ART. XVII.—A Commentary on the Synopsis Fungorum in America Boreali media degentium, by L. D. de Schweinitz.

By the Rev. M. J. Berkeley, M. A., F.L.S., and the Rev. M. A. Curtis, F. A. A. A. S.

With a view to place the Mycology of the United States on a firm and stable foundation, a careful examination of most of the species which still exist in the Herbarium of Schweinitz has been instituted by the authors of the present Memoir. Free access has been also had to the numerous authentic specimens in the Herbarium of Sir Wm. Hooker, and Prof. Torrey has kindly presented us the collection given him by Schweinitz. About a fourth of the species have passed under review, and as the examination of the remainder must necessarily be a work of time, we think it best to publish the present by way of instalment. When the whole has been reviewed, we hope to be in a position to give a complete Mycology of the United States, for which we have immense materials. As Schweinitz did not possess types of the greater part of the European species, it was impossible that he should not have made many mistakes in the determination of species; but though we have been compelled to differ frequently from him in his diagnoses, the species which he has published as new, with few exceptions, still hold their place in science, and present numberless points of interest as regards structure and affinity. He was, however, very far from exhausting the treasures of the American forests. We have in our possession a host of new species, equal in interest to those which first gave so high a character to American Fungi; and a review of these authentic specimens has, in only a very few instances, compelled us to change our nomenclature. There will be no longer delay in the publication of the remainder of our commentary, than unavoidable circumstances may necessitate.

When our paper upon the Exotic Fungi of the Schweinitzian Herbarium (see Journ. Acad. ii. p. 277) was written, we had not ascertained from whom the Surinam species were procured, there being no recognition of the collector upon the tickets. We have since learned that the collection was made by Dr. Hering, now a distinguished Homocopathic Physician of Philadelphia. Dr. Schweinitz had evidently intended to commemorate this gentleman's services in Natural History by naming for him the genus since published by Berkeley under the name of Hypolyssus. (See Exot. Fung. No. 15.) Heringia is now devoted by Agardh to a genus of Algo.

- 100. AGARICUS SICCUS, Schwein! This resembles very closely Marasmius hæmatocephalus, Mont., but the upper half of the stem has a transparent appearance, and there is a cottony tuft at the base. The appearance of the stem is very much like that of A. cohærens. Schweinitz' description of it does not accord very well with the specimens.
- 147. A. PETALOIDES, Bull. Certainly not the plant of Bulliard, though similar in habit. It is *Panus angustatus*, Berk. in Hook. Lond. Journ. vi. 318.
 - 152. A. STYPTICUS, Bull. = Panus stipticus, Fr.
 - 154. A. Algidus, Fr. = A. atrocœruleus, Fr.
 - 159. "A. APPLICATUS, Batsch. epigæus." Probably a distinct species.
- 162. A. NIGER, Schwein.! A larger species than A. applicatus, very dark and with somewhat of the habit of Xerotus.
 - 229. A. DEPLUENS, Batsch.
- 230. A. VIOLACEO-FULVUS, Schwein. Apparently A. pinsitus, Fr. Certainly not a Crepidotus.
 - 267. Favolus alveolarius, Fr. Polyporus Boucheanus, Fr.
- 268. F. Abnormis, Schwein., marked "Favus membranaceus" in the Herbarium, has the hymenium of Glæoporus, of which it may be a resupinate form.
 - 269. Lentinus Schweinitzii, Fr.
- 278. Cantharellus aurantiacus, Fr. In the fragments we possess of what Schweinitz assigned to this species, the gills or folds are far broader than in any European specimens. We consider the name, therefore, as very doubtful. The species has not yet occurred in S. Carolina.
 - 281. C. LUTESCENS, Fr.
 - 282. C. CINEREUS, Fr.
 - 284. C. ODORATUS, Schwein. != Craterellus odoratus. Fr.
 - 286. C. CINNABARINUS, Schwein.!= Hygrophorus cinnabarinus, Fr.
 - 287. C. FLOCCOSUS, Schwein.! C. Canadensis, Kl. is apparently the same species.
- 289. C. CRISPUS, Fr. This seems to be a common species in the Northern States, but has not yet been detected in the Southern.
- 290. C. INCARNATUS, Schwein.! More properly a *Merulius*, and evidently allied to *M. tremellosus*. Authentic specimens exist in the Herbarium of Sir Wm. Hooker. Not an uncommon species in the Carolinas.

- 291. C. Confluens, Schwein.!= Merulius corium, Fr.
- 292. C. SPATHULARIA, Schwein. != Guepinia spathularia, Fr.
- 293. C. CUPRESSI, Schwein.! This is no Fungus, but a curious gall on the leaves of *Taxodium*. It appears to be a common production in the United States.
 - 298. C. CUPULARIS, Fr. Our specimens of this are imperfect.
- 299. C. fasciculatus, Schwein! This is properly a *Cyphella*. There is a species in our collections to which we gave the name of *Cyphella fasciculata* before we knew that the plant of Schweinitz belonged to that genus, exactly agreeing in habit, but of a paler and more washy tint, perhaps from being exposed to the weather.
- 300. C. OLIVACEUS, Schwein.! There is but a single specimen of this in the Herbarium, and it is arranged there under *Merulius*. At the time of our examination we referred this to *Paxillus panuoides*, Fr., but it may perhaps be *P. Curtisii*, Berk.
 - 302. Schizophyllum commune, Fr. (Hook, Herb.)
 - 315. "Boletus (non floccopus.)" = B. strobilaceus, Scop. (Strobilomyces, Berk.)
 - 323. Polyporus fuliginosus, Fr., more properly fuligineus.
 - 326. P. LEPTOCEPHALUS, Fr. Nearly destroyed, but is P. brumalis or arcularius.
- 328. P. RUFESCENS, Fr., marked by Schweinitz P. cinnamomeus. It is certainly not P. rufescens, but a state of his own P. connatus, of which he considered P. cinnamomeus, P., a synonym.
 - 329. P. Schweinitzh, Fr. P. tabulæformis, Berk., is confounded with this.
- 330. P. CONNATUS, Schwein.! A fine authentic specimen remains in the collection at Kew, and others exactly agreeing with it were sent by the late Mr. Lea from Ohio. These, however, run so gradually into *P. perennis*, that there is some doubt about the stability of the species, notwithstanding the enormous difference in the size of the pores. Fries informs us that this is *P. parvulus*, Klotsch. *P. connatus*, Fr. and Weinman is a totally different species.
- 331. P. RADICATUS, Schwein. Specimens of this very distinct species, with the pileus varying from 1½ inch to 5 inches across, and the stem from 1½ to 9 inches long and ½ to 1½ inch thick, were sent from Ohio by Mr. Lea. Allied certainly, as Schweinitz himself hints, to such species as *P. ciliatus*, Fr., though immensely larger.
 - 332. P. VARIUS, Fr.
 - 333. P. BADIUS, P. A form of P. varius, Fr., growing to a large size, with the stem

not black as far as the pores, but only half way up. Such specimens occur in great beauty in Ohio.

- 334. P. LUCIDUS, Fr.=P. Curtisii, Berk.
- 341. P. GRAVEOLENS, Schwein! This is the same thing with P. conglobatus, Berk., and a most extraordinary and magnificent species. It is, however, by no means "durissimus," though it forms a compact close mass, but the texture is as soft and velvety as that of P. fomentarius. This circumstance, and the very different smell of the Schweinitzian and Ohio specimens, led to the notion that the latter was a distinct species. The odor of the former is described as oppressive and nauseous, whereas the specimens of Mr. Lea, though clearly identical, had a most attractive smell like that of strawberries. This grateful odor is found also at times in the Southern specimens, which we have heard compared to that of the flowers of Calycanthus, and that of the Water Beetle.
- 343. P. LABYRINTHICUS, Schwein! A very fine species, remarkable for its coarse, tow-like texture.
- 344. P. SPUMEUS, Fr. According to Fries (Nov. Symb. p. 39) this is *P. fusco-albus*. The specimens in Herb. Schwein. are nearly destroyed.
 - 345. P. BETULINUS, Fr.
 - 346. P. CHIONEUS, Fr.
- 347. P. DESTRUCTOR, Fr. The specimens are marked with a note of interrogation, and we think them somewhat doubtful, though clearly belonging to the same section. The substance is yellowish, and it may possibly belong to some undescribed species.
- 348. P. LACTEUS, Fr. The specimens are too much worm eaten for allowing any satisfactory decision, but they do not seem to belong to *P. lacteus*.
- 349. P. STYPTICUS, Fr. Nearly destroyed and unfit for comparison with our authentic specimens.
 - 350. P. MOLLIS, Fr.
 - 351. P. cœsius, Fr.
 - 354. P. ALUTACEUS, Fr.
 - 355. P. FIMBRIPORUS, Schwein! Brown when dry.
 - 357. P. fumosus, Fr. Certainly not P. fumosus, but apparently a state of P. annosus.
 - 358. P. undulatus, Fr.
 - 360. P. NIGROPURPURASCENS, Schwein! This highly curious species belongs to the

genus Glæoporus, Mont. It seems identical with what Dr. Montagne has sent from the south of France under the name of P. dichrous, P.; but specimens from Fries under that name are more like P. adustus, so that there is some doubt about the species. It should be observed that Fries considers this to be merely a state of P. isabellinus, Schwein., which we did not find in the Herbarium.

- 361. P. AMORPHUS, Fr.
- 362. P. adustus, Fr.
- 363. P. CRISPUS, Fr.
- 364. P. Ulmarius, Fr. = P. scruposus, Fr.
- 366. P. POPULINUS, Fr. The Schweinitzian specimens were found on an apple tree, and are undoubtedly distinct. They may be characterized as follows:

Trametes malicola, Berk. et Curt., imbricatus, ligneus; pileis dimidiatis posticé decurrentibus subvillosis subzonatis, ligneo-umbrinis; porismediis dissepimentis crassis subtomentosis.

It differs clearly in the far larger pores, darker pileus, &c.

- 370. P. Pilotæ, Schwein.! This is apparently the same thing with *P. hypococcinus*, Berk., the differences arising rather from age, or from the greater perfection of the Ohio specimens. No mention of bright showy colors is made by Schweinitz, except in the qualified phrase "intus subrutilans."
 - 374. P. VELUTINUS, Fr. = P. hirsutus, Fr.
 - 375. P. NIGROMARGINATUS, Schwein.! Merely a state of P. hirsutus.
- 378. P. STEREOIDES, Fr. We are not acquainted with the species of Fries, but the Schweinitzian specimens are the same with P. pergameneus, Fr.!=P. Menandianus, Mont.
 - 379. P. RADIATUS, Fr. var. curpincus. Certainly the same with P. scruposus, Fr.!
- 380. P. PALLESCENS, Fr. Of this we have only fragments. One with a hirsute pileus is *P. hirsutus*, another may be the true plant.
- 381. P. ABIETINUS, Fr. The same with 378. The true species of this name occurs in the Herbarium with the ticket marked "P. poroides—pinicola, L. v. S." and is very common in the U. States.
- 382. P. VIRGINEUS, Schwein.! The specimens are totally different from the original species, being densely villous. They are the same with a slight variety of *P. Sullivantii*, Mont., which occurs in S. Carolina. The species, however, which we have from more than one source is very distinct.

- 383. P. CONCHIFER, Schwein.! The true species exists in Hook. Herb., and is most beautiful and distinct, differing in character and habit from every thing else. Very fine specimens were gathered by Mr. Lea in Ohio. The Schweinitzian specimens before us seem to be a discolored state of *P. virgineus*, of which however we have seen no authentic specimens.
- 385. P. DECIPIENS, Schwein.! (marked P. affinis.) This has larger pores than P. versicolor, and is of a yellowish tinge, but still is not a very well marked species.
- 386. P. PARVULUS, Schwein. There is no species of this name in the Herbarium, but the plant mentioned above under 381 ("P. poroides—pinicola") is probably the one intended under the present number.
- 387. P. SCUTELLATUS, Schwein.! A very curious species, extremely well described, but not closely allied to any published species except *P. compressus*, Berk., a Swan River Fungus.
 - 388. P. SANGUINEUS, Fr.
 - 389. P. CINNABARINUS, Fr.
- 393. P. BENZOINUS, Fr. Authentic specimens from Fries are totally different from this, which has the colors of such species as *P. radiatus*, *scruposus*, &c. It is indeed very closely allied to the former, from which it differs in its larger size and less yellow substance. It can therefore retain the name of *P. fusco-gilvus*, originally given to it by Schweinitz, and by which it is ticketed in the Herbarium. But our specimens are not sufficiently good to allow of our drawing up a specific character, and possibly it may be identical with *P. cuticularis*, Fr.
 - 395. P. NIDULANS, Fr.
- 396. P. CUTICULARIS, Fr. Not the true plant of Fries. It is clearly a form of his P. conchatus.
- 397. P. RUTILANS, Fr.=P. scruposus, Fr. Schweinitz himself says, "an carpineus," and it is certainly the same with No. 379.
- 398. P. GILVUS, Schwein.! (Hook. Herb.) Sir W. J. Hooker's specimens are *P. scruposus*, Fr., but Fries must have received something very different under this name.
 - 399. P. MARGINATUS, Fr.
- 401. P. Annosus, Fr. Certainly not the plant of Fries, but more like *P. igniarius*, which perhaps it may be, though our notes and recollection of the specimen are imperfect.
 - 402. P. DRYADEUS, Fr. Not the European species, from which it differs evidently

in its rhubarb-colored substance and minute pores; and in the latter character it differs also from *P. dryophilus*, Berk. The Schweinitzian plant is, as we believe, only a form of *P. scruposus*. Specimens exactly similar were gathered by Mr. Lea in Ohio.

- 409. P. LOBATUS, Schwein. This is one of the specimens missing from the Herbarium. It must be very different from the Friesian homonym.
- 410. P. Pini Canadensis, Schwein.! Certainly the same with *P. hypococcinus*, Berk. See above, No. 370.
- 411. P. Spongiosus, Fr. The plant of Fries is a resupinate form of *P. nidulans*, such as occurs in Scotland, which this certainly is not. The pores are too large to allow of its being a state of *P. igniarius*, but our materials are scarcely sufficient for arriving at any distinct opinion. *P. spongiosus*, Klotsch, Herb. viv. Myc. No. 2, is the same production.
 - 414. P. Ferruginosus, Fr.
 - 416. P. salicinus, Fr.
 - 417. P. Subspadiceus, Fr. We are unacquainted with the Friesian species.
- 418. P. SPISSUS, Schwein. This species, of which there are authentic specimens in Hook. Herb., is totally different from the Friesian plant, which we believe that we have from S. Carolina. The pores have the same resinous appearance as in P. Pilotæ, Schwein. In the Schweinitzian Herbarium it is marked P. rufus.
- 419. P. UNDATUS, P. This differs from the plant of Persoon, of which we have an authentic fragment, in the far larger pores. In color it agrees with it.
 - 420. P. Nieskyensis, P.
- 421. P. UMBRINUS, P. Certainly not the same with P. obliquus. We cannot distinguish it from P. ferruginosus.
 - 422. P. Juglandinus, Schwein.! Certainly different from P. spissus of Hook. Herb.
- 423. P. VITICOLA, Schwein.! Resembles P. contiguus, and perhaps not really different, though totally distinct from P. superficialis.
- 424. P. XANTHUS, Fr. Totally different from authentic specimens of the Friesian species, but exactly agreeing with a specimen under the same name from Desmazières, except that it is not at present stratose. It somewhat resembles resupinate forms of P. annosus, except that the pores are smaller. We have the true P. xanthus from S. Carolina.

- 425. P. NITIDUS, Fr. We have two species under this name,—one from Schweinitz' earlier collections, which appears to be a state of his *P. nigro-purpurascens*, and the other with long pores, very different from an authentic specimen now before us. This was formerly called *P. croceus* by Schweinitz, but that name is preoccupied. We beg to substitute
- P. CROCIPORUS, n. sp.;—totus resupinatus; poris minutis longis tenuibus, extus intusque croceo-fulvis, mycelio pallido molli oriundis.

The pores are just the color of dried saffron, and have somewhat the same appearance as those of *P. spissus*. The mycelium is pale, thin, of a rather soft texture and confluent with the matrix.

- 426. P. PULCHELLUS, Schwein. The same with *P. xanthus*, Schwein.! Herb. As *P. pulchellus* was formerly called *P. xanthus* by Schweinitz, it is possible that we have not got what he ultimately intended by that name, and which may therefore be the true plant.
 - 428. P. Incarnatus, Fr. The young state of some Glæoporus.
- 430. P. RHODELLUS, Fr. Not the true plant of Fries, as appears from an authentic specimen. It looks like an early stage of *P. spissus*, Schwein.! in Hook. Herb.
- 431. P. UNITUS, Fr. The Schweinitzian specimens are precisely the same with No. 418.
 - 432. P. VITELLINUS, Fr.
 - 434. P. Sinuosus, Fr. We have no authentic specimens of this species.
 - 435. P. XANTHOLOMA, Schwein.! Very distinct.
- 436. P. RHODODENDRI, Schwein.! Very like *P. Stephensii*, Berk., which has been found on Taxodium by Mr. Ravenel. This differs in its thinner dissepiments and obscure tint.
- 437. P. SASSAFRAS, Schwein.! Schweinitz describes this in his Herbarium as having "pori majusculi," which agrees with the specimen; whereas the printed character says "poris minutis." It is probably a distinct species.
- 438. P. SUPERFICIALIS, Schwein.! An authentic specimen from Prof. Torrey's Herbarium has nothing like "poris latiusculis," and we believe is identical with No. 439.
 - 439. P. NIGRO-PURPUREUS, Schwein.!
- 440. P. CINEREUS, Schwein.! The specimens of this, as of some others among the omitted numbers, are destroyed.

- 441. P. CARYÆ, Schwein.! Resembling somewhat P. xantholoma, but with rather larger pores.
 - 442. P. Papyraceus, Schwein.! Pores rather large; resembles P. Stephensii, Berk.
 - 444. P. MEDULLA PANIS, Fr.
 - 445. P. TUBERCULOSUS, Fr. Apparently a Radulum.
 - 446. P. VITREUS, Fr. The specimens belong to P. vulgaris.
- 447. P. VULGARIS, Fr. Not the true species, but closely allied to *P. pulchellus*, Schwein., only with smaller pores. We can see no other difference. The same Fungus occurs in Ohio and N. Carolina.
- 448. P. CALCEUS, Fr. s. A curious production, resembling somewhat a *Porothelium*, but scarcely in a normal condition.
- 449. P. CALLOSUS, Fr. The specimens are hardly distinguishable from *P. pulchellus*, Schwein., and do not answer to the description of Fries. We have, however, the Friesian species from S. Carolina.
 - 451. P. COLLICULOSUS, P. We are not acquainted with this species.
- 452. P. OBDUCENS, P. This is not in the least degree stratose. The pores are a line long. It appears to us to be very near to P. xantholoma.
- 453. P. DENTIPORUS, P. Very much after the fashion of *P. vaporarius*, and indeed scarcely to be distinguished.
- 455. P. Terrestris, Fr. This is scarcely the plant of Fries, and perhaps is undescribed.
- 456. P. TENUIS, Schwein.! Resembling *P. vaporarius*, but more uniform. What was referred to this species in the account of Mr. Lea's Ohio Fungi is something with much broader and shallower pores, and is scarcely developed fully.
 - 457. P. MUCIDUS, Fr.
 - 458. P. RADULA, Fr. Certainly P. vaporarius.
 - 459. P. MICANS, Fr. Another form of P. vaporarius.
- 461. P. SANGUINOLENTUS, Fr. There are two things under this number. One is the same with 430; the other answers exactly to *P. reticulatus*, Fr.
- 462. P. MOLLUSCUS, Fr. The sulphur-colored variety of which Schweinitz speaks is much in the fashion of *P. reticulatus*, and is probably undescribed.
- 463. P. FARINELLUS, Fr. Our specimens of this are nearly destroyed by insects.

- 464. P. ANEIRINUS, Fr. The specimens are not quite certain, but the species occurs in a highly developed state in S. Carolina.
- 465. P. XYLOSTROMEUS, P. Two things are in the Herbarium under this name: the one appears to be merely a state of *P. vaporarius*; the other is a species of *Merulius*. See below under No. 500.
 - 469. P. INTERNUS, Schwein.!
- 471. P. RETICULATUS, Fr. This appears to be certainly *P. farinellus*, of which we have fine specimens from S. Carolina. It has not a byssoid margin, nor are the pores distant.
- *P. BRUNNEUS, Schwein.! New York. This appears to be the same with P. crocatus, Fr., which is very near to, if not identical with, P. cupreus, Berk.
 - 473. POROTHELEUM SUBTILE, Fr.
- 475. P. Pezizoides, Schwein.! This species differs from *P. fimbriatum* only in the absence of the marginal threadlike processes. There is a species in Hook. Herb. from Schweinitz marked *Boletus obliteratus*.
 - 476. Dædalea biennis, Fr. = Polyporus rufescens, Fr.
 - 480. DÆDALEA ABIETINA, = Lenzites abietina, Fr.
 - 481. D. TRABEA, = Lenzites trabea, Fr.
- 483. D. Pini, Fr. The specimens belong to *Lenzites sepiaria*, perhaps from an accidental change of the label.
 - 486. "D. AN GIBBOSA?"=Lenzites Berkeleii, Lev.
 - 490. D. ANGUSTATA, Fr.
 - 491. D. AUREA, β. FERRUGINEA—Lenzites sepiaria, var.
- 492. D. ZONATA, Schwein.! This is considered by Fries to be *D. variegata*. Our specimens are too imperfect to allow us to form any judgment on the point.
- 494. D. MERULIOIDES, Schwein. This is a *Paxillus*, but our notes upon the specimen are too meager to enable us now to recal the species.
- 495. MERULIUS TREMELLOSUS, Fr. The plant in Hook. Herb. from Schweinitz, under the name of *M. tremelloides*, seems nearer to *M. fugax*, of which we have very fine specimens from S. Carolina. It is accompanied by *Sclerotium rugulosum*, (No. 2436,) and therefore must be what Schweinitz intended. See that number.
- 496. M. STRIGOSO-ZONATUS, Schwein.! This is *Phlebia zonata*, B. & C., a very distinct species.

- 497. M. RUFUS, Fr.
- 498. M. SERPENS, Fr. Nearly destroyed, with no ruge. It looks like a Corticium.
- 499. M. CRISPATUS, Fr. This is clearly a form of M. corium. M. crispatus resembles Cantharellus crispatus.
- 500. M. PALLENS, Schwein.! Very nearly allied to M. corium. The specimens of Polyporus xylostromeus, Schwein.! strongly resemble this.
 - 501. M. FUGAX, Fr. Specimens destroyed.
 - 504. M. VASTATOR, Fr.=No. 497. M. vastator is a synonym of M. lacrymans.
 - 505. M. MOLLUSCUS, Fr. Specimens in bad condition.
- 506. M. HIMANTIOIDES, Fr. The specimens belong to M. Brassicæfolius, Schwein., a name not preserved in the Herbarium.
- 507. M. Porinoides, Fr. We have fine specimens of this species from Ohio. It occurs also in S. Carolina. Schweinitz' specimens are all but barren, and the slight trace of incipient folds indicates rather a state of M. Corium or M. serpens.
 - 511. Hydnum subsquamosum, Fr.
 - 514. H. RUFESCENS, P.
 - 517. H. CANUM, Schwein.!
 - 518. H. Delicatum, Schwein.! Nearly destroyed.
 - 519. H. COMPACTUM, Fr.
 - 521. H. FERRUGINEUM, Fr.
 - 522. H. CINEREUM, Fr.
 - 523. H. CYATHIFORME, Fr. (Hook. Herb.) Teeth white, slightly discolored.
- 524. H. CONNATUM, Schultz. The Schweinitzian specimens have not a shining stem, and do not seem to differ from *H. zonatum*, Batsch.
 - 526. H. CORIACEO-MEMBRANACEUM, Schwein.! A very singular and distinct species.
- 528. H. ADUSTUM, Schwein.! The specimens nearly destroyed; but the species is common and well ascertained.
 - 530. H. CORALLOIDES, Scop.
 - 537. H. STRIGOSUM, Sw.
 - 538. H. OCHRACEUM, P.
- 539. H. Rhois, Schwein.! The specimens indicate a true *Hydnum*, to which, perhaps, *H. flabelliforme*, Berk., is too near. That in Hook. Herb., if identical, has rather the structure of a *Polyporus*.

- 540. H. OLIVACEUM, Schwein.! The specimens belong to Irpex cinnamomeus.
- 541. H. MACRODON, P. The species of Persoon is but little known. The Schweinitzian specimens closely resemble *H. mucidum*.
- 542. H. MEMBRANACEUM, Fr. The Schweinitzian specimens are altogether different from the Friesian. In fact we do not find the species which they represent described, and therefore characterize it as follows: H. Schweinitzii, B. et C., papyraceum, album, a matrice omnino solubile; aculeis sparsis subulatis, basi abrupte dilatatis.
 - 543. H. FUSCO-ATRUM, Fr.
 - 544. H. FERRUGINOSUM, Fr.
- 545. H. MICRODON, P. The original plant is a subterranean species, altogether omitted in the Epicrisis. The fragments of the Schweinitzian plant before us seem to agree fully with *H. membranaceum*, Bull.
- 546. H. ALUTACEUM, Fr. This is very different from the plant of Fries, of which we have authentic specimens. It seems to be a young state of *H. udum*.
 - 547. H. FASCICULARE, A. and S.
- 548. H. MUCIDUM, P. Extremely different from authentic specimens. It appears to be the true *H. alutaceum*.
 - 550. H. OBTUSUM, Schrad. Very near to H. alutaceum. Unknown to Fries.
 - 551. H. CRUSTOSUM, Fr. Identical with No. 546.
 - 553: H. NIVEUM, P. Very near to H. farinaceum.
 - 554. H. SUBCARNACEUM, Fr.
 - 555. H. SULPHUREUM, Schwein.!
- 556. H. VITICOLA, Schwein! Fries considers this only a form of *H. mucidum*; but the specimens in Herb. Schwein. are totally distinct from that species. The spines are not connected at the base by any mucedinous matter.
- 557. H. SUBRESUPINATUM, Schwein.! Certainly not a good *Hydnum*; but our specimens are so devoured by insects that we can get no distinct notion of the species.
- 558. H. Himantia, Schwein.! A very beautiful species which we have also from Sweden, gathered by Lindblad.
 - 559. H. BYSSINUM, Schwein.!
- 560. H. EPIPHYLLUM, Schwein.! A curious species in the style of *H. ferruginosum*, with short granules rather than spines, and perhaps belonging to *Odontia* rather than to *Hydnum*.
 - 561. H. SQUALINUM, Fr. Our specimens are young and imperfect.

- 563. H. ARUGINOSUM, Schwein.! Apparently distinct, but our specimens are in a wretched condition.
 - 564. H. FIMBRIATUM, P.= Odontia fimbriata, Fr.
- 565. H. SPATHULATUM, Fr. Quite different from Schweinitz' specimens under this name in Hook. Herb. It appears to be some *Polyporus* with lacerated dissepiments.
- 566. H. QUERCINUM, Fr. This is perhaps Irpex obliquus, Fr., certainly not Radulum quercinum. Some states of I. obliquus are, however, very difficult to distinguish from Pol. vaporarius.
 - 569. H. STIPATUM, Fr.
- 570. H. CINNABARINUM, Schwein.! This is the same with Odontia albo-miniata, B. and C., and is only a peculiar condition of Pol. cinnabarinus.
 - 571. H. CROCEUM, Schwein.! A well marked species.
 - 572. H. LUTEO-PALLIDUM, Schwein.!
- 574. IRPEX PALEACEUS, Fr. This does not agree with the plant of Thore; it is rather *I. fusco-violaceus*.
- 575. I. FUSCO-VIOLACEUS, Fr. The specimens are merely a state of *Pol. pergameneus*, Fr., *P. stereoides*, Schwein.!
- 276. I. LACTEUS, Fr. Our specimens are in such a state that we can say nothing positive about them.
- 578. I. EPIPHYLLA, Schwein.! This is without any question *Pol. biformis*, Kl. We have collected specimens precisely similar extending from stumps over fallen leaves.
 - 579. I. TULIPIFERÆ, Schwein.!
- 580. I. FUSCESCENS, Schwein.!=I. cinnamomeus, Fr. The specimens of Hydnum olivaceum, Schwein.! are the same with this.
- 583. I. CERASI, Fr. = I. paradoxus, Fr. The pores, however, are more developed than in our authentic specimen, and the dissepiments thinner.
- 584. I. SPATHULATUS, Fr. We have no doubt that the specimens belong to *Pol.* vaporarius. Fries says of *I. spathulatus*, "nunquam porosus," which does not at all apply to the plant before us. Indeed there is no resemblance between it and a Swiss specimen from Trog.
 - 585. I. OBLIQUUS, Fr.
 - 586. I. DEFORMIS, Fr.
 - 587. I. NIVEUS, Schwein.! Fries considers this very near I. deformis.
 - 589. RADULUM ORBIGULARE, Fr. (Hook. Herb.)

- 590. R. MOLARE, Fr. This cannot be the true species. It appears more probably to be a state of *Kneiffia setigera*, but our specimens are in a very unsatisfactory condition.
 - 591. R. FAGINEUM, Fr.
 - 592. R. LETUM, Fr. Certainly not R. letum, but apparently a form of R. molarc.
- 593. R. Botrytes, Fr. Certainly not the plant of Fries. Whether a good species or not we can scarcely determine from our much decayed specimens.
 - 595. R. Pini Canadensis, Schwein.!
- 596. R. HYDNANS, Schwein.! Very nearly allied to *H. molare*, but brightly colored and with very short teeth.
- 597. R. INVESTIENS, Schwein.! Connecting Radulum and Corticium. It resembles indeed some states of C. læve.
 - 598. Phlebia mesenterica, Fr. Auricularia, Fr. Epier.
 - 600. P. RADIATA, Fr. Deeper colored than 602.
 - 601. P. VAGA, Fr.
 - 602. P. CINNABARINA, Schwein. != P. radiata, Fr.
 - 603. P. COCCINEO-FULVA, Schwein.!
- 604. P. HYDNOIDEA, Schwein.! A very singular Fungus, perhaps abnormal from being grown within a hollow trunk.
- 605. Thelephora Cantharella, Schwein.! A Craterellus. It was gathered in Ohio by Lea, and is Craterellus lateritius, Berk. in Herb.
- 606. T. PANNOSA, Fr. We have never seen the true plant of Persoon. The Schweinitzian specimens accord with the figure in some measure, but without authentic specimens it is very difficult to judge. They look like a mesopod form of *T. biennis*.
 - 607. T. REGULARIS, Schwein.! Resembles somewhat T. anthocephala.
 - 608. T. CARYOPHYLLMA, = T. laciniata, P.
 - 609. T. MULTIPARTITA, Schwein.! (Hook. Herb.) Very distinct.
 - 610. T. VIALIS, Schwein.! Very distinct.
 - 611. T. CORALLOIDES, Fr.
 - 612. T. PALMATA, Fr.
 - 613. T. TUBEROSA, Grev.
 - 614. T. FLABELLARIS, Fr.
- 616. T. FIMBRIATA, Schwein.! In Hook. Herb. is a very different thing resembling Corticium læve.

- 617. T. CANDIDA, Schwein.!
- 618. T. CLADONIA, Schwein.!
- 619. T. PALLIDA, Schwein.! Very common throughout the United States.
- 620. T. CÆSPITULANS, Schwein.!
- 621. T. CRISTATA, Fr. The American species is very different, and is perhaps only a state of *T. pallida*. Several of the Schweinitzian species have not occurred in the more recent investigations.
 - 623. T. SERRATA, P.
 - 624. T. Terrestris, = T. caryophyllæa, Fr.
- 625. T. LACINIATA, P. This has very little resemblance to the true plant, and is in fact the same with No. 627, T. biennis.
 - 627. T. BIENNIS, Fr.
 - 629. T. GAUSAPATA, Fr.
 - 630. T. ALBIDO-BRUNNEA, Schwein.!
 - 631. T. LUTOSA, Schwein.!
- 632. T. BICOLOR, P. (Hook. Herb.) In Herb. Schwein., this species is found under the name of *T. brunnescens*, from Indiana.
 - 633. T. RUBIGINOSA, Schrad.
 - 634. T. TABACINA, Fr.
- 635. T. CROCATA, Fr. This has not so deep a rhubarb tint as authentic specimens from Fries, but it differs from the two foregoing species, and is perhaps a form of that to which Schweinitz refers it.
- 636. T. LEPROSA, Fr. = T. Curtisii, Berk.; whether the same with T. leprosa, Fr., a Brazilian species, we are unable to say positively.
- 637. T. IMBRICATULA, Schwein.! This seems a distinct species and undescribed by modern authors, though some half dozen nearly allied forms are published.
- 638. T. ATRATA, Swartz. Authentic specimens, of which a figure may be seen in Annals of Nat. Hist., vol. X. tab. 11, are totally different. The plant of Schweinitz is very beautiful; but as the hymenium is not formed, it is impossible to describe it. We shall hope to have some future opportunity of making it generally known.
 - 639. T. VERSICOLOR, Swartz, var. fasciata, Schwein.! An extremely common

- species, of which we have numerous specimens. Schweinitz seems to have included *T. lobata*, Kze, which is common in the subtropical parts of the United States.
 - 640. T. SPADICEA, P. Only a variety of T. hirsuta.
 - 641. T. RUGOSA, P.
- 642. T. Styraciflua, Schwein.! Resembles, as Fries says, T. hirsuta; but the upper surface is smooth, or only obscurely silky, besides other characters.
- 643. T. HIRSUTA, Willd.; β . ramealis, Schwein.! = Stereum complicatum, Fr. Specimens marked T. Gatesii, in the Herbarium, are the same species.
- 644. T. OCHROLEUCA, Fr. Our specimens are so bad that it is difficult to say to what they belong; but they are certainly not the plant of Fries, of which we have an authentic specimen, and which occurs in various parts of the United States.
- 646. T. SANGUINOLENTA, A. and S. Rather thicker than British specimens, and approaching *T. spadicea*.
 - 647. T. STRIATA, Fr. Common throughout North America.
 - 648. T. GRISEA, Schwein. This was not found in the Herbarium.
- 649. T. OCHRACEO-FLAVA, Schwein.! A beautiful species, resembling in color Corticium ochraceum. Much paler than any form of Stereum hirsutum, and far less coriaceous.
 - 650. T. Subzonatum, Schwein. = Corticium subzonatum, Fr. Epier.
 - 651. T. CINERASCENS, Schwein.!
- 652. T. EVOLVENS, Fr. The specimens exhibit something very different from the authentic specimens of Fries. It is doubtful whether they are any thing more than Corticium lave.
- 654. T. SALICINA, Fr. We have never seen authentic specimens of this curious species, but there can be no doubt that the plant of Schweinitz is the same with that of Fries.
- 655. T. QUERCINA, P. It is scarcely possible that Schweinitz should not have been acquainted with this common European species. We have no specimen from Bethlehem. That from Florida is in too bad a state for determination, but is evidently something totally different, more, in point of fact, in the way of S. spadiceum.
- 657. T. ABIETINA, P. The specimens are not on the wood of any Conifer. They are very bad, but appear to belong to *T. papyrina*, Mont.
 - 658. T. RUFA, Fr. We have no authentic specimens, and cannot therefore say

whether the reference is right. The species, however, in the Schweinitzian Herbarium, if not belonging to that of Fries, which is very doubtful, is evidently distinct. It has no rufous tinge. The species, which has occurred in several localities, is marked in our collections *Corticium molle*, n. sp.

- 661. T. ALBOBADIA, Schwein.! The label has T. albomarginata erased upon it.
- 662. T. DISCIFORMIS, D. C. The specimens exhibit a resupinate disciform state of *T. quercina*. The true species occurs at least in Canada.
- 663. T. CANDIDISSIMA, Schwein.! (Hook. Herb.) marked T. candida. A beautiful and distinct species; = Stereum candidum, Fr.
 - 664. T. FRUSTULATA, Fr. (Hook. Herb.,) where it is marked Spharia.
- 665. T. PALLESCENS, Schwein.! Resembling Corticium lactescens, Berk., but strongly setulose, like C. giganteum, and very thick.
 - 666. T. INSINUANS, Schwein.! A distinct but coarse species.
- 667. T. AREOLATA, Fr. Except in color, this resembles Cort. polygonium. The true plant is much harder and more woody.
- 668. T. Helvelloides, Schwein.! The thick spongy substance of this species is very curious, reminding one of *Pol. obducens*. Though the hymenium looks like that of an *Helvella*, there are no asci.
- 669. T. SPONGIOSA, Schwein.! This seems rather to be a mycelium than an autonomous species. Fries has, however, probably seen better specimens.
 - 671. T. RETICULATA, Fr. See No. 703.
 - 672. T. BYSSOIDES, P. This appears to be the same with No. 700.
- 673. T. OLIVACEA, β . botryoides, Schwein.! Fries considers Schweinitz right in making this curious production a variety of *T. olivacea*. It is our *T. granosa*.
 - 674. T. Sistotremoides, = Odontia Sistotremoides, Fr. Epier.
 - 675. T. FERRUGINEA, P.
- 676. T. PUNICEA, A. and S. The specimens are not in the least reflexed; but we have no authentic example with which to compare them.
 - 677. T. RUBRO-PALLENS, Schwein.!
 - 679. T. COCCINEA, = Hypochnus rubrocinctus, Ehrb.
 - 680. T. LILACINA, Schwein.! Scarcely more than a form of Cort. cinereum.

- 681. T. CINNAMOMEA, P. Scarcely the plant of Persoon and Fries; apparently a resupinate form of Stereum rubiginosum.
- 682. T. PEDICELLATA, Schwein.! This grows on bark of living trees, and is probably not a true Fungus, but a state of some Lichen.
 - 685. T. STRIGOSA, P. A mere mycelium; omitted by Fries in the Epicrisis.
 - 686. T. VIOLASCENS, Fr. Not the true species, but closely resembling Cort. cinercum.
- 687. T. ATROVIRENS, Fr. Similar specimens occur in England, but we have never seen a perfect hymenium.
 - 688. T. CERULEA, Schrad. In Hook. Herb., under the name of T. indigo, Schwein.
 - 690. T. SULPHUREA, Fr. With a perfect hymenium.
 - 691. T. VITICOLA, Schwein.! (Hook. Herb.)
- 692. T. LACTEA, Fr. Very different from the true plant. Probably only a state of Cort. Sambuci.
- 694. T. ANTHOCHROA, Fr. With the true plant is mixed up an obscure white species which appears to be a form of *Cort. calceum*.
- 695. T. ODORATA, Fr. Very different from authentic specimens. The original name *T. alutacea*, ought to be retained for the species, for it seems distinct. It is a *Corticium*.
- 696. T. SETIGERA, Fr. The plant of Fries now forms the genus *Kneiffia*. The plant of Schweinitz is either a blanched state of *Corticium velutinum* or distinct. The only difference, however, is one of color.
- 697. T. BOMBYCINA, Sommf. (T. sera of Syn. Car.) It is a well developed state of Cort. sulphureum and is marked by Schweinitz Coniophora sulphurea.
- 698. T. PAPILLOSA, Fr. This is not a *Grandinia*, for there is not the slightest appearance of granules. It is perhaps only a form of *Cort. læve*.
- 699. T. GIGANTEA, Fr. Very doubtful. It is in fact the same with T. viscosa from Mauch Chunk, which is so marked by Schwein. in Herb.
 - 700. T. INCRUSTANS, P. (T. sebacea, Fr.)
- 701. T. CALCEA, Fr. Not the plant of Fries. Far more nearly allied to Stereum acerinum, a form of which is very common in Carolina on trunks of Cedar.
 - 702. T. PUBERA, Fr. Beautiful specimens of this have been received from Ohio.

The hymenium is not setulose, and Schweinitz was right at first in thinking it distinct. It is, we believe, the same with *Cort. Auberianum*, Mont.

- 703. T. MOLLIS, Fr. Identical with No. 871, which should be referred here.
- 704. T. ALNEA, Fr.
- 705. T. OCHRACEA, Fr.
- 707. T. GRANULOSA, P. This again is no Grandinia, and is probably merely a form of Cort. lave, or possibly of C. incarnatum.
 - 709. T. SERIALIS, Fr. Very doubtful.
- 710. T. LIVIDA, P. This is not the same with authentic species from Fries. It appears to be a resupinate state of *Cort. quercinum*.
 - 711. T. VISCOSA, P.
 - 712. T. CONFLUENS, Fr. Merely a form of Cort. læve.
- 713. T. COMEDENS, Nees. If the specimens are named correctly, the hymenium is much more developed than in European individuals; but we have scarcely sufficient materials to determine what is the habit of Schweinitz' plant.
 - 714. T. INCARNATA, Fr. Color very slightly developed.
- 715. T. NUDA, Fr. Certainly not the true plant. It resembles much more thicker conditions of *Cort. cinereum*, such as are often found on Ash twigs.
 - 716. T. CINEREA, Fr.
- 717. T. ALBIDO-CARNEA, Schwein.! A very distinct species with the substance yellowish. Our *Cort. chrysocreas* is a more highly developed form.
 - 718. T. POLYGONIA, P.
 - 719. T. RIBESIA, Fr. Scarcely a distinct species; apparently Cort. incarnatum.
 - 720. T. ACERINA, Fr. Not the true plant; appears to be Cort. calceum.
 - 721. T. CORRUGATA, Fr.
- 722. T. LÆVIGATA, Fr. The difference between this and No. 681 is very slight. It is very doubtful whether it is what Fries intends. It does not appear to take its origin beneath the cuticle like *Cort. comedens*, which is essential to the species.
 - 723. T. EPISPHŒRIA, Schwein.!
 - 724. T. MAGULÆFORMIS, Fr.
 - 725. T. BUFONIA, P.

726. T. AMPHIBOLIA, Fr.

727. T. EPIDERMEA, P.

The following should be added to No. 374:-

There is in the Hookerian Herbarium a species from Schweinitz marked Sistotrema velutinum, and we have the same from Prof. Torrey's collection of Schweinitzian Fungi marked Polyporus velutinus, which is probably the plant intended under No. 374. It does not, however, accord with numerous authentic specimens from Fries, and we propose for it the name of Pol. Richardsonii, as it occurs in his collections from the higher northern regions of America.

P. RICHARDSONII, n. sp.; pileo reniformi disco tantum affixo, subtiliter depressotomentoso ruguloso leviter zonato albido; poris parvis.

A few species from Surinam were overlooked in our Exotic Fungi, which are here appended:—

Cantharellus Spathularia, Schwein.! MSS. = Guepinia Spathularia, Fr.

C. Surinamensis, Schwein.! MSS.= Cladoderris dendritica, P.

"Schizophyllum ramosum (novum)," Schwein. MSS.=a multipartite L. commune.

CLAVARIA ADMIRABILIS, Schwein.! MSS. is the same as the preceding.

POLYPORUS SANGUINEUS, Fr.

The following very beautiful species was confounded in our Exotic Fungi, No. 4, (Journ. Acad. Nat. Sc., ii. p. 278) with *P. modestus*, Kze., which, however, is very near to *P. affinis*, if the specimen in Weigelt's *Exsiccata* is rightly named:

Polyporus cervino-nitens, Schwein.! MSS. pileo flabelliformi tenui radiato-rugoso plicatove ligneo-coriaceo sublobato cervino-fulvo zonis crebris obscurioribus sericeo-striato; hymenio contextuque subconcoloribus dilutioribus; poris minimis. Surinam.

Pileus flabelliform, 2 inches high, above 2 inches broad, thin, of a hard coriaceous substance, slightly lobed, attenuated behind into an obscure stem, radiato-rugose or plicate, sericeo-striate, of a bright tawny fawn-color, approaching to brick-red, with narrow darker zones, margin very thin. Substance and the bordered hymenium paler, pores punctiform, very minute.

The following should be inserted in its place, No. 408:-

408. P. MICROPORUS. Florida. Gathered by Le Conte. The same species was sent to Sir W. J. Hooker under the name of *P. Floridanus*. The pores are superficial and punctiform, and the whole plant resembles strongly such productions as *P. byrsinus*, Mont., which is, we believe, only a state of *P. occidentalis*, Kl.