>Desm.</i>
S. recessa <i>C. & P.</i>	S. Collinsii <i>Schw.</i>
S. obducens <i>Fr.</i>	Sphærella colorata <i>Pk.</i>

(2.)

PLANTS COLLECTED.

Trifolium hybridum <i>L.</i>	Cortinarius craticius <i>Fr.</i>
Lonicera Tartarica <i>L.</i>	C. regularis <i>Pk.</i>
Crepis aurantiaca <i>L.</i>	Marasmius præacutus <i>Ellis.</i>
Agaricus striatifolius <i>Pk.</i>	Panus torulosus <i>Fr.</i>
A. apertus <i>Pk.</i>	Boletus viscosus <i>Frost.</i>
A. peltigerinus <i>Pk.</i>	Polyporus osseus <i>Kalchbr.</i>
A. flavidellus <i>Pk.</i>	P. dualis <i>Pk.</i>
A. striatulus <i>Fr.</i>	P. nidulans <i>Fr.</i>
A. subareolatus <i>Pk.</i>	P. fragans <i>Pk.</i>
A. conigenoides <i>Ellis.</i>	P. albellus <i>Pk.</i>
A. delicatellus <i>Pk.</i>	P. connatus <i>Weinm.</i>
A. odorifer <i>Pk.</i>	Hydnum Weinmanni <i>Fr.</i>
A. longistriatus <i>Pk.</i>	Irpex obliquus <i>Fr.</i>
A. ophiopus <i>Pk.</i>	I. fuscoviolaceus <i>Fr.</i>
A. angustipes <i>Pk.</i>	I. sinuosus <i>Fr.</i>
A. indecens <i>Pk.</i>	Radulum orbiculare <i>Fr.</i>
A. contrarius <i>Pk.</i>	Phlebia merismoides <i>Fr.</i>
A. umbonatescens <i>Pk.</i>	Grandinia rudis <i>Pk.</i>
A. lacrymabundus <i>Fr.</i>	Thelephora speciosa <i>Fr.</i>
A. Candolleanus <i>Fr.</i>	Hymenochæte spreta <i>Pk.</i>
A. limophilus <i>Pk.</i>	H. agglutinans <i>Ellis.</i>
A. arenulinus <i>Pk.</i>	Corticium quercinum <i>Fr.</i>
A. polytrichophilus <i>Pk.</i>	C. lacteum <i>Fr.</i>
A. graciloides <i>Pk.</i>	C. Sambuci <i>Fr.</i>

- Corticium Martianum *B. & C.*
 C. suffocatum *Pk.*
 Cyphella griseopallida *Weinm.*
 Clavaria typhuloides *Pk.*
 Pistillaria coccinea *Cd.*
 Tremella intumescens *Sow.*
 Næmatelia cerebriformis *Ellis.*
 Dacrymyces minor *Pk.*
 Bovista pila *B. & C.*
 Amaurochæte atra *A. & S.*
 Physarum luteolum *Pk.*
 P. albicans *Pk.*
 Diachæa splendens *Pk.*
 Trichia fallax *Pers.*
 Clathroptychium rugulosum
 Nidularia pulvinata *Schw.*
 Leptrostroma lineare *Pk.*
 Sphæronema Robinæ *B. & C.*
 S. aurantiacum *Pk.*
 Sphæropsis minima *B. & C.*
 Acrospermum graminum *Lib.*
 Excipula lanuginosa *Pk.*
 Discella Canadensis *Pk.*
 D. arida *Pk.*
 Melanconium intermedium *Pk.*
 Torula curvata *Pk.*
 Melampsora Epilobii *Fckl.*
 Uredo Cassandræ *P. & C.*
 Puccinia orbicula *P. & C.*
 Helminthosporium Absinthii
 Cladosporium nodulosum *Cd.*
 Ramularia brunnea *Pk.*
 Cercospora Symplocarpi *Pk.*
 C. leptosperma *Pk.*
 C. Ampelopsidis *Pk.*
 C. Chenopodii *Fckl.*
 Peronospora alta *Fckl.*
 P. infestans *De By.*
 Dactylium sublutescens *Pk.*
 Oidium albipes *Pk.*
 O. fasciculatum *Berk.*
 Capillaria Sphæriæ-typhinæ
 Menispora ciliata *Cd.*
 Fusicporium rimosum *Pk.*
 Zygodemus pannosus *B. & C.*
 Z. rubiginosus *Pk.*
 Morchella deliciosa *Fr.*
 Peziza Warnei *Pk.*
 P. deligata *Pk.*
 P. myricacea *Pk.*
 P. bicolor *Bull.*
 P. sulphurella *Pk.*
 P. distincta *Pk.*
 P. capitata *Pk.*
 P. chamæleontina *Pk.*
 P. Polygoni *Rehm.*
 Helotium caricinellum *Pk.*
 H. bryogenum *Pk.*
 Dermatea carpinus *Fr.*
 D. inclusa *Pk.*
 Stictis cylindricarpa *Pk.*
 Ascobolus viridis *Curr.*
 A. crenulatus *Karst.*
 Tympanis turbinata *Schw.*
 Glonium simulans *Ger.*
 Hypoderma Desmazierii *Duby.*
 Hypomyces ochraceus *Tul.*
 Hypoxylon suborbiculare *Pk.*
 Dothidea Caricis *Fr.*
 D. Osmundæ *P. & C.*
 D. episphæria *Pk.*
 Diatrype ferruginea *Fr.*
 Valsa Juglandicola *Schw.*
 V. innumerabilis *Pk.*
 Lophiostoma obtectum *Pk.*
 Sphærella Vaccinii *Ck.*
 S. Impatientis *P. & C.*
 Sphæria exercitalis *Pk.*
 S. sphærellula *Pk.*
 S. Clasterium *B. & C.*
 S. viridella *Pk.*
 S. scapophila *Pk.*
 Pyrenophora phæocomes *Fr.*

(3.)

CONTRIBUTORS AND THEIR CONTRIBUTIONS.

M. C. COOKE, London, England.

Leptostroma juncinum <i>Fr.</i>	Puccinia Nōlitangeris <i>Cd.</i>
L. filicinum <i>Fr.</i>	P. Violarum <i>Lk.</i>
Leptothyrium Ribis <i>Lib.</i>	P. Lychnidearum <i>Lk.</i>
L. Fragariæ <i>Lib.</i>	P. pulverulenta <i>Grev.</i>
L. Juglandis <i>Lib.</i>	P. Circææ <i>Grev.</i>
Dinemasporium Herbarum <i>Ck.</i>	P. Prunorum <i>Lk.</i>
Aposphæria acuta <i>Berk.</i>	P. Polygonorum <i>Lk.</i>
A. complanata <i>Berk.</i>	P. Primula <i>Grev.</i>
Septoria Ulmi <i>Kze.</i>	P. Glechomatis <i>DC.</i>
S. Convolvuli <i>Desm.</i>	P. Menthæ <i>Pers.</i>
S. Clematidis <i>Desm.</i>	P. Comp. v. Centauræ <i>Schl.</i>
S. Viburni <i>West.</i>	P. " serratulæ <i>Schl.</i>
S. Gei <i>Desm.</i>	P. Syngenesiarum <i>Lk.</i>
S. Hederæ <i>Desm.</i>	P. Umbelliferarum <i>Lk.</i>
S. Oxyacanthæ <i>Kze.</i>	P. Apii <i>Cd.</i>
S. Castanæcola <i>Lasch.</i>	P. Vincæ <i>Berk.</i>
S. Astragali <i>Desm.</i>	P. Umbilici <i>Guep.</i>
S. Ficariæ <i>Duby.</i>	P. Graminis <i>Pers.</i>
S. Hydrocotyles <i>Duby.</i>	P. Veronicarum <i>DC.</i>
S. Pyricola <i>Desm.</i>	P. Mœhringii <i>Fckl.</i>
S. Chelidonii <i>Desm.</i>	P. difformis <i>Kze.</i>
S. Cægopodii <i>Desm.</i>	P. Scorodoniæ <i>Lk.</i>
Phyllosticta vulgaris <i>Desm.</i>	P. Tanaceti <i>DC.</i>
P. Atriplicis <i>Desm.</i>	P. Buxi <i>DC.</i>
Phoma Samarorum <i>Desm.</i>	Uromyces Iridis <i>Lev.</i>
Ceuthospora phacidiioides <i>Grev.</i>	U. Polygoni <i>Lev.</i>
Asteroma Rosæ <i>DC.</i>	U. intrusus <i>Lev.</i>
Xenodocheus carbonarius <i>Sch.</i>	U. Ulmariae <i>Lev.</i>
Aregma mucronatum <i>Fr.</i>	U. concentricus <i>Lev.</i>
A. obtusatum <i>Fr.</i>	Trichobasis Senecionis <i>Berk.</i>
A. acuminatum <i>Fr.</i>	T. Labiatarum <i>Lev.</i>
A. bulbosum <i>Fr.</i>	T. Cichoracearum <i>Lev.</i>
Triphragmium Ulmariae <i>Lk.</i>	T. Hydrocotyles <i>Ck.</i>
Puccinia Saniculæ <i>Grev.</i>	T. Betæ <i>Lev.</i>
P. bullaria <i>Lk.</i>	T. Fabæ <i>Lev.</i>
P. Anemones <i>Pers.</i>	T. Galii <i>Lev.</i>

Trichobasis Parnassiae <i>Ch.</i>	Melampsora salicina <i>Lev.</i>
T. caricina <i>Berk.</i>	M. populina <i>Lev.</i>
T. Petroselini <i>Berk.</i>	M. Tremulae <i>Tul.</i>
T. fallens <i>Ch.</i>	Roestelia cornuta <i>Tul.</i>
T. Runicum <i>DC.</i>	Æcidium crassum <i>Pers.</i>
T. Geranii <i>Berk.</i>	Æ. Euphorbiae <i>Pers.</i>
T. Umbellatarum <i>Lev.</i>	Æ. Epilobii <i>DC.</i>
Tilletia caries <i>Tul.</i>	Æ. leucospermum <i>DC.</i>
Urocystis pompholygodes <i>Lev.</i>	Æ. Grossulariae <i>DC.</i>
Ustilago segetum <i>Ditm.</i>	Æ. Comp. v. Tussilaginis.
U. Salvei <i>Berk.</i>	Æ. " Lampanae.
U. longissima <i>Tul.</i>	Æ. " Bellidis.
U. utriculosa <i>Tul.</i>	Æ. Saniculæ <i>Carm.</i>
Lecythea gyrosa <i>Lev.</i>	Æ. Allii <i>Grev.</i>
L. Euphorbiae <i>Lev.</i>	Æ. Valerianacearum <i>Duby.</i>
L. Valerianæ <i>Lev.</i>	Æ. rubellum <i>Pers.</i>
Uredo confluens <i>DC.</i>	Æ. Berberidis <i>Pers.</i>
U. Circææ <i>A. & S.</i>	Æ. Periclymeni <i>DC.</i>
U. pustulata <i>Pers.</i>	Æ. Ranunculacearum <i>DC.</i>
U. Caryophyllacearum	Æ. Tragopogonis <i>Pers.</i>
Coleosporium Sonchi <i>Lev.</i>	Peronospora infestans <i>De By.</i>
C. Tussilaginis <i>Lev.</i>	P. parasitica <i>Cd.</i>
C. ochraceum <i>Bon.</i>	Microsphaera comata <i>Lev.</i>
C. Rhinanthacearum.	Erysiphe Linkii <i>Lev.</i>
Cystopus candidus <i>Lev.</i>	E. tortilis <i>Lev.</i>
C. spinulosus <i>De By.</i>	

C. B. PLOWRIGHT, M. D., Lynn, England.

Agaricus muscarius <i>L.</i>	Polyporus perennis <i>Fr.</i>
A. granulatus <i>Batsch.</i>	P. squamosus <i>Fr.</i>
A. ustalis <i>Fr.</i>	P. adustus <i>Fr.</i>
A. cyathiformis <i>Bull.</i>	P. hirsutus <i>Fr.</i>
A. galericulatus <i>Scop.</i>	P. versicolor <i>Fr.</i>
A. fascicularis <i>Huds.</i>	Dædalea unicolor <i>Fr.</i>
A. virginicus <i>Jacq.</i>	D. quercina <i>Fr.</i>
Cantharellus cibarius <i>Fr.</i>	Trametes Pini <i>Fr.</i>
Marasmius oreades <i>Fr.</i>	T. suaveolens <i>Fr.</i>
Panus stypticus <i>Fr.</i>	Merulius lacrymans <i>Fr.</i>

- Hydnum repandum *L.*
 Fistulina hepatica *Fr.*
 Craterellus flavescens.
 Hymenochæte rubiginosa *Lev.*
 Corticium quercinum *Fr.*
 C. comedens *Fr.*
 C. Sambuci *Fr.*
 C. incarnatum *Fr.*
 Clavaria flava *Pers.*
 Scleroderma vulgare *Fr.*
 Lycoperdon cælatum *Bull.*
 Lycogala epidendrum *Fr.*
 Spumaria alba *DC.*
 Diderma vernicosum *Pers.*
 Didymium farinaceum *Fr.*
 Arcyria punicea *Pers.*
 Cyathus striatus *Hoffm.*
 C. Crucibulum *Pers.*
 Sphærobolus stellatus *Tode.*
 Leptostroma litigiosum *Desm.*
 Cryptosporium Neesii *Cd.*
 Phoma subordinarium *Desm.*
 P. errabundum *Desm.*
 P. complanatum *Desm.*
 P. longissimum *Pers.*
 P. Samarorum *Desm.*
 Diplodia Ligustri *Awd.*
 D. Fraxini *Fr.*
 D. melæna *Lev.*
 D. Coryli *Fckl.*
 D. Syringæ *Awd.*
 D. Mori *Awd.*
 D. Juglandis *Fr.*
 Hendersonia Rosæ *Awd.*
 H. Rubi *Awd.*
 H. Corni *Fckl.*
 Vermicularia Dematium *Fr.*
 Melasmia alnea *Lev.*
 M. acerina *Lev.*
 Piggotia astroidea *Berk.*
 Septoria Hederæ *Desm.*
 Septoria quercina *Desm.*
 S. Aceris *B. & Br.*
 S. Oxyacanthæ *Kze.*
 S. Ulmi *Fr.*
 S. Anemones *Fckl.*
 S. Stellariæ *West.*
 S. Astragali *Lasch.*
 S. Castanæcola *Desm.*
 S. Ficariæ *Desm.*
 S. Fraxini *Desm.*
 S. Ægopodii *Desm.*
 S. Hepaticæ *Desm.*
 S. Convolvuli *Desm.*
 S. Tiliæ *Desm.*
 S. Urticæ *Desm.*
 Phyllosticta Cornicola *Rbh.*
 P. Primulæcola *Desm.*
 P. Symphoricarpi *West.*
 Depazea populina *Fckl.*
 D. Vincetoxici *Schub.*
 D. Frondicola *Fr.*
 D. Œnotheræ *Lasch.*
 D. juglandina *Fr.*
 D. cruenta *Fr.*
 D. Æsculicola *Fr.*
 Darluca filum *Cast.*
 Ascochyta Polygoni *Rbh.*
 A. Ebuli *Fckl.*
 A. Rubi *Lasch.*
 Asteroma Rosæ *DC.*
 A. Ulmi *KL.*
 A. Hoffmani *Kze.*
 Discella carbonacea *B. & Br.*
 Stilbospora angustata *Pers.*
 Stegonosporium celluloseum *Cd.*
 Libertella betulina *Desm.*
 Melanconium Juglandis *Kze.*
 M. sphærospermum *Lk.*
 M. bicolor *Nees.*
 M. macrospermum *Tul.*
 Coryneum pulvinatum *Kze.*

- Coryneum disciforme *Kze.*
 Bispora monilioides *Cd.*
 Cytispora elegans *Ces.*
 C. populina *Fr.*
 Synchytrium Succisæ *De By.*
 S. Anemones *Wor.*
 Puccinia Tanacetii *DC.*
 P. Hieracii *Mart.*
 P. Prunorum *Lk.*
 P. Menthæ *Pers.*
 P. coronata *Cd.*
 P. obtegens *Tul.*
 P. Lapsanæ *Fckl.*
 P. Bardanæ *Cd.*
 P. Cirsii *Lasch.*
 P. Luzulæ *Lib.*
 P. Caricis *Fckl.*
 P. Ægopodii *Lk.*
 P. Glechomæ *DC.*
 P. Compositarum *Schl.*
 P. Syngenesiarum.
 P. Malvacearum *Mont.*
 P. Straminis *Fckl.*
 P. Asparagi *DC.*
 P. arundinacea *Hedw.*
 P. Brachypodii *Fckl.*
 P. Graminis *Pers.*
 P. Amphibii *Fckl.*
 Phragmidium Tormentillæ *Cd.*
 P. apiculatum *Rbh.*
 P. incrassatum *Lk.*
 Uromyces Ficariæ *Lev.*
 U. Polygoni *Fckl.*
 U. Vicie *Fckl.*
 U. Trifolii *Fckl.*
 U. apiculatus *Lev.*
 U. Betæ *Kuhn.*
 U. scutellatus *Kl.*
 Ustilago-Carbo *Tul.*
 U. longissima *Tul.*
 U. hypodytes *Fr.*
 Uredo Filicum *Desm.*
 U. Vacciniorum *Pers.*
 U. arundinacea *Rbh.*
 Coleosporium Compositarum
 C. Campanulacearum *Fr.*
 C. Senecionis *Fr.*
 C. ochraceum *Bon.*
 Melampsora Lini *Desm.*
 M. Tremulæ *Tul.*
 M. Epilobii *Fckl.*
 M. salicina *Lev.*
 M. acerina *Lev.*
 M. betulina *Tul.*
 M. Euphorbiæ *Cast.*
 Æcidium Violæ *Schum.*
 Æ. Xylostei *Wallr.*
 Æ. Compositarum *Mart.*
 Æ. Berberidis *Pers.*
 Æ. Convallariæ *Schum.*
 Æ. Tussilaginis *Pers.*
 Æ. Thesii *Desv.*
 Æ. Ranunculacearum *DC.*
 Æ. rubellum *Pers.*
 Æ. elongatum *Lk.*
 Æ. leucospermum *DC.*
 Æ. Epilobii *DC.*
 Æ. Urticæ *DC.*
 Æ. Behenis *DC.*
 Æ. Euphorbiæ *Pers.*
 Ræstelia cornuta *Tul.*
 Cystopus candidus *Lev.*
 Ceratium hydroides *A. & S.*
 Cladosporium graminum *Lk.*
 C. Fumago *Lk.*
 Helminthosporium Tiliæ *Fr.*
 H. arundinaceum *Cd.*
 Oidium Tuckeri *Berk.*
 O. fructigenum *Fr.*
 Fusarium nervisequum *Fckl.*
 Ramularia Urticæ *Ces.*
 Peronospora nivea *Ung.*

Peronospora Alsinearum <i>DeBy</i>	Colpoma quercinum.
P. grisea <i>De By</i> .	Dichæna strobilina <i>Fr.</i>
P. pygmæa <i>Ung.</i>	Rhytisma salicinum <i>Fr.</i>
P. parasitica <i>Pers.</i>	R. acerinum <i>Fr.</i>
P. gangliiformis <i>Berk.</i>	R. punctatum <i>Pers.</i>
Pilobolus crystallinus <i>Tode.</i>	Epichloe typhina <i>Berk.</i>
Sphærotheca pannosa <i>Lev.</i>	Nectria Peziza <i>Fr.</i>
S. Castagnei <i>Lev.</i>	N. pulicaris <i>Fr.</i>
Microsphæra Grossulariæ <i>Lev.</i>	N. ephisphæria <i>Fr.</i>
M. holosericea <i>Lev.</i>	Xylaria Hypoxylon <i>Grev.</i>
M. Berberidis <i>Lev.</i>	X. polymorpha <i>Grev.</i>
M. penicillata <i>Lev.</i>	Hypoxylon fuscum <i>Fr.</i>
Erysiphe Martii <i>Lev.</i>	Ustulina vulgaris <i>Tul.</i>
E. Linkii <i>Lev.</i>	Eutypa flavovirens <i>Tul.</i>
E. communis <i>Schl.</i>	Melogramma ferrugineum <i>Nke.</i>
Uncinula adunca <i>Lev.</i>	Polystigma fulvum <i>DC.</i>
U. bicornis <i>Lev.</i>	P. rubrum <i>DC.</i>
U. Wallrothii <i>Lev.</i>	Dothidea Ulmi <i>Fr.</i>
Podosphæra Kunzei <i>Lev.</i>	D. Heraclei <i>Fckl.</i>
Phyllactinia guttata <i>Lev.</i>	D. graminis <i>Pers.</i>
Morchella esculenta <i>Pers.</i>	D. Junci <i>Fr.</i>
Leotia lubrica <i>Pers.</i>	D. Ribesia <i>Fr.</i>
Spathularia flavida <i>Pers.</i>	Diatrype stigma <i>Fr.</i>
Peziza badia <i>Pers.</i>	D. favacea <i>Fr.</i>
P. aurantia <i>Fr.</i>	D. disciformis <i>Fr.</i>
P. leporina <i>Batsch.</i>	D. bullata <i>Fr.</i>
P. cinerea <i>Batsch.</i>	Valsa suffusa <i>Tul.</i>
P. Solani <i>Pers.</i>	V. salicina <i>Fr.</i>
P. atrata <i>Fr.</i>	V. nivea <i>Fr.</i>
P. fusca <i>Pers.</i>	V. stellulata <i>Fr.</i>
P. fusarioides <i>Berk.</i>	Cucurbitaria Spartii <i>De Not.</i>
Pseudopeziza Trifolii <i>Bernh.</i>	C. Berberidis <i>Gr.</i>
Helotium herbarum <i>Pers.</i>	C. Laburni <i>Fr.</i>
Lachnella corticalis <i>Pers.</i>	Massaria inquinans <i>Tode.</i>
Cenangium Cerasi <i>Fr.</i>	M. pupula <i>Tul.</i>
C. ferruginosum <i>Fr.</i>	Stegia Ilicis <i>Fr.</i>
Phacidium coronatum <i>Fr.</i>	Sphæria aquila <i>Fr.</i>
P. minutissimum <i>Awd.</i>	S. spermoides <i>Hoffm.</i>
P. Medicaginis <i>Lasch.</i>	S. pulvispyrius <i>Pers.</i>
Hysterium Pinastri <i>Fr.</i>	S. coniformis <i>Fr.</i>
H. virgultorum <i>DC.</i>	S. clara <i>Awd.</i>

Sphæria rubella Pers.
S. Herbarum Pers.
S. pilifera Fr.
S. obducens Fr.
S. Carduorum Wallr.
S. vulgaris Ces.
Isothea pustula Berk.
Sphærella ignobilis Awd.

Sphærella Cookeana Awd.
S. Populi Awd.
S. microspora Awd.
Venturia ditricha Fr.
Rophographus filicinus Fckl.
Exoascus Populi Thum.
Calyptospora Gœppertiana

HON. G. W. CLINTON, Buffalo, N. Y.

Polyporus obducens Fr.
P. callosus Fr.
P. farinellus Fr.
Corticium Martianum B. & C.
C. cæruleum Fr.
Dacrymyces minor Pk.
Perichæna irregularis B. & C.
Phoma strobilinum P. & C.
P. stercorarium P. & C.
Sphæropsis Syringæ P. & C.
S. Pennsylvanica B. & C.
Sphæronema Robiniæ B. & C.
Diplodia thujina P. & C.
Melanconium intermedium
Septonema dichænoides P. & C.
Puccinia orbicula P. & C.
P. Hydrophylli P. & C.
Uredo Cassandræ P. & C.
Trichobasis Fabæ Lev.

Æcidium Saniculæ Carm.
Cladosporium depressum
Verticillium pulvereum P. & C.
Trichoderma viride Pers.
Oidium fasciculatum Berk.
Polyactis cana Berk.
Peziza vulpina Ck.
P. maculincola Schw.
P. macrospora Fckl.
Patellaria lignyota Fr.
Hysterium Rimicola Schw.
H. truncatulum C. & P.
Dothidea Osmundæ P. & C.
Valsa Juglandicola Schw.
Cucurbitaria Berberidis Gr.
Sphæria Clintonii Pk.
S. onosmodina P. & C.
S. Herbarum Pers.
Sphærella Impatientis P. & C.

C. C. FROST, Brattleborough, Vt.

Marasmius erythropus Fr.
M. archyropus Fr.
Boletus viscosus Frost.
B. salmonicolor Frost.
Næmatelia nucleata Fr.
Endobotrya elegans B. & C.

Ceratium porioides A. & S.
Phymatospora leucosperma
Peziza Acetabulum L.
Patellaria lignyota Fr.
Sphæria scoriadea Fr.

E. S. MILLER, Wading River, N. Y.

Quercus obtusiloba Mx.
Q. monticola Mx.

Carya tomentosa Nutt.

H. A. WARNE, Oneida, N. Y.

Viola Selkirkii <i>Pursh.</i>	Erysiphe Liriodendri <i>Schw.</i>
Agaricus naucinoides <i>Pk.</i>	Morchella bispora <i>Sor.</i>
A. personatus <i>Fr.</i>	M. semilibera <i>DC.</i>
A. æruginosus <i>Fr.</i>	M. deliciosa <i>Fr.</i>
Paxillus porosus <i>Berk.</i>	Verpa digitaliformis <i>Pers.</i>
Polyporous medullapanis <i>Fr.</i>	Peziza sulcata <i>Pers.</i>
Hydnum chrysodon <i>B. & C.</i>	P. Warnei <i>Pk.</i>
Grandinia virescens <i>Pk.</i>	Ascobolus crenulatus <i>Karst.</i>
Stereum rugosum <i>Fr.</i>	Patellaria leptosperma <i>Pk.</i>
Clavaria amethystina <i>Bull.</i>	Sphæria xestothele <i>B. & C.</i>
Guepinia helvelloides <i>DC.</i>	Discosia rugulosa <i>B. & C.</i>

W. R. GERARD, New York, N. Y.

Ostropa cinerea <i>Duby.</i>	Hysterium parvulum <i>Ger.</i>
Hysterium prælongum <i>Schw.</i>	H. australe <i>Duby.</i>
H. curvatum <i>Fr.</i>	H. ellipticum <i>DC.</i>
H. Rousselii <i>De Not.</i>	Hypoderma nervisequum <i>Fr.</i>
H. aquilinum <i>Schum.</i>	Glonium simulans <i>Ger.</i>

J. B. ELLIS, Newfield, N. J.

Corticium fumigatum <i>Thum.</i>	Dermatea tetraspora <i>Ellis.</i>
C. rubrocanum <i>Thum.</i>	Stictis leucaspis <i>Ellis.</i>
Microthyrium Smilacis <i>Not.</i>	Triblidium minor <i>Ck.</i>
Phoma consors <i>C. & E.</i>	Diatrype Hystrix <i>Tode.</i>
Sphæropsis Sumachi <i>Schw.</i>	D. fibritecta <i>C. & E.</i>
Melanconium Ramulorum <i>Cd.</i>	D. collariata <i>C. & E.</i>
Stilbum atrocephalum <i>Ellis.</i>	D. dryophila <i>Curr.</i>
Septosporium velutinum <i>C. & E.</i>	Dothidea excavata <i>C. & E.</i>
Aspergillus pulvinatus <i>B. & C.</i>	Valsa rufescens <i>Schw.</i>
Chaetomium elatum <i>Kze.</i>	V. aculeans <i>Schw.</i>
Peziza raphidospora <i>Ellis.</i>	V. Liquidamberis <i>Schw.</i>
P. macrospora <i>Fckl.</i>	V. albofusca <i>C. & E.</i>
P. lachnoderma <i>Berk.</i>	Sphæria pachyascus <i>C. & E.</i>
P. virginella <i>Ck.</i>	S. viscosa <i>C. & E.</i>
P. mycogena <i>Ellis.</i>	S. Radicum <i>Schw.</i>
P. Kalmiæ <i>Pk.</i>	S. goniostoma <i>Schw.</i>
Dermatea carnea <i>C. & E.</i>	

Prof. J. W. CHICKERING, Washington, D. C.

Pinus mitis <i>Mx.</i>	Pinus inops <i>Ait.</i>
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W. M. CANBY, Wilmington, Del.

Pinus Tæda L.

F. W. HALL, New Haven, Ct.

Chenopodium leptophyllum Nutt.

C. DEVOL, M. D., Albany, N. Y.

Laurus nobilis L.

Specimens of wood of	{	Rosa Indica.
		Ulmus racemosa?

W. W. HILL, Albany, N. Y.

Specimens of wood of :

Rhus venenata DC.

R. *typhina L.*

R. *glabra L.*

Rhus radicans L.

Celastrus scandens L.

(4.)

SPECIES NOT BEFORE REPORTED.

TRIFOLIUM HYBRIDUM L.

Portage. *G. W. Clinton.* North Greenbush. Perhaps not yet fully established.

LONICERA TARTARICA L.

I find this shrub growing on the railroad bank, one mile south of Greenbush.

CREPIS AURANTIACA L.

Well established in fields and meadows. Sandlake. July.

AGARICUS (TRICHOLOMA) STRIATIFOLIUS n. sp.

Pileus dry, convex or expanded, nearly smooth, somewhat shining, often obscurely dotted or squamulose with innate fibrils, grayish or grayish-brown, sometimes tinged with red; lamellæ rather close, rounded behind, transversely striated or venose, white; stem slightly thickened at the base, hollow, white; spores subglobose or broadly elliptical, .00016''*-.0002' long; odor decided and peculiar, flesh white.

Plant gregarious, 2' high, pileus 2'-2.5' broad, stem 3"-5" thick.

* One accent signifies inch or inches; two accents signify line or lines.

Ground in woods. Mechanicsville. October.

The striated appearance of the lamellæ is due to the presence of small transverse vein-like elevations. The stem is almost chalky-white. The odor is quite perceptible and peculiar.

AGARICUS (CLITOCYBE) APERTUS *n. sp.*

Pileus convex, then expanded or centrally depressed, often irregular, whitish with a lilac tinge and often one or two darker zones, shining; lamellæ close, adnate or slightly decurrent, whitish, often with a faint pinkish tinge; stem short, equal or narrowed toward the base, solid, whitish; odor farinaceous, taste unpleasant.

Plant gregarious or cæspitose, 1'-2' high, pileus about 1' broad, stem 1" thick.

Grassy ground in pastures and along highways. Maryland, Otsego county. September.

In the dried specimens the lamellæ often assume a pale cinnamon hue.

AGARICUS (CLITOCYBE) FLAVIDELLUS *n. sp.*

Pileus thin, convex, then expanded or centrally depressed, often irregular, hygrophanous, glabrous; lamellæ narrow, crowded, adnate or subdecurrent; stem equal, glabrous, hollow.

Plant gregarious, about 2' high, pileus 1' broad, stem 1.5"-2" thick.

Wet swampy ground. Maryland. September.

The whole plant has a uniform dirty yellowish hue when fresh. The pileus becomes whitish in drying.

AGARICUS (CLITOCYBE) PELTIGERINUS *n. sp.*

Pileus nearly plane, smooth, umbilicate, hygrophanous, brown, striatulate on the margin when moist, whitish or pale-gray when dry; lamellæ rather distant, sometimes branched, venose-connected, decurrent, a little paler than the moist pileus; stem nearly equal, rather firm, solid, smooth, paler than the pileus, often with a minute white tomentum toward the base; spores elliptical, .0003' long, with a slight apiculus at the base.

Plant 6"-10" high, pileus 2"-5" broad, stem less than 1" thick.

On decaying Peltigera. Oneida. H. A. Warne. North Greenbush. May.

A small species remarkable for its peculiar habitat. Sometimes the stems of two or three plants are united at the base, thus manifesting a tendency to become cæspitose.

AGARICUS (COLLYBIA) CONIGENOIDES *Ellis*.

Buried pine cones. West Albany. October.

The pileus in our specimens is fuscous, being darker than in the type. It seems to be near *A. semiharens* B. & C., if not indeed the same species.

AGARICUS (COLLYBIA) DELICATELLUS *n. sp.*

Snowy-white throughout, smooth, subcæspitose; pileus convex or broadly campanulate, submembranaceous, slightly thicker on the disk; lamellæ narrow, close, emarginate; stem slender, equal, hollow, slightly white-villous at the base.

Plant 1' high, pileus 2"-3" broad, stem .5" thick.

Among fallen leaves. North Greenbush. September.

From the character of the lamellæ it is evidently a *Collybia* but the substance is rather tender.

AGARICUS (MYCENA) ODORIFER *n. sp.*

Pileus thin, hemispherical, convex or expanded, smooth, white, the disk slightly tinged with brown; lamellæ subarcuate, adnate or subdecurrent, somewhat crenulate on the edge, white; stem tough, equal, viscid, smooth, whitish or pale-brownish, white-villous at the base; spores narrowly elliptical, .0002' long; odor strong, subalkaline, for a long time persistent.

Plant 1'-1.5' high, pileus 3"-4" broad.

Mossy ground. Adirondack Mts. July.

Apparently near *A. clavicularis* Fr., but smaller and easily known by its decided and peculiar odor which is retained by the dried specimens for a long time.

AGARICUS (PLEUROTUS) SUBAREOLATUS *n. sp.*

Pileus compact, convex, marginate behind, whitish tinged with brown and pink, usually cracking in small maculiform areas; lamellæ rather broad and loose, decurrent, whitish, becoming tinged with yellow in drying; stem eccentric, subvertical, short, curved, firm, solid, sometimes compressed, white; spores white, oblong, .0005'-.0006' in length.

Pileus 3'-4' broad.

Trunks of elm trees. Bethlehem. October.

Apparently related to *A. pulveriatus* Pers.

AGARICUS STRIATULUS *Fr.*

Decaying trunks of pine. North Greenbush. October.
Buffalo. *Clinton*.

AGARICUS (PLUTEUS) LONGISTRIATUS *n. sp.*

Pileus thin, convex, then expanded, dry, striate to the disk, cinereous, the disk darker and minutely roughened with hairs or squamules; lamellæ broad, at length ventricose, free, white, then flesh-colored; stem equal, glabrous, white; spores orbicular, .0003' in diameter.

Plant 2' high, pileus 1'-1.5' broad, stem 1" thick.

Decaying wood. Albany. July.

AGARICUS (PHOLIOTA) ANGUSTIPES *n. sp.*

Pileus hemispherical, then convex or expanded, at first brown, then fading to ochraceous-brown or subalutaceous and becoming minutely squamulose with appressed dot-like scales; lamellæ narrowed outwardly, emarginate, whitish or dull cream color; stem stuffed, tapering downward, whitish or cinereous, roughened with darker scales which at first form a crenate annulus at the upper part; spores brownish-ferruginous, subelliptical, .0003' long, .00018' broad; flesh white.

Plant cæspitose, 2'-3' high, pileus 1.5'-2.5' broad, stem 2"-3" thick.

In pastures about old stumps. Schenevus, Otsego county. September.

The pileus is sometimes irregular from being crowded in its growth. The taste is unpleasant and the scales of the stem are somewhat evanescent.

AGARICUS (PHOLIOTA) INDECENS *n. sp.*

Pileus convex, then expanded or centrally depressed, smooth, rather brittle, hygrophamous, pale-fuscous and usually striatulate on the margin when moist, alutaceous inclining to ochraceous when dry; lamellæ close, emarginate with a decurrent tooth, pale-brown, becoming cinnamon-brown; stem equal or slightly tapering upward, silky-fibrillose, hollow, annulate, pallid, the thin membranaceous annulus sometimes evanescent; spores unequally elliptical, .0005'-.0006' long, .00025'-.0003' broad.

Plant gregarious or cæspitose, 1'-2' high, pileus 1'-2' broad, stem 1"-2" thick.

Ground in bushy pastures. North Greenbush. September.

It resembles somewhat *A. Aggericola* Pk., but it is smaller, paler, not viscid and has longer spores. The edge of the lamellæ is sometimes eroded.

AGARICUS (NAUCORIA) CONTRARIUS *n. sp.*

Pileus thin, convex, then plane or centrally depressed, sometimes umbilicate and striate on the margin, glabrous, alutaceous; lamellæ loose, adnate, very broad behind, becoming ventricose and subtriangular, ochraceous; stem equal, hollow, reddish or reddish-brown, adorned with a few silky-fibrils and minute fragments of the white floccose veil; spores yellow, elliptical, .0003' long, .0002' broad.

Plant gregarious or subcæspitose, about 1' high, pileus 6"-10" broad.

Grassy ground in pastures. Schenevus and West Albany. September.

The color of the pileus fades a little with age, but the bright color of the lamellæ is retained longer. There is usually an abundant white mycelium at the base of the stem. Often minute fragments of the floccose veil may be seen on the margin of the young pileus.

AGARICUS (STROPHARIA) UMBONATESCENS *n. sp.*

Pileus at first conical, subacute, then expanded and umbonate, smooth, viscid, yellow, the umbo inclining to reddish; lamellæ plane, broad, at length ventricose, blackish-brown with a slight olivaceous tint; stem equal, slender, hollow, generally a little paler than the pileus; spores purplish-brown, almost black, .0006'--0007' long, .0004' broad.

Plant 3'-4' high, pileus 6"-12" broad.

Dung in pastures. Schenevus. September.

This is evidently closely allied to *A. stercorarius* and *A. semiglobatus* with which it has probably been confounded, but the pileus in our plant is so peculiar in form that I am constrained to regard it as a distinct species. The viscid pellicle of the pileus is separable. When old it sometimes cracks into areas.

AGARICUS LACRYMABUNDUS *Fr.*

Bushy pastures. Bethlehem. October.

Our specimens do not agree in all respects with the published description of the species. The pileus is sometimes wholly destitute of scales and sometimes densely clothed with hairy erect ones. The species is manifestly variable.

AGARICUS CANDOLLEANUS *Fr.*

Ground and buried chips. North Greenbush and Greig. September and October.

AGARICUS (PSILOCYBE) LIMOPHILUS *n. sp.*

Pileus thin, convex, then expanded, fragile, atomaceous, radiately rugulose, whitish, often splitting on the margin and sometimes cracking into areas; lamellæ rather broad, loose, whitish or pallid, then purplish brown; stem equal, striate and slightly mealy at the top, hollow, short, white; spores elliptical, .0004'-.0005' long, .0002'-.00025' broad.

Muddy alluvial soil under willows. Green Island. September.

It is related to *A. incertus* Pk., but the veil is less developed, the lamellæ are more distant and the spores are larger.

AGARICUS (PSILOCYBE) ARENULINUS *n. sp.*

Pileus convex, then expanded, plane or centrally depressed, glabrous, hygrophanous, dark livid-brown and coarsely striatulate when moist, livid-white when dry; lamellæ close, cinnamon-brown, becoming darker with age; stem slightly tapering upward, hollow, whitish; spores subelliptical, .0004' long.

Plant 1.5'-2.5' high, pileus 6"-16" broad, stem 1" thick.

Sandy soil. West Albany. September.

When moist the pileus has a peculiar radiate appearance as if distantly striate. Large individuals have the margin of the pileus uneven and irregularly striate. A mass of sand usually adheres to the base of the stem.

AGARICUS (PSATHYRA) POLYTRICHOPHILUS *n. sp.*

Pileus thin, convex or subcampanulate, glabrous rather fragile, sometimes with a slight umbo, hygrophanous, striatulate and brown when moist, dull ochraceous or buff when dry, somewhat shining; lamellæ plane and adnate or slightly arcuate and decurrent, broad, subdistant, colored almost like the pileus; stem slender, equal, subflexuous, slightly whitish-fibrillose, especially toward the base, mealy at the top, concolorous, containing a whitish pith; spores purple-brown, subelliptical, .0003' long, .0002' broad.

Plant gregarious, odorous, 1'-2' high, pileus 2"-5" broad.

Ground among Polytrichum. Oneida. *Warne*. West Albany. May.

AGARICUS (PSATHYRELLA) GRACILOIDES *n. sp.* (Plate 1, figs. 1-4.)

Pileus thin, conical or campanulate, glabrous, hygrophanous, brown and striatulate when moist, whitish and subrugulose

when dry ; lamellæ ascending, rather broad, subdistant, brown, becoming blackish-brown, the edge whitish ; stem long, straight, fragile, hollow, smooth, white ; spores blackish, elliptical, .0006'-.00065' long, .0003'-.00033' broad.

Plant gregarious, 4'-6' high, pileus 1' broad, stem 1" thick.

Ground in an old door yard. Maryland. September.

This is allied to *A. gracilis* Fr., but the edge of the lamellæ is not rosy. When drying the moisture leaves the disk of the pileus first, the margin last. When dry the plant bears some resemblance to large forms of *A. tener*. Under a lens the texture of the surface of the pileus is seen to be composed of matted fibrils.

CORTINARIUS (PHLEGMACIUM) OPHIOPUS *n. sp.*

Pileus firm, convex or subcampanulate, then expanded, sometimes irregular, viscid, reddish-yellow, smooth, the paler margin sometimes roughened by adhering patches of the whitish veil ; lamellæ close, often eroded on the edge, brownish-cinnamon ; stem stout, equal, solid, usually much bent or variously curved, at first shaggy-scaly from the subconcentrically arranged fragments of the copious veil, white or yellowish ; flesh white ; spores unequally elliptical, .00045'-.0005' long, .00025'-.0003' broad, usually containing a single nucleus.

Plant 4'-6' high, pileus 2'-4' broad, stem 4"-6" thick.

Among fallen leaves in woods. Maryland. September.

The long crooked stem is a noticeable feature of the species.

CORTINARIUS CRATICIUS *Fr.*

Low grounds. Center. October.

CORTINARIUS (HYDROCYBE) REGULARIS *n. sp.*

Pileus convex or expanded, glabrous, hygrophanous, watery-brown when moist, reddish-ochraceous when dry, often slightly radiate-rugulose ; flesh whitish, becoming white when dry ; lamellæ close, slightly violaceous when young ; stem long, nearly straight, stuffed, slightly tapering upward, silky-fibrillose, white ; spores elliptical, .0004' long, .0003' broad.

Plant gregarious, 3'-5' high, pileus 1'-2' broad, stem 1"-2" thick.

Sphagnous marsh. Center. October.

The plant has a very regular symmetrical appearance, whence the specific name.

MARASMIUS PRÆACUTUS *Ellis.*

Trunks of dead alder trees. Mechanicsville. October.

The lamellæ are sometimes quite distant and rounded behind. The stem which is remarkable for its thickness and peculiar shape and which constitutes the chief part of the young plant is pulverulent under a lens.

PANUS TORULOSUS *Fr.*

Oak stumps. Greenbush. May.

BOLETUS VISCOSUS *Frost.*

Light sandy soil about pine woods. Center. October.

POLYPORUS OSSEUS *Kalchbr.*

Old stumps in woods. Guilderland. October.

Very rare. The pores in our specimens are a little larger than in an authentic specimen received from *Dr. Kalchbrenner.*

POLYPORUS (ANODERMEI) DUALIS *n. sp.*

Pileus dimidiate, sessile or sometimes produced behind into a stem-like base, convex or nearly plane above, somewhat uneven, rarely with a slight zonate appearance, single or cæspitously imbricating, two to four inches broad, nearly as long, tawny or tawny-ferruginous, the margin sometimes paler; flesh concolorous, the upper stratum of a soft spongy-tomentose texture, the lower firm and fibrous; pores minute, unequal, more or less angular, with thin dissepiments, whitish and denticulate on the edge, about equal in length to the thickness of the flesh of the pileus, dark ferruginous with a whitish or silvery reflection.

Dead trunks of spruce trees. Adirondack Mts. Also at the base of pine trunks. West Albany. August and September.

The species is remarkable for the twofold character of the substance of the pileus, the upper half being of a soft tomentose nature, velvety to the touch and readily impressed by the finger nail, the lower half of a much firmer fibrous texture, smooth and subshining when cut or fractured. The plants are quite variable in size, shape and thickness of the margin which in some is quite thin, in others very obtuse. In the latter the pores near the margin are often much enlarged or elongated so that the dissepiments appear like lamellæ. The species is related to *P. cuticularis* Fr., but I have not found it with any appearance of a cuticle nor of a blackish color, nor with a fimbriated margin—characters said to belong to that species. Besides, that species is attributed to deciduous trees while our plant has thus far occurred on coniferous trees only.

POLYPORUS NIDULANS *Fr.*

Dead oak and birch branches lying on the ground. Sand-lake, North Greenbush and Adirondack Mts.

Our specimens are not villous and are fragrant when fresh, not when dry. This would indicate that they should be referred to *P. rutilans*, but the unequal pores forbid such a reference. It is surprising how few of our fungi agree accurately with the descriptions of published species. Either we have many more species peculiar to this country than has been supposed, or else many species have been very imperfectly described.

POLYPORUS (ANODERMEI) FRAGRANS *n. sp.*

Fragrant; pileus fleshy, tough, effuso-reflexed, imbricating, one to two inches long, two to four broad, rather thin but sometimes thickened at the base, velvety to the touch and clothed with a minute innate tomentum, pale reddish-grey or alutaceous, the thin margin concolorous and sometimes a little roughened, often sterile beneath; flesh slightly fibrous, zonate, concolorous; pores minute, unequal angular, about one line long, the dissepiments thin, acute, toothed or lacerated, whitish, becoming darker with age and blackish-stained when bruised.

Decaying trunks of elm trees. Bethlehem. October.

This species is closely related to *P. adustus* and *P. fumosus*, from which it is readily separated by the unequal pores. Its odor when fresh is very decided and quite agreeable, being not much unlike that of dry Seneca grass. The species has been collected in Vermont also by *Mr. A. P. Morgan*.

POLYPORUS (PLACODERMEI) ALBELLUS *n. sp.*

Pileus thick, sessile, convex or subungulate, subsolitary, two to four inches broad, one to one and a half thick, fleshy, rather soft, the adnate cuticle very thin, smooth or sometimes slightly roughened by a slight strigose tomentum, especially toward the margin, whitish tinged more or less with fuscous; flesh pure white, odor acidulous; pores nearly plain, minute, subrotund, about two lines long, white inclining to yellowish, the dissepiments thin, acute; spores minute, cylindrical, curved, white, .00016'-.0002' long.

Decaying trunks and branches of birch trees. Helderberg Mts. October.

This species appears to be related to *P. paradoxus*, but the texture is manifestly firmer than in that and softer than in *P. betulinus*.

POLYPORUS CONNATUS *Weinm.*

Trunks of maple trees, *Acer saccharinum*. Sandlake. October.

POLYPORUS (INODERMEI) BALSAMEUS *n. sp.*

Pileus rather thin, corky, plain, about one inch broad, sessile or spuriously stipitate, slightly and unequally villose-tomentose, pale-brown marked with lighter concentric zones; flesh white; pores short, minute, subrotund, the thin dissepiments acute, denticulate, white.

Trunks of balsam trees, *Abies balsamea*. Adirondack Mts. August.

The villosity is so slight that it may be easily overlooked. It is not uniformly distributed over the whole surface but occurs in zones or patches. The species is apparently allied to *P. zonatus*.

POLYPORUS OBDUCENS *Pers.*

Decaying wood. Buffalo. June. *Clinton*.

POLYPORUS CALLOSUS *Fr.*

Decaying wood. Buffalo. December. *Clinton*.

POLYPORUS FARINELLUS *Fr.*

Decaying wood. Alexandria Bay. July. *Clinton*.

HYDNUM WEINMANNI *Fr.*

Decaying wood. Bethlehem. October.

IRPEX SINUOSUS *Fr.*

Dead branches lying on the ground. Wynantskill, Rensselaer county. November.

IRPEX FUSCOVIOLACEUS *Fr.*

Decaying trunks of spruce, *Abies nigra*. Adirondack Mts. July.

Our specimens are not "silky," as required by the description, but villose or tomentose-villose as in *Polyporus hirsutus* and *P. abietinus*, the latter of which this species closely resembles. The hymenium, however, is coarser, more highly colored and lamellated to such an extent that young specimens might easily be taken for a *Lenzites*.

IRPEX OBLIQUUS *Fr.*

On dead oak and alder trees. North Greenbush, Center and Sandlake. October and November.

At first it looks more like a small white orbicular resupinate *Polyporus* than an *Irpex*. Very common.

RADULUM ORBICULARE *Fr.*

Decaying wood and bark of deciduous trees. Slingerlands and Mechanicsville. October.

PHLEBIA MERISMOIDES *Fr.*

Decaying wood. Indian Lake. October.

This species is apparently very close to *P. radiata*. Our specimens are referred to it because of their pale color and more strigose margin.

GRANDINIA VIRESCENS *n. sp.*

Effused, thin, separable from the matrix, soft, greenish, becoming darker with age; granules minute, hemispherical, not crowded; spores broadly elliptical or suborbicular. .0002' long.

Decaying wood. Oneida. *Warne*. September.

Remarkable for its beautiful color.

GRANDINIA RUDIS *n. sp.*

Effused, thin, soft, pulverulent-tomentose, tawny-brown, the hymenium at length granulose; spores globose, rough, .0003'-.0004' in diameter.

Decaying wood and ground in deep shaded places. North Greenbush. October.

It is allied to *G. coriaria* Pk. in texture and in the character of the spores, but it differs in color and habit. The whole plant is of one uniform hue.

THELEPHORA SPECIOSA *Fr.*

Providence, Saratoga county. August.

But a single specimen was found and in it the tips of the branches are not fimbriate; otherwise the characters are well shown.

HYMENOCHÆTE AGGLUTINANS *Ellis.*

Trunks and branches of living alder trees. Sandlake and Adirondack Mts. July and November.

HYMENOCHÆTE SPRETA *n. sp.*

Effused, adnate, somewhat uneven, thick, ferruginous, beset with rather long slender acute setæ, at length cracking into frustulate-areolæ.

Decorticated wood. Helderberg Mts. October.

This quite closely resembles some forms of *H. corrugata*, but its bright color and thicker substance, which shrinks more in drying so that the matrix is revealed through the chinks, and the areas become as it were frustules, indicate a distinct species.

The setæ are more slender and more sharp-pointed than in *H. corrugata*.

CORTICIUM QUERCINUM Pers.

Dead oak branches. Greenbush. September.

The specimens are a little paler than in the type, but this is probably due to lack of age.

CORTICIUM LACTEUM Fr.

Decaying wood. Slingerlands. October.

CORTICIUM SAMBUCI Fr.

Dead stems of elder, *Sambucus Canadensis*. Mechanicsville. October.

CORTICIUM CÆRULEUM Fr.

Decaying wood. Buffalo. November. *Clinton*.

CORTICIUM MARTIANUM B. & C.

Decaying wood. Buffalo. *Clinton*. Mechanicsville. October.

It is not without some hesitation that our specimens are referred to this species, for, though they agree very well with specimens published under this name by *Mr. H. W. Ravenel* and with those distributed by the late *Dr. Curtis*, they do not well agree with the published description of the species. In color they are bright red inclining to cinnabar, the surface often suffused with a slight bloom or pruinosity. The margin on smooth surfaces is obscurely radiately wrinkled, giving the idea of a *Phlebia*, and this illusion is further sustained by the hymenium in the dried specimens becoming radiately rimose. The substance when fresh is blood red within, and the mycelium is of a beautiful yellow color and penetrates the matrix. It is sometimes confluent, forming patches several inches in extent.

CORTICIUM SUFFOCATUM n. sp.

Effused, indeterminate ; subiculum whitish or pale tawny, composed of intricate webby filaments ; hymenium tawny-brown, of a smooth, waxy appearance when moist, dusted by the spores and more or less rimose when dry, revealing the paler subiculum through the chinks ; spores elliptical, colored, .0004 long, .0003' broad.

Under surface of pine and hemlock wood lying on the ground. Sandlake and Bethlehem. November.

CYPHELLA GRISEOPALLIDA Weinm.

Bark and twigs lying on the ground. Sandlake. November. The cups are sometimes furnished with very short stems.

CLAVARIA TYPHULOIDES *n. sp.* (Plate II, figs. 12-14.)

Very small, about two lines high, rather tough, scattered or gregarious, clavate, white, the stem slightly pruinose, gradually swelling into the obtuse glabrous subcompressed solid club; spores oblong-elliptical, .0002'-.0003' long, with an oblique point at the base.

Dead stems of *Epilobium angustifolium*. Adirondack. August.

This belongs to the section *Holocoryne*, and is apparently allied to *C. uncialis*, but its much smaller size and usually compressed club will serve to distinguish it. When dry the white color is well retained and the hymenium has a subpellucid appearance and is of a firmer texture than the center of the club.

CLAVARIA AMETHYSTINA *Bull.*

Ground. Oneida. July. *Warne*.

PISTILLARIA COCCINEA *Cd.*

Dead leaves and petioles of tansy, *Tanacetum vulgare*. Sandlake. June.

TREMELLA INTUMESCENS *Sow.*

Dead alder branches. Sandlake. November.

NEMATELIA CEREBRIFORMIS *Ellis in litt.*

Dead branches of water-beech, *Carpinus Americana*. Albany. September.

Mr. Ellis sends this under the above name. It appears to differ from *N. encephala* in being lighter colored and in having the nucleus of a softer texture.

DACRYMYCES MINOR *n. sp.*

Small, subglobose, scattered or rarely a few crowded together, dingy ochraceous with a slight olivaceous tint; spores oblong, curved, with a slight oblique apiculus at one end, simple, then uniseptate, finally triseptate, .0005'-.0006' long, .0002' broad.

Decaying wood. Buffalo, *Clinton*. Sandlake. November. The plants are scarcely half a line in diameter.

BOVISTA PILA *B. & C.*

Ground in grassy places. Oneida. *Warne*. Sandlake and Albany.

Our specimens appear to belong to this species but I have never seen them with bits of grass adhering to the peridium, and the spores vary in color from dingy-olivaceous, at first, to purplish brown when old.

LYCOPERDON SACCATUM *Fr.*

Ground. Sandlake and Center. Autumn.

AMAUROCHÆTE ATRA *A. & S.*

Trunks of pine trees. Adirondack Mts. August.

PHYSARUM LUTEOLUM *n. sp.* (Plate II, figs. 15-18.)

Peridium small, closely gregarious, sessile, yellowish inclining to tawny, rupturing irregularly; flocci abundant, yellowish-white; spores globose, purplish-brown, .0004' in diameter.

Living leaves of *Cornus Canadensis*. Adirondack Mts. July.

PHYSARUM ALBICANS *n. sp.* (Plate II, figs. 5-8.)

Peridium whitish, fugacious, except at the base, externally mealy with lime granules, globose, as well as the more persistent whitish capillitium; stem white, tapering upwards, sometimes connate at the base, slightly penetrating; spores globose, purplish-brown, .00033' in diameter.

Bark and mosses. Adirondack Mts. July.

The fragments of the base of the peridium sometimes remain just below the capillitium, surrounding the stem like a calyx or collar. The stem is even and generally longer than the peridium which it penetrates. After the spores have fallen the whitish color of the capillitium becomes apparent. It then resembles a small globose tuft of wool. The plants grew on the branches and mosses of a standing dead birch tree. *Didymium subroseum* is apparently the same species with a pinkish tinge to the peridium.

DIACHLÆA SPLENDENS *n. sp.* (Plate II, figs. 1-4.)

Peridium steel-blue or violaceous, delicate, globose, subpersistent, rupturing irregularly; flocci delicate, colored; stem white, slightly penetrating; spores black in the mass, globose, rough, .0003'-.0004' in diameter.

Fallen leaves and twigs. North Greenbush. October.

This is a very pretty and distinct species. The globose peridia and rough spores make it easily recognized. It is near *D. elegans* in color, but at once distinguished from it by its globose peridium.

TRICHIA FALLAX *Pers.*

Decaying wood. Oneida. *Warne*. Portville. September.

PERICHLÆNA IRREGULARIS *B. & C.*

Bark of decaying sticks. "The Plains." October. *Clinton*.

CLATHROPTYCHIUM RUGULOSUM *Wallr.*

Trunks of poplars. Adirondack Mts. July.

The young plant has a bright flesh-color or orange hue.

NIDULARIA PULVINATA *Schw.*

Old fence boards lying on the ground. Greenbush. October.

LEPTOSTROMA LINEARE *n. sp.*

Perithecia flattened, thin, subangular, at first covered by the epidermis, striated, generally with a sharp elevation or ridge along the center, mostly seriatly placed, black; spores slender, oblong, curved, colorless, .0003'-.0004' long.

Dead stems of *Actæa spicata*. Helderberg Mts. May.

PHOMA STROBILINUM *Peck & Clinton n. sp.*

Perithecia minute, scattered, erumpent, black; spores elliptical or subovate, colorless, .0003' long.

Cones of *Pinus Strobus*. Buffalo. December. *Clinton*.

PHOMA STERCORARIUM *P. & C.*

Perithecia membranaceous, minute, scattered, black; spores large, elliptical, .0005'-.0006' long.

Goose dung. Portage. November *Clinton*.

It is highly probable that this is a nonascigerous state of some dung Sphæria. As a Phoma it is remarkable for the large size of the spores.

SPHÆRONEMA ROBINIÆ *B. & C.*

Dead twigs of basswood, *Tilia Americana*, Buffalo. *Clinton*. Catskill Mts. June.

SPHÆRONEMA AURANTIACUM *n. sp.* (Plate II, figs. 9-11.)

Perithecia small, erumpent, hemispherical or subconical, sometimes with a slight papilliform ostiolum, orange; spores oblong-elliptical, colorless, .0003'-.0004' long, oozing out and forming a whitish or pale cream-colored globule.

Dead bark of *Cornus alternifolia*. Bethlehem. May.

The species is remarkable for its orange-colored perithecia.

SPHÆROPSIS PENNSYLVANICA *B. & C.*

Dead branches of ash trees. Buffalo. February. *Clinton*.

SPHÆROPSIS MINIMA *B. & C.*

Living leaves of red maple, *Acer rubrum*. North Greenbush. June.

The perithecia are epiphyllous, the spores are obovate or sub-angular and are involved in mucus. The brownish spots frequently have a darker border.

SPHÆROPSIS SYRINGÆ *P. & C. n. sp.*

Perithecia small, scattered, erumpent, black; spores oblong or elliptical, colored, .0008'-.001' long, .0004 broad.

Dead lilac twigs. Buffalo. January. *Clinton*.

Perhaps this is only a form of *Diplodia Syringæ* Awd.

DIPLODIA THUJINA *P. & C.*

Perithecia subhemispherical or elliptical, rugulose or sub-strate, black; spores oblong-elliptical, slightly constricted, colored, .0007'-.0009' long.

Wood and bark of *Thuja occidentalis*. Buffalo. May. *Clinton*.

The form on bark has the perithecia erumpent and closely surrounded by the epidermis. In the other the perithecia are nearly free and often elliptical in shape.

ACROSPERMUM GRAMINUM *Lib.*

Dead stems of grass, *Calamagrostis Canadensis*. West Albany. June.

EXCIPULA LANUGINOSA *n. sp.* (Plate I, figs. '14-18.)

Perithecia small, yellowish or orange, numerous, almost concealed by the long, soft, woolly, dingy-white or pinkish-white hairs; spores oblong, colorless, .0003'-.00035' long.

Dead stems of melilot. Bethlehem. September.

The species is remarkable for its long, pale, woolly hairs and its light-colored perithecia. These are sometimes so crowded together that they appear to form a continuous fleecy stratum. A relationship with the genus *Trichoderma* is indicated.

DISCELLA CANADENSIS *n. sp.*

Pustules very small, perithecia obsolete or wholly wanting; spores oozing out in a black mass or in tendrils, oblong or oblong-ovate, .0008'-.001' long, at first pale, then colored, some of them becoming uniseptate.

Dead branches of *Amelanchier Canadensis*. Center. June.

The subequal hyaline sporophores sometimes remain attached to the young spores. The species approaches the genus *Melanconium*.

DISCELLA ARIDA *n. sp.*

Perithecia seated on rather large arid grayish spots, minute, flattened, pezizæform, black, at first covered by the epidermis, then forming a ring by the falling away of the center; spores oblong or lanceolate, simple, then uniseptate, colorless, .00035'-.0005' long.

Living or languishing leaves of *Cassandra calyculata*. Adirondack Mts. August.

The plant might at first sight be taken for a minute black Peziza. The spots usually occur on the apical half or on the margin of the leaf, but sometimes the whole leaf is discolored.

MELANCONIUM INTERMEDIUM *n. sp.*

Spores very irregular, subglobose, ovate, elliptical or oblong, black, about .001' long.

Dead hickory branches. Buffalo. Clinton. Greenbush.

This species is intermediate between *M. oblongum* and *M. magnum*, the spores being larger than in the former, smaller than in the latter.

TORULA CURVATA *n. sp.*

Flocci tufted, elongated, curved or flexuous, here and there slightly constricted, multiseptate, the cells mostly broader than long, the tufts forming an effused black patch.

Dead branches of *Myrica Gale*. Adirondack Mts. August.

SEPTONEMA DICHÆNOIDES *P. & C. n. sp.*

Tufts of flocci minute, clustered in small suborbicular or elliptical patches, black; flocci .0003'-.0004' thick, at length breaking up into simple or one to two-septate oblong-elliptical spores.

Living alder bark. Olean. May. Clinton.

The patches resemble those of *Dichæna faginea*. The species appears to be intermediate between *Septonema* and *Torula*.

PUCCINIA ORBICULA *P. & C.*

Uredo form. Spots small, orbicular, yellowish, sometimes tinged with purple; sori circinating, tawny-ochraceous; spores subglobose, .0008'-.001' in diameter.

Puccinia form. Sori blackish-brown, circinating, often arranged in a single circle on the margin of the spot; spores broadly elliptical, rough, .0013'-.0015' long, .0008'-.001' broad.

Petioles and under surface of leaves of *Nabalus*. Buffalo. *Clinton*. Also on *Solidago* leaves. Center. May.

The beautiful tawny-ochraceous color of the *Uredo* form and the circinating sori are noticeable features.

PUCCINIA HYDROPHYLLI *P. & C. n. sp.*

Spots yellow or greenish-yellow ; sori small, clustered, sometimes confluent, blackish-brown ; spores loose, elliptical, rough, slightly constricted, .001' long, .0007'-.0008' broad ; pedicel very short, hyaline.

Lower surface of living leaves of *Hydrophyllum Virginianum*. Buffalo. May. *Clinton*.

Related to *P. Menthae* from which the different habit and very short pedicel will separate it.

UREDO CASSANDRÆ *P. & C. n. sp.*

Spots small, irregular, yellowish or chestnut ; sori generally crowded together in small clusters, somewhat angular or irregular, surrounded by the remains of the ruptured epidermis ; spores yellow, elliptical ovate or subglobose, roughened, .0008'-.001' long.

Lower surface of living leaves of *Cassandra calyculata*. Center and Sandlake. June. Machias. *Clinton*.

MELAMPSORA EPILOBII *Fckl.*

Leaves of *Epilobium angustifolium*. Newcomb, Essex county. August.

ÆCIDIDIUM SANICULÆ *Carm.*

Leaves of Sanicle. Buffalo. *Clinton*.

CLADOSPORIUM DEPRESSUM *B. & Br.* (Plate I, figs. 22-24.)

Living leaves of *Archangelica atropurpurea*. Buffalo. June. *Clinton*.

The spores bear some resemblance to *Puccinia* spores.

HELMINTHOSPORIUM ABSINTHII *n. sp.* (Plate II, figs. 28-30.)

Flocci forming effused dark-olivaceous or brown patches or minute tufts, simple, septate, colored, subflexuous, irregular or knotty above ; spores oblong-clavate, very unequal in length, .001'-.004' long, one to five-septate, paler than the flocci.

Living leaves of wormwood, *Artemisia Absinthium*. Adirondack, Essex county. August.

On the upper surface of the leaves the flocci form minute tufts, so small as to be easily overlooked. On the lower surface they are more abundant and form effused velvety patches which are quite conspicuous. The spores are extremely abundant, but they fall away so easily that it is difficult to find them in place.

MACROSPORIUM SARCINULA *Berk.*

Decaying squashes. Buffalo. December. *Clinton.*

CLADOSPORIUM NODULOSUM *Cd.*

Dead leaves of sedges. Albany. June.

RAMULARIA BRUNNEA *n. sp.*

Spots brown, unequal, suborbicular, sometimes confluent; flocci occupying the larger spots and giving them an ashy tint, epiphyllous, fasciculate, short, delicate; spores cylindrical, colorless, very unequal in length, .0005'-.0015' long, .00016' broad.

Living leaves of colts-foot, *Tussilago Farfara.*

The large fertile spots are intermingled with smaller irregular sterile darker-colored ones.

CERCOSPORA SYMPLOCARPI *Pk.* (Thumen's Myc. Univ. No. 669.)

Spots definite, brown, suborbicular; flocci very short, colored, tufted; spores very long, narrow, three to five-septate, paler than the flocci, .003'-.005' long.

Living leaves of Skunk Cabbage, *Symplocarpus foetidus.*

West Albany and Center. June and July.

CERCOSPORA LEPTOSPERMA *n. sp.*

Flocci tufted, short, hyaline, seated on pale-greenish angular spots; spores colorless, very slender, subfiliform, slightly thicker toward the base where there are usually one or two obscure septa, .003' long.

Living leaves of sarsaparilla, *Aralia nudicaulis.* Albany.

CERCOSPORA AMPELOPSIDIS *n. sp.*

Spots suborbicular, reddish-brown with a darker margin; flocci hypophyllous, rather long, flexuous, colored, septate; spores slightly colored, subcylindrical, at first simple, then one to three-septate, .001'-.0013' long.

Living leaves of woodbine, *Ampelopsis quinquefolia.* Bethlehem. July.

CERCOSPORA CHENOPODII *Fckl.*

Living leaves of *Chenopodium album*. West Albany. July.

PERONOSPORA ALTA *Fckl.*

Living leaves of plantain, *Plantago major*. Albany. July.
This is sometimes regarded as a form of *P. effusa*.

PERONOSPORA INFESTANS *De By.*

Living leaves of potato vines. Adirondack. August.

This fungus, for a long time considered the cause of the potato disease, has, until recently, baffled all efforts to trace its life-history. But at last Mr. W. G. Smith, an earnest botanist, a most careful observer and skillful experimenter, has succeeded in tracing this history through the yearly cycle. He has found and kept alive through the winter, the hibernating or resting spores of the fungus and caused these to reproduce the pestilent potato fungus. His discovery is so important that I cannot do better than to quote his concluding remarks on the subject, a full account of which is given in the *Gardeners' Chronicle*:

“For more than thirty years our potato crops have been systematically destroyed by two virulent fungi, viz., *Peronospora infestans* and *Fusisporium Solani*; these two parasites almost invariably work in company with each other, they suddenly appear for a few weeks, destroy our crops and vanish for ten or twelve months then reappear and repeat the work of destruction. I claim for my work that it is new, and that it has proved how both these fungi hide and sleep through eleven months of the year. As I have kept the resting-spores of both parasites alive artificially in decayed potato leaves in water, in moist air, and in expressed diluted juice of horse dung, it conclusively proves to me that the resting-spores hibernate naturally in the same manner. The seat of danger from both parasites is clearly in dung heaps, ditch sides and decaying potato plants.

“Any method of destroying the resting-spores of these pests, or of warding off or mitigating their attacks, obviously depends in a great measure upon a full knowledge of their life-history. That life-history I have endeavored, to the best of my ability, to watch and describe for the *Gardeners' Chronicle*, and I am content to let the observations stand on their own merits. Sensibly conducted and extensive field experiments might probably teach some valuable lessons, but it is difficult, if not impossible, for any single individual, whether farmer or botanist, to institute and carry out such experiments.”

VERTICILLIUM PULVEREUM *P. & C. n. sp.*

Effused, pulverent, dark or snuff-brown; flocci colored, the lower branches alternate, the upper opposite or verticillate,

ultimate branchlets short, cylindrical, obtuse; spores abundant, broadly elliptical or subglobose, colored, .00025'-.0003' long, .0002'-.00025' broad.

Decaying wood. Alden. November. *Clinton*.

It forms thin dusty patches on the surface of the wood.

POLYACTIS CANA Berk.

Decaying cabbage leaves. Buffalo. March. *Clinton*.

TRICHODERMA VIRIDE Pers.

Decaying wood. Alden. November. *Clinton*.

DACTYLIUM SUBLUTESCENS n. sp.

Tufts pulvinate, sometimes confluent, pinkish-yellow or cream-colored; flocci erect, simple or sparingly and obscurely septate; spores apical, oblong or obovate, uniseptate, .0008'-.0014' long, sometimes with a blunt point at the base.

Dead branches of alder and poplar trees. Albany and North Greenbush. September.

The species is apparently related to *D. obovatum* Berk. At first sight the tufts appear to be erumpent, but upon closer inspection they are seen to grow upon some effete erumpent *Sphaeria*. In some instances white tufts of more slender branched flocci were associated with the others. Perhaps these are sterile flocci of the same plant.

OIDIUM FASCICULATUM Berk.

Decaying oranges and lemons. Buffalo. December. *Clinton*. Albany. July.

OIDIUM ALBIPES n. sp.

Flocci forming short white stems supporting subglobose heads of a grayish-brown color, sometimes tinged with green; spores oblong-ovate or lanceolate, pale, .00033' long, with a slight apiculus at the smaller end.

Decaying wood. Bethlehem. June.

CAPILLARIA SPHÆRIÆ-TYPHINÆ Cd.

Parasitic on *Epichloe typhina*. Greenbush. July.

MENISPORA CILIATA Cd.

Our specimens do not agree well with the description of this species. The flocci are not "olive-brown" and the spores are cylindrical rather than "fusiform," but as they exhibit the bristle at the extremities of the spores, and agree essentially

with European specimens distributed under this name, it seems best thus to refer them.

ZYGODESMUS PANNOSUS *B. & C.*

Decaying wood lying on the ground. North Greenbush. October.

ZYGODESMUS RUBIGINOSUS *n. sp.*

Effused, indeterminate, bright-rubiginous, not granulated, the patches paler toward the margin; spores globose, rough, .0003' in diameter.

Decaying wood. Greenbush. October.

This resembles *Z. hydnoideus* *B. & C.* in color, but the absence of a granulated surface and the smaller spores will separate it.

FUSISPORIUM RIMOSUM *n. sp.*

Effused, bright orange or red, at length cracking and revealing through the chinks the white substratum; flocci slender, simple or sparingly branched; spores long, acute at each end, one to three-septate, .0008'-.0018' long.

Cut ends of corn stalks. Center. October.

The bright color is retained in the dried specimens. In this respect and in the firmer substance and rimose character it differs from its allies.

ERYSIPHE LIRIODENDRI *Schw.*

Leaves of the tulip tree, *Liriodendron Tulipifera*.
Oneida. September. *Warne.*

MORCHELLA BISPORA *Sor.*

Ground among fallen leaves in ravines. Oneida. *Warne.*

The remarkable feature about this species is that there are but two spores in an ascus.

MORCHELLA SEMILIBERA *DC.*

Ground. Oneida. May. *Warne.*

MORCHELLA DELICIOSA *Fr.*

Ground in open fields. Oneida. *Warne.* West Albany. May and June.

This species has a firmer substance, paler color, smoother stem and smaller spores than *M. esculenta*. It is also generally smaller in size and has a more cylindrical pileus, which is sometimes curved.

VERPA DIGITALIFORMIS *Pers.*

Ground. Oneida. May. *Warne.*

PEZIZA SULCATA *Pers.*

Ground. Oneida. *Warne.*

The spores in the specimens are smooth and uninucleate but this may be due to the immaturity of the specimens.

PEZIZA (COCHLEATÆ) WARNEI *n. sp.* (Plate I, figs. 19-21.)

Cups large, 1'-1.5' broad, at length expanded with the margin often wavy or irregular, externally whitish or pallid, usually lacunose at the narrowed stem-like base; disk brown or ochraceous-brown; asci cylindrical; spores uniseriate, oblong-elliptical, with a short acute point at each end and slightly rough when mature, .001'-.0014' long, mostly trinucleate, the central nucleus largest.

Hemlock stumps. Oneida. *Warne.* Helderberg Mts. May.

This seems to approach *P. semitosta* B. & C., in some respects, but it differs in its external characters, habitat and spores. Dedicated to *Mr. H. A. Warne.*

PEZIZA BICOLOR *Bull.*

Dead branches of *Myrica Gale.* Adirondack Mts. August.

PEZIZA (DASYSCYPHÆ) MYRICACEA *n. sp.*

Cups small, .02'-.03' broad when dry, sessile or with a very short stem, tawny-brown or subcervine, densely hairy, expanded when moist and revealing the whitish disk; asci subcylindrical, about .0016' long; paraphyses as broad as the asci and much longer, tapering above to a sharp point; spores minute, spermatoid.

Dead stems and branches of *Myrica Gale.* Adirondack Mts. August.

The species is related to *P. brunneola* Desm., but is larger and has different hairs. These are very long, not septate nor thickened at the tips. They appear minutely rough under the microscope. When dry, they, with the incurved margin, wholly conceal the disk from view. The spores in our specimens do not seem to be well developed.

PEZIZA (DASYSCYPHÆ) SULPHURELLA *n. sp.*

Pale yellow throughout; cups minute, numerous, stipitate, closed when dry, hairy, the hairs septate, rough, capitate;

asci cylindrical; spores oblong or cylindrical, .0003' long; paraphyses longer than the asci, tapering above to a point.

Dead stems of *Myrica Gale*. Adirondack Mts. August.

This differs from *P. brunneola* in color and in having a hairy stem. The plant is much smaller than *P. myricacea*.

PEZIZA (DASYSCYPHÆ) CAPITATA *Pk.* (Thumen's Myc. Univ. No. 813.)

Cups minute, sessile, subglobose and usually closed when dry, open when moist, white, clothed with septate capitate white hairs, hymenium whitish inclining to yellow; asci cylindrical, .0012' long; spores straight, acicular, .0002'-.0003' long; paraphyses longer than the asci, pointed at the extremities.

Fallen oak leaves. Bethlehem. June.

The specific name has reference to the capitate hairs. These spring directly from the cellular substance of the cup. The base of the hairs is enlarged and distinctly septate. The sessile cups and white color separate this from the next preceding species.

PEZIZA (DASYSCYPHÆ) DISTINCTA *n. sp.* (Plate 1, figs. 9-13.)

Cups small, .03'-.05' broad, sessile or attached by a mere point, externally blackish, the margin tomentose-hairy, pale-tawny, or olivaceous, the disk pinkish-red when moist, orange when dry; asci clavate, often containing but four spores; spores oblong-fusiform, straight or curved, .0008'-.001' long.

Dead stems of *Andropogon furcatus*. Center. October.

When dry the margin is inflexed and the cups are then often hysteriiform, the tomentose hairs of the margin concealing the disk and giving the chink an olivaceous or tawny hue.

PEZIZA MACULINCOLA *Schw.*

Decorticated wood. Buffalo. March. *Clinton*.

This is regarded by some as synonymous with *P. flammea* A. & S. *Mr. W. C. Stevenson, Jr.*, to whom I am indebted for many acts of kindness in comparing specimens with the types in Schweinitz's Herbarium, considers the two, as therein represented, to be distinct.

PEZIZA VULPINA *Ck.*

Decaying wood. Buffalo. *Clinton*.

PEZIZA (DASYSCYPHÆ) CHAMÆLEONTINA *n. sp.*

Cups minute, .006'-.015' broad, at first globose, then expanded with the disk nearly plane, scarcely furfuraceous, white, chang-

ing to yellow when bruised, then to pinkish or red, stem short ; asci clavate, .001'-.0014' long ; spores crowded, oblong-ovate or subclavate, .0002' long.

Under surface of hemlock wood lying on the ground. Sand-lake. November.

The changes in color, when bruised, is an interesting character. The species is related to *P. hyalina* and perhaps more closely to *P. aspidicola*, and is therefore placed among the Dasyscyphæ, although there is scarcely any appearance of hairiness on the cups.

PEZIZA (HUMARIA) DELIGATA *n. sp.*

Cups minute, gregarious, sessile, with radiating hyaline fibrils at the base, at first subglobose, then open with the disk nearly plane, brick-red ; asci broad, oblong or subcylindrical ; spores biseriata, elliptical, smooth, .0006'-.00075' long.

Dead stems of herbs lying on the ground. Bethlehem. September.

The cups sometimes have a thick tumid margin. In some respects the species resembles *P. hæmastigma*. It appears to belong to the subgenus *Humaria*, but the habitat is unusual.

PEZIZA POLYGONI *Rehm.*

Dead stems of Polygonum. Albany. July.

PEZIZA MACROSPORA *Fckl.*

Decaying wood. Buffalo. November. Clinton.

HELOTIUM CARICINELLUM *n. sp.* (Plate 1, figs. 5-8.) = *C. lacustris*

Small, .02'-.03' broad, scattered, sessile, reddish or ochraceous-brown when moist, black or blackish when dry, the disk plane or slightly concave ; asci clavate ; spores crowded, oblong, obtuse, uniseptate, colorless, .0008'-.001' long.

Dead leaves of *Carex utriculata*. Adirondack. August.

This is a true *Helotium* as is shown by the cups being open from the first, and yet it is apparently related to *Peziza lacustris*.

HELOTIUM BRYOGENUM *n. sp.*

Cups minute, substipitate, scattered, pallid or yellowish-white and expanded when moist, livid-red or subviolaceous and concave with a tumid margin when dry ; spores subfusiform, sometimes curved, .0006'-.0007' long.

Mosses, *Hypnum delicatulum*. Maryland. September.

DERMATEA CARPINEA *Fr.*

Dead branches of *Carpinus*. Buffalo. *Clinton*. Albany. October.

DERMATEA INCLUSA *n. sp.*

Minute, scattered, erumpent, sessile, closely surrounded by the ruptured epidermis, margined, the margin mealy or furfuraceous, the disk plane or concave, subochraceous; asci broad, oblong-cylindrical; spores large, biseriate or crowded, oblong-elliptical, sometimes slightly curved, simple, colorless, .0011'-.0014' long.

Dead trunks of willows. Maryland. September.

The cups scarcely rise above the ruptured epidermis that invests them. When moistened or crushed on the slide of the microscope the substance appears to be of a rhubarb color. The species therefore has some little relationship to *Patellaria rhabarbarina*. The spores sometimes contain a single large nucleus, sometimes three or four small ones and sometimes a mass of granular endochrome.

PATELLARIA LEPTOSPERMA *n. sp.*

Black, stipitate; receptacle plane, the margin narrow or obliterated, about one line broad, externally subscabrous; stem about one line high, scabrous, often longitudinally wrinkled when dry; asci cylindrical or clavate; spores biseriate, slender, elongated, cylindrical, multinucleate or obscurely multiseptate, .0016'-.003' long; paraphyses very slender, filiform, capitate.

Dead bark of maple, *Acer saccharinum*. Oneida. *Warne*. Buffalo. *Clinton*.

The number of the nuclei is from ten to sixteen.

PATELLARIA LIGNYOTA *Fr.*

Decaying wood. Angola. May. *Clinton*.

TYMPANIS TURBINATA *Schw.*

Dead stems of bush honeysuckle, *Diervilla trifida*. Center. May.

ASCOBOLUS VIRIDIS *Curr.*

Alluvial soil. Albany. June.

ASCOBOLUS CRENULATUS *Karst.*

Cow dung. Oneida. *Warne*. Helderberg Mts. May.

STICTIS (PROPOLIS) CYLINDRICARPA *n. sp.*

Immersed, minute, erumpent, closely surrounded by the ruptured epidermis, the whitish margin toothed or lacinated, the disk plane, greenish-olivaceous; spores crowded, cylindrical, straight or curved, obtuse, colorless, .0007-.0008' long, .00015' broad, sometimes obscurely two to three septate.

Dead bark of willows. Maryland. September.

This occurred in company with *Dermatea inclusa*. Its relationship is with *Stictis versicolor*, of which it may yet prove to be a minute variety.

HYSTERIUM AUSTRALE *Duby.*

Dead grape-vines. Poughkeepsie. *W. R. Gerard.*

HYSTERIUM TRUNCATULUM *C. & P.*

Decaying wood. Buffalo. *Clinton.*

The spores are of the same character as those of *Hysterium pulicare*, differing only in their larger size.

HYSTERIUM ELLIPTICUM *DC.*

Hickory bark. Poughkeepsie. *Gerard.*

HYSTERIUM THUIARUM *C. & P.*

Bark of *Thuja occidentalis*. New Baltimore. *E. C. Howe, M. D.*

HYSTERIUM (GLONIUM) PARVULUM *Ger.*

Decaying wood. Poughkeepsie. *Gerard.*

HYSTERIUM (GLONIUM) SIMULANS *Ger.*

Decaying wood. Poughkeepsie. *Gerard.* North Greenbush.

HYPODERMA DESMAZIERII *Duby.*

Fallen pine leaves. Poughkeepsie. *Gerard.* Sandlake. July.

HYPOMYCES OCHRACEUS *Tul.*

Decaying Polyporus. Helderberg Mts. May.

HYPOXYLON SUBORBICULARE *n. sp.*

Stroma thin, flattened, erumpent, suborbicular, surrounded by the ruptured epidermis, growing from the inner bark, purplish-brown, then black, the surface slightly uneven as if areolate-rimose; perithecia monostichous, subglobose; ostiola

sunken, perforate, sometimes whitish ; spores unequally elliptical, colored, .0004'-.0005' long.

Maple bark, *Acer saccharinum*. Sandlake. November.

This species is apparently allied to *H. Laschii* Nke., and approaches in some respects species of *Nummularia*.

DOTHIDEA RIMINCOLA Schw.

Dead twigs of *Diervilla trifida*. Buffalo. Clinton.

I fail to see why Schweinitz referred this fungus to the genus *Hysterium* since there is no chink or linear opening in any of the specimens that have come under my inspection.

DOTHIDEA EPISPHERIA n. sp.

Stroma small, slightly prominent, scattered or subconfluent, often irregular, carbonaceous, black ; nuclei numerous, white within ; spores crowded or biseriate, lanceolate or subfusiform, colorless, .0006'-.0007' long.

Effete *Diatrype stigma*. Maryland. September.

The spores may possibly be uniseptate when fully mature. Those examined are not clearly septate.

DOTHIDEA CARICIS Fr.

Dead leaves of *Carex Pennsylvanica*. West Albany. June.

DOTHIDEA OSMUNDÆ P. & C. n. sp.

Minute, linear, innate, erumpent through a narrow chink, scarcely emergent, black, nuclei whitish ; asci subcylindrical ; spores narrow, oblong, uniseptate, slightly constricted, colorless, .00065' long, one cell usually a little swollen at the septum.

Dead stems of *Osmunda*. Buffalo. Clinton. Sandlake. June.

Authors do not all agree in the characters they ascribe to the spores of *Dothidea filicina*, one describing them as "elliptical uniseptate," another as "triseptate." Neither of these descriptions will apply to the spores of the species just characterized. The *Dothidea* which I find on *Pteris aquilina*, the habitat assigned to *D. filicina*, has the spores triseptate.

DIATRYPE FERRUGINEA Fr.

Dead branches of birch, *Betula lutea*. Sandlake. August.

VALSA JUGLANDICOLA Schw.

Dead hickory branches. Buffalo. December. Clinton. West Troy. June.

VALSA (OBVALLATA) INNUMERABILIS *n. sp.*

Pustules small, very numerous, generally crowded and seriate placed; perithecia four to ten, nestling in the inner bark; ostiola short, crowded, quadrisulcate, black; spores crowded, cylindrical, curved, obtuse, slightly colored, .0004' long.

Dead elm branches. Greenbush. May.

On the smaller twigs the pustules are more scattered and not arranged in lines.

CUCURBITARIA BERBERIDIS *Gr.*

Dead stems of barberry, *Berberis vulgaris*. Buffalo. December. *Clinton*.

LOPHIOSTOMA OBTECTUM *n. sp.*

Perithecia numerous, immersed, slightly elevated, covered by the epidermis which is pierced by the narrow compressed ostiola; asci cylindrical or clavate; spores variable, crowded or biseriata, rarely uniseriate, at first pale, subacute and one to three-septate, then obtuse, oblong or subfusiform, five or six-septate, colored, .001'-.0014' long, usually constricted at the septa and occasionally with longitudinal septa.

Dead branches of prickly ash, *Xanthoxylum Americanum*. Bethlehem. July.

Apparently allied to *L. bicuspidata* Ck., but I can detect no hyaline beaks at the extremities of the young spores.

SPHÆRIA (VILLOSÆ) CLINTONII *n. sp.* (Plate II, figs. 19-23.)

Perithecia very small, .005'-.006' broad, subglobose, gregarious, black, clothed with erect, black, bristly hairs; spores fusiform, multinucleate, then five to seven-septate, colorless, .0016'-.0018' long.

Decaying wood. Alden. November. *Clinton*.

Related to *S. scopula* C. & P., from which it differs in its smaller perithecia, and broader spores with fewer septa.

SPHÆRIA NESTOTHELE *B. & C.*

Birch bark. Oneida. *Warne*.

SPHÆRIA (DENUATÆ) EXIGUA *C. & P.*

Perithecia subgregarious, small, .013' broad, globose, sometimes collapsed, smooth, shining, black, papillate; asci clavate or cylindrical; spores elliptical, binucleate, then one to three-septate, hyaline, .0006'-.0007' long, .0003' broad.

Decaying wood. Richfield Springs. July. *Clinton*.

SPHÆRIA CLASTERIUM *B. & C.*

Bark of *Spiræa opulifolia*. West Albany. October.

The spores in our specimens as well as in those received from Dr. Curtis are colored, .0005'-.0006' long, with a long colorless appendage at each end.

A non-ascigerous state occurred in May in the same locality. The perithecia and spores were the same, but I could detect no asci.

SPHÆRIA (OBTECTÆ) SPHÆRELLULA *n. sp.*

Perithecia minute, scattered or seriatly placed, covered by the epidermis which is at length ruptured; asci broad, obtuse, gradually narrowed above, suddenly contracted at the base; spores crowded, fusiform, uniseptate, hyaline, .0005'-.0006' long.

Dead bleached twigs of striped maple, *Acer Pennsylvanicum*. Catskill Mts. June.

The asci imitate in form those of some species of Sphærella.

SPHÆRIA (CAULICOLÆ) EXERCITALIS *n. sp.*

Perithecia minute, crowded, arranged in long lines, at first covered by the epidermis which at length is ruptured in long chinks; ostiola prominent, subcylindrical, blunt or subacute; asci-subcylindrical; spores oblong or subfusiform, quadrinucleate, colorless, .0005' long.

Dead stems of herbs. Catskill Mts. June.

The species is remarkable for the long lines of perithecia and the prominent ostiola which are suggestive of lines of armed men.

SPHÆRIA (CAULICOLÆ) VIRIDELLA *n. sp.*

Perithecia small, gregarious, seated on a greenish spot, covered by the epidermis which is ruptured by the minute ostiola; asci cylindrical; spores oblong-fusiform, sometimes curved, triseptate, greenish, .001' long, the third cell from the base swollen.

Dead stems of melilot. Bethlehem. September.

The marked feature of the species is the greenish color of the spot and of the spores. The latter resemble those of *S. subconica* C. & P., except in color.

SPHÆRIA (CAULICOLÆ) SCAPOPHILA *n. sp.* (Plate II, figs. 24-27.)

Perithecia minute, subglobose, scattered, covered by the epidermis which is ruptured by the minute perforated ostiola;

asci cylindrical; spores crowded or biseriata, subcylindrical, yellowish, .001'-.0012' long, seven-septate, one apical and three basal cells longer than the others.

Dead scapes of the pitcher plant, *Sarracenia purpurea*. Adirondack Mts. August.

SPHÆRIA (CAULICOLÆ) ONOSMODINA *P. & C. n. sp.*

Perithecia numerous, minute, at first covered by the epidermis, then exposed, depressed, black; ostiola pierced; asci cylindrical; spores crowded or biseriata, oblong-elliptical, uniseptate, colorless, .0006'-.0007' long, the cells usually unequal.

Dead stems of *Onosmodium Carolinianum*. Buffalo. June. Clinton.

SPHÆRIA HERBARUM *Pers.*

Dead stems of *Scirpus validus*. Buffalo. June. Clinton.

SPHÆRELLA VACCINII *Ck.*

Fallen leaves of *Vaccinium corymbosum*. Center. May.

SPHÆRELLA IMPATIENTIS *P. & C. n. sp.*

Perithecia abundant, minute, black; asci subcylindrical; spores crowded, oblong or lanceolate, uniseptate, usually quadrinucleate, .0005' long.

Living or languishing leaves of touch-me-not, *Impatiens fulva*. Buffalo. Clinton. Adirondack Mts. June to August.

PYRENOPHORA PHÆOCOMES *Fr.*

Dead grass. Sandlake. June.

(5.)

REMARKS AND OBSERVATIONS.

VIOLA SELKIRKII *Pursh.*

Oneida. According to Mr. Warne's observations the flowering period of this plant continues considerably longer than the time indicated in Paine's Catalogue.

DROSERA LONGIFOLIA *L.*

A dwarf form, bearing but a single terminal flower, occurs at Calamity Pond, Adirondack Mts.

RHUS COPALLINA *L.*

Green Island and Center.

RHUS VENENATA *DC.*

Not uncommon in swampy places about Albany. It is generally supposed that the poisonous properties of this plant are to be dreaded only while the tree is living, but several cases have been reported to me in which persons were severely poisoned from using the wood as fuel.

UTRICULARIA RESUPINATA *Green.*

Shallow water along the shores of Lake Jimmy and Lake Sallie, Adirondack Mts. August.

ATRIPLEX PATULA *L.*

This is evidently spreading and becoming quite common about Albany.

PINUS RESINOSA *Ait.*

Portage. *Clinton.* A beautiful grove of young trees of this species occurs at Long Lake, Hamilton county. I have seen it at Center, in Sandlake, on the Catskill and the Helderberg mountains and in several places in the northern counties where it is by no means rare. The cones, so far as I have observed, are not always deciduous after the falling of the seed, nor are they terminal except when quite young, the prolongation of the branch soon rendering them lateral. Frequently two and sometimes three generations of fully developed cones may be seen on a branch at one time. The species may be separated from *Pinus mitis* by the absence of prickles on the cone scales and by the longer leaves which occur only in pairs.

PINUS BANKSIANA *Lambert.*

Having compared southern specimens of *Pinus inops* Ait. with the New York specimens formerly reported as *P. inops*, I am satisfied that the latter should be referred to *P. Banksiana*,

notwithstanding the presence of prickles on the cones. In these specimens the cones are one to one and a half in length, and the prickles are very short, weak and obscure, and on some of the scales are wanting. In the southern specimens the cones are two inches in length and the prickles are stout and very distinct on all the scales. The leaves in both are of the same length, but less dense in the southern specimens.

It is possible that *P. inops* and also *P. mitis*, which Dr. Torrey reported, on the authority of Michaux, as occurring near Albany, may occur in the southern part of the State or on Long Island. At present we can claim positively only the four species, *P. Strobus*, *P. rigida*, *P. resinosa* and *P. Banksiana*. The last one is not known to me to occur anywhere in the State except in Essex county where it was first detected by *Dr. G. T. Stevens*.

The four New York species may be tabulated in such a way as to be easily identified by any one possessing a branch bearing either leaves or cones ; thus,

LEAVES.

Five leaves in a cluster.....	White Pine, <i>Pinus Strobus L.</i>
Three leaves in a cluster....	Pitch Pine.. <i>Pinus rigida Mill.</i>
Two leaves in a cluster, 3-6 inches long.....	Red Pine... <i>Pinus resinosa Ait.</i>
Two leaves in a cluster, 1-2 inches long.....	Scrub Pine.. <i>Pinus Banksiana Lamb.</i>

CONES.

Cones cylindrical, scales unarmed ...	<i>Pinus Strobus L.</i>
Cones ovate conical, scales tipped with a stout prickle.....	<i>Pinus rigida Mill.</i>
Cones ovate-conical, scales unarmed..	<i>Pinus resinosa Ait.</i>
Cones oblong-conical, usually curved, prickles none or weak.....	<i>Pinus Banksiana Lamb.</i>

SPARGANIUM MINIMUM *Bauhin.*

This rare species occurs in a pond near Newcomb, Essex county.

POTAMOGETON NATANS *L.* VAR. PROLIXUS *Koch.*

Lake Sanford, Essex county, with the normal form. The stem is much prolonged beyond the insertion of the peduncle which thus becomes lateral.

SMILAX HISPIDA *Muhl.*

In a large swamp south of Catskill. No fertile plants were found.

ELEOCHARIS ROBBINSII Oakes.

Lake Harris and Lake Jimmy, Essex county. At the latter lake it is associated with *Utricularia resupinate* and *Myriophyllum tenellum*. I have recently received these three species from Long Island.

SCIRPUS SUBTERMINALIS Torr.

Lake Harris and Lake Jimmy. The former lake affords a variety of water plants, including *Brasenia peltata*, *Nymphaea odorata*, *Nuphar advena*, *N. Kalmiana*, *Potamogeton natans*, *P. Claytonii*, *P. perfoliatus* and *P. pectinatus*.

SCIRPUS PAUCIFLORUS Light.

Newcomb. July.

ERIOPHORUM GRACILE Koch.

Mud Pond near Long Lake. July.

AGARICUS DETERSIBILIS Pk.

I find that this name is preoccupied and must therefore be changed. I would substitute for it *Agaricus erinaceëilus* Pk.

AGARICUS JOHNSONIANUS Pk.

This species occurred the past season in the original locality. I had not seen it till then since its discovery in 1869.

AGARICUS (CREPIDOTUS) VERSUTUS n. sp.

Pileus at first resupinate, then reflexed, sessile, thin, pure white, covered by a soft downy villosity, the margin incurved; lamellæ rather broad and subdistant, terminating in an eccentric point, rounded behind, pale, then ferruginous; stem none; spores ferruginous-brown, subelliptical, .0004' long.

Plant gregarious, 4"-10" broad.

Much decayed half-buried wood, vegetable mold and even rocks.

This plant was reported under the name *A. chimonophilus* B. & Br., but it is evidently a distinct species. It loves very damp shaded places, frequently growing in cavities and on half buried wood, as if avoiding the light. The villosity is of a peculiar soft and delicate character and is easily destroyed by handling the specimens.

CORTINARIUS COMMUNIS Pk.

The spores of this plant have a dull brownish tinge, unlike those of true *Cortinarii* and much like those of some species of *Pholiota*. I have also found it growing from buried pine chips,

another point of affinity with *Pholiota*. Still, the absence of an annulus and the arachnoid character of the veil seem to forbid its reference to this subgenus.

PANUS DORSALIS *Bosc.*

The form that occurs here does not well agree with the description of the species. It has no stem and is of a buff or pale-yellow color. The cuticle does not break up into "floccose scales," but the pileus is strigose-hairy, especially toward the margin. The spores are of a beautiful fleshy-pink color like the lamellæ of young *Agaricus campestris*. It grows on beech and birch. I have not found it on pine. If the type is accurately described, our plant ought at least to be considered a distinct variety.

PANUS OPERCULATUS *B. & C.*

It is not rare on alder trunks and branches, but the veil or operculum is generally very fugacious, so that it is rarely seen except in very young plants.

LENZITES SEPIARIA *VAR. POROSA.*

This remarkable variety was detected at Long Lake, in Hamilton county. The whole hymenium is porous so that the plant might easily be taken for a species of *Polyporus*. All the specimens found on a single pine trunk were of this character.

LENZITES COOKEI *Berk.*

The opinion has somewhere been expressed that *Dædalea confragosa* and *Trametes rubescens* are one species. I am disposed not only to adopt this opinion, but also to add to these synonyms *Lenzites Cookei*, *L. Crategi*, *L. proxima* and possibly *L. Klotzschii*. Excepting the last one, of which I have seen no diagnosis, the descriptions of these so-called species are all applicable to a single fungus common with us. Neither description covers all the forms of the fungus, each is applicable to one or another of its forms. Indeed, so wonderfully variable and comprehensive is this *L. Cookei*, of which scarcely more than a two-line description was given, that not only does it exhibit all the essential characters of the five species named, but its hymenium, utterly regardless of the generic limitations of the books, assumes the hymenial characters of four genera even, viz.: *Lenzites*, *Dædalea*, *Trametes* and *Polyporus*. A species so comprehensive in its characters certainly deserves a more extended notice than any yet given to it.

It generally grows singly and stemless, but in rare instances I have seen it clustered and with a stem-like base. When growing upon large trunks, the pileus is nearly semiorbicular ;

but when growing upon small trunks or branches, which seem to be a favorite habitat, and which it partly surrounds or clasps by its base, it becomes somewhat reniform. Sometimes it is quite orbicular, in which case it usually occurs on the under side of a branch to which it is attached by its vertex, or on the upper side to which it is attached by an eccentric or the central point of the hymenium. It is normally and repeatedly zonate and more or less sulcate, with the zones usually quite narrow and not differing very much in color from the general hue of the pileus. Slight radiating rugæ or elevations are generally present, and these, in passing over the furrows, sometimes render the surface rough or scabrous. This roughness is occasionally increased to such an extent that the surface becomes very uneven, especially toward the base. Not very rarely a kind of tough appressed and at length hardened and glabrated tomentum overspreads a part or the whole of the pileus and thus conceals to a greater or less extent the zones and radiations. This coating can sometimes be separated from the pileus in scales or flakes like a kind of crust. It is most often limited to the basal or central portions of the pileus. Its unequal distribution gives a rough and unnatural appearance to the plant. In some specimens the pileus is dull and opaque, in others it is smooth and shining. In size it occurs from half an inch to three and a half inches in diameter. The substance is usually rather thin, sometimes much thinner than the hymenium. The upper surface is plane or slightly convex, though specimens are not wanting in which the pileus is much thickened behind so that it approaches an ungulate form. I have seen it in different individuals both umbonate and depressed at the base, but these are rare and exceptional forms. In color there is considerable diversity, some specimens being whitish, or gray, others having a dark reddish-brown or chestnut color. Between these extremes there is a great variety of intermediate hues, but a kind of pallid wood-color, more or less tinged with rufous or cervine hues, prevails. The thin margin is usually concolorous, but sometimes in pale specimens it is more highly colored than the rest. Occasionally the whole plant assumes a ruddy hue in drying. The substance has a color similar to that of the surface of the pileus, but in dark specimens it is a little paler.

The hymenium varies if possible more than the hymenophore. There are four typical forms which for convenience may be called *lenzitoid*, *dædaleoid*, *trametoid* and *polyporoid*. In the first the dissepiments are lamellæ, here and there forked or dichotomously branched and sometimes slightly anastomosing, especially at the base. Such specimens would be referred to *Lenzites*. In the second the pores are unequal, some of them elongated and flexuous or labyrinthiform. Such specimens belong to *Dædalea*. In the third, rotund and straight elongated pores are intermingled and generally arranged in a radiating manner. These belong to *Trametes*. In the fourth the pores

are equal, or nearly so, and rotund or subrotund. So far as the external characters are concerned, these would be referred to the genus *Polyporus*. Specimens representing all these forms are before me as I write, and yet I can only believe that they are all forms of one species. For besides these marked types all kinds of intermediate connecting links occur among the scores of specimens that I have collected from various localities. What shall we say of the generic distinctions that are thus swept away by a single species? In which genus shall we place our protean plant? But its characters are not yet fully recorded. In the fresh growing state the dissepiments are thick obtuse and covered with a whitish pruinosity which gives the hymenium a whitish or cinereous appearance, but with advancing age this pruinosity disappears, the dissepiments become thinner and the color becomes darker, sometimes even darker than the surface of the pileus. They at last become toothed or lacerated and lamellated, so that what at first was *trametoid* often in old age becomes *lenzoid*. If a horizontal section of such a lenzoid hymenium be made it will be found that near the hymenophore the hymenium is still trametoid, and that there the dissepiments are still thick and firm and the pores distinct. The surface of the hymenium varies from slightly concave to very convex. Most often it is nearly plane or somewhat sloping or deepened toward the base. Not infrequently it is slightly decurrent at the base.

I have found the plant growing on oak, willow, birches and alders. It matures in autumn.

Such are the prominent characters of this remarkable fungus, which probably includes at least five so-called species. Three of these are described as being, sometimes at least, radiate-rugulose or radiate-striate, and always zonate. Another is described as scabrous and subzonate. These characters are present in our plant. So also are the various modifications of the hymenium which determine the three genera to which these five supposed species have been referred. The texture ascribed to them all is essentially the same and the special features of each are exhibited in one or another of the various forms of our plant. I would therefore group the following as forms of one species so far as can be ascertained from the published descriptions:

Dædalea confragosa Pers. which is represented by forms of our plant having a scabrous somewhat zoned pileus of a reddish-brown color and a dædaleoid hymenium.

Our specimens exhibit these characters combined, except the color which is paler.

Trametes rubescens A. & S. which is represented by forms that assume the ruddy color and have the trametoid hymenium.

We have such specimens.

Lenzites Crataegi Berk. which is represented by forms having a shining pileus attached by the vertex and having a trametolenzoid hymenium.

Our specimens illustrate this also with the bare exception that the pileus is not shining.

Lenzites Cookei Berk. which is represented by forms with the pileus of a cervine hue and with a trameto-lenzitoid hymenium.

Our specimens of course accord with this since we have those from which the types were taken.

Lenzites proxima Berk. should also be added to this list of supposed synonyms. I have a single specimen which accords very well with the description of that plant, but it is really only a form of the same protean fungus with the thin flattened pileus completely overspread by the peculiar tomentum previously described.

Also the form with the polyporoid hymenium agrees remarkably well with a specimen received from Dr. Curtis and labeled by him "*Lenzites Klotzschii* Berk." Of this species I have seen no description.

The form with the purely lenzitoid hymenium coincides to a great extent with the description of *Lenzites tricolor* Fr., but the pileus is not "gibbous at the base" nor "scabrous-tomentose," neither does it agree in color, so that the two are perhaps distinct, though my Curtisian specimens of *L. tricolor* are clearly a form of this protean fungus.

Another remarkable form which corresponds to no description that I have seen has the pileus plane or depressed above with the hymenium very decurrent and wholly porous. The pileus is sometimes so much reduced that the whole plant appears like a pulvinate mass of pores. The pores are much smaller in this than in any other form that I have seen. The whole plant has a singular deformed appearance utterly unlike any of the other forms, and yet no one familiar with the various aspects of the species would think of separating this from the others.

That my views of the synonymy of the various forms of this plant will prove to be well founded I have no doubt, and that they will in that case render necessary the application of some single name to the species and a recasting or modification of the present characters of the genera *Lenzites*, *Dædalea* and *Trametes* is evident. Doubtless the oldest specific name "*confragosa*" should be retained, no matter in what genus the plant may ultimately be placed, although some such name as "*variabilis*" might be more appropriate and expressive. The other specific names might be retained to designate their respective forms as varieties. Thus the form known as *Trametes rubescens* would become *Dædalea confragosa* var. *rubescens*.

BOLETUS CLINTONIANUS *Pk.*

This rare species, heretofore found in one locality only, was detected the past season at Center, near Albany, where it was growing in company with *Boletus ampliporus*. The recurrence of fungi after long intervals and especially in widely

separated localities is an interesting and remarkable feature in these singular plants.

POLYPORUS NIGROPURPURASCENS *Schw.*

A resupinate form was found on elm in Bethlehem. In some of these specimens the hymenium was much paler than is usual in this species. The pores are seated on a thin but tough elastic membrane which is separable from the substance of the pileus.

STEREUM BALSAMEUM *Pk.*

The hymenium in this becomes red or blood-stained where wounded as in *S. sanguinolentum*. Its general color is darker than in that species.

STEREUM PURPUREUM *Fr.*

I find this a very variable plant. One form has the hymenium very pale with only a slight purplish tint. Another has the pileus zoneless and when moist it is darker than when dry.

CORYNEUM CLAVÆSPORUM *Pk.*

This proves to be the same as *Exosporium Tiliae* Lk. I have never been able to find it with flocci and therefore doubt if it should be referred to the genus *Helminthosporium* as some authors think.

PUCCINIA HIERACII *Mart.*

Mr. M. Ruger sends specimens of a Puccinia found on leaves of hawkweed, at Woodhaven, L. I., which should perhaps be referred to this species, but I fail to find any good mark of distinction between it and *P. variabilis*.

PUCCINIA AMPHIBII *Fckl.*

This is now regarded as distinct from *P. Polygonorum*, and our specimens of Puccinia on leaves of *P. amphibium* should be referred to it.

USTILAGO URCEOLORUM *Tul.*

This occurs in the Adirondack region on *Carex stricta*, *C. stellulata*, *C. crinita*, *C. utriculata* and *C. oligosperma*.

TRICHOBASIS HOWEI *Pk.*

I would change this name to *Uromyces Howei* Pk. since I find that the pedicels, though very short and obscure, are permanent.

ÆCIDIUM PYROLATUM Schw.

This seems to be one of the connecting links between *Æcidium* and *Uredo*. Leaves affected by it are more erect than the others and have a pale sickly appearance, so that it is not difficult, in looking at a patch of the round leaved *Pyrola*, to tell at a glance what leaves are affected by the fungus.

ÆCIDIUM EUPHORBIÆ Pers.

This species occurs quite commonly some seasons on *Euphorbia maculata* in company with *Uromyces Euphorbiæ*. The branches whose leaves are affected by it are more erect than the others and more slender in their mode of growth.

NECTRIA PULICARIS Tul.

The spores in this species are described in the Handbook of British Fungi as "elliptical or pyriform." In the fungus inhabiting old corn-stalks and referred by some botanists to this species, the spores are oblong-fusiform.

XYLARIA DIGITATA Grev.

A *Xylaria* occurs quite frequently in our woods which has the smooth stem of this species and the short spores of *X. Hypoxylon*, thus ranking intermediate between the two. I am not fully satisfied whether it should be considered a distinct species or a variety of one or the other. The true *X. digitata* is quite rare in our State.

RHYTISMA LINEARE Pk.

This should be referred to the genus *Hypoderma*. It is, however, quite distinct from *H. nervisequum* to which one writer has referred it.

HYSTERIUM CLAVISPORUM C. & P.

I have never been able to detect the narrow linear orifice of the genus *Hysterium* in this species. In my opinion it belongs rather to the genus *Dothidea*. The same may also be said of *Hysterium Riminala* Schw.

DOTHIDEA DALIBARDÆ Pk.

This rare species has occurred near Mud Pond in Hamilton county.

VALSA RUFESCENS Schw.

Mr. J. B. Ellis informs me that the specimens of this plant in the Schweinitzian Herbarium have simple cylindrical spores, .0003-.0004' long. This would make it distinct from *V. aculeans* Schw. with which it has sometimes been confused.

SPHÆRIA COLLINSII Schw.

This occurs in the Adirondack region on leaves of *Spiræa salicifolia*. The branches in this as in *Amelanchier Canadensis* are swollen and distorted by the fungus.

VENTURIA MACULANS Pk.

I am satisfied that this is only a form of *Sphæria ditricha* Fr., a species which has been referred to *Sphærella*, though in my opinion it is a good *Venturia*.

The following list of parasitic fungi and their host plants is additional to the one given in the preceding report :

<i>Puccinia orbicula</i> P. & C.	inhabits	<i>Solidago arguta</i> Ait.
<i>P. Hydrophylli</i> P. & C.	“	<i>Hydrophyllum Virginicum</i> L.
<i>P. Hieracii</i> Mart.	“	<i>Hieracium Canadense</i> Mx.
<i>Urocystis pompholygodes</i> Schl.	“	<i>Anemone nemorosa</i> L.
<i>Ustilago urceolorum</i> Tul.	“	<i>Carex stricta</i> Lam.
		<i>C. stellulata</i> L.
		<i>C. crinita</i> Lam.
		<i>C. utriculata</i> Boott.
		<i>C. oligosperma</i> Mx.
<i>Melampsora Epilobii</i> Fckl.	“	<i>Epilobium angustifolium</i> L.
<i>Uredo Cassandræ</i> P. & C.	“	<i>Cassandra calyculata</i> Don.
<i>Discella arida</i> Pk.	“	<i>Cassandra calyculata</i> Don.
<i>Sphæropsis minima</i> B. & C.	“	<i>Acer rubrum</i> L.
<i>Helminthosporium Absinthii</i> Pk.	“	<i>Artemisia Absinthium</i> L.
<i>Cladosporium depressum</i> B. & Br.	“	<i>Archangelica atropurpurea</i> Hoffm.
<i>Ramularia brunnea</i> Pk.	“	<i>Tussilago Farfara</i> L.
<i>Cystopus cubicus</i> Mart.	“	<i>Ambrosia artemisiæfolia</i> L.
<i>Cercospora Symplocarpi</i> Pk.	“	<i>Symplocarpus fœtidus</i> Salisb.
<i>C. leptosperma</i> Pk.	“	<i>Aralia nudicaulis</i> L.
<i>C. Ampelopsidis</i> Pk.	“	<i>Ampelopsis quinquefolia</i> Mx.
<i>C. Chenopodii</i> Fckl.	“	<i>Chenopodium album.</i> L.
<i>Peronospora pygmæa</i> Ung.	“	<i>Anemone nemorosa</i> L.
		<i>Hepatica triloba</i> Chaix.
<i>P. infestans</i> De By.	“	<i>Solanum tuberosum</i> L.
<i>P. alta</i> Fckl.	“	<i>Plantago major</i> L.
<i>P. effusa</i> Grev.	“	<i>Oenothera biennis</i> L.
<i>Erysiphe Liriodendri</i> Schw.	“	<i>Liriodendron Tulipifera</i> L.
<i>Sphærotheca Castagnei</i> Lev.	“	<i>Geranium maculatum</i> L.
<i>Epichloe typhina</i> Berk.	“	<i>Glyceria nervata</i> Trin.
<i>Sphæria Collinsii</i> Schw.	“	<i>Spiræa salicifolia</i> L.
<i>Sphærella Impatientis</i> P. & C.	“	<i>Impatiens fulva</i> Nutt.

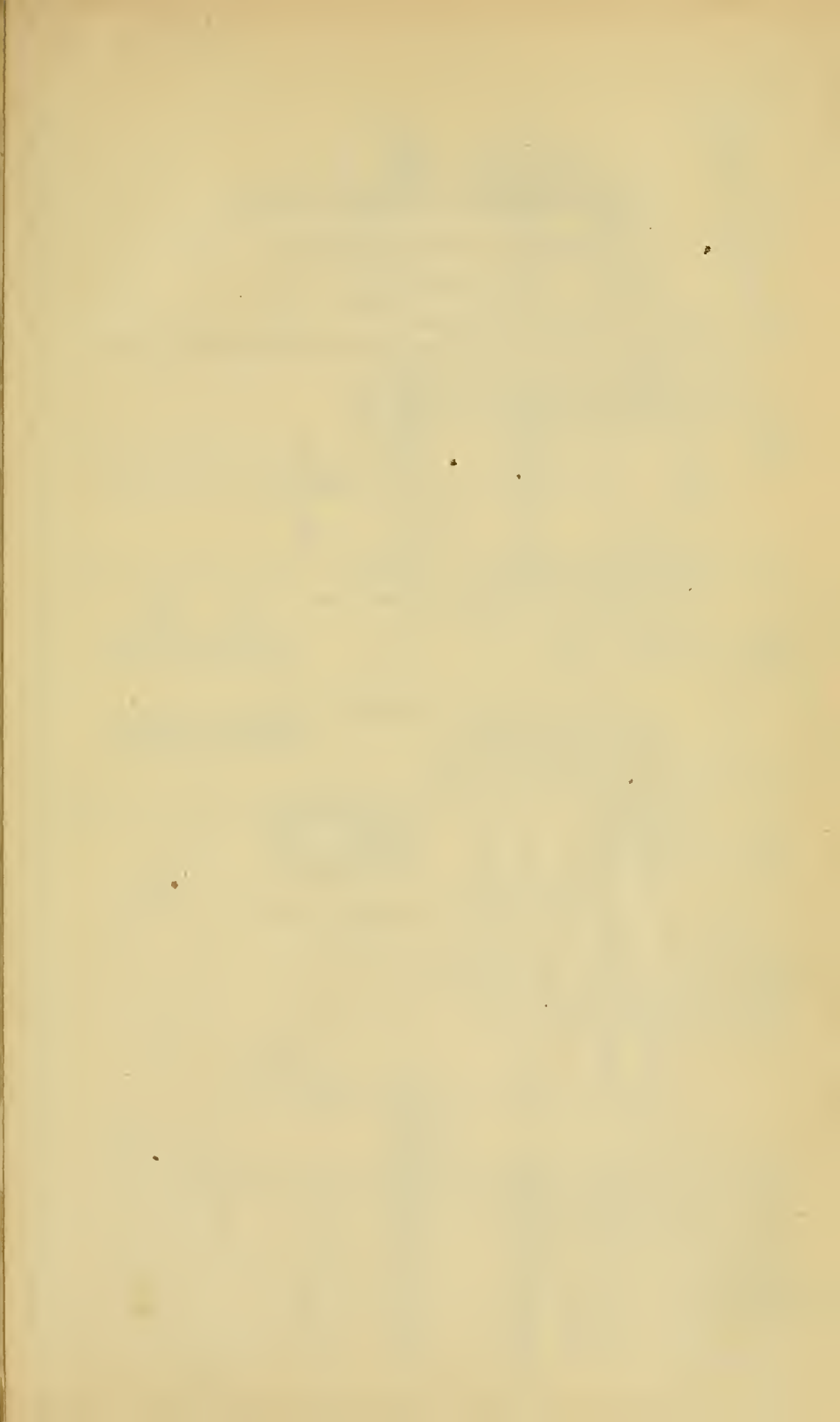
In closing this report, grateful acknowledgments are rendered to those botanists whose names already appear in the preceding pages for their kind coöperation in the investigation of our flora, and for their generous contributions of specimens.

When no name is added to the station or stations herein given the plant has been found therein by the writer. Dates signify the time when the specimens were collected.

Respectfully submitted.

CHAS. H. PECK.

ALBANY, *January 6, 1877.*



EXPLANATION OF PLATE II.

DIACHÆA SPLENDENS Peck.

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- Fig. 1. Part of a leaf bearing several plants.
Fig. 2. Two plants magnified, one with part of the peridium removed to show the capillitium and penetrating stem.
Fig. 3. A fragment of the capillitium $\times 400$.
Fig. 4. Four spores $\times 400$.

PHYSARUM ALBICANS Peck.

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- Fig. 5. A piece of bark bearing several plants.
Fig. 6. Two plants magnified, one with most of the peridium removed to reveal the capillitium and slightly penetrating stem.
Fig. 7. A fragment of the capillitium $\times 400$.
Fig. 8. Four spores $\times 400$.

SPHÆRONEMA AURANTIACUM Peck.

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- Fig. 9. A piece of bark bearing the fungus.
Fig. 10. A piece of the matrix and two perithecia with globules at the apex, magnified.
Fig. 11. Six spores $\times 400$.

CLAVARIA TYPHULOIDES Peck.

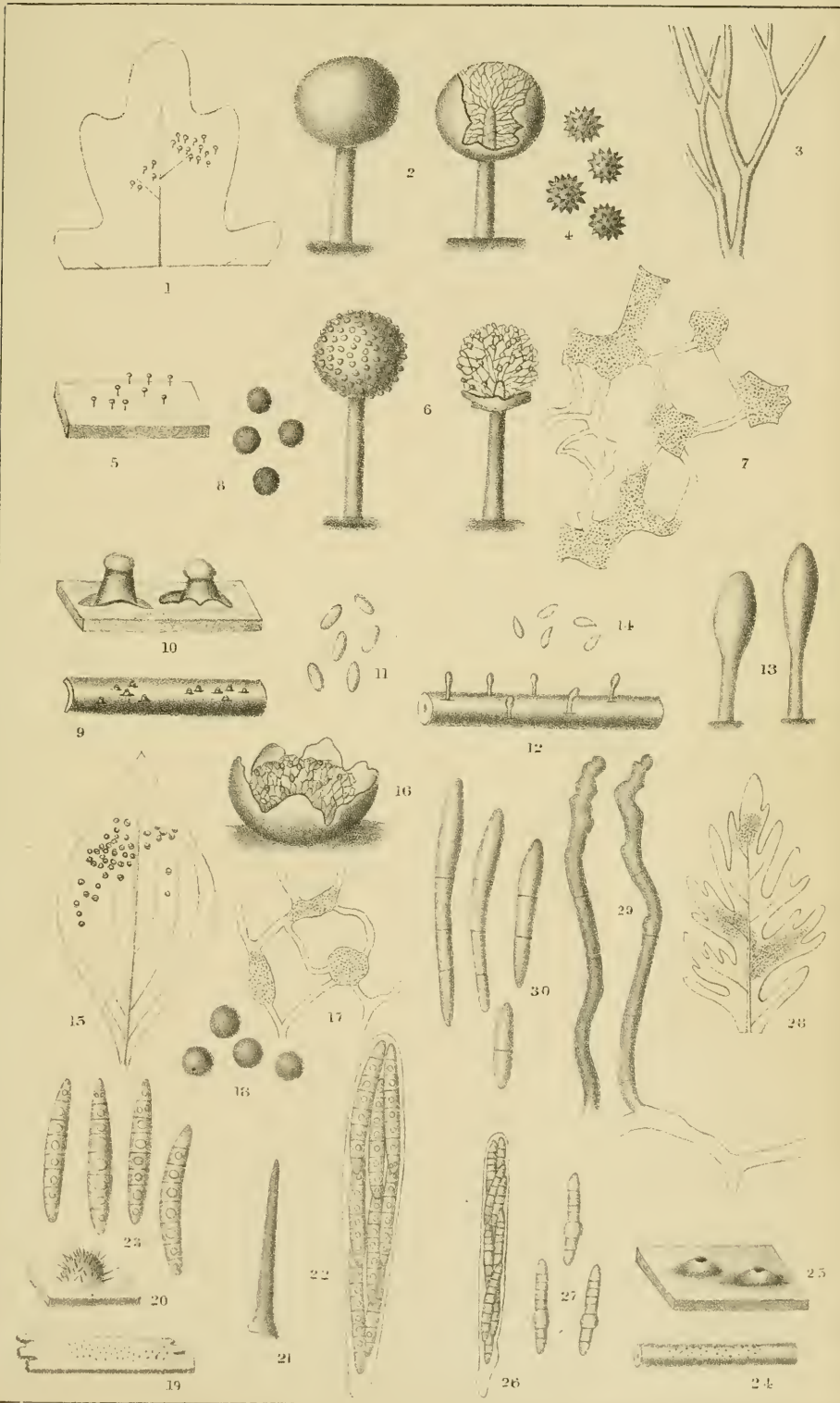
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- Fig. 12. Piece of a stem bearing six plants.
Fig. 13. Two plants, magnified.
Fig. 14. Five spores $\times 400$.

PHYSARUM LUTEOLUM Peck

Page 50.

- Fig. 15. A leaf bearing a cluster of the plants.
Fig. 16. A plant magnified, showing the stellately ruptured peridium.
Fig. 17. A fragment of the capillitium $\times 400$.
Fig. 18. Four spores $\times 400$.



EXPLANATION OF PLATES.

EXPLANATION OF PLATE I.

AGARICUS GRACILOIDES Peck.

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- Fig. 1. Two plants of ordinary size ; one showing the striatulations of the moist pileus.
Fig. 2. Vertical section of a pileus.
Fig. 3. Transverse section of a stem.
Fig. 4. Four spores $\times 400$.

HELOTIUM CARICINELLUM Peck.

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- Fig. 5. Piece of a sedge leaf bearing the fungus.
Fig. 6. Two plants magnified.
Fig. 7. Two paraphyses and an ascus containing spores $\times 400$.
Fig. 8. Three spores $\times 400$.

PEZIZA DISTINCTA Peck.

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- Fig. 9. Piece of a culm bearing six plants.
Fig. 10. A plant with the mouth expanded, magnified.
Fig. 11. A plant with the mouth contracted, magnified.
Fig. 12. A paraphysis and an ascus containing spores $\times 400$.
Fig. 13. Four spores $\times 400$.

EXCIPULA LANUGINOSA Peck.

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- Fig. 14. Piece of a stem bearing several plants.
Fig. 15. A young unexpanded plant, magnified.
Fig. 16. An expanded plant, magnified.
Fig. 17. Three hairs $\times 400$.
Fig. 18. Several spores $\times 400$.

PEZIZA WARNEI Peck.

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- Fig. 19. Three plants of unequal size.
Fig. 20. A paraphysis and an ascus containing spores $\times 400$.
Fig. 21. Three spores $\times 400$.

CLADOSPORIUM DEPRESSUM B. & Br.

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- Fig. 22. Part of a leaf bearing the fungus.
Fig. 23. Two flocci $\times 400$.
Fig. 24. Three spores $\times 400$.

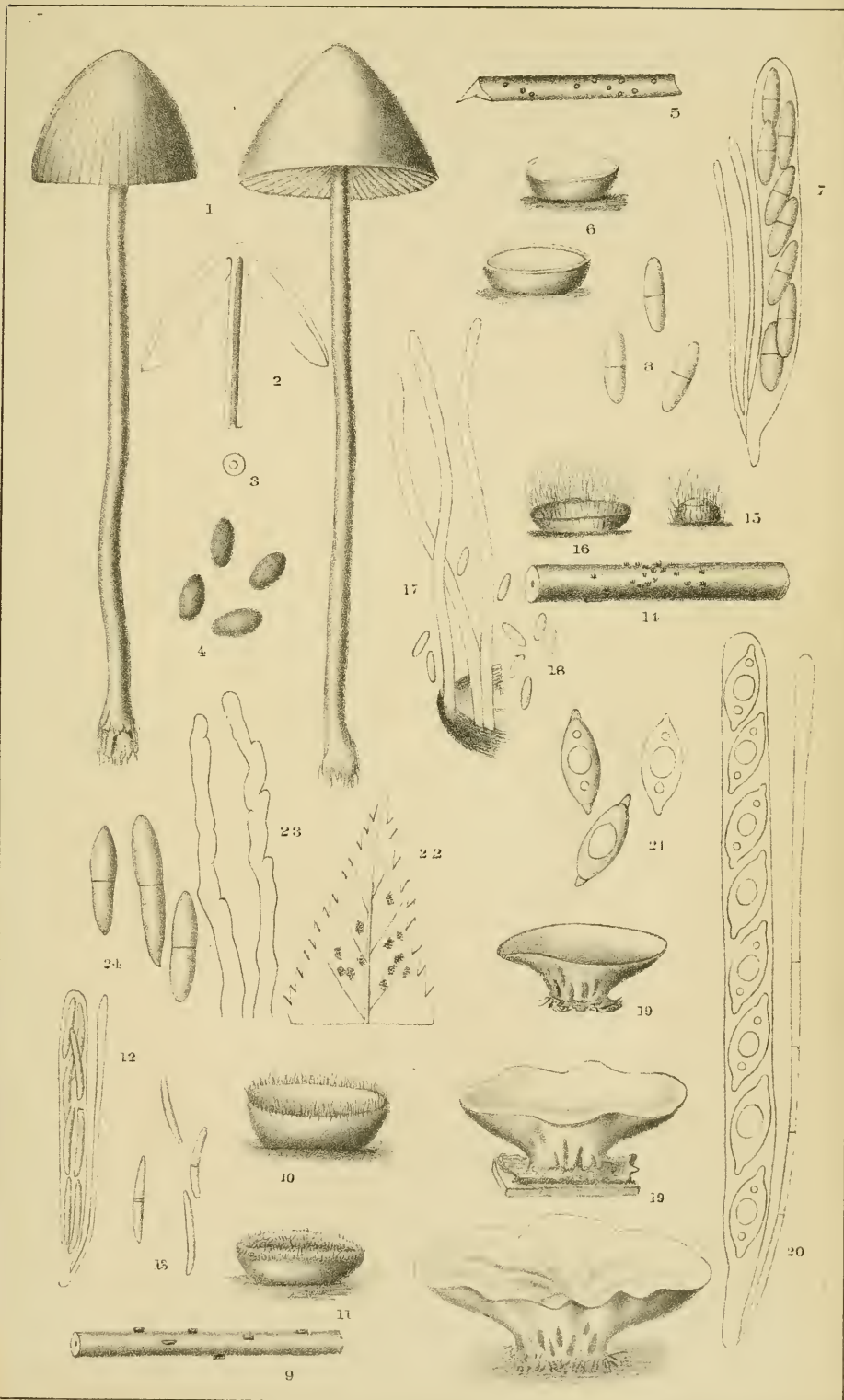


PLATE II—(Continued).

SPILERIA CLINTONII Peck.

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- Fig. 19. A piece of wood bearing the fungus.
Fig. 20. A perithecium, magnified.
Fig. 21. A seta of the perithecium $\times 400$.
Fig. 22. An ascus containing spores $\times 400$.
Fig. 23. Four spores $\times 400$.

SPILERIA SCAPOPHILA Peck.

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- Fig. 24. Piece of a scape bearing the fungus.
Fig. 25. A piece of the matrix with two perithecia, magnified.
Fig. 26. An ascus containing spores $\times 400$.
Fig. 27. Three spores $\times 400$.

HELMINTHOSPORIUM ABSINTHII Peck.

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- Fig. 28. A leaf bearing patches of the fungus.
Fig. 29. Two floeci $\times 400$.
Fig. 30. Four spores $\times 400$.