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OUTLINES
OF
BRITISH FUNGOLOGY.

SUPPLEMENT.

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OF
BRITISH FUNGOGY.

SUPPLEMENT.

BY

WORTHINGTON G. SMITH,

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AUTHOR OF "DISEASES OF FIELD AND GARDEN CROPS," ETC.



LONDON :

L. REEVE & CO., HENRIETTA STREET, COVENT GARDEN
1891.

P R E F A C E.

THIRTY years have passed since the first edition of the *Outlines of British Fungology* was published. During this time the species of fungi known to be British have more than doubled in number. Not only new species, but many new genera of fungi have been added to the British lists. Mr. Berkeley, in the first edition of this work, was only able to partially avail himself of Fries' writings. In 1876 Fries published his latest work on the higher fungi, or Hymenomycetes, under the name of *Hymenomycetes Europæi sive Epicriseos Systematis Mycologici*. In that work Fries reviewed the whole family, added several new sub-genera to the genus *Agaricus*, as well as new genera elsewhere, and abolished as spurious several genera originally established, and incorporated by Mr. Berkeley in his *Outlines*.

The additions and alterations being so extensive, the publishers determined upon the issue of a new edition, which should bring the record of the larger fungi up to the present state of knowledge, and the first idea was to publish a supplement with the names and descriptions of the new British species. On making this attempt, it was found to be thoroughly impracticable, owing to name alterations and to the re-arrangement of many groups of

species by Fries, and their transference sometimes to other sub-genera or even genera. As the number of new British species was found to exceed the number of the old, it was decided to make the supplementary part of the new edition include the names of the whole of the British species of Hymenomycetes. The species as given in the first edition of the *Outlines* are not re-described in this volume, but the page at which the description may be found in the first volume is given after the name. This plan has furnished the opportunity of adding the diameter of the pileus to the descriptions of nearly all the Hymenomycetes. This addition is most necessary, as one of the first facts a beginner wishes to acquaint himself with is the size of the fungus described. A few species of fungi vary greatly in superficies, but the majority have an average size.

Another addition, which it is hoped will be found of value, especially to London students, is the marking of all the species hitherto found in Epping Forest.

The new descriptions have been made as short as possible, according to Mr. Berkeley's original plan. Fries has described nearly all his species three, four, or more times, and the longest descriptions are in his *Monographia Hymenomycetum Sueciæ* and *Hymenomycetes Europæi*. The descriptions of Fries' species in the present volume have been condensed from the two works just quoted. It has not been thought necessary to repeat generic, sub-generic, and sectional characters in the specific descriptions. For instance, if "gills decurrent" is found as a sub-generic or sectional character, it must be understood that this character applies to every species in the sub-genus or section which follows, unless otherwise pointed out in the specific description. The generic and sub-generic charac-

ters, as given by Mr. Berkeley, are not repeated in the present volume, but the page at which the description may be found in Vol. I. is in every instance given. The characters of all new genera and sub-genera are given in full, and the minor sectional characters as given in the present volume will be found to aid greatly in the determination of species; in fact, as Vol. II. contains more specific descriptions than Vol. I., as well as a complete list of all the higher fungi recorded for Britain up to date, it is obvious that Vol. II. should be used for the determination of species and Vol. I. as a supplement.

The following is the sequence of the sixty-three genera of Hymenomycetes, as given in the present volume:—

- | | |
|--------------------|------------------|
| 1. Agaricus. | 26. Daedalca. |
| 2. Montagnites. | 27. Hexagonia. |
| 3. Coprinus. | 28. Favolus. |
| 4. Bolbitius. | 29. Merulius. |
| 5. Cortinarius. | 30. Porothelium. |
| 6. Gomphidius. | 31. Solenia. |
| 7. Paxillus. | 32. Hydnnum. |
| 8. Hygrophorus. | 33. Hericium. |
| 9. Lactarius. | 34. Tremellodon. |
| 10. Russula. | 35. Sistotrema. |
| 11. Cantharellus. | 36. Irpex. |
| 12. Arrhenia. | 37. Radulum. |
| 13. Nyctalis. | 38. Phlebia. |
| 14. Marasmius. | 39. Grandinia. |
| 15. Lentinus. | 40. Odontia. |
| 16. Panus. | 41. Kneiffia. |
| 17. Xerotus. | 42. Mucronella. |
| 18. Trogia. | 43. Craterellus. |
| 19. Schizophyllum. | 44. Thelephora. |
| 20. Lenzites. | 45. Cladoderris. |
| 21. Boletus. | 46. Stereum. |
| 22. Strobilomyces. | 47. Auricularia. |
| 23. Fistulina. | 48. Corticium. |
| 24. Polyporus. | 49. Cyphella. |
| 25. Trametes. | 50. Sparassis. |

- | | |
|------------------|-----------------|
| 51. Clavaria. | 58. Exidia. |
| 52. Calocera. | 59. Hirneola. |
| 53. Pterula. | 60. Femsjonia. |
| 54. Typhula. | 61. Nematelia. |
| 55. Pistillaria. | 62. Guepinia. |
| 56. Microcera. | 63. Dacrymyces. |
| 57. Tremella. | |

The forty-one sub-genera of *Agaricus* follow each other in the following order :—

Series 1.—LEUCOSPORI.

White spores.

1. Amanita.
2. Amanitopsis.
3. Lepiota.
4. Schulzeria.
5. Hiatula.
6. Armillaria.
7. Tricholoma.
8. Clitocybe.
9. Collybia.
10. Mycena.
11. Omphalia.
12. Pleurotus.

Series 2.—HYPORHODII.

Rosy spores.

13. Volvaria.
14. Annularia.
15. Pluteus.
16. Entoloma.
17. Clitopilus.
18. Leptonia.
19. Nolanea.
20. Eccilia.
21. Cladopus.

Series 3.—DERMINI.

Brown spores.

22. Acetabularia.
23. Togaria.
24. Pluteolus.
25. Pholiota.
26. Inocybe.
27. Hebeloma.
28. Flammula.
29. Naucoria
30. Galera.
31. Tubaria.
32. Crepidotus.

Series 4.—PRATELLÆ.

Purple spores.

33. Chitonia.
34. Psalliota.
35. Pilosace.
36. Stropharia.
37. Hypholoma.
38. Psilocybe.
39. Psathyra.

Series 5.—COPRINARII.

Black spores.

40. Panæolus.
41. Psathyrella.

Amongst the new sub-genera of *Agaricus*, *Hiatula*, p. 11, is placed in this work amongst the white-spored

Agarics, between *Lepiota* and *Armillaria*. This sub-genus is elevated to a genus and placed next to *Coprinus* by Dr. M. C. Cooke, in the new edition of his *Handbook of British Fungi* (now in course of publication in *Grevillea*), and by the Rev. John Stevenson in his *British Fungi—Hymenomycetes*. Both authors seem to have overlooked the later views of Fries, the founder of the section *Hiatula*, as published in the *Transactions of the Woolhope Club*, 1870 (p. 179). Fries there says: “The space in the series *Leucospori*, left vacant between 2 and 3” (*Lepiota* and *Armillaria*—analogous with *Pluteus* and *Pilosace*), “is very well filled by the sub-genus *Hiatula*, described in my work *Nov. Sym. Myc.* Of this genus there are numerous tropical species, and two are found growing in our hot-houses on the stems of orchids. They have been found growing in a similar situation at Amsterdam.” Fries was obviously right in his later determination, as *Hiatula* agrees exactly in structure and habit with *Pluteus*, *Pluteolus*, and *Pilosace*.

Amongst the rosy-spored Agarics, the sub-genus *Eccilia*, unknown as British when the first edition of the *Outlines* was published, is now represented by nine species. The sub-genus *Clandopus* contains three species, removed from *Crepidotus*, the spores being rosy, and not truly brown.

Amongst the brown-spored Agarics, five sub-genera have been added since the publication of the *Outlines*. The first is *Acetabularia*, which corresponds with *Amanita* and *Volvaria*; the next is *Togaria*, which corresponds with *Lepiota* and the non-British *Annularia*. *Togaria* was suggested by Fries, whose words, published in the *Trans. Woolhope Club*, 1870 (p. 179), are “*Agaricus aureus* occupies in the series *Dermini* the space between *Lepiota* and *Psalliota*, which would readily maintain the type of

its sub-genus *Togaria*. But," adds Fries, "I am unwilling to found a new sub-genus from a single species." *A. aureus* is, however, not the only species which agrees with *Lepiota* and *Psalliota*; all the first eight terrestrial species of *Pholiota* rightly belong to *Togaria*. *Pluteolus* corresponds with *Hiatula* and *Pluteus*. Fries, Cooke, and Stevenson have misplaced this sub-genus in putting it next to *Galera*; it should, as its structure and habit show, be placed between *Togaria* and *Pholiota*, in the position of *Hiatula* amongst the white-spored, and *Pluteus* among the rosy-spored Agarics. *Inocybe* was formerly included in *Hebeloma*. *Tubaria* contains species formerly included in *Nancoria* and *Galera*. Amongst the purple-spored Agarics, the sub-genera *Chitonia* and *Pilosace* are new since the publication of the *Outlines*. *Stropharia* was formerly included in *Psalliota*.

It has not been thought desirable to make more extensive alterations in sequence or the establishment of new genera in the present volume. Nearly all the descriptive work is that of Elias Fries, and this new edition of Berkeley's *Outlines* fairly represents Fries' views and conclusions at the time of his death.

As Mr. Berkeley's original work gives descriptions of all the larger British fungi, including puff-balls, truffles, pezizæ, &c., the recent additions to the lists of these fungi have been made good in the present volume.

No references to published illustrations of fungi are given to the first 1388 species—*i.e.*, to the end of *Agaricini* at p. 273—as nearly all these fungi are illustrated in colour in *Illustrations of British Fungi* by Dr. M. C. Cooke. For the succeeding species, references to published plates are given.

Two hundred and fifty-five excellent, life-size, coloured models of a select number of the higher fungi, made by the late Mr. James Sowerby, are exhibited in the public gallery of the Department of Botany at the British Museum—Natural History—South Kensington. These models are arranged in botanical sequence, and may be consulted with advantage. The Cryptogamic Department of the British Museum also possesses a collection of water-colour drawings illustrative of the higher fungi; these drawings are many hundreds in number; each illustration has been prepared from a typical living example. The drawings are supplied with sections and other details, and, like the models, are arranged in botanical sequence. By permission of the Keeper of the Botanical Collections, the drawings may be examined and studied.

The following summary of the number of British species of *Hymenomycetes* at present known will show the great advance in their number since 1860. In the *Outlines* Mr. Berkeley described 877 species. In Dr. Cooke's *Hand-book*, published in 1871, 1044 species are described. In 1886, Mr. Stevenson, in his *British Fungi—Hymenomycetes*, has enumerated 1673 species; whilst in the present volume no less than 1919 species are recorded. A large number of varietal forms new to Britain are also described. The non-hymenomycetal fungi described in this volume have increased in number in a similar proportion.

In the preparation of this supplemental volume, use has been made not only of Fries' and other original works, but of Messrs. Berkeley and Broome's contributions to the *Annals and Magazine of Natural History*; to the Rev. John Stevenson's *British Fungi—Hymenomycetes*; to Dr. M. C. Cooke's revision of his *Handbook of British Fungi*, as pub-

lished, in *Grevillea*, to the end of the *Agaricini*; and to *British Discomycetes* by Mr. William Phillips.

Dr. Cooke's revision of the *Polyporei*, as recently published in *Grevillea*, Vol. XIII., is at present too imperfect for incorporation in a Handbook, and Mr. Massec's monograph of the *Thelephoreæ*, as published in the *Journal of the Linnean Society*, was not far enough advanced for its study and incorporation in this volume at the time of going to press.

WORTHINGTON G. SMITH.

DUNSTABLE, 1891.

ERRATA.

- Page 3, line 10, *for Sow. read Sm.*
Page 3, line 30, *and*
Page 4, lines 3 and 11, *for Amanita read Amanitopsis.*
Page 25, line 4, *for miliaris read militaris.*
Page 25, line 23, *for cinerasceus read cincrascens.*
Page 87, line 8, *for sericius read sericeus.*
Page 113, line 28, *for asterospermus read asterosporus.*
Page 149, line 5, *for sylvaticus read silvaticus.*
Page 226, line 23, *for Genus 7 read Genus 8.*
Page 230, line 12, *for carpinus read caprinus.*
Page 238, line 21, *for hysignis read hysginus.*
Page 289, line 25, *for pallascens read pallescens.*
Page 295, line 10, *for obduceus read obduscens.*
Page 311, line 30, *for aterrimum read aterrimum.*

BRITISH FUNGOLOGY.

SUPPLEMENT.

FAMILY I.—HYMENOMYCETES.

ORDER 1. AGARICINI.

GENUS 1. AGARICUS, L.

Series 1. LEUCOSPORI.—*Spores white.*

Subgenus 1. AMANITA (p. 89).—All growing on the ground.
Ring manifest, superior.

* *Volva splitting at the top, border free, persistent.*

1. A. (*Amanita*) *vilosus*, Fr.; white; pileus 3–4 in., at first conical and acute, naked, viscous in wet weather, margin even; flesh white, unchangeable; stem stuffed, almost solid, base bulbous, springing from a lax, wide, thick volva; ring apical, splitting into floccose fragments; gills free, thin, linear-lanceolate, broader in front, crowded, floccose at the edge.

In woods, uncommon. Fœtid, poisonous.

2. A. (*Amanita*) *phalloides*, Fr. (p. 89); 3–4 in. Epping Forest.

3. A. (*Amanita*) *vernus*, Bull. (p. 89); 3–4 in. Epping Forest.

4. A. (*Amanita*) *mappa*, *Batsch.* (p. 90); 2-3 in. Epping Forest.

** *Volva* splitting regularly all round, base marginate, persistent; pileus clothed with thick warts.

5. A. (*Amanita*) *muscarius*, *L.* (p. 90); 4 in. Epping Forest.

Var. *regalis*; twice as large as type; stem solid when young; pileus bay-brown or the colour of cooked liver.

Var. *formosa*; pileus lemon-yellow, warts yellowish.

Var. *umbrina*; pileus umber, then livid, disc fuscous.

6. A. (*Amanita*) *pantherinus*, *DC.* (p. 90); 4 in. Epping Forest.

7. A. (*Amanita*) *excelsus*, *Fr.* (p. 91); 4-5 in. Epping Forest.

8. A. (*Amanita*) *strobiliformis*, *Vitt.* (p. 90); 8-9 in.

9. A. (*Amanita*) *solitarius*, *Bull.*; pileus convex, then flattened, pelliculose, margin nearly even, warts angular, evanescent; stem solid, equal, imbricatedly squamose below, bulb campanulate, rooting, margin inserted, ring torn; gills attenuatedly adnate.

On the ground, near Bristol,

*** *Volva* friable, broken up into small scales or warts.

10. A. (*Amanita*) *rubescens*, *Pers.* (p. 90); 4 in. Epping Forest.

11. A. (*Amanita*) *spissus*, *Fr.*; pileus 3 in., umber, fuliginous or grey, fleshy, compact, smooth, clothed with small, cinereous, angular, adnate warts; flesh firm, white, unchangeable; stem bulbous, bulb globoso-depressed, not marginate; ring superior, large; gills reaching the stem, slightly striato-decurrent, broad, crowded, shining white.

In mixed woods, uncommon. Epping Forest.

12. A. (*Amanita*) *nitidus*, *Fr.*; pileus 4 in., without a viscous pellicle, whitish, sometimes yellowish or greenish, fleshy, somewhat compact, at first hemispherical, the thick volva forming a floccose crust, then broken up into thick, angular, adhering warts which become fuscous; flesh white, unchangeable; stem solid, conico-attenuated, squamulose, base bulbous; ring superior, thin, white, at length disappearing.

In woods. Epping Forest.

13. A. (*Amanita*) *asper*, *P.* (p. 91); 2 in.

**** *Volva rudimentary, flocculose, disappearing.*

14. A. (*Amanita*) *magnificus*, *Fr.*; pileus 3 in., whitish, livid, pallid reddish-tan, thin, usually naked or sprinkled with irregularly placed floccose spots; flesh white, changing when broken to tawny; stem stuffed with a distinct pith, at length hollow, equal, no bulb or veil at base, becoming reddish-white when dry; ring superior; gills adnate, ventricose, broad, with a decurrent tooth.

In woods of fir, and under beeches.

15. A. (*Amanita*) *megalodactylus*, *B.* and *Br.* (p. 91); 3½ in.

16. A. (*Amanita*) *lenticularis*, *Lasch.*; pileus 3–4 in., colour fleshy-tan or yellowish; fleshy, globose when young, even, smooth, moist; flesh soft, spongy, white; stem elongated, slightly bulbous, solid, spongy-soft, squamulose; ring superior, large, distant from pileus; gills free, ventricose, crowded, whitish, sometimes inclining to olivaceous.

In mixed plantations. Coed Coch. Odour mouldy.

Subgenus 2. AMANITOPSIS.—Ring obliterated or wanting.

17. A. (*Amanita*) *vaginatus*, *Bull.* (p. 91); 2–5 in. Epping Forest.

Var. nivalis, *Grev.*, white. Epping Forest.

18. **A.** (*Amanita*) *strangulatus*, *Fr.*; pileus 3–4 in. livid, date-brown, becoming pale, fleshy, smooth, viscid, covered with broad brown patches, margin striate, then sulcate; stem stuffed, at length hollow, closely sheathed at the base by the circularly split volva; obliterated ring inferior; gills free, crowded, ventricose, shining white.

In woods. Local. Epping Forest.

= *A. Ceciliae*, *B.* and *Br.* (p. 92).

19. **A.** (*Amanita*) *adnatus*, *Sow.*; pileus 3 in., pale buff-yellow, fleshy, firm, smooth, somewhat moist, buff beneath the cuticle, margin extending beyond the gills; stem stuffed, at length hollow, pale buff, fibrillose; ring none; volva lax, adnate or almost obsolete, white, pubescent, remaining in woolly patches on the pileus; gills adnate, crowded, white.

In woody places, among oak and holly. Uncommon.

Subgenus 3. LEPIOTA (p. 92).

A. Epidermis dry.

* **PROCERI.**—Ring movable, distinct from the volva.

20. **A.** (*Lepiota*) *procerus*, *Scop.* (p. 92); 4–8 in. Epping Forest.

21. **A.** (*Lepiota*) *rachodes*, *Vitt.* (p. 92); 4–8 in. Epping Forest.

Var. puellaris, *Fr.*; half the size of the type, shining white, pileus floccoso-squamose.

22. **A.** (*Lepiota*) *excoriatus*, *Schäff.* (p. 92); 3 in. Epping Forest.

23. **A.** (*Lepiota*) *gracilentus*, *Kromb.* (p. 93); 4 in.

24. **A.** (*Lepiota*) *mastoideus*, *Fr.* (p. 93); 2 in.

** CLYPEOLARI. — *Ring fixed, homogeneous with the universal veil which clothes the stem.*

25. A. (*Lepiota*) *Friesii*, *Lasch*; pileus 6 in., ferruginous-fuscous, fleshy, soft, torn into adpressed, tomentose scales; stem hollow with arachnoid pith, somewhat bulbous, scaly; ring superior, pendulous, equal; gills somewhat remote, linear, crowded, branched.

On sawdust. King's Lynn. Odour heavy.

26. A. (*Lepiota*) *acutesquamosus*, *Weinm.* (p. 93); 4–5 in. Epping Forest.

27. A. (*Lepiota*) *Badhami*, *B.* and *Br.* (p. 93); 2–4 in.

28. A. (*Lepiota*) *emplastrum*, *Cke.* and *Mass.*; gregarious; pileus 2–3 in., silky, pallid, covered at first with a smooth, membranaceous, dark-brown cuticle which splits up into large adherent patches or scales, margin smooth, naked; stem equal, fibrillose, fistulose, girt by a superior erect ring with a marginal brown band; flesh turning pink when cut; gills crowded, free, remote, narrowed behind, leaving a broad collar round stem.

Among moss in a churchyard. Ealing. Taste and smell none. Somewhat resembling *A. Badhami*, but scales smooth and spores larger.

29. A. (*Lepiota*) *meleagris*, *Sow.* = A. (*Tricholoma*) *meleagris*, *Sow.* (p. 101); pileus 2 in., fawn-coloured, fleshy, thin, at first ovate or hemispherical, then expanded, somewhat campanulate, very obtuse, minutely tomentose and warty, dotted with minute brown scales; flesh turning red; stem stuffed with cottony threads, fusiform, then nearly equal, of same colour, here and there tinged with yellow, minutely squamulose; ring soon ruptured, fugacious; gills remote, distant, rounded behind, somewhat connected, white.

In hot-houses on spent tan, Rare.

30. A. (*Lepiota*) *biornatus*, *B. and Br.*; pileus 2 in., fleshy, convex, broadly campanulate, white, silky, sprinkled with dark-red punctiform scales; flesh white, or slightly yellow; stem stuffed, then hollow, attenuated at base, rooting, spotted with red, reddish within; ring descending, spotted at edge; gills approximate, ventricose, broad, white; whole plant becoming dark in drying.

In melon frame.

31. A. (*Lepiota*) *hispidus*, *Lasch*; pileus 2-3 in., umber-fuscous, fleshy, soft, hemispherical, then expanded umbonate, at first tomentose, the down separating into scales; flesh thin, white, unchangeable; stem attenuated upwards, tubular, stuffed with fibrils, densely woolly-scaly; ring fuscous, superior, membranaceous, reflexed; gills free, approximate, with a collar encircling the stem, crowded ventricose, simple, white.

In woods, chiefly among pines, rare.

32. A. (*Lepiota*) *clypeolarius*, *Bull.* (p. 94); 2-3 in.

Var. felinus, *Fr.*; smaller than type, pileus white, umbo and scales becoming black, stem attenuated upwards, same colour as pileus; gills crowded, white, margin serrate.

On the ground. Kew.

33. A. (*Lepiota*) *metulæsporus*, *B. and Br.*; pileus 1 in., white, rather fleshy, campanulate, sulcate, with small pallid scales, margin appendiculate; stem stuffed, equal or slightly clavate, pallid lemon-colour within; gills approximate, ventricose, broad, white.

34. A. (*Lepiota*) *cristatus*, *A. and S.* (p. 94); 1-1½ in. Epping Forest.

35. A. (*Lepiota*) *ermineus*, *Fr.*; pileus 2-2½ in., white, slightly fleshy, campanulate, then flattened, the deeper

coloured disc slightly gibbous, dry, smooth, becoming even, silky-fibrillose towards the margin; flesh soft, white; stem fistulose, equal, fragile, dry, somewhat fibrillose; ring membranous, at length torn and fugacious; gills free, reaching the stem, obtuse at both ends, somewhat crowded, broad, shining white; gregarious.

Grassy places in woods, etc. Coed Coch, etc. Inodorous, with taste of radish.

*** ANNULOSI.—*Ring superior, fixed, somewhat persistent, universal veil adnate to the pileus.*

36. A. (*Lepiota*) Vittadini, *Fr.* (p. 94); 5 in.

37. A. (*Lepiota*) holosericeus, *Fr.*; pileus 3 in., whitish or clay-white, fleshy, soft, rather plane, floccoso-silky, somewhat fibrillose, becoming even, disc of the same colour, margin involute when young; flesh soft, white; stem solid, bulbous, soft, fragile, silky-fibrillose, whitish; ring superior, membranaceous, large, soft, pendulous with margin ascending; gills free, broad, ventricose, becoming whitish.

In moist woods and gardens, Kew, Staplehurst. Inodorous; esculent.

38. A. (*Lepiota*) naucinus, *Fr.* (p. 94); 1-1½ in.

39. A. (*Lepiota*) cepæstipes, *Sow.* (p. 95); 1 in.

40. A. (*Lepiota*) liemophorus, *B. and Br.*; pileus 1 in., lemon-yellow, membranaceous, plane, depressed, deeply sulcate, margin crenate; stem fistulose, slender, attenuated upwards, lemon-yellow, tomentose at the base; ring median; gills remote, slightly arched, distant, interstices veined, shining white.

In hothouses.

**** GRANULOSI.—*Universal veil sheathing the stem, and at first extending continuously from the stem to the pileus, but at length ruptured and forming an inferior ring.*

41. A. (*Lepiota*) *earcharias*, *P.*; pileus $1\frac{1}{2}$ in., flesh-coloured, fleshy, convex, then plane, umboonate, granulose; stem stuffed, then hollow, somewhat bulbous, squamulose, same colour as pileus; gills adnexed, shining white.

On grass, under firs. Epping Forest.

42. A. (*Lepiota*) *cinnabarinus*, *A. and S.*; pileus 2–3 in., cinnabar colour, fleshy, soon flattened, granuloso-furfuraceous, fimbriate at margin; flesh pallid; stem stuffed, somewhat bulbous, red-scaly below the inferior ring; gills free, lanceolate, white.

Fir woods.

Var. Terreii B. and Br.; pileus 1–2 in., bright tawny, somewhat hemispherical, pulverulent, rough with warts; stem somewhat equal, often cylindrical, furfuraceous-scaly, same colour as pileus below the ring; ring at length torn; gills remote, narrow, white, unbranched.

On sandy ground, Forres, etc.

43. A. (*Lepiota*) *granulosus*, *Batsch* (p. 95); 2 in. Epping Forest.

Var. rufescens, B. and Br.

At first pure white, then partially turning red, in drying entirely rufous.

44. A. (*Lepiota*) *amianthinus*, *Scop.*; pileus $1-1\frac{1}{2}$ in., ochraceous, somewhat fleshy, convex then plane, somewhat umboonate, furfuraceo-granulose, flesh yellow; stem equal, slender, squamulose; ring fugacious; gills adnate, crowded, white, then pale yellow.

Var. Broadwoodiae, B. and Br.; pileus yellow, hemispherical, delicately tomentose, margin inflexed; stem equal

and as well as the ring furfuraceous with squamules; gills adnate, sometimes decurrent, shining white.

45. A. (*Lepiota*) *polystictus* B. (p. 95); 1½ in.

***** MESOMORPHI.—*Small, slender, stem fistulose, pileus dry, cuticle entire.*

46. A. (*Lepiota*) *sistratus*, Fr.; pileus 1–1½ in., pruiniate, whitish, often darker at the disc, slightly fleshy, turning pale yellowish or flesh colour; flesh thin, soft, fragile, whitish; stem slightly stuffed with fine fibrils, equal, white, silky-fibrillose and pruiniate; ring fibrillose, torn, fibrillose round margin of pileus, fugacious; gills free, reaching the stem, crowded, broad, white.

On sandy ground. Forres.

47. A. (*Lepiota*) *seminudus*, Lasch; pileus whitish or flesh-colour, slightly fleshy, umbonate, floccoso-mealy, at length naked, appendiculate at margin with the torn veil; stem mealy; gills reaching the stem, thin, white.

In woods, etc. King's Lynn, etc.

48. A. (*Lepiota*) *Bucknallii*, B. and Br.; pileus 1 in., white, sprinkled with lilac-coloured dust; stem dilated at base, sprinkled like pileus; gills scarcely reaching the stem, white.

On the ground, Bristol. Odour strong of gas tar.

49. A. (*Lepiota*) *mesomorphus*, Bull.; pileus 1 in., whitish or yellow, slightly fleshy, very thin, naked, dry, even, smooth; stem slightly attenuated upwards, even, smooth, same colour as pileus; ring continuous with cuticle of pileus and stem, at first entire, spreading; gills free, crowded, ventricose, white.

On the ground in woods. Hereford, etc.

50. A. (*Lepiota*) *martialis*, Cke. and Mass.; pileus 1 in., thin, rather fleshy, silky, pulverulent, campanulate,

then expanded, dark fleshy red with a tinge of ochre, darkest in the centre, margin striate; stem slender, fistulose, rufous and swollen at the base, ochraceous at apex, with a broad, pendulous, rather distant ring; gills free, somewhat lanceolate, rather crowded, whitish.

On tree fern in conservatory, Scarborough.

51. A. (*Lepiota*) *ianthinus*, Cke.; pileus $\frac{3}{4}$ in., rather fleshy, umbonate, whitish at the even margin, disc dark violet, fibrillose, rest of pileus streaked with innate radiating, violet, hair-like squamules, stem slender, somewhat flexuous, nearly equal, whitish, soon hollow, girt about the middle with a narrow deciduous ring; gills free, lanceolate, scarcely crowded, whitish.

In stove. Kew.

52. A. (*Lepiota*) *micropholis*, B. and Br.; pileus $\frac{1}{2}$ in., conical, then flattened, white, clad with minute, radiating, dark cinereous squamules, margin substriate, stem flexuous, nearly equal, white; ring erect, spreading; gills white, ventricose, crowded, free.

On cocoa-nut fibre in a stove. Scarborough.

B. Cuticle of pileus viscous, continuous.

53. A. (*Lepiota*) *medullatus*, Fr.; pileus $1\frac{1}{2}$ - $2\frac{1}{2}$ in., white, disc sometimes grey, slightly fleshy, umbonate, even, smooth, soft; flesh watery; stem hollow, with separable outer coat, firm, equal, fragile, dry, silky, squamulose below the veil, striate at apex; ring incomplete, torn, appendiculate at margin of pileus; gills free, broader in front, ventricose, crowded, shining white.

In fir woods. Rare. Glamis. Odour of radish.

54. A. (*Lepiota*) *gloiodermus*, Fr. (p. 95); $1\frac{1}{2}$ in.

55. A. (*Lepiota*) *delicatus*, Fr.; pileus $\frac{1}{2}$ in., rufescent or becoming yellow, slightly fleshy, somewhat umbonate,

smooth ; stem fistulose, equal, dry, floccoso-scaly and tomentose ; gills free, crowded, thin, ventricose, shining white.

About old stumps. Powerscourt. Taste like *Polyporus squamosus*.

56. A. (*Lepiota*) *illinitus*, Fr. ; pileus $1\frac{1}{2}$ -3 in., white, with fuscous umbo, slightly fleshy, smooth, soft, fragile, slightly striate at margin ; stem stuffed, then hollow, equal, cylindrical, fragile, glutinous ; gills free, at length remote, crowded, somewhat connected by veins, shining white.

In woods. Penzance.

57. A. (*Lepiota*) *Georginæ*, Sm. ; pileus $\frac{1}{2}$ -1 in., white, slightly fleshy, fragile, covered with a minute, dense, viscid pruinosity, which, as well as the white flesh, instantly changes to crimson when touched ; margin at length striate ; stem slightly attenuated upwards, viscid-pruinose, changing to crimson when touched ; ring evanescent ; gills free, thin, somewhat ventricose, white, edge becoming crimson when touched.

On mosses in a cool fernery. Chelsea.

Subgenus 4. *SCHULZERIA*.—*Hymenophorum* distinct from the stem, without volva or ring. Equal to *Lepiota* without a ring.

No British representatives.

Subgenus 5. *HIATULA*.—Pileus very thin, without distinct pellicle, formed from the union of the back of the gills, splitting and veliform when expanded, as in very thin species of *Coprinus*, but not deliquescent.

58. A. (*Hiatula*) *Wynniæ*, B. and Br. ; pileus $1\frac{1}{2}$ in., shining white, tender, striate, pulverulent, darker in the centre ; stem slender, striate ; gills rather broad, rough.

In a stove. Kew.

Stem 1 in. high, 1 line thick. One specimen became darker in drying, and had a longer and thicker stem.

Subgenus 6. *ARMILLARIA* (p. 96).

* *TRICHOLOMATA SUBANNULATA*.—*Gills sinuato-adnexed, stem fleshy, similar in substance with the pileus.*

59. *A. (Armillaria) bulbiger*, *A. and S.*; pileus 3-4 in., pale yellowish brick-colour, fleshy, not compact, moist, slightly squamuloso-fibrillose, then smooth; stem stuffed, rarely hollow, terminated at the base by a globose marginate bulb; external cuticle pale, separable, marked with longitudinal fibrils; ring adhering loosely, oblique, fugacious, white; gills broadly emarginate, somewhat crowded, at length distant, broad, white, then approaching colour of pileus.

In pine woods, Hereford, etc.

60. *A. (Armillaria) focalis*, *Fr.*; pileus 4-5 in., fleshy, compact at disc, dry, slightly shining, not squamulose; cuticle tawny brick-colour, even, but silky-fibrillose; flesh soft, thick at disc, slightly tawny-pallid; stem fleshy-solid, fibrous, elastic, equal, not bulbous; ring medial, oblique, gills emarginato-free, crowded, narrow, white.

On bare ground under old laurels. Coed Coch.

Var. Goliath, *Fr.*; pileus 8 in., very fleshy, much thinned out towards revolute margin, moist, brown at disc, margin torn into fibres where colour is paler, flesh white, elastic; stem fibrous-solid, commonly decumbent from weight of pileus, equal or attenuato-rooting at base, becoming tawny with fibrils downwards; ring medial, fugacious; gills rounded, free, very broad and ventricose, rather thick crowded, white. Odour mealy.

61. *A. (Armillaria) robustus*, *A. and S.*; pileus brown, very fleshy, dry, smooth, scaly-fibrillose towards margin; flesh hard, stem obesc, solid, compact, attenuated at base,

fibrillose below the inferior, large, floccose ring, white and flocculose at apex; gills broadly emarginate, almost free, broad, crowded, whitish.

In woods. Rare. Smell like that of *Polyporus squamosus*.

62. A. (*Armillaria*) *ramentaceus*, *Bull* (p. 96); 2–3 in.

63. A. (*Armillaria*) *haemataites*, *B.* and *Br.*; pileus 1 in., red liver-colour, hemispherical, dry, slightly hispid; stem same colour as pileus, solid, thickened downwards; ring spongy, scaly beneath; gills broad, shortly decurrent.

Among fir leaves. Glamis.

64. A. (*Armillaria*) *Jasonis*, *Cke.* and *Mass.*; cæspitose; pileus 3 in., rather fleshy, especially at disc, campanulate, then expanded with a rounded umbo, granuloso-papillate, golden yellow, becoming reddish at apex; stem nearly equal, or a little thickened below, same colour, hollow, squamulose below the torn, squarrose, rather distant, ring; gills adnate, scarcely crowded, thin, white, then pallid.

On stumps. Carlisle.

65. A. (*Armillaria*) *constrictus*, *Fr.* (p. 96); 2 in. Epping Forest.

** CLITOCYBE ANNULATÆ. *Gills attenuated behind, more or less decurrent, without a sinus.*

66. A. (*Armillaria*) *melleus*, *Fl. Dan.* (p. 96); 3–6 in. Epping Forest.

67. A. (*Armillaria*) *subcavus*, *Schum.*; pileus 2 in., white, umbo brown, somewhat membranaceous, viscous, striate to the middle; stem fistulose upwards, equal, slightly dotted, ring white, inferior, torn; gills plane, decurrent, white.

On the ground. Cirencester.

*** COLLYBINE ANNULATE.—*Gills equal behind, stem externally somewhat cartilaginous.*

68. A. (*Armillaria*) *mucidus*, Schrad.; 1–6 in. Epping Forest.

Subgenus 7. TRICHOLOMA (p. 97).

Series A.—*Pileus viscous, fibrillose, scaly, or pubescent, not watery-moist or becoming even, stem fibrillose.*

1. LIMACINA.—*Cuticle of pileus viscid when moist, innately fibrillose or squamose, not lacerated.*

* *Gills not changing colour.*

69. A. (*Tricholoma*) *equestris*, Linn. (p. 97); 3–5 in.

70. A. (*Tricholoma*) *sejunctus*, Sow. (p. 97); 3 in. Epping Forest.

71. A. (*Tricholoma*) *portentosus*, Fr. (p. 97); 3–5 in. Epping Forest.

72. A. (*Tricholoma*) *fucatus*, Fr. (p. 97); 2–3 in.

73. A. (*Tricholoma*) *quinquepartitus*, Fr.; pileus 3 in., pallid, light yellow, fleshy, thin at circumference, repand, smooth, not streaked, fragile; somewhat hygrophanous; stem commonly attenuated from base to apex, solid, fleshy, striate, smooth, white; gills emarginate, broad, white.

Amongst pine leaves. Rare. Odour none, taste mild.

74. A. (*Tricholoma*) *resplendens*, Fr.; wholly shining silvery-white, pileus 2–4 in., fleshy, not compact, smooth, disc becoming yellow; stem solid, fleshy, stout, smooth, equal or bulbous; gills almost free when young, then emarginate, somewhat crowded, rather thick, but thin at the edge, entire, equally attenuated in front.

In woods, beech, &c. Frequent. Epping Forest.

75. A. *Tricholoma spermaticus*, Fr. (p. 98); 5 in.

** Gills changing colour, commonly with reddish spots.

76. A. (*Trichiloma*) *colossus*, *Fr.*; pileus 8 in., brick colour, the whitish margin involute, hemispherical, at length plano-depressed, broken up into scales, slightly viscid round margin in wet weather; flesh hard, dry, and fibrous, turning to a flesh-brick-red colour when broken; stem solid, oblique, two coloured, compact, base ovato-bulbous, apex constricted, shining white; gills rounded-free, at first narrow, crowded and white, then broader, more distant and pallid, brick-red.

Under firs and elms. Taunton. Odour strong like cheese.

77. A. (*Tricholoma*) *nictitans*, *Fr.* (p. 98); 2 in. Epping Forest.

78. A. (*Tricholoma*) *fulvellus*, *Fr.* (p. 98); 1-2 in. Epping Forest.

79. A. (*Tricholoma*) *flavo-brunneus*, *Fr.* (p. 98); 3-6 in. Epping Forest.

80. A. (*Tricholoma*) *albo-brunneus*, *Pers.* (p. 98); 3 in. Epping Forest.

81. A. (*Tricholoma*) *ustalis*, *Fr.*; pileus 3 in., brown-rufous, fleshy, not compact, at first umbonate, then plane, even, smooth, unstreaked, slightly dotted at the disc; flesh white, becoming here and there red where broken; stem stuffed, then hollow, equal, somewhat rooted, dry, fibrillose, whitish or rufescent, not mealy at apex; gills emarginate, with a small decurrent tooth, crowded, rather broad, at length rufescent.

In woods, chiefly pine. Rare. Odourless. Epping Forest.

82. A. (*Tricholoma*) *pessundatus*, *Fr.*; pileus bay-

brown or rufescent, paler or whitish at circumference, compactly fleshy, obtuse, flexuous, smooth, unstreaked, granulate or guttato-spotted, viscid, margin bent in; stem solid, hard, at first in the form of a bulb, villous with whitish squamules, then somewhat equal, rather smooth, white; gills deeply emarginate, somewhat free, crowded, at first very narrow, shining white, then broader and rufescent.

In fir woods, chiefly pine. Rare. Said to be edible.

83. A. (*Tricholoma*) *stans*, Fr.; pileus rufescent, compact, viscid, even, not granulated or spotted; flesh reddish under the cuticle; stem solid, somewhat equal, squamu-louse; gills rounded, white, spotted red.

There are two forms, *campestris* and *montana*, the first with a short stem and broad pileus, growing in deciduous groves, the second with elongated stem and smaller pileus growing in mountainous pine woods.

Coed Coch, etc.

84. A. (*Tricholoma*) *russula*, Schäff.; pileus 3–4 in., fleshy, convex, then depressed, obtuse, granulate, viscid, rosy flesh-colour; stem solid, firm, nearly equal, rosy, squamulose at apex; gills rounded then decurrent, rather distant, white, a little spotted with red.

Under trees. Kew. Taste mild.

85. A. (*Tricholoma*) *frumentaceus*, Fr.; pileus 2–3 in., whitish or clay-colour and variegated rufous, fleshy, viscous, dry in fine weather, even, smooth; flesh white; stem solid, equal, fibrillose when dry, whitish; gills rounded, somewhat crowded, rather broad, at length rufous-spotted.

Has all the appearance of an *Entoloma*, see the plant described by Berkeley, *A. (Entoloma) frumentaceus*.—Bull. p. 144, No. 222.

On the ground.

II. GENUINA.—*Cuticle of pileus never viscid, but lacerated into scaly flocci or fibrils.*

* *Gills not changing colour, or marked with rufous or black spots.*

86. A. (*Tricholoma*) *rutilans*, Schæff. (p. 99); 2–4 in.
Epping Forest.

87. A. (*Tricholoma*) *variegatus*, Scop.; pileus 2–4 in., fleshy, at length flattened, obsoletely umbonate, fragile, sprinkled with purple-reddish flocci; flesh whitish, then pallid light-yellow; stem stuffed, curved, sometimes bulbous, almost naked, or variegated with thin reddish-villous down, yellowish white; gills rounded, crowded, thin, pale whitish-yellow, edge always entire, acute, and same colour.

On rotten wood. Epping Forest.

88. A. (*Tricholoma*) *luridus*, Schæff. (p. 99).

89. A. (*Tricholoma*) *guttatus*, Schæff.; somewhat cæspitose, pileus 3–5 in., cinnamon or pale yellowish, fleshy, dry, broken up into granular or floccose squamules, margin sulcate, at first involute, white-floccose; flesh firm, white; gills emarginate, decurrent in the form of lines, crowded, white.

In woods. Downton. Odour and taste bitter-acrid.

90. A. (*Tricholoma*) *columbetta*, Fr. (p. 99); 2–4 in.
Epping Forest.

91. A. (*Tricholoma*) *sculpturatus*, Fr. (p. 101); 2–3 in.
Epping Forest.

Var. argyraceous, Bull.; more slender and graceful than the typical form, with narrower and more crowded gills.

In grassy places.

Var. virescens, Whar.; similar to last, but turning yellowish-green in all parts when bruised or in drying.

** *Gills rufescent or becoming cinereous, the edge commonly marked with rufous or red spots.*

92. A. (*Tricholoma*) *imbricatus*, *Fr.* (p. 99); 3 in.
Epping Forest.

93. A. (*Tricholoma*) *vaccinus*, *Pers.* (p. 100); 1-2 in.
Epping Forest.

94. A. (*Tricholoma*) *immundus*, *Berk.*; cæspitose;
pileus 2 in., dirty-white, stained with bistre, fleshy, minutely
silky, margin inflexed, silky or minutely scabrous and
squamułose; stem fibrillose, same colour as pileus; gills
emarginate, marked with transverse lines, somewhat cinereous
with a pinkish tinge. Every part blackish when bruised.

Among short grass on sheep's dung. Rare.

95. A. (*Tricholoma*) *gausapatus*, *Fr.*; pileus 2-3 in.,
grey, cinereous, fleshy, somewhat thin, bullate, margin
tomentose, bent-in, then repand; stem solid, stout, equal,
laxly-fibrillose, shining white, furnished with a cortina;
gills emarginate, free, crowded, broad, grey.

In grassy woods. Epping Forest. Mild, inodorous.

96. A. (*Tricholoma*) *terreus*, *Schæff.* (p. 100); 1½-3 in.

Var. argyraceus, *Bull.*; gills, and commonly pileus
shining white.

Epping Forest.

Var. atrosquamosus, *Chev.*; pileus furnished with black
squamules, stem with black squamułose points at apex.

Var. orirubens, *Quel.*; stem streaked with rose at the
base.

III. RIGIDA.—*Cuticle of pileus rigid, punctato-granulate or broken into short squamules in drying.*

* *Gills white or becoming pale, not rufescent or becoming cinereous or spotted.*

97. A. (*Tricholoma*) *macrorhizus*, *Lasch*; pileus 8 in. ochraceous, compact, even, smooth, then broken up in a tessellated manner; stem solid, stout, whitish, then ochraceous, delicately granulated; root thick, fleshy, blunt; gills emarginate, pallid.

On the ground. King's Lynn. Odour very powerful.

98. A. (*Tricholoma*) *saponaceus*, *Fr.* (p. 101); 2–4 in. Epping Forest.

Var. squamosus, *Cke.*; stem squamose.

99. A. (*Tricholoma*) *meleagris*, *Sow.* (p. 101). Now placed in *Lepiota*, No. 29.

100. A. (*Tricholoma*) *cartilagineus*, *Bull.* (p. 101); 2–3 in.

101. A. (*Tricholoma*) *loricatus*, *Fr.*; pileus 1–2 in., livid-fuscous or umber, paler at margin, slightly fleshy, undulated or sinuato-lobed, moist, smooth, punctato-rugulose under a lens, clothed with a thick, horny, fuscous cuticle; stem fleshy-fibrous, tough, somewhat hollow, twisted, irregular, rooted, brick-fuscous or fibrilloso-striate under a lens; gills free, separable from the hymenophore, crowded, ventricose, entire, whitish-straw colour.

In mixed woods. Glamis. Odour strong, unpleasant.

102. A. (*Tricholoma*) *atrocinereus*, *Pers.*; pileus $1\frac{1}{2}$ in., cinereous, the prominent disc darker, fleshy, at first even, then rimosely incised, revolute at margin, fragile; stem stuffed, internally soft, hyaline when moist, equal, slightly striate; gills free, or decurrent with a tooth or arcuato-adnexed, ventricose, thin, crowded, hyaline, white.

On grassy ground. Hothorpe, etc.

103. A. (Tricholoma) *cuneifolius*, Fr. (p. 102); $\frac{1}{2}$ -1 in.
Epping Forest.

Var. griseo-rimosus, Batsch; larger than type; pileus concentrically rimose; gills broad, somewhat distant.

In grassy places. Kew.

** *Gills changing colour, rufescent, or becoming cinereous or spotted.*

104. A. (Tricholoma) *crassifolius*, B. (p. 100); 2-4 in.

105. A. (Tricholoma) *tumidus*, P.; pileus 3 in., cinereous-livid, variegated with spots, fleshy, irregular, undulate, bullate, at length rimosely incised, shining when dry, margin thin; flesh white; stem solid, stout, fleshy, fibrous, striate, shining white, often attenuated into a root at base; gills emarginate, thick at the base, somewhat distant, shining white, at length cinereous-rufescent.

In moist pine woods. Coed Cech, etc.

Var. Keithii, Phill. and Plow.; pileus cinereo-rufescent; stem dirty white with innate brownish fibres, tinged with red at base.

In pine woods. Forres.

106. A. (Tricholoma) *murinaceus*, Bull. (p. 100);
 $4\frac{1}{2}$ in.

107. A. (Tricholoma) *virgatus*, Fr.; pileus grey-cinereous, umbo often darker, rigid, dry, even in rainy weather, streaked with fine black lines, broken into squamules when old; flesh thin, cinereous-whitish; stem solid, firm, equal or tuberous at base, striate, smooth or squamulose, whitish, white within; gills broadly emarginate, crowded, at length hoary.

In mixed woods. Forres, etc. Inodorous; taste bitter like gall when young.

Var. Major; pileus black, squamulose, scales separating.

In beech woods.

iv. SERICELLA.—*Pileus at first slightly silky, soon smooth and dry.*

* *Gills broad, rather thick, somewhat distant; strong scented.*

108. A. (*Tricholoma*) sulphureus, *Bull.* (p. 102); $\frac{1}{2}$ —4 in.

109. A. (*Tricholoma*) bufonius, *Pers.* (p. 102).

110. A. (*Tricholoma*) lascivus, *Fr.* (p. 102); 2 in.

Var. robustus, *Cke.*; more robust than type; pileus almost white; scarcely any odour.

111. A. (*Tricholoma*) inamœnus, *Fr.* (p. 102); 1—2 in.

** *Small and inodorous; gills thin, crowded, narrow.*

112. A. (*Tricholoma*) cerinus, *Pers.*; pileus 1— $1\frac{1}{2}$ in., dingy yellowish wax-colour, or becoming fuscous, fleshy, convex, at length depressed, opaque, dry, even, becoming smooth; flesh thin, firm, white; stem stuffed, equal, fibrilloso-striate, yellow, base sometimes fuscous; gills sinuato-adnexed, separating, horizontal, very thin, crowded, dark yellow or wax colour.

On lawns. Associated with pines.

113. A. (*Tricholoma*) fallax, *Peck.*; pileus 1 in., firm, convex, expanded, rarely depressed in centre, moist, smooth, yellow, stuffed, then hollow, sometimes attenuated at base; gills rounded behind, crowded, white, then yellowish.

Under firs. Scarborough.

114. A. (*Tricholoma*) ionides, *Bull.* (p. 103); pileus

2 in., violet, lilac, fuscous-purple or reddish-livid, becoming paler with age.

King's Cliffe, etc.

Var. pravus, *Lasch*; smaller, thinner, and more fragile than type; gills eroded, white, pulverulent.

In a stove.

115. A. (*Tricholoma*) *carneus*, *Bull.* (p. 103); 1 in. Epping Forest.

116. A. (*Tricholoma*) *cælatus*, *Fr.*; pileus 1 in., fuscous, pale grey when dry, slightly fleshy, umbilicate, smooth when fresh, flocculose or rimosely scarred when dry; stem tough, elastic, stuffed or hollow, equal or slightly thickened upwards, fuscous, obsoletely pruinate at apex; gills sinuato-adnate with a small decurrent tooth, crowded, slightly arcuate, dingy-whitish or grey.

In woods. Charmy Down, etc.

Series B.—*Pileus even, smooth, not villous, scaly or viscous, moist in rainy weather; flesh watery and hygrophanous.*

v. GUTTATA.—*Pileus fleshy, fragile, spotted as if by drops, or rivulose, stem solid. Often vernal, growing in troops or cespitose, often in rings, fragrant.*

* *Gills whitish.*

117. A. (*Tricholoma*) *gambosus*, *Fr.* (p. 104); 3–4 in. Epping Forest.

118. A. (*Tricholoma*) *monstrosus*, *Sow.* (p. 104); see *Clitocybe*, No. 177.

119. A. (*Tricholoma*) *albellus*, *Fr.* (p. 104); 3 in.

** *Gills changing colour, rufescent or fuliginous.*

120. A. (*Tricholoma*) *amethystinus*, *Scop.*; pileus fleshy, repand, smooth, even, moist, spotted azure-blue, or

bluish-violet; margin wrinkled, paler; stem solid, curt, attenuated at base; gills somewhat adnate, crowded, white, then rufescent.

In pine woods. Glamis. Sept.

121. A. (*Tricholoma*) *tigrinus*, Schæff.; pileus 2 in., pallid brown, variegated with darker spots, fleshy, at length repand; flesh thick, firm, white, thin at involute margin; stem compact, solid, obese, pruinose, white; gills rounded behind, at length decurrent with a tooth, crowded, narrow, white, at length darker.

Under firs and on open grassy ground. June to July.

122. A. (*Tricholoma*) *pes-capræ*, Fr.; pileus fleshy, conical then expanded, umbonate, fragile, unequal, grey then dusky, smooth, margin cracked, at length splitting; stem solid, equal or attenuated at base, smooth; gills emarginate, smooth, crowded, then rather distant, white, then cinereous.

Var. multiformis, Schæff.; cæspitose, sometimes confluent at base, margin involute, entire.

Under trees. Kew.

VI. SPONGIOSA.—*Pileus compact, then spongy, obtuse, even, smooth, not hygrophanous; gills spuriously (sinuately) decurrent. Appearing late in the year, growing in troops.*

* *Gills not changing colour.*

123. A. (*Tricholoma*) *Schumacheri*, Fr.; pileus 3 in., cinereous-livid, fleshy, compact, convex, then flattened, regular, well-formed, smooth, moist in rainy weather, margin (which exceeds the gills) inflexed; flesh white; stem solid, stout, equal, villous and sometimes ventricoso-bulbous at base, slightly striate, white, externally fibrous; gills emarginate, plane, crowded, white.

In a hothouse. Apethorpe.

124. A. (*Tricholoma*) *patulus*, *Fr.*; pileus 2½–4 in., pallid-cinereous to pale yellowish, fleshy, firm, often repand; flesh moderately thin, not compact, white; stem fleshy-fibrous, solid, firm, equal, somewhat elastic, smooth, shining white; gills emarginate, almost free, crowded, rather narrow, somewhat veined at the sides, whitish.

On the ground. Reigate. Oct.

125. A. (*Tricholoma*) *arcuatus*, *Bull.*; pileus 2–3 in., rufous-fuscous, becoming pale, disc blackish, soft, moist, smooth; flesh coloured; stem solid, firm, fibrillose-squamulose, blackish downwards, bulbous; gills arcuate-adnate, decurrent with a tooth, somewhat undulated, fragile, crowded, white.

On grassy ground. St. Andrews, etc.

126. A. (*Tricholoma*) *oreinus*, *Fr.*; pileus 1 in., fuscous-livid, fleshy, compact, even, smooth, margin thin, not exceeding the gills; flesh white; stem solid, thickened at base, at length ochraceous, white-squamulose at apex, internally fibrillose; gills rounded then free, crowded, plane, white.

On heath and open ground. King's Cliffe.

127. A. (*Tricholoma*) *albus*, *Schæff.* (p. 105); 3–4 in.

128. A. (*Tricholoma*) *leucocephalus*, *Fr.*; pileus 1½ in., white, with no tinge of yellow, thin, tough, even, moist, smooth, when young covered with whitish silky villous down; margin acute; stem hollow, twisted, fleshy fibrous, somewhat cartilaginous, polished externally, rooted at the attenuated solid base; gills rounded, free, crowded, thin, entire, shining white.

In woods, among leaves. Bowood, Wilts.

** *Gills changing colour.*

129. A. (*Tricholoma*) *acerbus*, *Bull.* (p. 105); 3–4 in. Epping Forest.

130. A. (*Tricholoma*) *miliaris*, *Lasch*; pileus 4–7 in., cinnamon colour, floccose white at the involute margin, then plane or depressed, compact, flexuous, smooth, viscous; stem solid, squamulose, fibrillose, pallid, somewhat bulbous at the base, with thick radical fibrils; gills emarginate, somewhat crowded, whitish, at length livid-spotted, torn.

In woods. Glamis. Odour and taste unpleasant.

131. A. (*Tricholoma*) *civilis*, *Fr.*; pileus 3 in., pale yellowish, disc darker, not streaked, fleshy, soft, fragile, smooth, moist with a separable pellicle; flesh whitish; stem solid, soft, fragile, attenuated upwards from the thickened base, fibrillose or squamulose, whitish; gills deeply emarginate, almost free, crowded, soft, white, becoming translucent yellowish, unspotted.

In pine woods. On the ground. Epping Forest.

132. A. (*Tricholoma*) *personatus*, *Fr.* (p. 105); 3–6 in. Epping Forest.

133. A. (*Tricholoma*) *nudus*, *Bull.* (p. 105); 3 in. Epping Forest.

134. A. (*Tricholoma*), *cinerasceus*, *Bull.* p. (106); 2–3 in.

135. A. (*Tricholoma*) *panæolus*, *Fr.*; pileus 3 in., cinereous-fuliginous, variegated grey, pruinose, with a marbled appearance, often guttate, fleshy, firm, at length plane or depressed, or repand and excentric; flesh spongy, white when dry; stem solid, tough, elastic, externally fibrous, smooth, naked, whitish-grey; gills emarginate or rounded, somewhat decurrent when the pileus is

depressed, crowded, entire, plane, white, then grey or dingy, rufescent.

In grassy places. Street. Odour none.

136. A. (*Tricholoma*) *duracinus*, *Cke.*; pileus 3 in., fleshy, compact, firm, dry, smooth, shining, convex, broadly umbonate, cinereous; margin involute; stem solid, attenuated upwards, striate below, reticulato-squamose above, rather paler than the pileus; flesh nearly white; gills narrow, crowded, emarginate, arcuate, cinereous.

On the ground, under cedar. Kew.

VII. HYGROPHANA.—*Pileus thin, regular, umbonate, flesh soft, hygrophanous.*

* *Gills whitish, unspotted.*

137. A. (*Tricholoma*) *grammopodius*, *Bull.* (p. 106); 3–6 in. Epping Forest.

138. A. (*Tricholoma*) *melaleucus*, *P.* (p. 106); 1½–3 in.

Var. porphyroleucus, *Bull.*; firmer; pileus fleshy, fuliginous or fuscous, then rufescent, with a darker and vanishing umbo; stem solid, somewhat fibrillose, elongated, or curt; gills white.

139. A. (*Tricholoma*) *brevipes*, *Bull.*; pileus 2 in., umber, then becoming pale, fleshy, soft, even, smooth, moist, opaque when dry; flesh of pileus fuscous when moist, white when dry; stem solid, rigid, at length fibrous, pruinate at the apex, externally and internally fuscous; sometimes very short, attenuated downwards, equal or bulbous; gills emarginato-free, crowded, ventricose, disappearing short of the margin, entire, fuscous, then whitish.

In plantations, fields, etc. Said to be esculent. June to October.

140. A. (*Tricholoma*) *humulis*, *Fr.* (p. 106); 2–3 in.

Var. *blandus*, *B.*; pileus thin, pulverulent, grey-lilac; stem slender, sub-fibrilloso-rimose, rather bulbous, base brown; gills broad, rounded behind and nearly free, white.

Plantations and roadsides.

141. A. (*Tricholoma*) *exscissus*, *Fr.*; pileus 1 in., mouse-colour or fuscous-cinereous, not changing colour when dry, smooth, shining, at length plane with a prominent umbo; flesh thin, white; stem solid, thin, equal, polished, white; gills emarginate, crowded, linear, shining-white.

In pastures. Cromer. May.

142. A. (*Tricholoma*) *subpulverulentus*, *Pers.* (p. 107); 1½ in. Epping Forest.

** *Gills becoming violaceous, grey, fuliginous.*

143. A. (*Tricholoma*) *sordidus*, *Fr.*; pileus 1–3 in. livid lilac, becoming violet-fuscous or violet flesh-colour, changing colour to dirty fuscous when old, somewhat fleshy, at length plane or depressed, somewhat umbonate, smooth; margin when full-grown slightly striate; stem stuffed, pliant, commonly thickened at base, somewhat incurved, fibrilloso-striate, same colour as pileus; gills at first rounded, then sinuato-decurrent, somewhat crowded, at length distant, violaceous, then pale or fuliginous.

On dung, etc. Great Elm, Somerset. Epping Forest.

144. A. (*Tricholoma*) *pætidus*, *Fr.*; pileus 1½ in., mouse-coloured, fuliginous, flaccid, umbonate, at length depressed round the prominent umbo, moist, streaked with iunate fibrils, margin naked, flesh thin, tough, becoming white; stem stuffed, externally somewhat cartilaginous, internally fibrous, slightly bulbous, tough, somewhat striate,

naked, dingy-grey ; gills somewhat sinuate, with a small decurrent tooth, crowded, narrow, whitish, then grey.

In grassy places and woods. Abergaveuny, etc.

145. A. (*Tricholoma*) *lixivius*, Fr.; pileus 2-3 in., cinereous-fuscous, umber, slightly fleshy, umbonate, umbo vanishing, never depressed, even, smooth, with a flattened, membranaceous, at length slightly striate margin, sometimes sinuous ; stem stuffed, then hollow, compressed, often fibrous, flexuous, fragile, cinereous, at first white-floccos-pruinose ; gills rounded-adnexed, almost free, distant, soft, sometimes crisped, attenuated from stem to margin, grey.

In pine woods. Ascot. November.

146. A. (*Tricholoma*) *putidus*, Fr.; pileus 1 in., somewhat olivaceous-grey, hoary when dry, hygrophanous, slightly fleshy, even, umbonate, soft ; margin straight ; stem hollow, equal, somewhat compressed, soft, somewhat fragile, striate, slightly pruinose ; gills almost free, slightly adnexed to top of cone, crowded, ventricose, cinereous.

In fir woods. Jedburgh, etc. October to November. Odour strong, rancid.

Subgenus 8. CLITOCYBE (p. 107).

Series A.—*Pileus fleshy, turning pale when dry, not hygrophanous.*

1. DISCIFORMES.—*Pileus disc-shaped, convex, then plane or depressed, regular; gills at first adnate or regularly adnato-decurrent.*

* *Pileus cinereous or fuscous.*

147. A. (*Clitocybe*) *nebularis*, Batsch. (p. 107); 3-5 in. Epping Forest.

148. A. (*Clitocybe*) *clavipes*, P.; pileus $1\frac{1}{2}$ -2 in., fuscous, fuliginous, cinereous-livid, generally whitish at margin,

fleshy, soon plane, almost obconical, smooth, dry; flesh lax, white, thin towards margin; stem conical, solid, internally spongy, somewhat fibrillose, fuliginous-livid; gills deeply decurrent, somewhat distant, flaccid, entire, broad, white, but varying yellowish.

In woods. Common. Epping Forest.

149. A. (*Clitocybe*) *gangrænosus*, Fr.; pileus at first whitish, pulverulent, occasionally greenish, becoming livid, fleshy, variegated or streaked, at length jet black; flesh becoming black or variegated with black; stem solid, spongy, somewhat bulbous, soft, striate, curved, sometimes eccentric; gills somewhat decurrent, arcuate, crowded, dingy white.

In woods. Rare. Odour fetid.

Var. nigrescens, Lasch; pileus thin, subumbonate, sometimes depressed; stem tomentose.

In larch plantations. Odour rather sweet according to Dr. Cooke; taste unpleasant.

150. A. (*Clitocybe*) *inornatus*, Sow. (p. 108); 3 in.

151. A. (*Clitocybe*) *hirneolus*, Fr.; gregarious; pileus $\frac{1}{2}$ in., hoary, slightly fleshy, at length depressed in the centre and umbilicate, even, slightly shining, moist, involute margin very thin; flesh white; stem slender, not cartilaginous, elastic, equal, flexuous, grey, smooth, white pruinose at apex, internally flocculose, stuffed; gills somewhat decurrent, crowded, thin, rather broad, whitish grey.

Amongst moss. Coed Coch.

152. A. (*Clitocybe*) *xygophyllus*, Cke. and Mass.; pileus 2-4 in., rather fleshy, convex, then expanded, disc depressed, hygrophanous, tough, flaccid, pallid, with a greyish tint when moist, ochraceous white when dry; margin thin, at first involute, rugose, or plicate, as if pinched up at regular intervals; stem equal, stuffed, spongy, white expanding

into the pileus, even, smooth, with a thin white tomentum at base; gills deeply decurrent, rather distant, distinctly connected by veins, cinereous.

Among leaves. Swarraton, Hants.

** *Pileus violaceous, rufescens.*

153. A. (*Clitocybe*) *cyanophæus*, Fr.; pileus 3-4 in., becoming azure-blue-fuscous, compact, at length plane, smooth; stem attenuated upwards, robust, solid, smooth; azure-blue when young, violaceous, then pale.

Var. *Pengellei*, *B. and Br.*; smaller than type.

154. A. (*Clitocybe*) *amarus*, Fr.; pileus 2-3 in., rufescent, whitish fuscous or becoming fuscous, then pale, whitish, fleshy, pliant, at length flattened, dry, at first fibrilloso-silky, then smooth, rivulose, margin at first involute, thin, sometimes unequal and repand; flesh compact, white; stem white, stuffed, tough, firm, equal, at first fibrillose, then smooth, white-tomentose at base; gills adnato-decurrent, crowded, thin, entire, becoming pale-white.

In woody places. Holm Lacy. Taste very bitter.

155. A. (*Clitocybe*) *socialis*, Fr.; densely gregarious; pileus 1 in., pale yellowish with a reddish tinge, fleshy, acutely umbonate, even, smooth, dry, flesh moderately thin, white; stem solid, fibrous, smooth, reddish, the rooting base hairy.

Amongst fir leaves. Downton, Hereford.

*** *Pileus becoming yellow.*

156. A. (*Clitocybe*) *amarella*, P.; pileus pale yellowish or pallid fawn-colour, fleshy, somewhat umbonate, smooth; stem solid, compact, tough, equal, white-villous at base;

gills somewhat decurrent, crowded, pallid-grey, paler than pileus, somewhat shining, here and there dichotomous.

In woods. Coed Coch. Smell that of prussic acid, taste very bitter.

157. A. (*Clitocybe*) *vernicosus*, Fr. (p. 108); 2 in.

158. A. (*Clitocybe*) *venutissimus*, Fr.; pileus 1-2 in., brilliant glittering intense orange-reddish, becoming pale yellowish, slightly fleshy, obtuse or somewhat umbilicate, becoming silky-even, sometimes striate and crisped; flesh same colour; stem stuffed, then hollow, equal, smooth, reddish, commonly white-villous at base; gills decurrent, slightly distant, somewhat arcuate, glittering orange and reddish.

Amongst larch leaves. Penicuik. Odour none.

159. A. (*Clitocybe*) *subalutaceus*, Batsch; pileus 1-2 in., pale tan, becoming whitish, fleshy, soft, tough, obsoletely umbonate or depressed, smooth; stem stuffed, internally spongy, elastic, almost equal, naked, becoming pale-straw colour; gills adnate, then somewhat decurrent, distant, broad, simple, pallid.

Under holly. Oxton, Exeter. Odour like that of anise or disagreeable.

***** *Pileus green, becoming pale.*

160. A. (*Clitocybe*) *odorus*, Bull. (p. 108); 3 in. Epping Forest.

161. A. (*Clitocybe*) *Trogii*, Fr.; pileus 3 in., cinereous white, fleshy, compact, smooth, opaque; stem solid, firm, curt, thickened and villous at base, white; gills somewhat decurrent, crowded, white.

In woods. Coed Coch, etc. Fragrant.

162. A. (*Clitocybe*) *rivulosus*, P.; pileus 1-2 in., flesh-

colour, becoming white or fuscous when old, somewhat thin, at length depressed, rimoso-rivulose and undulato-lobed, never umbonate; margin at first involute, villous; flesh compact, white; stem stuffed with a spongy pith, at length hollow, tough, elastic, equal, somewhat fibrillose and white; gills obliquely acute behind, adnate, then somewhat decurrent, broad, somewhat crowded, flesh colour, then white.

On lawn amongst moss. Coed Coch, etc.

Var. neptuneus, *Batsch*; smaller than the type.

On dry mountain pastures near the sea. Llandulas.

***** *Colour shining whitish.*

163. A. (*Clitocybe*) *cerussatus*, *Fr.* (p. 108); 2-3 in.

Var. difformis, *Schum.* (p. 112); caespitose; often very large, pileus 2-7 in., undulato-lobed; stem curt, sulcate or longitudinally wrinkled; gills at length pallid.

On rich ground. After continual rain. Epping Forest.

164. A. (*Clitocybe*) *phylophilus*, *Fr.* (p. 109); 2-4 in. Epping Forest.

165. A. (*Clitocybe*) *pithyophilus*, *Secr.*; gregarious, pileus 2-3 in., dead-white when moist, shining whitish when dry, fleshy, plane, umbilicate, at length irregular, repand and undulato-lobed, even, smooth, flaccid; margin slightly striate when old; stem somewhat hollow, rounded, then compressed, equal, even, smooth, obsoletely pruinose at apex, white tomentose at the base; gills adnate, somewhat decurrent, crowded, plane, entire, white.

In fir woods, frequent.

166. A. (*Clitocybe*) *tornatus*, *Fr.*; pileus regular, 1-2 in., fleshy at disc, thin, plane at length depressed round the gibbous disc, dry, smooth, slightly silky, at length delicately rimoso-rivulose, white; flesh white; stem stuffed, tough,

fibrous, equal or attenuated downwards, smooth, unpolished, white, base pubescent ; gills horizontal, adnate with a small decurrent tooth, crowded.

Among grass, near old decayed elm stumps. North Kilworth.

167. A. (*Clitocybe*) *candicans*, *P.* (p. 109) ; 1 in.

168. A. (*Clitocybe*) *dealbatus*, *Sow.* (p. 109) ; 1 in. Epping Forest.

169. A. (*Clitocybe*) *gallinaceus*, *Scop.* ; *Var. minor Cke.* (p. 109) ; $\frac{1}{2}$ -1 in. Epping Forest.

II. DIFFORMES.—*Irregular in shape, pileus at first umbonate then depressed, generally cæspitose.*

170. A. (*Clitocybe*) *decastes*, *Fr.* ; cæspitose, pileus livid tan or mouse colour, fleshy at disc, thin, fragile, smooth, margin membranaceous, much undulated and lobed ; flesh white ; stem white, solid, soft, fibrous, splitting, commonly attenuated and compressed, smooth, naked or pruinose at apex ; gills adnato-decurrent or rounded, attenuated towards margin, crowded or slightly distant, wavy.

In oak and beech woods. On sawdust. Coed Coch.

171. A. (*Clitocybe*) *aggregatus*, *Schæff.* ; cæspitose, pileus 3-4 in., grey-livid, then rufescent, fleshy, umbonate, then depressed, often flaccid and excentric, somewhat silky-streaked ; stem stuffed, fibrous-fleshy, thickened upwards, white-rufescent, curved, compressed ; gills unequally decurrent, crowded, thin, flesh colour, then light yellow.

In oak woods. On sawdust. Coed Coch.

172. A. (*Clitocybe*) *elixus*, *Sow.* (p. 109) ; 2-3 in. Epping Forest.

173. A. (*Clitocybe*) *fumosus*, *P.* (p. 107) ; 1-3 in. Epping Forest.

174. A. (*Clitocybe*) *tumulosus*, *Kalchbr.*; cæspitose; pileus umber, then pale fleshy, conical, then expanded, umbonate, even, smooth; stem solid, floccoso-pruinose, pallid; gills slightly emarginate and decurrent, crowded, white, then cinereous.

In woods. Hereford.

175. A. (*Clitocybe*) *pergamenus*, *Cke.*; cæspitose, whitish like vellum, rather cartilaginous, pileus $1\frac{1}{2}$ -2 in., convex, becoming plane, obtusely umbonate, smooth, even; stem equal, ascending, solid with a cartilaginous coating; punctato-squamose at apex; gills broadly adnate, with a decurrent tooth, rather crowded, white.

On old stump. Lyndhurst.

176. A. (*Clitocybe*) *cryptarum*, *Letell.*; cæspitose, pileus brown, spotted, somewhat conical, depresso-flocculent; stem fistulose, more or less compressed, attenuated upwards, streaked, somewhat striate, white; gills somewhat decurrent, arcuate, narrow, white.

On sawdust. Coed Coch.

177. A. (*Clitocybe*) *monstrosus*, *Sow.*; often cæspitose; pileus fleshy, convex and umbonate, waved and lobed, opaque as if white-washed; margin inflexed; stem compressed, solid, streaked, opaque, white, tomentoso-squamulose above, slightly rooting; gills moderately distant, scarcely rounded behind, not decurrent, white or cream colour.

On the ground. Probably esculent.

178. A. (*Clitocybe*) *opus*, *With.* (p. 110); 1-2 in.

III. INFUNDIBULIFORMES.—*Funnel shaped, or deeply umbilicato depressed, gills deeply decurrent from the first.*

* *Pileus coloured or becoming pale, the surface innato-flocculose or silky; bibulous.*

A. (*Clitocybe*) *giganteus*, *Sow.* (p. 110). This is *Paxillus giganteus*, *Fr.*

179. A. (*Clitocybe*) *maximus*, *Fr.*; pileus 12 in., pale tan or whitish, fleshy, compact at the disc, thin, somewhat flaccid, broadly infundibuliform, with a central umbo, dry, surface silky, even or squamulose; margin involute, pubescent, even; stem thick, solid, compact, internally spongy, elastic, attenuated upwards, fibrilloso-striate, whitish; gills deeply decurrent, attenuated at both ends, somewhat crowded, whitish, not changeable.

On grassy places, banks of hedges, etc. Frequent. Epping Forest.

180. A. (*Clitocybe*) *infundibuliformis*, *Schæff.* (p. 110); 3 in. Epping Forest.

Var. membranaceus, *Fr.*; differs in all its parts, thinner, stem equal, pileus without an umbo, colour brighter.

In fir woods and grassy places. Rare.

181. A. (*Clitocybe*) *trullæformis*, *Fr.*; pileus 2 in., fuscous-cinereous, unchangeable, fleshy, infundibuliform, margin flattened, flocculoso-villous, dry; flesh white; stem spongy-stuffed, firm, elastic, attenuated upwards, fibrilloso-striate, cinereous, villous downwards; gills decurrent, distant, connected by veins, broad, shining white.

On the border of a fir wood. Coed Coch.

182. A. (*Clitocybe*) *incilis*, *Fr.*; pileus 2 in., ruddy brick-red, fleshy, plano-umbilicate, then infundibuliform, smooth when young, then silky-flocculose, inflexed margin

crenate; stem hollow, fibrous, tough, unequal, attenuated downwards, brick colour, at first covered with a delicate flocculose pruina; gills decurrent, arcuate, distant, reticulated with veins or distinct, white, becoming pale, but not yellow.

In woods. King's Lynn.

183. A. (*Clitocybe*) *parilis*, *Fr.*; pileus $\frac{3}{4}$ in., fuscous, then grey-whitish, not hygrophanous, slightly fleshy, depressed at the atomate or flocculose disc, without striæ, involute, stem stuffed, tough, equal, smooth, naked, fuscous-grey; gills deeply decurrent, very crowded, narrow, whitish-grey.

By the sides of plantations. Coed Coch.

** *Pileus coloured or pallid, smooth, moist in wet weather.*

184. A. (*Clitocybe*) *gilvus*, *Fr.*; pileus 2-4 in., pale yellowish, fleshy, compact, convex then depressed, even, smooth, somewhat moist, polished and shining when dry, here and there spotted, margin involute; flesh compact, at length fragile, somewhat the same colour as pileus; stem solid, fleshy, stout, not elastic, equal, smooth, paler than pileus, villous at base; gills decurrent, thin, crowded, often branched, arcuate, narrow, pallid then ochraceous.

In woods. West Farleigh. Kent.

185. A. (*Clitocybe*) *subinvolutus*, *Batsch*; pileus brick colour, convex, depressed, smooth, margin involute; flesh pallid; stem paler, stout, straight, somewhat equal, clothed at the lower part with elevated veins or wrinkles, tomentose, and inclining to flesh colour above, base obtuse; gills decurrent, rather broad, same colour as pileus.

In woods, chiefly of Coniferae.

186. A. (*Clitocybe*) *spinulosus*, *Stev. and Sm.*; pileus 1 $\frac{1}{2}$ -3 in., creamy flesh colour, fleshy, then plane or depressed,

gibbous or umbonate, leathery, smooth, edge even and incurved ; flesh white : stem solid or stuffed, attenuated from the thickened base, fibrillose, whitish, zoned with crowded spots of the same colour as pileus ; gills deeply decurrent, rather crowded, white then light yellow.

Among grass by wayside. Greenings. Odour sweet and pleasant.

This is *A. geotropus*, Bull. ; *var. subinvolutus*, Sm., in *Journal of Botany*, 1873, p. 336.

187. *A. Clitocybe geotropus*, Bull. (p. 110); 1½–5 in.

188. *A. (Clitocybe) splendens*, P. ; pileus 3 in., pale yellowish, becoming yellow, somewhat fleshy, thin round the reflexed margin, plano-depressed, at length infundibuliform, even, smooth, shining ; flesh white, stem solid, equal, or attenuated from base, even, smooth, same colour as pileus ; gills deeply decurrent, thin, crowded, simple, white, light yellow when old.

In wood among dead leaves. Reading.

189. *A. (Clitocybe) inversus*, Scop. (p. 111) ; 2–3 in. Epping Forest.

190. *A. (Clitocybe) flaccidus*, Sow. (p. 111) ; 2–3 in. Epping Forest.

191. *A. (Clitocybe) vermicularis*, Fr. ; gregarious, pileus flesh-colour then tan-flesh-colour, fleshy, thin, umbili-cato-convex then reflexed, infundibuliform, undulato-lobed, even, smooth ; stem hollow, equal, soon compressed, smooth, shining, white, not elastic, somewhat fragile ; gills shortly decurrent, very crowded, thin, white.

In fir wood. Forres.

192. *A. (Clitocybe) senilis*, Fr. ; gregarious ; pileus 2 in., dingy-fuscous-tan, fleshy-membranaceous, flaccid ; disc depressed when young, soon infundibuliform, undulato-lobed, even, smooth ; stem solid, equal, smooth, whitish,

naked at base; gills deeply decurrent, linear, narrow, very crowded, at first whitish, then same colour as pileus.

On lawn. Coed Coch.

*** *Pileus shining, whitish, sprinkled over with small superficial flocci or becoming smooth.*

193. A. (*Clitocybe*) *catinus*, Fr.; pileus 2 in., at first white, then passing into pale flesh-colour during rain and into tan colour in dry weather, fleshy, then plane, then infundibuliform, obtuse, even, smooth; flesh thin, flaccid, white; stem stuffed, internally spongy, elastic, tough, thickened and tomentose at base; gills decurrent, broad, not much crowded, white.

Among dead leaves. Ludlow. Epping Forest.

194. A. (*Clitocybe*) *tuba*, Fr.; wholly white; pileus 2-3 in., fleshy, thin, convexo-plane, umbilicate, even, without striæ at margin, dead white when moist, shining whitish when dry, smooth, but at first covered with a thin silky film; stem stuffed then hollow and compressed, very tough, equal, naked upwards; gills deeply decurrent, very crowded, broad, white, becoming pale.

On dead leaves. Coed Coch, etc.

195. A. (*Clitocybe*) *ericetorum*, Bull.; pileus 1-2 in., white, fleshy, globose, then plane or concave, somewhat turbinate, often excentric and repand, smooth, shining; stem solid, floccoso-soft internally, attenuated downwards, sometimes compressed, tough, naked, smooth, white; gills rather shortly decurrent, somewhat distant, connected by veins at the base, white.

Among short grass. Coed Coch. Epping Forest.

Series B.—*Pileus between fleshy and membranous, hygrophanous.*

IV. CYATHIFORMES.—*Pileus fleshy-membranous, hygrophanous, depressed, at length cup-shaped; gills adnate, then decurrent. Colour dingy when moist.*

196. A. (*Clitocybe*) *cyathiformis* Fr. (p. 111); 1½–3 in. Epping Forest.

197. A. (*Clitocybe*) *expallens*, P.; pileus 1–2 in., when young somewhat fleshy, convexo-plane, cinereous-fuscous, at first sprinkled white-silky, then plano-infundibuliform, livid, disc slightly fleshy; margin membranaceous and striate; stem flocculose internally, soon hollow, tough, equal, smooth, white-silky at apex; gills decurrent, thin, slightly distant, soft, white-cinereous.

In mixed wood. Glamis.

198. A. (*Clitocybe*) *obbatus*, Fr.; pileus 1 in., fuscous-blackish, pale when dry, cinereous, somewhat membranaceous, convexo-plane with broadly umbilicate disc, smooth, striate to the middle; stem hollow, flexuose, smooth, slightly striate, fuscous-cinereous; gills slightly decurrent, distant, broad, dark cinereous, white-pruinose.

In fir woods.

199. A. (*Clitocybe*) *pruinosus*, Lasch; pileus 1–2 in., brown, becoming cinereous when dry, hygrophanous, fleshy-membranaceous, when young umbilicate, with lead-coloured pruina, when full grown broadly infundibuliform and smooth, sometimes squamulose; flesh thin, becoming cinereous; stem stuffed or obsoletely fistulose, equal, often curved, flocculose at base, fibrillose when young, same colour as, or paler than, pileus.

On rotten wood and on the ground.

200. A. (*Clitocybe*) *concavus*, *Scop.*; pileus 1-2 in., hygrophanous, fuliginous when moist, cinereous or clay-hoary when dry, slightly fleshy, very thin, flaccid, at first plano-convex, widely and deeply umbilicate, then concave, smooth, border undulated; flesh tough, pallid; stem stuf'led, tough, wholly fibrous-soft, curt, equal, naked, smooth, cinereous; gills decurrent, arcuate, very crowded, dark fuliginous.

In woods and pastures. Rare.

201. A. (*Clitocybe*) *brumalis*, *Fr.*; 1 in. Epping Forest.

v. ORBIFORMES.—*Pileus round, somewhat fleshy, moist, hygrophanous, convex, then flattened or depressed, gills adnate.*

* *Gills becoming cinereous.*

202. A. (*Clitocybe*) *metachrous*, *Fr.* (p. 91); 1-2 in. Epping Forest.

203. A. (*Clitocybe*) *pausiacus*, *Fr.*; pileus 1 in., cinereous, becoming somewhat olive, fleshy, thin, at first convex, sometimes umbonate, then plane and depressed, even, smooth, when young hoary-silky; stem tough, somewhat hollow, equal, striate, often undulated, smooth, white-pruinose at apex, cinereous; gills broad behind, obtusely adnate, crowded, semicircular, inclining to olivaceous.

In woods, amongst leaves. On the ground. Coed Coch.

204. A. (*Clitocybe*) *ditopus*, *Fr.*; pileus 2 in., cinereous, somewhat fleshy, tough, convexo-plane, then inverted, infundibuliform, often undulato-lobed and irregular; stem hollow, then compressed, equal, naked, pale cinereous, pubescent at base; gills adnate, crowded, thin, at length turned upwards, dark cinereous.

Among dead leaves. Moccas Park. Epping Forest.

** *Gills whitish ; pileus becoming pale.*

205. A. (*Clitocybe*) *diatretus*, *Fr.* ; pileus 1-2 in., slightly fleshy, tough, regular, margin involute, pubescent, then plano-depressed, often flexuose, even, smooth, hygrophanous, flesh colour when moist, then tan-colour and flaccid ; stem spongy-stuffed, then hollow, elastic, flexible, not cartilaginous, equal, round, even, smooth, pallid, naked at apex, pubescent at base ; gills adnate, decurrent with a tooth, crowded, at first white-flesh colour, then pale white.

In pine woods. Coed Coch.

206. A. (*Clitocybe*) *fragrans*, *Sow.* (p. 112) ; 1-2 in. Epping Forest.

207. A. (*Clitocybe*) *angustissimus*, *Lasch* ; pileus 2 in., watery white, shining whitish when dry, fleshy, thin, plano-depressed, not umbilicate, even, smooth ; margin at length slightly striate ; flesh thin, moderately firm ; stem stuffed, internally fibrous, often curved and flexuose, smooth, or pubescent at base ; gills somewhat decurrent, very crowded, thin, narrow white.

In woods, among leaves and moss. Ascot.

208. A. (*Clitocybe*) *obsoletus*, *Batsch* ; pileus 1 in., at first grey, soon clay-whitish, sometimes inclining to flesh colour, somewhat fleshy, soft, convex, then plane and depressed, even, smooth ; stem stuffed, then hollow, round, then often compressed, even, smooth, obsoletely pruiniate at apex, whitish ; gills obtusely adnate, almost rounded behind, then adnato-decurrent, broad, crowded grey-whitish.

By road-sides in pine woods. Among grass and leaves. Coed Coch. Epping Forest.

VI. VERSIFORMES.—*Variable in shape. Pileus thin, convex, then irregular in shape squamulose or mealy, gills adnate, broad, rather thick, distant, powdered with white meal.*

* *Pileus dingy, scaly.*

209. A. (*Clitocybe*) *ectypus*, *Fr.* (p. 113); 2–3 in.

210. A. (*Clitocybe*) *bellus*, *P.* (p. 113); 2 in. Epping Forest.

** *Pileus bright, one colour.*

211. A. (*Clitocybe*) *laccatus*, *Scop.* (p. 113); 1 in. Epping Forest.

Var. amethystinus, *Bolt.*; whole plant of a beautiful amethystine violet.

Var. tortilis, *Bolt.*; small, irregular, often cæspitose, resembling type, but much smaller.

A. (*Clitocybe*) *difformis*, *P.*; = A. *cerassatus*, *Fr.*; No. 163.

212. A. (*Clitocybe*) *Sadleri*, *B. and Br.*; 2–2½ in., cæspitose; light yellow, centre tawny, plano-depressed or umbilicate, at first slightly silky, at length becoming smooth towards centre; stem yellow with tawny fibrils, base thickened; gills decurrent, thin, very crowded, lemon-yellow, entire at margin.

On an oak tub in Conservatory. Edinburgh.

Subgenus 9. COLLYBIA (p. 114).

Series A.—*Gills white or brightly coloured, not cinereous; flesh white.*

I. STRIPEDEDES.—*Stem fibrilloso-striate.*

* *Gills broad, somewhat distant.*

213. A. (*Collybia*) *radicatus*, *Rehl.* (p. 114); 3–4 in. Epping Forest.

214. A. (*Collybia*) *longipes*, *Bull.* (p. 114); 3–4 in.
 215. A. (*Collybia*) *platyphyllus*, *Fr.* (p. 114); 3–4 in.
 Epping Forest.

Var. repens, *Fr.*; pileus more fleshy than type, depressed; stem hollow, compressed, pruinose at apex, with a creeping string-like mycelium.

216. A. (*Collybia*) *semitalis*, *Fr.*; pileus 1–4 in., black, fuliginous or smoky-livid, hygrophanous, when dry pallid cinereous-yellow or grey, fleshy-cartilaginous, thin, convex then plane; margin inflexed then plane and pellucid-striate; flesh white when dry; stem somewhat hollow, tough, elastic, attenuated from the bulbous or bluntly rooted base, fibrilloso-striate, fuscous or cinereous-white, naked at apex; gills obtuse behind, adfixed in the form of a ring with a small decurrent tooth, somewhat distant, broad, white, then cinereous, spotted black when touched, at length black.

By road-sides after rain. Coed Coch.

217. A. (*Collybia*) *fusipes*, *Bull.* (p. 115); 1½ in.
 Epping Forest.

Var. oedematopus, *Schaff.*; pileus rufous-date-brown, conical, then plane, pulverulent; stem stout, ventricose, fibrillose, pulverulent; gills pallid.

On trunks. Glamis.

** *Gills crowded, narrow.*

218. A. (*Collybia*) *maculatus*, *A. and S.* (p. 115); 3–5 in. Epping Forest.

219. A. (*Collybia*) *fodiens*, *Kalchb.*; pileus fleshy, firm, convex, obtuse, margin inflexed, even, smooth, flesh-colour, becoming yellowish, darker and gibbous in centre; stem hollow, tough, somewhat ventricose, often longitudi-

nally costate, attenuated into a rooting base of equal length or longer, deeply immersed in the ground, smooth, white; gills rounded, emarginate, crowded, narrow, yellowish-white.

On grass borders. Alresford, Hants.

220. A. (*Collybia*) *prolixus*, *Fl. Dan.*; pileus 2-3 in., fleshy, convex, then flattened, gibbous, large, even, smooth; stem solid, rather stout, nearly equal, abrupt at base, sulcate, brick-red; gills free, crowded, entire, white, unspotted.

Among dead leaves. Kew.

221. A. (*Collybia*) *distortus*, *Fr.*; gregarious, pileus 3 in., bay brown, then pale, not hygrophanous, fleshy, thin, convex then expanded, umbonate, lax, even, smooth; stem attenuated upwards, base tomentose, fragile, externally cartilaginous, internally spongy, soon hollow, contorted, sulate, pallid; gills slightly adnexed, crowded, somewhat linear, at length spotted-rubiginous.

On roots of trees. Bowood. Epping Forest.

222. A. (*Collybia*) *butyraceus*, *Bull.* (p. 115); 2-3 in. Epping Forest.

223. A. (*Collybia*) *xylophilus*, *Weinm.*; caespitose; pileus 3 in., whitish or becoming fuscous-tan in middle, slightly fleshy, campanulate, sometimes slightly umbonate, at length rimosely split towards the margin, broadly gibbous, smooth, moist; flesh thin, fragile, then watery-fuscous; stem hollow, equal, flexuose, fibrilloso-striate, whitish, internally fuscous; gills adnate, often decurrent with a small tooth, narrow, crowded, entire.

About old stumps. Black Park, Laugley.

II. VESTIPEDES.—*Stem velvety, floccose or pruinose.*

* *Gills broad, somewhat distant.*

224. A. (*Collybia*) *velutipes*, *Curt.* (p. 116) ; 1-4 in., Epping Forest.

Var. rubescens, Cke. ; pileus 1 in., viscid, bright ferruginous brown, obscurely striate, stem as in type, velvety dark brown, internally blackish below, white above ; gills becoming spotted with brown.

Among fir leaves. Largo, N.B.

225. A. (*Collybia*) *laxipes*, *Fr.* ; pileus 1½ in., white, slightly fleshy, convexo-plane, obtuse, smooth, moist ; stem stuffed, rufous-velvety, long, stiff ; gills separating-free, distant, broad, ventricose, white.

On wood and chips.

226. A. (*Collybia*) *mimicus*, *Sm.* ; pileus 2 in., pale brownish-yellow, smooth, with a thin separable cuticle ; stem fibrillose at base, fibrilloso-striate in middle, naked or slightly pruinose at apex ; gills very broad, somewhat distant, thin, white.

Among shavings. Odour and taste strong, fishy.

227. A. (*Collybia*) *floccipes*, *Fr.* ; pileus rather fleshy, campanulate, then convex, umbonate, even, silky, becoming pale ; stem fistulose, straight, rooting, pallid, rough, with floccose, punctiform, black squamules ; gills adnexed, ventricose, rather distant, thick, white.

In a stump. Leigh Woods, Bristol.

228. A. (*Collybia*) *vertirugis*, *Cke.*

= A. (*Collybia*) *undatus*, *Berk.* (p. 117) ; 1 in.

229. A. (*Collybia*) *stipitarius*, *F.* (p. 116) ; ¼-½ in.

** *Gills very narrow, very crowded.*

230. A. (*Collybia*) *hariolorum*, *DC.* ; gregarious ; pileus

2 in., tan-colour, whitish, somewhat membranaceous, pliant, campanulato-convex, then flattened, rather depressed, even, smooth, somewhat striate at the margin; stem cartilaginous, fistulose, somewhat equal and compressed, mostly rufescent-villous, naked at apex; gills at first slightly adnected, soon free, crowded, linear, whitish.

In woods. Coed Coch. Strong-scented.

231. A. (*Collybia*) *confluens*, P. (p. 116); 1 in. Epping Forest.

232. A. (*Collybia*) *ingratus*, Schum. (p. 116); $1\frac{1}{2}$ in.

233. A. (*Collybia*) *conigenus*, P. (p. 117); $\frac{1}{2}$ -1 in.

234. A. (*Collybia*) *cirrhatus*, Schum. (p. 117); $\frac{1}{40}-\frac{1}{2}$ in.

Epping Forest.

235. A. (*Collybia*) *tuberosus*, Bull. (p. 117); $\frac{1}{4}$ in. Epping Forest.

236. A. (*Collybia*) *racemosus*, P. (p. 118); $\frac{1}{4}$ in.

III. LEVIPEDES.—*Stem even.*

* *Gills broad, commonly somewhat distant.*

237. A. (*Collybia*) *collinus*, Scop.; pileus 1-2 in., pale fuscous or pale tan, fleshy-membranaceous, campanulate, then expanded and umbonate, smooth, somewhat viscous, slightly striate, when dry, even, shining; flesh thin, white; stem fistulose, somewhat fragile, equal or slightly attenuated upwards, even, smooth, pallid-whitish, pubescent at base; gills adnexed, then free, somewhat distant, broad, quaternate, becoming pale white.

On grassy slopes. Beech stumps. Uncommon.

238. A. (*Collybia*) *thelephorus*, Cke. and Mass.; pileus $1-1\frac{1}{2}$ in., rather fleshy, campanulate, with an acute mammiate umbo, ochraceous, becoming darker and fuliginous at

apex, margin at first incurved, then repand, faintly striate; stem cylindrical, equal, hollow, purple at base, paler at apex, slender, smooth; gills broadest behind, adnate, rather crowded.

In peat bogs. Scarborough.

239. A. (*Collybia*) *ventricosus*, *Bull.*; pileus tan or dingy, slightly fleshy, campanulato-convex, umbonate, smooth; stem fistulose, even, naked, rufescent, ventricose at base, rooted; gills arcuato-adfixed, ventricose, lax, somewhat crowded, undulated, rufescent.

In woods. Bathford.

240. A. (*Collybia*) *Stevensoni*, *B. and Br.*; pileus $\frac{1}{2}$ in., pallid yellow, semi-ovate, obtuse, viscid, here and there spotted-viscous; stem thin, fibrillose, pulverulent upwards, composed of fibres, slightly rufous, rooting; gills adnate, with a decurrent tooth, broad, somewhat ventricose, distant, white.

In old pasture. Glamis.

241. A. (*Collybia*) *psathyroides*, *Cke.*; pileus $\frac{3}{4}$ in., campanulate, obtuse, rather viscid; margin regular, even; stem hollow, slender, equal, rather tough; gills adnate, with a decurrent tooth, broad, triangular, rather distant, white.

On the ground. Epping Forest.

242. A. (*Collybia*) *xanthopus*, *Fr.* (p. 118); 1-2 in.

243. A. (*Collybia*) *nitellinus*, *Fr.*; pileus 1- $1\frac{1}{2}$ in., tawny or brick-tawny, when dry somewhat tan, somewhat membranaceous, convexo-plane, smooth, obscurely rugulose, pellucido-striate when moist; flesh same colour; stem soft-cartilaginous, readily splitting into fibrils, stuffed, then fistulose, equal, flexuose, somewhat rooted, ferruginous-tawny, yellow when dry, white villous at base, obsoletely

pruinose at apex ; gills adnate, very obtuse behind, somewhat crowded, narrow, whitish.

By roads in woods.

244. A. (*Collybia*) *succineus*, *Fr.* ; pileus 1 in., rufous or brown-fuscous, becoming pale, fleshy, thin, convex, then flattened, obtuse, at length depressed and unequal, rimosely split when dry, even, smooth ; stem fistulose, tough, attenuated at base, not rooted, polished, pallid-rufescens ; gills adnate, obtuse behind, slightly crowded, broad, thick, becoming pale white, edge serrulated.

Amongst grass. In mixed wood. Coed Coch.

245. A. (*Collybia*) *nummularius*, *Fr.* ; pileus 1½ in., pallid, slightly variegated with yellow and red, slightly fleshy, rather plane, depressed round the obsolete umbo, even ; stem stuffed, then hollow, smooth, pallid, thickened at apex ; gills free, somewhat distant, white.

Amongst leaves. In mixed woods. Glamis.

246. A. (*Collybia*) *esculentus*, *Jacq.* (p. 118) ; ½ in.

247. A. (*Collybia*) *tenacellus*, *P.* ; ½ in.

Var. stolonifer, *Jungh.* ; pileus fuscous, becoming pale, slightly fleshy, plane, obtuse, somewhat depressed, smooth ; margin somewhat striate ; stem fistulose, equal, smooth, becoming fuscous, with a creeping somewhat stoloniferous rooting stem ; gills rounded-adnexed, ventricose, somewhat distant, whitish.

In pine woods, amongst leaves. Frequent.

** *Gills narrow, crowded.*

248. A. (*Collybia*) *acervatus*, *Fr.* (p. 119) ; 2-3 in.

249. A. (*Collybia*) *dryophilus*, *Bull.* (p. 119) ; 1-2 in.

Epping Forest.

250. A. (*Collybia*) *aquosus*, *Bull.* ; pileus watery,

ochraceous or brick-colour, then whitish, slightly fleshy, rather plane, obtuse, smooth, hygrophanous; margin striate; stem fistulose, naked, rufous-tawny, fibrillose at base; gills rounded-free, crowded, narrow, tense and straight, white or pallid.

Among moss. Coed Coch.

251. A. (*Collybia*) *extuberans*, *Fr.*; pileus 1-2 in., rufous-fuscous, bay-brown, sometimes pale, not hygrophanous, slightly fleshy, convex, then flattened, orbicular, at length depressed round the prominent umbo, even, smooth, slightly viscid when moist; flesh white; stem tough, fistulose, equal, tense and straight, smooth, even, shining, same colour as pileus or paler, rooted at base; gills somewhat free, reaching the stem, with a small tooth, crowded, narrow, white.

On the ground and trunks.

252. A. (*Collybia*) *exsculptus*, *Fr.* (p. 119); 1-2 in.

253. A. (*Collybia*) *macilentus*, *Fr.*; pileus 1 in., dark yellow, slightly fleshy, convex, then plane, obtuse, orbicular, even, smooth, dry; flesh thin, yellow; stem obsoletely fistulose, tough, cartilaginous, filiform, flexuose, smooth, light yellow, slightly rooted at base; gills separating-free, very crowded, narrow, linear, unequal, yellow.

In pine woods. Corstorphine, etc.

254. A. (*Collybia*) *clavus*, *L.* (p. 119); $\frac{1}{4}$ in.

255. A. (*Collybia*) *ocellatus*, *Fr.* (p. 120); $\frac{1}{2}$ in.
Epping Forest.

256. A. (*Collybia*) *muscigenus*, *Fr.*; pileus $\frac{1}{2}$ in., somewhat membranaceous, pellucid, globoso-hemispherical, then flattened, obtuse, even, smooth, withering; margin entire, persistent, not revolute; stem capillary, flexuose,

flaccid, naked, smooth, somewhat rooting at base ; gills adnate, somewhat crowded, linear, edge entire.

Amongst moss and grass. Coed Coch. Epping Forest.

257. A. (*Collybia*) *leucomyosotis*, *Cke. and Sm.* ; pileus convex, then expanded, sometimes obtusely umbonate, pale mouse-colour, disc darker, whole plant becoming pallid, almost white when dry, strong-scented, rather fragile ; margin faintly striate ; stem hollow, very brittle, slightly pruinose above, pallid, white at base and obtuse ; gills thick, moderately distant, adnate, sinuate behind.

On *Sphagnum* in bogs. Wimbledon, etc.

Series B.—*Gills becoming cinereous.*

IV. TEPIROPHANÆ.—*Colour dingy, becoming cinereous.*

* *Gills crowded, somewhat narrow.*

258. A. (*Collybia*) *rancidus*, *Fr.* ; pileus 1-2 in., not hygrophanous, lead-colour-black, fuliginous, then pale, slightly pruinose-silky, slightly fleshy-cartilaginous, tough, convex, then plane, broadly and obtusely umbonate, even, smooth ; stem fistulose, rigid, equal, smooth, livid with a long fusiform, villous, rooting stem ; gills free, crowded, narrow, ventricose, dark cinereous, somewhat pruinose.

Under cedars. About trunks in woods. Burnham Beeches. Odour of rancid meal.

259. A. (*Collybia*) *coracinus*, *Fr.* ; pileus 1½ in., hygrophanous, fuscous and shining, then grey and opaque, somewhat fleshy-cartilaginous, convexo-expanded, umbonate or depressed, often undulated and irregular, even or wrinkled round margin, smooth ; flesh white ; stem hollow, cartilaginous, tough and rigid, then fragile, compressed (sometimes lacunose), somewhat attenuated downwards, not rooted, be-

coming fuscous, mealy at apex; gills obtusely adnate, separating, broad, scarcely crowded, at length connected by veins, whitish-grey.

260. A. (*Collybia*) *ozes*, *Fr.*; pileus 1 in., hygrophanous, grey-fuscous, pallid when dry, slightly fleshy, convex, then plane, umbonate, smooth, striate at margin when moist; stem at length hollow, almost equal, lax, flexuose, fragile, slightly striate, fuliginous-grey, white-mealy at apex; gills adnate, somewhat ventricose, crowded, broad, entire, fuliginous-olivaceous.

On the ground. On pine leaves. Hothorpe, Northants.

261. A. (*Collybia*) *inolens*, *Fr.*; pileus 1-2 in., hygrophanous, livid, then pale tan and slightly silky, opaque, slightly fleshy, campanulato-convex, then plane, obtusely and broadly umbonate, smooth, margin inflexed, then expanded, striate, undulated; stem compressed, rigid, fistulose, then soft and hollow, equal, livid, becoming pale, white strigose at base, white squamulose at apex; gills adfixed, separating, somewhat free, broad, linear, slightly ventricose, whitish grey.

In woods, chiefly pine. Uncommon.

262. A. (*Collybia*) *plexipes*, *Fr.*; pileus 1-2 in., blackish, whitish at margin, then fuliginous-livid, fleshy-membranaceous, campanulate, umbonate, somewhat wrinkled, slightly striate; stem fistulose, equal, cartilaginous, surface finely silky-fibrous, slightly striate, livid, shortly and bluntly rooted; gills attenuated behind, free, ventricose, somewhat crowded, white, then becoming glaucous.

On trunks. In woods. Uncommon.

263. A. (*Collybia*) *atratus*, *Fr.* (p. 120); 1 in. Epping Forest

264. A. (*Collybia*) *ambustus*, *Fr.*; pileus 1 in., fuscous, then fuscous-livid, somewhat membranaceous, convex, plane,

then depressed, umbonate with a minute papilla, smooth, at first even, then slightly striate ; stem fistulose, cartilaginous, tense and straight, livid fuscous, pruinose, then naked ; gills adnate, with a decurrent tooth, crowded, plane, lanceolate, becoming fuscous.

On scorched ground. Kew.

** *Gills very broad, more or less distant.*

265. A. (*Collybia*) *laceratus*, *Lasch* (p. 120) ; 1½ in.
Epping Forest.

266. A. (*Collybia*) *murinus*, *Batsch* ; pileus 1 in., fuscous-brown, then pale, slightly fleshy, tough, campanulo-convex, then expanded, obtuse, or umbilicate, without striae, slightly wrinkled or very thinly squamulose ; margin at first involute, always even ; stem hollow, equal, tense and straight, not rooting, pubescent at base, slightly fibrillose under a lens, becoming cinereous-white ; gills attenuato-adnexed, broad, thick, distant, white, then cinereous.

On the ground in woods. Marlborough Forest.

267. A. (*Collybia*) *protractus*, *Fr.* ; pileus 1 in., grey-fuscous, shining, somewhat membranaceous, convexo-plane, disc slightly depressed, with a rudimentary umbo ; margin paler, striate ; stem fistulose, cartilaginous, then soft, tense and straight, even, smooth, livid-grey, extended underground in root form, attenuated, fibroso-strigose ; gills adfixed, ventricose, broad, somewhat distant, grey, white-pruinose.

In pine woods. On mossy ground, beside stumps. Rare.

268. A. (*Collybia*) *tesquorum*, *Fr.* ; ¼-½ in, fuscous-black, then pale, fleshy-membranaceous, slightly firm, convex, obtuse, smooth ; flesh same colour ; stem fistulose, filiform,

flexuose, smooth, fuscous, mealy at apex ; gills free, broad, ventricose, somewhat distant, cinereous-fuscous.

On waste ground, and in open pastures. Ascot.

269. A. (*Collybia*) *clusilis*, Fr. ; pileus 1 in., livid, then pale, grey clay-colour, somewhat membranaceous, rather plane, broadly depressed in centre, much sloped towards incurved margin, even, smooth, fragile, slightly striate at margin when moist ; stem wholly cartilaginous-soft, flexible, stuffed, polished, livid ; gills adnate, plane, with a decurrent tooth, not ventricose, white, becoming pale.

Amongst moss.

Var. B. minor ; half the size of type.

270. A. (*Collybia*) *tylicolor*, Fr. ; pileus $\frac{1}{2}$ in., grey-cinereous, slightly fleshy, somewhat umbonate, even, opaque ; stem fistulose, somewhat fragile, not rooting, equal, even, grey, everywhere whitish-pulverulent ; gills free, distant, broad, rather thick, grey, paler than pileus.

In shady woods amongst grass. Coed Coch.

271. A. (*Collybia*) *Dorotheæ*, B. ; pileus 1 in., at first globose, dark brown, hemispherical, expanded, with a slight umbo, then depressed and pale brown, sulcate from the crenate margin almost to centre, granulate, and beset with small bristles ; stem brownish above, white below, with a minute disc-like swelling at the base, then yellowish or rufous below and white above, granulated and beset with white bristles like the pileus ; gills white, distant, adnexed, slightly ventricose, connected behind, edge entire.

On a dead fern stem in a hothouse. Dangstein.

272. A. (*Collybia*) *caldarii*, B. ; pileus $\frac{1}{2}$ in., hemispherical, umbonate, brown, rugose, not turning pale ; stem paler, even, cartilaginous externally ; gills adnato-

decurrent, somewhat ash-coloured, interstices near the margin veined.

On *Sphagnum*, in an orchid pot. Dangstein.

Subgenus 10. MYCENA (p. 121).

I. CALODONTES.—*Edge of gills darker, denticulate.*

273. A. (*Mycena*) pelianthinus, Fr. (p. 121); $1\frac{1}{2}$ in.

274. A. (*Mycena*) balaninus, Berk. (p. 121); $1\frac{1}{2}$ in.

275. A. (*Mycena*) Iris, Berk. (p. 121); $\frac{3}{8}$ in.

276. A. (*Mycena*) mirabilis, Cke. and Quel.; pileus fleshy, campanulate, umbo darker, smooth, finely striate; stem rather tomentose-rooting, bluish floccose; gills slightly adnexed, distant, white, edges darkened with minute particles.

On fir trunks, amongst *Hypnum*. Dr. Cooke considers this plant to be distinct from the next.

277. A. (*Mycena*) marginellus, P.: pileus $\frac{1}{2}$ in., somewhat fuscous when young, then changeable, slightly fleshy, campanulate, not viscid, with exception of the smooth darker umbo, slightly striate and somewhat azure-blue, floccose; stem somewhat tomentose-rooting, with the same flocci as on pileus; gills slightly adnexed, distant, white or cinereous, fringed at edge with dark azure-blue or red.

Amongst fir trunks, with *Hypnum cupressiforme*. Aboyne. The Rev. John Stevenson considers this plant to be the same with the last.

278. A. (*Mycena*) aurantio-marginatus, Fr.; pileus 1 in., olivaceous-fuscous, then pale, fleshy at the disc, campanulate, convex, obtuse, or obsoletely umbonate, even, smooth; margin straight, slightly striate at margin when moist; stem brittle, fistulose, inflated, ventricose, zoned

with yellow strigose down at base, even, smooth, livid-pale ; gills ventricose, attenuato-adnexed, almost free, connected by veins, becoming livid-green, orange, edge toothed or flocculoso-pencilled.

In silver-fir wood. Perth. Smell strong.

279. A. (*Mycena*) elegans, *P.* (p. 121) ; $\frac{1}{2}$ in. Epping Forest.

280. A. (*Mycena*) rubro-marginatus, *Fr.* (p. 122) ; 1 in.

Var. fusco-purpureus, *Lasch* ; purple-brown ; stem finely striate, with a rooting villous base ; gills eroded, edge brown.

On willow trunks.

281. A. (*Mycena*) strobilinus, *Fr.* (p. 122) ; $\frac{1}{2}$ in.

Var. coccineus ; same as type, but gills not darker at the edge.

282. A. (*Mycena*) rosellus, *Fr.* (p. 122).

II. ADONID.E.—*Colour pure, bright, not becoming fuscous or cinereous.*

283. A. (*Mycena*) purus, *P.* (p. 122) ; $\frac{1}{2}$ -3 in. Epping Forest.

284. A. *Mycena pseudo-purus*, *Cke.* ; pileus 1 in., rosy, then pale, rather fleshy, campanulate, then convex, expanded, obtusely umbonate, smooth ; margin obscurely striate ; stem slender, hollow, rigid, straight, even, naked, at first rosy-white, then brown ; gills adnate, whitish.

In woods. Coed Coch.

285. A. (*Mycena*) zephyrus, *Fr.* ; pileus 1 in., livid-reddish, white flesh-colour, disc sometimes fuscous, somewhat membranaceous, diaphanous, campanulate, obtuse, striate to the middle, smooth ; stem fistulose, equal or attenuated upwards, slightly striate, white-squamulose at

apex when young, then naked, rufescent, incurved and woolly at base; gills adnate, somewhat decurrent with a small tooth, broad, at length separating, connected by veins.

On decayed fir wood. Glamis.

286. A. (*Mycena*) *Adonis*, *Bull.* (p. 123); $\frac{1}{2}$ in. Epping Forest.

287. A. (*Mycena*) *lineatus*, *Bull.*; pileus $\frac{1}{2}$ in., light yellow, varying whitish, membranaceous, hood-shaped then campanulate, obtuse, lineato-sulcate, smooth; stem fistulose, filiform, equal, even, smooth, becoming light yellow, white-villous, somewhat velvety at base; gills adnate, linear, somewhat distant, white.

Among moss. Foxley.

288. A. (*Mycena*) *luteo-albus*, *Bolt.* (p. 123); $\frac{1}{2}$ in.

289. A. (*Mycena*) *flavo-albus*, *Fr.*; growing in troops, pileus $\frac{1}{2}$ in., ochraceous, yellow-white or white, somewhat membranaceous, very slightly fleshy, campanulate, then flattened, umbonate, smooth, even, rimosely split when dry, stem fistulose, slightly rigid, tense and straight, equal, pellucidly white, smooth at base, pruinose at apex; gills adnexed, ventricose, distant, white.

In woods and meadows. Frequent.

290. A. (*Mycena*) *lacteus*, *P.*; $\frac{1}{2}$ in. Epping Forest.

291. A. (*Mycena*) *gypseus*, *Fr.*; cæspitose; fragile; pileus membranaceous, conico-campanulate, glabrous, striate to umbo, stem straight, attenuated upwards, hairy at base; gills attenuato-adnexed, subuncinate, white.

On trunks. Epping Forest.

III. RIGIDIPEDES.—*Stem rigid; gills changing colour from white to grey or reddish.*

292. A. (*Mycena*) *cohærans*, *Fr.*; pileus 1 in., cinnamon

or bay-tawny, becoming pale, slightly fleshy, campanulate, smooth, but velvety in appearance; stem fistulose, almost horny, equal, shining, bay-brown upwards, whitish at apex, date-brown and villous-downy below; gills rounded behind, somewhat free, distant, connected by veins, broad, white then pale.

On bramble, among pine leaves, etc. Batheaston.
Cæspitoso-fasciculate.

293. A. (*Mycena*) *proliferus*, Fr. (p. 123).

294. A. (*Mycena*) *excisus*, Lasch; pileus campanulato-convex, slightly fleshy at disc, somewhat umbonate, slightly wrinkled, date-brown, fuscous-brackish; stem firm, tough, rooted, even, becoming fuscous; gills ventricose, thick, distant, connected by veins, hoary, somewhat free.

In mixed woods, on trunks. Glamis. Odour at length nauseous.

295. A. (*Mycena*) *psammicola*, B. and Br.; pileus $\frac{1}{4}$ in., brown, becoming paler at margin, hygrophanous, somewhat hemispherical, sprinkled with minute particles; margin striate; stem solid, firm, rooting, umber downwards, white upwards, wholly white-pulverulent; gills shortly adnate, sinuate behind.

On a sandbank among moss. Addington. Odour strong.

296. A. (*Mycena*) *rugosus*, Fr.; pileus cinereous, becoming pale, tough, slightly fleshy at disc, membranaceous, campanulate, then expanded, plane, corrugated, dry, striate at circumference; stem short, cartilaginous, fistulose, rigid, tough, straight, at length compressed, smooth, pallid with a short, strigose root; gills arcuato-adnate, with a decurrent tooth, united behind in a collar, somewhat distant, connected by veins, broad, ventricose, white then grey, edge entire or serrulated.

On and near trunks and stumps. Common. Epping Forest. Inodorous.

297. A. (*Mycena*) sudorus, *Fr.*; pileus 1 in., diaphanous, somewhat membranaceous, convex, umbonate, often irregular, striate, viscous; stem firm, rooting even, dry, rather smooth; gills obtusely adnate, without a tooth, broad, thick, somewhat distant, white, then somewhat flesh colour.

On old stumps. Haywood Forest. Commonly solitary.

298. A. (*Mycena*) galericulatus, *Scop.* (p. 124); 1-2 in. Epping Forest.

Var. calopus; stems chestnut colour, united at the base into a fusiform common stem.

On stumps.

299. A. (*Mycena*) polygrammus, *Bull.* (p. 124); 1 in. Epping Forest.

300. A. (*Mycena*) parabolicus, *Fr.* (p. 124). Epping Forest.

301. A. (*Mycena*) tintinnabulum, *Fr.*; gregarious or cæspitose; pileus 1 in., date-brown, azure-blue, pale yellowish-fuscous, becoming pale, somewhat membranaceous, tough, campanulato - convex, plane, scarcely umbonate, even, somewhat viscid when moist; stem even, smooth, pallid, tough, white-strigose at base; gills adnate, decurrent with a tooth, horizontal, thin, crowded, becoming pale and at length slightly inclining to flesh colour.

On fallen beech trunks. Glamis. Epping Forest.

302. A. (*Mycena*) codoniceps, *Cke.*; minute, $\frac{1}{2}$ in., pileus campanulate, scarcely expanding, sulcate, sprinkled with somewhat erect short hairs, wholly umber, stem attenuated downwards, umber below, whitish above, slender; gills adnate, linear, not crowded, white.

On tree-fern stems.

303. A. (*Mycena*) flavipes, *Quel.*; pileus mem-

branaceous, striate, diaphanous, smooth, violet or purplish pink, disc brownish; stem tough, shining, pellucid yellow, villous at base; gills uncinate, adnate, connected by veins, distant, white, then rosy flesh-colour.

On stumps. Whitby, Yorks. Radish scented.

IV. FRAGILIPEDES.—*Stem fragile.*

304. A. (*Mycena*) *atro-albus*, Bolt. (p. 124); 1 in.

305. A. (*Mycena*) *dissiliens*, Fr. (p. 125).

306. A. (*Mycena*) *atro-cyaneus*, Batsch; pileus $\frac{1}{2}$ in., fuscous, then azure-blue-grey, membranaceous, campanulato-convex, at length flattened, gibbous, umbo fuscous-blackish, somewhat wrinkled, angular and obtuse, deeply sulcate, sprinkled with white powder; stem fistulose, filiform, slightly attenuated, equal, rigid, fragile, smooth, dark blue-black, base bulbous; gills joined in a collar, attenuato-adnate, ventricose, distinct, distant, white.

In fir woods. Ascot.

307. A. (*Mycena*) *pullatus*, B. and Cke.; pileus $\frac{3}{4}$ in., dark brown with a tinge of purple, disc almost black, membranaceous, campanulate, obtusely umbonate, sulcato-striate to the middle; stem fistulose, thickened downwards, same colour, white floccose at base, sometimes rooting; gills adnexed, broad, white.

On the ground, among dead leaves. Epping Forest.

308. A. (*Mycena*) *pauperculus*, Berk. (p. 125); $\frac{1}{2}$ in.

309. A. (*Mycena*) *leptocephalus*, P.; pileus cinereous, somewhat membranaceous, campanulato-expanded, repand, umbonate, sulcate, pruinose, opaque; stem equal, slightly striate, opaque, dry; gills emarginate, white-cinereous.

On trunks and on the ground. Laxton Park, Northants. Epping Forest. Strong odour of nitre.

310. A. (*Mycena*) *alkalinus*, *Fr.* (p. 125); 1-2 in. Epping Forest.

311. A. (*Mycena*) *ammoniacus*, *Fr.*; pileus fuscous-blackish at the disc, paler at the striate margin, varying cinereous, somewhat membranaceous, at first acutely conical, papillate, then campanulate, naked, discoid, opaque; stem rooting, firm, polished, dry, equal, whitish, strigose at base; gills adnate, linear, distant, whitish or grey, whitish towards apex.

On the ground, among grass. Frequent. Epping Forest. Strong odour of ammonia.

312. A. (*Mycena*) *metatus*, *Fr.*; gregarious; pileus $\frac{1}{2}$ in., hygrophanous, cinereous, flesh-coloured, livid, then whitish, somewhat membranaceous, hemispherico-campanulate, obtuse, soft, slightly striate, then plane, somewhat silky under a lens; stem soft-flaccid, even, smooth, whitish-cinereous, fibrillose at base; gills adnate, linear, distant, whitish.

In mixed wood, among grass. Glamis. Epping Forest. Odour weakly alkaline.

313. A. (*Mycena*) *plicosus*, *Fr.*; pileus 1 in., fuscous-cinereous, opaque when dry, membranaceous, fragile, campanulate, then expanded, with a slightly fleshy, broad obtuse umbo, deeply lineato-sulcate, almost plicate, often split; stem slightly firm, fragile, tense and straight, equal, smooth, grey, becoming fuscous, blunt, white-villous at base; gills adnate, thick, distant, connected by veins, at length whitish pruinose.

On the ground, in wood. Rare. Killin.

314. A. (*Mycena*) *peltatus*, *Fr.*; growing in crowded troops; pileus $\frac{3}{4}$ in., black-fuscous, then grey, convex, then plane, blackish striate, margin upturned, disc slightly fleshy, orbicular, even, plane, slightly umbilicate; stem equal,

rigid, somewhat fragile, often flexuose, even, smooth, naked, livid; gills adnate, with a small decurrent tooth, at first crowded, ventricose, at length somewhat distant, grey, paler towards edge.

In woods, among moss. Altyre. Rare.

315. A. (*Mycena*) aetites, *Fr.*; growing in troops; pileus $\frac{1}{2}$ in., fuscous-grey, becoming pale, membranaceous, campanulate, then convex with a broad obtuse, prominent umbo, sulcate, smooth, margin black; stem usually fistulose, often compressed, fragile, smooth, shining, whitish-fuscous; gills adnate, somewhat uncinate, slightly arcuate, thin, at first cohering in the form of a collar, reticulated with veins, somewhat distant, white or grey.

In woods. Ascot. Odour bitterish or obsolete.

316. A. (*Mycena*) stanneus, *Fr.*; pileus $1\frac{1}{2}$ in., hygrophanous, grey, then tin colour, silky glistening, smooth, membranaceous, campanulate, then flattened, fragile, often rimose, striate, smooth; stem fistulose, slightly rigid, even, shining, smooth, becoming pale; gills adnate, with a small decurrent tooth, connected by veins, whitish-grey.

In woods, among grass. Cabalva.

317. A. (*Mycena*) vitreus, *Fr.*; growing in troops; pileus 1 in., opaque, fuscous, then livid or bluish-grey, membranaceous, campanulate, obtuse, lineato-striate, smooth, dry, margin entire; stem fistulose, equal, smooth, glistening, striate under a lens; fibrillose at base; gills adnate, linear, thin, somewhat distant, whitish, edge same colour.

In woods. Uncommon.

318. A. (*Mycena*) tenuis (p. 125); $\frac{1}{2}$ in. Epping Forest.

v. *FILIPEDES*.—*Stem thread-like.*

319. A. (*Mycena*) filipes, *Bull.*; $\frac{1}{2}$ in. Epping Forest.

320. A. (*Mycena*) amictus, *Fr.*; gregarious, pileus $\frac{1}{4}$ – $\frac{1}{2}$ in., green, bluish-grey, livid, membranaceous, conico-campanulate, scarcely umbonate, slightly pellucid-striate to middle, then pruinose; stem thinly fistulose, equal, flexible, wholly villous-pulverulent, livid, the long tortuous rooting stem almost smooth; gills free, or reaching the stem, linear, crowded, narrow, grey, edge paler.

Among leaves. Glamis. Epping Forest.

321. A. (*Mycena*) debilis, *Fr.*; pileus $\frac{1}{4}$ in., whitish-livid or flesh colour, then fuscous, membranaceous, campanulate then convex, obtuse, striate, then even; stem slightly fistulose, weak and lax, same colour as pileus, fibrillose at base; gills broadly adnate, rather broad, somewhat distant, whitish, edge same colour.

In chestnut wood. Wrotham, Kent.

322. A. (*Mycena*) vitilis, *Fr.* (p. 126); $\frac{1}{4}$ in. Epping Forest.

323. A. (*Mycena*) collararius, *Fr.*; pileus $\frac{1}{2}$ in., fuscous, pale, grey-whitish, pale pink, fuscous at disc, membranaceous, campanulate, then convex, somewhat umbonate, striate, rigid, smooth; stem fistulose, tough, dry, smooth, even then pale, striate under a lens; gills adnate, joined in the form of a collar behind, thin, crowded, hoary-whitish, or obsoletely flesh-coloured.

In wood. Among oak bark. Glamis.

324. A. (*Mycena*) speireus, *Fr.* (p. 126); $\frac{1}{4}$ in.

325. A. (*Mycena*) tenellus, *Fr.* (p. 126); $\frac{1}{2}$ in.

326. A. (*Mycena*) acicula, *Schaeff.* (p. 127); $\frac{1}{6}$ in.

VI. LACTIPEDES.—*Stem and gills milky.*

327. A. (*Mycena*) hæmatopus, *P.*; cæspitose; pileus 1 in., white-flesh-colour, fleshy-membranaceous, slightly

fleshy at disc, conical then campanulate, obtuse, convex, spuriously umbonate, naked, even, striate at the denticulate margin; stem fistulose, rigid, pulverulent with whitish, delicate, villous down, sometimes plane; gills adnate, often with small decurrent tooth, whitish.

On stumps. Frequent. Epping Forest. Abounding with dark blood-coloured juice.

328. A. (*Mycena*) *cruentus*, *Fr.* (p. 127); $\frac{1}{2}$ in.

329. A. (*Mycena*) *sanguinolentus*, *A. and S.* (p. 127): $\frac{1}{4}$ in. Epping Forest.

330. A. (*Mycena*) *crocatus*, *Fr.* (p. 127); $\frac{1}{2}$ -1 in.

331. A. (*Mycena*) *chelidonium*, *Fr.* (p. 127); $\frac{1}{2}$ -1 in.

332. A. (*Mycena*) *galopus*, *Fr.* (p. 128); $\frac{1}{2}$ in. Epping Forest.

333. A. (*Mycena*) *leucogalus*, *Cke.*; pileus $\frac{1}{2}$ in., purple-brown, paler at margin, black at umbo, membranaceous, campanulate, umbonate, sulcate to middle; stem fistulose, slender, a little thickened downwards, same colour as pileus, base tomentose; gills adnate, with a small decurrent tooth, rather distant, connected by veins, cinereous.

On rotten stump. Kew. Epping Forest. Milk white, plentiful.

VII. GLUTINIPEDES.—*Stem glutinous.*

334. A. (*Mycena*) *epipterygius*, *Scop.*; $\frac{1}{2}$ -1 in. Epping Forest.

335. A. (*Mycena*) *clavicularis*, *Fr.*; pileus $\frac{1}{2}$ in., whitish, light yellowish, then fuscous, membranaceous, convexo-expanded, striate, dry, without a pellicle, depressed at disc; stem fistulose, tough, even, smooth, whitish, fibrillose at base; gills adnate, somewhat decurrent, often connected by veins, whitish.

On grassy ground in fir woods. Glamis. Epping Forest.

336. A. (*Mycena*) *pelliculosus*, *Fr.* (p. 128); $\frac{1}{2}$ –1 in.

337. A. (*Mycena*) *vulgaris*, *P.* (p. 128); $\frac{1}{4}$ in.

338. A. (*Mycena*) *citrinellus*, *P.*; gregarious; pileus $\frac{1}{4}$ in., lemon-yellow, darker at disc, becoming pale, membranaceous, campanulate, then hemispherical and flattened, striate; stem fistulose, filiform, smooth, lemon-yellow, villous at base; gills uncinate, alternate, distant, moderately broad, shining white.

In pine woods. Uncommon.

339. A. (*Mycena*) *plicato-crenatus*, *Fr.*; pileus $\frac{1}{4}$ in., white then light yellow, very thin, conical, somewhat umbonate, sulcato-plicate and crenate without a separable pellicle; stem filiform, pallid reddish, internally light yellow, smooth; gills ascending, narrow, attenuated behind, adnate, with a small decurrent tooth, distant white,

Among heath. Coed Coch.

340. A. (*Mycena*) *rорidus*, *Fr.*; $\frac{1}{4}$ in. Epping Forest.

VIII. BASIPEDES.—*Stem dilated into a disc or swollen into a minute bulb at base.*

341. A. (*Mycena*) *stylobates*, *P.* (p. 129); $\frac{1}{4}$ in.

342. A. (*Mycena*) *terrimus*, *B.* (p. 129); $\frac{1}{10}$ in.

343. A. (*Mycena*) *discopus*, *Lev.*; shining white; pileus conical, obtuse, mealy-pulverulent; stem very tender, mealy pulverulent, with a small hairy bulb; gills adnate, few, very distant, plicose.

On twigs. Very small.

344. A. (*Mycena*) *sacchariferus*, *B.* and *Br.*; whitish, everywhere beset with shining granules; pileus $\frac{1}{6}$ in., hemispherical; stem long, filiform, fixed at the base by a

few flocci ; gills arcuate-decurrent 8-9, very distant, rather thick.

On bramble and nettle stems. Batheaston.

345. A. (*Mycena*) *pterigenus*, Fr. (p. 129); $\frac{1}{4}$ in.

IX. INSITITI.E.—*Growing upon other plants; without root, tubercle or flocci at base.*

346. A. (*Mycena*) *corticola*, Schum. (p. 129); $\frac{1}{2}$ in.

347. A. (*Mycena*) *hiemalis*, Osbeck; pileus thin, campanulate, obsoletely umbonate, striate at margin; stem ascending, slightly downy towards base, gills adnate, uncinate, narrow, linear, whitish.

On trunks. Oak, etc. Rare.

348. A. (*Mycena*) *setosus*, Sow. (p. 130); $\frac{1}{16}$ in.

349. A. (*Mycena*) *capillaris*, Schum. (p. 130); $\frac{1}{16}$ in.
Epping Forest.

350. A. (*Mycena*) *juncicola*, Fr. (p. 130); $\frac{1}{16}$ in.

Subgenus 11. OMPHALIA (p. 131).

I. COLLYBIARI.I.—*Pileus at first dilated, margin inflexed.*

* HYDROGRAMMI.—*Gills narrow, crowded, arcuate.*

351. A. (*Omphalia*) *hydrogrammus*, Fr.; somewhat cæspitose; of one colour, livid or whitish-livid, then whitish; pileus 2 in., somewhat membranaceous, flaccid, umbilicate, hygrophanous, border spreading, undulated, striate; stem cartilaginous, hollow, smooth, rooted, hairy white at base, short or elongated, often decumbent and compressed, livid, naked at apex; gills decurrent, crowded, narrow, arcuate, entire, unequal, livid whitish.

Among dead leaves. Coed Coch. Epping Forest.

352. A. (*Omphalia*) *umbilicatus*, Schæff.: somewhat

cæspitose; pileus 1 in., livid, disc fuscous, thin, whitish, somewhat membranaceous, umbilicate, convexo-plane, even, smooth; stem cartilaginous, fistulose, equal, flexuose, somewhat rooted, cohering with villous down at base, even, silky-striate with white fibrils at apex; gills decurrent, crowded, thin, unequal, whitish.

In woods among moss. Perth.

353. A. (*Omphalia*) *maurus*, Fr.; pileus 1 in., fuliginous, then livid, somewhat membranaceous, convex, umbilicate, smooth, hygrophanous, striate, then even, silky-shining; stem cartilaginous, somewhat horny, rigid, fragile, flocculoso-stuffed, smooth, fuliginous blackish; gills attenuated at both ends, decurrent, arcuate, crowded, white.

On lawns and in moist places. Coed Coch.

354. A. (*Omphalia*) *offuciatus*, Fr.: pileus 1 in., dark, then pale flesh colour, pale, whitish, slightly fleshy, then plano-depressed, even, smooth, hygrophanous; stem cartilaginous, fistulose, equal, round, then compressed, smooth, reddish, obsoletely pruinate at apex; gills decurrent, plane, straight, crowded, narrow, same colour as pileus.

Under beech, etc. Coed Coch.

** PYXIDATI.—*Gills slightly distant, narrow.*

355. A. (*Omphalia*) *chrysophyllus*, Fr.; pileus 1–2 in., hygrophanous, yellow-fuscous, then tan hoary, or whitish, somewhat membranaceous, flaccid, deeply umbilicate, border somewhat reflexed, floccoso-squamulose; stem tough, fistulose, equal, smooth, somewhat rooted, yellow; gills decurrent, distant, broad, yellow.

On pine chips and rotten pine wood. On pine sawdust. Glamis.

356. A. (*Omphalia*) *Postii*, *Fr.*; pileus 1-2 in., bright orange, membranaceous, umbilicate, smooth, convex, striate towards margin; stem fistulose, equal, tense, straight, smooth, becoming light yellow; gills decurrent, linear, arcuate, whitish.

In swampy places. On charcoal beds. Downton.

357. A. (*Omphalia*) *pyxidatus*, *Bull.* (p. 130); 1 in. Epping Forest.

358. A. (*Omphalia*) *leucophyllus*, *Fr.*; pileus 1 in., dark cinereous, somewhat membranaceous, infundibuliform, even, not floccose, reflexed, margin involute; stem stuffed, then fistulose, slightly rigid, equal, smooth, cinereous; gills decurrent, slightly distant, arcuate, shining white.

Among short grass. Coed Coch.

359. A. (*Omphalia*) *striæpileus*, *Fr.*; pileus 1 in., hygrophanous, livid fuscous, then pale-white, somewhat membranaceous, convex, then flattened, umbilicate, striate, smooth, even; stem fistulose, firm, equal, often flexuose, slightly tough, even, smooth, becoming fuscous; gills decurrent, somewhat crowded, whitish.

Among moss and leaves. Among grass in mixed wood, Glaunis.

360. A. (*Omphalia*) *telmatiæus*, *B. and Cke.*; pileus $\frac{3}{4}$ in., hygrophanous, brown, then mouse-coloured, infundibuliform, minutely virgate; stem compressed, tomentose at base; gills distant, decurrent.

On *Sphagnum*. Aboyne.

361. A. (*Omphalia*) *sphagnicola*, *B.* (p. 131); 1- $1\frac{1}{2}$ in.

362. A. (*Omphalia*) *philonitis*, *Lasch*; pileus $\frac{1}{2}$ - $\frac{3}{4}$ in., cinereous-fuliginous, membranaceous, deeply infundibuliform, margin erect, without striæ, hygrophanous, then floccose; stem fistulose, equal, smooth, floccose at base; gills

decurrent, somewhat distant, narrow lanceolate, white, then smoky.

On *Sphagnum*. Glamis.

363. A. (*Omphalia*) *oniscus*, Fr. (p. 131); 1 in. Epping Forest.

364. A. (*Omphalia*) *cæspitosus*, Bolt.; pileus $\frac{1}{2}$ –1 in., hygrophanous, yellowish-white, then opaque-white, somewhat membranaceous, convex, hemispherical, umbilicate, margin crenate, sulcate nearly to centre, otherwise smooth; stem curved, fistulose, somewhat bulbous; gills distant, triangular, decurrent, whitish.

On peat and sandy heaths. King's Lynn.

365. A. (*Omphalia*) *glaucocephalus*, Lasch; pileus $\frac{1}{2}$ in., mouse-colour, hygrophanous, then pale, membranaceous, infundibuliform, plicato-striate, becoming even when dry; stem stuffed, firm; gills decurrent, somewhat distant, lanceolate, olivaceous.

On the ground in woods. King's Lynn.

366. A. (*Omphalia*) *rusticus*, Fr.; pileus $\frac{1}{2}$ in., fuscous then grey, smooth or slightly silky and hoary, membranaceous, umbilicate, convex and striate, then even; stem stuffed, curt, equal, smooth, fuscous, then grey, slightly villous at base; gills decurrent, thick, somewhat distant, grey, arcuate.

Grass avenue in wood. Coed Coch.

*** UMBELLIFERI.—*Gills very distant, broad, often thick.*

367. A. (*Omphalia*) *demissus*, Fr.; =A. *rufulus*, B. and Br. (p. 132); pileus $\frac{1}{2}$ in., fuscous rufescent, somewhat membranaceous, convex then expanded, obtuse, at length umbilicate, striate then even and smooth, or obsoletely pruinose; stem somewhat cartilaginous, stuffed, equal,

shining, liver-rufescent; gills adnate, decurrent, broad behind, somewhat triangular, distant, becoming purple.

In waste places. Resembling a small *A. laccatus*. Epping Forest.

368. A. (*Omphalia*) hepaticus, *Batsch* (p. 131); $\frac{1}{2}$ - $1\frac{1}{2}$ in.

369. A. (*Omphalia*) muralis, *Sow.* (p. 131); $\frac{1}{3}$ -1 in.

370. A. (*Omphalia*) umbelliferus, *L.* (p. 132); $\frac{1}{2}$ in.

Var. abiegnus, B. and Br.; pale yellow.

On decayed fir stumps and on the naked ground.

Var. viridis, Fl. Dan.; wholly of a dull green colour.

371. A. (*Omphalia*) infumatus, *B. and Br.*; pileus $\frac{1}{6}$ in., green then smoky, obtuse, not membranaceous; stem thin, yellow, dilated at base, tomentose, especially below; gills decurrent, few, broad, distant, yellow.

On bark among moss. Garthewin.

372. A. (*Omphalia*) retostus, *Fr.*; pileus $\frac{1}{2}$ in., umber, slightly fleshy, plano-depressed, even, then polished, margin convex, involute; flesh same colour; stem curt, fistulose, tough, equal, smooth, paler than pileus; gills slightly decurrent, distant, pallid, umber.

On lawns and amongst dead leaves. Coed Coch.

373. A. (*Omphalia*) abhorrens, *B. and Br.*; pileus fuscous, umbilicate, even; stem slender, same colour, white tomentose at base; gills decurrent, distant, thick.

On lawn. Coed Coch. Odour foetid.

374. A. (*Omphalia*) pseudo-androsaceus, *Bull.*; whitish or grey, pileus fleshy-membranaceous, convex, deeply umbilicate, at length infundibuliform, smooth, striato-plicate; margin crenulate; stem stuffed, slender; gills decurrent, distant.

Among moss on lawn. Coed Coch. Epping Forest.

375. A. (*Omphalia*) griseo-pallidus, *Desm.*; pileus $\frac{1}{3}$ in.,

fuscous-grey, then hoary, slightly fleshy, convex then plane, umbilicate, even, smooth, slightly shining, hygrophanous, unequal and excentric, margin deflexed; stem stuffed, slightly firm, equal, smooth, fuscous; gills decurrent, distant, thick, same colour as pileus, or darker.

On the ground. King's Lynn.

376. A. (*Omphalia*) *stellatus*, *Sow.* (p. 132); $\frac{1}{3}$ in.

II. MYCENARIID.—*Pileus at first campanulate, margin straight, pressed to the stem.*

* CAMPANELLAID.—*Gills broad, perfect, unequal.*

377. A. (*Omphalia*) *campanella*, *Batsch* (p. 133); $\frac{1}{2}$ in.

378. A. (*Omphalia*) *pictus*, *Fr.*; pileus $\frac{1}{4}$ in., higher than broad, fuscous, the umbilicate disc light yellow, the sides striate, margin paler, membranaceous; stem almost filiform, horny, rigid, stuffed, smooth, date-brown with a small radiating-membranous base, slightly thickened upwards; gills adnate, somewhat decurrent, higher than broad, distant, whitish, then light yellow.

On wood, chips, etc. In mixed wood. Killin.

379. A. (*Omphalia*) *campylophyllus*, *B.* (p. 133); $\frac{1}{2}$ in.

380. A. (*Omphalia*) *umbratilis*, *Fr.*; gregarious; pileus 1 in., shining black-fuscous, then hoary, membranaceous, obtusely campanulate, then convex and umbilicate, smooth, margin striate; stem tough, tubular, flocculoso-stuffed, equal, smooth, fuscous dead-black; gills adnato-decurrent, arcuate, crowded, broad, becoming fuscous-white.

In damp places. On the ground, among grass.

381. A. (*Omphalia*) *griseus*, *Fr.* (p. 133); $\frac{1}{2}$ in.

382. A. (*Omphalia*) *fibula*, *Bull.*; $\frac{1}{2}$ in.

Var. Swartzii, Fr.; firmer; pileus at length rather plane, whitish, disc fuscous; stem whitish, somewhat violaceous at apex.

In woody places. In groves abounding in springs.

383. A. (*Omphalia*) *directus*, B. and Br.; white, very slender, pileus nail-shaped, plane at apex; stem long, thread-like, slightly rufous, ascending, clothed with long hairs towards the base; gills deeply decurrent.

On dead leaves. Chiselhurst. May to November.

384. A. (*Omphalia*) *Belliæ*, Johns. (p. 134); $\frac{1}{2}$ in.

385. A. (*Omphalia*) *gracillimus*, Weinm.; pileus $\frac{1}{4}$ in., membranaceous, hemispherical, sometimes papillate, sometimes umbilicate, flocculose, then smooth, sulcate at sides; stem delicately fistulose, bristle-like, soft, with a floccose base gills decurrent, thin, somewhat distant, alternate gills diminate.

I. marshy ground, on decaying leaves and stems of vegetables. Rare.

386. A. (*Omphalia*) *bullula*, Brig.; very small, scattered wholly shining white; pileus membranaceous, hemispherical, diaphanous; stem very thin, filiform; gills distant, arcuate-decurrent.

On lead sticks. Coed Coch.

** INTEGRELLI.—*Gills fold-like, narrow.*

387. A. (*Omphalia*) *integrellus*, P.; wholly white, pileus in., membranaceous, conical, soon hemispherical, frequently irregular, broad and depressed at disc, striate at margin stem delicately fistulose, thin, slightly firm, pilose downwards and adnate, often with a small villous bulb at base; gills decurrent, narrow, in the form of folds, distant,

commonly disappearing short of margin of pileus, equal or branched, acute at edge.

In shady places, on decayed sticks, etc. Uncommon.

388. A. (*Omphalia*) *buccinalis*, *Sow.*; an uncertain species. Fries says it approaches *A. stellatus*, but may be a form of *A. umbelliferus*; *B.* and *Br.* say it cannot be either of these species, but that it has the habit of *A. ptychophyllus*, *Cd.*; gills not plicate.—*Sow. t.* 107.

Not uncommon, according to Sowerby.

389. A. (*Omphalia*) *Nevillæ*, *B.*; pileus $\frac{1}{2}$ in., brown, hemispherical, depressed in centre, rugose, minutely granulated, striate, then pale towards the undotted margin; stem brownish, stuffed, white within, rough, with black granules, dilated and clothed with villous hairs at base; gills white, arcuato-decurrent; interstices and sides venoso-rugose.

On *Sphagnum*, in an orchid pot at Dangstein.

Subgenus 12. PLEUROTUS (p. 134).

i. EXCENTRICI.—*Pileus laterally extended, excentric.*

* *Veil forming a ring.*

390. A. (*Pleurotus*) *corticatus*, *Fr.*; pileus 2–6 in. grey, then whitish, compact, convex, then flattened, horizontal, entire, when young covered with dense grey down and margin involute; flesh hard, shining, white; stem solid, hard, rooted, excentric, curved-ascending, somewhat equal, squamuloso-fibrillose, white; ring silky-floccose, moderately thick, white, ruptured in a torn manner, adhering to stem and margin of pileus, at length vanishing; gill deeply decurrent, anastomosing behind, dichotomously branched, somewhat distant, white or becoming yellow when old.

On decayed ash, elm, etc. Epping Forest.

391. A. (*Pleurotus*) *dryinus*, *P.* (p. 134); 2–6 in.
Epping Forest.

392. A. (*Pleurotus*) *spongiosus*, *Fr.*; pileus 2–3 in.,
tomentose, with persistent cinereous down, fleshy, excentric,
somewhat lateral, pulvinate; flesh laxly floccose, white;
stem short, or almost obsolete, incurved, excentric, white,
tomentose; ring white, soon torn, appendiculate at margin
of pileus, soon vanishing; gills sinuato-adnexed, with a
decurrent tooth, simple, separate, crowded, entire, white.

On rotten beech and other trunks. Epping Forest.

** Veil none, gills sinuate or obtusely adnate.

393. A. (*Pleurotus*) *ulmarius*, *Bull.* (p. 134); 3–5 in.
Epping Forest.

394. A. (*Pleurotus*) *tessulatus*, *Bull.*; solitary or cæspitose,
pileus 3–5 in., becoming pale-livid, often marbled with
spots, fleshy, compact, horizontal, regular, but somewhat
excentric, convex, then plane, disc-shaped, even, smooth;
flesh white, tough; stem solid, compact, equal, or attenuated
at base, excentric, even, smooth, white; gills sinuate
behind, uncinato-adnate, thin, crowded, white, becoming
yellow.

On trunks. Coed Coch.

395. A. (*Pleurotus*) *subpalmatus*, *Fr.* (p. 135); 2–4 in.
Epping Forest.

396. A. (*Pleurotus*) *craspedius*, *Fr.*; cæspitose; pileus
3–5 in., brick colour, pale tan or cinereous, excentric,
fleshy, thin, almost membranous at margin, flaccid, plane,
even, smooth, moist, without a separable pellicle; margin
at first involute, elegantly crenato-lobed and fimbriate;
flesh thin, watery, white when dry; stem thick, solid, firm,
elastic, internally spongy, generally unequal, pallid, com-

monly smooth or slightly villous at base; gills adnate, obtuse behind, very thin, crowded, narrow, at length lacerated, shining white.

On trunks and rotten wood.

397. A. (*Pleurotus*) *fimbriatus*, *Bolt.* (p. 135); 3 in.

398. A. (*Pleurotus*) *Ruthæ*, *B. and Br.*; pileus 1½ in., dirty-whitish, fan-shaped, slightly hispid above the gelatinous stratum, the very thin margin striate; stem short, lateral, hispid; gills white, rather broad, acute behind, anastomosing, with a reddish tinge like that of the stem, interstices veined; mycelium fibrous.

On sawdust. Coed Coch.

399. A. (*Pleurotus*) *lignatilis*, *Fr.*; pileus 3–4 in., dingy whitish, commonly excentric, rarely lateral, often reniform, fleshy, thin, compact, tough, convex, then plane, obtuse and often umbilicate, flocculos-pruinata, at length plane, repand; margin at first involute, then expanded, undulato-lobed; stem stuffed, then hollow, thin, unequal, curved or flexuose, tough, whitish, pruinato-villous, rooting and somewhat tomentose at base; gills adnate, crowded, narrow, unequal, shining white.

On beech, etc. Burnham Beeches.

400. A. (*Pleurotus*) *circinatus*, *Fr.*; solitary, wholly white, not hygrophanous; pileus 3 in., orbicular, horizontal, fleshy, tough, convex, then plane, flat, obtuse, even, but covered over with a shining whitish-silky lustre; stem stuffed, elastic, equal, central, or slightly excentric, commonly straight, smooth, bluntly rooted at base; gills adnate, slightly decurrent, crowded, broad, white.

On rotten wood. Birch. Rare. Odour pleasant.

*** Veil none, gills deeply decurrent, stem distinct, somewhat vertical.

401. A. (*Pleurotus*) *sapidus*, *Kalch.*; cæspitose; pileus fleshy, somewhat excentric, deformed, smooth, depressed in centre, white or brownish; stems solid, connate at base, smooth, white.

On elm trunks. Isleworth, Kew, Morpeth, etc.

402. A. (*Pleurotus*) *pantoleucus*, *Fr.*; wholly white, often opaque; pileus 3 in., broad, fleshy, excentric, dimidiate, spathulate, and slightly convex, even, smooth, somewhat depressed and marginate behind; margin equal, entire; stem solid, ascending, very excentric, equal or attenuated downwards, not rooted, even, smooth; gills decurrent, somewhat crowded.

On trunks, willow, etc. Coed Coch.

403. A. (*Pleurotus*) *mutilus*, *Fr.*; wholly white; pileus excentric or lateral, slightly fleshy, soft, tough, reniform, spathulate and depressed behind, somewhat umbilicate, smooth and silky when dry; stem erect or ascending, excentric or somewhat lateral, round, solid, tough, smooth, except at the villous base; gills decurrent, somewhat crowded, narrow, rather thick, simple; springing from an effused flaxy mycelium.

On dead wood. On grassy open hillside. Penzance.

**** Veil none, gills deeply decurrent, pileus sessile or extended behind into a short oblique, stem-like base.

404. A. (*Pleurotus*) *ostreatus*, *Jacq.* (p. 135); 3-5 in. Epping Forest.

Var. glandulosus; gills broad, glandular, white, anastomosing behind.

Var. columbinus, *Bres.*; pileus fleshy, irregular, subrotund, margin involute, plano-convex, gibbous, then umbilicate; margin pigeon-colour-blue, centre rather flesh-colour, becoming yellowish, smooth, umbo or umbilicus whitish, pilose; stem excentric, lateral, strigose, variable in length; flesh white; gills crowded, broad, attenuato-decurrent, anastomosing behind, glaucous, edge entire, or delicately fimbriate under a lens.

On stumps. Kew.

405. A. (*Pleurotus*) *euosmus*, *B.* (p. 135); 3 in. Epping Forest.

406. A. (*Pleurotus*) *revolutus*, *Kickx.*; pileus at first smoky, then lead- or mouse-colour, darker in the centre, fleshy, firm, elastic, convexo-plane, smooth, slightly shining, depressed behind, margin incurved; stem curt, thick, smooth or pubescent; gills decurrent, serrulated, white.

407. A. (*Pleurotus*) *salignus*, *Alb. and Sch.* (p. 136); 2-3 in.

408. A. (*Pleurotus*) *acerinus*, *Fr.*; shining white; pileus 1-4 in., fleshy, tough, thin, unequal, silky-villous, not hygrophanous; stem somewhat lateral, thin or obsolete, villous; gills decurrent, very crowded, thin, white, then becoming yellow.

On plane and ash. Epping Forest.

II. DIMIDIATI.—*Pileus lateral, immarginate behind, not at first resupinate.*

409. A. (*Pleurotus*) *petaloides*, *Bull.* (p. 136); 1-2 in. Epping Forest.

410. A. (*Pleurotus*) *pulmonarius*, *Fr.*; pileus 2-3 in., cinereous, then cinereous-tan, continuous with stem, fleshy,

soft, tough, flaccid, obovate, or reniform, plane or reflexo-conchate at margin, even, smooth; flesh thin, soft, white; stem very short, solid, lateral, horizontal, or ascending, round, villous, expanded into pileus; gills decurrent, moderately broad, not branched or anastomosing, livid or cinereous.

On trunks. Aberdeen Fungus Show. 1874.

411. A. (*Pleurotus*) *serotinus*, Schrad. (p. 136); $\frac{1}{2}$ -3 in.

412. A. (*Pleurotus*) *mitis*, P. (p. 136); $\frac{1}{2}$ in. Epping Forest.

413. A. (*Pleurotus*) *gadinoides*, Sm.; whole plant white; pileus rather fleshy, tender, dimidiate, clothed with fine adpressed flocci, hygrophanous, with no gelatinous upper stratum; stem small, lateral or none; gills somewhat crowded, slightly branched.

On tree-fern stems. Chelsea.

414. A. (*Pleurotus*) *limpidus*, Fr.; pileus 1 in., hyaline-white, then shining-white, slightly fleshy, obovate or reniform, horizontal, even, smooth, hygrophanous, without a viscous pellicle, margin thin, shortly inflexed; no separate stem, but the pileus narrowed behind into a stem-like base; gills thin, crowded, decurrent at base, white.

On trunks; on old ash stump. Epping Forest, Penzance, etc.

415. A. (*Pleurotus*) *reniformis*, Fr.; pileus $\frac{1}{2}$ in., cinereous, slightly fleshy, horizontal, reniform, plane, emarginate behind, margin entire; flesh very thin, somewhat gelatinous, diaphanous; stem a very short villous rudiment; gills thin, linear, grey.

On branches; silver fir, etc. Glamis.

416. A. (*Pleurotus*) *lauro-cerasi*, B. and Br.; pileus

1 in., brown, oyster-shaped, sulcate, cuticle very thin, giving way at the furrows and exposing flesh of pileus; stem obsolete; gills connected by veins.

On the naked trunk of a laurel. Coed Coch.

417. A. (*Pleurotus*) *tremulus*, *Schäff.* (p. 137); $\frac{1}{2}$ in.

418. A. (*Pleurotus*) *acerosus*, *Fr.* (p. 137); $\frac{1}{2}$ in.
Epping Forest.

III. RESUPINATI.—*Pileus at first resupinate, with the gills meeting at an eccentric point, then reflexed, sessile.*

* *Pileus fleshy uniform.*

419. A. (*Pleurotus*) *porrigens*, *P.* (p. 137); 1–4 in.

420. A. (*Pleurotus*) *septicus*, *Fr.* (p. 137); $\frac{1}{2}$ in.
Epping Forest.

** *Pileus fleshy, striate, with an upper gelatinous stratum or viscous pellicle.*

421. A. (*Pleurotus*) *mastrucatus*, *Fr.* (p. 138); 1–4 in.
Epping Forest.

422. A. (*Pleurotus*) *atro-cæruleus*, *Fr.* (p. 138); 1–2 in.

423. A. (*Pleurotus*) *Leightoni*, *B.* (p. 138); $\frac{1}{2}$ in.

424. A. (*Pleurotus*) *algidus*, *Fr.* (p. 138); 1–2 in.

425. A. (*Pleurotus*) *fluxilis*, *Fr.*; pileus 1 in.; somewhat umber, thin, dimidiate, horizontal, plane, reniform, covered with a fluid gelatinous stratum which is not covered with a cuticle; flesh proper very thin, pallid, soft; gills rounded behind, linear, distant, whitish, a few reaching the base, many shorter ones.

426. A. (*Pleurotus*) *cypsellæformis*, *B.* (p. 138); $\frac{1}{6}$ in.

427. A. (*Pleurotus*) *applicatus*, *Batsch* (p. 139); $\frac{1}{2}$ in.

*** *Pileus membranaceous, not viscid.*

- 428. A. (*Pleurotus*) Hobsoni, B. (p. 138) ; $\frac{1}{3}$ in.
- 429. A. (*Pleurotus*) striatulus, Fr. (p. 138) ; $\frac{1}{2}$ in.
- 430. A. (*Pleurotus*) hypnophilus, B. (p. 138).
- 431. A. (*Pleurotus*) chioneus, P. (p. 138) ; $\frac{1}{6}$ in. Epping Forest.

Series 2. HYPORHODII.—*Spores rosy, rubiginous, or salmon-colour.*

Subgenus 13. VOLVARIA (p. 139).—Volvaria corresponds with Amanita ; the spores rosy, not white.

* *Pileus dry, silky or fibrillose.*

- 432. A. (*Volvaria*) bombycinus, Schäff. (p. 139) ; 3-8 in.
- 433. A. (*Volvaria*) volvaceus, Bull. (p. 139) ; 3 in.
- 434. A. (*Volvaria*) Loveianus, B. (p. 140) ; $\frac{1}{2}$ - $2\frac{1}{2}$ in.
- 435. A. (*Volvaria*) Taylori, B. (p. 140) ; $1\frac{3}{4}$ in.
- 436. A. (*Volvaria*) temperatus, B. and Br. ; pileus $\frac{1}{4}$ in., convex, umbonate, pulverulent, striate ; stem slender, pellucid ; volva ample.

On soil in a greenhouse. Sibbertoft.

** *Pileus more or less viscid and smooth.*

- 437. A. (*Volvaria*) speciosus, Fr. (p. 141) ; 3-5 in.
- 438. A. (*Volvaria*) gloiocephalus, Dec. Fl. ; pileus 3 in., fuliginous, mouse-grey, fleshy, campanulate, then expanded, umbonate, smooth, glutinous, striate at margin ; stem solid, smooth, becoming fuscous or tawny ; volva circularly split, pressed close, fragments sometimes seen on the pileus ; gills free, reddish.

On the ground, uncommon. Odour strong and unpleasant. Very poisonous according to Letellier.

439. A. (*Volvaria*) *medius*, *Schum.*; pileus 1-1½ in., slightly fleshy, convexo-plane, obtuse, viscous, silky when dry; margin even, smooth; stem solid, equal, smooth; volva lobed, sheathing; gills free, rosy flesh-colour.

On the ground. Epping Forest.

440. A. (*Volvaria*) *parvulus*, *Weinm.*

= A. (*Volvaria*) *pusillus*, *Fr.* (p. 140); gregarious; pileus ½-1 in., whitish, umbo darker, slightly fleshy, conical, then campanulate, at length plane and umbonate, at first viscid, soon dry, silky; stem somewhat fistulose, equal, silky, villous at base, white; gills free, flesh-coloured.

In pastures, soil in gardens, etc. Frequent.

Subgenus 14. ANNULARIA.—*Annularia* corresponds with *Lepiota*, the spores rosy, not white. Annulate, but destitute of a volva, gills free, hymenophore distinct from the stem. Chamaeota, *Sm.*; in *Jour. Botany*, 1870.

No British species.

Subgenus 15. PLUTEUS (p. 141).—*Pluteus* corresponds with *Hiatula*; the spores rosy, not white.

* *Cuticle of pileus separating into fibrils or flocci.*

441. A. (*Pluteus*) *cervinus*, *Schaeff.* (p. 141); 3 in. Epping Forest.

Var. eximus, *Sm.*; pileus even, covered with a viscid separable cuticle, umber, becoming reddish, stem fibrillose, at length blackish.

On sawdust.

Var. patricius, *Schulz*; pileus whitish, then smoky-grey, furnished with umber or cinnamon scales, at length smooth, silky, shining, and cracked in a radiate manner; stem even, white.

On oak trunks.

Var. petasatus, Fr. (p. 141); 5–6 in.

Var. Bullii, B.; pileus even, pallid, darker at the disc, convex then expanded, smooth; stem thick, solid, brown, slightly swollen at the base, fibrillose, white and silky above; gills broad, rounded behind, free, flesh colour.

On rotten wood.

442. *A. (Pluteus) umbrinus, Fr.* (p. 141). Epping Forest.

= *A. umbrosus, P.*; pileus umber; stem villosa-squamose; gills fuliginous.

443. *A. (Pluteus) ephebeus, Fr.*; pileus 1–2 in., fleshy, convex then flat, obtuse, clad with a bluish tomentum, margin naked; stem stuffed, smooth, often curved and turning bluish, minutely striate; gills free, yellowish, then flesh-colour.

On rotten wood.

444. *A. (Pluteus) salicinus, P.*; pileus 1 in., bluish-grey, then cinereous, slightly fleshy, convex, then plane, somewhat umbonate, smooth, but flocculoso-rugulose and darker at the disc; stem stuffed, equal, fibrillose, fragile, white azure-blue, or sometimes becoming green; gills free, rose colour.

In the interior of a hollow willow. South Wootton.

445. *A. (Pluteus) hispidulus, Fr.*; pileus $\frac{1}{2}$ in., grey, slightly fleshy, convex, then plane, obtuse, everywhere silky or slightly pilose, even, dry, at length slightly striate at margin; stem fistulose, equal, curved, round, fragile, smooth, silvery; gills free, flesh colour.

On beech stumps. Stapleton Park.

446. *A. (Pluteus) pellitus, Fr.*; white; pileus 2 in., rather fleshy, convex, then plane, even, dry, silky; stem stuffed, smooth, even, shining; gills flesh-coloured.

On and about trunks.

** *Pileus pruinata*, somewhat pulverulent.

447. A. (*Pluteus*) *nanus*, *P.* (p. 141); 1 in. Epping Forest.

Var. lutescens; stem, and often the gills, yellow.

On trunks.

448. A. (*Pluteus*) *spilopus*, *B. and Br.*; pileus brown, rugulose; stem flexuose, black-dotted.

On stumps. Batheaston. Dwarf, allied to *A. nanus*.

449. A. (*Pluteus*) *semibulbosus*, *Fr.*; pileus $\frac{1}{2}$ in., rather fleshy, hemispherical, atomate, soft, sulcate, white; stem fistulose, pubescent, inflated in a bullate manner at base; gills free, whitish, then flesh colour.

On wood.

*** *Pileus naked, smooth.*

450. A. (*Pluteus*) *violarius*, *Mass.*; gregarious; pileus $\frac{1}{2}$ - $1\frac{1}{4}$ in., hemispherical, then nearly plane, velvety, even, watery, dark purple, disc darker, margin undulate; flesh thick, grey; stem thickest at base, pale umber, whitish above, silky, fistulose, sprinkled below with delicate black fibrils; gills crowded, margin serrulate, whitish, then somewhat bright flesh colour.

On a stump. Odour none, taste pleasant. Stains paper violet.

451. A. (*Pluteus*) *roseo-albus*, *Fr.*; pileus 3 in., rather fleshy, convex, then expanded, smooth, rosy, margin naked; stem solid, attenuated, white-pruinose; gills free, rather distant, flesh coloured.

On elm trunk. Burghill Court. Herefordshire.

452. A. (*Pluteus*) *leoninus*, *Schæff.* (p. 142); $1\frac{1}{2}$ -3 in.

453. A. (*Pluteus*) *chrysophæus*, *Schæff.* (p. 142); 2 in.

454. A. (*Pluteus*) *phlebophorus*, *Dittm.* (p. 142); 1 in.

Var. reticulatus, *Cke.*; pileus salmon-colour, reticulated with elevated anastomosing ribs, forming deep, hexagonal pits; margin incurved; stem short, curved.

On stumps.

Subgenus 16. *ENTOLOMA* (p. 142).—*Entoloma* corresponds with *Tricholoma*, spores rosy not white.

i. *GENUINI*.—*Typical species*.

Pileus *fleshy*, *smooth*, *often viscid*, *not hygrophanous or innato-floccose or squamulose*.

455. A. (*Entoloma*) *sinuatus*, *Fr.*; gregarious; pileus 6 in., becoming yellow-white, fleshy, convex, then expanded, at first gibbous, then depressed, repand and sinuate at margin; stem solid, firm, stout, equal, compact, at first fibrillose, then smooth, naked, shining, white; gills emarginate, adnexed, broad, crowded, pale yellowish-rufescent.

In mixed woods. Odour strong, like burnt sugar.
Poisonous. Epping Forest.

456. A. (*Entoloma*) *lividus*, *Bull.*; pileus 4 in., livid-tan, becoming pale, fleshy, compact at disc, convex, then plane, gibbous, dry, smooth, longitudinally fibrillose; stem somewhat hollow or stuffed, stout, equal, slightly striate, pruinose at apex, rigid, shining white; gills rounded, somewhat free, attenuated in front, whitish flesh-colour.

In woods. East Dereham. Epping Forest. Odour mealy.
Poisonous.

Var. roseus, *Cke.*; pileus plane, smooth, polished, disc rosy, margin whitish; stem attenuated upwards.

On logs.

457. A. (*Entoloma*) *prunuloides*, *Fr.* (p. 143); 2 in.
Epping Forest.

458. A. (*Entoloma*) *repandus*, *Bull.* (p. 143); 1-2 in.

459. A. (*Entoloma*) *placenta*, *Batsch* (p. 143); 1½ in.

460. A. (*Entoloma*) *helodes*, *Fr.* (p. 143); 2 in.

461. A. (*Entoloma*) *bulbigenus*, *B.* and *Br.*; pileus campanulate, obtusely umbonate, rather fleshy, squamotomentose, pallid, shining-white, fragile; stem long, somewhat bulbous, solid at base, fibrillose, whitish; gills crowded, slightly adnexed, fleshy-red.

On the ground.

462. A. (*Entoloma*) *Batschianus*, *Fr.*; pileus ½-1½ in., dark-fuscous, or fuliginous-black, viscid, shining when dry, slightly fleshy and convex, at length depressed, smooth, margin at first involute; flesh same colour, white when dry; stem thick, hollow, tough, fibrous, sub-equal, slightly striate with adpressed fibrils, grey; gills narrowed behind, adnexed, plane, at first crowded, then distant, dingy whitish, then fuliginous.

On the ground. Coed Coch.

463. A. (*Entoloma*) *Bloxami*, *B.*: 1 in.

464. A. (*Entoloma*) *ardosiacus*, *Bull.*; 1½-2 in.

465. A. (*Entoloma*) *liquescens*, *Cke.*; pileus 2-2½ in., smooth, even, convex, then plane, broadly umbonate, yellowish-ochre, disc reddish-brown, margin thin, flexuose, stem erect, flexible, equal, white, hollow; gills crowded, free, white, then pale dirty-lilac.

On the ground, under trees. Resembling *Hiatula* in being deliquescent like *Coprinus*.

466. A. (*Entoloma*) *ameides*, *B.* and *Br.*; pileus 1-2½ in., pale reddish-grey, irregular, broadly campanulate, thin, gibbous, polished in centre; margin white flocculent, at

length smooth, silky-shining, undulated; stem stuffed, compressed, white-villous at base, striate and fibrillose upwards, flocculent at apex; gills distant, adnexed, wrinkled.

In pastures. Bodelwyddan. Becoming reddish when dry.

II. LEPTONIDEI.—*Inclining to Leptonia.*

Pileus dry, flocculose, somewhat scaly.

467. A. (*Entoloma*) *Saundersii*, *Fr.*; pileus 2–3 in., white, becoming fuscous when old, fleshy, campanulate, then expanded, obtuse, repando-lobed, adpressedly tomentose, not hygrophanous; stem solid, equal, silky-fibrous, white; gills slightly adnexed, broad, distant, reddish.

On naked ground and river sand. Rare. Epping Forest.

468. A. (*Entoloma*) *fertilis*, *B.* (p. 142); 6 in.

469. A. (*Entoloma*) *jubatus*, *Fr.*; growing in clusters; pileus 1–2 in., mouse-colour, somewhat fleshy, campanulate, then expanded and flattened, umbonate, floccoso-scaly and fibrillose; flesh thin, same colour as pileus; stem fleshy-fibrous, rigid, fragile, hollow, equal, becoming fuscous, clothed with fuliginous fibrils; gills adnexed, somewhat emarginate, easily separating, crowded, ventricose, at first fuliginous, then purple-fuliginous.

In old pastures and mossy places. Uncommon. Epping Forest.

470. A. (*Entoloma*) *resutus*, *Fr.*; pileus 1 in., becoming fuscous, disc darker, slightly fleshy, convex, obtuse, floccoso-scaly, sometimes with darker adpressed scales, or becoming even, longitudinally fibrillose; stem fibrous, soft, stuffed, at length hollow, equal, polished, smooth, slightly striate, somewhat grey; gills adnexed, ventricose, reddish, almost free, plane, crowded, thick, grey, at first darker.

In old pasture. Glamis.

471. A. (*Entoloma*) *griseo-cyaneus*, *Fr.*; pileus 1 in., white, grey, or inclining to blue, slightly fleshy, campanulate, then convex, obtuse, floccoso-scaly; stem fibrous, hollow, externally floccoso-fibrillose, pallid, then becoming azure-blue, sometimes white; gills adnexed, separating free, ventricose, whitish, then flesh-colour.

In pastures and open woods. Rare.

A. *frumentaceus*, *Bull.* (p. 144). This is a *Tricholoma*. See No. 85.

472. A. (*Entoloma*) *sericellus*, *Fr.* (p. 144); $\frac{1}{2}$ in. Epping Forest.

473. A. (*Entoloma*) *Thompsoni*, *B. and Br.*; pileus $1\frac{1}{4}$ -2 in., grey-tomentose, plane, with raised radiating ribs which form reticulations in centre; stem fibrillose, tomentose, paler than the pileus; gills broad, flesh-colour.

Among grass in plantation. West Farleigh.

III. NOLANIDEI.—*Inclining to Nolanea.*

Pileus thin, for most part scissile, hygrophanous, smooth, silky when dry, commonly irregular, pileus repand.

474. A. (*Entoloma*) *clypeatus*, *L.*; 3 in.

475. A. (*Entoloma*) *rhodopolius*, *Fr.*; 2-5 in.

476. A. (*Entoloma*) *majalis*, *Fr.*; cæspitose; pileus $1\frac{1}{2}$ - $2\frac{1}{2}$ in., somewhat cinnamon, ochraceous, pale yellow when dry, fleshy-membranaceous, campanulate, then convex, somewhat umbonate, fragile, smooth, even, margin repand, rimoso-incised; stem slender, fistulose, compressed, twisted, striate, somewhat fibrillose, whitish, slightly thickened at the base, white-tomentose; gills free, ventricose, crowded, crenate, pallid, flesh-colour,

In meadows and open woods. Rare, April to May.

477. A. (*Entoloma*) *Wynnei*, *B. and Br.*; pileus 2-3 in., fuliginous, at first plane, velvety, convex, squamulose; margin striate, often undulated; stem fuliginous azure-blue, compressed, cottony at base; gills broad, transversely ribbed, pallid, crenulate at margin.

In fir woods. Coed Coch. Odour of bugs.

478. A. (*Entoloma*) *costatus*, *Fr.* (p. 145); 2-3 in.

479. A. (*Entoloma*) *sericius*, *Bull.* (p. 145); 1 in.
Epping Forest.

480. A. (*Entoloma*) *Persoonianus*, *Phil. and Plow.*; pileus $\frac{1}{2}$ in, shining white, then pale, somewhat fleshy, very fragile, convex, obtusely umbonate, silky-shining; stem long, bulbous, and solid at base, otherwise hollow, thin, piloso-squamulose; gills adnexed, crowded, obovate, red-flesh-colour; darker at maturity.

On the ground; in grassy places. East Dereham.

481. A. (*Entoloma*) *nidorosus*, *Fr.* (p. 145); 3 in.

482. A. (*Entoloma*) *speculum*, *Fr.*; somewhat cæspitose; pileus straw-white, silvery, hygrophanous, almost membranaceous, pellucid, convex, then flattened and depressed, disc obsoletely umbonate, smooth; margin thin, bent inwards, flexuose, striate; stem fistulose, smooth, round, then compressed, shining; gills adnexed, broadly emarginate, ventricose, flaccid, white, then flesh-colour, edge entire, becoming fuscous.

On the ground, among grass. Coed Coch.

Subgenus 17. *CLITOPILUS* (p. 145).—*Clitopilus* corresponds with *Clitocybe*, spores rosy, not white.

1. **ORCELLI.**—*Gills deeply decurrent, pileus irregular, somewhat eccentric, flexuose, scarcely hygrophanous, margin at first flocculose.*

483. **A. (*Clitopilus*) *prunulus*, *Scop.* (p. 145) ; 2–4 in. Epping Forest.**

484. **A. (*Clitopilus*) *Orcella*, *Bull.* ; growing in troops ; pileus becoming yellow-white, fleshy, soft, plano-depressed, at first irregular, slightly silky, somewhat viscid when moist ; stem curt, solid, flocculose, thickened upwards ; gills crowded, whitish flesh-colour.**

On open grassy ground. Frequent. Epping Forest. Commonly smaller and thinner than *A. prunulus* ; pileus undulato-lobed, often spotted and zoned ; flesh softer and unchangeable ; gills more crowded. Edible.

485. **A. (*Clitopilus*) *mundulus*, *Fr.* ; pileus 2 in., becoming pale-white, thin, spotted, cinereous, at length black, fleshy, thin, at first convex, gibbous, with an involute margin, floccoso-soft, soon flattened and depressed, unequal, repand, often excentric, even or rivulose ; flesh soft, but tough, white ; stem stuffed, equal, floccoso-villous, then smooth, white villous at base, at length black internally ; gills crowded, narrow, thin, pallid.**

In woods, among leaves. Uncommon.

486 **A. (*Clitopilus*) *popinalis*, *Fr.* ; pileus 1–2 in., cinereous, mottled with guttate spots, slightly fleshy, flaccid, convex, then depressed, somewhat repand, smooth, opaque ; flesh whitish-grey, unchangeable ; stem stuffed, equal, flexuose, naked, paler than the pileus ; gills broader than flesh of pileus, lanceolate, crowded, dark grey, at length reddish.**

On downs. Worthing.

487. A. (*Clitopilus*) *undatus*, *Fr.*; pileus $1\frac{1}{2}$ in., fuliginous-cinereous, becoming pale, not hygrophanous, slightly silky-opaque when dry, fragile, umbilicate, sometimes infundibuliform, unequal, undulated; stem often very short, fibrous, hollow, unequal, compressed, attenuated at base and covered downwards with whitish pubescence; gills not crowded, thin, entire, dark, cinereous.

On open downs. Batheaston.

488. A. (*Clitopilus*) *cancerinus*, *Fr.*; pileus 1 in., whitish tan or white, not hygrophanous, somewhat membranaceous, at first convex with involute margin, then plane, irregular, at length cracked, smooth, no cuticle, becoming floccos-even, flesh white, hyaline at gills; stem curt, white, stuffed, or fistulose, round or compressed, equal or thicker at apex, smooth; gills distant, rather thick, arcuate, then straight, white, then flesh-colour.

Grass fields. Apethorpe.

489. A. (*Clitopilus*) *cretatus*, *B. and Br.*; pileus $\frac{1}{4}-\frac{3}{4}$ in. dead white, shining membranaceous, convex then umbilicate, margin involute; stem short, often curved and thickened at base, tomentose, especially below, white; gills narrow, rose-colour.

On naked soil in woods and pastures. Uncommon.

II. SERICELLI.—*Pileus regular, silky or hygrophanous-silky, margin involute; gills adnate, slightly decurrent.*

490. A. (*Clitopilus*) *carneo-albus*, *With.*; pileus 1 in., white, somewhat fleshy, convexo-plane, orbicular, even, slightly silky, somewhat disc-shaped; disc at length depressed, rufescent; stem white, unequal, fibroso-striate; gills thin, somewhat distant, white, then flesh colour.

In heathy places. Rare. Epping Forest.

491. A. (*Clitopilus*) *vilos*, Fr.; pileus 1 in., grey, somewhat membranaceous, convex, umbilicate, soft, when dry silky-fibrillose, opaque; stem fistulose, equal, somewhat tough, but fibroso-fissile, same colour as pileus, fibrillostriate; white-villous at base; gills plano-decurrent or adnate with a decurrent tooth, nearly triangular, crowded, almost extending beyond margin of pileus, whitish.

In pine woods. Among moss, etc. Leigh Down.

492. A. (*Clitopilus*) *stilbo-cephalus*, B. and Br.; pileus campanulate, obtuse, sometimes umbonate, hygrophanous, when dry whitish, somewhat silky, sparkling, margin straight; stem hollow, somewhat equal, undulato-fibrous, silky; gills broad, adnate, sometimes emarginate behind, veined.

Ascot.

493. A. (*Clitopilus*) *straminipes*, Mass.; pileus 1-2 in., thin, membranaceous, fragile, convex then expanded and depressed, whitish, even, rather shining; stem equal, hollow, smooth, often compressed, straw-colour below, sprinkled with white meal above; gills scarcely crowded, shortly decurrent, whitish then rosy.

On the ground. Carlisle.

Subgenus 18.—*LEPTONIA* (p. 146).

Leptonia corresponds with *Collybia*, spores rosy, not white.

* *Gills whitish, pileus slightly fleshy, without striæ, not hygrophanous.*

494. A. (*Leptonia*) *placidus*, Fr.; pileus 1 in. fleshy-membranaceous, campanulate, then convex, obtuse, disc villous and blackish, otherwise squamulose on a cinereous-whitish

ground with fuliginous-black fibrils, or at first flocculose, becoming grey azure-blue, then with concentric scales on a white ground; stem stuffed, equal, rigid, white-pruinose and minutely black dotted at the somewhat thickened apex, dark azure-blue or black-blue; gills annexed, broad behind, crowded, whitish, edge same colour.

On beech trunks. Downton.

495. A. (*Leptonia*) *lappula*, Fr.; pileus 1–1½ in. grey, fleshy, hemispherical, convexo-plane, umbilicate, at first flocculoso-soft, then roughish with short erect black fibrils crowded towards centre; stem fistulose, equal, tough, minutely striate and black-dotted upwards, fuscous-lilac or dark purple, white-villous at base; gills at first adnate with a small tooth then separating, plane, broad, ovate, crowded, distinct, white-grey.

Amongst beech leaves. Forres.

A. (*Leptonia*) *lampropus*, Fr. (p. 146).

496. A. (*Leptonia*) *aethiops*, Fr.; pileus ½–1 in. black then fuliginous, slightly fleshy, plano-depressed, streaked with fibrils, smooth, shining; stem slender, stuffed, smooth, fuscous-blackish, black-dotted upwards; gills adnexed or adnate, sometimes linear, ventricose, whitish, edge same colour and entire.

Grassy places in woods. Killin.

497. A. (*Leptonia*) *solstitialis*, Fr.; pileus fuscous, slightly fleshy, depressed, papillate in centre, slightly wrinkled, obsoletely innato-fibrillose; stem somewhat fistulose, smooth, smoke colour; gills emarginate, broad, whitish, same colour at edge.

Among stones and on grassy ground. Loch Kinord, etc.

** *Gills at first azure-blue or slightly dark blue.*

498. **A. (Leptonia) serrulatus**, *P.* (p. 146).
499. **A. (Leptonia) euchrous**, *P.* (p. 146); 1 in.
500. **A. (Leptonia) chalybæus**, *P.* (p. 147); 1 in.
501. **A. (Leptonia) lazulinus**, *Fr.*; gregarious; pileus 1-1½ in., black-fuliginous, somewhat membranaceous, campanulate, then expanded and obtuse, striate, at first smooth, then obsoletely umbilicate and rimoso-squamulose, fragile; stem cartilaginous, fistulose, smooth, even, dark blue, white-woolly at base; gills adnate, separating, pallid deep blue, equally attenuated from stem to margin of pileus, edge same colour.

On the ground, among grass.

*** *Gills pallid, becoming blue, yellow, or green.*

502. **A. (Leptonia) incanus**, *Fr.* (p. 147).
503. **A. (Leptonia) formosus**, *Fr.*; pileus 1 in., yellow wax-colour, sprinkled with minute fuscous squamules or fibrils, somewhat membranaceous, slightly tough, convex, then plane, umbilicate, striate; stem cartilaginous, somewhat fistulose, internally stuffed with soft white flocci, equal, even, smooth, shining, yellow; gills adnate, with a decurrent tooth, somewhat distant, light yellow-pallid, then flesh-colour, edge entire, same colour.

Among *Equisetum*. Scarborough.

Var. suavis, *Lasch*; stem becoming bluish.

Among *Equisetum*.

504. **A. (Leptonia) chloropolius**, *Fr.*; pileus 1 in., livid, black-squamulose in centre, membranaceous, convex, then flattened; margin at first inflexed, striate; stem fistu-

lose, slightly firm, rigid, smooth, bluish-grey-green; gills adnate, whitish, edge same colour.

In grassy places. Cabalva.

**** Gills grey or glaucous, hygrophanous, pileus somewhat striate.

505. A. (*Leptonia*) *asperellus*, Fr. (p. 147); 1-1½ in.

506. A. (*Leptonia*) *nefrens*, Fr.; pileus 1-2 in., hygrophanous, fuliginous, then livid-grey, membranaceous, campanulate, then flattened, somewhat undulated, striate, obsoletely fibrillose, with a deep darker umbilicus, at length infundibuliform; stem fistulose, fragile, equal, smooth, somewhat naked, fuscous-livid; gills adnexed, separating, broad, pallid grey, edge slightly black, entire.

In grassy places. Ascot.

Subgenus 19.—NOLANEA.

Nolanea corresponds with *Mycena*, spores rosy, not white.

* Gills grey or fuscous. Pileus dark-coloured, hygrophanous.

507. A. (*Nolanea*) *pascuus*, P. (p. 147); 1-3 in.
Epping Forest.

508. A. (*Nolanea*) *Babingtonii*, Blox. (p. 148); ½ in.

509. A. (*Nolanea*) *mammosus*, Fr.; pileus umber or fuliginous, then dull silky, hygrophanous, membranaceous, conico-campanulate, papillate, rarely obtuse, striate, smooth; stem rigid, fistulose, cartilaginous, tense, straight, slightly thickened and white-mealy at apex, otherwise polished, even or compressed, smooth, fuliginous-livid; gills adnexed, separating-free, ventricose, slightly distant, grey, then hoary or pure rose-colour.

On lawns. Coed Coch.

510. A. (*Nolanea*) *junceus*, Fr.; pileus 1 in., fuliginous,

then livid, hygrophanous, membranaceous, conical, then campanulate, obtuse or umbilicate, somewhat squamulose at disc, striate; stem cartilaginous, fistulose, slender, equal, round or compressed, even, smooth, fuscous, livid-fuscous; gills ascending, adnexed, separating, somewhat distant, oblong, grey.

In woods. Carnarvonshire.

511. A. (*Nolanea*) *fulvo-strigosus*, *B. and Br.*; pileus $\frac{3}{4}$ in., grey, conical, slightly wrinkled; stem furfuraceous-squamulose, clothed at base with rigid red hairs, tinted with same colour above; gills adnate, grey.

On the ground. East Farleigh.

** *Gills becoming yellow, or rufescent.*

512. A. (*Nolanea*) *pisciodorus*, *Ces.*; pileus $\frac{1}{2}$ - $1\frac{1}{2}$ in., tawny-cinnamon, somewhat membranaceous, conical, campanulate, then convex, obtusely umbo-nate, velvety soft; stem somewhat fistulose, tough, very thinly pruinose, chestnut-brown, then black, paler at apex, velvety; gills slightly adnexed, pale yellowish, then flesh-colour, at length slightly tawny.

Among chips and decayed leaves. Odour of rotten fish. Epping Forest.

513. A. (*Nolanea*) *nigripes*, *Troy.*; pileus $1\frac{1}{2}$ in., sub-membranaceous, conical, then campanulate, obtuse, without striæ, sprinkled with paler flocci, fuscous; stem fistulose, twisted, smooth, black; gills nearly free, thin, ventricose, yellow flesh-colour.

Amongst moss in swamp. Watford. Odour of putrid fish.

514. A. (*Nolanea*) *rufo-carneus*, *B.* (p. 148); 1 in.

515. A. (*Nolanea*) *icterinus*, *Fr.*; pileus $\frac{1}{2}$ -1 in., light

yellow-green or yellowish-honey-colour, then pale, hygrophanous, somewhat membranaceous, sometimes slightly floccose or fuscous-squamulose, slightly firm, campanulate, then convex or wholly reflexed, pellucid, striate, smooth, opaque, then slightly silky; stem stuffed, rigid, more or less mealy, same colour as pileus, or fuscous; gills adnexed, separating, ventricose, distant, pallid, saffron-yellow.

In woods and gardens.

*** *Gills shining white, then rosy, hygrophanous.*

516. A. (*Nolanea*) *pieceus*, *Kalch.*; pileus black, umber when dry, somewhat membranaceous, conical, then campanulate, papillate, smooth; stem fistulose, somewhat tough, short, even, pruinose, same colour as pileus; gills emarginate, decurrent, with a small tooth, ventricose, somewhat distant, white, then flesh-colour.

In grassy places. Odour of cucumber or fishy.

This is possibly a form of *A. pisciodorus*, and both may be the same with *A. cucumis*.

517. A. (*Nolanea*) *infula*, *Fr.*; pileus $\frac{1}{2}$ - $1\frac{1}{2}$ in., fawn, fuliginous, then dull livid, shining, membranaceous, pliant, conical, or campanulate, often repand and irregular, centre at length depressed, polished; stem somewhat fistulose, cartilaginous, very tough, striate, polished, naked, same colour as pileus, pubescent, with mycelium at base; gills adnexed, separating-free, thin, narrow, crowded, shining-white.

On lawns.

Var. versiformis; pileus $\frac{1}{2}$ in., densely striate, umbonate, papillate, sometimes infundibuliform.

On burnt ground.

**** *Gills whitish, pileus not hygrophanous.*

518. A. (*Nolanea*) *verecundus*, Fr.; densely gregarious; pileus watery, reddish, pallid, somewhat membranaceous, slightly fleshy at disc, at first umbonate, then obtuse, obsoletely pellucid, striate to the middle, smooth, slightly silky towards the flocculose margin; stem slightly firm, somewhat fistulose, cartilaginous, not rigid, easily splitting into fibrils, becoming pale, mealy at apex; gills adnate, separating, rather thick, distant, ventricose, segmental, whitish, watery.

Among short grass.

519. A. (*Nolanea*) *cœlestinus*, Fr.; pileus $1\frac{1}{2}$ in., dark azure-blue, streaked, not hygrophanous, campanulate, then convex, obtuse, the rugged disc darker or blackish, striate, lax; stem somewhat fistulose, attenuated upwards, white-pruinose at apex, otherwise smooth, azure-blue-black; gills adnate, ventricose, broad, hoary-white, edge same colour.

On old trunks. On wood. Stoke Pogis.

520. A. (*Nolanea*) *rubidus*, B. (p. 148); $\frac{1}{3}$ in.

Subgenus 20. *ECCILIA*.—Pileus membranaceous, at first inflexed stem cartilaginous, hollow or stuffed; gills attenuated behind, decurrent not separating from stem.

Eccilia corresponds with *Omphalia*; spores rosy, not white.

521. A. (*Eccilia*) *Parkensis*, Fr.; pileus 1 in., fuscous, then blackish, not hygrophanous, membranaceous, plano-convex, umbilicate, smooth, slightly striate to middle; stem fistulose, attenuated downwards, smooth, fuscous; gills decurrent, crowded, distant, linear, whitish, then becoming dingy flesh-colour.

In grassy places. Batheaston.

522. A. (*Eccilia*) *carneo-griseus*, B. and Br.; pileus 1 in., grey-flesh-colour, umbilicate, striate, delicately dotted,

margin slightly glittering with dark particles; stem slender, fibrous-hollow, same colour as pileus, shining, white-tomentose at base; gills adnato-decurrent, somewhat undulated, distant, rosy, the irregular margin darker.

Among fir leaves. Aboyne.

523. A. (*Eccilia*) *griseo-rubellus*, *Lasch*; pileus 1 in., hygrophanous, umber or fuscous, then grey, membranaceous, umbilicate, at first convex at circumference, then plane, striate; stem fistulose, equal, smooth, same colour as, or paler than pileus; gills decurrent, somewhat distant, grey, then flesh-colour.

In pine woods. On the ground. Sibbertoft.

524. A. (*Eccilia*) *atrides*, *Lasch*; pileus black, fuscous, then pale, black-streaked, somewhat membranaceous, plane, umbilicate, striate; stem somewhat fistulose, pallid, black-dotted upwards; gills decurrent, whitish, attenuated behind, somewhat crowded, the black edge slightly toothed.

In moist woods. On the ground. Hereford. Perhaps a form of *A. serrulatus*.

525. A. (*Eccilia*) *atro-punctus*, *P.*; gregarious; pileus pale cinereous, somewhat fleshy, soft, hemispherical; stem somewhat tough, pallid, shining with black punctiform squamules; gills decurrent, arcuate, distant, alternate, cinereous flesh-colour.

On the ground. Diumore.

526. A. (*Eccilia*) *nigrella*, *P.*; somewhat tufted; pileus becoming blackish, umbilicate, smooth; stem short, glaucous; gills flesh-colour, then somewhat cinereous.

In pastures. Perth.

527. A. (*Eccilia*) *rhodocylix*, *Lasch*; pileus $\frac{1}{2}$ in., somewhat fuscous, then grey, hygrophanous, membranaceous, infundibuliform; margin reflexed, remotely striate, then

flocculose; stem stuffed, thickened upwards, tough, smooth, cinereous; gills decurrent, distant, broad, few, whitish, then flesh-colour.

On rotten wood. On tops of walls. Lincoln.

528. A. (*Eccilia*) *flosculus*, *Sm.*; pileus submembranaceous, pruinoso-crystalline, umbilicate, somewhat irregular, black-brown, then white; stem pruinose or iunato-fibrillose, cartilaginous, with a fleshy pith, attenuated downwards; gills decurrent, somewhat waved, thick, pink.

On the ground at the foot of, and upon the stems of tree ferns.

529. A. (*Eccilia*) *acus*, *Sm.*; pileus submembranaceous, umbilicate, densely pruinose, white; margin striate and incurved; gills thick, distant, deeply decurrent, pink; stem cartilaginous, smooth.

Among germinating coffee seeds, in cocoa-nut fibre. Odour strong.

Subgenus 21. CLAUDOPUS.—Pileus excentric, lateral or resupinate.

Claudopus corresponds with Pleurotus, spores rosy not white.
The British species removed from Crepidotus.

530. A. (*Claudopus*) *variabilis*, *P.* (p. 164). Epping Forest.

531. A. (*Claudopus*) *depluens*, *Batsch* (p. 164).

532. A. (*Claudopus*) *byssisedus*, *P.* (p. 164).

Series 3.—DERMINI (p. 149).

Subgenus 22. ACETABULARIA.—Universal veil distinct from pileus; hymenophore distinct; gills free.

Acetabularia corresponds with Amanita and Volvaria, spores brown, not white or rosy.

533. A. (*Acetabularia*) *acetabulosus*, *Sow.*; pileus 1 in., light brown, convex, striate or rimose, especially at margin; stem long, white, equal, hollow; volva nearly white; gills free, narrow, hispid, light brown, glandular.

Bank of Thames, near high-water mark. Millbank.

Subgenus 23. TOGARIA.—Pileus squamulose, floccose, fibrillose or plane; stem furnished with a ring; gills free, adfixed or adnate.

Togaria corresponds with Lepiota, spores brown, not white.

As in Lepiota, the species are normally terrestrial.

* EUDERMINI.—*Spores ferruginous.*

534. A. (*Togaria*) *aureus*, *Matt.*; wholly golden tawny; pileus 6 in., fleshy, convex, obtuse, soft, velvety, then hairy-squamulose; flesh thin, soft, white, at length yellow; stem solid, equal, smooth, pale, naked above ring, apex flocculose, near ring ferruginous scurfy; ring distant, medial or inferior, erect, spreading, generally wide, laciniate, flocculose; gills adnexed, then free, ventricose, crowded, connected by veins, pallid-ferruginous.

On the ground. Dumfries. Perth.

Var. Vahlii, *Schum.*; pileus even, smooth; gills somewhat free. Dunkeld. Moncreiffe.

Var. Herefordiensis, *Renny*; stem granulated and tuberculated. Herefordshire.

535. A. (*Togaria*) *caperatus*, *P.*; pileus 3–5 in., yellow, fleshy, ovate, then expanded, obtuse, moist, or sub-viscid, even at disc, lacunoso-wrinkled at sides, incrusted with white superficial flocci; stem solid, stout, cylindrical, base tuberous, shining-white, squamulose above the membranaceous ring; gills adnate, crowded, thin, somewhat serrated, clay-cinnamon.

In woods. Uncommon.

536. A. (*Togaria*) *terrigenus*, *Fr.*; pileus 1½–3 in., dingy yellow, fleshy, compact, convex, then flattened, adpressedly silky with fibrils, fibrilloso-scaly towards margin; flesh yellow; stem fleshy, fibrous, stuffed or hollow, sub-equal, dingy yellow, warty-squarrose and fibrillose; gills adnate, with a decurrent tooth, not sinuate, pallid light yellow, then olivaceous-ferruginous.

Damp ground, chiefly in woods. On old earthy stumps. Kenmore. Epping Forest.

537. A. (*Togaria*) *erebius*, *Fr.*; gregarious; pileus 2 in., livid or ferruginous-livid, then ochraceous-clay, slightly fleshy, convex, then flattened, smooth, almost viscid, hygrophanous, striate at margin when dry, fragile; stem hollow, smooth, somewhat striate, pale; ring superior, apical, sulcate, white; gills adnate, somewhat distant, pallid, then dingy cinnamon.

In grassy places in woods. On soil, under beeches.

538. A. (*Togaria*) *ombrophilus*, *Fr.*; gregarious; pale ferruginous; pileus 3 in., fleshy, convex then plane, gibbous, partially repand, smooth, almost viscid, hygrophanous, striate at margin when moist; flesh thin, soft, white when dry; stem hollow, somewhat fragile, equal, obsoletely fibrillose or slightly striate, pallid; ring distant, entire, reflexed, membranaceous, white; gills adfixed, ventricose, at length separating, almost free, crowded, pallid then watery ferruginous.

In grassy places after heavy rains. On the ground.
Coed Coch.

539. A. (*Togaria*) *mollisporium*, *Cke.* & *Mass.*; pileus 2-3 in., fleshy, convex, smooth, soft like kid leather, tawny yellow; disc darker, dry, shining, margin acute, thin; stem equal, paler, fistulose, silky, punctately squamulose at apex; ring broad, distant, brownish, deciduous; flesh yellow; gills narrowly adnate, ventricose, crowded, thin.

On the ground. Carlisle.

540. A. (*Togaria*) *togularis*, *Bull.*; growing in troops; pileus 1½ in., pallid ochraceous, fleshy, soft, campanulate, then expanded, obtuse, orbicular, smooth; flesh thin, soft, yellow; stem fistulose, rigid, equal, cylindrical, fibrilloso-stri-gose, naked, yellow at apex, fuscous downwards; ring-medial, entire, spreading-reflexed; gills adnato-separating, ventricose, crowded, narrowed in front, yellow, at length ferruginous.

In grassy places. In a wood among chips. Rare.

= *A. mesodactylus*, *B. and Br.*

** PHAEOTI.—*Spores fuscous-ferruginous.*

541. A. (*Togaria*) *durus*, *Bolt.* (p. 149); 3 in.

542. A. (*Togaria*) *præcox*, *P.* (p. 149); 3 in. Epping Forest.

Subgenus 24. PLUTEOLUS.—Pileus slightly fleshy, viscid, conical or campanulate, then expanded, margin at first appressed to the stem; stem somewhat cartilaginous, separate from the hymenophore; gills rounded-free.

Pluteolus corresponds with Hiatula and Pluteus; spores brown, not white or rosy.

543. A. (*Pluteolus*) *reticulatus*, *P.* (p. 162); 2 in. Removed from Galera.

544. A. (*Pluteolus*) *aleuriatus*, *Fr.*; pileus $\frac{1}{2}$ -1 in., bluish-grey, livid, rose-colour, somewhat membranaceous, conical, then convexo-plane, viscous, striate; stem fistulose, incurved pulverulent, white; gills free, ventricose, saffron-ochraceous.

On rotten sticks. Coed Coch.

Subgenus 25. **PHOLIOTA** (p. 149).—*Pholiota* agrees with *Armillaria*; spores brown, not white.

A. **TRUNCIGENI**.—*On wood, mostly cæspitose.*

* **ÆGERITINI**.—*Pileus naked, not scaly, but slightly rimoso-rivulose; gills pallid, then rufescent, or fuscous.*

545. A. *Pholiota radicosus*, *Bull.* (p. 150); 3-5 in. Epping Forest.

546. A. (*Pholiota*) *pudicus*, *Bull.* (p. 150); 2-4 in.

547. A. (*Pholiota*) *leochromus*, *Cke.*; cæspitose; pileus bright-tawny, whitish at margin, fleshy, convexo-plane, at length depressed, soft, smooth, rivulose from cracking of cuticle; stem slender, solid, fibrous, internally amber-brown at base, externally paler, white above, nearly equal, smooth, shining; ring persistent, tawny; gills rounded, adnate, slightly ventricose, pallid then cinnamon.

On old stumps, elm, etc. Highgate. Said to be edible.

548. A. (*Pholiota*) *capistratus*, *Cke.*; subcæspitose; pileus 2-3 in. livid, tawny, rather viscid when moist, whitish when dry, fleshy, convex, margin involute and slightly striate; stem thick, stuffed, nearly equal, sub-squamulose; ring large, entire, spreading, persistent; gills decurrent, crowded, rather fleshy, pallid, growing darker.

On old stumps, elm, etc. Highgate. Said to be edible, taste rather unpleasant.

549. A. (*Pholiota*) *aegerita*, Fr.; cæspitose; pileus tawny, becoming pale white towards margin, fleshy, convex then plane, rivulose, slightly wrinkled; flesh white, stem stuffed, equal, white-silky, fibrillose; ring superior, swollen; gills adnate, decurrent with a small tooth, crowded, pallid, then fuscous.

On poplar trunks. On dead ash. King's Lynn. Odour pleasant.

550. A. (*Pholiota*) *luxurians*, Fr.; cæspitose; pileus yellowish-white then rufous-fuscous, fleshy, convexo-gibbous, very irregular, then flattened, unequal, silky then squamulose; flesh white; stem stuffed, rigid, somewhat squamulose, white then fuscous; ring apical, torn, fugacious; gills adnexed then decurrent, crowded, grey flesh-colour then fuscous.

On oak and elm trunks. King's Lynn.

** SQUAMOSI.—*Pileus scaly, not hygrophanous, gills changing colour.*

† *Gills pallid, becoming fuscous, olivaceous, clay-coloured.*

551. A. (*Pholiota*) *comosus*, Fr. (p. 150); 3 in. Epping Forest.

552. A. (*Pholiota*) *heteroclitus*, Fr.; pileus 2-3 in. whitish or yellow, then tawny, compact and hard when young, generally excentric, hemispherical then flattened, obtuse, sometimes even, commonly broken up into broad scattered, innate, adpressed, spot-like, dark scales, sometimes viscid; flesh thick, firm, pallid; stem thickened-bulbous, bluntly rooting, thick, solid, hard, fibrillose, white, veiled at apex, internally rhubarb-colour at base; gills rounded

behind, slightly adnexed, broad, plane, crowded, at first pallid, then dirty ferruginous.

On trunks, birch, poplar. Bromley.

553. A. (*Pholiota*) *aurivellus*, *Batsch* (p. 150); 3–5 in.

554. A. (*Pholiota*) *squarrosus*, *Müll.* (p. 150); 3–5 in. Epping Forest.

Var. *Müllerii*, *Fr.*; pileus obtuse, moist, pallid, with darker adpressed scales; gills becoming tawny-fuscous; stem equal; ring entire.

Epping Forest.

Var. A. *verruculosus*, *Lasch*; pileus compact, obtuse, yellow, with crowded cinnamon scales and *papillæ*; stem villous-scaly.

On trunks of maple. King's Cliffe. Epping Forest.

555. A. (*Pholiota*) *subsquarrosus*, *Fr.*; somewhat cæspitose; pileus 2 in., brown-ferruginous, with darker adpressed floccose scales, fleshy, convex, obtuse or gibbous, viscid; stem stuffed or hollow, equal, yellow-ferruginous, clothed with darker adpressed scales; furnished with an annular zone at apex, becoming yellow-ferruginous within; gills sinuate, emarginate, almost free, arcuate, crowded, at first pale, then dingy yellow.

On trunks and on the ground. On fir stump. Hereford.

†† Gills yellow, then pure ferruginous or tawny, not hygrophanous.

556. A. (*Pholiota*) *spectabilis*, *Fr.* = *A. aureus* (p. 149); cæspitose; pileus 2–5 in., tawny or golden yellow, then pale, shining, fleshy, compact, hemispherical, obtuse, dry, torn into adpressed, innate, pilose squamules of same colour, continued into veil at inflexed margin; flesh thick, hard, sulphur-yellow; stem solid, hard, ventricose, base fusiform,

sheathed with veil, smooth, shining or squamulose, sulphur-yellow, mealy above the inferior, spreading, persistent, even ring; gills adnate, generally with a decurrent tooth, crowded, narrow, at first yellow, then ferruginous.

On stumps. Frequent. Epping Forest. Taste, bitter-aromatic.

557. A. (*Pholiota*) *adiposus*, Fr. (p. 151); 3-7 in. Epping Forest.

558. A. (*Pholiota*) *flammans*, Fr. (p. 151); 2-4 in.

559. A. (*Pholiota*) *Junonius*, Fr.; pileus 2 in., yellow, fleshy, firm, convexo-plane, obtuse, dry, even, smooth; flesh compact pallid; stem yellow, solid, equal, firm, incurved, often eccentric, even, mealy above ring; ring inferior reflexed, entire; gills adnate, crowded, broad, plane, yellow, then ferruginous.

On trunks. Highgate.

560. A. (*Pholiota*) *tuberculosus*, Schæff.; pileus $\frac{1}{6}$ in., tawny yellow, compactly fleshy, convexo-plane, obtuse, sometimes depressed, dry, smooth, or broken up into innate broad adpressed scales; flesh becoming yellow; stem curt, bulbous, hollow, incurved, fibrillose, somewhat scaly, often eccentric, bright light yellow; ring somewhat membranaceous, reflexed, falling off; gills emarginate, crowded, broad, plane, light yellow, then tawny or spotted-ferruginous, edge serrulated.

On trunks, chiefly birch. On sawdust. Coed Coch.

561. A. (*Pholiota*) *curvipes*, Fr.; gregarious; pileus $1\frac{1}{2}$ -2 in., tawny yellow, or orange, fleshy, thin, firm, tough, convex, then expanded, obtuse, wholly innato-flocculose, then torn into minute scales, dry; stem fistulose, equal, incurved, tough, fibrillose or delicately squamulose, light yellow; ring floccoso-radiate, soon vanishing; gills adnate,

crowded, light yellowish, pallid at sides, at length tawny, edge white, at length floccoso-crenate.

On sawdust and fallen trunks. Coed Coch.

562. A. (*Pholiota*) *cruentatus*, *Cke.* and *Sm.*; pileus rather fleshy, convex, then expanded, torn into adpressed floccose scales; stem somewhat fistulose, thin, incurved, fibrillose, yellow, as well as the floccose ring; gills adnate, broad, white, then yellowish, at length tawny.

On trunks.

*** HYGROPHANI.—*Gills cinnamon, not at first light yellow.*

563. A. (*Pholiota*) *paxillus*, *Fr.*; pileus 3–5 in., rather compact, gibbously convex, then expanded, even, moist, subrepand; stem solid, long, stout, rather attenuated, smooth; ring narrow, spreading; gills decurrent, crowded, broad, cinnamon.

On trunks.

564. A. (*Pholiota*) *dissimilans*, *B. and Br.*; pileus 1 in., livid, becoming pale or whitish, campanulate, obtuse, scarcely viscid, at length flattened, involute at margin; stem fistulose, with transverse dissepiments, thickened downwards, shining white, cottony at base; ring erect, generally persistent; gills sinuato-adnate, then decurrent, pallid clay colour.

On sticks of hawthorn and sloe. Hothorpe.

565. A. (*Pholiota*) *Cookei*, *Fr.*; pileus 2 in., dirty pale-yellowish, fleshy, conical, then convex, viscid when moist, sprinkled with darker adpressed scales; stem solid, equal, fibrillose, rufous-brown below; ring tender; gills adnate, slightly ventricose, at length brown.

In damp places among grass. Dinmore.

566. A. (*Pholiota*) *subluteus*, *Fl. Dan.*; pileus 3 in.,

yellow, fleshy, thin, flattened, umbonate, squamulose, margin striate when moist; stem stuffed, smooth, yellow, thickened at base; ring spreading; gills decurrent, crowded, cinnamon.

On grassy ground. Faldonside.

567. A. (*Pholiota*) *confragosus*, Fr.; pileus $1\frac{1}{2}$ in., brick-red or cinnamon-rufous, then tawny, slightly fleshy, convexo-plane, obtuse, densely flocculoso-furfuraceous; margin with or without striæ; stem fistulose, equal, flexuose, wholly pale-ferruginous; veil sheathed-fibrillose on stem; ring striate near apex, membranaceous, persistent; gills adnate, thin, crowded, rufous or cinnamon-rufous, edge under lens unequal, crenulated.

On old fallen elm. Coed Coch.

568. A. (*Pholiota*) *mutabilis*, Schæff. (p. 151); 2 in. Epping Forest.

569. A. (*Pholiota*) *marginatus*, Batsch (p. 151); 1 in. Epping Forest.

570. A. (*Pholiota*) *mustelinus*, Fr.; pileus 2-3 in., yellow, ochraceous, slightly fleshy, campanulate, convex, smooth, dry; stem fistulose, even, pallid, white-mealy above the superior reflexed ring, thickened and white-villous at base; gills adnate, somewhat distant, tawny-cinnamon.

On stumps. Guildford.

571. A. (*Pholiota*) *unicolor*, Fl. Dan.; gregarious; pileus $\frac{1}{2}$ in., bay-brown, then ochraceous, fleshy, campanulate, then convex, somewhat umbonate, smooth, striate at margin; stem stuffed, then fistulose, equal, somewhat smooth, same colour as pileus; ring membranaceous, entire, slight, persistent; gills slightly adnexed, ventricose, broad, pallid-ochreous.

On trunks and branches, larch, etc. Hereford.

A. (Pholiota) Leveillianus, D. and M. (p. 152).
= A. (Togaria) erebius.

C. MUSCIGENI.—*Hygrophanous, stem ringed. Growing in mossy places.*

572. A. (Pholiota) pumilus, Fr. (p. 152); $\frac{1}{2}$ in.

573. A. (Pholiota) mycenoides, Fr. (p. 152); $\frac{1}{2}$ in.

Subgenus 26. INOCYBE (p. 152).—Universal veil somewhat fibrillose, concrete with the cuticle of pileus, often free at margin in the form of a cortina; gills somewhat sinuate, adnate or decurrent, changing colour, but not cinnamon-pulverulent.

Inocybe, with the next subgenus Hebeloma, corresponds with Tricholoma and Entoloma, spores more or less fuscous-ferruginous, not white or rosy. Inocybe would have been better kept as a section of Hebeloma; or subgenera corresponding with Inocybe should have been established amongst the white, rosy and purple-spored series of Agarics. Fries' plan is here followed in deference to the author.

* **SQUARROSI.**—*Pileus at first squarrose, somewhat fuscous, stem scaly of the same colour.*

574. A. (Inocybe) hystrix, Fr.; pileus 2–3 in., mouse-colour, fleshy, firm, convex, then flattened, obtuse, orbicular, squarrose, with revolute, floccose scales; flesh white; stem solid, firm, equal or attenuated downwards, fuscous mouse-colour, densely squarrose as far as the annular zone, above the zone even, pallid; gills adnate, crowded, linear, whitish, then fuscous.

In beech woods. Heywood Forest, Herefordshire.

575. A. (Inocybe) reclinus, Fr. (p. 152); $\frac{1}{2}$ in.

576. A. (Inocybe) calamistratus, Fr.; pileus 1–2 in.,

everywhere fuscous and squarrose-scaly, slightly fleshy, campanulate, obtuse; margin at first bent inwards, often repand, then flattened; flesh reddish; stem solid, rigid, tough, equal, rooting, fuscous, dark azure-blue at base, squarrose; gills adnexed, separating, crowded, broad, white, then ferruginous, edge white, thick, serrate.

In ditches and waysides in woods. In fir woods. Rare.

577. A. (*Inocybe*) *hirsutus*, *Lasch*; pileus $\frac{1}{2}$ in., fuscous, slightly fleshy, conical, then campanulate, umbonate, acute, squarrose, with fasciculato-pilose scales, then ochreous and fibrillose towards the fringed margin; stem solid, slender, tough, fibrillose, floccoso-scaly at apex, thickened and dark greenish at base; gills adnexed, crowded, thin, narrow, pallid, then fuscous, edge white, toothed.

In moist beech woods, etc. Rare.

578. A. (*Inocybe*) *lanuginosus*, *Bull.* (p. 153); 1 in.

579. A. (*Inocybe*) *dulcamarus*, *A. and S.*; gregarious; pileus 1-in., olivaceous-fuscous, slightly fleshy, campanulate, convex, then expanded and umbonate, floccoso-scaly, silky towards margin; flesh thin, yellow-white; stem somewhat hollow, not rigid, equal, cortinato-fibrillose and adpressedly squamulose, paler than pileus, mealy at apex; gills arcuato-adfixed, ventricose, crowded, pallid, then olivaceous.

In fir plantations. On the ground in mixed wood.
Pass of Killiecrankie.

580. A. (*Inocybe*) *plumosus*, *Bolt.* (p. 253); 1- $1\frac{1}{2}$ in.

581. A. (*Inocybe*) *cincinnatus*, *Fr.*; somewhat gregarious; pileus $\frac{1}{2}$ -1 in, fuscous, slightly fleshy, convexo-plane, obtusely umbonate, villosa-scaly; flesh white; stem solid, tough, equal, straight, fibrillose-scaly, fuscous-violaceous; gills adnexed or attenuated behind, separating, ventricose, crowded, fuscous-violaceous.

In woods. Beech woods. Coed Coch.

582. A. (*Inocybe*) *haemactus*, *B.* and *Cke.*; pileus 1 in., umber, fleshy, compact, obtuse, campanulate, floccosely fibrillose, disc subsquamulose, darker; stem solid, smooth, scarcely fibrillose, whitish above, verdigris-green at base, nearly equal; gills adnate, pallid, then clay-colour; flesh everywhere turning blood-red when touched or broken.

On lawn.

583. A. (*Inocybe*) *fasciatus*, *Cke.* and *Mass.*; cæspitose; pileus 2-3 in., tawny rufous, at disc silky, clad with minute darker squarrose scales; flesh thin; stem slender, equal, or a little attenuated below, fibrillose, solid, reddish within and without at the base, pallid above; gills crowded, attenuated in front, rounded behind or slightly sinuate, thin, soft, pallid.

On the ground. Kew.

II. LACERI.—*Pileus torn into scales or fibres, stem coloured, paler than pileus, fibrillose.*

584. A. (*Inocybe*) *pyriodorus*, *P.* (p. 153); 2-3 in. Epping Forest.

585. A. (*Inocybe*) *incarnatus*, *Bres.*; pileus fleshy, convex, campanulate, then expanded and gibbous, or broadly umbonate, fibrillose, then squamulose; margin fimbriate, yellowish, then rufescent or tinged with flesh-colour; stem solid, attenuated, somewhat rooting at base, fibrillose, rosy flesh-colour, white and mealy at apex; flesh white, deep red when broken; gills crowded, sinuate, adnate, broad, fringed at edge, whitish, greyish, cinnamon, then spotted with red or wholly rufescent.

In woods. Odour strong and persistent of pears.

586. A. (*Inocybe*) *scaber*, *Müll.* (p. 153); 1½ in.

587. A. (*Inocybe*) *maritimus*, Fr.; pileus 1 in., fuscous or mouse-colour, hoary, hygrophanous, fleshy, somewhat soft, convex, then flattened, obtuse or umbonate, fibrillose, adpressedly scaly; flesh becoming fuscous-grey; stem solid, equal, fibrillose, at first with a cortina, paler than pileus, not pulverulent at apex; gills rounded-adnexed, separating, ventricose, fuscous-grey, then becoming ferruginous.

In sand. By roadsides. On sandy ground in woods. Glamis. Epping Forest.

588. A. *Hookeri*, Klotsch (p. 154); = A. (*Psalliota*) *echinatus*.

589. A. (*Inocybe*) *lacerus*, Fr. (p. 154); 1 in. Epping Forest.

590. A. (*Inocybe*) *flocculosus*, B. (p. 154); 1 in.

591. A. (*Inocybe*) *Bongardii*, Weinm.; pileus 1-2 in., fuscous then pale, fleshy, campanulate, obtuse, scaly on disc, fibrillose towards margin, flesh thin, reddish, stem solid, rigid, equal, base bulbous, fibrillose, pallid-rufescence, reddish-silky downwards, white-pulverulent at apex; gills adnexed, ventricose, broad, pallid-reddish then cinnamon.

On sandy ground. Culbin sand-hills. Findhorn, etc., May to August. Odour of pears.

592. A. (*Inocybe*) *muticus*, Fr.; pileus 1-2 in., whitish, fuscous-fibrillose, fleshy, convex then plane, obtuse, depressed in centre, somewhat squamulose, dry; stem hollow, attenuated downwards, fibrillose, white straw-colour, then fuscous; gills adnate, thin, crowded, white, then slightly fuscous.

By waysides. In shady woods. Coed Coch.

593. A. (*Inocybe*) *carpus*, Scop.; pileus 1 in., dark

fuscous, fleshy, convex, then flattened, depressed, clothed with woolly filaments; stem hollow, attenuated downwards, clothed like pileus; gills adfixed, ventricose, broad, brown-fuscous.

In woods. On naked soil. Coed Coch. Taste bitterish-sweet.

594. A. (*Inocybe*) *deglubens*, Fr.; pileus 1½–2 in., at first brown-rufescent, then yellow, slightly fleshy, convexo-plane, obtuse, or obtusely umbonate, adpressedly fibrillose, fibrils separating; flesh white; stem solid, slender, adpressedly scaly-fibrillose, pale, darker with pruina at apex; gills obtusely adnate, ventricose, distant, grey, then cinnamon.

In moist woods. Rare.

595. A. (*Inocybe*) *obscurus*, P. (p. 154); 1–2 in.

596. A. (*Inocybe*) *Rennyi*, B. and Br.; small; pileus fawn-coloured, centre brown, hemispherical; stem attenuated downwards, fibrillose.

Hereford.

III. RIMOSI.—*Pileus longitudinally fibrous, soon cracked; stem whitish, fibrillose; many species become yellow when old.*

597. A. (*Inocybe*) *schistus*, Cke. and Sm.; pileus 2–3 in., obtusely campanulate, broadly sub-umbonate, bay-brown, cracking longitudinally, rather fibrillose; stem stout, equal, twisted, solid, paler than pileus; gills adnate, with a decurrent tooth, rather broad, rufescent with a pale serrate margin.

On lawns.

598. A. (*Inocybe*) *fibrosus*, Sow. (p. 154); 3 in.

599. A. (*Inocybe*) *perlatus*, Cke.; pileus 3–4 in., fleshy, convex, then expanded, broadly umbonate, longitu-

dinally fibrous with darker fibrils, fuscous, margin paler, incurved, disc dark bistre, nearly black; stem solid, equal, sometimes twisted, striate, dark below when old, pallid and mealy above, flesh dirty white; gills adnexed, somewhat rounded behind, rather broad, pallid, then umber.

On the ground. Epping Forest. Near Oxford.

600. A. (*Inocype*) *phæcocephalus*, *Bull.*; pileus 3 in., bay-brown, fuliginous, fleshy, conico-campanulate, umbo-nate, repand, squamulose; stem solid, bulbous, same colour as pileus at top, white below, villous; gills free, arcuate, light yellow, then earth colour.

On the ground. In mixed woods. Rare.

601. A. (*Inocybe*) *fastigiatus*, *Fr.*; (p. 155) 2 in. Epping Forest.

602. A. (*Inocybe*) *hiulcus*, *Fr.*; pileus 1-2 in., fuscous, then olive, fleshy, at first conical, then expanded, the more fleshy umbo prominent, adpressedly squamuloso-fibrillose, cracked; stem stuffed, slightly firm, equal or slightly bulbous, adpressedly fibrillose, squamuloso-mealy at apex, becoming pale, rufescent when touched, internally white, then reddish; gills almost free, with a decurrent line on stem, soon ventricose, thick, distant, at length plane, whitish flesh colour, darker at base, then olivaceous-brown.

In woods. In pine woods. Uncommon.

603. A. (*Inocybe*) *Curreyi*, *B.* (p. 155); 2 in.

604. A. (*Inocybe*) *rimosus*, *Bull.* (p. 155); 1-2 in. Epping Forest.

605. A. (*Inocybe*) *asterospermus*, *Quel.*; pileus 1-1½ in., bistre, with brown striæ, convex, umbonate, cracked; stem stuffed, firm, bulbous with a separable cuticle, reddish, pubescent, with brown striæ; gills emarginate, ventricose, thin, whitish-bistre, then cinnamon.

On the ground in woods. Dinedor. Epping Forest.
Odour mouldy.

606. A. (*Inocybe*) *euthelae*, *B.* and *Br.*; pileus fawn-colour, expanded, strongly umbonate, somewhat undulated, silky shining, somewhat squamulose; stem solid, fibrous, somewhat equal, slightly striate, pallid; gills slightly toothed, pallid, margin white.

On the ground among fir leaves. Aboyne. Epping Forest.

607. A. (*Inocybe*) *margarispora*, *B.*; pileus 2 in., campanulate, then expanded, broadly undulated, fawn-colour, silky, clad with adpressed fibrillose scales; stem elongated, equal, pallid, solid, fibrillose; gills reaching stem, pallid.

On the ground.

608. A. (*Inocybe*) *destrictus*, *Fr.*; pileus $1\frac{1}{2}$ - $2\frac{1}{2}$ in., pallid, then rufescence, fleshy, campanulato-convex then flattened, umbonate, at length depressed round fuscous umbo, fibrillose, torn into scales; flesh thin, white; stem solid, rather soft, somewhat equal, smooth, fibrilloso-striate, becoming reddish, mealy at apex; cortina thin, fugacious; gills uncinato-adnate, crowded, thin, broad, whitish then grey cinnamon.

On the ground. In pine woods. Coed Coch. Epping Forest. Odour unpleasant.

609. A. (*Inocybe*) *perbrevis*, *Weinm.*; pileus 1 in., rather fleshy, convex, obtusely umbonate, fibrous or squamose, margin rather striate, at length cracked; stem stuffed, short, pallid, clad with white fibrils, somewhat attenuated at base, gills uncinately adnexed, rather distant, whitish, then tawny or clay-colour.

In shady woods.

610. A. (*Inocybe*) *descissus*, Fr.; pileus 1 in., whitish, then pallid fuscous, slightly fleshy, conical then campanulate, split into radiate cracks when expanded; fragile, fibrilloso-striate at margin; stem hollow, fragile, equal, undulated, somewhat fibrillose, white-pulverulent at apex, white; gills somewhat free, crowded, thin, linear, pallid then fuscous,

In woods. In pine woods. Rare.

Var. auricomus, Batsch (p. 155).

611. A. (*Inocybe*) *Trinii*, Weinm.; pileus $\frac{1}{2}$ in., whitish-rufescens then tawny, slightly fleshy, hemispherical, obtuse, longitudinally rufescens-fibrillose, scarcely cracked; stem stuffed, equal, slender, laxly rufous-fibrillose, white-mealy; gills rounded, ventricose, edge white-floccose.

In grassy places. In mixed woods. Rare. Clove scented.

IV. VELUTINI.—*Pileus not cracked, cuticle fibrillose-woven, becoming even or adpressedly scaly, disc even; stem polished, smooth, whitish, merely at apex.*

612. A. (*Inocybe*) *sambucinus*, Fr.; pileus $2\frac{1}{2}$ in., white or pallid yellow, fleshy, firm, convex then expanded, often repand, obtuse, fibrilloso-silky, becoming even; flesh white; stem solid, stout, obese, equally clavate at base, often decumbent, striate, smooth, white, slightly pruinose at apex; gills slightly adnexed, crowded, ventricose, whitish, sometimes at length brown.

In pine woods. Perth.

613. A. (*Inocybe*) *cæsariatus*, Fr.; gregarious, somewhat cæspitose; pileus $1\frac{1}{2}$ in., dull-tawny, fleshy, convex then expanded, gibbous, repand, silky-even at disc, silky at margin; flesh thin, white; stem solid, unequal, somewhat

twisted, somewhat thickened at base, pruinose, pallid ; gills adnate, then crowded, ventricose, whitish-fuliginous, edge same colour.

In beech woods. Coed Coch.

614. A. (*Inocybe*) *lucifugus*, *Fr.* (p. 156) ; 1 in.

615. A. (*Inocybe*) *sindonius*, *Fr.* (p. 156).

616. A. (*Inocybe*) *Clarkii*, *B. and Br.* ; pileus $\frac{1}{2}$ in., white, campanulate, silky ; stem stuffed ; somewhat equal, slightly thickened at base ; flocculose ; gills adnexed, white-margined.

On the ground. In shady places. Street, Somerset.

617. A. (*Inocybe*) *geophyllus*, *Sow.* (p. 156) ; $\frac{1}{2}$ in. Epping Forest.

618. A. (*Inocybe*) *scabellus*, *Fr.* ; gregarious ; pileus $\frac{1}{2}$ in., fuscous or rufescent, slightly fleshy, conical then expanded, umbonate, silky-fibrillose or torn into scales outside umbo ; flesh dingy ; stem stuffed or hollow, then equal, smooth, rufescent or pale, slightly pruinose at apex ; gills adnexed, somewhat ventricose or linear and narrow, somewhat crowded, dingy then fuscous.

Among short grass. Little Orme's Head, etc.

619. A. (*Inocybe*) *violaceo-fuscus*, *Cke. and Mass.* ; subcaespitose ; pileus 1-2 in., flocculose, fibrillose, concentrically squamose, dry, unib; margin thin, torn and fimbriate ; stem solid, violet above, within and without, pallid below, smooth or silky, equal, flesh pallid when old ; gills broad, scarcely crowded, adnate or emarginate, violet, then umber, margin paler, serrulate, veil at first whitish.

Among grass, in open places. Forest of Dean.

v. VISCIDI.—*Pileus becoming even, viscid.*

620. A. (*Inocybe*) *trechisporus*, B.; pileus 1 in., umbra tawny, margin paler, with a livid tinge, somewhat membranaceous, convex, strongly umbonate; margin thin, at first viscid, soon dry and silky; stem white, slightly striate under a lens and mealy, nearly equal, except at the base, the outer coat of which is cottony; gills emarginate, ventricose, pinkish grey; margin denticulate.

In woods, among fern.

621. A. (*Inocybe*) *vetricosus*, Fr.; pileus $\frac{1}{2}$ in., slightly fleshy, convex, then plane, obtusely umbonate, even, smooth, viscid, when dry shining and slightly silky round margin; stem fistulose, equal, curved, and contorted, white, white-villous at base and wholly white pulverulent; gills adnexed, broadly emarginate, broad, white, then fuscous.

On dead stumps and naked soil. Bodelwyddan.

622. A. (*Inocybe*) *Whitei*, B. and Br.: pileus tawny; margin white and slightly viscid, convex, hemispherical; cortina shining-white, fibrillose, at length expanded and tawny; stem solid, shining-white, then tawny and smooth; gills adnexed, at first shining-white.

In pine wood. Rannoch.

623. A. (*Inocybe*) *tricholoma*, A. and S.; pileus $\frac{1}{2}$ –1 in., whitish, slightly fleshy, orbicular, plane, depressed in centre, fibrillose with white adpressed, at length obsolete hairs, fringed at margin with strigose hairs, viscid when moist, shining when dry; flesh thin, white; stem stuffed, thin, slightly attenuated upwards, whitish, fibroso-scaly at apex; gills decurrent, thin, crowded, pallid fuscous, then clay-fuscous.

In mixed woods. Herts.

Subgenus 27. HEBELOMA (p. 152).

Margin of pileus at first incurved, cuticle continuous, smooth, somewhat viscid, the partial veil fibrillose or obsolete; stem fleshy, fibrous, somewhat mealy at apex; gills sinuato-adnate, edge more or less of a different colour, whitish.

Hebeloma, with Inocybe, corresponds with Tricholoma and Entoloma. Spores somewhat clay colour, not white or rosy.

i. INDUSIATI.—*Furnished with a cortina, by which the pileus is often superficially silky at the margin.*

624. A. (*Hebeloma*) *mussivus*, Fr.; pileus 2–4 in., yellow, sometimes darker at disc, fleshy, compact, convex, then plane, unequal, obtuse, viscid, at first even, then repand and squamulose; margin inflexed, at length repand; flesh yellow; stem fleshy, stuffed, or hollow at apex, fibrillose and pruinose at apex, light yellow; veil fibrillose, fugacious; gills emarginate, somewhat crowded, dry, at first yellow, then somewhat ferruginous.

In pine woods. Ascot.

625. A. (*Hebeloma*) *fastibilis*, Fr.; somewhat cæspitose; pileus 2 in., pale yellowish or tan, becoming paler, fleshy, convexo-plane, obtuse, somewhat repand, even, smooth; margin involute, pubescent; stem solid, fleshy fibrous, stout, often twisted and sub-bulbous, white-silky and fibrillose, pallid, white-scaly upwards; cortina white, occasionally ring-like; gills emarginate, somewhat distant, rather broad, at first pale white, then dingy clay colour, edge whitish, distilling drops in rainy weather.

In woods. Epping Forest. Odour nauseous. Poisonous. Often mistaken for the true mushroom.

626. A. (*Hebeloma*) *glutinosus*, Lind.; pileus 3 in., yellow-white, disc darker, fleshy, convex then plane, regular,

obtuse, with a tenacious viscous gluten, slimy in wet weather, sprinkled with white superficial squamules; flesh whitish then light yellow; stem stuffed, firm, somewhat bulbous, white-squamulose and fibrillose, white-mealy at apex, often strigose at base, at length ferruginous within; partial veil manifest as a cortina; gills sinuato-adnate, somewhat decurrent, crowded, broad, pallid, light yellowish, then clay-cinnamon.

On branches and among leaves of oak and beech.

627. A. (*Hebeloma*) *testaceus*, *Batsch* (p. 157); 1½ in.

628. A. (*Hebeloma*) *firmus*, *P.*; 2–3 in., brick-red, fleshy, campanulate, then flattened or depressed, umbonate, the broad umbo darker, thin at circumference, even, smooth, viscid; stem solid, firm, commonly attenuated and darker downwards, clothed with white floccose squamules; cortina white, gills rounded, crowded, thin, dry, clay colour, ferruginous, white-serrulated at edge.

In fir woods. Laxton Park.

629. A. (*Hebeloma*) *claviceps*, *Fr.*; pileus pallid, convex then expanded, fleshy at the gibbous disc, even, naked; stem stuffed, equal, white-mealy, fuscous downwards; gills emarginate; crowded, dry, pallid.

In mixed woods. Uncommon.

630. A. (*Hebeloma*) *punctatus*, *Fr.*; gregarious; pileus 1–2 in., fleshy, convex, plane, disc gibbous, darker and viscoso-papillose, at length depressed, becoming pale round centre; at first superficially silky round margin with the whitish fibrillose veil; stem at first hollow, equal, dry, pallid, white-pruinose at apex, otherwise silky-fibrillose with adpressed veil; gills arcuato-adnate, slightly ventricose, crowded, entire, narrow, plane, pallid.

In pine woods. Uncommon.

631. A. (*Hebeloma*) *versipellis*, Fr.; somewhat cæspitose; pileus 1-3 in., fleshy, convexo-plane, with a tenacious glutinous pellicle, pale at disc; margin glued with white-silky villous down; stem hollow, tough, equal; white-silky with the cortina, white-mealy above; gills rounded, crowded, thin, arid, almost white, pallid then clay-cinnamon.

In grassy places, among fir leaves. Uncommon.

632. A. (*Hebeloma*) *mesophæus*, Fr.; pileus 1 in., pale yellowish, disc brownish, slightly fleshy, conical then convex, plane or depressed, smooth, viscous; stem somewhat fistulose, tough, equal, fibrillose, whitish then ferruginous, fuscous at base, pruinose at apex; cortina thin, fugacious; gills rounded or emarginate, crowded, thin, dry, clay ferruginous, edge entire, same colour.

In woods. Epping Forest. In pine woods. Uncommon.

Var. minor, Cke.; smaller than type.

633. A. (*Hebeloma*) *subcollariatus*, B. and Br.; pileus 1 in., pallid, somewhat fuscous in centre, somewhat fleshy, convex, slightly glutinous, floccose veil vanishing; stem stuffed, at length delicately fistulose, brown at base and pulvcrulent; gills ventricose, separating, forming a short interrupted collar, clay-colour, shining white at edge.

On naked soil. Sibbertoft.

634. A. (*Hebeloma*) *senescens*, Batsch; pileus 3 in., ochraceous-tawny, convex then flattened, slightly glutinous, delicately tomentose and white at extreme margin; flesh white; stem solid, at first bulbous and fuscous downwards, then, with exception of shining white tomentose apex, squamulose; gills adnexed, crowded, pallid then cinnamon.

Among fir trees. Gwrwch Castle. Corstorphine.

II. DENUDATI.—*Pileus smooth, at first with no cortina.*

635. A. (*Hebeloma*) *sinapizans*, Fr.; pileus 3–5 in., clay colour, pale yellowish at disc, fleshy, compact, convex then plane, obtuse, repand, and often excentric, even, slightly viscid; flesh white; stem stout, rigid, somewhat solid, equal or fusiform, fibrilloso-striate, white, squamulose at apex; gills emarginate, crowded, fragile, opaque clay-cinnamon, dry, unspotted.

In moist woods. Under trees in a field. Epping Forest.

636. A. (*Hebeloma*) *crustuliniformis*, Bull. (p. 157).

Var. minor, Cke.; smaller than type. Epping Forest.

637. A. (*Hebeloma*) *elatus*, Batsch; pileus 3 in., tan-colour, fleshy, convex then flattened, obtuse, even, smooth, viscid, opaque, paler when dry; margin thin; stem stuffed, equal, cylindrical, tense and straight, twisted, adpressedly fibrillose, pale whitish, white-mealy at apex; gills rounded with a decurrent tooth, crowded, dry, pale cinnamon.

In pine woods, among moss and leaves.

638. A. (*Hebeloma*) *longicaudus*, P. (p. 157); 1½–2 in.

Var. radicatus, Cke.; stem fusiform, rooting.

639. A. (*Hebeloma*) *lugens*, Jungh.; pileus 2–3 in., brown, becoming somewhat yellow, fleshy, convexo-plane, smooth, somewhat viscid; stem solid, shining, fibrilloso-striate, somewhat bulbous, white-mealy at apex; gills somewhat free, fragile, crowded, pallid, then ferruginous, crenulate, darker at edge.

Under beech. Lyndhurst. Odour strong.

640. (A. *Hebeloma*) *truncatus*, Schæff.; pileus 2–3 in., somewhat rufous, paler at margin, fleshy, compact, convex then flattened, obtuse, undulato-repand, irregular, smooth,

margin at first inflexed, naked ; flesh thick, white ; stem solid, equal, white, pruinose under a lens ; gills emarginate-free, dry, white, pale or flesh-white, then watery ferruginous.

On grassy banks. Dangstein.

641. A. (*Hebeloma*) *nudipes*, Fr. ; pileus 2 in., pale tan or clay colour, fleshy, convex then flattened, obtuse, unequal, even, viscid, margin at first inflexed, then ascending ; thin, exceeding the gills ; flesh watery, then white ; compact at disc ; stem solid, fibrous, equal, straight or curved, smooth, naked above, white ; gills emarginate, crowded, dry, tan colour.

In woods. Coed Coch.

642. A. (*Hebeloma*) *ischnostylus*, Cke. ; pileus 1-2 in., white or slightly pallid at disc, convex then expanded, broadly umbonate, slightly viscid, even ; margin thin ; stem solid, equal, or slightly thickened at base, smooth, naked ; gills rounded behind, adnate, slightly serrate at margin, whitish then clay-colour.

On the ground among grass. Shrewsbury.

643. A. (*Hebeloma*) *nauseosus*, Cke. ; pileus 1-1½ in., more or less expanded, even, smooth, viscid, ochrey-white ; stem equal or slightly attenuated below, same colour, mealy above, faintly striate downwards, and in decay turning black at base, solid ; gills ventricose, sinuate, very broad, rather distant, pallid, then clay-colour, at length ferruginous.

On the ground in mixed woods. Park End, Forest of Dean. Fœtid.

644. A. (*Hebeloma*) *capniocephalus*, Bull. ; pileus fleshy, convexo-plano, obtuse, even, smooth ; margin at length becoming blackish ; stem stuffed, attenuated downwards,

reddish-fibrilloso-striate, becoming pale; gills emarginate, broad, ferruginous.

On the ground.

III. PUSILLI.—*Pileus scarcely an inch broad.*

645. A. (*Hebeloma*) *magnimamma*, *Fr.*; pileus with a fleshy disc, extended in a mammiform umbo, not hygrophanous, convexo-planc, circumference thin, naked, brick-red, growing pale; stem obsoletely fistulose, equal, smooth, naked, pale gilvous; gills obtusely adnate, crowded, pallid, then ferruginous.

On the ground, amongst grass.

646. A. (*Hebeloma*) *petigenosus*, *Fr.*; pileus $\frac{1}{2}$ in., rather fleshy, conical or convex, then expanded, dry, disc swollen, brown, circumference silky-grey; stem stuffed, tough, slender, pulverulent, brick-red; gills free, ventricose, yellow, then olive-bay.

On the ground in beech woods.

Subgenus 28. FLAMMULA (p. 157).

Flammula corresponds with *Clitocybe* and *Clitopilus*; spores ferruginous, fuscous-ferruginous or tawny ochraceous, not white or rosy.

I. GYMNOTI.—*Veil none; pileus dry, generally squamulose.*

647. A. (*Flammula*) *gymnopodius*, *Bull.*; cæspitose; dark ferruginous; pileus 2–3 in., broad, fleshy, campanulato-convex, squamulose; stem solid, then smooth, equal; gills decurrent, arcuate, crowded.

On pine sawdust. Munstead.

648. A. (*Flammula*) *vinosus*, *Bull.*; pileus ferruginous-brown, fleshy, expanded, at length depressed, dry, delicately

flocculose; stem solid, firm, somewhat thickened at base, delicately flocculose; gills decurrent, crowded, simple, narrow, ferruginous.

On the ground. Morfa, Conway. Rare.

649. A. (*Flammula*) *floccifer*, *B. and Br.*; cæspitose; pileus 2 in., tawny, sprinkled with white fibrils, somewhat fleshy, convex, expanded, flesh tawny at the edge and beneath the cuticle, elsewhere white; stem fistulose, attenuated upwards, white, with silky scales, umber within, furfuraceous near pileus; gills moderately broad, rounded behind, adnate, scarcely ventricose, wrinkled transversely, ferruginous, edge white.

On lime stumps. Colleyweston.

650. A. (*Flammula*) *decipiens*, *Sm.*; somewhat fasciculate; pileus 1 in., rich brown, becoming pale, umbo almost white, fleshy, convex, dry, minutely squamulose; flesh golden yellow; stem rich tawny, bright brown at base, often swollen, attenuated downwards, twisted, striate; gills decurrent, crowded, moderately broad, luminous brown.

On burnt earth, charcoal, etc. Epping Forest.

651. A. (*Flammula*) *clitopilus*, *Cke. and Sow.*; pileus 2 in., rather fleshy, convex, disc depressed and umbilicate, smooth, dry, purplish brown; stem ventricose, erect, hollow, fuliginous, with a few scattered fibrils towards base, brown within; gills scarcely crowded, ventricose, slightly adnexed, pallid.

Among firs.

652. A. (*Flammula*) *purpuratus*, *Cke. and Mass.*; pileus 1-2 in., fleshy, convex, then expanded, obtusely umbonate, purple or purple-brown, clad with minute floccose scales of same colour; stem curved, equal, smooth and pallid above, purple below and granulose, solid; flesh pale yellowish

above, purplish below ; ring fibrillose ; gills adnate, somewhat rounded behind, not crowded, lemon-yellow, at length bright-ferruginous.

On tree fern stems. Kew. Taste very bitter.

653. A. (*Flammula*) *nitens*, *Cke. and Mass.*; cæspitose ; pileus 1–1½ in., hemispherical, convex, then expanded, obtuse, shining, dry, somewhat silky, purple-brown ; stem equal, solid, flesh-colour, fibrillose ; gills crowded, adnate ; margin entire, pallid, then umber.

On the ground. Carlisle.

654. A. (*Flammula*) *ochrochlorus*, *Fr.*; cæspitose ; pileus fleshy, convex then plane, obtusely umbonate, dry, minutely silky, rather squamulose, greenish straw-colour ; stem hollow, squamose, clad with white flocci, flexuose at base and ferruginous within ; gills adnate, crowded, whitish, then greenish, at length olivaceous.

On old trunks. Scarborough.

II. LUBRICI.—*Pileus covered with a viscous pellicle, cortina fibrillose.*

655. A. (*Flammula*) *lentus*, *P.* (p. 158) ; 2–3 in.

656. A. (*Flammula*) *lubricus*, *Fr.*; pileus 2–4 in., bright cinnamon, tough, fleshy, convex, then flattened, obtuse, occasionally depressed and repand, even, viscous, thin towards margin ; flesh white ; stem solid, equal or slightly attenuated upwards, dry, laxly fibrillose, whitish, at length fuscous, pubescent at base ; gills adnate, somewhat decurrent, crowded, pallid, then clay-colour.

On trunks. Tunbridge Wells.

657. A. (*Flammula*) *lupinus*, *Fr.*; pileus 3–4 in., tan-fuscous, fleshy, convex, obtuse, then plano-depressed, even, covered with a viscous separable pellicle ; flesh soft, white ;

stem curt, firm, thickened upwards or downwards, whitish at apex, otherwise ferruginous, with dense adpressed fibrils, stuffed or hollow, becoming ferruginous; gills adnato-decurrent, moderately crowded, broad, clay-colour.

In grassy places. In pastures. Glamis. Odour strong and bitter.

658. A. (*Flammula*) *mixtus*, Fr.; pileus 1-2 in., dull-tan, fleshy, convexo-plane, obtuse, even, disc minutely wrinkled with gluten, paler towards margin; stem tough, hollow, equal, flexuose, whitish, clothed with reflexed rufous-fuscous scales, somewhat thickened at base; cortina fibrillose; gills somewhat decurrent, broad, somewhat crowded, white then clay-colour, unequal at edge.

In pine and mixed woods. Epping Forest. Rare.

659. A. (*Flammula*) *juncinus*, Sm.; pileus 1½ in., sulphur yellow, disc rich brown, fleshy, hemispherical; stem elongated, thin, attenuated downwards, clothed with a few fibres; gills broad, very thin, red-brown.

On dead bullrushes. N. Wootton. Taste disagreeable, nauseous, bitter.

660. A. (*Flammula*) *gummosus*, Lasch; pileus 1-2 in., pallid light yellow, becoming greenish, at length ferruginous, paler at circumference, fleshy, campanulate, soon flattened, smooth, obtuse or depressed, covered with a separable viscid cuticle, sprinkled with superficial floccose scales; flesh thin, yellow; stem stuffed or hollow, equal, straight, rigid, silky-fibrillose, red-brown at base, paler upwards; gills adnate, crowded, narrow, whitish, light yellow, then cinnamon.

On old stumps. Botanic Garden, Cambridge. Epping Forest.

661. A. (*Flammula*) *spumosus*, Fr.; pileus 2 in., pallid

light yellow, disc darker, slightly fleshy, convex, then plane, somewhat umbonate, covered with a viscous separable pellicle, naked; flesh watery, pale greenish yellow; stem hollow, thin, attenuated downwards, light yellow, fibrillose, furnished with a cortina; gills adnate, crowded, light yellow, then ferruginous.

In fir woods and on sawdust. Rare. Epping Forest.

662. A. (*Flammula*) carbonarius, Fr.; gregarious; pileus 1 in., tawny, fleshy, convex, then plane, often depressed at the disc, even, smooth, viscous; margin inflexed; flesh slightly firm, yellow; stem somewhat fistulose, rigid, equal or slightly thickened upwards, fibrilloso-squamulose, pallid, often blackish at base; cortina fibrillose, fugacious; gills adnate, crowded, rather broad, becoming fuscous clay-colour.

On charcoal and burnt earth. Epping Forest.

III. UDI.—*Cuticle of pileus continuous, not separable; cortina appendiculate.*

663. A. (*Flammula*) filius, Fr.; pileus 2–3 in., fleshy, thin, convex, then plane, smooth, pale orange-red with rufous disc, moist after rain, gilvous; stem fistulose, long, smooth, pallid, reddish at base and within; gills adnate, rather crowded, white, then pallid.

On the ground in woods.

664. A. (*Flammula*) fusus, Batsch; pileus 2 in., somewhat brick-colour, fleshy, convex, then plane, obtuse, even, smooth, slightly viscid; flesh firm, pallid; stem firm, stuffed, attenuated, fusiform, rooting, fibrilloso-striate, pallid; gills somewhat decurrent, not very crowded, pallid or light yellow, then ferruginous.

On the ground and on stumps and logs. Worthiug.

665. A. (*Flammula*) *astragalinus*, Fr.; somewhat cæspitose; pileus 2 in., blood-saffron or golden-flesh-colour, darker at the disc, fleshy, convex, then flattened, obtuse, moist, even, at first slightly silky round margin; flesh firm, same colour, often becoming black when wounded; stem stuffed, then hollow, equal or attenuated downwards, flexuose, scaly, fibrillose, pallid; cortina appendiculate, white; gills adnate, crowded, broad, pallid light yellow, edge flocculose when young.

On pine and fir stumps. Rothiemurchus. Glamis.

666. A. (*Flammula*) *alnicola*, Fr.; pileus 2-3 in., yellow, then ferruginous and greenish, fleshy, convex, then flattened, obtuse, slimy, at first slightly fibrillose towards margin; flesh same colour; stem stuffed, then hollow, attenuato-rooted, commonly flexuose, fibrillose, yellow, then ferruginous; cortina fibrillose or arachnoid; gills somewhat adnate, broad, plane, at first dingy yellowish-pallid, at length ferruginous.

On stumps. Rare. Epping Forest. Odour and taste bitter.

A. (*Flammula*) *flavidus*, Schæff. (p. 158); 1-5 in.

667. A. (*Flammula*) *inauratus*, Sm.; pileus 1 in., fleshy, moist, smooth, furnished with a distinct veil; stem somewhat hollow, incurved, clothed with innate scales; gills adnate, with a decurrent tooth, broad, pale yellowish clay-colour.

On willows. North Wootton.

668. A. (*Flammula*) *conissans*, Fr.; cæspitose; pileus $\frac{1}{2}$ -3 in., light yellowish tan, fleshy, thin, hemispherico-expanded, obtuse, smooth, moist; flesh white; stem hollow, equal or attenuated downwards, often compressed, irregular, twisted, light yellow-white, white-villous at base; cor-

tina silky-fibrillose, appendiculate; gills adnate, with a decurrent tooth, very crowded, linear, whitish, at length fuscous-clay colour.

669. A. (*Flammula*) *inopus*, *Fr.* (p. 158); 2-4 in.
Epping Forest.

A. (*Flammula*) *apicreus*, *Fr.*; somewhat cæspitose; pileus yellow, then pale and tan, disc tawny, fleshy, thin, rather plane, even, smooth, moist; stem hollow, equal, not rooted, ferruginous fibrils at base; gills adnate, crowded, thin, shining, ferruginous.

On rotten trunks. In pine wood. Glamis.

IV. SAPINEI.—*Pileus scarcely pelliculose, not viscous; gills light yellow, then tawny.*

670. A. (*Flammula*) *hybridus*, *Fr.* (p. 158); 2 in.
Epping Forest.

671. A. (*Flammula*) *sapineus*, *Fr.*; somewhat cæspitose; pileus 1-4 in., golden-tawny, opaque at disc, paler and shining towards margin, fleshy, compact, hemispherical, then convexo-plane, obtuse, dry, floccoso-squamulose or rimoso-scaly; flesh firm, then soft, yellow; stem stout, irregular, fleshy-fibrous, sulcate, lacunose, naked, pallid yellow, turning fuscous when bruised, rooting; gills adnate, crowded, golden, at length tawny-cinnamon.

On pine-branches, chips, and sawdust, and on charcoal heaps in woods. Uncommon.

672. A. (*Flammula*) *liquiritiae*, *P.*; gregarious; pileus 1-3 in., bay-brown or orange-tawny, then pale, slightly fleshy, convex, then flattened, somewhat umbonate, even, smooth, moist, margin at length flaccid and striate; flesh thin, yellow; stem hollow, attenuated upwards, often unequal and curved, striate, almost naked, tawny, then ferru-

ginous, yellow-tawny within, thickened and villous at base; gills obtusely adnate, sometimes rounded, separating, plane, crowded, golden, then tawny.

On larch trunks. On fir. Mattishall. Taste sweet, like liquorice.

673. A. (*Flammula*) *picreus*, Fr.; cæspitose; pileus 1 in., rufous or bay-brown-cinnamon, then pale and tawny, slightly fleshy, campanulate, then convex, obtuse, regular, even, smooth, moist; flesh thin, same colour as pileus, stem fistulose, slightly attenuated upwards, tense, straight, umber, white-pulverulent; gills ascending, crowded, narrow, yellow, then ferruginous, adnate or decurrent, separating.

On old deal boards and pine stumps. Rare.

v. SERICELLI.—*Furnished with a cortina, pileus slightly silky, dry, or at first viscid.*

674. A. (*Flammula*) *helomorphus*, Fr.; pileus $\frac{1}{2}$ - $\frac{3}{4}$ in., white, fleshy, convexo-plane, gibbous or umbonate, viscid, then adpressedly fibrilloso-even, the thin unequal margin inflexed, naked; stem solid, equal, base incurved, even, smooth, whitish; gills plano-decurrent, very crowded, whitish-clay-colour.

In fir woods. Mossburnford.

675. A. (*Flammula*) *scambus*, Fr. (p. 157); $\frac{1}{2}$ -1 in.

676. A. (*Flammula*) *filiceus*, Cke.; pileus fleshy, convexo-plane, minutely squamuloso-fibrillose; stem stuffed, equal, slender; veil adhering to stem and margin of pileus in reddish fugacious threads; gills crowded, adnate, sulphur-yellow, at length tawny-cinnamon.

On old tree-fern stems.

Subgenus 29. NAUCORIA (p. 159).

Pileus more or less fleshy, convexo-plane or conical; margin at first inflexed; veil none or fugacious, squamulose; stem cartilaginous, fistulose or spongy-stuffed; gills free, or adnate, not decurrent.

Naucoria corresponds with Collybia and Leptonia, spores brown, not white or rosy.

I. GYMNOTI.—*Pileus smooth; veil none.*

* *Gills free or slightly adnexed.*

677. A. (*Naucoria*) lugubris, Fr.; often cæspitose; pileus 2–3 in., pallid, ferruginous, then brown, fleshy, campanulate, then expanded, gibbous, even, smooth; flesh white; stem long, attenuated, fusiform, stuffed with a spongy pith, cartilaginous, rigid, smooth, pallid at top, ferruginous downwards; gills free, ventricose, broad behind, crowded, pallid, then ferruginous, edge serrated.

In a mountain fir wood. Coed Coch.

678. A. (*Naucoria*) festivus, Fr.; pileus submembranaceous, globoso-campanulate, umbilicate, punctulate; margin incurved, somewhat lobed; stem fistulose, slender, silky-fibrillose, white; gills attenuated, adnate, ascending, slightly lobed, cinnamon.

On the ground, amongst firs.

679. A. (*Naucoria*) obtusus, Cke. and Mass.; pileus 1 in., campanulate, obtuse, smooth, becoming faintly striate at margin, rufous, becoming paler; stem equal, fistulose, flesh-colour, darker within, especially at base, smooth; gills broadly adnate, or with a tooth, broad, ventricose, with a serrate edge.

On the ground. Scarborough.

680. A. (*Naucoria*) subglobosus, A. and S.; pileus

rather fleshy, hemispherical, rather viscid, yellowish; stem thin, becoming hollow, equal, short, longitudinally striate; gills very broad, nearly free, rhomboidal, convex, ochraceous flesh-colour.

On the ground. Epping Forest. Dr. Cooke considers this plant to be a *Nolanea* with pale salmon-coloured, not ochraceous, spores; some species of *Flammula* have tawny-ochraceous spores.

681. A. (*Naucoria*) *hamadryas*, *Fr.*; pileus $1\frac{1}{2}$ -2 in., bay-brown-ferruginous, then pale yellowish, slightly fleshy, convex, then expanded, gibbous, even, smooth; stem hollow, equal, smooth, pallid, somewhat fragile; gills attenuato-adnexed, somewhat free, slightly ventricose, crowded, ferruginous, opaque.

On the ground in woods. Brandon.

682. A. (*Naucoria*) *eidaris*, *Fr.*; pileus 1-2 in., clay-cinnamon, then tan, slightly fleshy at disc, membranaceous round the undulated margin, conical, then campanulate, smooth, slightly striate at margin; flesh white when dry; stem fistulose, attenuated from apex to base, somewhat compressed, flexuose, smooth, tough, mostly fuscous-black; gills adfixed, separating-free, ascending, ventricose, crowded, honey-colour or cinnamon-clay,

In pine woods. Hereford.

683. A. (*Naucoria*) *cucumis*, *P.* (p. 159); 1- $1\frac{1}{2}$ in.

684. A. (*Naucoria*) *anguineus*, *Fr.*; pileus 2 in., pale yellowish or rufous, then somewhat tan, slightly fleshy, campanulate, then convex, gibbous, smooth, with a superficial silky zone near margin when young; stem somewhat hollow and flexuose, densely white-fibrillose, bay-brown; gills somewhat free, crowded, somewhat linear, dull pallid, then ferruginous..

In a flower-pot. On the ground. West Lynn.

685. A. (Naucoria) centunculus, Fr. (p. 159); $\frac{1}{2}$ – $\frac{3}{4}$ in.
Epping Forest.

686. A. (Naucoria) horizontalis, Bull. (p. 159); $\frac{1}{3}$ in.

687. A. (Naucoria) rimulincola, Rabenh.; cinnamon; pileus hemispherical, umbilicate, plicate, slightly wrinkled-tomentose; stem somewhat excentric, short, incurved, somewhat thickened at base; gills adnexed, somewhat distant, thick, very broad, whitish, crenulate.

On twigs. On cut elm. Rannoch.

688. A. (Naucoria) semiflexus, B. and Br.; pileus $\frac{1}{2}$ in., chestnut, hygrophanous, moderately fleshy, somewhat campanulate, then hemispherical or flattened above, margin with a delicate white veil; flesh white; stem solid, semi-horizontal; gills adnexed, distant, tawny.

On the side of a bank. Ascot.

689. A. (Naucoria) rubricatus, B. and Br.; cæspitose; white, then tinged with red; the very small pilei at length rather plane; stems slender.

On decayed bramble-twigs. Hereford.

** *Gills adnate, pileus convexo-plane.*

690. A. (Naucoria) abstrusus, Fr.; pileus $1\frac{1}{2}$ in., ferruginous-clay, fleshy, thin, convex, then plane, orbicular, even, smooth, viscid; flesh watery; stem cartilaginous, tough, rigid, fistulose, equal, round, straight, polished, naked, pallid-ferruginous, darker at base; gills adnate, crowded, plane cinnamon or watery ferruginous.

On sawdust and in woods. Coed Coch.

691. A. (Naucoria) innocuus, Lasch; pileus $1\frac{1}{2}$ in., rufous, then pale, slightly fleshy, convex, obtuse, rather

smooth, striate; stem stuffed, white-fibrillose, woolly at base; gills adnate, somewhat crowded, yellow-ochraceous.

On the ground in damp places.

692. A. (Naucoria) cerodes, Fr.; pileus $\frac{1}{2}$ -1 in., watery-cinnamon, then tan-colour, somewhat membranaceous, campanulato-convex and flattened, at length depressed, obtuse, smooth, pellucid-striate at circumference, then even, slightly silky-atomate; stem slightly firm, fistulose, equal, somewhat flexuose, becoming bay-brown-fuscous, pallid upwards, mealy at apex; gills adnate, separating, broad behind, almost triangular, somewhat distant, pallid, then cinnamon.

On burnt soil. Among moss.

693. A. (Naucoria) melinoides, Fr. (p. 160); $\frac{1}{2}$ - $\frac{3}{4}$ in. Epping Forest.

694. A. (Naucoria) pusiolus, Fr.; pileus $\frac{1}{2}$ in., yellow, somewhat membranaceous, hemispherical, then expanded, obtuse, smooth, slightly viscid; stem filiform, fistulose, tough, flexible, smooth, slightly viscid, shining light-yellow; gills adnate, broad, crowded, plane, watery-cinnamon.

On the ground. West of England.

*** Gills adnate, pileus campanulate then expanded.

695. A. (Naucoria) nuceus, Bolt. (p. 159); $\frac{1}{2}$ -1 in.

696. A. (Naucoria) glandiformis, Sm.; pileus 1 in.; at first obtusely campanulate, becoming somewhat hemispherical, or filbert-shaped, nut-brown, disc darker, smooth, even; stem erect, elongated, equal, stuffed, then hollow, pallid, sometimes twisted; gills very broad, rounded behind, adnate, umber.

On the ground.

697. A. (Naucoria) scolecinus, Fr.; pileus 1 in., bay-brown ferruginous, opaque, paler at margin, slightly fleshy,

campanulate, then convex, sometimes umbonate or obtuse, smooth, fragile, striate at margin; stem rigid, fistulose, equal, flexuose and curved, rufous-ferruginous, at first white-mealy, base fuscous; gills adnate, somewhat distant, broader behind, whitish flesh-colour, then ferruginous, flocculose, edge ciliated.

On moist ground, under alders. Powerscourt, Wicklow.

698. A. (*Naucoria*) *striæpes*, *Cke.*; pileus 1-1½ in., ochraceous, campanulate, obtuse, then expanded, smooth, even; stem hollow, equal, erect or flexuose, white, longitudinally striate; gills slightly adnate behind, rather distant, tawny-ferruginous.

Amongst grass on lawn. Kew.

699. A. (*Naucoria*) *sideroides*, *Bull.*; pileus pale yellowish or cinnamon, then tan-ochraceous, somewhat shining, slightly fleshy, campanulate, then expanded, umbonate, smooth, even, slightly viscid; margin at first incurved and slightly striate; stem fistulose or stuffed, equal, undulated, smooth, white-pruinose at apex, pallid, then yellow, ferruginous downwards; gills adnate, with a decurrent tooth, or sinuate, crowded, linear, watery, yellow-ochraceous, then somewhat cinnamon.

On trunks and stumps. On ash. Rare.

700. A. (*Naucoria*) *badipes*, *Fr.*; pileus ½ in., pale yellowish-ferruginous, then tan, somewhat membranaceous, campanulate, then convex, umbonate, smooth, pellucidly striate to umbo when moist; stem fistulose, equal, firm, flexuose, ferruginous, darker towards naked base, upper part scaly; gills adnate, ventricose, thin, somewhat distant, pale yellowish-ferruginous.

Under larch. Coed Coch.

II. PILEOTI—*Pileus naked, the partial veil, though fugacious, generally visible.*

* PEDIADEI.—*Growing in fields and on plains.*

701. A. (Naucoria) vervacti, Fr.

A. (Naucoria) triscopus, Fr.; pileus $\frac{1}{2}$ in., bay-brown, then ochraceous, opaque, slightly fleshy, hemispherical, obtuse, then convexo-plane, with a prominent umbo, smooth; stem stuffed, then delicately fistulose, filiform, equal, flexuose, smooth, opaque, ferruginous, umber at base; gills adnate, thin, somewhat crowded, dark ferruginous.

On old wood. Kilburn.

702. A. (Naucoria) pediades, Fr. (p. 16); 1-2 in. Epping Forest.

703. A. (Naucoria) arvalis, Fr.; pileus $\frac{3}{4}$ - $1\frac{1}{2}$ in., rather fleshy, tough, convex, then plane, growing pale; stem fistulose, slightly pulverulent, becoming yellowish, long, fusiform; gills adnexed, rather distant, tawny, then ferruginous.

On the ground.

704. A. (Naucoria) semiorbicularis, Fr. (p. 160); 1-2 in. Epping Forest.

705. A. (Naucoria) tabacinus, Dec.; pileus $\frac{1}{4}$ - $\frac{3}{4}$ in., umber, then bay-cinnamon, moist, dingy-tan, slightly fleshy, plane, obtuse at base, involute at margin, smooth; stem hollow, attenuated downwards, somewhat flexuose, naked, darker and fuscous at base; gills adnate, crowded, linear or ovate, at length brown-bay-cinnamon.

By waysides. Among short grass. Kew.

** SCORPIOIDEI.—*Growing in moist, uncultivated, wooded places.*

706. A. (Naucoria) tenax, Fr.; pileus 1 in., varying cinnamon, and olivaceous and somewhat fuscous-yellowish,

pale, somewhat fleshy, gills shining through thin margin, hemispherical, then expanded, obtusely umbonate, smooth, viscid; stem stuffed, then hollow, equal, round, even-fibrillose, dingy-pallid, light yellowish, then fuscous or olive; gills adnate, then rounded and somewhat separating, broad, almost distant, triangular, or oblong, whitish-fuscous, becoming ferruginous-whitish and entire at edge.

On grassy walks and on sticks. Welford, Northants.

707. A. (*Naucoria*) *myosotis*, Fr.; pileus 1 in., olivaceous or fuscous-green, then pale and light yellow, disc darker, fleshy, convex, then plane, somewhat umbonate, with a viscous pellicle; flesh thin, pallid; stem fistulose, slightly firm, equal, flexuose, fibrillose or scaly; fugitive cortina fringing the margin; gills adnate, decurrent, with a tooth, somewhat distant, broad, pallid umber-olivaceous, then brown-ferruginous, serrated; edge white.

In woods. In moist places. Scarborough.

708. A. (*Naucoria*) *temulentus*, Fr.; pileus $\frac{1}{2}$ -1 in., ferruginous, then ochraceous, hygrophanous, somewhat membranaceous, fleshy at disc, campanulate, then convex, somewhat umbonate, smooth, striate at circumference, then even; stem fistulose, with a pith, tough, equal, flexuose, or undulated on surface, polished, pulverulent at apex, white-villous at base; gills adnate, somewhat distant, attenuated in front, lurid ferruginous, then umber.

In moist open woods. Glamis, etc.

709. A. (*Naucoria*) *latissimus*, Cke.; pileus $\frac{1}{2}$ -1 $\frac{1}{2}$ in., subglobose, then hemispherical, with a fleshy disc, margin at first incurved; stem attenuated downwards, rooting, hollow, smooth, dark brown below, pallid above; gills very broad, rounded behind, slightly adnate, tawny-umber.

In a churchyard.

III. LEPIDOTI.—*Pileus flocculose or squamulose, veil manifest.*

* *Squamules of pileus superficial, separating.*

710. A. (*Naucoria*) *porriginosus*, Fr.; pileus rather fleshy, convex, then plane, obtuse, viscid, dingy, growing pale, clad with superficial, evanescent, saffron-coloured flocci; stem fistulose, equal, rather soft, silky, becoming smooth, pallid; gills adnate, entire, crowded, yellow, then cinnamon.

Amongst twigs.

711. A. (*Naucoria*) *sobrius*, Fr.; pileus $\frac{1}{4}$ – $\frac{1}{2}$ in., honey-colour, disc darker, then pale, slightly fleshy, convex, obtuse, smooth, moist, slightly silky; veil pruinose, fugacious; stem fistulose, equal, ferruginous-fuscous downwards, sometimes sprinkled with silky whitish spots from the veil; gills broader behind, obtusely adnate, broad, paler than pileus.

On the ground in mixed woods. Rare.

Var. dispersus, B. and Br.; pileus $\frac{1}{4}$ – $\frac{1}{3}$ in., ochraceous, convex, delicately marked with small dots, margin furfuraceous; stem fistulose, thickened upwards or equal; furfuraceous; ring appendiculate; gills adnate, pallid white at margin.

On lawns.

A. *inquilinus*, Fr. (p. 161). Removed to *Tubaria*. No. 741.

A. *furfuraceus*, Pers. (p. 161). Removed to *Tubaria*. No. 734.

** *Pileus with innate squamules.*

712. A. (*Naucoria*) *erinaceus*, Fr. (p. 161); $\frac{1}{2}$ in.

713. A. (*Naucoria*) *siparius*, Fr. (p. 161); $\frac{1}{4}$ – $\frac{1}{2}$ in.

714. A. (*Naucoria*) *conspersus*, P.; gregarious; pileus $\frac{1}{2}$ – $1\frac{1}{2}$ in., bay-brown, or rufous-cinnamon, then ochraceous,

hygrophanous, slightly fleshy, campanulato-convex, then flattened, obtuse, at first even, soon furfuraceous and scaly, fragile; stem fistulose, equal, fibrillose, cinnamon, then ochraceous, squamuloso-furfuraceous at apex; gills at first adnate, then emarginato-separating, crowded, linear or ventricose, dark cinnamon, edge entire, same colour.

In woods and moist places, among leaves. Uncommon.

715. A. (*Naucoria*) *escharoides*, Fr.; pileus $\frac{1}{2}$ in., tan, then whitish, disc fuscous, slightly fleshy, soft, conico-convex, soon flattened, obtuse, squamuloso-furfuraceous; flesh white; stem fragile, fistulose, equal, flexuose, adpressedly fibrillose, pallid, then fuscous, somewhat pruinose at apex; gills adfixed, decurrent with a tooth, or emarginate, somewhat free, ventricose, broad, pallid tan, then cinnamon.

On bare damp ground. Apethorpe.

*** *Pileus destitute of scales, silky or sprinkled with atoms.*

716. A. (*Naucoria*) *carpophilus*, Fr.; pileus $\frac{1}{4}$ in., somewhat tan, pallid, whitish, even, hygrophanous, somewhat membranaceous, convex, obtuse, furfurate with shining atoms or floccoso-squamulose; stem filiform or capillary, stuffed or obsoletely fistulose, pallid, at first furfuraceous, then naked; gills rounded-adnexed, somewhat free, ventricose, broad, somewhat distant, crenulate, pallid, then ochraceous.

On beech mast and leaves. Rare. Epping Forest.

717. A. (*Naucoria*) *graminicola*, Nees; pileus $\frac{1}{4}$ in., fuscous, then fawn-ochraceous, somewhat membranaceous, convex, papillate, shaggy tomentose; stem slender, tough, hirsute, fuscous; gills slightly adnexed, somewhat distant, pallid-ochraceous.

On stalks of grass.

Subgenus 30. GALERA (p. 162).

Pileus more or less membranaceous, conical or oval, then expanded, striate, margin at first straight, adpressed to stem; veil none or fibrillose; stem somewhat cartilaginous, continuous with the hymenophore, tubular, somewhat hollow; gills not decurrent; slender, fragile.

Galera corresponds with Mycena and Nolanea, spores ochrey-ferruginous, not white or rosy.

* CONOCEPHALI.—Pileus *conico-campanulate*, *hygrophanous*; stem straight; gills ascending somewhat crowded, veil none.

718. A. (Galera) lateritius, *Fr.* (p. 162); 1 in.

719. A. (Galera) tener, *Schäff.* (p. 162); $\frac{1}{2}$ in. Epping Forest.

720. A. (Galera) silagineus, *Fr.*; pileus membranaceous, globoso-campanulate, then expanded, unequal, even, not turning pale; stem rather flexuose, equal, pallid, somewhat pruinose; gills adnate, broadly linear, rather crowded, ochre.

On road scrapings. Scarborough.

721. A. (Galera) ovalis, *Fr.* (p. 162); 1 in. Epping Forest.

722. A. (Galera) antipus, *Lasch*; pileus $\frac{1}{2}$ -1 in., deep ochraceous, then pale, almost white, even, smooth, hygrophanous, campanulate, then expanded with a slightly fleshy, prominent disc; flesh white; stem pale, striate, mealy, bulbous at base, with a long rooting stem; gills almost free, attenuated behind, crowded, semi-lanceolate, light yellowish-ochraceous, then cinnamon.

On soil in gardens and on dung. Rare.

723. A. (Galera) confertus, *Bolt.* (p. 163); 1 in.

724. A. (Galera) sparteus, *Fr.* (p. 163); $\frac{1}{2}$ in.

725. A. (Galera) *pygmæo-affinis*, Fr.; pileus 1 in., somewhat fuscous or honey-colour, then tan, fleshy membranaceous, campanulate then flattened, dry, delicately reticulato-wrinkled, almost rugged; stem fistulose, fragile, equal, shining white, obsoletely pruinose at apex; gills slightly reaching stem, crowded, thin, entire, clay ochraceous, then ferruginous-ochraceous.

In a cucumber house.

** BRYOGENI.—*Growing among moss; pileus membranaceous, striate, hygrophanous, gills adnate, somewhat denticulate.*

726. A. (Galera) *vittæformis*, Fr.; pileus $\frac{1}{2}$ -1 in., date-brown, conical, then hemispherical, striate towards margin, smooth; stem fistulose, equal, somewhat straight, opaque, rubiginous; gills somewhat distant, watery cinnamon then ferruginous.

Among moss and grass. Perth.

727. A. (Galera) *rubiginosus*, P.; pileus $\frac{1}{4}$ - $\frac{1}{2}$ in., cinnamon or honey colour then tan, campanulate, obtuse, striate throughout, smooth; stem filiform, fistulose, tough, flaccid, smooth, shining, bay-brown or dark ferruginous; gills broad, distant, ochraceous, often connected by veins.

Among moss. Kew. Epping Forest.

A. *embolus*, Fr. (p. 163). Removed to *Tubaria*, No. 738.

728. A. (Galera) *hypnorum*, Batsch (p. 163), $\frac{1}{4}$ - $\frac{1}{2}$ in.; Epping Forest.

Var. sphagnorum, P.; twice or thrice as large as type, yellow ochraceous; disc broad, stem firm, fibrillose, tawny.

On *Sphagna*.

Var. bryorum, P.; larger than type, watery cinnamon, rather horry.

Among moss.

729. A. (Galera) mniophilus, *Lasch*; pileus $\frac{1}{2}$ in., fuscous-light-yellowish, almost clay colour, campanulate, almost papillate, striate, disc even; stem equal, flexile, fibrillose, yellow, mealy at apex, floccose at base; gills obtusely adnate, plano-ascending, broad, somewhat distant, light yellowish-ochraceous, or becoming fuscous-clay-colour.

Among *Mnium*. Rannoch. Epping Forest.

730. A. (Galera) minutus, *Quel.*; pileus $\frac{1}{3}$ in., chamois-bistre, campanulate; stem long, somewhat capillary, smooth, tawny, base webbed-spreading, white; gills adnato-arcuate, as broad as long, moderately crowded, yellowish, then clay colour, edge whitish.

Among moss. Wrotham, Kent.

*** ERIODERMEI.—*Pileus somewhat membranaceous, veil manifest, superficial, separating, at first silky and squamulose at margin.*

731. A. (Galera) ravidus, *Fr.*; gregarious; pileus $\frac{1}{2}$ - $1\frac{1}{2}$ in., greyish, at first campanulato-hemispherical, even, moist, very hygrophanous, somewhat silky when dry, then appendiculato-toothed with the white veil, fragile; stem fistulose, fragile, equal, pallid, becoming yellowish, silvery-shining, fibrilloso-striate, somewhat pruinose at apex; gills somewhat free, broad, ventricose, distant, ochraceous-saffron or pale yellowish.

On the ground among chips.

732. A. (Galera) mycenopsis, *Fr.*; pileus $\frac{1}{2}$ in., pallid honey-colour, slightly fleshy-membranaceous, somewhat globose, campanulate then convexo-plane, gibbous with a broadly elevated, naked, even disc; striate and silky with superficial white villous down to middle; stem fistulose, attenuated upwards, yellowish but white-silky with adpressed villous down, obsoletely pruiniate at apex; gills ven-

tricose, almost triangular, distant, at first adnexed, at length somewhat free, pallid, edge delicately flocculose.

In marshy ground among *Sphagna*. King's Cliffe.

Subgenus 31.—TUBARIA.

Pileus somewhat membranaceous, often clothed with the universal floccose veil, sometimes umbilicate or depressed; stem somewhat cartilaginous, fistulose; gills somewhat decurrent, or broadest behind and triangular.

Tubaria corresponds with Omphalia and Eccilia; spores ferruginous or fuscous-ferruginous, not white or rosy.

* GENUINI.—*Spores ferruginous.*

733. A. (Tubaria) cupularis, Bull.; pileus 1 in., rufescent then light yellowish, hygrophanous, slightly fleshy, plano-depressed, obtuse, even, smooth; stem slender, fistulose, naked, attenuated upwards, whitish; gills decurrent, crowded, tawny.

On the ground. On mountainous heath. Creag Maoiseach. Strathbay.

734. A. (Tubaria) furfuraceus, P.; $\frac{1}{2}$ -1 in., removed from Naucoria.

Var. trigonophyllus, Lasch.; smaller, growing pale; gills very broad, triangular, dingy ochre.

By waysides. Epping Forest.

735. A. (Tubaria) paludosus, Fr.; pileus $\frac{1}{4}$ - $\frac{1}{3}$ in., pale yellowish-fuscous, silky with superficial, pallid flocci, somewhat membranaceous, at first conical, then convex, umbo-nate, with a very prominent papilla; stem attenuated upwards, fistulose, flexuose, ochraceous, paler and white-villous below, flocculose above with remains of veil; gills decurrent, broad behind, triangular, with a decurrent tooth, crowded, thin, watery ochraceous.

On marshy ground among *Sphagna*.

736. A. (*Tubararia*) *stagninus*, Fr.; pileus $\frac{1}{2}$ -1 in., bay-brown ferruginous, then ochraceous, somewhat membranaceous, conical then hemispherical, obtuse, sometimes slightly depressed in centre, somewhat viscid, slightly striate, then even, clothed and appendiculate round margin with floccose, superficial, concentric, white scales; stem slightly tough, fistulose, equal, rubiginous then date-brown, somewhat pruinose at apex; gills decurrent, broad, triangular, ferruginous.

On marshy ground. Sibbertoft. Epping Forest.

737. A. (*Tubararia*) *pellucidus*, Bull.; pileus rather fleshy, conic then campanulate, umbonate, cinnamon, hygrophanous, silky and squamulose at striate margin; stem thin, short, attenuated upwards, shining, pruinose at apex; gills decurrent, broad behind, triangular, paler.

Among leaves.

738. A. (*Tubararia*) *embolus*, Fr. (p. 163); $\frac{1}{2}$ in.; removed from *Galera*.

739. A. (*Tubararia*) *autochthonus*, B. and Br.; pileus $\frac{1}{4}$ in., ochrey-white, obtuse, hemispherical, silky, flocculose at margin; stem flexuose, thickened upwards and at the white woolly base; gills adnate, with a tooth, horizontal, honey-coloured.

On naked soil. Woodnewton, Northants.

** PILÆOTI.—*Spores fuscous-ferruginous.*

740. A. (*Tubararia*) *crobulus*, Fr.; pileus $\frac{1}{2}$ - $\frac{3}{4}$ in., slightly fleshy, flattened, obtuse, slightly viscid, covered with floccose, somewhat squarrose, separating white scales, then naked, becoming hoary-tan, shining; stem fistulose, equal, flexuose, fuscous, densely beset with white floccose scales;

gills adnate, somewhat decurrent, crowded, becoming fuscous-ferruginous.

Among sticks. Welford, Northants.

741. A. (*Tubaria*) *inquilinus*, Fr. (p. 161); $\frac{1}{2}$ in.; removed from *Naucoria*.

742. A. (*Tubaria*) *muscorum*, P.; pileus membranaceous, convex, depressed in centre, striate, smooth, tawny-yellow; stem fistulose, short, same colour, incrassated at base; gills rather decurrent, horizontal, paler.

Among moss on heaths. Scarborough.

Subgenus 32. *CREPIDOTUS* (p. 163).

Pileus excentric, lateral or resupinate.

Crepidotus corresponds with *Pleurotus* and *Claudopus*, spores ferruginous, not white or rosy.

743. A. (*Crepidotus*) *palmatus*, Bull.; pileus fleshy, compact, convex, then expanded, irregular, smooth, pelliculose, ferruginous: stem excentric or lateral, incurved, firm, smooth, whitish; gills fixed to a collar, ventricose, rather distant, same colour.

On trunks.

744. A. (*Crepidotus*) *alveolus*, Lasch (p. 163); 2 in.

745. A. (*Crepidotus*) *mollis*, Schæff. (p. 164); 1–3 in. Epping Forest.

746. A. (*Crepidotus*) *applanatus*, P.; pileus watery-cinnamon, then whitish, very hygrophanous, slightly and watery-fleshy, soft, fragile, plane and horizontal, extended straight into a short white tomentose stem, otherwise reniform, slightly striate at margin when moist, even when dry, at length depressed behind and somewhat sessile; gills ending determinately behind, crowded, linear, thin, whitish, then watery-cinnamon.

On decaying wood. Penzance.

747. A. (*Crepidotus*) *calolepis*, Fr.; pileus $\frac{1}{2}$ in., slightly fleshy, reniform, convex, almost shell-shaped, dimidiate, sessile on a small villous knot, margined with white behind, variegated with minute, crowded, rufescent scales; flesh firm; gills concurrent at base, rounded behind, comparatively broad, pallid-fuscous, then fuscous-ferruginous.

On rotten branches. On dead wood. Edinburgh Fungus Show.

748. A. (*Crepidotus*) *haustellaris*, Fr. (p. 164); $\frac{1}{2}$ -1 in.

749. A. (*Crepidotus*) *rubi*, Berk. (p. 164); $\frac{1}{2}$ - $\frac{1}{2}$ in.

750. A. (*Crepidotus*) *chimonophilus*, B. and Br. (p. 164); $\frac{1}{4}$ in.

A. *variabilis*, P.; removed to *Claudopus*, No. 530.

A. *dupluens*, Batsch; removed to *Claudopus*, No. 531.

A. *byssisedus*, P.; removed to *Claudopus*, No. 532.

751. A. (*Crepidotus*) *epibryus*, Fr.; pileus $\frac{1}{4}$ in., shining white, membranaceous, resupinate, sessile, adnate at vertex, becoming silky-even; gills concurrent in centre, thin, crowded, whitish, then pale yellowish.

On mosses, grasses, holly leaves, living *Vaccinium*, etc. Coed Coch.

752. A. (*Crepidotus*) *Phillipsii*, B. and Br.; pileus $\frac{1}{2}$ in., slightly umber, opaque, striate, smooth; stem solid, incurved at base; gills shortly adnate, narrow, ventricose.

On grass. Wrekin. Penicuik.

753. A. (*Crepidotus*) *Pezizoides*, Nees (p. 165).

754. A. (*Crepidotus*) *epigaeus*, P.; pileus reniform, fragile, reddish-grey; base villous, whitish; gills distinct, watery-rufescent, divergent, not red when dry.

On the clay of the marlstone.

755. A. (*Crepidotus*) *Ralfsii*, B. and Br.; pileus yellow, semi-reflexed, delicately furfuraceous, slightly hispid, the

involute margin spreading, adfixed by cottony flocci; stem obsolete; gills ventricose, clay-colour, margin whitish.

On decaying wood. Penzance.

Series 4. PRATELLÆ.—*Spores purplish, purplish-brown, or dark purplish.*

Subgenus 33. CHITONIA.

Universal veil distinct from pileus; hymenophore distinct from the stem; gills free.

Chitonia corresponds with Amanita, Volvaria and Acetabularia, spores purplish, not white, rosy or brown.

756. A. (Chitonia) rubriceps, *Cke. and Mass.*; pileus 1 in., rather fleshy, campanulate, then expanded, umbonate, smooth, even, testaceous; margin faintly striate; stem erect, fistulose, paler than the pileus, rooting; volva sheathing, accate, whitish, torn at margin; gills free, lanceolate, rather crowded, purplish-brown; ring obsolete.

On soil in an Aroid house. Kew.

Subgenus 34. PSALLIOTA (p. 165).

Stem ringed, separate from hymenophore; gills free.

Psalliota corresponds with Lepiota, Annularia and Togaria, spores purplish-brown, not white, rosy or brown.

* EDULES.—*Large, fleshy.*

757. A. (Psalliota) augustus, *Fr.*; pileus 4–5 in., globose, hemispherical, then expanded, obtuse, disc even, circumference fibrilloso-squamose; stem solid, thick, smooth, attenuated upwards, white, tinged with red if bruised; ring superior, broad, externally cracked into angular scales; gills crowded, narrow, remote, leaving a collar round stem, pallid, then brown.

In woods.

758. A. (Psalliota) Elvensis, *B. and Br.*; cæspitose; pileus 6 in., somewhat globose, then hemispherical, fibril-

lose, broken up into large persistent brown scales, areolate in centre; margin very obtuse, thick, covered with pyramidal warts; flesh turning red when cut; stem solid, stuffed with delicate threads, at first nearly equal, at length swollen in centre and attenuated at base, fibrillose and areolate below, nearly smooth near the pileus; ring thick, large, deflexed, broken, areolato-verrucose beneath; gills free, brownish flesh-colour.

Under oaks. Bodelwyddan. Esculent.

759. A. (*Psalliota*) *arvensis*, Schæff. (p. 166); 3–6 in. Epping Forest.

Var. villaticus, Brond.; acquiring a large size and very scaly.
On the ground.

Var. purpurascens, Cke.; pileus becoming tinged with purple.

In woods, etc.

760. A. (*Psalliota*) *pratensis*, Schæff.; pileus 2–3 in., fleshy, ovoid, then expanded, becoming smooth or squamulose, whitish, then cinereous; stem stuffed, thickened at the base, naked; ring median, simple, deciduous; gills free, narrow, acute, rounded behind, cinereous, at length brown.

In pastures and woods. Odour and taste pleasant.

761. A. (*Psalliota*) *cretaceus*, Fr. (p. 167); 3 in. Epping Forest.

762. A. (*Psalliota*) *campestris*, L. (p. 165); 3 in. Epping Forest.

Var. hortensis, Cke.; pileus fibrillose or squamulose, brownish.

= *Var. elongatus* and *var. Buchanani*.

These are the cultivated forms of hot beds.

Var. costatus, Fr.; pileus sulcate, repand.

In woods.

Var. rufescens, B.; rufous like *A. vaccinus*; flesh turning bright red when bruised, gills at first white.

In pastures.

Var. exannulatus, Cke.; ring evanescent or obsolete.

763. A. (*Psalliota*) *sylvaticus*, Schäff. (p. 167); 3 in. Epping Forest.

764. A. (*Psalliota*) *haemorrhoidarius*, Kalch.; pileus 4 in., rufous-fuscous, fleshy, ovate then expanded, covered with broad adpressed scales; margin at first bent inwards; flesh when broken immediately blood-red; stem soon hollow, fibrillose, adpressedly squamulose below, or mealy; base solid, somewhat bulbous; ring superior, large; gills free, approximate, crowded, rosy-flesh-colour, at length purple umber.

In woods. Lilleshall, Salop.

765. A. (*Psalliota*) *subgibbosus*, Fr.; pileus 2-3 in., rather fleshy, convex, then plane, umbo even, smooth, circumference silky, fibrillose; stem hollow, thin; ring fugacious; gills remote, white, then cinereous brown.

In woods.

** MINORES.—*Pileus thinly fleshy, not used as food.*

766. A. (*Psalliota*) *comtulus*, Fr.; pileus 1-1½ in., yellowish-white, slightly fleshy, convex, then plane, obtuse, adpressedly fibrilloso-silky, becoming even; flesh thin, soft, same colour as pileus; stem hollow, stuffed with floccules when young, somewhat attenuated, even, smooth, white, becoming somewhat light yellow; ring median, torn, fugacious, same colour; gills rounded-free, crowded, soft, broader in front, flesh-colour, rosy, at length fuscous-flesh-colour.

In woods. Coed Coch.

767. A. (*Psalliota*) *sagatus*, *Fr.*; pileus 2 in., rather fleshy, convexo-plane, even, smooth, fulvous, rather shining; stem hollow, equal, ring distant, spreading; gills free, ventrieose, umber.

Under beech.

768. A. (*Psalliota*) *echinatus*, *Roth.* (p. 167); 1½ in.

Subgenus 35. PILOSACE.

Hymenophore distinct from stem; gills free, at first remote from stem; without ring or volva.

Pilosace corresponds with Hiatula, Pluteus and Pluteolus, spores purplish, not white, rosy or brown.

769. A. (*Pilosace*) *Algeriensis*, *Fr.*; pileus fleshy, compact, smooth, convex, then plane, white; stem solid, stout, silky, white; gills free, narrow, dark purple.

On the ground.

Subgenus 36. STROPHARIA (p. 167).

Hymenophore continuous with the stem; veil annular; gills more or less adnate.

Stropharia corresponds with Armillaria and Pholiota, spores purplish, not white or brown.

A. VISCIPELLES.—*Pellicle of pileus even or scaly, most frequently viscous.*

* **MUNDI.**—Growing on the ground, or not on dung.

770. A. (*Stropharia*) *versicolor*, *Witt.* (p. 167); 1–4 in.

771. A. (*Stropharia*) *aeruginosus*, *Curt.* (p. 167); 3–4 in.

Epping Forest.

772. A. (*Stropharia*) *albo-eyaneus*, *Desm.* (p. 167); 1 in.
Epping Forest.

773. A. (*Stropharia*) *inunctus*, *Fr.*; pileus 1 in., pallid

light yellow, then livid purple with gluten, fleshy, convexo-plane, somewhat umbonate, pelliculose, viscid, smooth, slightly striate at margin; flesh thin, soft, white; stem fistulose, equal, flexuose, often decumbent, soft, dry, shining-white, silky-fibrillose below the medial, distant, fugacious ring; gills adnate, with a decurrent tooth, whitish, then becoming fuscous, whitish at the sides when bruised.

In pastures. Ely, Epping Forest, etc.

774. A. (*Stropharia*) *obturatus*, Fr.; pileus light yellow, thick, convex, then plane, obtuse, obsoletely viscid, commonly dry, even, often rimosely squamulose; flesh compact, shining white; stem firm, stuffed, attenuated downwards, even, whitish; ring superior, deflexed, white; gills adnate, crowded, plane, white, then purple-umber, often sterile and remaining white.

On the ground, among grass. Rare.

775. A. (*Stropharia*) *coronillus*, Bull.; pileus fleshy, hemispherical, then flattened, convex, even, rather viscid, ochraceous, fulvous, then pale; margin at first whitish floccose, flesh white; stem white, stuffed, then fistulose, fibrillose, attenuated downwards, base equal or slightly bulbous; ring adhering to the stem, median, sulcato-plicate; gills crowded, sinuately adnate, whitish, purple-violet, then blackish, edge whitish, pruinose under a lens.

By waysides. Epping Forest. Odour somewhat of radishes.

776. A. (*Stropharia*) *melaspermus*, Bull. (p. 168); 1-2 in.

777. A. (*Stropharia*) *squamulosus*, Fr. (p. 168); 1-3 in. Epping Forest.

Var. thraustus, Kalchbr.; more graceful and slender than the typical form; squamules of pileus deciduous, very fragile and hygrophanous. Epping Forest.

Var. aurantiacus, *Cke.*; pileus orange or brick-red.

Among grass.

778. A. (*Stropharia*) *Percevali*, *B. and Br.*; pileus 2 in., ochraceous, fleshy, umbonate, then flattened, slightly viscid, white-floccose chiefly at margin, flesh dull umber; flocci deciduous; stem attenuated upwards, hollow and pallid above, umber within, transversely scaly, rooting; ring narrow, more or less persistent; gills adfixed, very distant, white, then somewhat cinereous, at length pallid umber.

On sawdust. Wallington, Northumberland.

779. A. (*Stropharia*) *Worthingtonii*, *Fr.*; pileus 1 in., yellow, slightly fleshy, campanulate, even, smooth, viscid; stem fistulose, slender, flexuose, smooth, dark blue; ring incomplete, distant; gills adnate, broad, brown-cinnamon.

In pastures. Epping Forest, etc.

** MERDARII.—Growing on dung. *Ring often incomplete.*

780. A. (*Stropharia*) *luteo-nitens*, *Fr.*; pileus 1–2 in., fleshy, thin, conical, campanulate, umbonate, viscid, yellow; margin squamulose, stem hollow, even, pruinose above the distant ring; gills adnexed, ventricose, cinereous, becoming blackish.

On sawdust, dung, and humus.

781. A. (*Stropharia*) *merdarius*, *Fr.*; gregarious; pileus 2 in., yellow, then straw colour, fleshy, at first obtusely campanulate, then convexo-plane, gibbous, smooth, pelliclose, moist, hygrophanous, slightly viscid, margin thin, deflexed, even; flesh white; stem tough, stuffed with a pith, equal, somewhat flexuose, flocculoso-villous and slightly silky, dry, straw-white, white-villous at base, striate at apex from the decurrent teeth of gills; ring torn,

commonly adhering to margin of pileus; gills adnato-decurrent, somewhat crowded, very broad behind, dingy pallid, at length brown-fuscous.

On horse-dung. Sibbertoft. Epping Forest.

782. A. (*Stropharia*) *stercorarius*, Fr. (p. 168); 1 in.
Epping Forest.

783. A. (*Stropharia*) *semiglobatus*, Batsch (p. 169); $\frac{1}{2}$ in.
Epping Forest.

B. SPINTRIGERI.—*Pileus without a pellicle, but innato-fibrillose, not viscous.*

784. A. (*Stropharia*) *caput-Medusæ*, Fr.; pileus 3 in., fleshy, ovate, then convexo-expanded, obtuse or obtusely umbonate, dry, when young densely scaly-squarrose with the veil, soon naked, even and umber on the vertex, lacunose, paler and somewhat tan-colour towards margin; stem whitish, hollow, the somewhat bulbous base solid, attenuated upwards, covered below the superior ring with crowded, imbricated and squarrose whitish-fuscous scales, white-mealy above; gills adnate, ventricose, lanceolate then semi-ovate, not very crowded, at first clay-white, then pale umber, fuscous-spotted.

About Scotch fir stumps. Rare. Glamis.

785. A. (*Stropharia*) *scrobinaceus*, Fr.; cæspitose; pileus at first fuscous, livid, then yellow in centre, grey-violaceous at the circumference, fleshy, thin, hemispherical then expanded, gibbous, slightly sulcate, covered with crowded, adpressed, separating, blackish squamules; stem hollow attenuated from the thickened base, fibrillose, white, mealy at apex; ring superior, fugacious, white; gills adnate, crowded, crenulate, white flesh-colour, then becoming purple.

On and near stumps. Glamis.

786. A. (*Stropharia*) Jerdoni, *B. and Br.*; pileus 2 in., ochraceous then brown, fleshy, campanulate, umbo obtuse, minutely rivulose, clothed with superficial, evanescent, white scales; cuticle not peeling off; stem hollow, cylindrical, white, pulverulent above, brownish with silky transverse scales below; ring superior, deflexed; gills adnate, forming a line down the stem but not decurrent, pallid then brown, transversely striate.

On fir stumps. Rare.

787. A. (*Stropharia*) spintriger, *Fr.*; cæspitose; pileus 3-4 in., tawny or flesh-colour, becoming whitish, rather fleshy, ovate then flattened, obtuse, even, smooth, fragile; stem hollow, equal, floccosely fibrillose, white, naked at apex; ring distant, thin, fugacious; gills adnate, crowded, fuscous-brown.

On trunks.

788. A. (*Stropharia*) hypsipus, *Fr.*; pileus 2 in., convex, tan colour, pallid, then plane, even, smooth, fragile, hygrophanous, striate at margin; stem equal, hollow, smooth; ring medial, persistent; gills adnate, seceding, rather distant, white, then brown.

Solitary, in swampy places.

Subgenus 37. HYPHOLOMA (p. 169).

Hypholoma corresponds with *Tricholoma*, *Entoloma* and *Hebeloma*, spores dark purplish, not white, rosy or brown.

* FASCICULARES.—*Colour of the tough, smooth, dry pileus bright; not hygrophanous.*

789. A. (*Hypholoma*) silaceus, *P.*; pileus 3 in., orange-rufous, fleshy, convex, viscous, silky and whitish round margin; stem stuffed, then hollow, bulbous, shining,

fibrilloso-striate ; gills adnate, crowded, grey then ochraceous.

In old pasture. Glamis.

790. A. (*Hypholoma*) *sublateritius*, Schæff. (p. 169).
Epping Forest.

Var. squamosus, Cke. ; pileus spotted with superficial scales, especially towards margin.

On trunks.

Var. Schæfferi, Fr. ; pileus conical, at length depressed, wrinkled ; gills narrow, decurrent, even in the young specimens.

On trunks.

791. A. (*Hypholoma*) *capnoides*, Fr. ; cæspitose ; pileus 1 in. ; ochraceous, yellowish, fleshy, convex, then flattened, obtuse, dry, smooth ; flesh somewhat thin, white ; stem hollow, equal, often curved and flexuose, becoming silky-even, pallid, whitish at apex, partially striate, becoming ferruginous ; cortina appendiculate, white, becoming fuscous-purple.

On pine stumps. Uncommon.

792. A. (*Hypholoma*) *epixanthus*, Fr. ; pileus 2–3 in., light yellow, then pale, the disc commonly darker, fleshy, moderately thin, convexo-plane, obtuse or gibbous, even, slightly silky, then smooth ; flesh white, becoming light yellow ; stem hollow, attenuated from the thickened base or equal, floccoso-fibrillose, pale ferruginous, fuscous below, pruinose at apex ; cortina appendiculate, white ; gills adnate, crowded, at first light yellow-white, then cinereous.

On fir stumps. Epping Forest. Frequent. Odour acid, strong.

793. A. (*Hypholoma*) *elæodes*, Fr. ; cæspitose ; pileus brick-red or tan, fleshy, rather plane, somewhat umbonate,

dry, smooth opaque; flesh yellow; stem stuffed, then hollow, equal, slender, incurved or flexuose, fibrillose, same colour as pileus, becoming ferruginous; gills adnate, crowded, greenish, then olivaceous.

On trunks and on the ground. Slough. Odour bitter.

794. A. (*Hypholoma*) *fascicularis*, *Huds.* (p. 169); 2–4 in. Epping Forest.

795. A. (*Hypholoma*) *dispersus*, *Fr.* (p. 169); 1–1½ in. Epping Forest.

** VISCIDI.—*Pileus naked, viscous.*

796. A. (*Hypholoma*) *œdipus*, *Cke.*; pileus ½–1 in.; glutinous, fleshy in centre, turbinate, hemispherical then convex, smooth, dull, hygrophanous, disc umber, pallid at ragged margin which slightly exceeds gills; stem thick, enlarged downwards to a bulbous base, solid, fibrillose below, pruinose above; ring evanescent; gills at first whitish, then umber, adnate by their entire breadth, or with a minute decurrent tooth, plane, edge somewhat granular.

Attached to decayed sticks and dead leaves.

*** VELUTINI.—*Pileus silky with innate fibrils or streaked.*

797. A. (*Hypholoma*) *storea*, *Fr.*; pileus 3 in., pale fuscous then dingy-isabelline, fleshy, convex, broadly umbonate, somewhat depressed round umbo, broken up into longitudinally adnate or squarrose fibrils; cortina a prolongation of fibrils of pileus, appendiculate at margin; flesh white, compact; stem solid, equal, round, even, somewhat fibrillose, pallid; gills adnate with a decurrent tooth, livid-cinereous, at length fuscous, edge serrulated, white.

On roots of trees. On beech stumps. Ascot. Perth. Epping Forest.

Var. cæspitosus, *Cke.*; cæspitose; stem fistulose, sometimes tinged with yellow at the base.

= *A. hypoxanthus* of Phil. and Plow.

On beech stumps.

798. *A. (Hypholoma) lacrymabundus*, *Fr.* (p. 170); 2-3 in. Epping Forest.

799. *A. (Hypholoma) pyrotrichus*, *Holmsk.*; cæspitose; pileus 3 in., fiery-tawny, slightly fleshy, hemispherical, obtuse then expanded, densely clothed with somewhat adpressed, partially fasciculate, tawny fibrils; flesh tawny; stem hollow, fibrous-soft, equal, fibrillose, or slightly squarrose, becoming tawny; cortina tawny; gills adnate, somewhat crowded, broad, pallid, then brown, at length free; edge white, flocculose.

About roots of trees, beech, etc. King's Lynn. Glamis. Epping Forest.

800. *A. (Hypholoma) velutinus*, *Pers.* (p. 170); 2-4 in. Epping Forest.

Var. leiocephalus, *B. and Br.*; densely cæspitose, much smaller than type; pileus hygrophanous, rugged, smooth, except at the fibrillose margin, pallid; stem pallid, apex pruinose.

On old stumps.

***** FLOCCULOSI.—*With floccose, superficial separating scales.*

801. *A. (Hypholoma) cascus*, *Fr.*; gregarious; pileus 1½-3 in., livid-grey, then tan-whitish, somewhat fleshy, oval, then expanded, obtuse, smooth, slightly wrinkled, even on disc, when young superficially scaly, fragile; stem hollow, equal, fibrillose, white, white-pulverulent at apex; veil appendiculate at margin of pileus, squamulose, white;

gills rounded-adnexed, ventricose, dry, grey, then black-fuscous, edge whitish.

In mountain wood. Rannoch.

802. A. (*Hypholoma*) *punctulatus*, *Kalch.*; pileus fleshy, thin, convex, dry, pallid, squamuloso-punctate from the veil, then naked; stem stuffed, pallid, clad with punctiform squamules up to the ring; gills sinuately adnate with a decurrent tooth, broad, rather crowded, pallid, then pale umber.

On chips, etc.

***** APPENDICULATI.—*Pileus smooth, hygrophanous.*

803. A. (*Hypholoma*) *lanaripes*, *Cke.*; somewhat cæspitose; pileus $1\frac{1}{2}$ –3 in., pallid, disc tawny or brownish, rather fleshy, campanulate, then expanded, hygrophanous, squamose with superficial scales from the breaking up of the cuticle, veil attached in fugacious patches, margin thin; stem white, hollow, fragile, somewhat fibrilloso tomentose at base; gills reaching the stem whitish, then purplish-brown.

On soil in conservatories.

804. A. (*Hypholoma*) *Candolleanus*, *Fr.* (p. 170); 2–4 in. Epping Forest.

805. A. (*Hypholoma*) *appendiculatus*, *Bull.* (p. 170); 2–3 in. Epping Forest.

A. (*Hypholoma*) *felinus*, *Passer.*; gregarious; subcæspitose; pileus fleshy, membranaceous, hemispherical, then expanded, smooth, hygrophanous, ochraceous; stem fistulose, short, thin, rather shining-white, incrassated at base and rather floccose, striate at apex; gills adnate, white, then fuscous = *A. catarius*. *Fr. Hym. Eur.*

On ground, among grass.

806. A. (*Hypholoma*) leucotephrus, B. and Br.; cæspitose; pileus 3 in., pallid, then whitish, somewhat campanulate, wrinkled, then convexo-expanded; stem fistulose, silky fibrillose downwards, striate or sulcato-striate at apex; ring large, partially appendiculate; gills slightly adnate, narrow, cinereous-whitish grey, then black.

At base of ash trees. North Kilworth.

807. A. (*Hypholoma*) egenulus, B. and Br.; pileus 1½ in., white, hemispherical, expanded, umbonate, smooth, even except towards edge, margin finely striate, appendiculate; stem fistulose, attenuated upwards or nearly equal, minutely adpressedly scaly; gills adnate with a tooth, slightly ventricose, moderately distant, purplish umber, edge white.

On the ground, among grass. Apethorpe.

808. A. (*Hypholoma*) hydrophilus, Bull.; pileus fleshy-membranaceous, convex, then expanded, subrepand, smooth, hygrophanous, rugose, bay-brown, disc even, margin rather broken; stem fistulose, curved, closely fibrillose, growing pale; gills adnexed, ventricose, crowded, dripping, pallid, then brownish-cinnamon or bay.

About trunks. Epping Forest.

809. A. (*Hypholoma*) pilulæformis, Bull.; pileus 1 in., fuscous, then dingy ochraceous, somewhat membranaceous, globose, then expanded, obtuse, even, smooth; stem fistulose, flexuose, smooth, white, naked at apex; cortina manifest, woven in the form of a ring when young; gills adnexed, easily separating, thin, narrow, linear, dry, white, then cinereous, at length fuscous.

On mossy trunks. Rare. Perhaps a young condition of *A. hydrophilus*.

Subgenus 38.—*PSilocybe* (p. 171).

Psilocybe corresponds with *Collybia*, *Leptonia* and *Naucoria*, spores dark purplish, not white, rosy or brown.

1. **TENACES.**—*Veil not essential, rarely conspicuous; stem thick skinned, flexible, mostly coloured; pileus bright coloured, pelliculose, often rather viscid in wet weather, becoming somewhat pale.*

* *Gills ventricose, not decurrent.*

810. **A. (*Psilocybe*) *sarcocephalus*, Fr.**; pileus fleshy, compact, convex, then expanded, obtuse, even, dry, pallid-ferruginous; stem robust, stuffed, then hollow, whitish, clad with white meal at apex; gills adnate, broad, cinereous flesh-colour, then sooty.

In grassy places, mostly about stumps.

811. **A. (*Psilocybe*) *ericæus*, P.**; gregarious; pileus 1–1½ in., tawny-ferruginous, then tawny-yellow, fleshy, thin, convex, then expanded, even, smooth, dry and shining, somewhat viscous when wet; stem fistulose, tough, equal, somewhat smooth, or silky, becoming light yellow, white-villous at base; gills adnate, plane, somewhat distant, pallid, then blackish olive, pruinose, edge whitish.

In exposed pastures after rain. In woods and pastures. Rare. Epping Forest.

812. **A. (*Psilocybe*) *subericæus*, Fr.**; pileus 2 in., rather fleshy, rather convex, then plane, even, smooth, tawny; stem fistulose, smooth, becoming yellowish; gills sinuate, adnexed, broad, pallid, then blackish.

In fields.

813. **A. (*Psilocybe*) *udus*, P.**; pileus ½–1 in., brick-tawny, then pale, slightly fleshy, convex, then flattened, sub-umbonate, smooth, even or slightly wrinkled; stem fistulose, equal, fibrillose, tawny-ferruginous, paler at apex;

gills adfixed, ventricose, broad, plane or convex, pallid, then fuscous-purple.

In swampy places, among *Sphagna*. Epping Forest.

814. A. (*Psilocybe*) canofaciens, Cke.; gregarious; pileus 1½ in., campanulate, then expanded, with a fleshy disc, even, dark bay-brown, ferruginous at apex, clad (including stem) with scattered white hairs, soon evanescent at apex; veil white, fibrillose, at first attached to margin of pileus; stem same colour as pileus, nearly equal, stuffed, dark at base; flesh of pileus pallid, of stem rufescent, gradually darker downwards; gills broad, adnate, ventricose, dark umber.

On rotten straw.

815. A. (*Psilocybe*) areolatus, Klotsch (p. 172); 1½-3 in.

816. A. (*Psilocybe*) agrarius, Fr.; pileus 1 in., white and dull, then cinereous, slightly firm and fleshy, convex, then flattened and often umbonate, even, smooth; flesh white; stem fistulose, equal, smooth, white; gills obtusely adnate, crowded, then somewhat distant, linear, white, at length fuscous.

About roots of decayed trees, etc. North Kilworth.

817. A. (*Psilocybe*) chondrodermus, B. and Br.; pileus 1 in., dark date-brown, fleshy, campanulate, smooth, with exception of appendiculate margin, even, cracked; veil woven and jagged; stem fistulose, equal, paler than pileus, fibrillose, squamulose at base; gills adfixed, separating, ventricose, margin white.

In Scotch fir wood. Glamis.

818. A. (*Psilocybe*) scobicola, B. and Br.; pileus convex, umbilicate, white, smooth; stem fibrillose, nearly equal, or dilated at apex, fistulose; gills broad, adnexed.

On sawdust.

** *Gills plane, very broad behind, somewhat decurrent.*

819. A. (*Psilocybe*) *ammophilus*, *Dur. and Mont.*; pileus somewhat fleshy, hemispherical, then umbonate; stem hollow, buried half-way in sand, base clavate; gills decurrent with a tooth, smoky, black-pulverulent.

On sandy ground, on the sea-shore. St. Andrews.

820. A. (*Psilocybe*) *coprophilus*, *Bull.* (p. 171); 1 in.

821. A. (*Psilocybe*) *bullaceus*, *Bull.* (p. 172); $\frac{1}{3}$ – $\frac{1}{2}$ in.

822. A. (*Psilocybe*) *physaloides*, *Bull.* (p. 172); 3–4 in.

823. A. (*Psilocybe*) *atro-rufus*, *Schäff.*; pileus black-rufous or purple-fuscous, then pale, slightly fleshy, hemispherico-convex, obtuse, smooth, sometimes striate at margin; stem thin, fistulose, equal, at first somewhat fibrillose, then smooth, pallid date-brown, slightly pruinose at apex; gills adnate, somewhat decurrent, triangular, umber or purple-umber.

In mixed wood. Glamis.

824. A. (*Psilocybe*) *nucisedus*, *Fr.*; pileus slightly fleshy, light yellowish, then yellow, convex, obsoletely umbonate, even, slightly silky when dry; stem fistulose, slender, pallid, somewhat attenuated downwards, becoming fuscous, white-villous at base; gills adnate, broad, plane, fuscous, then umber-black.

On beech-mast and among chips. West Farleigh, Kent.

*** *Gills somewhat linear, ascending.*

825. A. (*Psilocybe*) *comptus*, *Fr.*: pileus 1– $1\frac{1}{2}$ in., pallid, then ochraceous, somewhat membranaceous, conical, then expanded, striate, sprinkled with shining spots, somewhat crenulate at margin; stem fistulose, flexuose, even, silky-shining; gills adnate, ascending, distant, rosy-umber.

In woods, among grass.

826 A. (*Psilocybe*) *semilanceatus*, Fr. (p. 172); $\frac{1}{2}$ in.
Epping Forest.

Var. *cærulescens*, Cke.; base of stem turning indigo-blue. In pastures. Poisonous.

II. RIGIDI.—*No veil, stem rigid, pileus scarcely pelliculose, but flesh easily cut, hygrophanous; gills adnexed, very rarely adnate.*

827. A. (*Psilocybe*) *spadiceus*, Fr. (p. 171); 3–4 in.
Epping Forest.

Var. *hydrophilus*, Fr.; pileus tawny, then clay-colour; stem somewhat fusiform, rooting; gills emarginate, with a deeply decurrent line; at length umber-brown.

At roots of ash.

Var. *polycephalus*, Fr.; densely crowded; stem thinner, flexuose; gills nearly free, at length tawny umber.

About trunks.

828. A. (*Psilocybe*) *cernuus*, Müll. (p. 171); 1–2½ in.

829. A. (*Psilocybe*) *hebes*, Fr.; pileus 1 in., livid, then pale, hygrophanous, slightly fleshy, convex, then expanded, obtuse, even, smooth, slightly viscid, striate at margin, becoming even; stem cartilaginous, rigid, fistulose, equal, even, smooth, naked, becoming pale white; gills broad behind, triangular, adnate, crowded, arid, white, then fuscous.

On trunks, leaves, etc. On 'grass, among leaves, near chestnut. Hothorpe.

830. A. (*Psilocybe*) *fœnisepii*, P.; 1–2 in. Epping Forest.

831. A. (*Psilosybe*) *clivensis*, B. and Br.; pileus 1 in.. pallid brown, then whitish, pallid ochre, somewhat hemispherical, even, sprinkled with shining particles, margin

striate; stem fistulose, equal, except at the slightly clavate base, somewhat silky; gills broad, adnate, widely emarginate, ventricose in front, rather distant, umber, margin white.

On the ground. King's Cliffe.

832. A. (*Psilocybe*) *seobieola*, B. and Br.; pileus white, convex, umbilicate, smooth; stem fistulose, somewhat equal or dilated at apex, fibrillose; gills adnexed, broad.

On pine sawdust. Glamis.

Subgenus 39. PSATHYRA (p. 173).

Psathyra corresponds with *Mycena*, *Nolanea*, and *Galera*, spores dark purplish, not white, rosy, or brown.

1. CONOPILEI.—*Pileus conico-campanulate; gills ascending, adnexed, often free; veil none.*

833. A. (*Psathyra*) *conopilus*, P. (p. 173); 1 in. Epping Forest.

834. A. (*Psathyra*) *mastiger*, B. and Br.; pileus 1 in., dark rich-brown, then umber-tan, somewhat fleshy, at first nearly cylindrical, obtuse, then conico-campanulate, with a strong mammiform umbo, repand, margin straight; stem fistulose, attenuated upwards, white, smooth, or fibrillose and furfuraceous, pale umber within; gills affixed, ascending rather narrow, umber, edge paler.

On roadsides among grass. Apethorpe.

835. A. (*Psathyra*) *corrugis*, P. (p. 173); $\frac{1}{2}$ - $1\frac{1}{2}$ in. Epping Forest.

Var. gracilis, Fr.; habit more slender.

On the ground.

Var. vinosus, Corda; pileus somewhat roseate.

In gardens, etc.

836. A. (*Psathyra*) *pellospermus*, Bull.; pileus sub-

campanulate or subovate, even, then striate, sometimes rugose, white or ochrey-white, becoming fuliginous; flesh thin, white; stem fistulose, naked, nearly equal, white or same colour as pileus; gills broad, free, much narrowed at the tips, cinereous, then fuliginous, at length black.

On the ground.

837. A. (*Psathyra*) *gyroflexus*, Fr.; pileus $\frac{1}{2}$ in., membranaceous, conico-campanulate, striate, atomate, becoming pallid; stem slender, flexuose, silky, shining white; gills adnate, crowded, becoming purplish grey.

Margin of woods.

II. OBTUSATI.—*Pileus campanulato-convex, flattened, smooth or atomate, gills plano- or arcuato-adfixed.*

838. A. (*Psathyra*) *spadiceo-griseus*, Schæff. (p. 173); 2 in.

839. A. (*Psathyra*) *obtusatus*, Fr.; pileus 1 in., date-brown-fuscous, or umber-fuscous, paler at margin, somewhat membranaceous, conical, then convex, at length flattened, obtuse, even at the disc, striate at margin, flesh same colour; stem fragile, fistulose, round, equal, fibrilloso-silky, whitish, even at the apex; gills adnate, broad, distinct, somewhat distant, cinereous-fuscous, then umber.

On the ground and on wood. Rare.

III. FIBRILLOSI.—*Pileus and stem at first fibrillose or floccose from the universal veil.*

840. A. (*Psathyra*) *bifrons*, B. (p. 173); $\frac{3}{4}$ in.

Var. semitinctus, Phil.; half-dyed.

841. A. (*Psathyra*) *semivestitus*, B. and Br.; pileus $\frac{1}{2}$ in., dark brown, then pale, ovate, obtuse, sprinkled with little white fibrils more than half-way up; stem fistulose,

nearly straight, fibrilloso - silky, white; gills adnate, ascending, broad behind, umber-brown.

Among grass in rich pasture. King's Cliffe. Epping Forest.

842. A. (*Psathyra*) *fatuus*, *Fr.*; pileus clay colour then whitish, somewhat membranaceous, ovato-campanulate then expanded, rugose, at first fibrillose then smooth, fragile; stem slender, becoming smooth, white, striate and mealy at apex; gills adnate, crowded, linear, whitish then brown.

In gardens.

843. A. (*Psathyra*) *fibrillosus*, *P.* (p. 173); 1 in. Epping Forest.

844. A. (*Psathyra*) *Gordoni*, *B. and Br.*; densely cæspitose; pileus $1\frac{1}{2}$ in., pale cinereous then white, membranaceous, campanulate, sulcato-striate, sprinkled with white floccose scales; stem fistulose, brittle, transversely undulated, white-pruinose above, floccose below, at length smooth and shining; gills narrowly adnate, ascending, distant, moderately broad, cinereous.

On old stumps. Orton Longueville. Odour faint, nauseous.

845. A. (*Psathyra*) *glareosus*, *B. and Br.*; pileus $\frac{1}{2}$ in., grey, pale chestnut at apex, campanulate, obtuse or umbonate, striate, with flocci like small crumbs, flesh brown; stem fistulose, clothed with white fibrils, brown, gills broad behind, adnate, umber.

On gravelly soil after wet weather.

846. A. (*Psathyra*) *helobius*, *Kalch.*; pileus submembranaceous, conico-campanulate then plane, somewhat umbonate, with concentric elevated ridges at the disc, otherwise radiately rugose, fuliginous, margin striate, brown; stem fistulose, slender, umber, becoming reddish,

clad with fugacious whitish flocci ; gills adnate, rounded behind, rather crowded, fuliginous.

Moist places in pine woods.

847. A. (*Psathyra*) *pennatus*, *Fr.* ; gregarious ; pileus $\frac{1}{2}$ -1 in., livid, white, or becoming fuscous-black, somewhat membranaceous, ovate then campanulate, clothed with white plumose scales, at length naked, fragile ; stem fistulose, equal, villous, white-pulverulent at apex, silvery ; gills adnexed, crowded, ventricose, broad, livid, then fuscous-blackish.

On naked soil in gardens and on burnt sawdust. Rare.
Epping Forest.

848. A. (*Psathyra*) *gossypinus*, *Bull.*

849. A. (*Psathyra*) *noli-tangere*, *Fr.* ; gregarious ; pileus 1 in., pallid umber, dark fuscous, becoming pale, hygrophanous, membranaceous, campanulate then expanded, obtuse, smooth, with separating squamules at margin, striate throughout, becoming even, fragile ; stem fistulose, equal, somewhat naked, even at apex ; gills adnate, broad, plane, sometimes pallid, somewhat dark fuscous.

Among moss. On oak chips. On damp shady ground.
In woods. Rare.

850. A. (*Psathyra*) *microrhizus*, *Lasch* ; gregarious ; pileus ochraceous, or rufous brown, becoming pale, membranaceous, campanulate, even, dry, shining with atoms, at first yellow-pilose, fragile ; stem short thin, rooted, silky, whitish ; gills adnexed, crowded, narrow, pallid, then black brown.

In grassy places. In gardens. On naked soil. Sibbertoft.

851. A. (*Psathyra*) *urticæcola*, *B.* and *Br.* ; pileus $\frac{1}{6}$ in., white, campanulate, flocculent, margin at length

straight, striate ; stem fistulose, slender, attenuated upwards flocculent, white ; gills ventricose in front, attenuated behind, adnexed, at first white, then rich chocolate.

On nettle roots. King's Cliffe.

Series 5. COPRINARIUS.—*Spores Black.*

Subgenus 40. PANÆOLUS (p. 174).

Panæolus corresponds with Collybia, Leptonia, Naucoria and Psilocybe, spores black, not white, rosy, brown or purple.

* *Pileus with a gelatinous-liquecent cuticle, viscous, shining when dry.*

852. A. (Panæolus) separatus, L. (p. 174) ; 1 in.
Epping Forest.

853. A. (Panæolus) egregius, Mass. ; pileus 2 in., ovato-campanulate, smooth, even, viscid when moist, dark orange-brown, disc darker, fleshy, exceeding the gills at margin, with a trace of agglutinated down on the pileus, virgate when dry ; flesh ochraceous ; stem thickened at base, solid, fibrillose, splitting longitudinally, brown without and within, duller than the pileus, white and cottony at base, smooth at apex ; gills $\frac{1}{2}$ inch, broad in centre, ventricose, adnexed, crowded, thin, brownish-black, edge entire, paler, dry, not deliquescent ; spores brown, then blackish purple.

On the ground.

854. A. (Panæolus) leucophanes, B. and Br. ; pileus $\frac{3}{4}$ in., white here and there, somewhat ochraceous, campanulate, obtuse, viscid, shining when dry, innately silky, appendiculate at margin ; stem fistulose, attenuated upwards, white, fibrillose, sprinkled with mealy particles, transversely somewhat undulated ; gills adnate, pallid, grey-flesh-colour, then black, margin white.

In grass fields. King's Cliffe.

855. A. (*Panæolus*) *fimiputris* (p. 174); 1 in. Epping Forest.

856. A. (*Panæolus*) *phalænarum* (p. 175). Epping Forest.

857. A. (*Panæolus*) *scitulus*, *Mass.*; pileus $\frac{1}{2}$ in., campanulate, obtuse, smooth, even, viscid, margin exceeding gills, dirty ochre, pale; flesh thin, white; stem equal, fistulose, white, shining, base peronate, sheath ending in a persistent ring below middle of stem; gills crowded, narrow, becoming ashy grey, speckled with the black spores, margin entire, paler; spores black.

On soil in a flower-pot. Scarborough.

** *Pileus moist, opaque, bibulous, when dry somewhat flocculose.*

858. A. (*Panæolus*) *retirugis*, *Fr.* (p. 175). Epping Forest.

859. A. (*Panæolus*) *sphinctrinus*, *Fr.*; pileus 1 in., fuliginous or fuliginous-grey, then livid, hygrophanous, slightly fleshy, parabolic then campanulate, obtuse, opaque, moist then somewhat silky, sometimes fibrillose; stem fistulose, tense and straight, equal, fragile, smooth, fuliginous-grey, pruinose; veil appendiculate at margin of pileus, fugacious, white; gills adnate, ascending, crowded, cinereous, blackish, edge same colour.

On dung. Glamis. Epping Forest.

*** *Pileus dry, smooth, slightly shining, not zoned.*

860. A. (*Panæolus*) *campanulatus*, *L.*; $\frac{1}{2}$ -1 in. Epping Forest.

861. A. (*Panæolus*) *papilionaceus*, *Fr.* Epping Forest.

862. A. (*Panæolus*) *caliginosus*, *Jungh.*; pileus brown, slightly fleshy, campanulate, obtuse, even, smooth; stem

equal, even, naked, same colour as pileus; gills slightly adnexed, ascending, lanceolate, fuliginous-black.

In rich pasture. Glamis. Epping Forest.

**** *Pileus dry, smooth, zoned round margin.*

863. A. (*Panæolus*) *subbalteatus*, *B.* and *Br.*; cæspitose; pileus 1½–2 in., dull deep fawn colour, pallid when dry, hygrophanous, rather fleshy, convex, with the margin slightly incurved, then expanded, obtuse or slightly umbo-nate, irregular, slightly wrinkled, naked near margin with a dark narrow zone; stem red-brown, fistulose, brittle, stringy, splitting longitudinally, marked with short white fibrils; gills adnate, slightly ventricose, brownish, margin white, slightly toothed.

In a tare field. Apethorpe.

864. A. (*Panæolus*) *acuminatus*, *Fr.*; pileus flesh tan-colour, slightly fleshy, conical, sharp-pointed, even, smooth, shining, zoned with a blackish line round margin which is at first crenulate; stem thin, equal, pruinose, thickened at base, pallid above, fuscous downwards; gills adnexed, ventricose, crowded, blackish.

On dung. Sibbertoft.

865. A. (*Panæolus*) *fimicola*, *Fr.* (p. 175).

Var. cinctulus; pileus somewhat fleshy, campanulate, then expanded, even, smooth, margin with a broad brown zone; stem rather firm, equal, brownish; gills ventricose, olivaceous black.

On dung. A doubtful variety, founded on Bolton's figure.

Subgenus 41. PSATHYRELLA.

Psathyrella corresponds with *Mycena*, *Nolanea*, *Galera* and *Psathyra*, spores black, not white, rosy, brown, or purple.

* *Stem tense and straight, smooth.*

866. A. (*Psathyrella*) *subatratus*, *Fr.*; gregarious; pileus 1-2 in., umber-rufescent, then pallid-rufescent, membranaceous, campanulate, obtuse, smooth, even, slightly striate at margin, fragile; stem fistulose, equal, smooth becoming pale white; gills adnexed to top of cone, then adnate, linear, broad, crowded, fuliginous-blackish, almost umber, edge same colour.

In grassy places. On rich ground. Batheaston.

867. A. (*Psathyrella*) *gracilis*, *Fr.* (p. 176); $\frac{1}{2}$ -1 in.

868. A. (*Psathyrella*) *hiascens*, *Fr.* (p. 176); 1 in.

869. A. (*Psathyrella*) *aratus*, *B.* (p. 176); 1 in.

870. A. (*Psathyrella*) *trepidus*, *Fr.*; pileus 1 in., date brown at disc, otherwise fuliginous, membranaceous, fragile, campanulate, obtuse, smooth, even at disc, otherwise slightly but densely striate; stem fistulose, equal, smooth, naked, diaphanous hyaline; gills adnate, crowded, ventricose then fuliginous, shining black.

On wet ground. Hothorpe. Epping Forest.

871. A. (*Psathyrella*) *hydrophorus*, *Bull.*; pileus membranaceous, campanulate then expanded, smooth, margin striate, then revolute; stem smooth, dripping with moisture, white; gills adnate, crowded, narrowly linear, livid, becoming black.

In gardens.

** *Stem flexuose pruinata at apex.*

872. A. (*Psathyrella*) *caudatus*, *Fr.*; pileus 2 in., date-brown, membranaceous, very tender, conical then campanu-

late, at length flattened, smooth, the somewhat gibbous disc even, otherwise pellucid-striate, not corrugated; stem fistulose, attenuated, base thickened, rooting, becoming pale white; gills adnate, cinereous-black, edge same colour.

Among blocks of a wooden pavement. Sibbertoft.

873. A. (*Psathyrella*) *pronus*, Fr.; pileus $\frac{1}{2}$ in., fuliginous then hoary, hygrophanous, membranaceous, campanulate then hemispherical, obtuse, smooth, pellucid-striate, obsoletely silky-atomate when dry; stem fistulose, filiform, lax, equal, smooth, becoming pale; gills adnate, plane, somewhat triangular, distant, livid-fuliginous, with black dots from the spores.

In grassy places. Rare. Epping Forest.

874. A. (*Psathyrella*) *empyreumaticus*, B. and Br.; pileus $1\frac{1}{2}$ in., rufous then pale, hygrophanous, expanded atomate, margin crenate; stem fistulose, silky-furfuraceous, pallid, gills adnate with a decurrent tooth, broad, distant, connected by veins, rufous then brown-purple, pallid at edge.

On wooden pavement. Sibbertoft.

875. A. (*Psathyrella*) *atomatus*, Fr. (p. 176); $\frac{1}{2}$ -1 in.

876. A. (*Psathyrella*) *crenatus*, Lasch; pileus $\frac{3}{4}$ -1 in., ochrey or rufescent, then pale, hygrophanous, membranaceous, hemispherical, sulcate, atomate, crenate at margin, fragile; stem somewhat curved, fragile, smooth, whitish, striate; gills adnate, somewhat ventricose, light yellowish-fuscous then blackish.

On the ground. Penzance.

877. A. (*Psathyrella*) *disseminatus*, Pers. (p. 176); $\frac{1}{2}$ in. Epping Forest.

GENUS 2. MONTAGNITES, Fr.

The universal veil forming a volva, persistent. Stem dilated at apex into a plane round disc, even on both sides, to the margin of which are adfixed the gills which are free, not joined to any membrane, radiating, razor-shaped, persistent, obtuse at edge; trama cellulose; spores oblong, even, black, fuscous.

No British species.

GENUS 3. COPRINUS, P. (p. 177).

Tribe 1. PELLICULOSI.—*Gills covered above with a fleshy or membranaceous cuticle, pileus not opening in furrows along the gills, becoming torn and revolute.*

* COMATI.—*Furnished with a ring arising from the volva, the cuticle torn into scales.*

1. *C. comatus*, Fr.; 2 in. Epping Forest.

2. *C. ovatus*, Schæff.; pileus white, somewhat membranaceous, at first ovate and densely imbricated with thick, spreading concentric scales, covered with an even hood at apex, then expanded, striate; stem solid at base, rooting, otherwise hollow with arachnoid threads within, attenuated upwards, flocculose, shining white; ring not very conspicuous and soon vanishing; gills free, then remote, slightly ventricose, at first somewhat naked, long remaining shining white, at length umber-blackish, never becoming purple.

In pastures. Epping Forest.

3. *C. sterquilinus*, Fr. (p. 177).

4. *C. oblectus*, Bolt.; pileus membranaceous, conico-campanulate, everywhere silky, then smooth, sulcate; stem hollow, soft, silky, becoming even, with a sheathing ring-like base; gills free, linear, flesh-colour, growing black.

On dung. Not recorded since Bolton's time.

** ATRAMENTARII.—*Somewhat ringed, but no volva, pileus dotted or spotted with minute innate squamules.*

5. *C. atramentarius*, Fr. (p. 177). Epping Forest.

6. *C. soboliferus*, Fr.; pileus submembranaceous, ovate, then expanded, trunecate, spotted with scales, dirty white; stem stuffed, rather ventricose, tuberously rooting with runners; ring fugacious; gills free, ventricose, pallid, becoming black.

At the base of trunks.

7. *C. fuscescens*, Fr. (p. 178).

Var. rimoso-squamulosus.

Pileus becoming cracked into angular patches.

About stumps.

*** PICACEI.—*Universal veil flocculose, at first continuous then broken up into superficial scales which form patches on the pileus.*

8. *C. picaceus*, Fr. (p. 178). Epping Forest.

9. *C. aphthosus*, Fr. (p. 178).

10. *C. flocculosus*, Fr.; pileus dingy white, membranaceous, ovate, then expanded, striate, split, covered with floccose scales; stem hollow, attenuated upwards, even, white, swollen at the base; gills free, violaceous, then fuscous-black.

In pastures and on garden ground. Rare.

11. *C. similis*, B. and Br.; pileus pallid, centre darker, hygrophanous, ovato-campanulate, lineato-striate, clothed with acute separating warts which are fuscous at the apex; stem hollow, white, broader at base; gills adnate, attenuated behind, somewhat linear, brownish near the margin.

On trunks of dead trees. Bodelwyddan.

***** **TOMENTOSI.**—*Pileus at first clothed with distinct flocci or lax villous down, then plane, ring none.*

12. **C. extinctorius**, *Fr.* (p. 178); 3 in.

13. **C. fimetarius**, *Fr.* (p. 179).

Var. *pullatus*, *Fr.*; pileus adpressedly squamose and tomentose, soon naked, fuscous, becoming blackish; stem equal, at length smooth.

Var. *macrorhizus*, *P.*; pileus squamose; stem shorter, rather marginately bulbous, rooting, villous.

Var. *cinereus*, *Schäff.*; pileus membranaceous, floccosely mealy, then naked, ashy grey; stem almost equal, twisted, not rooting, hollow at base.

14. **C. tomentosus**, *Fr.* (p. 179).

15. **C. niveus**, *Fr.* (p. 179), 1–2 in. Epping Forest.

***** **MICACEI.**—*Pileus covered with small micaceous scales or granules, which fall off and disappear. Veil none.*

16. **C. micaceus**, *Fr.* (p. 179). Epping Forest.

17. **C. aratus**, *B. and Br.*; pileus 3 in., umber, campanulate, deeply sulcate to darker disc which is sometimes wrinkled, sometimes even, sprinkled with large micaceous particles, revolute in decay; stem fistulose, attenuated upwards, slightly bulbous, straight, smooth, or minutely silky, white, umber within; gills separating, narrow, attenuated at either end, deep rich brown, then black.

In a hollow tree. King's Cliffe. Epping Forest.

18. **C. radians**, *Fr.* (p. 179), $\frac{1}{4}$ in. Epping Forest.

19. **C. papillatus**, *Fr.*; pileus $\frac{1}{4}$ in., fuscous, disc darker, membranaceous, ovate then campanulate, at length flattened and revolute, torn, striate, scurfy and beset with minute warts which are more crowded on the disc; stem fistulose, equal, smooth except at base, hyaline-pellucid, commonly

discoloured at apex with the spores ; gills few, free, reaching the stem, blackish.

On dung and on the ground. Shrewsbury.

***** GLABRATI.—*Pileus smooth, without floccose or micaceous squamules. Veil none.*

20. *C. alternatus*, Fr.; somewhat cæspitose; pileus 1½ in., chalky pallid, pale umber at disc, somewhat fleshy, hemispherical, even, smooth, discoid, striped with alternate striæ broad and narrow; stem hollow, attenuated from the thickened base, smooth, becoming pale; gills adnate, linear, cinereous then black.

On the ground. East Dereham.

21. *C. deliquescens*, Fr. (p. 180); 3–4 in. Epping Forest.

22. *C. tardus*, Kars.: pileus membranaceous, campanulate, sulcate, smooth, becoming gilvous or isabelline; stem fistulose, a little thickened downwards, silky pruinose, then smooth, rather striate, white; gills adnate, whitish then black.

On naked soil.

23. *C. congregatus*, Bull.; densely cæspitose; pileus membranaceous, cylindrical, then campanulate, smooth, viscid, of one colour, ochraceous, margin faintly striate; stem fistulose, thin, short, smooth; gills reaching the stem, linear, white, becoming black.

On ground by roadsides. Epping Forest.

Tribe 2. VELIFORMES.—*Pileus very thin without a pellicle, at length opening into furrows along the back of the gills and becoming plicato-sulcate; stem thin, fistulose; gills melting away into very thin lines.*

* CYCLODEI.—*Stem annulate or volvate.*

24. *C. Hendersonii*, B. (p. 180).

** LANULATULI.—*Pileus clothed with superficial separating floccules, gills free. Ringless.*

25. *C. lagopus*, Fr. (p. 180.)

26. *C. narcoticus*, Fr.; pileus 1 in., white, conico-cylindrical, villous with recurved floccose scales, then flattened, denuded, striate, hyaline; stem fistulose, equal, at first villous, at length smooth; gills free, reaching the stem, white, then blackish.

On manure heaps. Shrewsbury. Odour narcotic-alkaline, very powerful.

27. *C. macrocephalus*, B. (p. 180), $\frac{1}{2}$ in.

28. *C. nycthemerus*, Fr. (p. 181), $\frac{1}{3}$ in.

29. *C. radiatus*, Fr. (p. 181), $\frac{1}{4}$ in. Epping Forest.

30. *C. Spraguei*, B. (p. 182), $\frac{1}{4}$ in.

*** FURFURELLI.—*Pileus furfuraceous or micaceous, gills commonly adnate to apex of stem, which, in some species is dilated into a collar; ringless.*

31. *C. domesticus*, Fr. (p. 181), 2 in.

32. *C. stercorarius*, Fr.; pileus very thin, ovate, then campanulate, covered with a dense white micaceous meal, then expanded, margin striate; stem at first ovately bulbous, then elongated, attenuated, at first pruiniate, white; gills adnexed, ventricose, black.

On rich soil and dung.

33. *C. ephemerus*, T. (p. 181.)

34. *C. sociatus*, Fr.; pileus $1\frac{1}{2}$ in., fuscous, then pale, disc date-brown, ovali-cylindrical, then expanded, densely split into furrows, the raised ribs slightly scurfy, the even disc umbilicate in centre; stem fistulose, delicately attenuated from base to apex, smooth, white, not pellucid; gills

adnexed in the form of a collar, not remote, somewhat ventricose, attenuated behind, cinereous black.

On damp soil. Cabalva.

35. *C. plicatilis*, Fr. (p. 181.) Epping Forest.

36. *C. cothurnatus*, Godey.; pileus very thin, conico-campanulate, then expanded, densely mealy, then umbonate and unequally split, wholly white, becoming reddish; stem fistulose, attenuated upwards, white, base squamulose, sheathing; gills free, somewhat lanceolate, white, then flesh-colour, at length black.

On cow-dung.

37. *C. filiformis*, B. and Br.; pileus $\frac{1}{2}$ in., grey, shining with white mealy particles, cylindrical, striate; stem extremely fine, white, sprinkled with a few short delicate hairs.

On the ground in wood. Colleyweston.

***** HEMEROBII.—*Pileus smooth, ringless.*

38. *C. hemerobius*, Fr. (p. 182.)

39. *C. platypus*, B.; pileus thin, campanulate, convex, then expanded, white then ochraceous-flocculose; stem slender, discoid at the base, whitish even; gills free, narrow, distant, becoming black.

On palm stems in conservatories.

Genus 4. **BOLBITIUS**, Fr. (p. 152.)

1. *B. hydrophilus*, Fr.; cæspitose; pileus $1\frac{1}{2}$ in., date brown, then tawny, fleshy, membranaceous, bullate then convex and expanded, at first moist, wrinkled when dry, the prominent disc even, the bent in margin undulated; flesh very thin, easily scissile, white when dry; stem fistulose, somewhat curved and often compressed, under a lens reticulated with fibrils, at first white then becoming ferru-

ginous, obsoletely mealy at apex ; veil marginal, fringing, white, fugacious or none ; gills adnate, ventricose, appearing almost free, crowded, watery, shedding drops, date-brown fuscous.

In woods and on sawdust. Frequent.

2. *B. Boltonii*, *Fr.* (p. 182.) Epping Forest.

3. *B. vitellinus*, *Fr.*; pileus between fleshy and membranaceous, ovate then expanded, viscid, egg-yellow, at first even, then with the margin, sulcate and split; stem fistulose, equal, clad with white scales; gills slightly adnexed, ochraceous clay colour.

On horse-dung.

4. *B. fragilis*, *Fr.* (p. 182), 2 in. Epping Forest.

5. *B. titubans* (p. 182), 1 in.

6. *B. apicalis*, *Sm.*; pileus brown, disc ochraceous, membranaceous, striate from the first, then plicate, liable to split, disc somewhat fleshy, obscurely umbonate; stem hollow, striate, white, minutely pruinose under a lens; gills somewhat broad, ventricose, free, at first pressed to the stem, brown.

In pastures. Staplehurst.

7. *B. conocephalus*, *Bull.*: pileus membranaceous, conical, hygrophanous, disc even, slightly viscid, margin striate; stem fistulose, equal, smooth, shining, rather tough, white; gills free, ventricose, dingy, then ferruginous.

On the ground in palm house. Kew.

8. *B. tener* (p. 183).

9. *B. rivulosus*, *B. and Br.*; pileus $1\frac{1}{2}$ in., tan colour, campanulate, rivulose; stem attenuated upwards; gills narrow, cinnamon.

On earth in an orchard house. Chiswick.

10. *B. grandiusculus*, *Cke. and Mass.*; pileus 1-2 in.,

campanulate, expanded, smooth, pallid and faintly striate at margin, rufous at apex; stem smooth, white, fistulose, slender, gradually attenuated upwards; gills crowded, linear, narrow, attenuated behind and free, rusty ochre.

Amongst grass on cliffs.. Scarborough.

Genus 5. **CORTINARIUS**, Fr. (p. 183.)

Subgenus 1. **PHLEGMACIUM**.—Partial veil arachnoid; pileus equally fleshy, viscous; stem firm, dry.

† **CLIDUCHII**.—*Partial veil superior, pendulous in the form of a ring from the apex of the nearly equal or clavate stem.*

* *Gills pallid then clay colour.*

1. **C. (Phlegmacium) triumphans**, Fr.; pileus 3–5 in., yellow, tinged with brown or ochraceous when moist, yellow when dry, variegated at disc with minute spot-like scales or naked, fleshy, convexo-plane, obtuse, regular, margin even; flesh compact, white; stem solid, firm, attenuated upwards, base ovato-bulbous, striate, yellowish white, with circles or rings of tawny scales; partial cortina superior, woven, somewhat ringed; gills emarginate, crowded, with a decurrent tooth, ending in a mealy-white zone, veined at sides, whitish or pale bluish grey, at length clay colour and somewhat cinnamon.

In woods under birch. On grassy ground. Rare.

2. **C. (Phlegmacium) claricolor**, Fr.; pileus 3–4 in., yellow, fleshy, convexo-flattened, at length depressed, veiled with superficial, silky-pruinose, villous down, then smooth and broken into scales; stem solid, hard, white, clothed as far as the superior cortina with white scaly flocci, at length cortina and scales disappear, otherwise curt, bulbous, or elongated and conico-attenuated or cylindrical; flesh of pileus and stem white; gills emarginate, almost free or

adnate, crowded, at first whitish, then clay colour, edge unequal.

In mixed woods. Glamis, etc.

3. C. (*Phlegmacium*) *turmatis*, Fr.; pileus yellow-tan, frequently darker at disc, compact, convex then plane, obtuse, even, smooth or obsoletely piloso-virgate, when young veiled with pruinose fugacious villous down, soon naked, viscid; flesh white; stem solid, hard, cylindrical or attenuated at base, shining white when dry, when young sheathed with a white woolly veil, at length naked; cortina fibrillose, superior, persistent in form of a ring, at length ferruginous; gills variously adnexed, rounded, emarginate, or decurrent with a tooth, crowded, serrated, white then clay colour.

Chiefly in beech woods. In mixed woods. Glamis.

4. C. (*Phlegmacium*) *crassus*, Fr.; pileus 3-5 in., thickly fleshy, plane or depressed, of one dirty yellow colour, opaque, disc smooth, elsewhere strigose with innate fibrils; stem stout, plump, fibrillose, white, mealy at apex; gills rounded, crowded, entire, pallid, then clay colour.

In moist woods.

5. C. (*Phlegmacium*) *balteatus*, Fr.; pileus 3 in., compact, flattened, viscid, soon dry and broken up into innate flocci; margin becoming somewhat bluish, silky, inflexed; stem plump, solid, at first tomentose; apex velvety and as well as the cortina and flesh white; gills emarginate or decurrent, crowded, entire, whitish.

In dry places, chiefly in pine woods.

6. C. (*Phlegmacium*) *sebaceus*, Fr.; pileus $2\frac{1}{2}$ -5 in., fleshy, colour of tallow, growing pallid, expanded, somewhat repand with a pruinose whitish veil, rather viscid; flesh white; partial veil fugacious, delicate, white; stem

solid, often twisted and compressed, stout, equal, fibrillose, gills emarginate, not crowded, clay colour.

In pine woods. In mixed woods. Glamis.

7. C. (*Phlegmacium*) *lustratus*, *Fr.*; whitish, pileus fleshy, convex then plane, equal, even, smooth, viscid, margin fibrillose, fringed with the veil; stem solid, stout, nearly equal; gills rounded, crowded, unchangeable.

In heathy places.

** *Gills violaceous or purplish, then cinnamon.*

8. C. (*Phlegmacium*) *varius*, *Fr.* (p. 185), 2 in. Epping Forest.

9. C. (*Phlegmacium*) *cyanopus*, *Fr.* (p. 184), 2½ in. Epping Forest.

10. C. (*Phlegmacium*) *variicolor*, *Fr.*; pileus compact, convex then expanded, viscid, discoid, margin tomentose, violet; stem hard, stout, at first villous, bluish then whitish, flesh same colour; gills decurrently emarginate, somewhat arcuate, crowded, bluish, clay-colour, then cinnamon.

In pine woods, etc.

Var. nemorosus, *Fr.*; pileus 4–5 in., compact, at first smooth, viscid, soon dry, opaque, piloso-rivulose, bay-brown, then yellowish; stem clavate, hollow and mealy at apex; gills rounded, rather decurrent.

11. C. (*Phlegmacium*) *largus*, *Fr.*; pileus 4–6 in., date-brown-tawny, fleshy, compact at the broad disc, thin at the circumference, convexo-flattened, obtuse, slightly viscid, then adpressedly silky-fibrillose, commonly rivulos-squamulose; flesh fibrous, firm, whitish bluish-grey, white when exposed to air; stem solid, short and bulbous, or long, thick and equal, often curved, fibrillose; cortina superior, fibrillose, pendulous, top of stem pruinose, white-

tinted violaceous; flesh same as pileus; gills adnate or emarginate, crowded, at first bluish-grey, clay-colour then cinnamon.

In pine woods. Herefordshire. Epping Forest.

12. C. (*Phlegmacium*) *Riederi*, *Fr.*; pileus 3 in., ochraceous, compact, campanulato-expanded, obtusely umbonate, even, streaked, glutinous, shining when dry; flesh watery; stem solid, clavate, lilac-silky and tawny-fibrillose; gills adnate, rather thick, eroded, lilac, then cinnamon.

In pine woods. Herefordshire. Epping Forest.

*** *Gills yellow, cinnamon, ferruginous, not at first whitish or violaceous.*

13. C. (*Phlegmacium*) *saginus*, *Fr.*; pileus 4-5 in., yellow, fleshy, plano-convex, irregular, repand, viscous; flesh white, soft; stem solid, somewhat bulbous, fibrillose, light yellowish, naked at apex; cortina fibrillose, fugacious, not conspicuous; gills decurrent, attenuated at both ends, dingy pallid, then cinnamon, eroded at edge.

In woods. Hereford, etc.

14. C. (*Phlegmacium*) *russus*, *Fr.*; pilens 4 in., unicolorous, coppery-rufous, fleshy, convex, then flattened, obtuse, viscid, smooth at disc, innately fibrillose at margin; flesh soft, whitish flesh-colour; stem stuffed, then hollow, attenuated upwards, not bulbous, soft, adpressedly fibrillose, pale white, delicately pruinose at apex; cortina delicate, fugacious; gills obtusely adnate, crowded, connected by veins; rufous-ferruginous.

In moist woods. Uncommon.

**** *Gills olivaceous.*

15. C. (*Phlegmacium*) *infractus*, *Fr.*; pileus expanded, even, virgate, viscid, disc compact, then pale; margin thin,

broken, at length revolute, flexuose; stem solid, ovately clavate, adpressedly fibrillose, growing pale; gills adnate, broad, crowded, olivaceous-umber.

In beech woods. Epping Forest. Taste nauseous and bitter.

16. C. (*Phlegmacium*) *anfractus*, *Fr.* (p. 184); 2-3 in.
17. C. (*Phlegmacium*) *Berkleyi*, *Cke.*; large, pileus 4-6 in., convex, then expanded, rather viscid, shining when dry, fleshy, smooth or radiately silky; margin plicatosulcate, becoming nearly even when old, the whole fungus at first enclosed in a whitish volva which breaks up in patches on disc; stem thick, swollen at base, white, densely fibrillose, solid; flesh white; gills scarcely distant, ventricose, slightly emarginate, dingy olive, at length pale cinnamon. = C. *anfractus*, p. 184.

†† *SCAURI*.—Club-footed, bulb depressed or turbinate, marginate; stem fleshy, fibrous; cortina commonly inferior, arising from margin of bulb; pileus equally fleshy; gills somewhat sinuate.

* Gills whitish, then clay coloured or pale cinnamon.

18. C. (*Phlegmacium*) *multiformis*, *Fr.* (p. 184.) Epping Forest.

19. A. (*Phlegmacium*) *napus*, *Fr.*; pileus 2-3 in., fuliginous, then tawny-brown, fleshy, convexo-plane, obtuse, even, smooth, glutinous; margin regular, bent inwards; flesh compact, white, with a horny line at the hymenophore next gills; stem solid, equal, ascending, smooth, firm, white, at length yellow at the base, inserted in an obconic, acutely, and obliquely marginate bulb; gills emarginate, somewhat distant, broad, crisped, whitish fuliginous, hyaline at sides.

In pine woods. Herefordshire.

20. C. (*Phlegmacium*) *allutus*, *Fr.*; small; pileus fleshy,

conico-convex, smooth, viscid, then pale; margin darker; flesh rufescent; stem viscid, white, mealy at apex, striate with reddish lines below, marginately bulbous; gills adnate, rather crowded, crenulate, thin, whitish, then rufescent.

In pine woods.

21. C. (*Phlegmacium*) *talus*, *Fr.*; pileus 2-3 in., dirty yellowish, then pale; margin somewhat olivaceous, yellowish, fleshy, thin, equal, convexo-plane, even, smooth, viscous; flesh watery, dingy pallid-whitish, with hyaline spots, and variegated with a horny line next the hymenophore; stem solid, equal, cylindrical, smooth, marginato-bulbous, pale; gills emarginate, somewhat crowded, straw-colour or ochrey-pallid, scarcely changing colour.

In woods. Epping Forest.

** *Gills violaceous, dark blue, purplish at length cinnamon.*

22. C. (*Phlegmacium*) *glaucopus*, *Fr.* (p. 184); 3-4 in, Epping Forest.

23. C. (*Phlegmacium*) *calochrous*, *Fr.* (p. 185.)

24. C. (*Phlegmacium*) *cærulescens*, *Fr.* (p. 185); 2 in.

25. C. (*Phlegmacium*) *purpurascens*, *Fr.* (p. 185); 4-5 in. Epping Forest.

Var. *subpurpurascens*, *Fr.*; pileus thinner than type, slightly virgate, growing pale; stem stuffed, nearly equal, white, with a bluish tinge; bulb somewhat marginate; gills cinnamon, and, as well as the flesh, purple when bruised.

On the ground.

*** *Gills ferruginous tawny or yellow.*

26. C. (*Phlegmacium*) *dibaphus*, *Fr.*; pileus 3-4 in., purplish, disc yellowish, then variegated with lilac, fleshy,

convex, then plane, at length depressed, somewhat repand, viscous, smooth; flesh yellow, variegated under the pellicle with a violet hue; stem marginato-bulbous, stuffed, fibrillose, yellow, shining, purplish at apex, light yellowish within; gills adnate, slightly rounded, somewhat crowded, entire, purplish-ferruginous.

In woods of beech and oak. Fordingbridge, Hants.

Var. *xanthophyllus*; gills at first and for a long time yellow.

27. *C. (Phlegmacium) turbinatus*, *Fr.* (p. 185.) Epping Forest.

28. *C. (Phlegmacium) corrosus*, *Fr.*; pileus 2–3 in., fleshy, expanded and umbilicate, smooth, viscid, discoloured, at length rivulose, subfloccose, ferruginous, then clay-colour, opaque when dry; flesh firm, white; stem nearly hollow, equal, white, naked at apex; cortina fibrillose, white; bulb depressed, marginate; gills emarginate, crowded, narrow, sub-ferruginous.

In pine woods.

29. *C. (Phlegmacium) fulgens*, *Fr.*; pileus 2–3 in., orange-tawny, fleshy, convexo-plane, obtuse, viscid, sometimes punctate, at length silky-fibrillose or squamulose; flesh compact, white-yellow, at length spongy and tan-colour; stem solid, curt, equal above the depressed marginate bulb, woolly with the yellow, densely fibrillose or viscid cortina, when full-grown elongated; gills emarginate, somewhat crowded, entire, at first yellow, at length distant, tawny, or ferruginous.

In pine woods. Rare.

30. *C. (Phlegmacium) fulmineus*, *Fr.*; pileus 3 in., tawny, variegated with dense irregular, agglutinated scales, fleshy, at first hemispherical and attached to bulb, then

convex, viscous; margin regular, at first involute; flesh thick, white, yellow at circumference, or wholly yellowish; stem when young enclosed in bulb, then extended, solid, obese, yellow, naked, white-cortinate at apex; bulb depressed, marginate, rooting, wider than young pileus; gills rounded, thin, crowded, golden tawny, then tawny.

In shady woods. Ledbury.

31. C. (*Phlegmacium*) *orichalceus*, *Batsch*; pileus 3 in., blood-red or liver-rufescent, margin livid or bay-brown-ferruginous and cinereous-olive at margin, fleshy, convex, soon flattened, at length depressed with a viscous pellicle, or glutinous, the disc spotted with scales; stem solid, equal, springing from a marginate somewhat volvaceous bulb, fibrillose, fibrils viscid in wet weather from the gluten of the pileus, yellow-green or dingy pale-yellow; gills adnate, broad, crowded, sulphur-yellow, then green.

Under trees. Lyndhurst. New Forest.

**** *Gills olivaceous.*

32. C. (*Phlegmacium*) *prasinus*, *Fr.* (p. 186.)

33. C. (*Phlegmacium*) *atro-virens*, *Kalchb.*; pileus compact, convex, even, viscid, dark green or olivaceous-umber, flesh greenish-yellow; stem solid, stout, fibrillose, except the sub-turbinate, marginate bulb; gills adnate, crowded, sulphury, then greenish, at length cinnamon.

In pine woods.

34. C. (*Phlegmacium*) *scaurus*, *Fr.* (p. 186); 2-3 in.

35. C. (*Phlegmacium*) *herpeticus*, *Fr.*; pileus 3 in., fleshy, equal, somewhat spotted, viscid, disc becoming paler; flesh violet, then whitish; stem stuffed, firm, fibrillose, squalid pallid, base marginate-bulbous; gills somewhat adnate, violet-umber, then dingy olive.

In woods.

††† **ELASTIC.**—*Cortina simple, thin, fugacious, medial or inferior; stem at first extended, somewhat thin, never marginato-bulbous or sheathed, but rigid-elastic, externally somewhat cartilaginous, polished, naked at apex, ut length commonly hollow: pileus thin, often hygrophanous.*

* *Gills whitish, then clay coloured, or dirty cinnamon.*

36. C. (Phlegmacium) cumatilis, Fr.; pileus 3 in., violet or purple-violet, convex, obtuse, often irregular, with a viscous pellicle, even, smooth; flesh hard, shining white, furnished with a cortina at apex; the universal veil which serves as a pellicle of pileus ruptured at the base and adnate to it as a separable agglutinated membrane same colour as pileus; gills attenuato-adnexed, almost free, crowded, narrow, with a small decurrent tooth, acute at apex, white, then clay-colour.

In woods. Honningham, Norfolk.

37. C. (Phlegmacium) serarius, Fr.; pileus 3-4 in., fleshy, convex, then plane, gibbous, unpolished, viscid, opaque; stem solid, equal, fibrillose, shining, white; flesh white; gills arcuately adfixed with a decurrent tooth, crowded, whitish, then clay-colour.

In woods.

38. C. (Phlegmacium) emollitus, Fr.; pileus 3-4 in., fleshy, lax, sub-repand, delicately fibrilloso-virgate, viscid, shining when dry, ochraceous-yellow; margin thin, broken; stem stuffed, short, unequal, fibrillose, soft, white; flesh white; gills emarginate, broad, rather distant, white, then ochraceous.

In grassy places in beech woods.

39. C. (Phlegmacium) crystallinus, Fr.; pileus 3 in., fleshy, flattened, even, smooth, viscid, shining, hygrophan-

nous, white when dry; stem hollow, nearly equal, fragile, fibrillose, whitish; gills emarginate, crowded, clay-colour.

In beech woods. Taste acrid.

40. C. (*Phlegmacium*) *decoloratus*, Fr.; pileus 2-4 in., clay-colour, disc darker, thin, equally fleshy, campanulate, then convex, obtuse, soft, viscous, soon dry, smooth, corrugated when old; flesh soft, white, watery; stem stuffed, thin, somewhat equal, slightly thickened at base, fibrillose, silvery, often curved, smooth, naked at apex; cortina inferior, fibrillose; gills emarginate, adnate, or decurrent, not much crowded, broader than flesh of pileus, clay-colour, then cinnamon.

In beech, pine, and birch woods. Epping Forest. Edinburgh Fungus Show.

** *Gills violaceous, purplish, flesh colour.*

41. C. (*Phlegmacium*) *decolorans*, Fr.; pileus 1½-2½ in., yellow, fleshy, convex, then flattened, somewhat gibbous, equal, even, smooth, viscous; flesh thin, firm, white; stem stuffed, equally attenuated, shining white, smooth above the somewhat distant medial cortina; gills sinuato-adnexed, crowded, thin, purplish, then soon cinnamon.

In fir woods. Epping Forest.

42. C. (*Phlegmacium*) *porphyropus*, Fr.; pileus 1½-3 in., livid light-yellowish, or clay-colour, thin at margin, convexo-plane, obtuse, even, innately streaked, viscid; flesh thin, soft, whitish, becoming purple-lilac when broken; stem stuffed, at length hollow, somewhat bulbous or equally attenuated from the thickened base, sometimes equal, fragile, externally and internally violaceous-lilac, then pale or whitish, but soon violaceous-lilac again when touched; cortina inferior, fibrillose; gills rounded or emarginate,

somewhat crowded, rather broad, purplish, then watery cinnamon, purple when touched.

In woods. Coed Coch.

43. C. (*Phlegmacium*) *croceo-cæruleus*, *Fr.*; pileus 1 in., lilac or faintly violaceous, fleshy, then convex, at length plane, obtuse or gibbous, even, smooth, viscous; flesh watery pallid; stem hollow, somewhat equal, or attenuated downwards, even, smooth, naked, fragile, whitish; cortina white, fibrillose, fugacious; gills attenuated or emarginate, with a small decurrent tooth, plane, somewhat distant, blue, then clay-saffron.

In woods. Laxton Park, Northants.

*** *Gills pure ochre, tawny or ferruginous.*

44. C. (*Phlegacium*) *coruscans*, *Fr.*; pileus fleshy, plane, viscid, even, smooth; stem solid, elastic, equal, fibrillosostriate, white; gills plano-decurrent, thin, much crowded, ochraceous.

In copses.

45. C. (*Phlegmacium*) *papulosus*, *Fr.*; pileus $2\frac{1}{2}$ - $3\frac{1}{2}$ in., honey-tan-colour at circumference, darker at disc, fleshy, at first convex, then plane and depressed, viscid, the cuticle breaking up into minute, granular, fuscous patches when dry; flesh white; stem solid, firm, fleshy, equal, or thickened at base, densely fibrillose, naked at apex, white; cortina inferior, very fugacious, white; gills adnato-decurrent, crowded, at length separating from stem and forming a spurious collar, pallid, soon ochraceous, at length pale yellow-cinnamon.

In woods. Durdham Down. Bristol. Glamis.

**** *Gills olivaceous, fuliginous.*

No British species.

Subgenus 2. **MYXACIUM.** (p. 186).—Universal veil and bulbous stem glutinous; pileus fleshy somewhat thin; gills adnate, decurrent.

† **COLLINITI.**—*Stem floccoso-peronate, the flocci at first covered with gluten.*

46. **C. (Myxacium) arvinaceus,** Fr.; pileus 3–4 in., orange-tawny, fleshy, soft, convex, then flattened, reflexed and undulated, even, smooth, viscous, glistening when dry; margin slightly striate when in full vigour; stem tall, solid, equal, silky-viscous, never broken up into scales, white; cortina soon fibrillose and fugacious; gills adnato-decurrent, broad, somewhat distant, crenulate at edge, at first straw-colour, then bright ochraceous.

In beech woods. Blaize Castle. Bristol.

47. **C. (Myxacium) collinitus,** Fr. (p. 186.) Epping Forest.

48. **C. (Myxacium) mucifluus,** Fr.; pileus livid-clay, tan when dry, opaque, somewhat fleshy, campanulato-expanded, smeared with separating hyaline gluten; margin striate; stem attenuated downwards, soft, viscid with the floccosely scaly, fugacious veil, white or inclining to azure-blue; gills adnate, distinct, clay-colour, then watery cinnamon.

On the ground. Hereford. Odour sweet.

49. **C. (Myxacium) elatior,** Fr. (p. 186); 3–4 in. Epping Forest.

50. **C. (Myxacium) grallipes,** Fr.; pileus 3 in., ferruginous when moist, ochraceous-tan when dry, opaque, almost membranaceous with exception of disc, with a prominent, often acute umbo, campanulate, then flattened, even, hygrophanous, slightly viscid; stem stuffed, then hollow, equal, flexuose, tough, fibroso-striate, viscous, yellowish tawny,

ochraceous when dry, naked at apex; gills adnate, with a decurrent tooth, plane, attenuated in front, crowded, clay-colour, then ferruginous.

Under polars and oaks. Among grass near trees. Ashton Park, Bristol.

51. C. (*Myxarium*) *livido-ochraceous*, *B.* (p. 186); 1 in.

†† *DELIBUTI*.—*Veil entirely viscid; stem viscid, not floccosoperonate; with a varnished appearance when dry.*

* *Gills whitish, then clay colour.*

No British species.

** *Gills at first violaceous, dark blue or reddish.*

52. C. (*Myxarium*) *salor*, *Fr.*; pileus grey, bright violaceous at the thin inflexed margin, at length same colour, obtusely conical or parabolic, campanulate, at length flattened with a broad umbo, even, thinly viscous, fibrillose towards margin when dry; stem solid, conico-attenuated from the bulbous base, white, when young covered to the apex with the azure-blue glutinous veil, when old pale, softer; gills adnate, distant, at first pale grey, edge violaceous or bluish-grey, when full-grown grey-clay-colour or cinnamon.

In woods. Coed Coch.

53. C. (*Myxarium*) *delibutus*, *Fr.*; pileus 2–3 in., light yellowish, fleshy, thin, convex, then flattened, obtuse, at length somewhat depressed, viscid with hyaline gluten, slightly silky-fibrillose when the gluten disappears; stem stuffed or hollow upwards, equally attenuated from the slightly bulbous base or somewhat equal, elastic, viscous as far as the scanty fibrillose fugacious cortina, when dry varnished, yellowish-white, white at apex; gills adnate, at

length rounded or slightly emarginate, more or less distant, serrulated, pallid, often crisped at edge, at first dark or violaceous dark-blue, then clay-cinnamon.

On the ground. In grassy places. King's Lynn.

54. C. (*Myxarium*) *illibatus*, *Fr.*; pileus 1-2 in., yellow, disc darker, slightly fleshy, campanulate, then convex, at length plane and somewhat umbonate, with a viscous pellicle, even, smooth; flesh white, very thin at circumference; stem stuffed, then soon hollow, soft, slightly attenuated upwards, smooth, viscid, white, with reddish dots upwards; cortina superior, fibrillose, fugacious; gills adnato-decurrent, arcuate, thin, crowded, entire, flesh-colour, then clay-cinnamon.

In woods. Coed Coch.

*** *Gills at first ochraceous or cinnamon.*

55. C. (*Myxarium*) *stillatitius*, *Fr.*; pileus 2 in., slightly fleshy, convex, then plane, somewhat umbonate, even, smooth, covered with azure-blue gluten which is at first continuous with stem, fuscous-livid when the gluten separates in the form of drops, at length grey-white; flesh soft, watery, hygrophanous; stem hollow, soft, equally attenuated, at first sheathed with the azure-blue gluten which is extended into the cortina, apex naked; gills emarginate, scarcely crowded, somewhat distant, dark cinnamon.

Among dead leaves. In mossy places.

56. C. (*Myxarium*) *vibratilis*, *Fr.*; pileus fleshy, thin, nearly plane, even, smooth, viscid, shining, hygrophanous; stem stuffed, soft, conically attenuated, white, glutinous; veil fugacious; gills somewhat adnate, then decurrent, thin, crowded, pallid ochraceous, then cinnamon.

In woods. Odour and taste disagreeable.

57. C. (*Myxarium*) *pluvius*, *Fr.*; pileus $\frac{1}{2}$ -1 in., pale yellow-tawny when moist, opaque ochrey-tan when dry, slightly fleshy, at first somewhat globose, then convex, gibbous, at length pellucid-striate, hygrophanous, viscid and shining in rainy weather; flesh thin, same colour; stem elongated, stuffed, then hollow, soft, equal or slightly attenuated upwards, even, naked or obsoletely viscid, with whiter silky spots; cortina white and fibrillose, slightly covered with slime, fugacious; gills adnexed, separating, ventricose, crowded, light yellowish, or at first whitish, then ochraceous.

In woods. Lea. Gainsborough. Glamis.

Subgenus 3.—*INOLOMA* (p. 187).

* *Gills at first white or pallid.*

58. C. (*Inoloma*) *argentatus*, *Fr.*; pileus 4 in., silvery-shining, disc becoming pale, at first silky-lilac at margin, then dun, fleshy, convexo-plane, at length gibbous, silky-even, becoming smooth; flesh whitish; stem solid, attenuated from the base, smooth, white, at length yellow at base, internally white; cortina fibrillose, fugacious, adhering to margin of pileus, pallid; gills emarginate, crowded, slightly serrated, pallid, then watery-cinnamon.

In woods. Epping Forest.

Var. pinetorum, *Cke.*; smaller and more graceful.

Pine woods.

** *Gills as well as the veil and stem violaceous.*

59. C. (*Inoloma*) *violaceus*, *Fr.* (p. 187); 3-6 in. Epping Forest.

60. C. (*Inoloma*) *cyanites*, *Fr.*; pileus 3-5 in., dark blue, then pallid azure-blue or livid-fuscous, fleshy, soft,

convex, then flattened, obtuse, silky, becoming even and smooth; flesh azure-blue, then whitish, here and there reddish when broken; stem solid, bulbous, fibrillose, dark azure-blue, lilac when touched, azure-blue within, reddish blood-colour on contact with atmosphere, when compressed exuding a watery vinous-reddish juice; cortina fibrillose, azure-blue; gills rounded, crowded, thin, commonly dark blue.

In woods. Reading.

61. C. (*Inoloma*) *muricinus*, *Fr.*; pileus 3–4 in., compact, obtuse, becoming smooth, violaceous, then reddish liver-colour; margin fibrillose; flesh blue, becoming whitish; stem bulbous, without juice, villous, purplish violet, as well as the emarginate rather crowded gills.

In larch woods.

62. C. (*Inoloma*) *albo-violaceus*, *Fr.*; pileus 2–3 in. violaceous-white, fleshy, convex, broadly umbonate, dry, innately silky and even; flesh juicy, azure-blue white, solid, firm, clavato-bulbous, or conico-attenuated, externally and internally white-violaceous, white-villous, fibrillose above with the cortina, often with the white veil as a zone at the middle; gills adnate, somewhat distant, somewhat serrulated, cinereous-violaceous, at length cinereous-cinnamon.

In shady woods. Forres. Epping Forest.

63. A. (*Inoloma*) *malachius*, *Fr.*; pileus 2 in., rather compact, obtuse, pallid lilac, then tawny-ferruginous or brick-red, becoming pale with a whitish pubescence, soon discoloured and smooth, at first clad with white fibrils; stem bulbous with a bluish veil, the veil and interior becoming whitish; gills emarginate, crowded, pallid, purplish, then watery-ferruginous.

In fir woods.

64. A. (*Inoloma*) *camphoratus*, *Fr.*; pileus 2–3 in., lilac, then yellow or white, not hygrophanous, fleshy, convex, then flattened, obtuse, at first silky, then smooth; flesh azure-blue: stem solid, soft, bulbous or obelavate, when young with a woolly sheath, violet, internally white at base; cortina fibrillose, azure-blue, at length cinnamon; gills at first arcuate, adnato-decurrent or emarginate, thin, crowded, at first intense azure-blue, then purple.

In woods. Fineshade. Odour foetid.

65. C. (*Inoloma*) *hircinus*, *Bolt.*; pileus fleshy, obtuse or gibbous, silky, with adpressed violet fibrils, growing paler, disc smooth, becoming ferruginous; stem bulbous, without juice, cortinate, pallid violet, yellowish at base and within; gills emarginate, rather distant, broad, entire, violet, then cinnamon.

In fir woods. Foetid. This species is founded on Bolton's figure.

*** *Gills or veil cinnamon, red or ochraceous.*

66. C. (*Inoloma*) *traganus*, *Fr.*; pileus 3 in., fleshy, convex, then flattened, obtuse, dry, at first silky, becoming even, lilac-purplish, soon pale, at length smooth and yellowish externally and internally; stem bulbous, solid, spongy, silky, fibrillose, villous below, violaceous, then whitish, internally deep saffron-ochraceous; cortina continues with covering of pileus, pallid violaceous, then cinnamon; gills emarginate, broad, firm, thick, saffron-ochraceous, at length cinnamon, somewhat crenate at edge.

In pine woods. Forres, etc. Odour foetid.

Var. finitimus, *Weinm.*; pileus silky, at length smooth, lilac like stem, which is yellowish and mottled within, not

saffron-colour or brown, odour pleasant, but peculiar, resembling gum beginning to ferment.

67. A. (*Inoloma*) *tophaceus*, *Fr.*; subcæspitose; pileus 3 in., golden tawny, opaque, fleshy, thin at margin, hemispherical, villosa-squamulose, or slightly silky and shining; flesh soft, white; stem solid, bulbous, villosa-squamulose, tawny, fibrillose; veil same colour; gills emarginate, distant, same colour, at length tawny cinnamon.

In beech woods. King's Lynn. Strong smelling.

Var. redimitus, *Fr.*; pileus thinner, obtusely umbonate, shining, golden, streaked with innate fibrils; flesh white; stem slightly thickened at base, solid, internally soft, fibroso-striate, yellowish; gills adnate, with a small decurrent tooth, light yellow, then tawny.

In mixed wood. Glamis.

68. A. (*Inoloma*) *callisteus*, *Fr.* (p. 187.)

69. A. (*Inoloma*) *Bulliardii*, *Fr.* (p. 187.)

70. A. (*Inoloma*) *vinosus*, *Cke.*; pileus 2-3 in., sub-globose, then expanded, at length flattened, vinous-red, smooth, even, shining; stem cylindrical, violet, thickened abruptly into a marginate, bulbous, reddish base; flesh of pileus paler violet, as well as the upper part of stem; cortina reddish; gills adnexed, ventricose, scarcely crowded, ferruginous cinnamon.

Under trees.

71. A. (*Inoloma*) *bolaris*, *Fr.* (p. 188); 1-2 in. Epping Forest.

**** *Gills or veil dark, fuscous, olivaceous.*

72. A. (*Inoloma*) *pholideus*, *Fr.* (p. 188); 2-4 in. Epping Forest.

73. A. (*Inoloma*) *phrygianus*, *Fr.*; pileus 2-3 in., fleshy,

obtuse, honey-colour, hispid, with dense black simple fibrils; stem bulbous, reticulated, with lax black fibrils; gills rounded, rather crowded, dirty yellow.

In shady, moist places, under beeches.

74. A. (*Inoloma*) *sublanatus*, *Fr.* (p. 188); 3–4 in.

75. A. (*Inoloma*), *arenatus*, *Fr.* (p. 188.)

76. A. (*Inoloma*) *penicillatus*, *Fr.*; pileus 1 in., ferruginous-fuscous, tawny when dry, thin, slightly fleshy, convex, minutely umbonate, dry, densely floccoso-scaly, scales innate, dark ferruginous-fuscous; flesh thin, same colour as pileus; stem stuffed, equal, fragile, squamose, with adpressed, fuscous-ferruginous, concentric scales, paler than pileus, paler and adpressedly silky at apex; gills separating, plane, somewhat crowded, broad, dark-brown.

In pine woods. Cabalva.

Subgenus 4.—*DERMOCYBE* (p. 189).

* *Gills at first whitish or pallid.*

77. C. (*Dermocybe*) *ochroleucus*, *Fr.* (p. 189); 2 in.
Epping Forest.

78. C. (*Dermocybe*) *decumbens*, *Fr.*; pileus 1–1½ in., sometimes white, yellowish, silky-shining, not hygrophanous, fleshy, firm, convex, then plane, gibbous, at length obtuse, even, smooth, with a fibrillose pellicle; stem stuffed, at length hollow, clavato-bulbous downwards, smooth, white; cortina fugacious, white; gills adnexed, crowded, thin, white, then clay-colour, at length ochre-cinnamon.

In woods and grassy places. Epping Forest.

79. C. (*Dermocybe*) *tabularis*, *Fr.* (p. 189); 1 in. Epping Forest.

80. C. (*Dermocybe*) *camurus*, *Fr.*; pileus 2–3 in.,

oblique, purple, pallid, fuscous-hoary, not hygrophanous, becoming pale, pallid yellowish, umbo darker, unequally fleshy, somewhat compact at disc, but membranaceous almost to middle, with a broad obtuse umbo, when dry rimosely incised; flesh white; stem somewhat hollow, equal, twisted, smooth or fibrillose below, externally and internally white, naked, and silvery shining at apex; gills variously adnexed, adnate, or almost free, thin, grey-clay colour, then watery-cinnamon, somewhat fuscous, entire, same colour at edge.

In mixed woods. Glamis. Epping Forest. Odour rancid.

81. C. (*Dermocybe*) *diabolicus*, Fr.; pileus 1 in., fuscous, crusted with grey, thin, smooth, and fuscous-yellowish, fleshy, thin, hemispherical, obtuse, then gibbous, dry, fragile, at length cracked; stem thin, stuffed, attenuated downwards, smooth, pale, bluish-grey at apex; cortina fugacious; gills adnate, separating, somewhat emarginate, somewhat crowded, very pale, bluish-grey, then soon whitish, at length clay-colour,

In mixed woods. Uncommon.

** *Gills, veil and stem at first violaceous, becoming purple.*

82. C. (*Dermocybe*) *caninus*, Fr. (p. 189); 3-4 in. Epping Forest.

83. C. (*Dermocybe*) *myrtillinus*, Fr.; pileus 2-3 in., fuliginous, hoary-silky with fibrils, not rufescent, fleshy, thin, tough, gibbous, then plane; flesh watery-fuscous when moist, white when dry, violaceous at apex of stem; stem stuffed, tough, slightly bulbous, white silky; cortina scarcely manifest; gills adnate, somewhat distant, amethyst azure-blue, scarcely changing colour, never purple.

In mixed woods. Glamis. Rannoch.

84. A. (*Dermocybe*) *azureus*, *Fr.*; pileus $1\frac{1}{2}$ -2 in., fleshy, obtuse, silky shining, and atomate, lilac, becoming hoary; stem stuffed, smooth, finely striate, thickened at base, villous, becoming whitish; gills rather crowded, bright blue, then violet.

In beech woods.

85. A. (*Dermocybe*) *albo-cyaneus*, *Fr.*; pileus fleshy, convex, then plane, obtuse, with an evanescent silky pellicle, then smooth, from white becoming yellowish; stem stuffed, somewhat clavate, naked; gills emarginate, broad, crowded, bluish purple, becoming somewhat ochraceous.

In beech woods.

86. A. (*Dermocybe*) *anomalous*, *Fr.* (p. 190); 1 in.
Epping Forest.

87. A. (*Dermocybe*) *spilomeus*, *Fr.* (p. 190); 1 in.

88. A. (*Dermocybe*) *lepidotus*, *Cke.*; pileus 1-2 in., fleshy, smooth, even, rather thin, convex, then expanded, gibbous, umber, with a tinge of violet near the margin, becoming rufescent near the disc; flesh whitish, with a darker line near gills; stem attenuated upwards, becoming hollow when old, violet at apex, dirty white below; veil whitish, with a tinge of violet; gills adnate, rather crowded, thin, violet, then cinnamon.

On the ground. Epping Forest.

*** *Gills bright cinnamon, red, yellow; stem and fibrillose cortina coloured.*

89. A. (*Dermocybe*) *miltinus*, *Fr.*; pileus 1- $1\frac{1}{2}$ in., bay-brown-cinnamon, when moist dark cinnamon, when dry shining brick-colour, disc somewhat bay-brown, fleshy, thin, convex, then expanded, obtuse or gibbous, even, lustrous, smooth, flesh watery, tan when dry; stem fistulose, tough,

somewhat cartilaginous, attenuated upwards, often twisted, white-tomentose at base, cinnamon or reddish, with red fibrils, often villous at apex; cortina red; gills adnate, almost linear, crowded, thin, reddish cinnamon, then ferruginous.

In mixed woods. Ledbury.

90. C. (*Dermocybe*) cinnabarinus, *Fr.*; pileus 2-3 in., scarlet-red, fleshy, campanulate, thin, flattened, obtuse or obtusely umbonate, silky, then smooth, shining and obsoletely silky; flesh paler; stem solid, equal, or bulbous, fibrillose or striate, scarlet-red, reddish brick-colour internally; cortina fibrillose, lax, cinnabar; gills adnate, somewhat decurrent, somewhat distant, connected by veins, unequal and darker at edge, dark blood-colour when bruised.

In beech woods. Street, etc. Epping Forest.

91. C. (*Dermocybe*) sanguineus, *Fr.* (p. 190); 1-1½ in. Epping Forest.

92. C. (*Dermocybe*) anthracinus, *Fr.*; pileus dark chestnut or brown-fuscous, fleshy at the umbonate disc, otherwise thin, convex then expanded, umbo persistent, becoming fibrillose, even or smooth; flesh dark, same as pileus; stem fistulose, equal, fibrillose, intense blood-colour, fuscous towards base; gills adnate, crowded, deep fiery-red, blood-red when bruised.

In woods. Coed Coch.

93. C. (*Dermocybe*) cinnamomeus, *Fr.* (p. 190); 1½-4 in. Epping Forest.

Var. semisanguineus, *Fr.*; gills blood-red.

Var. croceus, *Fr.*; smaller; pileus, somewhat squamulose; gills less crowded, becoming yellowish.

94. C. (*Dermocybe*) croceo-conus, *Fr.*; pileus rather

fleshy, conic, then campanulate, persistently acute, becoming smooth, tawny, cinnamon; stem slender, flexuous; gills ascending, linear, crowded, cinnamon.

Among moss.

95. C. (*Dermocybe*) *uliginosus*, *B.* (p. 190); 2 in.

96. C. (*Dermocybe*) *orellanus*, *Fr.*; pileus orange, tawny, fleshy, obtusely umbonate, villosa-squamulose or orange fibrillose; flesh same colour as pileus, reddening; stem solid, tawny, firm, striate, fibrillose; cortina tawny; gills adfixed, broad, somewhat distant, at length opaque.

In mixed woods. Coed Coch. Epping Forest.

97. C. (*Dermocybe*) *infucatus*, *Fr.*; small; pileus 1-1½ in.; bright yellow, not hygrophanous, fleshy, convex, obtuse, silky when dry, even; flesh whitish; stem equally attenuated upwards, base clavate, solid, even, fibrillose, externally and internally pallid light yellow; cortina manifest, yellow, then cinnamon; gills adnate, crowded, thin, almost linear, tawny, then cinnamon.

In woods. Heywood Forest, Hereford.

**** *Olivaceous*; *veil dingy pallid or fuscous*; *pileus not torn into scales*.

98. C. (*Dermocybe*) *cotoneus*, *Fr.*; pileus 3 in., fleshy, campanulate, then expanded, bullate, somewhat repand, innately velvety, olive; stem solid; girt by the dusky veil, incrassated at base; gills rather crowded, olive, then brown-cinnamon.

Under oaks.

99. C. (*Dermocybe*) *subnotatus*, *P.*; pileus 4 in., fleshy, thin, campanulate, then flattened, squamulose with hoary, superficial flocci, fragile, olive, then fuscous; stem spongy, stuffed, conical, elongated, marked with scales or fibrils

and the yellowish veil, smooth and shining at apex; gills adnate, ventricose, connected by veins, broad, somewhat thick, rather distant, yellowish, then olivaceous-cinnamon.

Under beeches, etc.

100. C. (*Dermocybe*) *raphanoides*, Fr. (p. 191), 1-2 in.

101. C. (*Dermocybe*) *valgus*, Fr.; pileus convex, somewhat gibbous, even, becoming smooth, olivaceous, then brick-red, margin somewhat membranaceous; stem somewhat hollow, elongated, twisted, naked, pallid, shining, apex striate, sub-violaceous, bulb rooting, whitish, tomentose; gills affixed, rather distant, dingy yellow, then brick-red.

Among moss in woods.

102. C. (*Dermocybe*) *venetus*, Fr.; gregarious; pileus 1½-2 in., green, greenish-yellow, then yellow, not hygrophanous, fleshy, hemispherical, obtuse, equal, persistently velvety or tomentose; flesh yellowish-pallid; stem stuffed or hollow upwards, equal, firm, curved, same colour or paler than pileus, externally fibrilloso-silky, greenish-yellow, or yellow-villous; cortina fibrillose, green; gills adnate, connected by veins, somewhat distant, broad, segmental, darker than pileus, olivaceous.

In woods. Rannoch.

Subgenus 5.—*TELAMONIA* (p. 191).

103. C. (*Telamonia*) *macropus*, Fr.; pileus 3 in., brick-colour, then ferruginous, fleshy, thin, convex, then flattened, margin at first inflexed, obtuse, dry, hoary with small squamules, then smooth; flesh cinereous; stem solid, somewhat equal, stout, fibrillose, dingy-whitish, then same colour as pileus; veil distant, woven into a narrow ring, white; gills adnexed, broad, distant, crenate or entire, pallid, then watery cinnamon.

In woods. Leigh Wood, Bristol.

104. C. (*Telamonia*) *laniger*, *Fr.*; pileus compact, hemispherical, expanded, obtuse, woolly with superficial white scales, then smooth, golden-tawny; stem stout, nearly equal, white, sheathed with a peronate white veil, annulate; gills adnexed or rounded behind, rather distant, tawny-saffron, shining.

In larch woods.

105. C. (*Telamonia*) *bivelus*, *Fr.*; growing in troops; pileus 2-4 in., tawny-ferruginous, spotted or darker at disc, not hygrophanous, somewhat equally fleshy, convexo-plane, obtuse, soft, bibulous, smooth or slightly silky at margin, shining, rarely opaque, sometimes rivulose; stem solid, fleshy-spongy, sometimes bulbous, or longer and equally attenuated, or eurt, thick, dingy-white, internally somewhat ferruginous; exterior veil villous, sheathing, white; ring spurious, fugacious, above which the thin cortina vanishes; gills adnate, somewhat emarginate, at first somewhat crowded, then somewhat distant, more or less broad, bright tawny-cinnamon.

In woods. Coed Coch., Glamis.

106. C. (*Telamonia*) *bulbosus*, *Fr.* (p. 191); 3 in.

107. C. (*Telamonia*) *urbicus*, *Fr.*; pileus 2 in., clay-whitish, fleshy, convexo-plane, obtuse, smooth, pitted when large; flesh firm, whitish; stem solid, equal, round above middle, with a narrow ring, when young villous above ring; gills emarginate, crowded, thin, broad, watery-ferruginous.

In grassy places. Cabalva.

108. C. (*Telamonia*) *licinipes*, *Fr.*; pileus 2-3 in., pale yellow, tan-pallid when dry, fleshy-membranaceous, campanulate, then convex and flattened, obtusely umbonate, at length depressed round umbo, even, smooth; flesh hygro-

phanous; stem stuffed, then hollow, fragile, equal, flexuous, white, white-villous at base, elsewhere clothed with shining floccoso-plumose scales, at length plane; ring distant, membranaceous; gills adnate, broad behind, somewhat crowded, entire, watery-cinnamon.

In fir woods.

109. C. (*Telamonia*) *microcyclus*, Fr.; pileus 1 in., submembranaceous, convexo-plane, even, smooth, testaceus brown, becoming pale, opaque, umbonate, disc darker; stem stuffed, attenuated upwards from the thickened base, pallid; veil collapsing in an annular zone; gills adnate, broad, distant, lilac, then cinnamon.

Under trees.

** *Stem and gills violaceous; cortina commonly white-violaceous; universal veil white.*

110. C. (*Telamonia*) *torvus*, Fr.=C. *torosus* (p. 191), 3-4 in. Epping Forest.

111. C. (*Telamonia*) *impennis*, Fr.; pileus 1-4 in., umber, then brick-colour, at length dingy, somewhat equally fleshy, obtuse, convex, smooth, at first silky at margin, at length cracked; flesh pallid; stem solid, cylindrical, scarcely bulbous, not scaly, pale, becoming violet at apex, internally azure blue, girt towards apex by a white zone formed by veil; cortina same colour; gills adnate, then emarginate, distant, rather thick, at first deep bright purplish-violaceous, then watery-ferruginous.

Among dead leaves. Bomere.

112. C. (*Telamonia*) *plumiger*, Fr.; pileus fuscous-oliveaceous, when dry brick-tan, hygrophanous, slightly fleshy, conical, then campanulate, with a broad, obtuse, prominent

umbo, often cracked, dry and clothed with dense white floccoso-plumose scales, erect and squarrose or adpressed and silky; stem solid, clavate, pale, internally watery-whitish; veil floccoso-scaly on apex of stem, somewhat ring-like, shining white; gills adnate, scarcely crowded, broad, at first violaceous, then watery, at length pure cinnamon, edge entire, same colour, or clay-colour.

In mixed woods. Glamis.

113. C. (*Telamonia*) *scutulatus*, Fr.; small; purple umber or brick-fuliginous, hygrophanous, brick-colour when dry, somewhat fleshy, ovato-globose, then campanulato-hemispherical, obtuse, white-silky at margin, then naked, rivulose, innato-squamulose or lacunose-wrinkled; flesh thin, violaceous; stem solid, rigid, cylindrical or bulbous, externally and internally deep violaceous, then fuscous, white-villous at base, somewhat rooted, sheathed, and somewhat ringed by the white veil; gills adnate or emarginate, more or less distant, violaceous, then purple, serrated at edge when young, at length cinnamon.

In moist woods. Foxley. Cabalva. Variable. Odour of radish.

114. C. (*Telamonia*) *evernius*, Fr. (p. 191); 2-4 in. Epping Forest.

115. C. (*Telamonia*) *quadricolor*, Fr.; pileus 2-3 in., pallid yellow, somewhat tawny, shining when dry, slightly fleshy, conical, then flattened, umbonate, smooth, at length pierced or spotted, radiato-striate at margin; flesh thin, same colour; stem stuffed, thin, hollow, equal, flexuous, slightly rigid, fibrilloso-striate with adpressed veil, violaceous-whitish; veil collapsing above as a round, oblique, white, evanescent ring; gills adnate, distant, broad, thin, white, serrated at edge, dark violaceous, or purplish, then cinnamon.

In woods. Coed Coch. Blaize Castle, Bristol.

*** Stem and veil reddish or yellow; gills tawny or cinnamon, neither violaceous or becoming brown.

116. C. (*Telamonia*) *armillatus*, *Fr.* (p. 192); 3-5 in. Epping Forest.

117. C. (*Telamonia*) *haematochelis*, *Fr.*; pileus pallid, fuscous brick-colour, fleshy, thin, gibbous, silky fibrillose; stem solid, thickened, not bulbous, attenuated upwards, encircled with a rufous zone, becoming fuscous internally; gills adnate, crowded, somewhat narrow, pallid cinnamon.

In woods. Coed Coch.

118. C. (*Telamonia*) *limonius*, *Fr.* (p. 192); 3-4 in.

119. C. (*Telamonia*) *helvolus*, *Fr.*; pileus 1-3 in., dark tawny-cinnamon, thin, pale yellow, slightly fleshy, convexo-plane, obtuse or obtusely umbonate, smooth, then even, margin cortinate, bent upwards; stem firm, solid, rarely pierced, somewhat equal, not tense and straight, fibrillose, furnished with an annular, narrow, ferruginous-margined zone, formed of the woven veil; gills marginate, broad, distant, thick, veined at base, opaque, tawny, then dark cinnamon.

In mixed woods. Coed Coch. Glamis.

120. C. (*Telamonia*) *hinnuleus*, *Fr.* (p. 192.) Epping Forest.

121. C. (*Telamonia*) *gentilis*, *Fr.*; gregarious; pileus $\frac{1}{2}$ -1 in., tawny-cinnamon, yellow when dry, hygrophanous, slightly fleshy, conico-expended, then flattened, acutely umbonate, rimosely incised, varying somewhat silky; flesh thin, same colour; stem stuffed, then hollow, slender, equal or attenuated at base, often curved, fibrillose, same colour as pileus, never pale; veil forming one or more

annular zones, oblique, sometimes floccose, scaly below ring, yellow; gills adnate, thick, distant, plane, connected by veins, entire, tawny-cinnamon.

In woods, chiefly pine, frequent.

122. C. (*Telamonia*) *helvelloides*, *Fr.*; pileus $\frac{1}{2}$ -1 in., ferruginous, tawny when dry, somewhat membranaceous, convex, then flattened, umbonate, smooth, somewhat striate when moist, then cracked and squarrose; stem fistulose, equal, undulated and flexuous, somewhat ferruginous, without whiteness; veil yellowish, silky at margin of pileus, somewhat ring-like at the white, silky and glittering apex of stem; gills adnate, thick, and distant, rather broad, at first violaceous-umber, with white-floccose edge, then umber-cinnamon and ferruginous.

In mixed woods, uncommon.

123. C. (*Telamonia*) *rubellus*, *Cke.*; pileus 2-3 in., fleshy, campanulate, then expanded, rufous-orange, darker at umbo, disc fleshy, thin at margin; flesh reddish-ochre; stem thick, solid, equal or attenuated upwards, pale above, darker below, marked with concentric, dark ferruginous, fibrillose bands; gills adnate, sinuate, rather narrow, scarcely crowded, pale, then bright ferruginous-red.

In swampy places.

**** Stem becoming fuscous; veil fuscous or dirty, gills dark-coloured.

124. C. (*Telamonia*) *bovinus*, *Fr.*; pileus 4 in., fleshy, convex, then plane, even, becoming smooth, watery-cinnamon, at length pertuse; stem stout, spongy-bulbous, grey, then dingy-cinnamon, whitish above the dusky zone: gills affixed, broad, rather distant, cinnamon.

In woods.

125. C. (*Telamonia*) *nitrosus*, *Cke.*; pileus 2–3 in., fleshy, rather thin, obtuse, convex, then expanded, undulate at margin, fawn-colour or tawny, darker and brownish at disc, soon breaking up into minute, somewhat concentric darker scales; stem, short, stout, solid, ochraceous, darker at base, nearly equal, paler than pileus, marked below with concentric darker squamose bands; gills broad, somewhat distant, emarginate, violet, then watery-cinnamon.

In mixed woods.

126. C. (*Telamonia*) *brunneus*, *Fr.*; pileus campanulate, then flattened, umber, reddish, tan-colour when dry, naked, resolved at margin into innate fibrils, umbo fleshy, obtuse; stem stuffed, elongated, attenuated upwards, elastic, dingy, white-striate; veil, band-like, dingy-white; gills adnate, thick, distant, purplish, then brownish-cinnamon.

In moist places in woods. Epping Forest.

127. C. (*Telamonia*) *injucundus*, *Weinm.*; pileus compact, convex, then plane, obtuse, cinnamon, becoming dusky, fibrillose; stem solid, clavate, attenuated upwards, same colour, at length tawny-yellowish, fibrils and veil dingy; gills emarginate, broad, lilac, then clay-colour.

In fir woods.

128. C. (*Telamonia*) *glandicolor*, *Fr.*; umber; pileus 1–2 in., somewhat fleshy, convex then flattened, umbonate, becoming dusky-hoary when dry; stem rather hollow, equal, slender, straight, somewhat fibrillose; veil in the form of a distant white zone; gills adnate, broad, distant entire.

In pine woods.

129. C. (*Telamonia*) *punctatus*, *Fr.*; pileus $\frac{1}{2}$ in., hoary-umber, tan, somewhat membranaceous, conico-convex, smooth, at length even, pierced; stem somewhat fistulose,

equal, slender, undulated, fibrilloso-striate, yellow fuscous, girt with a pallid, fuseous zone from the fugacious veil; gills adnate, distant, entire, brown-cinnamon.

LEPTOPHYLLI.—*Gills narrow, thin, more or less crowded; pileus thin, stem externally more rigid, somewhat cartilaginous, stuffed or hollow, often attenuated downwards.*

* *Stem whitish, pallid, not floccoso-sculptured.*

130. **C. (Telamonia) triformis**, Fr.; pileus 2–3 in., hygrophanous, fawn-colour, brownish, then livid yellowish or honey-colour, isabelline or dingy-tan when dry, unequally fleshy, thin at the margin, convex, then plane, obtuse, or slightly gibbous, superficially fibrillose or becoming smooth, at length pierce-dotted, even, opaque; stem somewhat bulbous, stuffed, spongy internally, fragile, rather smooth, pallid, ringed upwards with the woven veil; ring distant, white; gills adnate, ventricose, somewhat emarginate, connected by veins, somewhat distant, thin, watery honey-colour, then watery-cinnamon.

In woods. Alresford, Hants.

131. **C. (Telamonia) biformis**, Fr.; pileus 1½–3 in., conico-campanulate, then expanded, smooth, shining, ferruginous-brown, with a prominent fleshy umbo; stem stuffed, rigid, attenuated downwards, fibrilloso-striate, paler, with an oblique, white, sometimes obsolete, ring; gills adnate, rather crowded, crenulate, cinnamon.

In mixed woods.

** *Stem inclining to violet.*

132. **C. (Telamonia) periscelis**, Fr. (p. 193); 2 in.

133. **C. (Telamonia) flexipes**, Fr.; pileus ½–1 in., dark fuscous-brown, or inclining to violaceous, then pale, pale

yellow in dry weather, tan when old, slightly fleshy, at first conical and acute, then expanded and acutely umbonate, at length depressed round umbo, hoary-fibrillose, then naked, torn when old; flesh thin, same colour as pileus; stem stuffed, then pierced, equal, flexuose, floccoso-scaly below the woven white ring, pallid, violaceous at apex or throughout; gills adnate, slightly distant, broad, purple or umber violaceous, at length cinnamon, whitish at edge.

In woods. Frequent.

134. C. (*Telamonia*) *flabellus*, Fr.; growing in troops; pileus $\frac{3}{4}$ in., olivaceous-fuscous, tan when dry, somewhat membranaceous, acutely umbonate, conical, then flattened, at first superficially scaly, silky when dry, at length rimosely incised, fibrillose; flesh thin, paler; stem generally elongated, stuffed, then hollow, equal, undulated and flexuose, floccoso-scaly, pallid, violet at apex; veil white, inferior, originating the scales on stem, terminating in a ring; gills adnate, crowded, linear, narrow, dark violaceous, cinnamon then ferruginous.

In woods. Coed Coch.

*** *Stem and pileus tawny, ferruginous.*

135. C. (*Telamonia*) *psammocephalus*, Fr. (p. 193); 1 in.

136. C. (*Telamonia*) *incisus*, Fr.; growing in troops or cespitose; pileus tawny-ferruginous or olivaceous-fuscous, opaque, slightly fleshy, variable, acutely or obsoletely umbonate, convexo-expanded, naked, then fibrillose or scaly, even and shining after exposure to sun; veil somewhat zoned, white; stem curt or elongated, somewhat stuffed, flexuose, fibrous, fibrillose, not polished; gills adnate, somewhat distant, cinnamon-ferruginous.

In woods. Loughborough.

137. C. (*Telamonia*) *iliopodius*, Fr. (p. 193) ; 1-2 in.

**** Stem floccoso-scaly, and, as well as the pileus, fuscous.

138. C. (*Telamonia*) *hemitrichus*, Fr. ; pileus 1-3 in., dark fuscous, then fuscous-tan, acute or obtuse, umbo dark, somewhat fleshy, convexo-expanded, or obtuse, sometimes umbilicate, more or less superficially white-fibrilloso-curved with erect flocci, never torn ; stem hollow, equal, thick, firm, pallid fuscous, white flocculose below the medial woven ring ; shining white, membranaceous and reflexed ; gills adnate, ventricose at base, crowded, clay-colour, at length cinnamon.

In mixed woods. Uncommon. Epping Forest.

139. C. (*Telamonia*) *stemmaatus*, Fr. ; pileus 1½-2 in., date-brown when moist, pale when dry, slightly fleshy, convex then flattened, obtuse, fragile, hoary-silky at margin when moist, fibrillose when dry ; stem stuffed then fistulose, ringed or naked, equal or attenuated at base, often curved, soft, externally and internally ferruginous date-brown, paler, becoming silky-even at apex ; gills adnate, crowded, broad, narrower behind, date-brown, opaque.

In moist woods. Lyne. Sussex.

140. C. (*Telamonia*) *rigidus*, Scop. ; pileus 1 in., somewhat membranaceous, conical, then convex, umbonate, smooth, shining bay-brown ; flesh dark, like pileus ; stem stuffed, then hollow, thin, equal, flexuose, paler, girt with a squamose, white veil ; gills adnate, rather crowded, broad, distinct, ferruginous, then cinnamon.

In damp places in woods. Epping Forest. Strong scented.

141. C. (*Telamonia*) *paleaceus*, Fr. ; pileus fuscous when damp, dingy when dry, hygrophanous, somewhat membranaceous, conical then expanded, acutely or obtusely unbo-

nate, at first silky, with superficial squamulose white-villous down, becoming smooth, opaque ; flesh of disc same colour ; stem fistulose, slender, somewhat tough, undulated, externally and internally fuscous, at first paler, white-villous at base and slightly squamulose with white flocci, white ring at apex ; gills adnate, broad, pallid-whitish, then cinnamon.

In beech woods. Cabalva. Epping Forest.

142. C. (*Telamonia*) *Cookei*, Quel. ; pileus $\frac{1}{2}$ in., tawny-yellow, invested with a paler, shining, woolly veil ; pileus conical, umbonate, fibrillose ; stem slender, flexuose, stuffed, girt with floccose rings ; gills violet, then reddish, at length rust-colour.

In woods.

Subgenus 6. HYGROCYBE (p. 193).—Pileus smooth, or superficially white-fibrillose, not viscous, changing colour from moist to dry ; cortina thin, fibrillose or collapsing and forming an irregular zone on stem.

i. FIRMIORES.—*Pileus somewhat fleshy, convex or campanulato-convex, expanded, obtuse or gibbous ; margin at first incurved : stem usually attenuated upwards.*

* *Stem and cortina white.*

143. C. (*Hygrocybe*) *firmus*, Fr. ; pileus equally fleshy, hemispherical, then expanded, obtuse, becoming smooth, ochraceous, ferruginous when moist ; flesh compact, white ; stem solid, stout, somewhat bulbous, fibrilloso-striate, white, fibrils and cortina becoming ferruginous ; gills affixed, thin, ferruginous, then cinnamon.

In woods.

144. C. (*Hygrocybe*) *subferrugineus*, Fr. ; pileus 3 in., ferruginous or watery-cinnamon, more or less hygrophanous, shining when dry, tawny, becoming pale, unequally

fleshy, more compact at disc, convex then expanded, obtuse, slightly flexuose, firm, not rigid, even, smooth, dingy isabelle-line-white; stem variable, solid, more or less bulbous, attenuated upwards, adpressedly fibrillose, externally rigid and somewhat cartilaginous, pallid, internally soft, saffron-yellow at base; veil fibrillose, marginal, fugacious; gills emarginate, more or less crowded, opaque, pallid, watery, then dark ferruginous.

In woods. Coed Coch.

145. C. (*Hygrocybe*) *armeniacus*, Fr. (p. 193); 2-4 in.

146. C. (*Hygrocybe*) *damascenus*, Fr.; pileus 3 in., fleshy, thin, convex then plane, obtuse then broadly gibbous, smooth bay-cinnamon, brick-red and rivulose when dry; stem solid, firm, cylindrical, elastic and, as well as the fibrillose veil, becoming whitish; gills adnate, thin, crowded, opaque, cinnamon.

In grassy places. Taste acrid.

147. C. (*Hygrocybe*) *privignus*, Fr.; pileus 2 in., ground colour fuscous, becoming hoary, pale with a thin white film, pallid-tan when dry; slightly fleshy, convex, then flattened or reflexed and undulated, obtusely umbonate, dry, hygrophanous; stem stuffed then hollow, attenuated from base, equal or twisted, pale-silvery, partially white-silky from veil; gills adnate, broad, not crowded, distinct, at first watery, then opaque-cinnamon, serrated and white-fimbriate at edge when perfect.

In pine woods. Herefordshire.

148. C. (*Hygrocybe*) *duracinus*, Fr.; pileus 2 in., watery brick-colour when moist, tan when dry, opaque, fleshy, plane with a broad obtuse umbo, elevated ridge round margin, which is at first bent inwards, white-silky, then flattened, naked and even, cuticle hard, rigid, fragile;

stem solid, hard, somewhat bulbous, rooted at attenuated base, externally even, smooth, rigid, with a thick cartilaginous separable cuticle, fragments revolute on breaking up; cortina forming a narrow silky-white zone at margin of pileus; gills adnate, moderately crowded, watery cinnamon.

On the ground in woods. In old pastures beside stumps.
Dun. Sccone.

149. C. (*Hygrocybe*) *illuminus*, Fr.; pileus fleshy, convex, then plane, gibbous, smooth, pale brick-red, reddish-tan when dry, circumference thin, virgate under a lens; stem somewhat hollow, attenuated, silky-fibrillose, pallid, then becoming ferruginous; gills adnate, slightly crowded, somewhat distant, pallid, then cinnamon.

In pine woods.

150. C. (*Hygrocybe*) *tortuosus*, Fr.; pileus rather fleshy, convex, somewhat gibbous, smooth, even, shining, ferruginous-bay, brick-red when dry; stem rather hollow, rigid, equal, somewhat twisted, silvery; gills adnate, crowded, entire, tawny, becoming purple when bruised.

In damp pine woods.

151. C. (*Hygrocybe*) *dilutus*, Fr. (p. 194); 2 in. Epping Forest.

** Stem and gills commonly inclining to violet.

152. C. (*Hygrocybe*) *saturninus*, Fr.; somewhat cæspitose; pileus 2-5 in., dark bay-brown, changing colour, umber when damp, soon pale, brick-colour, unequally fleshy, campanulate then expanded, obtuse, even, smooth, superficially silky from veil at margin; flesh violaceous, then whitish; cortina inferior, abundant, white, not forming a

zone ; gills rounded, adfixed, broad, crowded, thin, fragile, purplish, at length watery-ferruginous.

In grassy places. Epping Forest.

153. C. (*Hygrocybe*) *imbutus*, Fr.; pileus 3 in., sienna-brown, then pale yellowish, unequally fleshy, convex, obtuse, even, smooth, obsoletely hoary-fibrillose at margin; stem solid, equal, sometimes twisted, even, whitish, pale violaceous at apex, same colour internally; cortina fugacious, white, adhering to margin of pileus and apex of stem; gills rounded, somewhat distant, at first dark bluish-grey or violaceous-cinereous, then watery cinnamon, never purplish.

In woods. Dinmore.

154. C. (*Hygrocybe*) *castaneus*, Fr. (p. 194.)

155. C. (*Hygrocybe*) *bicolor*, Cke.; pileus 1-2 in., rather fleshy, campanulate, then expanded, broadly or acutely umboonate, somewhat fragile, dingy whitish, with an occasional tinge of lilac, even, smooth, silky, shining; flesh thin, colour of pileus, or paler; stem equal or attenuated downwards, pallid violet, becoming whitish, solid; flesh bright purplish-violet at base, pallid above; veil fugacious, white; gills adnate, with a tooth, sub-ventricose, slightly eroded at edge, rather broad, scarcely crowded, purplish-violet, then cinnamon.

On the ground, in mixed woods.

*** *Stem and somewhat obsolete veil yellow or rufous.*

156. C. (*Hygrocybe*) *balaustinus*, Fr.; pileus fleshy, convex then plane, obtuse, moist, virgate with innate fibrils, smooth, reddish ferruginous, tawny, brick-red and shining when dry; stem solid, conically attenuated, fibrilloso-striate,

pallid, then within and without tawny-ferruginous; gills adnate, broad behind, rather crowded, ferruginous-red.

In beech woods.

157. C. (*Hygrocybe*) *colus*, Fr.; pileus 1-2 in., brown-rufescent, brick-colour, paler and shining when dry, somewhat fleshy, campanulate, convex, obtusely umbonate or obtuse, dingy whitish when dry; flesh same colour; stem stuffed, almost solid, equally attenuated upwards, with blood-red mycelium at base, stiff, naked, not cartilaginous, paler than pileus, fibrillose, fibrils same colour as pileus; cortina fibrillose, tawny-reddish; gills adnate, scarcely sinuate, plane, firm, tough, rather thick, scarcely crowded, veined, dark cinnamon, paler when young.

In woods. Blaize Castle, Bristol.

158. C. (*Hygrocybe*) *isabellinus*, Batsch; pileus rather fleshy, convex, somewhat umbonate, honey-colour, smooth, becoming yellowish and shining when dry; stem rather hollow, equal, rigid, striate, naked, becoming yellowish; gills adnate, firm, rather distant, yellow, then cinnamon clay-colour.

In pine woods.

159. C. (*Hygrocybe*) *renidens*, Fr.; pileus 1-2 in., ferruginous-tawny when damp, ochraceous when dry, becoming pale at disc, slightly fleshy, firm, convexo-plane, obtuse or gibbous, smooth, shining; flesh thin, paler; stem firm, stuffed, equal, externally somewhat cartilaginous, dissolvable into fibrils of same colour as pileus, pale yellowish, then tawny; cortina laxly fibrillose, fugacious, yellow; gills adnate, separating-free, somewhat crowded, entire, pallid-cinnamon, then tawny.

- In shady woods. Epping Forest.

**** *Stem inclining to fuscous; cortina pallid dirty white, not yellow; gills dark.*

160. C. (*Hygrocybe*) *uraceus*, Fr.; pileus 1-2 in., when moist umber or inclining to olive, somewhat shining, when dry tan or isabelline, when young brick-colour, slightly fleshy, conical, campanulate, then expanded, umbonate or obtuse, when moist even and smooth, when dry somewhat fibrillose; flesh fuscous, darker in the stem; stem slightly tubular, stuffed then hollow, cylindrical, equal, firm, fibrilloso-striate, becoming even, fuscous, naked and pale at apex, inclining to olive, at length wholly fuscous-black, internally same colour; cortina superior, fibrillose, fuscous; gills adnate, ventricose, firm, distant, cinnamon-brown, edge entire and same colour, or white and fimbriato-serrated.

In pine woods. Dinmore.

161. C. (*Hygrocybe*) *jubarinus*, Fr.; pileus 1½-3 in., tawny-cinnamon, shining, somewhat fleshy, campanulato-flattened, obsoletely umbonate, when large and old depressed in centre, often repand and undulated, at length reflexed, rimoso-incised at margin, fragile, even, smooth at disc; when young silky at margin with the white veil, when old innately fibrillose under a lens; stem at first stuffed, then hollow, fibrilloso-striate, externally and internally pale tawny, paler at base and naked apex; gills adnate, somewhat distant, tawny-cinnamon, edge entire, same colour.

In woods. Coed Coch.

162. C. (*Hygrocybe*) *pateriformis*, Fr.; pileus 1 in., somewhat fleshy, rigid, plane or depressed, obtuse, orbicular, dusky-chestnut, sprinkled with fugacious white

fibrils; stem hollow, equal, straight, fibrillose, white then dusky; gills emarginate, adnate, somewhat crowded, brick-red.

In damp places.

163. C. (*Hygrocybe*) *unimodus*, *Brit.*; pileus 1½–2 in., campanulate, then expanded, rufous-brown, smooth, margin straight; stem equal, fibrous, same tint; gills distant, brown.

In grassy places.

II. TENUIORES.—*Pileus* somewhat membranaceous, conical then expanded, umbo acute or obtuse, vanishing, margin at first straight; stem somewhat equal or attenuated at base.

* *Stem white.*

164. C. (*Hygrocybe*) *dolabrates*, *Fr.*; pileus 2–4 in., between fleshy and membranaceous, campanulate then expanded, obtuse, smooth, brick-red, even and tan-colour when dry, silky at margin; stem long, stout, cylindrical, smooth, clear white; gills adnate, very broad, distinct, distant, tawny-cinnamon.

In damp places in pine woods. Epping Forest.

165. C. (*Hygrocybe*) *ringens*, *Fr.*; pileus 1–2 in., opaque tan-clay-colour when damp, tan-whitish when dry, fleshy, thin, campanulate, lax, then convex, obtuse or broadly gibbous, even, smooth; flesh slightly firm, white; stem stuffed, with a cartilaginous bark, elastic, rigid, tough, rooted, smooth, even, naked, pale when moist, white when dry; gills adnate, somewhat decurrent, distant, broad, watery clay-colour, then pallid cinnamon.

In mixed woods. Epping Forest. Uncommon.

166. C. (*Hygrocybe*) *Krombholzii*, *Fr.*; often cæspitose; pileus 1 in., conico-campanulate, then gibbous, even,

smooth, disc fleshy, margin thin ; veil appendiculate ; stem fistulose, equal, naked, whitish ; gills nearly free, broad, ferruginous, edge becoming yellowish.

Among moss.

167. C. (*Hygrocybe*) *Reedii*, *B.* (p. 194) ; 1 in.

168. C. (*Hygrocybe*) *leucopus*, *Fr.* (p. 194) ; 1 in.

169. C. (*Hygrocybe*) *scandens*, *Fr.* ; pileus tawny-ferruginous, then honey-colour, tan when dry, slightly fleshy, umbo tawny, somewhat membranaceous, smooth, slightly striate at margin ; flesh yellowish ; stem fistulose, thickened at apex, very thin, flexuose, soft, even, yellowish, whitish when dry ; cortina fibrillose, white ; gills adnate, thin, somewhat distant, narrow, attenuated in front, tawny-cinnamon, edge entire, same colour.

In pine wood. Forres.

** *Stem inclining to violet or reddish.*

170. C. (*Hygrocybe*) *erythrinus*, *Fr.* ; pileus 1- $1\frac{1}{2}$ in., bay-brown-rufous when moist, tawny when dry, slightly fleshy, conical then convex, darker at umbo, even, smooth ; flesh when moist same colour ; stem stuffed, then hollow, equal, or thickened at base, straight, smooth, striate with adpressed fibrils, shining, silvery-white, violaceous, often pruinose upwards ; cortina superior, fibrillose, white ; gills slightly adnexed, then somewhat distant, ventricose, pallid, then pale cinnamon.

In woods. Coed Coch.

171. C. (*Hygrocybe*) *decipiens*, *Fr.* ; pileus 1 in., shining, bay-brown, brick-colour when dry, umbo darker, fleshy membranaceous, campanulato-expanded, acutely umbonate, then depressed round umbo, smooth, margin slightly striate, then innately torn ; stem stuffed, then fistulose, equal, tense and

straight or flexuose, fibrillose, pallid, pale rufescent or with brick-coloured spots, brick-colour internally, externally covered with a pallid separable cuticle ; cortina fibrillose, white, fugacious ; gills adnate, more or less crowded, thin, brick-colour ferruginous.

In mixed woods. Epping Forest. Frequent.

172. C. (*Hygrocybe*) *germanus*, Fr.; pileus 1 in., hygrophanous, fuscous when moist, clay-colour when dry, opaque, somewhat membranaceous, campanulate, obtusely umbo-nate, fragile, somewhat silky, not squamulose or striate ; stem somewhat fistulose, equal, often twisted, smooth silvery-pale, somewhat lilac ; cortina fibrillose, fugacious ; gills adnate, somewhat distant, broad, watery-cinnamon.

In pine woods. Logie, Forfarshire. Epping Forest. Strong smelling.

*** Stem yellowish, becoming pale.

173. C. (*Hygrocybe*) *detonsus*, Fr.; pileus 1-2 in., bright yellowish when moist, tan when dry, somewhat membranaceous, conical then expanded, somewhat umbonate, slightly silky-smooth, striate to middle, fragile ; flesh thin, whitish ; stem stuffed, then fistulose, equal or attenuated upwards, soft, smooth, pale-yellowish ; gills adnate, ventricose, somewhat distant, entire, unicolorous, bright yellowish, then brick-cinnamon.

Among moss in woods. Glamis.

174. C. (*Hygrocybe*) *obtusus*, Fr.; pileus $\frac{1}{2}$ - $1\frac{1}{2}$ in., bay-brown-ferruginous, then cinnamon, when dry pale ochraceous, or tan-whitish, somewhat membranaceous, conical then campanulate, at length expanded and obtusely umbo-nate, smooth, striate to margin ; stem spongy-stuffed, soon hollow, thick, curved, attenuated at base, fragile, sprinkled

with adpressed, white, silky fibrils, otherwise smooth, tan-yellowish, whitish when dry; gills adnate, ventricose, somewhat distant, connected by veins, tawny-cinnamon, white-fringed at edge.

In woods, chiefly pine. Epping Forest.

175. C. (*Hygrocybe*) *acutus*, Fr. (p. 195.)

176. C. (*Hygrocybe*) *Junghuhnii*, Fr.; pileus 1 in., shining cinnamon, tawny when dry, slightly fleshy at disc, otherwise thin, convexo-plane, umbonate with a papilla, when damp striate to middle and very finely sparsely fibrillose under a lens; stem stuffed, then hollow, externally pale brick-colour, internally darker, externally shining and adpressedly fuscous-fibrillose, equal or attenuated, whitish at base; veil inclining to fuscous; gills adnate, ventricose, thin, veined at base, saffron brick-colour.

In woods. Kings Cliffe.

177. (*Hygrocybe*) *depressus*, Fr.; pileus 2–3 in., somewhat membranaceous, conical then convex, umbonate, smooth, striate at margin, at first silky; stem hollow, equal, even, rigid, reddish, dingy at base, white-silky; gills adnate, rather crowded, saffron-yellow, becoming yellowish.

In moist woods.

178. C. (*Hygrocybe*) *milvinus*, Fr.; pileus $\frac{1}{2}$ –1 in., olivaceous-fawn-umber, hoary tan and opaque when dry, membranaceous with exception of disc, conical then convex, umbonate, striate to middle, clad at margin with white squamules, somewhat silky when dry; flesh thin, same colour; stem somewhat fistulose, curved, even, not scaly, pallid fuscous, here and there clad with slight silky spots; gills adnate, connected by veins, somewhat distant, thin, scarcely ventricose, watery-ferruginous, becoming olive.

In woods. Wrotham. Kent.

179. C. (*Hygrocybe*) *fasciatus*, Fr.; pileus $\frac{1}{2}$ in., somewhat membranaceous, conical then expanded, acute umbo blackish, brick-colour at circumference, smooth, slightly silky, pale when dry; stem straight, elongated, flexuose, fistulose, undulated on surface, smooth, not furnished with a cuticle, fissile into fibrils, pallid-fuscous, then cinnamon-fuscous; gills adnate, slightly ventricose, thin, distant, cinnamon.

In pine woods. Dinmore.

GENUS 6. **GOMPHIDIUS**, Fr. (p. 196.)

1. **G. glutinosus**, Fr. (p. 196); 2-5 in. Epping Forest.

Var. roseus, Fr.; pileus rose colour; stem attenuated, rosy flesh colour at base.

2. **G. viscidus**, Fr. (p. 196); 2-3 in.

3. **G. maculatus**, Scop.; pileus 2 in., fleshy, convex, viscid, white, variegated with black spots when old; stem firm, cylindrical, yellow, short; gills decurrent, branched, thick, umber.

In woods. Epping Forest.

4. **G. gracilis**, B. and Br. (p. 196.)

GENUS 7. **PAXILLUS**, Fr. (p. 195.)

Tribe 1. **LEPISTA**.—*Pileus entire, central.*

1. **P. giganteus**, Fr.; pileus 4-14 in., tan white, fleshy, thin, depressed, plano-infundibuliform, soft, margin involute, easily splitting, spreading, smooth, sulcate in the form of small channels; stem solid, obese, smooth; gills decurrent, crowded, slightly branched and anastomosing, whitish, then tan colour.

In meadows and woods. Uncommon.

This is *Agaricus giganteus*, *Sow.* (p. 110.)

2. *P. Alexandri*, *Gill.*; pileus 2-3 in., fleshy, compact, plane, then depressed, dry, unpolished, fawn colour; margin closely involute, becoming flattened and faintly striate; flesh white, turning yellow; stem stout; gills rather decurrent, crowded, colour of boxwood.

On the ground. Epping Forest.

3. *P. lepista*, *Fr.*; pileus 3-4 in., dingy whitish, compactly fleshy or plano-depressed, obtuse, without striae, rimuloso-squamulose towards circumference, dry, margin undulato-flexuose; flesh white; stem elongated, or short and attenuated downwards, equal, blunt at base, solid, compact, spongy-elastic, at length hollow, whitish, rufescent or inclining to fuscous, white-villous at base; gills decurrent; somewhat branched, simple at base, crowded, entire, dingy-white, at length darker.

In woods. Slough.

4. *P. extenuatus*, *Fr.*; pileus 1-3 in., rigid, extended from the fleshy disc, campanulato-convex, then expanded, naked, smooth, moist, tan-coloured, becoming fuscous, margin involute, pubescent, even; stem solid, tough, smooth, tuberosly rooting at base; gills decurrent, arcuate, crowded, white, then mouse-colour.

In grassy places in fir woods.

5. *P. panæolus*, *Fr.*; pileus 1-2 in., whitish, fleshy, thin, convexo-plane, then somewhat depressed, even, smooth, moist, margin thin, involute; flesh becoming black; stem stuffed, striato-fibrillose, rufescent, thickened downwards; gills slightly decurrent, crowded, narrow, at length watery-ferruginous.

On the ground. In pine woods.

Var. spilomælus; pileus spotted as with drops, and as

well as the slender stem, yellowish-white; gills at length watery-ferruginous, hoary-grey at base.

Among fir leaves. Stoke Poges.

6. *P. oreloides*, *Cke. and Mass.*; pileus at first white, becoming stained with livid or greyish blotches, minutely silky, shining, margin thin, involute; stem tapering towards base, solid, elastic, silky-fibrillose, livid-ochraceous; gills crowded, readily separating from the hoary hymenophore, whitish, then livid, at length dirty yellowish-brown, adnate, decurrent.

Among grass.

7. *P. lividus*, *Cke.*; pileus 1-2 in., convex, at length slightly depressed at disc, dingy white, or livid-ochraceous, opaque; flesh nearly white; stem attenuated downwards, white, fibrillose, stuffed, then hollow; gills arcuate, decurrent, white, almost crowded.

In fields.

8. *P. revolutus*, *Cke.*; pileus 1½ in., convex, obtuse, pale ochraceous, slightly darker at disc; margin thin, even, at first sometimes tinged with violet and somewhat revolute; stem solid, gradually attenuated downwards, paler than the pileus, often tinted violet at base; gills decurrent, scarcely crowded, pallid, then clay-colour.

In a field. Odour mealy.

Tribe 2. TAPINIA.

9. *P. paradoxus*, *Kalch.*; pileus 2-3 in., fleshy, convex, then plane, dry, tomentose, rufous-umber; stem solid, somewhat rooting, unequal, fibrillose, yellow or reddish; gills decurrent, distant, connected by veins, yellow, then golden-yellow, becoming reddish when old.

On the ground.

10. *P. involutus*, Fr. (p. 195); 3–5 in. Epping Forest.

11. *P. leptopus*, Fr.; pileus $1\frac{1}{2}$ –3 in., fuscous-yellowish, excentric or lateral, depressed, gibbous in middle, fleshy, thin, dry, downy, soon torn into fuscous or yellowish villous scales; flesh yellow; stem short, somewhat incurved, attenuated downwards, yellow within; gills decurrent, not anastomosing, tense and straight, crowded, narrow, yellowish, then darker, not spotted when touched.

On the ground, about stumps. Forres. Glen Tilt. Kenmore.

12. *P. atrotomentosus*, Batsch (p. 195); 2–4 in. Epping Forest.

13. *P. crassus*, Fr.; pileus fleshy, oblique, nearly plane, becoming even and ferruginous; stem stuffed, excentric, short, ascending; gills decurrent, broad, rather distant, straight, cinnamon.

On mound of rifle-butts. Dr. Cooke considers this to belong rather to *Flammula* than *Paxillus*.

14. *P. panuoides*, Fr. (p. 196); $1\frac{1}{2}$ in.

15. *P. fagi*, B. and Br.; gregarious; crisped, pallid upwards, orange beneath; gills crisped, orange.

On beech stump.

GENUS 7. HYGROPHORUS (p. 197).

Tribe 1. LIMACIUM.—*Universal veil viscid, with occasionally a floccose partial veil, annular or marginal; stem clothed with scales, or more frequently with dots above; gills adnato-decurrent.*

* White or yellowish white.

1. *H. chrysodon*, Fr. (p. 197); 2–3 in. Epping Forest.
2. *H. eburneus*, Fr. (p. 197); 2–3 in. Epping Forest.
3. *H. cossus*, Fr. (p. 197); $1\frac{1}{2}$ in. Epping Forest.

4. *H. penarius*, Fr.; pileus tan-colour, opaque, fleshy, umbonate, then obtuse, hemispherical, at length flattened and undulated, even, smooth, dry; margin at first involute, exceeding gills; flesh thick, hard, white, unchangeable; stem solid, compact, hard, attenuated above and below, fusiform and rooting at base, pale white, smeared with tenacious slime, sebaceous, firm, cuticle somewhat fragile; veil not conspicuous; gills adnato-decurrent, acute behind, distant, thick, veined, pale tan.

In mixed woods. Stoke Poges. Epping Forest.

5. *H. pulverulentus*, B. and Br.; pileus $\frac{1}{3}$ in., shining-white, pulvinate, viscous; margin involute, tomentose; stem stuffed, nearly equal, attenuated at base, wholly powdered with rose-coloured meal; gills decurrent, thick, obtuse at edge, whitish.

Among pine leaves. Glamis.

** *Reddish*.

6. *H. erubescens*, Fr.; growing in troops or circles; pileus 2-4 in., white, becoming red, fleshy, gibbous, then convexo-plane, viscid, adpressedly dotted with squamules or becoming smooth, compact, thin towards naked margin; flesh firm, white; stem sometimes short and robust, long and attenuated upwards, or elongated, equal, or attenuated at base, solid, flexuose, clad with red fibrils, dotted with red upwards; gills decurrent, distant, soft, white, red-spotted.

In pine woods. Hereford.

7. *H. pudorinus*, Fr.; pileus 2 in., fleshy, convex, then depressed, even, smooth, viscid, flesh-colour; stem solid, firm, white, contracted at apex, rough with white dots; gills thick, distant, white.

In fir woods.

8. *H. glutinifer*, *Fr.*; gregarious; pileus rufescent, whitish at margin, fleshy, convexo-expanded, thin, with exception of broadly gibbous, wrinkle-dotted disc, pellicle glutinous; stem stuffed, somewhat elastic, ventricose downwards, with a viscous veil, same colour as pileus, white-squamulose at apex; gills arcuato-decurrent, rather thick, shining white.

In woods. Penzance.

*** Tawny, or light yellow.

9. *H. arbustivus*, *Fr.*; pileus 2 in., slightly tawny-brick-colour, paler at margin, opaque, fleshy, convexo-plane, obtuse, somewhat repand, viscid, streaked with innate fibrils, smooth, even; stem solid, equal, smooth at base, pale white, externally rigid and polished, internally somewhat spongy and elastic; gills adnate, distant, thick, white.

In woods, under birch, etc. Colleyweston, etc.

10. *H. aureus*, *Arrh.*; pileus 2 in., golden yellow, fleshy, convex, then plane, even, glutinous; stem stuffed, smooth, somewhat ringed with the glutinous tawny-red veil; gills adnately decurrent, distant, thin, whitish.

In woods.

11. *H. discoideus*, *P.*; gregarious or solitary; pileus 1-2 in., pale yellowish or pale clay-coloured, disc somewhat ferruginous, slightly fleshy, firm, campanulato-convex, margin inflexed, then plane, obtuse, at length depressed at disc, even, smooth, very glutinous; flesh yellowish-white; stem stuffed, equal or attenuated upwards, very soft, fibrous, flocculose, viscid, pale-white, with white dots at apex: veil glutinous, rarely forming a ring on stem; gills adnate, somewhat crowded, then decurrent, distant, thin, soft, pale, yellowish-white.

In grassy places. Laxton Park, Northants.

12. *H. aromaticus*, *B.* (p. 198.)

***** *Olivaceous-umber.*

13. *H. limacinus*, *Fr.*; pileus $1\frac{1}{2}$ - $2\frac{1}{2}$ in., disc umber then ferruginous, paler at margin, fleshy, convex, then flattened, obtuse, smooth, viscid; flesh firm, white; stem solid, firm, ventricose, viscous, flocculose, fibrilloso-striate, roughened with squamules at apex; gills adnate, then decurrent, somewhat distant, thin, white, inclining to cinereous.

In woods, among damp leaves. St. Leonards.

14. *H. olivaceo-albus*, *Fr.* (p. 198); 1-2 in.

15. *H. hypothejus*, *Fr.* (p. 198); 1-2 in.

16. *H. cerasinus*, *B.* (p. 197); $1\frac{1}{2}$ - $2\frac{1}{2}$ in.

***** *Fuscous-cinereous or livid.*

17. *H. fusco-albus*, *Fr.*; pileus 2 in., fuscous, then cinereous, fleshy, moderately firm, convexo-plane, even, smooth, viscous, margin white-floccose; stem solid, equal, white-floccose at apex when dry; gills decurrent, broad, rather thick, white.

Among moss. Gwrwch.

18. *H. agathosmus*, *Fr.*; pileus $1\frac{1}{2}$ - $2\frac{1}{2}$ in., livid grey, dotted with minute, viscous, pellucid papillæ, fleshy, convex, thin, plane, gibbous, viscous, margin at first involute and villous, soon unfolded and naked, at length reflexed and undulated; flesh soft, watery, whitish; stem solid, firm, then soft and hollow, equal and slightly thickened downwards, somewhat fibrilloso-striate, not viscous, roughened upwards with white, punctiform, at length cinereous squamules; partial veil not conspicuous; gills distant, decurrent, soft, entire, veined at base, shining white.

In fir woods. Forres, Glamis. Odour of anise, sweet.

19. *H. mesotephrus*, *B. and Br.* (p. 198) ; 1 in.

20. *H. livido-albus*, *Fr.* ; pileus livid, unicolorous, fleshy, thin, obtuse, even, smooth, viscid, margin naked ; stem stuffed, slender, equal, rather even ; gills decurrent, distant, shining white.

In woods. Street, Somerset.

Tribe 2. CAMAROPHYLLUS.—*Veil none ; stem even, smooth or fibrillose, not rough with dots ; pileus firm, opaque, not viscous ; gills distant, arcuate.*

* *Gills deeply and at length obconically decurrent.*

21. *H. carpinus*, *Fr.* ; pileus 2–4 in., at first blackish-fuliginous or blackish, at length cinereous-fuliginous, varying azure-blue, fleshy, conico-convex, umbonate, then flattened or depressed, obtuse, repand, at first slightly viscid, streaked with fibrils ; flesh soft, fragile, thin at repand margin ; stem solid, equal or attenuated downwards ; soft, hollow, and fragile at apex ; externally longitudinally fibrillose, fuliginous, whitish-pubescent at base ; gills decurrent, distant, broad, thick, entire, at first white, then waxy-soft, glaucous.

In pastures. Bath. Glamis.

22. *H. leporinus*, *Fr.* (p. 199) ; 1–2 in.

23. *H. nemoreus*, *Fr.* ; pileus somewhat orange, equally fleshy, convex, then expanded, gibbous, at length depressed, somewhat smooth ; stem stuffed, firm, squamulose ; fibro-striate, attenuated at base ; gills decurrent, thick, distant, same colour.

In woods. Stoke Poges.

24. *H. pratensis*, *Fr.* (p. 199) ; 1–2 in. Epping Forest.

Var. cinereus, *Fr.* ; pileus thinner ; gills cinereous, margin at length striate ; stem white.

In grassy places.

Var. pallidus, *B. and Br.*; pileus pallid, infundibuliform, margin undulated, deflexed; stem dilated upwards, fibrilloso-striate; gills distant, decurrent, branched, pallid.

In grassy places. Coed Coch.

25. *H. fœtens*, *Phill.*; pileus 1 in., dark brown, somewhat fleshy, convex, becoming plane, smooth, at length broken into squamules; stem stuffed, attenuated downwards, shining, clothed with transversely arranged fibrous scales, paler than pileus; gills decurrent, distant, rather thick, same colour as, or paler than pileus, somewhat glaucous-prime rose.

On the ground, Shrewsbury. Fœtid, nauseous.

26. *H. virgineus*, *Fr.* (p. 199); 1 in. Epping Forest.

27. *H. ventricosus*, *B. and Br.*; pileus 2-3 in., fleshy, unequal, convex; stem solid, at length partially hollow, attenuated at base and apex; gills deeply decurrent, narrow, sometimes forked.

Among grass. Coed Coch.

28. *H. niveus*, *Fr.* (p. 199); 1 in.

29. *H. Wynniæ*, *B. and Br.*; lemon yellow, hygrophanous, pileus thin, umbilicate or somewhat infundibuliform, striate; gills decurrent, narrow, thin.

On chips, old stumps, etc. Coed Coch.

30. *H. russo-coriaceus*, *B. and Br.* (p. 199); $\frac{1}{2}$ in. Epping Forest.

31. *H. micaceus*, *B. and Br.*; pileus $\frac{1}{2}$ - $\frac{3}{4}$ in.; hemispherical, light yellow, then cinereous, wrinkled, micaceous; stem solid, granulated, light yellow, then brown downwards; gills decurrent, pallid umber.

On clayey soil. Coed Coch.

** *Gills ventricose, sinuato-arcuate or plano-adnate.*

32. *H. fornicatus*, Fr.; pileus 1 in., white or pallid-livid, fleshy, thin, campanulate, then expanded, obtusely umbonate, somewhat repand, viscid, even, smooth; stem solid, or hollow at apex, compact, firm, tough, equal, somewhat undulated, smooth, shining white; gills almost free, or slightly sinuato-adnexed, thick, ventricose, distant, exceeding the margin, white.

In pastures. Holme Laey, Herefordshire. Batheaston.

33. *H. distans*, B. (p. 200); 2 in.

34. *H. Clarkii*, B. and Br.; pileus 3-4 in., livid cinereous, convex, somewhat umbonate, viscous, margin even; stem hollow, same colour; gills adnate, $\frac{1}{2}$ in. broad in large examples, distant, thick, white.

In pastures. Street, Somerset. Perth Fungus Show.

35. *H. metapodius*, Fr.; pileus $1\frac{1}{2}$ -3 in., cinereous-fuscous, compactly fleshy, convex, plane, then obtuse, even and shining, then silky and squamulose, irregular; flesh pallid-grey, reddish when broken, at length black; stem stuffed, attenuated downwards, unequal, smooth, cinereous-reddish internally; gills adnate, arcuato-decurrent, or broadly emarginate, distant, thick, veined, grey-white.

In old pastures. Street. Glamis.

36. *H. ovinus*, Fr. (p. 200); 2 in.

37. *H. subradiatus*, Fr.; pileus white or livid, disc fuscous, membranaceous, slightly fleshy at disc from the dilated apex of stem, irregular, somewhat tough, convex, then expanded, obsoletely umbonate, hygrophanous when moist, radiato-striate from the translucent gills; stem fistulose, attenuated at base, twisted, smooth, pale, white at base;

gills plane, decurrent with a tooth, ventricose, somewhat thin, distant, connected by veins, white.

In old pastures. Glamis.

Var. lacmus, *Fr.*; pileus 1 in., lilac, then pale, fragile, plano-depressed, occasionally at same time umbonate, unequal at circumference; stem elongated, stuffed, then hollow, somewhat shining, narrow at base and apex, gills cinereous.

In old pastures. Glamis.

38. *H. irrigatus*, *Fr.*; pileus 1-2 in., livid, dingy-white as the gluten separates, slightly fleshy, fragile, campanulate, expanded, obtuse, even, smooth, viscous; stem flexuose, fistulose, tough, equal, smooth, very viscous, livid; gills, adnate with a decurrent tooth, somewhat distant, fragile, rather thick, wholly white or grey.

In grassy places in fir woods. Laxton, Northants. Glamis.

39. *H. Houghtoni*, *B. and Br.*; pileus 1½-2 in., bright-coloured, sienna-red, convex, at length depressed in centre, striate, very viscous; stem transversely undulated, very viscous, tawny light-yellow; gills decurrent, thin, pale yellowish.

Among grass. Preston, Salop. Odour foxy.

Tribe 3. HYGROCYBE.—*Veil none, whole fungus thin, watery succulent, fragile; pileus viscid when moist, shining, rarely floccosely scaly when dry. Most of the species brightly coloured, shining.*

* *Gills decurrent.*

40. *H. Colemannianus*, *Blox.* (p. 200); 1-2 in. Epping Forest.

41. *H. sciophanus*, *Fr.*; gregarious; pileus $\frac{1}{2}$ -1½ in., hygrophanous, deep tawny or brick-colour, pale, then white, thin, slightly fleshy at disc, otherwise membranaceous,

hemispherical, obtusely campanulate, then expanded, obtuse, slightly viscid, even at disc, remotely and pellucidly striate to middle, regular, torn when older; stem hollow, equal, thin, flexuose, even, smooth, never tense and straight, tawny-yellowish, paler than pileus, at length white; gills attenuato-adnate, plano-decurrent, distant, same colour as pileus or inclining to rose.

In mossy places. Perth.

42. *H. lætus*, Fr. (p. 200); 1 in. Epping Forest.

43. *H. vitellinus*, Fr.; pileus $\frac{1}{2}$ -1 in., citron egg-yellow, white when dry, thin, slightly fleshy at disc, otherwise membranaceous, smooth, viscid; margin plicato-striate; stem fistulose, equal, even, smooth, pallid light-yellow, white when dry, fragile, slightly flexuose; gills decurrent, somewhat distant, egg-yellow.

In pastures. Penzance.

44. *H. ceraceus*, Fr. (p. 201); 1 in. Epping Forest.

45. *H. coccineus*, Fr. (p. 201); 1-2 in. Epping Forest.

46. *H. miniatus*, Fr. (p. 201); 1 in. Epping Forest.

47. *H. turundus*, Fr.; pileus $\frac{1}{2}$ -1 in., yellow or tawny, with cinereous-fuscous squamules, slightly fleshy, fragile, convex then expanded, umbilicate or depressed, crenate at margin; stem rigid-fragile, stuffed then fistulose, round, equal, polished, tawny-reddish; gills decurrent, distant, juicy, white then yellow, edge acute.

On peat soil. Farragon, Perthshire. Epping Forest.

Var. mollis, B. and Br.; pileus $\frac{1}{2}$ - $\frac{3}{4}$ in., nearly plane, at length slightly depressed, clad with soft, short, radiating hairs, same colour; stem stuffed, equal; gills decurrent, arcuate, narrow, distant.

On moist mossy ground. Rare.

48. *H. mucronellus*, Fr.; pileus $\frac{1}{3}$ in., when moist

scarlet or yellow, when dry changing colour, hoary, slightly fleshy, acutely conical or campanulate and obtuse, when moist pellucidly striate, when dry silky; fragile; stem fistulose, thin, somewhat attenuated and white at base, otherwise yellow, even, smooth, flexuose; gills ascending, distant, broad and adnate behind, somewhat decurrent, yellow.

In grass field. King's Lynn.

** *Gills adnexed, somewhat separating.*

49. *H. puniceus*, Fr. (p. 101); 2-4 in.

50. *H. obrusseus*, Fr. (p. 201); 2-3 in.

51. *H. intermedius*, Pass.; pileus thin, campanulate, obtuse, then flattened, rather dry, fibrillose silk, golden yellow, becoming cinereous; stem fistulose, fibrillose striate; gills adnate, ventricose, distant, whitish, then yellowish.

On damp ground.

52. *H. conicus*, Fr. (p. 201); 2 in. Epping Forest.

53. *H. calyptroformis*, B. and Br. (p. 202); 2 in. Epping Forest.

Var. niveus; wholly white.

Pastures and lawns.

54. *H. chlorophanus*, Fr.; pileus 1 in., sulphur-yellow or scarlet, not changing colour, somewhat membranaceous, fragile, convex, plane, obtuse, orbicular and lobed, then cracked, viscid, striate; stem hollow, equal, round, even, viscid when moist, shining when dry, unicolorous, light yellow; gills emarginato-adnexed, ventricose, with a thin decurrent tooth, thin, distant, distinct.

In grassy and mossy places. Common. Epping Forest. Never becoming black.

55. *H. psittacinus*, Fr. (p. 202); 1 in. Epping Forest.

56. **H. spadiceus**, *Scop.*; pileus thin, conical, acute, repand, fibrilloso-virgate, at first covered with an olivaceous bay-brown gluten; stem hollow, equal, dry, becoming dusky and fibrillose; gills rounded behind, free, distant, lemon-yellow.

On the ground. Clun Forest. Not turning black.

57. **H. unguinosus**, *Fr.* (p. 202); 2 in.

58. **H. murinaceus**, *Fr.* (p. 203); 2 in.

= *H. nitratus*, *Fr.*

Var. glauco-nitens, *Fr.*; gaping; pileus fibrilloso-virgate, dark olive or sooty, becoming pale; stem equal, shining; gills becoming glaucous.

In grassy places.

GENUS 9. LACTARIUS, *Fr.* (p. 203.)

Tribe 1. PIPERITES.—Stem central, gills unchangeable,—not changing colour, not pruinose; milk at first white, commonly acrid.

* TRICHOLOMOIDEI.—*Pileus viscid when moist, margin at first involute, tomentose.*

1. **L. scrobiculatus**, *Fr.*; pileus 4–12 in., yellow, zoneless, fleshy, not compact, convex, umbilicate, at length infundibuliform, obtuse, with agglutinated villous down, viscid when moist; margin involute, bearded, at length unfolded and almost naked; sometimes zoned; flesh lax, whitish, yellow when broken; stem stout, stuffed, then hollow, equal, light yellow, pitted with broad rounded spots, smooth, somewhat viscid, pubescent at base; gills adnato-decurrent, thin, crowded, white; milk abundant, white, sulphur-yellow when exposed to air.

On the ground. Bristol. Very acrid, odour not unpleasant.

2. *Lactarius intermedius*, Kromb. ; pileus fleshy, broad, infundibuliform, viscid, smooth, ochraceous-yellow, margin involute, tomentose, then smooth ; gills broad, livid, whitish, somewhat decurrent, affixed, entire ; stem short, thick, solid, or sometimes hollow, yellowish, covered with spot-like depressions ; milk white, then yellowish.

In woods. Rather acrid. Fries considers this plant to be *L. ciciliooides*.

3. *L. torminosus* (p. 203) ; 3 in. Epping Forest.

4. *L. ciciliooides*, Fr. (p. 203) ; 2-4 in.

5. *L. turpis*, Fr. (p. 203) ; 4-12 in. Epping Forest.

6. *L. controversus*, Fr. ; pileus 3 in., fleshy, compact, rigid, convex, broadly umbilicate, then somewhat infundibuliform, oblique, at first dry, flocculose, whitish, then viscid, reddish with blood-coloured spots and zones ; margin when young acute, involute, more or less villous ; flesh very firm ; stem attenuated towards base, often eccentric, solid, obese, even, pruinate at apex, white ; gills decurrent, with an obsolete tooth, crowded, rarely branched, pallid white-flesh-colour ; milk white, unchangeable, abundant.

In woods. Uncommon. Abergavenny. Epping Forest, etc.

7. *L. pubescens*, Fr. ; pileus 3 in., whitish flesh-colour, fleshy, plane, depressed, then broadly infundibuliform, zoneless, even, dry, then smooth at disc, shining ; margin involute, fibrilloso-pubescent ; flesh thin, firm, pliant, white, unchangeable ; stem attenuated downwards, sometimes compressed, stuffed, soft internally, even, commonly pruinato-pubescent when young, becoming smooth, flesh-colour, then white ; gills adnate or slightly decurrent, crowded, narrower than flesh of pileus, pallid, slightly flesh-coloured ; milk white, unchangeable, not abundant.

Among pebbles. Loch Kenord, Aberdeenshire.

Var. *margine-tomentoso*, *B.* and *Br.*; pileus clothed with fine matted down; margin tomentose; stem nearly equal.

8. *L. aspideus*, *Fr.*; pileus 2-4 in., fleshy, gibbosocconvex, then depressed, viscid, zoneless, straw-coloured, with a tomentose marginal ring which is deciduous, leaving the margin quite smooth; gills rather thick, pallid; milk at first white, then lilac.

In moist places.

** *LAMACINI*.—*Pileus viscid when moist, pelliculose, margin naked.*

9. *L. insulsus*, *Fr.* (p. 204); 3-4 in. Epping Forest.

10. *L. zonarius*, *Fr.* (p. 204); 2-4 in.

11. *L. utilis*, *Weinm.*; pileus 5-8 in., convexo-plane, at length funnel-shaped, even, smooth, tan-colour; stem hollow, even, same colour; gills adnate, crowded, pallid; milk white, mild, then slightly acrid.

On the ground.

12. *L. blennius*, *Fr.* (p. 204); 2-4 in. Epping Forest.

13. *L. hysignis*, *Fr.* (p. 204); 2½-4 in.

14. *L. trivialis*, *Fr.*; pileus 4-7 in., dark livid, then pale, pallid yellowish tan-flesh-colour, zoneless, depressed, then infundibuliform; margin at first involute, then flattened, even, viscous; flesh somewhat rigid, white; stem inflated-hollow, even, smooth, unspotted, paler than pileus; gills somewhat decurrent, tense and straight, rather broad, somewhat thin, crowded, whitish, becoming pale; milk white, unchangeable.

15. *L. circellatus*, *Fr.* (p. 204); 2-3 in.

16. *L. uvidus*, *Fr.* (p. 205); 2-4 in.

*** PIPERATI. *Pileus without a pellicle, dry, generally unpolished.*

17. *L. flexuosus*, Fr. ; pileus 2-4 in., lead grey or violet-grey, pale, zoned or zoneless, fleshy, convex, plane, depressed, repand margin bent inwards, at length spreading, erect, dry, smooth, shining, then rivuloso-scaly, unpolished, opaque ; flesh hard, grumoso-compact, white ; stem solid, obese, or attenuated downwards, sometimes eccentric, slightly lacunose, not pitted, pallid grey, apex whitish, base somewhat yellowish ; gills adnate, somewhat horizontal, thick, distant, connected by branches, light yellowish, at length whitish flesh-colour, milk white, unchangeable.

In pine woods, etc. Heywood Forest. Rothiemurchus. Glamis.

18. *L. pyrogalus*, Fr. (p. 205) ; 2-3 in. Epping Forest.

19. *L. squalidus*, Fr. ; pileus pallid, lurid, compact, convexo-plane, umbilicate, dry, smooth, zoneless ; flesh white, sprinkled at margin with saffron-yellow dots ; stem equal, smooth, pallid brown ; gills adnate, narrow, yellowish, milk whitish, sweet.

In moist places. Scotland.

20. *L. capsicum*, Schulz. ; pileus 3 in., chestnut, paler at disc, compact, pulvinate, dry, margin closely involute ; flesh yellowish, becoming fuscous on exposure to air ; stem solid, firm, whitish, striate, with tawny or rufescent fibrils ; gills adnato-decurrent, somewhat crowded, tawny, somewhat orange ; milk white, acrid.

In woods. Dumfries.

21. *L. chrysorheus*, Fr. (p. 206) ; 2-3 in. Epping Forest.

22. *L. acris*, Fr. (p. 207) ; 3 in.

23. **L. umbrinus**, *P.*; pileus 3 in., compact, convexo-plane, umbilicate, dry, rivuloso-floccose, umber, zoneless; stem solid, very short, white, turning greyish; gills crowded, pallid yellowish; milk acrid, white, causing grey spots.

In pine woods.

24. **L. pergamenus**, *Fr.*; pileus fleshy, pliant, convex, then plano-depressed, repand, zoneless, slightly wrinkled, smooth; stem stuffed, smooth, changing colour; gills adnate, very narrow, horizontal, very crowded, branched, white, then straw colour; milk white, acrid.

In woods. Heywood Forest. Epping Forest.

25. **L. piperatus**, *Fr.* (p. 205); 4-9 in. Epping Forest.

26. **L. vellereus**, *Fr.* (p. 206); 5-7 in. Epping Forest.

27. **L. exsiccus**, *Sm.*; pileus clothed with depressed down, fleshy, depressed, with an involute margin; stem very short, white, clothed with adpressed down; gills decurrent, connected by veins and forked, white, shaded with verdigris; whole plant rigid, brittle, milkless.

In woods. Somewhat uncommon.

28. **L. scoticus**, *B. and Br.*; pileus depressed-tomentose, then smooth, involute, margin tomentose, flesh firm; stem somewhat unequal, smooth, somewhat flesh-colour; gills thin, scarcely branched; milk persistently white, acrid.

Among moss. Aboyne. Odour pungent.

Tribe 2. DAPETES.—*Stem central; gills naked; milk at first deeply coloured.*

29. **L. deliciosus**, *Fr.* (p. 206); 2-6 in. Epping Forest.

Tribe 3. RUSSULARES.—*Stem central; gills pallid then changing colour, afterwards darker, glancing when turned to the light, at length white-pruinose; milk at first white, mild, or from mild turning acrid.*

* *Pileus at first viscous.*

30. *L. pallidus*, Fr. (p. 207); 3–6 in. Epping Forest.

31. *L. quietus*, Fr. (p. 207); 3 in. Epping Forest.

32. *L. aurantiaceus*, Fl. Dan.; pileus 1–2 in., fleshy, plane, then depressed, even, zoneless, orange; stem stuffed, smooth, same colour as pileus; flesh pallid; gills decurrent, crowded, yellowish, ochraceous; milk white, slowly acrid.

On the ground. Epping Forest.

33. *L. theiogalus*, Fr. (p. 206).

34. *L. tremor*, Fr.; pileus 1½–2 in., fleshy, thin, convex, then plane, minutely punctulate, viscid, tawny, margin striate; stem hollow, fragile, same colour; gills adnate, rather distant, pallid; milk mild, watery white.

In woods.

Var. pauper, Kars.; pileus 3 in., yellowish flesh-colour or gilvous-tan, ochraceous when dry, margin membranaceous, at length pectinately sulcate; stem equal, naked, paler than pileus; flesh without juice, slowly acrid, white.

Under larch.

35. *L. vietus*, Fr.; pileus 1½–2½ in., flesh-colour or livid-grey, somewhat papillate, plane, umbilicate, somewhat infundibuliform, margin somewhat deflexed, even, smooth, viscid, slightly silky when dry, fragile; flesh whitish; stem attenuated upwards or equal, stuffed then hollow, smooth, dry, same colour as pileus; gills, adnato-decurrent, thin, somewhat crowded, flaccid, narrow, whitish, becoming yellowish, milk white, then greyish.

In grassy woods. Stoke Poges. Glamis.

36. *L. cyathula*, Fr.; pileus 1-2 in., slightly fleshy, convexo-plane, umbonate, plano-depressed, umbo often vanishing, viscid, soon dry, opaque, rufescent-brick or flesh colour, slightly zoned, when dry livid or flesh colour, hoary-tan, rimoso-rivulose; flesh white flesh colour; stem stuffed, internally spongy-soft, equal, round, smooth, pale, then whitish; gills decurrent, crowded, thin, linear, white flesh colour, then yellowish; milk white, unchangeable, acrid.

In woods. Rare. Aboyne.

** *Pileus unpolished, squamulose, villous or pruinose.*

37. *L. rufus*, (p. 208); 3-4 in. Epping Forest.

38. *L. helvus*, Fr.; pileus 2-4 in., pale yellowish-brick-colour, then pale, fleshy, fragile, convex, then flattened and somewhat umbonate, surface broken up into granulos-squamulose flocci; flesh soft, paler than pileus; stem stuffed, sometimes hollow, firm, soft, equal, pale brick-colour, slightly pruiniate, somewhat tomentose at base; gills decurrent, crowded, in groups of eight, often dichotomous, fragile, whitish, then somewhat flesh colour, at length yellowish; milk scanty, somewhat acrid, white.

In fir wood. Grantown, Morayshire.

39. *L. tomentosus*, Otto; pileus 3 in., fleshy, at first umbonate, then depressed and infundibuliform, dingy flesh colour or rufescent, brownish, finely tomentose; gills rather decurrent, yellow flesh colour, flesh compact; stem creet, at first stuffed, becoming hollow, pallid, naked, smooth; milk whitish, mild.

On the ground.

40. *L. mammosus*, *Fr.*; pileus grey-fuscous, fleshy, at first convex, acutely umbonate, depressed as umbo vanishes, soft, clothed with adpressed down, dry, zoneless, margin involute, white-pubescent; stem short and thick, stuffed, then hollow, firm, pubescent, white, inclining to pale; gills adnate, crowded, whitish, then pallid-ferruginous; milk white, slowly acrid.

In pine woods. Holme Lacy.

Var. monstrosus, *Cke.*; pileus 3 in.; larger than type.

41. *L. glyciosmus*, *Fr.* (p. 209); 1-2 in. Epping Forest.

42. *L. fuliginosus*, *Fr.* (p. 209); 1-4 in. Epping Forest.

43. *L. picinus*, *Fr.*; pileus umber or blackish-umber, zoneless, fleshy, convex then plane, umbonate, orbicular, dry, even, villous, somewhat velvety, disc becoming smooth; flesh firm, not very thick, pallid; stem thin, stuffed, internally spongy, equal, even, smooth, paler than pileus; gills adnate, thin, very crowded, straight, plane, ochraceous; milk white, unchangeable, acrid.

In pine woods. Foxley, Hereford. Rothiemurchus.

44. *L. lilacinus*, *Lasch*; pileus 2 in., rosy-lilac, then pale, zoneless, fleshy, thin, convex, then depressed, papillate, floccose when dry, granular, fragile; stem stuffed, then hollow, white-mealy, pallid; gills adnate, somewhat distant, pallid flesh colour; milk abundant, white, acrid.

In woods. Hawthornden. Epping Forest.

45. *L. spinulosus*, *Quel.*; pileus thin, cyathiform, acutely umbonate, clad especially towards margin, with minute erect spines, of tenzoned and spotted, flesh colour, brick-red, rosy-lilac; stem hollow, slender, flexuous, rugose, granulate, fragile, shining, same colour, growing paler;

gills decurrent, narrow, thin, yellow flesh colour, at length yellowish; milk white, acrid.

On the ground.

Var. violaceus Cke.; pileus rosy-violet, margin uncurved; stem pale, almost smooth, stuffed.

On the ground.

*** *Pileus polished, smooth.*

46. *L. volemus*, Fr. (p. 207); 3 in. Epping Forest.

47. *L. ichoratus*, Fr.; pileus 3-4 in., tawny brick-colour, disc brown, zone fleshy, thin, at first rigid, then softer, obtuse, plano-depressed, often unequal, excentric, sometimes repand, even, dry, opaque; flesh pallid, stem solid, at first hard, then softer, internally spongy, equal or fusiform downwards, even, smooth, tawny, then rufescent; gills adnate, decurrent with a tooth, scarcely crowded, white, then ochraceous, not spotted; milk white, unchangeable, sweet.

In woods. Hereford.

48. *L. serifluus*, Fr. (p. 207); 1-2 in. Epping Forest.

49. *L. mitissimus*, Fr. (p. 208); 1-3 in. Epping Forest.

50. *L. subdulcis*, Fr. (p. 208); 2-3 in. Epping Forest.

51. *L. Terrei*, B. and Br.; cæspitose; pileus $\frac{1}{2}$ in., bay-brown, corrugated, depressed; stem hollow, thickened at base, same colour as pileus, clad with orange down; gills decurrent, pallid.

On the ground. Stoke Poges. Odour sweet.

The Rev. J. Stephenson considers this plant allied to

L. subdulcis; Dr. Cooke considers it to be a variety of *L. camphoratus*.

52. *L. camphoratus*, Fr. (p. 208); 1-2 in. Epping Forest.

Var. cimicarius, Batsch.; pileus plane, then infundibuliform, margin unequally sinuate, lobes convex, pulvinate, dusky ferruginous; flesh soft, dry; stem opaque, less dark in colour, hollow; gills rather broad, dusky ochre, milk, limpid, like serum.

On the ground. Epping Forest. Odour of bugs.

53. *L. subumbonatus*, Lind. Bot. Not.; pileus fleshy, thin, convex, then depressed, rather umbonate, rugose, punctate, dark cinnamon, zoneless, at length undulated, repand; flesh grey, then yellowish; stem stuffed, rufescent; gills adnate, flesh colour, then rufescent; milk watery white.

On the ground. Epping Forest. Odour foetid when old.

54. *L. ombnubilus*, Lasch; pileus 1 in., brown, fuliginous, papillate, zoneless, fleshy, thin, convex, then umbilicate, smooth, somewhat striate; stem stuffed, then hollow, thin, paler than pileus; gills somewhat crowded, yellowish; milk white, somewhat sweet.

In woods. In damp places below alder and in pastures. Greeshop, Morayshire. Glamis.

55. *L. minimus*, Sm.; pileus $\frac{1}{4}$ - $\frac{5}{8}$ in., pallid clay-colour, fleshy, pulvinate, rounded or slightly umbonate, margin incurved; stem very short, generally eccentric, same colour as gills; gills somewhat decurrent, arcuate, branched, moderately distant; milk abundant, white, mild.

In pastures and woods. Abergavenny. Forres.

Tribe 4. PLEUROPUS.—*Stem excentric or lateral; growing on trunks.*

56. L. obliquus, Fr.; white, turning yellowish; pileus fleshy, thin, plano-depressed, oblique, zoned with grey, lobate, silky; stem stuffed, then hollow, rather excentric, curved; gills crowded, white.

On trunks, etc.

10. RUSSULA, Fr. (p. 209.)

1. COMPACTÆ.—*Pileus fleshy throughout, margin at first bent inwards, without striae, without a distinct viscous pellicle, colour not variable, only changing with age; flesh compact, firm; stem solid, fleshy; gills unequal.*

1. R. nigricans, Fr.; 2–4 in. Epping Forest.

2. R. adusta, Fr. (p. 209).

3. R. albo-nigra, Kromb.; pileus fleshy, convexo-plane depressed in centre, at length infundibuliform, viscid, whitish, smoky at margin; flesh white, becoming blackish when broken; stem solid, stout, fuscous, then blackish; gills decurrent, crowded, unequal, dusky, whitish.

In grassy places. Kew. Epping Forest. Probably a variety of *R. nigricans*.

4. R. densifolia, Seer.; pileus fleshy, compact, convex, then depressed, margin inflexed, smooth, not striate, whitish, becoming fuliginous, grey or brownish, blackened in centre; flesh white, reddish on exposure to air, at length black; stem short, cylindrical, smooth, slightly pruinose, whitish, then grey, at length blackish; gills adnato-decurrent, unequal, thin, white or rosy.

On the ground.

5. *R. semicrema*, Fr. ; pileus white, compactly fleshy, convex, then plane, even, smooth, dry, disc umbilicate, margin at first involute, even ; flesh juiceless, white, unchangeable ; stem curt, solid, firm, white, when broken cinereous internally, at length black ; gills decurrent, crowded, thin, white.

In mixed woods. Glamis.

6. *R. delica*, Fr. (p. 210) ; 3-5 in. Epping Forest.

7. *R. elephantina*, Fr. ; pileus 3 in., fuscous-tan, paler at margin, not changeable, equally fleshy, firm, at first convexo-umbilicate, margin bent inwards, smooth, undulated, and almost exceeding the gills, never striate, covered with an inseparable pellicle ; flesh equal, compact, thin ; stem solid, obese, hard, even, smooth externally and internally, shining white ; gills obtuse or somewhat sinuato-adnate, areuate, somewhat crowded, thin, divided behind, unequal in front, white, becoming pale-yellowish when touched.

In woods. Stoke Poges. Inodorus.

8. *R. mustelina*, Fr. ; pileus equally fleshy, firm, convex, then depressed, opaque, margin reflexed, even ; stem solid, firm, pallid ; gills adnexed, rounded behind, crowded, connected, white, a few short ones.

In woods.

2. FURCATE.—*Pileus compact, firm, covered with a thin adnate pellicle which at length disappears, margin abruptly thin, at first inflexed, then spreading, acute, even ; stem at first compact, then spongy-soft within ; gills somewhat forked, commonly attenuated at both ends, thin and normally narrow.*

9. *R. olivascens*, Fr. ; pileus everywhere fleshy, flattened, umbilicate, olive, with the disc becoming yellow, margin even ; stem firm, white ; gills attenuated behind, crowded, almost equal, white, then turning yellowish.

In shady woods.

10. *R. fureata*, *Fr.* (p. 210); 3 in. Epping Forest.

Var. pictipes Cke.; pileus 4–6 in., plane, depressed, darker at disc, even; margin even, or at length slightly striate; stem stout, slightly attenuated downwards, rosy at apex, tinted green below, even; gills adnate, rather distant, white; cuticle of pileus separable, flesh rosy beneath.

Under trees. Taste mild.

Var. ochroviridis Cke.; pileus 4 in., at first viscid, polished when dry, with a thin adnate pellicle, ochraceous towards margin, disc olivaceous or fuliginous, margin spreading, even, acute; stem short, reticulately rugulose, white, rarely growing pallid, flesh fuliginous when cut, stuffed, spongy within; gills attenuated both ways, lanceolate, crowded, many furcate, white, becoming somewhat dirty white when old.

On the ground. Taste mild.

11. *R. sanguinea*, *Fr.* (p. 210); 2–3 in.

12. *R. rosacea*, *Fr.* (p. 210); 2–4 in. Epping Forest.

13. *R. maculata*, *Quel.*; pileus 3 in., solid, convex, then plane, viscid, reddish flesh colour, pallid, then spotted with purple or brown, margin undulate, and often darker; flesh white; stem striate, short, solid, reticulated, white or somewhat rosy, then spotted with ochre; gills attenuated behind, adnate, bifurcate, pallid sulphur, then somewhat peach-colour.

In woods. Epping Forest. Taste acrid.

14. *R. sardonia*, *Fr.* (p. 211); 2–3 in.

15. *R. depallens*, *Fr.* (p. 211). Epping Forest.

16. *R. purpurea*, *Gill.*; pileus fleshy, at first hemispherical, then convex, more or less depressed in centre, rugoso-plicate, dark purple, darker in centre, margin even,

then faintly striate; flesh yellowish, red beneath the cuticle, stem slightly incrassated at base, longitudinally striate, white at apex, rosy at middle, yellowish at base; gills rounded, broad, often bifid, white, then yellowish.

Under larch.

17. *R. cœrulea*, *P.*; pileus fleshy, convex, flattened or depressed, polished, margin even; stem spongy, solid, firm, white; gills adnate, nearly equal, turning yellowish, acute at apex.

In woods.

18. *R. drimeia*, *Cke.*; pileus 2-4 in., bright purple, compact, firm, convex, then depressed, scarcely viscid when moist and opaque when dry, margin somewhat incurved, even; stem solid, firm, cylindrical, equal, tinged with purple; gills adnexed, scarcely crowded, narrow and furcate at base, at first pale sulphur-yellow, then deeper yellow, never white.

On the ground among larch. Black Park. Taste acrid.

3. RIGIDÆ.—*Pileus without a viscid pellicle, dry, rigid, cuticle breaking up into flocci or granules; flesh thick, compact, firm, vanishing short of straight, never involute margin, soon spreading, always without striae; stem solid, hard, then softer and spongy; gills dimidiate, divided, rigid, dilated in front and running out with a broad rounded apex; margin of pileus obtuse, not inflexed; handsome,—somewhat rare.*

19. *R. lactea*, *Fr.*; pileus 2 in., white, then tan-white, compactly fleshy, campanulate, then convex, often excentric, without a pellicle, dry, at first even, then slightly cracked, margin straight, thin, obtuse, even; flesh compact, white; stem solid, compact, at length spongy-soft within, equal, even, white; gills free, broad, thick, distant, rigid, forked, white.

In mixed woods. Uncommon. Taste mild.

Var. incarnata Quel.; pileus at length depressed, farinose, then areolate, white, tinged with rose, at length tan-coloured, growing pale; flesh white; stem stuffed, firm, pruinose, white; gills adnate, broad, furcate, rigid, white, then yellowish.

Under fir trees. Epping Forest.

20. *R. virescens*, Schæff; (p. 212). Epping Forest.

21. *R. Du Portii*, Phill.; pileus $1\frac{1}{2}$ - $2\frac{3}{4}$ in., centre rufous or flesh-red, margin bluish, compact, fleshy, firm, convexo-plane, depressed, smooth, dry, margin even, obtuse; flesh turning red when cut; stem spongy-stuffed, minutely striate, glabrous, white; gills rounded behind, broad, distant, white.

In wood. Mattishall, Norfolk. Odour of crab.

22. *R. lepida*, Fr. (p. 212); 3 in. Epping Forest.

23. *R. rubra*, Fr. (p. 212). Epping Forest.

Var. sapida, Cke.; large, fleshy; pileus plane, then depressed, dark purple, shining, dry, rather viscid in wet weather, margin entire, even; flesh firm; stem straight, solid, stuffed, white, somewhat cylindrical; gills fleshy, often furcate, broad, white, entire.

Among grass. Taste mild.

24. *R. Linnæi*, Fr.; pileus 3-4 in., dark purple, blood-red or bright rose, opaque, not becoming pale, fleshy, rigid, plano-depressed, sometimes repand, even, smooth, dry, without a separable pellicle, margin spreading, obtuse, without striae; flesh thick, spongy-compact, white; stem stout, firm, spongy-soft within, somewhat ventricose, obsoletely fibrilloso-reticulate, blood-red; gills adnate, somewhat decurrent, rather thick, not crowded, broad, fragile, sparingly connected by veins, white, yellow when dry, with

a few dimidiate gills intermixed, somewhat anastamosing behind.

In woods. Stoke Poges. Taste mild. Epping Forest.

25. *R. xerampelina*, Fr.; pileus 3 in., rosy purple, disc becoming pale, fleshy, compact, convex, then flattened, at length depressed, without a distinct pellicle, dry, opaque, even, when older thinly rimulose, under a lens thinly granulated or punctate, margin spreading, without striæ; flesh compact, white, inclining to yellowish; stem stout, firm, internally at length soft, spongy, even, hollow, commonly thickened at base, even, white or reddish; gills adnexed, somewhat crowded, broader in front, forked behind, whitish, then yellowish.

In Scotch fir wood. Glamis. Taste mild. Epping Forest.

26. *R. olivacea*, Fr.; pileus dingy purple, then oliveaceous or fuscous-oliveaceous, fleshy, convexo-flattened and depressed, slightly silky and squamulose, margin spreading, even; flesh white, becoming somewhat yellow; stem firm, ventricose, rose-colour to pallid, spongy-stuffed within; gills adnexed, wide, yellow, with shorter and forked ones intermixed.

In woods. Slough. Taste mild.

27. *R. serotina*. Quel.; pileus $\frac{3}{4}$ - $1\frac{1}{2}$ in., globose, slightly flattened, purplish-bistre or olive, white-pruinose; margin lilac, extreme edge whitish, flesh tough, white; stem wrinkled, mealy; gills eroded, white, with a tinge of yellow.

Under beech. Taste acrid.

28. *R. cutefracta*, Cke.; pileus 3-4 in., green, purple, dull red, etc., fleshy, firm, dry, opaque, convex, then depressed in centre, cuticle cracking from the margin inwards into minute, firm, adnate, areolæ, otherwise even; flesh

beneath cuticle tinged with purple; stem firm, solid, nearly equal or a little attenuated above, smooth, slightly tinged with purple; gills somewhat crowded, narrowed behind, furcate, adnexed or nearly free, white.

On the ground in woods. Epping Forest, etc. Taste mild.

4. HETEROPHYLLÆ.—*Pileus fleshy, firm, with a thin margin which is at first inflexed, then expanded and striate, covered with a thin adnate pellicle; the gills consist of many shorter ones mixed with larger ones, others forked; stem solid, stout, spongy within.*

29. *R. vesca*, Fr. (p. 211). Epping Forest.

30. *R. lilacea*, Quel.; pileus $2\frac{1}{2}$ – $3\frac{1}{2}$ in., convex, then depressed, rather fleshy, viscid, violet or purple, margin growing pale, striate; flesh violet under the cuticle; then spongy, corticate, fragile, pruinose above, rosy at base; gills distant, ventricose, white, connected by veins.

In moist woods.

31. *R. azurea*, Bres.; pileus 2– $2\frac{1}{2}$ in., fleshy, convex then plane or depressed, soon dry and even, minutely granulose, margin scarcely striate, bright blue, margin sometimes lilac growing pale, cuticle separable; stem white, ventricose, or clavate at base, smooth, rugulose, firm, spongy, a little hollow when old; flesh white; gills crowded, equal, attenuated behind, adnexed, bifid, white, unchangeable.

In fir woods.

32. *R. cyanoxantha*, Schæff.; pileus 2–3 in., lilac purplish, then olivaceous-green, disc becoming pale, often yellowish, margin becoming azure blue, or livid purple, compact, convex, plane, depressed or infundibuliform, sometimes wrinkled or streaked, viscous; margin deflexed then expanded,

remotely, slightly striate ; flesh firm, white, reddish beneath the separable pellicle ; stem spongy-stuffed, firm, equal, smooth, even, shining white ; gills rounded bebind, connected by veins, not much crowded, broad, forked, shining white.

In mixed woods. Common. Epping Forest.

33. *R. heterophylla*, Fr.; (p. 211).

Var. galochroa, Fr.; smaller ; pileus at first white, then greenish, rather plane, viscid in wet weather, dry, even, sometimes sprinkled with white floceose spots, slightly striate at margin ; stem solid, firm, not red ; gills thin, more or less forked and unequal. Epping Forest.

34. *R. consobrina*, Fr.; pileus 3 in., dark cinereous, or fuscous-olivaceous, fleshy, fragile, campanulate, then expanded, at length depressed ; margin spreading, even, membranaceous ; flesh white, cinereous under the thick, viscid, separable pellicle ; stem solid, soft, equal, even, smooth, shining white, at length becoming cinereous ; gills at first free, broad, crowded, shining white, many dimidiate, and forked.

In pine woods. In mixed woods. Glamis.

Var. sororia, Fr.; pileus convex, then plane or depressed, margin striate ; stem even, white ; gills rather distant, connected by veins.

In pine woods. Epping Forest.

Var. intermedia, Fr.; pileus fleshy, depressed, viscid, margin thin, striate ; stem usually attenuated downwards, becoming cinereous and striate ; gills dirty-white.

On the ground, under trees.

35. *R. fœtens*, Fr. (p. 213); 4-5 in. Epping Forest.

36. *R. subfœtens*, Sm.; pileus bullate, somewhat viscid ; disc fleshy ; margin somewhat membranaceous, tuberculosostriate ; stem not stout ; gills thick, distant, branched.

On the ground. Smaller than *R. fætens*; odour somewhat disagreeable, taste slightly acrid. Epping Forest.

37. *R. fellea*, Fr.; pileus 1-2 in., straw-colour or yellow, disc darker, thinly fleshy, convex, then plane, polished, smooth, margin even, slightly striate when old, pellicle closely adnate, thin; flesh firm, same colour as gills; stem spongy-stuffed, then hollow, fragile, equal, even, white, then straw-colour; gills adnate, crowded, thin, narrow, obsoletely connected by veins, others dimidiate or bifid.

In beech woods. Epping Forest. Common. Very acrid.

38. *R. elegans*, Bres.; pileus 1½-2 in., fleshy, thin, convex, then rather depressed, margin tuberculous, striate when old, viscid, bright rosy flesh colour, soon ochraceous at circumference, wholly densely granulate; stem spongy-stuffed, then hollow, a little thickened at base, white ochraceous below, rather rugulose; flesh white, turning ochraceous; gills attenuated behind, adnexed or slightly rounded, very crowded, equal, rarely furcate, whitish, becoming here and there orange ochre.

In mixed woods. Acrid with age.

39. *R. Queletii*, Fr.; pileus 3 in., violaceous-black or fuscous, purple-lilac at slightly striate margin, compact, campanulato-convex, then plane, even, viscidous; flesh thin, firm, white, reddish under pellicle; stem spougy, mealy, violaceous purple; gills attenuated, unequal or forked, white, exuding drops, which on becoming dry form azure-blue, cinereous or pallid olivaceous spots.

In woods. Common. Acrid.

40. *R. expellens*, Gill.; pileus 3-4 in., fleshy, firm, rather depressed, viscid, bright purple, centre dark purple,

at length decoloured, except at disc, cuticle separable; flesh purple, stem cylindrical, firm, equal, or a little thickened at base, turning purple, mealy; gills pallid yellow, furcate at base, broad.

Under trees.

5. FRAGILES.—*Pileus more or less fleshy, rigid-fragile, covered with a continuous pellicle, in wet weather viscid and somewhat separable, margin membranaceous, at first convergent, not involute, in full grown plants sulcate and tubercular; flesh floccose, lax, friable; stem spongy, at length soft and hollow; gills almost all equal, simple, broader in front, free.*

* Gills and spores white.

41. *R. emetica*, (p. 212); 3–4 in.; flesh reddish under the separable pellicle. Epping Forest.

Var. clusii, Fr.; pileus convex, then expanded, blood-red; flesh white, turning yellowish; gills obsoletely adnexed, at length adnate, pallid, yellowish.

In woods.

Var. fallax, Schaeff.; thinner, more fragile; pileus dirty reddish, or variegatedly coloured, opaque, discoid; gills adnexed, distant, whitish, or watery pallid.

In moist places. Epping Forest.

42. *R. atropurpureus*, Kromb.; large; pileus fleshy, plane, then depressed, dark purple, shining, dry, rather viscid in wet weather, margin entire, even; flesh white; stem straight, solid, stuffed, white, somewhat cylindrical; gills fleshy, often furcate, broad, white, entire.

Among grass. Epping Forest. Hereford. Taste mild.

Fries considers this plant to be a form of *R. emetica*, but Dr. Cooke places it in Section II.—*Rigidæ*.

43. *R. fingibilis*, Britz.; pileus 2 in., yellow, convex,

then plane or depressed, viscid, darker in centre, thin towards margin, not striate; stem equal, soft, white, spongy, at length hollow; flesh white; gills rather unequal, attenuated behind, somewhat crowded, thin, white.

Under trees. Inodorous. Taste mild.

44. *R. pectinata*, Fr.; pileus 3 in., viscous, brown, becoming pale, tan, disc darker, fleshy, rigid, convex, then flattened and depressed, concavo-infundibuliform, margin thin, pectinato-sulate, here and there irregular; flesh white, light yellowish under the not easily separable pellicle; stem rigid, spongy-stuffed, longitudinally slightly striate, shining white, often attenuated at base; gills attenuato-free behind, broader at margin, somewhat crowded, equal, simple, white.

In mixed woods. Glamis. Epping Forest. Odour nauseous.

45. *R. ochroleuca*, Fr. (p. 212); 1-1½ in. Epping Forest.

46. *R. granulosa*, Cke.; pileus 2-3 in., convex, plane, then depressed or infundibuliform, at first viscid, ochraceous-yellow, disc darker, breaking up into minute granules, margin even, or faintly striate when old; stem minutely granular or mealy throughout, granules white at apex, fuscous below, internally white, spongy; gills rather crowded, somewhat attenuated behind, nearly free, equal, rarely furcate, white.

On the ground, under trees. Epping Forest.

47. *R. æraginea*, Fr.; pileus convex, then flattened, disc darker, depressed, even, rather dry, verdigris-green, margin striate; stem firm, even, smooth, white; gills attenuated behind, slightly adnexed, rather distant, white.

In woods. Taste mild.

48. *R. citrina*, *Gill.*; pileus 4–5 in., fleshy, convex, a little depressed in middle, rather viscid when moist, smooth, a little wrinkled at margin when old, bright citron-yellow or slightly greenish, sometimes a little lighter at margin, centre at length pale ochraceous, epidermis easily raised at margin; gills white, slightly decurrent, bifurcate at base and occasionally in middle, broader at marginal extremity, graduated towards base; stem solid, white, striate, equal, or slightly attenuated at base, straight or slightly flexuose; flesh white, rather firm.

In mixed woods. Taste sweet to slightly acrid. Odour none. Epping Forest.

49. *R. fragilis*, *P.* (p. 213). Epping Forest.

Var. nivea, *P.*; whole plant white.

Var. violacea, *Quel.*; pileus 1½–2½ in., depressed, thin, viscid, striate, bright violet, with a narrow white margin, sometimes spotted with yellow, green or olive; flesh soft, white; stem spongy, then hollow, fragile, slender, striate, pruinose, white; gills adnate, crowded, thin, white.

In shady woods. Epping Forest.

50. *R. punctata*, *Gill.*; pileus 2½–3 in., margin striate, attenuated, convex, then flattened, viscid, rosy, darker in centre, punctate with dark rufous point-like tubercles, becoming pale when old; flesh white, reddish under cuticle; stem stuffed, colour of pileus, attenuated at base and whitish; gills adherent, convex, white, then yellowish, edge often reddish.

In woods. Taste mild.

** *Gills and spores white, then bright yellowish, or bright lemon-yellow.*

51. *R. veternosa*, *Fr.*; pileus 2 in., rose or flesh colour, soon pale, whitish or yellowish at disc, slightly fleshy, then

plane, depressed in middle, covered with a thin, adnate, somewhat viscid pellicle, margin even, scarcely membranaceous; flesh soft, white; stem soft, spongy, hollow, fragile, even, equal, white; gills adnate, crowded, narrow, broader in front, with short ones intermixed, white, then straw colour.

In woods. Chatteris. Taste acrid.

52. *R. integra*, Fr. (p. 213); 3-4 in. Epping Forest.

Var. alba, Cke.; whole plant creamy-white.

On the ground.

53. *R. decolorans*, Fr. (p. 213); 3 in.

54. *R. aurata*, Fr. (p. 213); 2-3 in.

55. *R. Barlae*, Quel.; pileus $2\frac{1}{2}$ - $3\frac{1}{2}$ in., compact, viscid, dry, convex, even, then flattened and depressed, peach coloured, yellow, tinged with orange-red, sometimes cracked; flesh firm, turning reddish-brown when cut, white; stem fleshy, spongy, firm, silky pruinose, white; gills white, then pallid-ochraceous.

Among grass, under trees. Odour sweet, like melilot, or, according to Dr. Cooke, like crab. Taste sweet.

56. *R. nitida*, Fr. (p. 214); 2 in.

Var. cuprea, Kromb.; pileus convex, then plane, obtusely umbonate, then expanded, depressed in centre, copper colour or brick-red, turning yellowish, centre darker, smooth, rather shining, somewhat viscid, margin acute, a little inflexed, sulcate; gills broad, rather thick, equal, bright yellow or orange, arcuate; stem slender, curved, attenuated downwards, naked, white, then reddish, delicately striate, stuffed, silky shining.

In woods.

Var. pulchralis, Britz.; pileus 2 in., viscid, thin, convex, then flattened and depressed, circumference ochraceous,

centre spotted with red or purple, margin thin, deeply striate, often split; stem equal, ventricose or thickened at base, fragile, white; gills broad, distant, rather thick, whitish, then ochraceous-yellow.

In woods.

*** *Gills and spores ochraceous.*

57. *R. alutacea*, Fr. (p. 214); 2–4 in. Epping Forest

58. *R. armeniaca*, Cke.; very fragile, pileus 1–1½ in., convex, then depressed, smooth, even, peach colour, paler at edge, margin thin, even; stem attenuated upwards, smooth, white, hollow; gills adnate, rounded behind, rather broad, somewhat distant, bright ochre, almost egg-yellow.

Among grass, under trees. Epping Forest.

59. *R. puellaris*, Fr.; pileus 1–1½ in., membranaceous except at disc, conically convex and tuberculous, livid-purplish, becoming yellowish, disc brown, always darker; stem soon hollow, white, becoming yellowish; gills attenuated behind, adnate, thin, crowded, naked, white, then pallid yellow.

On waysides in woods.

Var. intensior, Cke.; pileus darker, nearly same size deep purple, nearly black at disc; stem and gills as in type.

In same places.

Var. rosipes, Secr.; pileus 2–3 in., fleshy, margin thin, convex, then flattened and depressed, soon dry, rosy flesh colour, rosy orange, or rosy with a tinge of ochre, at first spotted with whitish, at length blanched, margin shortly tuberculate, striate; flesh whitish, then rather yellowish; gills rather crowded, equal, some dimidiate or furcate, furcate behind and rounded, free, rather distant, sometimes

with an adnate tooth, ventricose, whitish then ochraceous egg-yellow, connected by veins; stem stuffed, lacunose, white, here and there sprinkled with rosy meal.

In woods. Taste and odour pleasant.

60. *R. ochracea*, *A.* and *S.*; pileus fleshy, soft, plano-depressed, thin, pellicle viscid, shining, margin thin, sulcate; flesh ochraceous; stem spongy, stuffed, soft, striate; gills touching the stem, broad, scarcely crowded, same colour.

In fir woods.

61. *R. lutea*, *Fr.* (p. 214); 1-2 in. Epping Forest.

62. *R. nauseosa*, *Fr.*; pileus variable in colour, typically purplish at disc, livid, becoming pale and whitish, laxly fleshy, thin, at first plano-gibbous, then depressed, viscid in wet weather, sulcate and somewhat tubercular at the somewhat membranaceous margin; flesh soft, white; stem spongy-stuffed, slightly striate, white; gills adnexed, ventricose, somewhat distant, light yellow, then dingy ochraceous.

In woods, chiefly pine. Coed Coch. Taste mild, but nauseous.

63. *R. vitellina*, *Fr.*; 1 in.

64. *R. chamæleontina*, *Fr.*; pileus 1-2 in., thickly fleshy, soon flattened, sometimes oblique, with a thin, separable, viscid pellicle, at first flesh colour, yellow at disc, then wholly yellow, margin even, then slightly striate; stem thin, somewhat hollow, slightly striate, white; gills more or less adnexed, thin, crowded, equal, narrow, somewhat forked, light yellow-ochraceous.

In woods. Rare. Epping Forest.

GENUS 10. **CANTHARELLUS**, Fr. (p. 215).

1. **MESOPUS**.—*Pileus entire; stem central.*

* *Pileus and solid stem fleshy.*

1. **C. cibarius**, Fr. (p. 215); 2–4 in. Epping Forest.

Var. rufipes, Gill; stem rufous at the base.

2. **C. Friesii**, Quel.; pileus somewhat orange, fleshy, thin, convex, then depressed, villous; stem solid, slender, villous at base, white, attenuated; gills narrow, fold-like, branched, yellow.

In woods. Sydenham Hill.

3. **C. aurantiacus**, Fr. (p. 215); 2–3 in. Epping Forest.

4. **C. Brownii**, B. and Br. (p. 215); $\frac{1}{2}$ in.

5. **C. carbonarius**, A. and S.; pileus date-brown, then black, somewhat fleshy, striato-squamulose, umbilicate; stem paler; gills tense and straight, white.

On charcoal heaps. Rare.

Var. radicosus, B. and Br.; slender, deeply umbilicate, floccose, black, stem rooting, pallid; gills white, narrow.

On charcoal.

6. **C. umbonatus**, Fr. (p. 216); 1 in.

7. **C. albidus**, Fr.; pileus $\frac{1}{2}$ –1 in., whitish, inclining to yellowish or rufescent, fleshy, thin, somewhat infundibuliform, irregular, somewhat repand, loose, smooth, somewhat zoned; stem solid, tough, equal or compressed, smooth, white, rarely yellowish; gills decurrent, thin, somewhat crowded, repeatedly dichotomous, white.

In mossy places. Coed Coch.

8. **C. Houghtoni**, Phil.; pileus 1–2 in., dirty white, with a tinge of flesh colour, thin, convex, umbilicate smooth; stem stuffed, slender, thickened at apex, at first

delicately fibrillose, rooting at the more or less cottony base ; gills somewhat decurrent, narrow, scarcely forked, pallid flesh colour.

On the ground. Hereford.

** *Pileus somewhat membranaceous, stem tubular, polished.*

9. **C. tubæformis**, *Fr.* (p. 216) ; 1-4 in. Epping Forest.

Var. lutescens, *Fr.* ; pileus convexo-umbilicate, rather even, somewhat regular ; stem more equal, attenuated upwards ; gills less divided.

10. **C. infundibuliformis**, *Fr.* (p. 216) ; 1-2 in. Epping Forest.

11. **C. cinereus**, *Fr.* (p. 216) ; 1-2 in.

12. **C. cupulatus**, *Fr.* ; pileus $\frac{1}{2}$ in., pallid fuscous when damp, becoming pale, somewhat rufescent, when dry membranaceous, plano-infundibuliform, repand, not zoned, when moist smooth, striate at margin, when dry even, flocculose ; stem stuffed, equal, tense and straight, tough, smooth, paler than pileus ; gills decurrent, very distant, branched and simple, broad, obtuse at edge, grey.

In waste places. Rare.

13. **C. Stevensoni**, *B. and Br.* ; pileus $\frac{1}{6}$ in., pallid, orbicular, umbilicate, smooth, margin inflexed ; stem cylindrical, delicately pulverulent, white, then darker ; gills decurrent, pallid, becoming fuscous in front.

On rotten stump among moss. Glamis.

14. **C. reflexus**, *Fr.* ; pileus membranaceous, campanulate, convex, expanded and inverted, striate, fuscous, then cinereous ; stem fistulose, smooth, thickened above ; gills adnate, decurrent, connected by veins, distant, branched and diminate, hoary white.

Among grass.

Var. devexus, Fr.; pileus cucullate, stem stuffed with a floccose pith; gills simple, cinereous.

In burnt places.

II. MERISMA.—*Stems very numerous, united into an elongated column or branched.*

No British species recorded.

III. PLEUROPIUS.—*Dimidiate, stem exactly lateral.*

15. C. muscigenus, *Fr.* (p. 217); 1 in.

16. C. glaucus, *Batsch*; grey; pileus membranaceous, strap-shaped, ascending, silky, without zones; stem lateral, short, pruinose; gills fold-like, swollen, distant, dichotomous.

On sandy slopes.

IV. RESUPINATI.—*Pileus entire, at first cup-shaped, adfixed by the vertex, then somewhat reflexed.*

* BRYOPHILI.—*Growing amongst mosses.*

17. C. retirugis, *Fr.* (p. 217); $\frac{1}{2}$ in.

18. C. lobatus, *Fr.* (p. 217); 1 in.

** LIGNATILES.—*Growing on wood.*

No British species recorded.

GENUS 12. ARRHENIA, *Fr.*

Minute, membranaceous, very tender, moderately persistent, hymeneum inferior and striate with few, delicate, slightly raised, simple, straight veins, which take the place of gills.

No British species recorded.

GENUS 13. NYCTALIS, Fr. (p. 217).

- I. SPELEÆ.—*Gills crowded, somewhat coalescent. In hollow places. These species are probably forms of others, changed in appearance owing to their place of growth.*

1. **N. caliginosa**, Sm.; pileus white when dry; marked with light and dark dull grey colours when wet, very fleshy, floccoso-pruinose when dry, margin involute, slightly exceeding the gills; stem solid, floccoso-pruinose, base naked; gills decurrent, thick, branched.

In a dark place in Bishop's Wood, Highgate. Odour and taste rank and disagreeable, like *Polyporus squamosus*.

- II. PARASITÆ.—*Gills distinct, distant. On putrid fungi.*

2. **N. asterophora**, Fr. (p. 217); $\frac{1}{2}$ – $\frac{3}{4}$ in. Epping Forest.

3. **N. parasitica**, Fr. (p. 218); $\frac{1}{2}$ –1 in. Epping Forest.

GENUS 14. MARASMIUS (p. 218).

- I. COLLYBIA.—*Pileus fleshy-pliant, at length somewhat coriaceous, sulcate or wrinkled, margin at first involute, stem somewhat cartilaginous, mycelium floccose when manifest.*

A. SCROTEI.—*Stem solid, or stuffed with a pith, then hollow internally fibrous, externally clad with villous down which is easily wiped from the cartilaginous cuticle.*

* *Stem woolly or strigose at base.*

1. **M. urens**, Fr. (p. 218); 2–3 in. Epping Forest.

2. **M. peronatus**, Fr. (p. 218); 1–2 in. Epping Forest.

3. **M. porreus**, Fr. (p. 219); 1–2 in.

** *Stem naked at base, often composed of twisted fibres.*

4. **M. oreades**, Fr. (p. 219); 1–2 in. Epping Forest.

5. **M. plancus**, Fr.; pileus fleshy, tough, plane, then

depressed, obtuse, even, growing pale; stem hollow, soon compressed, with a villous white bark, rather attenuated and naked at base; gills receding, free, distant, linear, darker.

In woods.

6. *M. scorteus*, Fr.; pileus $\frac{1}{2}$ in., pale when dry, slightly convex, scarcely umbonate, even, not striate at margin, slightly wrinkled when dry; stem obsoletely fistulose, thin, filiform, equal, not rooted, smooth, delicately pruinose at apex, contorted and fuscous when dry; gills free, broad, rounded behind, ventricose, white.

In grass among trees. Moncreiffe.

B. TERGINI.—*Stem rooting, tubular, not fibrous, cartilaginous; gills separating-free; pileus thinner than in former section, hygrophanous, sometimes even, sometimes striate at margin.*

* *Stem woolly downwards, smooth upwards.*

7. *M. prasiosmus*, Fr.; pileus rather membranaceous, tough, campanulate, then convex, flattened, obtuse, rugulose; stem fistulose, pallid above, becoming smooth, incrassated downwards, pale rufous or fuscous, somewhat tomentose; gills adnexed, a little crowded, at first white.

Among leaves. Strong scented.

8. *M. varicosus*, Fr.; pileus $\frac{1}{2}$ in., fuscous purple, darker when dry, somewhat membranaceous, pliant, campanulate, then convex, plane, umbonate, even; stem thin, fistulose, rubiginous, blackish when dry, smooth above, containing dark blood-coloured juice; gills separating-free, crowded, linear, narrow, same colour as pileus, becoming dark, umber-fuscous when dry.

In damp mossy places. Apethorpe.

9. *M. fusco-purpureus*, Fr. (p. 219); $\frac{1}{2}$ -1 in. Epping Forest.

10. **M. terginus**, *Fr.* = **M. Stephensii**, *B. and Br.* (p. 220); pileus 1 in., flesh colour, whitish when dry, shining, tough, slightly fleshy, convex, then plane, at length depressed, margin striate when moist; stem fistulose, slightly attenuated upwards, smooth, shining and pallid upwards, reddish downwards, white villous at rooting base; gills separating-free, somewhat crowded, narrow, pallid.

Among leaves, beech, etc. Dursley. Epping Forest.
Inodorous, juiceless, solitary.

** *Stem when dry, pruinato-velvety.*

11. **M. Wynnei**, *B. and Br.* (p. 219); 1-1½ in.

12. **M. erythropus**, *Fr.* (p. 220); 1 in. Epping Forest.

13. **M. archyropus**, *Fr.* (p. 220); 1 in.

M. torquescens, *Quel.*

The specimens named as above, from Glamis, in Mr. Berkeley's herbarium at Kew, have, according to Dr. Cook, brown spores, and belong to *Naucoria*.

14. **M. impudicus**, *Fr.*; pileus ½-1 in., gregarious, bay-brown-rufous, pale when dry, slightly fleshy at disc, convex then plane, often depressed, soft, membranaceous, striato-plicate, paler from circumference to middle; stem fistulose, equal, sometimes compressed, rooting at attenuated base, tough, flexible, naked, rufous, rufous-fuscous or violaceous-purple, but covered with white villous down when dry; gills at first reaching stem, then free; truncate behind, connected by veins, ventricose, crowded, distant whitish flesh colour.

On and about pine trunks. Hanham. Odour strong and disgusting.

c. CALOPODES.—*Stem curt, rootless, inserted, often furnished with a fleshy tubercle at base; pileus convexo-involute, then plane and depressed; gills typically adnate, slightly decurrent when pileus is depressed. On stipules, branches, etc., gregarious, arid.*

* *Stem smooth and shining upwards, base simple.*

15. **M. scorodonius**, Fr. (p. 220); $\frac{1}{2}$ in.

16. **M. calopus**, Fr.; pileus $\frac{1}{2}$ in., whitish, slightly fleshy, tough, convex, then flattened, obtuse, rarely depressed, even smooth, slightly wrinkled when dry; stem fistulose, slightly attenuated upwards, even, smooth, tough, rufous, or bay-brown-rufous, shining, somewhat rooted; gills slightly emarginate, then white.

On twigs. Bristol. Inodorous.

17. **M. Vaillantii**, Fr. (p. 221); $\frac{1}{2}$ in.

18. **M. angulatus**, B. and Br.; pileus fuscous-whitish, somewhat membranaceous, hemispherical, then flattened, at length plicato-angular; stem thin, rufescent-grey, thickened at both ends, hairy at base; gills distant, whitish.

On grass. Cefn, Denbighshire, above bone cave.

19. **M. languidus**, Fr.; pileus $\frac{1}{2}$ in., white, inclining to flesh colour or light yellow, slightly fleshy, at first convex, margin involute, then more expanded and umbilicate, flocculose, rugoso-sulcate; stem stuffed, thickened upwards, naked, pallid, becoming fuscous, and commonly white-villous at base; gills adnate, then decurrent, distant, connected by veins, narrow, white.

On dead leaves of grass. Coed Coch.

** *Stem velvety or pruiniate with a somewhat tubercular base.*

20. **M. foetidus** Fr. (p. 221); $\frac{1}{2}$ in.

21. **M. amadelphus** Fr. (p. 221); $\frac{1}{2}$ in.

22. **M. ramealis**, *Fr.* (p. 221); $\frac{1}{2}$ in. Epping Forest.
23. **M. candidus**, *Bolt.* (p. 222).
- II. MYCENA.—*Stem horny, fistulose, or with a pith, tough, aril, mycelium rhizomorphoid, corticate not floccose; pileus somewhat membranaceous, campanulate then expanded, margin at first straight, adpressed to stem.*
- A. CHORDALES.—*Stem rigid, rooting, or adnate by a dilated base; pileus campanulate or convex.*
24. **M. alliaceus**, *Fr.* (p. 223); 1- $1\frac{1}{2}$ in.
25. **M. caulinodalis**, *Fr.*; pileus $\frac{1}{2}$ in., dingy yellow, becoming ferruginous, then ochraceous, membranaceous, thin, pliant, campanulate, then convex, obtuse, at length plane, striato-sulcate; stem fistulose with a pith, rigid, tough, floccoso-villous and bay-brown below, attenuated, paler and mealy upwards, somewhat inserted at base; gills adnato-decurrent, somewhat distant, connected by a network of veins, pallid light yellow.
- Among leaves. Rare.
26. **M. cohærens**, *A. and S.*; pileus rather fleshy, campanulate, then expanded, obsoletely umbonate, velvety, cinnamon-brown, growing pale; stem horny, rigid, even, smooth, shining, bay, pallid above; gills free, distant, connected by slight veins, white, then yellowish, growing pallid.
- On bramble. Epping Forest.
- B. ROTULÆ.—*Stem filiform, flaccid, inserted at base, pileus soon rather plane or umbilicate. Growing on leaves.*
- * *Stem very smooth, shining.*
27. **M. rotula**, *Fr.* (p. 222); $\frac{1}{3}$ in. Epping Forest.
28. **M. graminum**, *B. and Br.* (p. 222); $\frac{1}{4}$ in.

29. **M. androsaceus**, *Fr.* (p. 222); $\frac{1}{4}$ in. Epping Forest.

30. **M. splachnoides**, *Fr.*; pileus somewhat membranaceous, convex, then exapauded and umbilicate, smooth, striate; stem horny, fistulose, smooth, shining, red, becoming fuscous; gills somewhat decurrent, crowded, simple, anastomosing, white.

Among pine leaves. Cabalva, Foxley.

31. **M. Curreyi**, *B. and Br.*; pileus pallid rufous, furrows paler, umbo fuscous, somewhat plane, sulcate, somewhat radiate; stem inserted, very smooth, shining, black, white at apex; gills attached to a collar, few, somewhat ventricose, cream coloured, interstices veined.

On leaves of grasses. Fineshade, Norths.

** *Stem velvety or pilose.*

32. **M. perforans**, *Fr.* (p. 223); $\frac{1}{3}$ in.

33. **M. insititius**, *Fr.* (p. 223); $\frac{1}{2}$ in.

34. **M. Hudsoni**, *Fr.* (p. 223); $\frac{1}{6}$ in. Epping Forest.

35. **M. epichloe**, *Fr.*; pileus whitish, bay-brown fuscous in centre, thin, plano-convex, somewhat papillate, without striæ; stem bay-brown, opaque, sulcato-striate, striæ slightly bristly, paler at base; gills rounded, somewhat crowded, broader behind.

On the base of grasses. Hereford.

36. **M. actinophorus**, *B. and Br.*; small; pileus convex, umbilicate, bay-brown, radiately lined, rugose when dry; stem hair-like, pallid; gills white.

On twigs, etc.

37. **M. saccharinus**, *Fr.* (p. 224).

38. **M. epiphyllus**, *Fr.* (p. 224); $\frac{1}{4}-\frac{1}{2}$ in. Epping Forest.

39. **M. polyadelphus**, *Lasch*; minute, white, rather tough; pileus very thin, hemispherical, sulcate, flocculose; stem tough, floccose at base; gills decurrent, almost fold-like
On dead leaves.

III. **APUS**.—*Pileus sessile, resupinate.*

40. **M. spodoleucus**, *B. and Br.* (p. 224); $\frac{1}{4}$ in.

41. **M. Broomei**, *B.*; half-resupinate, pallid brown, then striate, black; hymenium, shining white; gills distant, veined, interstices even.

On dead twigs. Batheaston. Dr. Cooke states, from an examination of the examples in the Berkeley Herbarium, Kew, that the last two species are identical with each other; if this conclusion is correct, it is remarkable that Mr. Berkeley should have described an unique species twice and in different terms.

GENUS 15. **LENTINUS**, *Fr.* (p. 224).

I. **MESOPODES**.—*Pileus nearly entire, stem distinct.*

* **LEPIDELI**.—*Pileus scaly; more or less manifestly veiled.*

1. **L. tigrinus**, *Fr.* (p. 224); 2 in.

2. **L. Dunalii**, *Fr.* (p. 225); 2 in.

3. **L. lepideus**, *Fr.* (p. 225); 2-4 in. Epping Forest.

** **PULVERULENTI**.—*Pileus villous or pulverulent.*

4. **L. leontopodium**, *Schulz.*; pileus tan-clay-colour, fleshy-coriaceous, tough, irregular, delicately tomentose, disc depressed, margin deflexed, slightly lobed; stem thick, woody, unpolished, pulverulent, pale chestnut, blackish downwards; gills decurrent, connected by veins, wrinkled at side, serrated at edge.

On decayed willow. Menmuir, Forfarshire.

5. **L. pulverulentus**, *Fr.*; tufted; pileus 2 in., yellow, mealy-white or mealy-umber, fleshy-pliant, at first infundi-

buliform, lateral flabelliform, convex; stem stout, elongated, equal, rigid, mealy-white; gills slightly toothed or decurrent, white.

On dead trunks. Glamis.

Var. resinaceus, *Fr.*; somewhat cæspitose; pileus ochraceous-cinnamon, somewhat fleshy, pliant-excentric, somewhat gummy-villous; stem unequal, tomentose; gills crowded, serrated, shining white.

On trunks. Forres.

6. *L. adhærens*, *Fr.* (p. 225).

*** COCHLEATI.—*Lobed and twisted in shape; pileus smooth.*

7. *L. cochleatus*, *Fr.* (p. 226); 2–3 in. Epping Forrest.

II. PLEUROTI.—*Dimidiate, sessile or furnished with a somewhat lateral stem.*

8. *L. scoticus*, *B. and Br.*; pileus $\frac{1}{2}$ – $1\frac{1}{2}$ in., pallid, then brownish, hygrophanous, umbilicate, sometimes infundibuliform, at length flattened, extremely variable in form, stemless and reniform, or stipitate, lobed at margin and sinuate or plicate; stem when present cylindrical, darker, pulverulent, springing from a brown fibrillose mycelium; gills decurrent when the stem is developed, rather distant, strongly toothed.

On decayed *Ulex*, birch and spruce. Menmuir.

9. *L. fimbriatus*, *Curr.*; pileus $\frac{1}{2}$ –1 in., fawn-colour, covered with darker floccose scales, somewhat dimidiate, somewhat coriaceous, thin, depressed, sometimes almost cyathiform, margin slightly involute, almost strigose; stem lateral, rough, with somewhat reflexed scales, same colour as gills, or rather paler; gills descending, but not decurrent, irregularly serrated and torn at margin, pale brown.

10. *L. vulpinus* (p. 226); 3 in.

11. *L. flabellæformis* (p. 226); 1 in.

GENUS 16. **PANUS** (p. 226.)

* *Pileus irregular, stem excentric.*

1. *P. conchatus*, *Fr.* (p. 227); 2–4 in.
2. *P. torulosus*, *Fr.* (p. 226); 2–3 in. Epping Forest.

** *Stem lateral.*

3. *P. stypticus*, *Fr.* (p. 227); $\frac{1}{2}$ –1 in. Epping Forest.
4. *P. farinaceus*, *Schum.*; pileus cinnamon-umber, somewhat coriaceous, flexuous, cuticle separating into whitish bluish-grey scurf; stem short, lateral, same colour as pileus; gills determinately free, distinct, paler.

On a fir pole. Glamis. Epping Forest.

Var. albido-tomentosus, *Cke.* and *Mass.*; pileus 1 in., often imbricated; stem sometimes absent or attached to a villous base; gills attenuated behind, lanceolate, honey colour, entire, rigid, scarcely crowded, mixed with shorter ones.

*** *Pileus resupinate, sessile, or extended behind.*

5. *P. patellaris*, *Fr.*; pileus $\frac{1}{2}$ in., pallid externally, resupinate, coriaceous, orbicular, plano-cup-shaped, adnate by the sessile vertex, margin free, involute, purpuraceous-villous externally; gills concurrent in a central point, crowded, entire, arid, dark ochraceous.

On cherry. Forres.

6. *P. Stevensonii*, *B.* and *Br.*; pileus ochraceous light-yellow, spathulate; flesh greenish yellow; stem dilated upwards, convex and golden, slightly hispid; gills narrow, entire.

On oak. Glamis.

GENUS 17. XEROTUS (p. 227.)

1. **X. degener**, *Fr.* (p. 227); $1\frac{1}{2}$ in.

GENUS 18. TROGIA *Fr.*

Gills fold-like, edge longitudinally channelled, or in the single European species, crispid.
Reviving with wet.

1. **T. crispa**, *Fr.*; $\frac{1}{2} \times 1$ in. Formerly placed in *Craterellus*.

- = **C. crispus**, *Fr.* (p. 266).

GENUS 19. SCHIZOPHYLLUM (p. 228.)

1. **S. commune**, *Fr.* (p. 228); 1 in.

GENUS 20. LENZITES (p. 228.)

* *On wood of deciduous trees.*

1. **L. betulina**, *L.*; 1–2 in. Epping Forest.

2. **L. flaccida**, *Bull.*

* *On wood of coniferous trees.*

3. **L. sepiaria**, *Fr.*; 1–3 in.

4. **L. abietina**, *Fr.*; $\frac{1}{2}$ in. \times 12 in.

ORDER 2. POLYPOREI (p. 229.)

GENUS 21. BOLETUS *Fr.* (p. 229.)

Series 1. **EUCHROI**.—*Tubes bright-coloured, commonly yellow, not white or grey.*

- A. **VISCIPELLIS**.—*Pileus covered with a viscous pellicle: stem solid, not bulbous or reticulated with veins; tubes adnate to the stem, rarely sinuate, of one colour.*

1. **B. luteus**, *Fr.* (p. 229); 2–4 in.

2. *B. elegans*, Schum. (p. 229); 2-4 in. Epping Forest.

3. *B. flavus*, With. (p. 230); 2-3 in. Epping Forest.

4. *B. flavidus*, Fr.; pileus 1-2 in., livid light yellowish, gibbous, then plane, viscous, flesh pallid; stem somewhat equal, pallid, sprinkled with fugacious glandules above the viscous ring; tubes decurrent; pores large, angular; compound, dirty light yellow. *Kromb. t. 4 f. 35-37.*

In pine woods. Rannoch.

5. *B. collinitus*, Fr.; pileus becoming pale when the fuscous gluten separates, pulvinate, even; flesh white; stem firm, attenuated downwards, ringless, white, becoming fuscous, somewhat reticulated with adpressed squamules; tubes adnate, elongated; pores divided in two, pallid, thin, yellow, naked. *Kromb. t. 76, f. 10, 11.*

In fir woods. Ascot.

6. *B. granulatus*, L. (p. 230).

7. *B. tenuipes*, Cke.; pileus gilvous, viscid, streaked with minute fibrils when dry; stem attenuated at base, yellow, becoming rufescent; pores adnate, with faint decurrent lines on top of stem; flesh under the pileus roseate pink.

On the ground in woods. Epping Forest.

8. *B. aurantiporus*, Howse; pileus 2 in.; at first ferruginous, then pale gilvous, pulvinate, then expanded, viscid, at length squamulose about the margin; stem equal, beautifully reticulated with yellow and red; tubes deeply decurrent; pores broad, angular, golden yellow, then orange, turning red when bruised; flesh becoming slightly reddish.

Under trees. Near Shere.

9. *B. bovinus*, L. (p. 230); 2 in. Epping Forest.

10. *B. badius*, Fr. (p. 231); 3-6 in. Epping Forest.

11. *B. sanguineus*, *With.* (p. 231) $\frac{3}{4}$ — $1\frac{1}{2}$ in.
12. *B. piperatus*, *Bull.* (p. 231); 1—3 in. Epping Forest.

b. SUBTOMENTOSI.—*Pileus* destitute of a viscid pellicle, *villous* when young, rarely becoming smooth; stem not bulbous, or reticulated with veins; here and there rugose or striate; tubes adnate to stem; flesh rarely changing colour; tubes of one colour.

13. *B. variegatus*, *Sw.* (p. 231); 3—5 in.
14. *B. sulphureus*, *Fr.*; cæspitose; pileus sulphur-yellow, compact, convex, then plane, silky-tomentose, with innate flocci; flesh light yellow, more or less blue when broken, golden when exposed to the air, here and there reddish near the tubes; stem firm, ventricose, even, smooth, sulphur-yellow, at length dingy-ferruginous; tubes adnato-decurrent, short, changeable on being touched, at length ferruginous spotted; pores minute, compound, sulphur-yellow, at length green.

Among sawdust. Loch-an-Eilan, Rothiemurchus. Springing from golden woolly mycelium.

15. *B. striæpes*, *Seer.* (p. 232); 2— $2\frac{1}{2}$ in.
16. *B. chrysenteron*, *Fr.* (p. 232); 2—3 in. Epping Forest.

17. *B. subtomentosus*, *L.* (p. 232); 3 in. Epping Forest.
Var. *radicatus*, *Kromb.*; somewhat verdigris green.
Epping Forest. *Kromb.* t. 48 f. 1—6.

18. *B. spadiceus*, *Schaeff.*; pileus date-brown, opaque, pulvinato-expanded, moderately compact, dry, tomentose, then widely cracked; flesh white, unchangeable, fuscous-reddish above; stem firm, clavate, even, flocculoso-furfuraceous, yellow, inclining to fuscous; tubes adnate,

yellow; pores minute, somewhat round. *Kromb.* t. 36, f. 19, 20.

In mixed woods. Glamis.

19. **B. radicans**, *P.*; pileus olivaceous-cinereous, then pale yellowish, pulvinate, dry, somewhat tomentose, margin thin, involute; flesh light yellow, becoming dark azure-blue; stem attenuato-rooted, even, light yellow, flocculose, with reddish pruina, naked, dark when touched; tubes adnate; pores unequal, large, lemon yellow. *Opatowsky. Bolet.* t. 1.

In woods. Epping Forest. Taste bitterish.

20. **B. rubinus**, *Sm.*; pileus 2-3 in., yellow-fuscous, pulvinato-gibbous, then plane, dry, somewhat tomentose, slightly cracked; flesh vivid yellow, wholly unchangeable; stem yellow, smeared with crimson, irregular; tubes somewhat decurrent, compound, medium size, wholly carmine. *Jour. Bot.* 1868, t. 75, f. 1-4.

Under trees. Caddington, Dunstable, Epping Forest.
In mixed woods.

c. SUBPRUINOSI.—Tubes adnate to stem, yellowish; stem equal, even, not bulbous or reticulated; pileus smooth or pruinose.

21. **B. versicolor**, *Rostk.*; pileus convex, then plane, dry, even, smooth, or pulverulent, blood-red; flesh yellow; stem solid, firm, smooth, more or less equal, base yellow; tubes rounded behind, adnate, yellow; pores large, angular. *Rostk.* t. 10.

In beech woods. Epping Forest.

22. **B. pruinatus**, *Fr.*; pileus 2 in, purplish bay-brown, umber-pruinose, convex, then plane, rigid, dry; flesh white, obsoletely green or azure-bluish; stem firm, somewhat ventricose, even, smooth, variegated yellow and reddish;

tubes adnate, light yellow; pores minute, round. *Bull.* t. 393, f. b.c.

On grassy ground. Kew.

23. *B. parasiticus*, *Bull.* (p. 231); 1-2 in. Epping Forest.

D. CALOPODES.—*Stem stout, at first bulbous, in typical species reticulated with veins; tubes adnate; pores not reddish.*

24. *B. variecolor*, *B. and Br.*; pileus olivaceous, convex, somewhat tomentose, margin involute; flesh dark purple under the cuticle; stem bulbous, attenuated upwards, reticulated at apex, yellowish downwards, rufescent and delicately pubescent upwards; tubes minute, free, yellow. *B. and Br. n.* 1020, *t. 13, f. 3.*

In woods, etc. Uncommon.

25. *B. calopus*, *Fr.* (p. 232); 4 in. Epping Forest.

26. *B. olivaceus*, *Schæff.* (p. 233); 2-3 in.

27. *B. pachypus*, *Fr.* (p. 233); 4-8 in. Epping Forest.

28. *B. candicans*, *Fr.*; pileus 4-8 in., leathery, smooth and polished when dry, dirty white, with a faint greenish tinge, margin irregular, somewhat crenate; stem lemon-white, reticulated, solid; flesh changing rapidly from white to indigo-blue on exposure to air; tubes lemon; orifices uneven and irregular. *S. and Sm. Myc. Ill. t. 17.*

In open spaces among grass. Epping Forest.

E. EDULES.—*Tubes not reddish at orifice, rounded and depressed about stem, somewhat free; stem stout, bulbous, not (except in B. edulis) reticulated, or dotted with small scales or red colour; flesh scarcely changing colour; taste pleasant.*

29. *B. edulis*, *Bull.* (p. 234); 3-6 in. Epping Forest.

30. *B. æreus*, *Bull.*; pileus small, olivaceous-fuscous somewhat blackish, pulvinate, smooth, somewhat pelliculose;

flesh white, becoming yellow on exposure to air; stem stout, somewhat reticulated, yellowish, fuscous at base; tubes minute, somewhat free, sulphur-yellow. *Bull.* t. 321.; *var.* t. 385. *Kromb.* t. 36 f. 1.7. *Quel.* t. 16, f. 2. *Rost.* t. 15.

In woods. Surrey.

31. *B. fragrans*, *Vitt.*; pileus fuscous-umber, pulvinate, repand, somewhat tomentose, margin inflexed; flesh yellow, unchangeable, or becoming green or azure-blue, at length becoming red; stem stout, at first ovato-bulbous, often fusiform at the base, even, variegated yellowish and red; tubes half free; pores minute, round, yellow, becoming green.—*Vitt.*, t. 19; *Ventur.*, t. 33, f. 3-5; *Kromb.*, t. 75, f. 15-21.

In woods, under oak, etc.

32. *B. impolitus*, *Fr.* (p. 234); 4 in. Epping Forest.

33. *B. aestivalis*, *Fr.* (p. 234); 6-8 in. Epping Forest.

f. LURIDI.—*Tubes rounded towards stem, free; pores at first closed, red; pileus compact, then soft, pulvinate; fleshy, juicy, changing colour; stem stout, at first curt, bulb-shaped, then elongated and nearly equal, somewhat reticulated or dotted. Growing chiefly in deciduous woods. Said to be poisonous.*

34. *B. satanas*, *Lenz.* (p. 233); 4-8 in. Epping Forest.

35. *B. luridus*, *Schæff.* (p. 233); 4-8 in. Epping Forest.

36. *B. erythropus*, *P.* (p. 233). Epping Forest.

37. *B. purpureus*, *Fr.* (p. 234). Epping Forest.

Series II. TEPHIROLEUCI.—*Tubes at first white or grey.*

g. FAVOSI.—*Tubes large, angular, unequal, adnate to stem, often shortened around it, not forming a roundedly-free stratum.*

38. *B. laricinus*, *B.* (p. 230); 2-3 in. Epping Forest.

39. *B. viscidus*, *L.* (p. 235).

H. VERSIPELLES.—*Tubes minute, round, equal, crowded together in a convex stratum which is free from the stem; spores ferruginous.*

40. **B. versipellis**, Fr. (p. 235); 2–5 in. Epping Forest.

41. **B. scaber**, Fr. (p. 235); 2–7 in. Epping Forest.

42. **B. duriusculus**, Kalchb.; pileus 2–5 in., globose then hemispherical, soft, smooth, viscid when moist, whitish tawny then dirty chestnut colour or olivaceous; flesh white, becoming coppery-red, passing into greyish-violet on exposure to air; stem attenuated at base, ventricose, whitish, normally densely punctate with delicate umber squamules; tubes free, elongated, thin, livid, becoming tawny; pores white, at length same colour.

In woods. Epping Forest. Said to be “edible and delicious.”

43. **B. cruentatus**, Vent.; pileus 3 in., convex, rather velvety, then plane, smooth, at length rugulose, gilvous; stem thick, rather bulbous, attenuated downwards into a rooting base, and upwards into pileus; flesh yellowish, turning blood red, especially near top of stem when cut; pileus stained red where touched or bruised; tubes adnate; pores small, simple, yellow.—*Vent. Mic. t. 43, f. 3–4.*

Under beech. Kew. Odour foetid.

I. HYPERPODII.—*Tubes adnate to stem, whitish; spores rosy then white flesh-colour.*

44. **B. felleus**, Bull. (p. 236); 3–4 in. Epping Forest.

45. **B. alutarius**, Fr. (p. 235).

K CARIOSI.—*Stem externally never reticulated, internally stuffed with a spongy pith, at length commonly hollow; tubes at first white, then often light yellowish; pores minute, round; spores white.*

46. *B. cyanescens*, Bull. (p. 236); 2–5 in.

47. *B. castaneus*, Bull. (p. 236); 2–3 in. Epping Forest.

48. *B. fulvidus*, Fr.; pileus convexo-plane, rigid as well as the stem, which is stuffed, then hollow, equal, firm, even, smooth, shining, growing dusky; flesh white, then yellowish; tubes free, elongated; pores white, then lemon-yellow.—*Rostk. t. 45.*

Under trees. Kew.

Subgenus I. GYRODON, Opat.—*Pores sinuous or gyroso-plicate; tubes very short, slightly adnate to hymenophore.*

No British species recorded.

Subgenus II. BOLETINUS, Kalch.—*Hymenophore not even, but with projecting points which descend like a trama between the tubes; stem annulate.*

No British species recorded.

Of uncertain affinity.

49. *B. carnosus*, Rostk.; compact; pileus fuscous, pulvinate, smooth; flesh pallid, dirty yellowish; stem short, firm, somewhat striate, rufescent, light yellow; tubes adnate, depressed round stem, dark yellow; pores rather large, angular, same colour.—*Rostk. t. 14.*

In woods. Stoke Poges.

GENUS 22. STROBILOMYCES B. (p. 236.)

1. *S. strobilaceus*, B.; 2–4 in.

GENUS 23. FISTULINA (p. 257.)

1. *F. hepatica*, Fr.; 6–12 in.

GENUS 24. POLYPORUS (p. 237.)

I. MESOPUS.—*Pileus entire or excentric; stem distinct, vertical, simple, same colour at base, not definitely blackish.*

A. CARNOSI.—*Pileus fleshy, fragile or pliant, not coriaceous, zoneless; white spored; growing on the ground; autumnal.*

* *Pileus unpolished, scaly or floccose.*

1. **P. leucomelas**, Fr.; pileus 2–3 in., fuliginous, fleshy, somewhat fragile, irregular, slightly silky squamulose; flesh white, reddish when broken; stem stout, equal or unequal, somewhat tomentose, sometimes tuberous and becoming black internally, same colour as pileus; pores rather large, unequal, cinereous whitish.

In fir wood. Rothiemurchus.

** *Pileus polished, very smooth.*

No British species recorded.

B. LENTI.—*Pileus fleshy-pliant then coriaceous, zoneless; white-spored; growing on trunks; persistent.*

* *Pileus unpolished, scaly or villous.*

2. **P. latus**, Berk. (p. 237); 1½ in.

3. **P. brumalis**, Berk. (p. 237); 1–4 in.

** *Pileus even, smooth.*

4. **P. fuscidulus**, Fr. (p. 237); 1–2 in.

5. **P. leptocephalus**, Fr. (p. 237); 1 in.

C. SPONGIOSI.—*Pileus at first spongy-soft, absorbing water, tomentose, then corky or coriaceous; stem curt, irregular; pores irregular, pruinose, changing colour; spores white; generally terrestrial; mostly rare.*

6. **P. Schweinitzii**, Fr. (p. 238); 8 in. Epping Forest.

7. **P. rufescens**, Fr. (p. 238); 2–4 in. Epping Forest.

- D. SUBCORIACEI.**—*Pileus* at first indurated, arid, then corky or coriaceous; stem definite; pores at first sprinkled with a white bloom; substance ferruginous; growing on the ground or on trunks; more rigid than the *Spongiosi*; more regular and persistent; not reviving.

* *Pileus tomentose, velvety.*

8. **P. perennis**, Fr.; 1½–3 in. Epping Forest.

** *Pileus very smooth.*

No British species recorded.

- II. PLEUROPS.**—*Pileus* pliant or corky, horizontal, not circular; stem simple, ascending, corticate, either definitely lateral or excentric, always black at base; growing on wood.

- A. LENTI.**—*Pileus* fleshy-pliant; stem excentric, blackish at base; tubes short; substance pallid, somewhat fibrous.

* *Pileus scaly or floccose.*

9. **P. squamosus**, Fr. (p. 238); 3–16 in. Epping Forest.

10. **P. Michelii**. Fr.; pileus 2–3 in., yellowish-white, fleshy-pliant, depressed, repand, slightly silky, somewhat squamulose; stem somewhat lateral, bulbous, rough, white, becoming fuscous at base; pores large, somewhat round-oblong, entire, white.—*Rostk.* t. 1; *Mich.* t. 61, f. 2.

On stumps. Penzance.

11. **P. melanopus**, Fr.; pileus 2–3 in., white, then yellowish-fuscous, fleshy-pliant, plane, then infundibuliform, at first delicately flocculose, then smooth; flesh thick, white, soft, not becoming woody; stem excentric, somewhat velvety, incurved, thickened downwards, black; pores decurrent, curt, minute, obtuse, unequal, white. *Rostk.* t. 4.

On dead wood and roots. Uncommon.

** *Pileus even, very smooth.*

12. **P. Rostkovii**, Fr. (p. 238); 6 in.

13. **P. picipes**, Fr. (p. 238); 6 in.

14. **P. varius**, Fr. (p. 238); $\frac{1}{2}$ -4 in. Epping Forest.

15. **P. elegans**, Fr. (p. 238); 2-4 in. Epping Forest.

Var. nummularius, Fr.; pileus 1 in., smaller, thinner, somewhat regular; stem equal, excentric.

On trunks.

16. **P. petalooides**, Fr.; pileus chestnut-fuscous, somewhat membranaceous, spathulate, rugose, smooth, zoneless, flaccid when moist; stem lateral, compressed, smooth, not rooting, whitish, adnate at the dilated shield-like base; pores decurrent, short, small, white.

On old stumps. Sibbertoft.

B. SUBEROSI-LIGNOSI.—*Pileus thick, hard, zoneless; stem stout, vertical, same colour at base; pores elongated.*

17. **P. lucidus**, Fr. (p. 240); 2-6 in. Epping Forest.

III. MERISMA.—*Many pileoli proceeding from a common trunk or tubercle, arising from subdivision of primary pileus; the largest of all fungi.*

A. CARNOSI.—*Pileus fleshy, firm, floccoso-fibrous, zoneless, not coriaceo-indurated; tufts central, stipitate, springing from a common base; in slender forms resembling a central, simple, lobed pileus; pores separating from pileus; white spored; partially growing on the ground; all said to be edible.*

18. **P. umbellatus**, Fr.; very much branched, fibrous-fleshy, toughish; pileoli very numerous, $\frac{1}{2}$ - $1\frac{1}{2}$ in., fuliginous, rufous or pallid light-yellow, entire, umbilicate; stems elongated, separate, united at base, white; pores minute, white.—Kromb. t. 52, f. 3-9; Lenz. f. 44; Trat-

ten. t. T.; *Quel. t.* 18, *f.* 1; *Schäff. t.* III., 265, 266
Jacq. Austr. t. 172; *Fl. Dan. t.* 1197.

On stump. Epping Forest.

19. *P. frondosus*, Fr.; tufts 6–12 in.; very much branched, fibrous-fleshy, toughish; pileoli very numerous, $\frac{1}{2}$ –2 in., fuliginous-grey, dimidiate, rugose, lobed, intricately recurved; flesh white; stems growing into each other, white; pores rather tender, very small, acute, white.—*Sv. ätl. Sv. t.* 44; *Kromb. t.* 48, *f.* 17–20; *Rostk. t.* 18; *Fl. Dan. t.* 952; *Paul. t.* 29; *Sterb. t.* 28.

On stumps and roots. Rare.

20. *P. intybaceus*, Fr. (p. 240); Epping Forest.

21. *P. cristatus*, Fr. (p. 240); pileoli 3 in.

b. LENTI.—*Pileus fleshy-pliant, then somewhat coriaceous, more or less zoned, fibrous within; pores adnate; tufts lateral, somewhat stipitate, in many imbricated layers; stems more or less connate, or growing from a common tuber; white spored; not edible; fragile when old; autumnal and not lasting till following spring; growing at the base of trunks.*

22. *P. giganteus*, Fr. (p. 240); tufts 1–2 ft. Epping Forest.

23. *P. acanthoides*, Fr.; in many imbricated layers, pliant then coriaceous; pileoli ferruginous, infundibuliform, inciso-dimidiate, somewhat zoned, longitudinally rugose; stems connecto-branched, white then rufescence; pores lamelloso-sinuate, thin, toothed at edge, white then rufescence.—*Bull. t.* 486; *Pers. Ic. Pict. t.* 6.

On trunks. Penzance.

c. CASEOSI.—*Pileus* cheesy, at first soft and juicy, then arid fragile, without a pellicle, zoneless; pores separating; tufts sessile on stems of trees, commonly dimidiate, but in a horizontal situation expanded on all sides, central, at first evolved from a shapeless tubercle into numerous pileoli; acid; growing in spring and summer, soon decaying.

24. *P. sulphureus*, Fr. (p. 124); 1-2 ft.; pilei 8 in.
Epping Forest.

25. *P. imbricatus*, Fr.; in many cæspitose layers, fibrous-cheesy, at length pale and dividing; pileoli imbricated, lobed, opaque, yellowish-tawny, margin pallid, slightly zoned; pores small, round, pallid dingy-yellow.—*Bull.* 6, 418.

On trunks. Rare. Epping Forest.

26. *P. Herbergii*, Rostk.; cæspitose, rather corky; pileoli imbricated, bright bay, sulphury about margin; pores labyrinthiform, unequal, torn and toothed, pale cinereous.—*Rostk.* xxix. t. 18.

On trunks. Edinburgh Fungus Show.

27. *P. alligatus*, Fr. (p. 241).

d. SUBEROSI.—*Pileus* corky or coriaceous, persistent, tough, substance floccose, somewhat soft, suitable for tinder; pores adnate; tufts somewhat sessile, lateral or central, according to situation; pileoli drawn together, free at base, not effused; on trunks close to the ground; not edible.

28. *P. heteroclitus*, Fr. (p. 241).

29. *P. salignus*, Fr. (p. 241).

IV. APUS.—*Stemless; pileus sessile, normally adnate by a thickened dilated base, dimidiate, or entire and attached behind, commonly by an umbo, more rarely attenuated and sessile, more frequently wholly resupinate; growing on wood; very abundant, with an endless variety of forms.*

A. ANODERMEI.—*Pileus without a cuticle, surface broken up into flocci or fibres, zoneless, but transversely zoned within, or more or less fibrous.*

I. CARNOSI.—*Pileus cheesy, at first watery-soft, fragile, flocculose, not bristly-hispid; pores white; when fully grown soft or hard; soon putrifying, not lasting through the winter.*

* EUPOLYPOREI.—*Pores round, entire, obtuse, without small teeth.*

30. *P. epileucus*, Fr.; pileus 3–4 in., whitish internally and externally, semi-orbicular, concave beneath, cheesy, soft, then firm, pulvinate, villous-rugged, not zoned; pores minute, round, entire, white.—*Fl. Dan. t. 1794.*

On stumps, chiefly fir and elm. Rare.

31. *P. alutaceus*, Fr.; somewhat imbricated; pileus 1 in., tan colour, fleshy, at length tough, reniform-dilated, somewhat velvety, sometimes hairy and rugose, obsoletely zoned within, margin acute, even; pores very small, thin, somewhat round, whitish-tan.—*Rostk. t. 30.*

On decayed pine stumps. Glamis.

32. *P. pallascens*, Fr. (p. 244); 2 in.

33. *P. chioneus*, Fr. (p. 241); 1 in. Epping Forest.

34. *P. cerebrinus*, B. and Br.; pileus 1 in., white, pulvinate, delicately tomentose, becoming smooth, margin crenate; pores rounded, entire, dissepiments thick, obtuse.

On fir. Glamis. Looks like a portion of white brain.

** Pores elongated, flexuous, acute, torn; not becoming hard.

35. *P. lacteus*, Fr.; shining white; pileus fleshy-fibrous, fragile, triangular, pubescent, at length smooth, zoneless externally and internally, margin inflexed, acute; pores thin, acute, toothed, at length labyrinthiform, torn.—*Fr. Icon. t. 182, f. 1.*

On dead laburnum and birch. Rare.

36. *P. fragilis*, Fr. (p. 242).

37. *P. mollis*, Fr.; pileus flesh colour, fleshy-fibrous, soft, not watery, effuso-reflexed, somewhat triangular, rugose, margin acute; pores unequal, elongated, flexuous, soft, white, spotted with red when touched.—*Fr. Icon. t. 182, f. 3.*

On dead pine. Slough.

38. *P. cæsius*, Fr. (p. 242). Epping Forest.

39. *P. trabeus*, Rostk.; white; pileus fleshy-fibrous, then firm, effuso-reflexed, transversely elongated, zoneless, pallid; pores curt, minute, somewhat round or elongated, toothed, white.—*Rostk. t. 28.*

On dead pine. Den of Dun. Menmuir.

40. *P. destructor*, Fr. (p. 242).

LENTI.—*Pileus fleshy-pliant, tough, soft, elastic, villosotomentose substance fibroso-floccose; pores somewhat adnate, coloured, always soft, somewhat flexible, lasting to the following spring.*

* Substance coloured.

41. *P. nidulans*, Fr. (p. 242); $\frac{1}{2}$ –1 in.

42. *P. rutilans*, Fr. (p. 242).

43. *P. gilvus*, Schw.; pileus pale yellowish, fleshy-pliant, effuso-reflexed, soft, even, becoming smooth, zoneless, margin spreading, thin, acute; pores very small, naked, entire,

pale yellowish-ferruginous, opaque. = Sowerby's *Boletus impuber*, t. 195.

On trunks. Rare.

** Substance white.

44. *P. fumosus*, *Fr.* (p. 243); 2–4 in.
45. *P. adustus*, *Fr.* (p. 243). Epping Forest.
46. *P. crispus*, *Fr.* (p. 243).
47. *P. amorphus*, *Fr.* (p. 243).
48. *P. adiposus*, *Fr.* (p. 243). Epping Forest.
49. *P. Keithii*, *B. and Br.*; $\frac{1}{2}$ in.; shell-shaped, stemless, decurrent behind; pileus bright red-brown, rough with rigid tooth-shaped processes; hymenium pallid; dissepiments lacerated.

On fallen sticks. Dunphail.

3. **SPONGIOSI.**—*At first and whilst moist spongy, when dry firm, elastic, for the most part bristly-hispid, internally fibrous; flesh commonly presenting an intermediate stratum more compact than the exterior; firm; annual; autumnal; finest examples on living trunks.*

* Substance coloured.

50. *P. hispidus*, *Fr.* (p. 243); 4–6 in. Epping Forest.
51. *P. cuticularis*, *Fr.*; pileus ferruginous-fuscous, then blackish, thin, spongy-fleshy, then juiceless, becoming plane, hairy, tomentose, internally laxly composed of parallel fibres, margin fibroso-fimbriate, incurved; pores minute, long, pallid then ferruginous.—*Bull. t. 462.*

On trunks. Epping Forest. Burnham Beeches.

** Substance white.

52. *P. spumeus*, *Fr.*; 3 in.
53. *P. borealis*, *Fr.*; pileus 2 in., white then yellowish, spongy then corky, compact, somewhat pulvinate, hairy,

internally composed of parallel fibres, margin spreading; pores adnate, unequal, sinuoso-flexuous and torn, white.
—*Rostk.* 4, t. 40; *Schæff.* t. 314.

On stumps. Slough. Balnamoon, Forfarshire. Strachan, Kincardineshire.

- B. PLACODERMI.—*Pileus clothed with a continuous zoneless or concentrically sulcate crust; persistent.*
4. SUBEROSI.—*Pileus fleshy and juicy, then hard, covered with a somewhat thin crust; pores slender, at length somewhat separating; autumnal, sometimes lasting till following spring but never producing strata.*
- * Substance coloured.
54. P. dryadeus, Fr. (p. 244); 3–7 in. Epping Forest.
- ** Substance white, not zoned.
55. P. betulinus, Fr. (p. 244); 3–6 in. Epping Forest.
56. P. quercinus, Fr. (p. 239).
5. FOMENTARII.—*Pileus floccose, juiceless, not fleshy or spongy, covered with a hard, horny crust; pores at length stratose; growing on wood; somewhat pulvinate; perennial.*
- * Substance umber or fuscous.
57. P. vegetus, Fr. (p. 245).
- ** Substance somewhat ferruginous.

58. P. applanatus, Fr. (p. 245). Epping Forest.
59. P. fomentarius, Fr. (p. 245). Epping Forest.
- Var. pomaceus, P.* The common form on willow; spores dark and ferruginous.
60. P. nigricans, Fr. (p. 245).
61. P. igniarius, Fr. (p. 246). Epping Forest.

62. *P. fulvus*, *Fr.*; pileus tawny, then hoary, woody-corky, very hard, triangular, even, not concentrically sulcate, at first villous; pores short, round, minute, cinnamon, at first covered with a cinereous-yellow pruina.—*Fr. Icon. t. 184, f. 3.*

On decayed trunks. Rare.

63. *P. pectinatus*, *Kl.*; pileus ferruginous-fuscous, corky-woody, hard, triangular, concentrically lamellato-plicate above, tomentoso-scaly; margin pale yellowish, naked; pores very small, short, obtuse, pale-yellowish, naked.—*Quel. t. 17, f. 5.*

Penzance.

64. *P. conchatus*, *Fr.* (p. 246).

65. *P. ribis*, *Fr.* (p. 246); 4 in.

66. *P. salicinus*, *F.* (p. 246); 12 in.

*** *Substance white or pallid (except P. roseus).*

67. *P. roseus*, *Fr.*; somewhat cæspitose; 2–4 in., pileus externally and internally rose-colour, corky-woody, hard, triangular, even, somewhat banded, as if sprinkled with cinereous-blackish powder externally, internally floccoso-fibrous; pores minute, round, rose-colour.

On dressed wood in conservatory. Glamis.

68. *P. ulmarius*, *Fr.* (p. 246); 3–4 in.

69. *P. cytisinus*, *Berk.* (p. 247); 12 in.

70. *P. connatus*, *Fr.* (p. 248); 12–24 in.

6. *LIGNOSI*.—*Pileus from the first, hard, woody, juiceless, covered with a thin somewhat lustrous crust, sometimes effused at base; pores not stratose; perennial; flatter than in former group, or effuso-reflexed.*

71. *P. fraxineus*, *Fr.* (p. 247). Epping Forest.

72. *P. variegatus*, *Seer.* (p. 247).
 73. *P. carneus*, *Nees*; pileus flesh colour, same colour internally, effuso-reflexed, woody, hard, thin, rugose, smooth, zoneless; pores minute, round, decurrent at base.—*Nees Nov. Act. Curios.* xlivi. t. 3.

On old stump. Welshpool.

P. cervinus, *P.* (p. 247) = *Trametes mollis*, *Fr.*

74. *P. annosus*, *Fr.* (p. 247); 3–18 in. Epping Forest.

75. *P. populinus*, *Fr.*; $\frac{1}{2}$ in., pileus corky-woody, rigid, zoneless, villous, same colour internally, margin obtuse; pores minute, short, round.

On trunks of poplars. Uffington, Lincolnshire.

c. INODERMI.—*Pileus arid*, firm with a thin fibrous cuticle; annual or biennial, not reviving.

7. STUPPOSI.—*Pileus flocculose*, then smooth or adpressedly villous, uneven, zoneless, texture fibrous.

* Substance coloured.

76. *P. radiatus*, *Fr.* (p. 248); 1 in. Epping Forest.

77. *P. polymorphus*, *Rostk.*; pileus umber, bay-brown-pallid, resupinate, effused, coriaceous, margin reflexed, crisped, smooth; pores large, angular, torn, pallid.—*Rostk.* 4 t. 56.

On fir. Forres.

78. *P. cryptarum*, *Fr.*; pileus rufescent-ferruginous, corky-cottony, effuso-reflexed, variable, zoneless, adpressedly silky, paler internally; pores very long, minute, round, paler than pileus.—*Pers. Myc. Eur.* 2, t. 16, f. 3; *Bull.* t. 478.

On firs. Frequent.

** Substance white.

79. *P. gossypinus*, *Ler.*; pileus coriaceous, effuso-re-

flexed, then pale, tomentose, zoneless, white within and without; pores at first labyrinthine, then angular, pallid-cinereous, dissepiments thin, slightly toothed.

On old stumps of *Ulex*. Sibbertoft.

80. **P. fibula**, Fr. (p. 248). Epping Forest.

viii. **CORIACEI**.—*Pileus coriaceous, villous, banded with concentric zones, generally of different colours.*

81. **P. hirsutus**, Fr.; pileus unicolorous, zoned with concentric furrows, whitish, corky-coriaceous, convexo-plane, shaggy with rigid hairs; pores round, obtuse, whitish, becoming somewhat fuscous.

On dead trunks. Near Twylerross.

82. **P. velutinus**, Fr. (p. 248); 2 in.

83. **P. versicolor**, Fr. (p. 248); 2–3 in. Epping Forest.

84. **P. abietinus**, Fr. (p. 249); 1–2 in.

85. **P. Wynnei**, B. and Br. (p. 249).

v. **RESUPINATI**.—*Pileus none; resupinate; pores seated on the woody matrix or on a stratum of mycelium; in a horizontal position the pores are vertical, in a vertical position, oblique or gaping.*

* *Pores fuscous or blackish.*

No British species recorded.

* *Pores ferruginous or cinnamon.*

86. **P. umbrinus**, Fr.; rufous-umber, determinate, undulato-tubercular, defined by a smooth, paler margin; pores minute, somewhat round, unequal, same colour as pileus.

On trunks. Knowle Park.

87. **P. ferruginosus**, Fr. (p. 249); 1 in.

88. **P. contiguus**, Fr. (p. 249); 3 in.

** Pores purple or violaceous.

89. *P. violaceus*, *Fr.*; violaceous, effused, determinate, thin, short, even, smooth, closely adnate, destitute of a distinct subiculum; pores short, cellular or veined, entire.—*Rostk.* 27, *t. 3.*

On fir poles and stumps. Frequent.

90. *P. purpureus*, *Fr.* (p. 250; 4–12 in.

*** Pores red.

91. *P. incarnatus*, *Fr.* (p. 250); 1 in.

92. *P. rufus*, *Fr.*; blood-red-rufous, effused, coriaceous, thin, adnate even, smooth, determinate; pores very small, thin, acute.

On broom. Strachan, Kincardineshire.

93. *P. rhodellus*, *Fr.*; white-flesh-colour, 2 in., thin, adnate, soft, margin determinate, naked; pores minute, somewhat round, continuous.—*Fr. Icon.* *t. 189, f. 2*; *Bull. t. 442, f. D.*

In Scotch fir wood. Glamis.

94. *P. micans*, *Fr.*; whitish flesh colour, effused, somewhat orbicular, confluent, fugacious, thin, adnate, soft, circumference flaxy, white; pores very thin, resembling honeycomb, angular, somewhat crenate.

On dead ash wood. Leigh Wood, Bristol. Altyre.

**** Pores yellowish.

95. *P. nitidus*, *Fr.* (p. 250).

96. *P. Læstadii*, *Fr. and B.*; yellow; substance white, hymenium here and there tubercular, forming confluent patches; pores bright lemon yellow.

Under side of deal board in hot house. Coed Coch.

97. *P. bombicynus*, *Fr.* (p. 250).

98. *P. aneirinus*, *Sommerf* (p. 252).

99. **P. ramentaceus**, *B. and Br.*; somewhat orbicular; subiculum white, tomentose, margin obsolete; pores honey-colour, large, $\frac{1}{32}$ in. across, somewhat hexagonal, dissepiments thin, slightly rigid, acute.

On Scotch fir. Glamis.

***** Pores white, then changing colour.

100. **P. cinctus**, *B.* (p. 250).

101. **P. armeniacus**, *B.* (p. 250).

102. **P. Rennyi**, *B. and Br.*; subiculum thick, pulvinate, pulverulent, forming a thick, at first somewhat frothy, then pulverulent mass, white, lemon-colour when dry; pores sparingly produced, white, elongated, dissepiments thin.

On Scotch fir and on the ground. Hereford. Glamis.

103. **P. subfuscoclavidus**, *Rostk.*; white, then light yellow-fuscous, broadly effused, confluent, thin, coriaceous, arid, adnate, margin thin, white-flaky, determinate; pores minute, irregular.—*Rostk.* 27, t. 11.

On old planks. Roof of King's Cliffe Church.

104. **P. viridans**, *B.*; white, when dry pallid green, effused, crustaceo-adnate, thin, margin pulverulento-tomentose; pores minute, angular, dissepiments thin.

On rotten wood. Rare.

105. **P. terrestris**, *Fr.* (p. 252).

106. **P. subgelatinosus**, *B. and Br.*; orbicular, forming little pulvinate masses with an obtuse raised border, which is at first tomentose and pallid, becoming black, of a somewhat gelatinous consistence; pores pale, delicate grey, with an acute edge, about $\frac{1}{16}$ in. diameter.

On dead wood, parasitic on *P. amorphus*. Rannoch.

***** Pores persistently white, unequal, angular, close to one another, commonly rather large.

107. *P. medulla-panis*, Fr. (p. 251). Epping Forest.

108. *P. mucidus*, Fr.; white, then pale, effused, rather thick, somewhat immersed, soft, the intermediate circumference flaxy; pores medium-sized, seated on the crust formed of the mycelium, unequal, torn.

On decayed fir. Penzance.

109. *P. vitreus* (p. 251).

110. *P. obduceus*, Pers. (p. 251).

111. *P. callosus*, Fr.; wholly white; widely effused, even, tough, entire, separable like soft leather; pores seated on a thin skin, firm, round, equal, entire.

On dead wood; annual. Glamis.

112. *P. vulgaris*, Fr. (p. 251). Epping Forest.

113. *P. molluscus*, Fr. (p. 251).

114. *P. collabefactus*, B and Br.; stratum smooth, resembling a *Corticium*; pores seeming to at first arise from the mere collapsing of the substance, short, margin obtuse.

On dead wood. Glamis.

***** Pores persistently white, unequal, angular, close to one another, commonly rather large.

115. *P. sanguinolentus*, Fr.; whitish, bleeding when touched, nodulose, soon confluent, effused, soft, flaxy circumference vanishing; pores small, somewhat round, changeable in form, unequal, at length torn.

On dead branches. Uncommon.

116. *P. radula*, Fr.; white, effused, made up of the naked tomentose mycelium, closely compacted, soft, villous beneath; pores medium size, angular, toothed, pubescent when young.

On fir. Strachan, Kincardineshire.

117. *P. vaporarius*, Fr. (p. 252). Epping Forest.

Var. secernibus, *B. and Br.*; shining white, honey-colour when dry, separable.

On fir leaves, under moss.

118. *P. Gordoniensis*, *B. and Br.*; persistently shining white; effused, superficial, membranaceous, very thin, separable, margin shortly fringed; pores minute, unequal, angular, dissepiments very thin, fimbriato-toothed.

On fir poles. Aboyne.

P. Stephensii, Fr. (p. 252) = *Trametes serpens*.

119. *P. Vaillantii*, Fr. (p. 252).

120. *P. farinellus*, Fr.; fugacious to the touch; white; widely effused, thin, mycelium naked, flocculoso-pulverulent, not woven; pores thin, continuous, unequal, somewhat flexuous, intricate.

On beech. Aboyne.

121. *P. hymenocystis*, *B. and Br.*; white, arachnoid beneath and at margin; pores large, the scarious dissepiments collapsing, at length pallid.

On dead wood. Glamis.

***** Pores white, superficial, distant, punctiform.

122. *P. blepharistoma*, *B. and Br.*; white, mycelium arachnoid, somewhat mealy; pores small, dissepiments thin, margin ciliato-dentate.

On dead wood. Glamis.

123. *P. corticola*, Fr.; effused, equal, firm, white, pallid; pores naked, superficial, punctiform, sometimes obsolete.

On a vine stem in greenhouse. Dunstable.

124. *P. reticulatus*, Fr.; white; orbicular, thin, fugacious,

radiating like flax at the floccose margin ; pores distant, cup-shaped.—*Fr. Icon.* t. 190, f. 3.

On rotten wood. Glamis. Forres.

† *Species of uncertain affinity.*

125. *P. bathyporus*, *Rostk.* ; effused ; white ; stratose ; circumference thin, flaxy ; stratum of second season fuscous-ferruginous ; pores rather large, cyathiform, toothed. *Rostk.* iv. t. 59.

On dead oak branches.

126. *P. hybridus*, *B. and Br.* ; white ; mycelium thick, forming a dense membrane or creeping branched strings ; hymenium breaking up into areæ ; pores long, slender, minute.—*Sow.* t. 289, t. 387, f. 6. *Outlines, Addenda*, p. xvii.

On oak in ships, etc. The “dry-rot” of oak-built vessels, perhaps, according to Fries, a monstrous form of *P. destructor*.

GENUS 25. TRAMETES (p. 252).

1. APODES.—*Stemless ; pileus dimidiate, sessile.*

* *Substance coloured.*

1. *T. pini*, *Fr.* (p. 253).

** *Substance white.*

2. *T. gibbosa*, *Fr.* (p. 253). Epping Forest.

3. *T. Bulliardii*, *Fr.* ; pileus white, becoming fuscous externally and internally, at length zoned ; corky ; becoming plane, even, smooth ; pores somewhat round, deep, unequal, pallid, then rufescent.—*Bull.* 310.

On dead wood. Bathampton. Glamis. Fragrant.

4. **T. suaveolens**, Fr. (p. 253).
5. **T. odora**, Fr. (p. 253).
6. **T. inodora**, Fr.; shining white; pileus corky, firm, becoming smooth, zoneless; pores minute, round, entire, not changing colour.—Fr. *Icon.* t. 191, fig. 7.

On old mossy beech stump. Stoke Poges. Scentless.

II. RESUPINATI.—*Pileus resupinatae.*

7. **T. mollis**, Fr.; resupinate, determinate, somewhat membranaceous, pallid-wood-colour, at length fuscous, becoming black, umber at margin, which is at length revolute and pubescent beneath; pores large, unequal, torn.=*Polyporus cervinus*, p. 247.

On wood, especially beech. Epping Forest.

8. **T. Terrei**, B. and Br.; 3 in., resupinate, broad, somewhat orbicular, zoneless, pulvinate; substance corky and white; pores angular, here and there sinuate.

On beech. Stoke Poges.

9. **T. serpens**, Fr.=*Polyporus Stevensii*, p. 252.

GENUS 26. DÆDALEA (p. 254).

* *Corky-woody, dimidiate, sessile.*

1. **D. quercina**, P. (p. 254). Epping Forest.
2. **D. aurea**, Fr.; 2 in.; golden; imbricated; pileus triangular, corky coriaceous, gibbous, velvety, somewhat zoned, margin swollen, unicolorous, internally light yellow, the porous, narrowly sinuato-labyrinthine hymenium same colour; veins for the most part radiating.—Batt. t. 35, f. F.

On dead oak. Hereford.

3. **D. confragosa**, P. (p. 254). Epping Forest.

4. **D. cinerea**, Fr.; 1½–3 in.; perennial; stratose; pileus cinereous, corky-woody, thick, somewhat undulated, zoned, tomentose; pores minute, obtuse, entire, some round, others very long, labyrinthiform, flexuous, intricate, white, or cinereous.—*Fr. Icon. t. 182, f. 2.*

On trunks. Penzance.

** *Coriaceous, dimidiate, sessile.*

5. **D. unicolor**, Fr. (p. 254). Epping Forest.

*** *Resupinate.*

6. **D. latissima**, Fr. (p. 54.).

7. **D. vermicularis**, P.; 4–6 in., flesh-colour-refuscent; broadly effused, thin, becoming even; sinuses short, attenuated at both ends, flexuous, poriform at margin, adhering to soil by root-like fibres.—*Sow. t. 424.*

On the ground.

† *Of uncertain affinity.*

8. **D. ferruginea**, Schum.; imbricato-connate; pileus light-yellow-ferruginous, white-villous when young and at margin; internally flesh-colour, coriaceous, effuso-reflexed, zoned; hymenium porous, narrowly labyrinthiform, wavy.—*Fl. Dan. t. 2029.*

On dead wood. Strachan, Kincardineshire.

GENUS 27. HEXAGONIA. Poll. Pl. nov. (p. 35).

Hymenophore descending and forming a trama of same colour and similar with pileus; pores from the first dilated into hexagonal, regular, woody-hard alveoli, the dividing walls firm, never torn; dimidiate; sessile; growing on wood; corky-woody; persistent; not forming strata.

No British examples recorded.

GENUS 28. FAVOLUS. Fr.

Hymenium reticulato-cellular or alveolate; alveoli radiating, formed of the densely anastomosing gills; elongated, diminate, somewhat stipitate; fleshy, pliant; annual; growing on wood; spores white.

No British examples recorded.

GENUS 29. MERULIUS (p. 254).

1. LEPTOSPORI.—*Hymenium naked, or obsoletely pruinose.*
* *Pileus effuso-reflexed, circumference determinate.*

1. M. tremellosus, Schrad. (p. 255). Epping Forest.
2. M. aurantiacus, Klotsch. (p. 256); 1 in.
3. M. corium, Fr. (p. 255); 2-3 in. Epping Forest.

** *Resupinato-effused, flaxy-membranaceous, separating, flaxy beneath and at circumference.*

4. M. laeticolor, B. and Br.; bright orange; effused, adnate; margin tomentose, white; hymenium even, then plicato-rugose; folds distant.

On sawdust and leaves. King's Lynn.

5. M. himantoides, Fr.; lilac; effused, silky, very soft, fibrous-silky beneath, circumference flaxy; folds porous, then gyrose, dingy yellow, then somewhat olivaceous.—Fr. *Icon. t. 193, f. 1*; Pers. *Myc. Eur. t. 14, f. 3.*

On fir wood and club mosses. Rare.

6. M. molluscus, Fr. (p. 255).

*** *Crustoso-adnate, circumference somewhat flaxy.*

7. M. porinoides, Fr. (p. 255).
8. M. rufus, P. (p. 255).
9. M. serpens, Tode (p. 255).

10. **M. pallens**, *B.* (p. 255).
 11. **M. Carmichaelianus**, *B.* (p. 256).

II. CONIOPHORA.—*Hymenium pulverulent with the ferruginous spores.*

12. **M. lacrymans**, *Fr.* (p. 256).

Var. pulverulentus, *Fr.*; very broad, membranaceous, becoming even, zoned, arid, spider-web-velvety beneath, gradually decaying from centre to circumference; folds marginal, somewhat reticulated, tawny.

Strachan, Kincardineshire.

GENUS 30. POROTHELIUM (p. 256).

1. **P. Friesii**, *Mont.* (p. 257).

2. **P. Stevensoni**, *B. and Br.*; substance rather thick, gelatinous, margin rather coarsely hispid, at length more or less denuded; warts of hymenium distinct, interstices very smooth, bearing at the apex a limpid, diaphanous yellow globule.

On old pine rail. Glamis.

3. **P. Keithii**, *B. and Br.*; narrowly adnate, slightly umber; circumference very thin, at first somewhat gelatinous; warts short, at length collapsed, gelatinous in centre.

On dead fir. Sanquhar. Dunphail. Glamis.

4. **P. confusum**, *B. and Br.*; narrowly adnate, pallid, margin very thin, arachnoid, substance at first floccosopulverulent; warts very small.

On fir sticks. Glentanner. Leigh Wood. Glamis. Pitoulish, Inverness-shire.

GENUS 31. SOLENIA.

Receptacle none; tubes membranaceous, somewhat cylindrical, turbinate, distinct and free from one another; definitely facing the ground; mouth narrowed, in which respect they differ from Cyphellæ. *Hoff. D. Fl. II. t. 8 f. 2.*

1. *S. ochracea*, *Hoffm.*; ochraceous, white internally; scattered; clavato-cylindrical; tomentose.

On dead wood. Uncommon.

ORDER 3. HYDNEI (p. 257).

GENUS 32. HYDNUM L. (p. 257).

1. *MESOPUS*.—*Entire, simple with a central stem; all terrestrial, chiefly growing in pine woods.*

† *CARNOSA*.—*Pileus fleshy, somewhat fragile.*

* *Spines changing colour; pileus scaly or tomentose.*

1. *H. imbricatum*, *L.* (p. 257); 4 in.

2. *H. squamosum*, *Schæff.*; pileus rufous-fuscous, fleshy, irregular, depressed, smooth, breaking up into irregular scales; flesh rigid, whitish; stem short, attenuated downwards, white; spines grey-fuscous, whitish at apex.—*Schæff. t. 273.*

On the ground.

3. *H. scabrosum*, *Fr.*; 4 in., pileus umber-ferruginous, compactly-fleshy, at first turbinate, then plane above, very convex beneath, tomentose, then rough with flocci which are fasciculate in the form of minute crowded squamules, slightly repand at margin; flesh very thick, white, descending into stem; stem very short and thick, round or compressed, dotted with rudiments of spines decurrent on it,

cinereous, attenuated downwards, rounded and blackish at base; spines equal, awl-shaped, fuscous-ferruginous, whitish at apex, at first grey-fuscous.—*Schœff.* *t.* 271.

In pine wood. Forres.

** *Spines changing colour, pileus even, smooth.*

4. *H. laevigatum*, *Sw.*; 4–6 in., pileus umber, fleshy, compact, firm, regular, plane, very smooth, margin circinate, not repand; flesh whitish, compact, not fibrous, soft when fresh, pliant when dry; stem short, thick, even, pallid-fuscous; spines thin, same colour.—*Sv. ätl. Sv. t.* 81.

In pine woods. Rannoch.

5. *H. fragile*, *Fr.*; large, 12 in.; pileus pallid, then cinereous, or brick-rufescent, somewhat zoned towards margin, fleshy, fragile, unequal, surface pubescent then smooth, even, but here and there minutely squamulose and slightly wrinkled, margin undulated and lobed; flesh grey, somewhat zoned; stem stout, unequal, smooth, cinereous; spines scarcely decurrent, very much elongated, slender, fragile, whitish then grey.—*Sv. ätl. Sv. t.* 89; *Berg. Pyr. t.* 16; *Paul. t.* 34.

In pine woods among heath. Rare.

*** *Spines unchangeable, unicolourous, whitish.*

6. *H. repandum*, *L.* (*p. 258*); Epping Forest.

Var. rufescens, *P.*; 2–3 in., pileus thin, somewhat regular, pubescent; stem thin, unequal; spines regular.—*Bolt.* 89.

†† **LIGNOSA.**—*Pileus corky or coriaceous, tough.*

* *Spines changing colour, and as well as the spores, somewhat fuscous.*

7. *H. compactum*, *Fr.* (*p. 258*); 1–6 in.

8. *H. aurantiacum*, *Alb. and Schw.*; 1-5 in., pileus orange, corky, compact, turbinato-dilated, with small elevations, zoneless, often covered with whitish down, zoned internally; stem thick, orange, whitish, becoming fuscous.—*Fl. Dan.* *t.* 1439; *Batsch.* *f.* 222.

In pine woods. Grantown.

9. *H. ferrugineum*, *Fr.*; 1-4 in., pileus obconic, then flattened, sometimes depressed, spongy-corky, soft, at first covered with whitish down which exudes blood-red drops in the depressions, then more even, internally ferruginous; spines awl-shaped, equal, fuscous-ferruginous.—*Fr. Icon.* *t.* 4; *Kromb.* *t.* 50, *f.* 10, 11; *Bull.* *t.* 409.

In fir wood. Rothiemurchus.

** Spines changing colour and as well as the spores, ferruginous.

10. *H. scrobiculatum*, *Fr.*; 1-2 in., ferruginous; pileus corky-coriaceous, clavate, then plano-infundibuliform, pubescent, disc slightly pitted, scaly, zoned within; stem equal, smooth, often rooted; spines short, slightly decurrent, thin, fragile, same colour as pileus, at length fuscous.—*Fr. Icon.* *t.* 5, *f.* 1; *Mich. Gen.* *t.* 72, *f.* 7; *Bull.* *t.* 156.

In fir woods. Minstead, Lyndhurst. Rothiemurchus, etc.

11. *H. zonatum*, *Batsch.* (p. 258); 1-2 in. Epping Forest.

*** Spines unchangeable; spores whitish.

12. *H. nigrum*, *Fr.*; cæspitose; pileus azure-blue-black, zoneless, margin white, corky-rigid, club-shaped when young, turbinate, flattened then plano-depressed, tubercular, tomentose, blue-black internally; stem stout, often rooting, unequal, blue-black, tomentose at base, internally same colour; spines awl-shaped, thin, rather short, white.—*Fr. Icon.* *t.* 5, *f.* 2; *Batsch.* *f.* 223.

In pine woods. Street, Somerset.

13. *H. graveolens*, *Delast.*; (p. 258); 1 in.

14. *H. melaleucum*, *Fr.*; pileus black; coriaceous, thin, rigid, irregular, striate, with little elevations at disc, margin white; stem slender, smooth, black; spines white.—*Schæff.* *t.* 272.

In fir woods. Ascot. Forres.

15. *H. cyathiforme*, *Schæff.*; small; pileus pale cinereous; margin white, coriaceous, thin, plano-infundibuliform, zoned, disc somewhat tomentose; stem slender, smooth, pale cinereous; spines white.

On fir wood. Ascot.

II. PLEUROPUS.—*Somewhat dimidiate; stem lateral.*

16. *H. auriscalpium*, *L.* (p. 258); $\frac{1}{2}$ — $\frac{3}{4}$ in.

III. MERISMA.—*Very much branched, or tuberculiform and immarginate.*

* *Very much branched.*

17. *H. coralloides*, *Scop.* (p. 259).

** *Simple; tuberculiform; immarginate.*

18. *H. erinaceum*, *Bull.* (p. 259); 8 in. Epping Forest.

19. *H. caput-Medusæ*, *Bull.* (p. 259).

IV. APUS.—*Stemless; pileus sessile, dimidiate, marginate; often effuso-reflexed.*

* *Pileus fleshy, soft.*

20. *H. cirrhatum*, *P.*; pileus pallid, fleshy, expanded, fibrilloso-curled above with scattered decumbent abortive spines; margin fimbriate, incurved; spines long, slightly

tough, equal.—*Sv. ätl. Sv. t. 71, f. 1; Fl. Dan. t. 1789, f. 2.*

On a beech tree. Epping Forest.

21. *H. diversidens*, *Fr.*; 2 in., pileus white, fleshy, thick, substipitate, irregular, densely beset above with erect, variously shaped, incised teeth, clothed at margin with club-shaped spines and beneath with entire awl-shaped regular spines.—*Sv. ätl. Sv. t. 71, f. 2; Kromb. t. 51, f. 8-12.*

On beech and hornbeam. Guildford. Epping Forest.

** *Cæspitose*; pilei imbricated; commonly pliant, tough.

No British species recorded.

*** Simple; pileus coriaceous or corky.

22. *H. ochraceum*, *P.* (p. 259); 1-3 in.

**** Pileus membranaceous.

No British species recorded.

v. RESUPINATI.—Pileus none; resupinate; with straight or oblique spines.

* Spines fuscous, ferruginous.

23. *H. squalinum*, *Fr.* (p. 259).

24. *H. fusco-atrum*, *Fr.*; subiculum crustaceous, thin, at first glaucous, flocculoso-pruinose, then smooth, ferruginous-brown; spines short, conically subulate, acute, fawn-colour, then blackish.

On rotten wood.

25. *H. membranaceum*, *Bull.* (p. 260).

26. *H. Weinmanni*, *Fr.* (p. 260).

27. *H. crinale*, *Fr.*; subiculum umber; effused, villos-

interwoven, thin ; spines long like hairs, crowded, equal, very slender, umber.—*Per. Myc. Eur.* t. 17, f. 13.

On dead wood. Rare. Essex.=*H. fuscum*, *P. p.* 260.

28. *H. ferruginosum*, *Fr.* (p. 260) ; 2-3 in. Epping Forest.

29. *H. varicolor*, *Fr.* (p. 260).

** *Spines yellowish, green.*

30. *H. aureum*, *Fr.* ; subiculum golden ; determinate, somewhat cartilaginous, continuous, smooth, radiate in the form of teeth at circumference ; spines awl-shaped, equal, same colour as subiculum.

On dead branches. Penzance.

31. *H. denticulatum*, *P.* ; light yellow-ochraceous, shining, longitudinally effused, somewhat fleshy, subiculum thin, smooth, somewhat mealy ; spines crowded, equal, slightly toothed at margin.

On rotten wood. Penzance.

32. *H. alutaceum*, *Fr.* (p. 260) ; 3-5 in.

33. *H. sordidum*, *Weinm.* ; dingy yellowish ; broadly effused, thin, easily separating, mucid, at circumference gyroso-porous, sulphur-yellow ; spines very crowded, compressed, incised, rather acute.

On dead wood. Stoke Poges.

34. *H. limonicolor*, *B. and Br.* ; adnate, bright lemon-yellow ; spines crowded, acute, short ; mycelium shining-white, scanty or obsolete.

On stone buried among pine leaves. Glamis.

35. *H. spathulatum*, *Fr.* (p. 261).

36. *H. multiforme*, *B. and Br.* ; ochrey-white, at first even, resembling a *Corticium*, at length here and there fer-

tile ; spines very acute, crowded, then pallid and fimbriate ; texture floccose-mealy.

On dead wood. Glamis.

37. *H. anomalam*, *B. and Br.* ; pallid light yellow ; stratum thin, gelatinous ; teeth in form of granules ; then stipitate and obtusely divided upwards.—*B. and Br.* 1438 ; *Icon.*

Inside a very rotten ash tree. Langridge, Somersetshire.

38. *H. melleum*, *B. and Br.* ; honey-colour ; effused, thin, margin delicately flaxy ; subiculum and teeth acute and sometimes divided at apex, pulverulent downwards, naked at middle.

On broken rails on the ground. Coed Coch.

39. *H. sepultum*, *B. and Br.* ; wholly resupinate ; golden ; margin white ; spines acute, medium-sized.

On stones buried among pine leaves. Glamis.

*** *Spines flesh-colour, lilac, rufescent.*

40. *H. udum*, *Fr.* (p. 261).

41. *H. bicolor*, *A. and S.* ; 8 in., subiculum white ; widely effused, tomentose, adpressed, thin ; spines minute, white-villous, naked at apex, acute, rufous-date-brown.

On bramble. Batheaston.

*** *Spines white, or light yellowish when old.*

42. *H. nodulosum*, *Fr.* ; whitish ; broadly effused, crustaceous, closely adnate, smooth, even, nodulose ; spines very long, on the even part depressed and adnate to the wood, on the lower side of nodules free and pendulous.—*Pers. Myc. Eur.* 2, t. 2, 22, f. 1.

On fir stumps. Glamis.

43. *H. Stevensoni*, *B. and Br.* ; white ; effused, mealy

beneath, here and there flaxy; spines cylindrical, obtuse or truncate, sometimes compressed, pulverulent at apex.

On dead wood. Glamis.

44. *H. niveum*, *P.* (p. 261)).

45. *H. farinaceum*, *P.* (p. 261).

46. *H. argutum*, *Fr.*; white; subiculum effused in scattered patches, tomentoso-interwoven, adnate; spines acute, awl-shaped, unequal, under a lens serrated or slightly toothed at sides. *Roth. Ust. Ann.* 1, t. 1 f. 5^S.

On wood and bark. Bodelwyddan. Twycross.

47. *H. stipatum*, *Fr.*; whitish, isabelline or light yellowish; subiculum very widely effused, flocculosofurfuraceous, forming an adnate crust; spines crowded in the form of granules, rather obtuse and slightly toothed.

On rotten wood. Carlisle.

48. *H. plumosum*, *Duby.* (p. 261).

GENUS 33. HERICIUM, *P.*

Fleshy, club-shaped, in place of a pileus divided at apex into spines, which are extended upwards, not inferior and facing the ground.

No British species recorded.

GENUS 34. TREMELLODON, *P.*

Gelatinous, pileate, aculeate below; spines awl-shaped, equal.

1. *T. gelatinosum*, *Pers.*=*Hydnium gelatinosum*, *Scop.* (p. 259).

GENUS 35. SISTOTREMA, *P.* (p. 261).

1. *S. confluens*, *P.* (p. 262). Epping Forest.

GENUS 36. IRPEX, Fr. (p. 262).

* *Stipitate.*

No British species recorded.

** *Pendulous, with pileus extended behind.*

1. I. pendulus, Fr. (p. 262).

*** *Sessile or effuso-reflexed, marginate.*

2. I. fusco-violaceus. Fr.; 2 in., pileus white inclining to hoary; effuso-reflexed, coriaceous, silky, zoned; teeth in rows in the form of plates, fusco-violaceous, incised at apex.—*Kl. Bor.* t. 536; *Willd. Bot. Mag.* iv. t. 2 f. 5.

On pine trunks. Rare. Leigh Woods.

**** *Resupinate.*

3. I. Johnstoni, B. (p. 262).

4. I. spathulatus, Fr.; shining white; effused, membranaceous, flaxy, then smooth; teeth spathulate, equal, entire, reticulato-connected with obsolete veins.—*Schrud. Spic.* t. 4, f. 3.

On larch. Wallington, Northumberland.

5. I. obliquus, Fr. (p. 262).

6. I. deformis, Fr.; white; effused, crustaceous, thin, circumference pubescent, somewhat flaxy; teeth extended in awl-shape from a minutely porous base, thin, somewhat digitato-incised.

On wood. Strachan, Kincardineshire.

7. I. carneus, Fr.; 1-3 in.; reddish; effused, cartilaginous-gelatinous, membranaceous, adnate; teeth obtuse and awl-shaped, entire, united at base.

On wood. Penzance.

GENUS 37. RADULUM, Fr. (p. 263).

* *Denuded; very variable.*

1. *R. orbiculare*, Fr. (p. 263) ; 2-3 in.

2. *R. quercinum*, Fr. (p. 263) ; 2-3 in. Epping Forest.

3. *R. tomentosum*, Fr. ; white, inclining to pale; effused, innate, rather thick, circumference swollen, erect, tomentose; tubercles short, crowded, angular, obtuse, smooth, confluent.

On *Pyrus aucuparia*. Menmuir, Forfarshire. New Pitsligo, Aberdeenshire.

4. *R. deglubens*, B. and Br. ; $\frac{1}{2}$ in. ; orbicular, ferruginous, somewhat diaphanous; tubercles erect, somewhat cylindrical, irregular, scattered; interstices even, pulverulent with the white spores.

On ash. Sanquhar, Morayshire. New Pitsligo, Aberdeenshire.

5. *R. corallinum*, B. and Br. ; 3 in. ; white; effused, subcicum shining, very thin, pelliculose; tubercles fasciculate, $\frac{1}{4}$ in. across, divided downwards, obtuse, coralloid.

On oak branches partially covered with lichens. Glamis.

6. *R. epileucum*, B. and Br. ; effused for several inches; ochrey-white; resupinate; subcicum white, covered by a waxy stratum; tubercles scattered, cylindrical, under a lens fimbriated at apex; deciduous.

On decorticated wood. Glamis.

** *Innate, removing the bark.*

7. *R. fagineum*, Fr. ; white, becoming pale; innate, smooth, tubercles elongated, round, various, obtuse, entire.

On dead beech. Epping Forest.

8. *R. aterrinum*, Fr. ; black; innate; strigose; tubercles

elongated, distant, large, irregularly shaped, somewhat compressed, black.

On branches. Kensington Gardens.

GENUS 38. **PHLEBIA**, Fr. (p. 263).

1. **P. merismoides**, Fr. (p. 263); 2-3 in.
2. **P. radiata**, Fr. (p. 263); 1-3 in.
3. **P. contorta**, Fr. (p. 264).
4. **P. vaga**, Fr. (p. 264); 2 in.
5. **P. lirellosa**. P.; umber-grey; resupinate, free at margin; sinuses very small, linear, intermixed with spores.—*Pers. Myc. Eur.* iii. p. 2, t. 17, f. 2, 3.

GENUS 39. **GRANDINIA**, Fr. (p. 264).

1. **G. granulosa**, Fr. (p. 264). Epping Forest.
2. **G. mucida**, Fr.; pale yellowish; waxy-mucid, effused, somewhat innate, circumference determinate, somewhat radiate; hymenium continuous; granules crowded, large, unequal, hemispherical, soft.

On rotting pine. Glamis.

3. **G. ocellata**, Fr.; livid; waxy, broadly effused, agglutinated, indeterminate circumference sterile; hymenium unequal, continuous; granules crowded, somewhat conical, obtuse, equal, same colour.

On dead trunks. Bodelwyddan. Coed Coch.

4. **G. papillosa**, Fr.; white, yellowish beneath; membranaceous, somewhat round, separating when entire, smooth beneath, circumference furfuraceous; hymenium much cracked; granules minute, crowded, somewhat spherical, equal.

On sticks. Rare.

5. *G. crustosa*, *Fr.*; white; floccoso-mealy, irregularly effused, crustaceous, adnate; granules somewhat round, crowded, obtuse, same colour at apex.

On *Polyporus versicolor*. Dun.

GENUS 40. **ODONTIA**, *Fr.* (p. 264).

1. *O. barba-Jovis*, *Fr.*; 12 in.; white, then yellowish; flaxy membranaceous, effused, equal; warts at first papillose then conical, with an orange fringe at apex.

On decayed wood. Epping Forest.

2. *O. fimbriata*, *Pers.* (p. 264).

GENUS 41. **KNEIFFIA**, *Fr.* (p. 265).

1. *K. setigera*, *Fr.*

2. *K. subgelatinosa*, *B. and Br.*; yellowish, then cream-colour; thin; granules minute, somewhat gelatinous, fringed at apex.

On stumps of fir. Glamis.

GENUS 42. **MUCRONELLA**, *Fr.*

Receptacle none; spines awl-shaped, simple, acute, smooth, definitely facing the ground; small; growing on wood.

No British species recorded.

ORDER 4. *THELEPHOREI*, Fr.

= *AURICULARINI* (p. 265).

Hymenium inferior or amphigenous, coriaceous or waxy, even, rarely ribbed or papillose; sporophores four-spored.

GENUS 43. *CRATERELLUS*, Fr. (p. 265).

* *Tubiform*; *pervious to base of stem*.

1. *C. lutescens*, Fr. (p. 265); 1-4 in.
2. *C. cornucopiaeoides*, P. (p. 266). Epping Forest.

** *Infundibuliform*; *stem stuffed*.

3. *C. sinuosus*, Fr. (p. 266); 1 in.
4. *C. crispus*, Fr. (p. 266). Epping Forest.

*** *Irregular*; *pileus and stem fleshy*.

5. *C. clavatus*, Fr.; 2 in., pileus somewhat light-yellowish, fleshy, turbinate, truncate or depressed, flexuose, unpolished, attenuated into the solid stem; flesh thick, white; hymenium even, then corrugated, purplish, then changing colour.

There are four colour-forms, one umber, one date-brown, one purplish, and the other flesh colour.—Schæff. t. 164 and t. 276; Schmid. Ic. 2, t. 60; Wulf. in Jacq. Coll. ii. t. 12, f. 3.

In beech woods. Bisham, Berks.

GENUS 44. *THELEPHORA*, Fr. (p. 266).

* *Erect*; *pileus entire or branched*.

1. *T. Sowerbii*, B. and Br. (p. 266).
2. *T. multizonata*, B. and Br.; pileus bright rufous-

flesh colour above; many-zoned, multiplex, infundibuliform, formed from various confluent lobes and stems, margin lobed and crenulate; hymenium slightly ribbed, smooth, paler.

On the ground. Rare. Epping Forest.

3. *T. undulata*, Fr.; $\frac{1}{2}$ -1 in., pallid; coriaceo-membranaceous, depressed, even, slightly smooth, margin entire, undulated; stem short, villous; hymenium ribbed, slightly bristly.

On the ground. Coed Coch.

4. *T. caryophyllea*, P. (p. 267).

5. *T. tuberosa*, Pers. (p. 267).

6. *T. anthocephala*, Fr. (p. 267). Epping Forest.

7. *T. clavularis*, Fr.; rufous-fuscous; coriaceous, soft, irregularly branched, branches round, attenuated, even, smooth, delicately pruinose; apices acute, pubescent; stem whitish; somewhat tuberous.

On the ground. Epping Forest. Wallington, Northumberland.

8. *T. palmata*, Fr. (p. 267); 1-2in. Epping Forest.

** *Pileate*: dimidiate; horizontal; somewhat sessile or effuso-reflexed.

9. *T. intybacea*, P.; cæspitose; whitish rufous-ferruginous, then fuliginous; soft; stems somewhat lateral, growing into each other; pileoli imbricated, fibrous, dilated at margin, at first white-fringed, then entire, same colour; hymenium inferior, papillose, somewhat floccose.—*Bull. t.* 483, *f. 6, 7, t. 278*.

On the ground in Scotch fir wood. Glamis.

10. *T. terrestris*, Ehrb. (p. 267); 1-2 in.

11. *T. laciniata*, Pers. (p. 268). Epping Forest.

12. *T. biennis*, Fr. (p. 268).

13. *T. mollissima*, Pers. (p. 268).

*** *Resupinate*; for the most part incrusting; forms various.

14. *T. cristata*, Fr. (p. 268). Epping Forest.

15. *T. fastidiosa*, Fr. (p. 268).

16. *T. sebacea*, P. (Vol. I., p. xvii.); whitish; effused; fleshy-waxy, becoming hard, changeable in form by encrusting, tubular or resembling stalactite, circumference similar; hymenium collapsing, flocculoso-pruinose.

17. *T. crustacea*, Schum.; fuscous-umber; broadly effused, somewhat fleshy, undulated and tubercular, circumference similar, white-floccose; hymenium papillose, slightly bristly.—*Fl. Dan.* t. 1851, f. 2.

On the ground. Burnham. Epping Forest.

18. *T. cæsia*, P. (p. 268).

T. byssoides, P. (p. 269);

T. puteana, Schum. (p. 269);

T. laxa, Fr. (p. 269);

T. arida, Fr. (p. 269);

T. olivacea, Fr. (p. 269);

T. anthochroa (p. 270);

} Transferred to *Corticium*.

GENUS 45. CLADODERRIS, P.

Coriaceous; hymenium woody, radiated on branched ribs, persistent, at length roughened with warts.

1. *C. minima*, B. and Br.; $\frac{1}{4}$ in., white; flabelliform, springing from a stem-like or obsolete base; resupinate; pileus tomentose; hymenium radiated on branched ribs.

On birch. Glamis.

The original examples at Kew look like dwarf specimens of *Stereum hirsutum*.—W. G. S.

GENUS 46. STEREUM.

I. MERISMA.—*Pilei very numerous, ascending, imbricated in a free tuft.*

No British examples recorded.

II. APUS.—*Pileus sessile, at first resupinate, then commonly pileo-reflexed, or adnate behind; coriaceous; marginate.*

* *Hymenium smooth.*

1. S. ochroleucum, Fr.: pileus horny, coriaceous-membranaceous, free, expanded, flaccid, silky, zoned; hymenium even, smooth, yellowish, or grey.

On wood. Glamis.

2. S. purpureum, P. (p. 270). Epping Forest.

3. S. vorticosum, Fr.; pileus pallid, margin same colour; coriaceous, effuso-reflexed, obscurely zoned, strigoso-hirsute; hymenium somewhat ribbed, smooth, purplish.

On beech. Menmuir, Forfarshire.

4. S. hirsutum, Fr. (p. 270). Epping Forest.

5. S. spadiceum, Fr. (p. 270). Epping Forest.

6. S. sanguinolentum, Fr. (p. 271). Epping Forest.

** *Hymenium simple, slightly bristly or velvety.*

7. S. rubiginosum, Fr., = *Hymenochaete rubiginosa* Lev. (p. 271).

Epping Forest.

8. S. tabacinum, Fr., = *Hymenochaete tabacina* Lev. (p. 271).

Epping Forest.

9. S. rufo-hispidum, Stev.; pallid fawn-colour; rigid, margin obtuse, raised, hispid with rufous bristles.

On bark of yew. Craig-y-barns. Dunkeld.

10. *S. avellatum*, *Fr.*; coriaceous, hard; pileus dingy, effused, and as well as the obtuse, free, narrowly reflexed, date-brown margin, villous; hymenium even, velvety, then pruinose and becoming smooth, pale ferruginous, here and there bleeding.

*** *Woody; perennial; scarcely reflexed, but marginate; hymenium stratose by confluent pilei, at first pruinose.*

11. *S. frustulosum*, *Fr.*; date-brown blackish; woody, resupinate, tubercular, crowded, as if confluent, then broken in fragments, smooth beneath and at the obsoletely marginate circumference; hymenium convex, cinnamon, then pale, pruinose.

On hard oak wood. South of England.

**** *Rigid; simple hymenium pruinose.*

12. *S. rugosum*, *Fr.* (p. 271). Epping Forest.

13. *S. pini*, *Fr.*; pallid; coriaceo-cartilaginous, resupinate, adnate in shield-form, somewhat marginate, smooth beneath, at length bullate; hymenium purplish-flesh-colour, becoming fuscous, pruinose.

On bark of Scotch fir. Glamis.

14. *S. rufum*, *Fr.*; rufous, then fuscous; coriaceo-cartilaginous, erumpent, tuberculiform, then somewhat round, marginate, smooth beneath; hymenium grey pruinose, at length bullate-tubercular.

On dead pine and ash. Glamis.

III. RESUPINATA.—*Crustaceo-adnate, intermediate, without a distinct pileus, at length admitting of being detached like a piece of leather; circumference not flaky; incrusting wood.*

* *True species; coriaceous.*

15. **S. stratosum**, *B. and Br.*; effused; bright ochraceous-white, smooth, becoming yellow; here and there wrinkled, stratose, the strata at length breaking up.

Penzance.

** *Imperfect; crustaceo-adnate; sterile.*

16. **S. acerinum**, *Fr.* (p. 271).

GENUS 47. AURICULARIA.

1. **A. mesenterica**, *Bull.* (p. 272); 2–3 in. Epping Forest.

2. **A. lobata**, *Somm.* (p. 272); 7 in.

GENUS 48. CORTICIUM (p. 272).

I. LOMANTIA.—*Resupinate, but free at circumference, determinate, marginate, commonly cup-shaped, then expanded.*

1. **C. evolvens**, *Fr.*; resupinate, marginate or effuso-reflexed, soft, flocculose with whitish down beneath, zoneless; hymenium naked, smooth, somewhat wrinkled, fuscous, becoming paler; divided in cracks when dry.

On dead wood, especially cherry.

2. **C. salicinum**, *Fr.*; white villous externally, coriaceous, soft, rigid when dry, persistently cup-shaped, adfixed at centre; hymenium rather even, naked, persistently blood-red; continuons when dry.

On *Salix aurata*. Kinrara, Morayshire.

3. **C. amorphum**, *Fr.*; $\frac{1}{4}$ in.; white-tomentose externally; waxy pliant, somewhat coriaceous, cup-shaped, then

flattened, confluent, marginate ; hymenium even, continuous, pale.

On silver fir. Perth, Dunkeld.

- II. **HIMANTLE.**—*Resupinate, effused, immarginate, clothed with flaxy fibrils or strigosely hairy at circumference and beneath : often sterile ; mycelium fibrillose : hymenium wavy-soft.*

* *Mycelium and circumference white.*

4. **C. giganteum**, *Fr.* (p. 272).
5. **C. lacteum**, *Fr.* (p. 273).
6. **C. porosum**, *Fr.* ; *B.* and *Curt.* ; resupinate ; white ; here and there porous, margin free, reflexed.

On wood, Aboyne.

7. **C. arachnoideum**, *B.* (p. 273).
8. **C. fœtidum**, *B.* and *Br.* ; effused, resupinate, arachnoid beneath ; white, then ochraceous and smooth.

On sawdust. Coed Coch.

9. **C. læve**, *P.* (p. 273). Epping Forest.
10. **C. roseum**, *P.* (p. 273).

** *Mycelium and circumference coloured.*

11. **C. velutinum**, *Fr.* (p. 273),
12. **C. subdealbatum**, *B.* and *Br.* ; shining white ; effused ; hymenium pallid fawn-colour with the bristles.

On fir. Badmington.

13. **C. lactescens**, *Berk.* (p. 274).
14. **C. sanguineum**, *Fr.* (p. 273).
15. **C. sulphureum**, *Fr.* (p. 274).
16. **C. cinnamomeum**, *Fr.* ; cinnamon ; effused, irregular, confluent, adpressed, fibrilloso-strigose beneath and at circumference ; hymenium fleshy, soft, smooth, naked, same colour ; cracked when dry.

On birch log. Glamis.

17. *C. cæruleum*, Fr. (p. 274).
 18. *C. atro-virens*, Fr. (p. 274).

III. LEIOSTROMA.—Agglutinated without a strigose or fibrillose circumference; mycelium passing at once into hymenium which is agglutinated to the substratum; hymenium thicker, waxy-soft, fertile; or thinner and sterile.

* Waxy, when fertile facing the ground, uniform, rimose when dry.

19. *C. calceum*, Fr. (p. 274).

20. *C. puberum*, Fr.; white or clay-colour; broadly effused, waxy, closely adnate, indeterminate; hymenium even, velvety with short bristles, cracked when dry.

On dead wood. Aboyne. Forres. Glamis.

21. *C. scutellare*, B. and Curt.; whitish, then slightly tan-colour; resupinate, effused, immarginate; hymenium broken up into minute areolæ.

On *Ulex*. Strachan, Kincardineshire. Glamis.

22. *C. lividum*, Pers. (p. 275).

23. *C. ochraceum*, Fr. (p. 275).

•• Amphigenous; becoming rigid, circumference very thinly floccose and radiating, soon naked.

24. *C. quercinum*, Fr. (p. 275). Epping Forest.

25. *C. cinereum*, Fr. (p. 275).

26. *C. incarnatum*, Fr. (p. 275). Epping Forest.

27. *C. nudum*, Fr. (p. 276).

Var. citrinum, P.; hymenium papillose; colour bright light yellow.

On dead wood. Moncreiffe.

28. *C. confluens*, Fr. (p. 276).

*** *Amphigenous*; at first hardened, somewhat grumous, circumference naked.

29. *C. polygonium*, Pers. (p. 276).

30. *C. violaceo-lividum*, Fr.; violaceous livid; somewhat effused, adnate, hardened; hymenium spuriously corrugated, tubercular, sprinkled with thin whitish pruina.

On dead wood. Glamis.

31. *C. maculæforme*, Fr.; $\frac{1}{3}$ in.; somewhat rose-colour; orbicular, then confluent, hardened, thin, circumference similar, smooth; hymenium spuriously papillose, bluish-grey-pruinose.—*Fl. Dan.*, t. 1738, f. 2.

On dead wood. Penzance.

32. *C. limitatum*, Fr.; lurid; becoming pale, roundish, closely adnate, grumous-hardened, smooth, circumference with a defined black edge; hymenium naked.

On *Cytisus*. Perth.

33. *C. corrugatum*, Fr.; pallid cinnamon; somewhat effused, closely adnate, soon grumous; hymenium beset with ferruginous bristles, very much cracked when dry.= *Hymenochæte corrugata*, B. (vol. i. p. 272).

On dead wood. Very common.

**** *Amphigenous*; very thin, innate, removing the bark.

34. *C. comedens*, Fr. (p. 276). Epping Forest.

***** Less known species, doubtful.

35. *C. aurora*, Berk. (p. 276).

36. *C. typhæ*, Fckl.; longitudinally effused, thin, at first orbicular, white and flaxy, smooth, then somewhat mealy, tan-colour.

On *Typha latifolia*. North Wootton.

Subgenus 1.—**CONIOPHORA**.—*Fleshy, undulate and tubercular, rarely membranaceous, becoming even; hymenium smooth, pulverulent with the spores: growing on wood.*

37. *C. puteanum*, Fr., = *Thelephora puteana*, Schum. (vol. i. p. 269).

Epping Forest.

Var. cellare P. Epping Forest.

38. *C. stabulare*, Fr.; effused, flaxy, white, then fleshy-soft, vinous-fuscous, circumference flaxy, white; hymenium tubercular, white-pruinose, tubercles collapsing.

On fir wood. Perth. Odour fœtid.

39. *C. umbrinum*, Fr.; umber; effused, fleshy-soft, villosus beneath, circumference short, radiating, same colour; hymenium tubercular then collapsing, ferruginous-pulverulent.

On dead wood. Penzance. Hothorpe.

40. *C. laxum*, Fr., = *Thelephora laxa*, Fr. (vol. i. p. 269).

41. *C. byssoides*, Fr., = *Thelephora byssoides*, P. (vol. i. p. 269).

42. *C. aridum*, Fr., = *Thelephora arida*, Fr. (vol. i. p. 269).

Subgenus 2.—**HYPONCHUS**.—*Breaking up and becoming floccose, or furnished with a tomentose, somewhat pulverulent hymenium.*

* *Breaking up and becoming floccose.*

43. *C. serum*, Fr.; white; broadly effused, incrusting, thin, fleshy, smooth, pruinose, then and when dry splitting open into flocci, papillæ round, crowded together, equal.

On trunks in winter. Epping Forest. Glamis. Meumuir.

44. *C. sambuci*, Fr. (p. 276).

** *Hymenium tomentose, somewhat pulverulent.*

45. *C. olivaceum, Fr.*, = *Thelephora oliracea, Fr.* (vol. i. p. 269).

Epping Forest.

46. *C. ferrugineum, Fr.*; ferruginous; effused, adnate, everywhere tomentose; hymenium papillose, pulveraceous.

On branches. Altyre.

47. *C. lacunosum, B. and Br.*; broadly effused, soft, mycelium woolly-tawny, lacunose; hymenium pulverulent.

On branches. Aboyne.

48. *C. anthochroum, Fr.*, = *Thelephora anthochroa, P.* (vol. i. p. 270).

GENUS 49. CYPHELLA, *Fr.* (p. 277).

* LIGNICOLE.—*Growing on wood.*

1. *C. Bloxami, B. and Phill.*; white; floccoso-membranaceous; disc becoming light yellow, crenato-lobed; flocci even.

On *Ulex*. Twycross.

2. *C. griseo-pallida, Weinm.* (p. 277).

3. *C. ochroleuca, B. and Br.* (p. 277).

4. *C. stuppea, B. and Br.*; erumpent, sessile, pezizæform, externally coarsely hispid, brownish, then becoming white; hymenium fuscous.

On broom. Menmuir, Forfarshire.

5. *C. fulva, B. and Rav.*; brown-tawny; membranaceous, cup-shaped, deflexed, externally tomentose.

On dead bark.

6. *C. brunnea, Phill.*; $\frac{1}{3}$ – $\frac{1}{2}$ in., scattered or crowded; dirty brown; sessile, cupulate, clothed near the margin with a grey pruina, margin incurved, lacerated, mouth

oblique; hymenium smooth, discoloured-brown; flesh paler, subgelatinous.

On bark and wood of old elder trees. Shrewsbury.

7. *C. fraxinicola*, *B. and Br.*; minute; orbicular, externally white; shortly villous; disc light yellow, becoming fuscous with the spores; proliferous.

On ash. Batheaston.

8. *C. Curreyi*, *B. and Br.* (No. 935); gregarious, sometimes slightly crowded; pezizæform; white externally, villose.

On twigs of broom, furze, elm, etc. Not uncommon.
Epping Forest.

** MUSCICOLE.—*Growing on mosses.*

9. *C. muscigena*, *Fr.* (p. 277).

10. *C. galeata*, *Fr.* (277).

11. *C. catilla*, *Sm.*; $\frac{3}{4}$ in., somewhat membranaceous, expanded, margin crisped, and undulated; hymenium veined, broad, grey.

On moss and dead leaves. King's Lynn.

12. *C. muscicola*, *Fr.* (p. 277).

*** STIPITICOLE.—*Growing on stems.*

13. *C. lacera*, *Fr.* (p. 277).

14. *C. capula*, *Fr.* (p. 277).

Var. cernua, *Schum.* (*Flor. Sælland*, p. 421); minute; scattered; whitish, pallid; cyathiform, nodding, margin entire or laciniate, teeth unequal, somewhat turned in; stem rather short, thin, dilated at apex, diaphanous, when old umber at base.

On elder bark. Ayrshire.

15. *C. Pimii*, *Phill.*; $\frac{1}{6}$ in., fasciculate; white or very

pale yellow; cup-shaped, erect or pendent, membranaceous, pubescent, margin of cup somewhat incised; stem rather slender, crooked, enlarged upwards.

On dead herbaceous stems in water. Dublin.

**** CAULICOLE AND EPIPHYLL.E.—*Growing on stalks and leaves.*

16. **C. pallida**, *B. and Br.*; cups $\frac{1}{2}$ in., sometimes proliferous; at first orbicular, at length irregularly lobed, plane, tomentose, or slightly hispid, sessile; hymenium at length wrinkled, pallid ochraceous.

On old stems of *Clematis vitalba*.

17. **C. cuticulosa**, *B.* (p. 278).

18. **C. Goldbachii**, *Weinm.* (p. 278).

19. **C. dochmiospora**, *B. and Br.*; white; minute; pezizæform; hairs not granulated.

Bathaston. Epping Forest.

ORDER 5. CLAVARIEI (p. 278).

GENUS 50. SPARASSIS, Fr.

Fleshy; branched, with flat, leaf-like branches, composed of two plates, fertile on both sides.

1. **S. crispa**, *Fr.*; 4–12 in., whitish; very much branched, intricate, recurved at apex, zoneless, serrated.—*Sv. ütl. Sv. t. 17; Kl. Bor. t. 463; Hogg and Johnst. t. 24; Bail. t. 27; Wulf. in Jacq. Misc. t. 14, f. 1; Kromb. t. 22, f. 2, 3; Schæff. t. 163.*

Beside fir trees and stumps. Rare. Edible.

GENUS 51. CLAVARIA, L. (p. 278).

1. RAMARIA.—*Branched, branches attenuated upwards.*

A. LEUCOSPORÆ.—*Spores white or pallid.*

* *Colour bright, yellow, red, or violet; on the ground.*

1. C. botrytes, P. (p. 278); 3 in.

2. C. amethystina, Bull. (p. 279); 3 in. Epping Forest.

3. C. fastigiata, L. (p. 279); 1 in. Epping Forst.

4. C. muscoides, L. (p. 249).

5. C. curta, Fr.; greenish-yellow; very small; very much branched, pressed close together; stem none; branches short, crowded, obtuse.

On the ground. Coed Coch. Holme Lacy.

** *Colour white or grey; on the ground.*

6. C. coralloides, L. (p. 279). Epping Forest.

7. C. cinerea, Bull. (p. 279). Epping Forest.

8. C. umbrina, B. (p. 279).

9. C. cristata, P. (p. 280). Epping Forest.

10. C. rugosa, Bull. (p. 280). Epping Forest.

11. C. Krombholzii, Fr.; cæspitose; shining white: fragile, even, sparingly branched; branches somewhat compressed, obtuse.—Kromb. t. 53, f. 15, 16, 18–20; Bull. t. 496, f. 3.

In old pastures. Glamis. Moncreiffe.

12. C. Kunzei, Fr. (p. 280).

*** *Colour whitish or dingy; on wood.*

13. C. pyxidata, P.; 4–5 in., pallid, then tan-colour, somewhat rufescent; trunk thin, smooth, branched; branches and branchlets hollowed out in cup-shape at apex, cups

radiate in a proliferous manner at margin.—*Pers. Comm.*
.1, f. 1; *Fl. Dan.*, t. 1304, f. 1.
On the ground. Penzance.

b. OCHROSPOR.E.—*Spores ochraceous or cinnamon; spongy,
tough; the majority bitter.*

* Colour yellow, somewhat cinnamon, saffron; on the ground.

14. C. aurea, Schœff. (p. 280); 3–4 in. Epping Forest.

15. C. formosa, P.; trunk thick, whitish, elastic; branches very much ramified, elongated, orange-rose-colour, branchlets obtuse, light yellowish.—*Pers. Ic. and Desc.* t. 3, f. 5; *Kromb.* t. 54, f. 21, 22; *Holmsk.* 1 n, 13, *Icon.*; *Corda Ic.* iii. f. 136; *Harz.* t. 7, lower fig.; *Batsch*, f. 48.

In woods. Rare.

16. C. spinulosa, P.; trunk short, rather thick, pallid; branches elongated, crowded, tense and straight, attenuated, somewhat cinnamon, fuliginous-date-brown, same colour at apex.

In pine woods. Coed Coch.

17. C. abietina, P. (p. 280); 2–3 in.

18. C. flaccida, Fr. (p. 280); 1–1½ in.

19. C. crocea, P. (p. 280).

** Colour whitish, grey or violet; on the ground.

20. C. grisea, P. (p. 281). Epping Forest.

21. C. condensata, Fr.; 3–4 in., tan-rufescent; tufts very dense, without a common trunk, very much branched from base; smooth, unchangeable when bruised; branches tense and straight, crowded in a parallel manner, even,

fastigiate at apex, twice or thrice-toothed, yellow.—*Schæff.*
t. 177.

On the ground, under trees. West Farleigh.

*** *Growing on trunks.*

22. *C. stricta*, *P.* (p. 281).
23. *C. crispula*, *Fr.* (p. 281); 1-3 in.

II. SYNCORYNE.—*Somewhat simple, cæspitose at base or fasciculate.*

* *Reddish.*

24. *C. purpurea*, *Fr.* (p. 281); 3 in.
25. *C. rufa*, *Fl. Dan.*; 1½ in., cæspitose; rufous; clubs
stuffed, thickened, somewhat bifid, acute.

On the ground. Rannoch. The Burn, Forfarshire.

26. *C. rosea*, *Fr.* (p. 281), 1½ in.

** *Yellowish or white.*

27. *C. fusiformis*, *Sow.* (p. 281); 3 in. Epping Forest.
28. *C. ceranoides*, *P.* (p. 282); 3 in.
29. *C. inæqualis*, *Fl. Dan.* (p. 282); 1-3 in. Epping
Forest.

Var. aurantiaca, *P.*; somewhat wrinkled and compressed.—*Kromb.* t. 53, f. 19, 20; *Vaill.* t. 7, f. 5.

30. *C. argillacea*, *Fr.* (p. 282); ½-1 in.
31. *C. vermicularis*, *Scop.* (p. 282); 3 in. Epping
Forest.
32. *C. fragilis*, *Holmsk.* (p. 283); 1-3 in. Epping
Forest.

*** *Fuliginous or blackish.*

33. *C. striata*, *P.*; cæspitose; fistulose; subfuliginous;
clubs very long, flexuous, somewhat twisted, sparsely striate.
—*Pres. Ic. and Desc.* t. 3, f. 5.

On the ground. General cemetery, Shrewsbury.

34. *C. fumosa*, *P.*; fuliginous; fasciculate, fistulose, fragile; clubs even, tense and straight, somewhat compressed.—*Kromb.* *t.* 53, *f.* 18.

In pastures. Uncommon.

III. HOLOCORYNE.—*Somewhat simple, separate at base.*

* *Colour changeable, becoming dark.*

35. *C. pistillaris*, *L.* (p. 283); 6–12 in. Epping Forest.

36. *C. ligula*, *Fr.*; yellowish when young, then pallid-refuscent; simple, gregarious, spongy-fleshy, elongate, clavate, obtuse, villous at base.—*Schmeid.* *Ic.* *t.* 5, upper fig.; *Fl. Dan.* *t.* 837; *Wulf.* in *Jacq. Misc.* *ii.* *t.* 2, *f.* 2; *Sv. Bot.* *t.* 504, *f.* 3; *Schæff.* *t.* 171; *Kromb.* *t.* 52, *f.* 12.

In woods. Strachan, Kincardineshire.

37. *C. contorta*, *Holmsk* (p. 283); 1 in. Epping Forest.

38. *C. fistulosa*, *Fr.*; light yellowish, then rufescent; simple, slender, very long, tense and straight, fistulose, rather obtuse; root short, villous.—*Fl. Dan.* *t.* 1256, 1100, *f.* 3; *Holmsk.* *i.* p. 15, with fig.; *Kromb.* *t.* 5, *f.* 19.

On small branches and twigs.

Var. Ardenia, *Sow.* (p. 283); 8 in. The variety only recorded as British.

39. *C. juncea*, *Fr.* (p. 283).

40. *C. tuberosa*, *Sow.* = *Calceora tuberosa*, *Fr.* (vol. i. *f.* 284).

** *Colour unchangeable, commonly shining white.*

41. *C. canaliculata*, *Fr.*; 3 in., shining white; solitary; fistulose, slightly tough, very smooth, not rooting, at length compressed, channelled or splitting longitudinally.—*Quel.* *t.* 21, *f.* 1. *Bull.* *t.* 496, *f.* L.M.

On the ground. Coed Coch.

42. *C. tenuipes*, *B. and Br.* (p. 281); 1 in.

43. *C. incarnata*, *Weinm.*; gregarious; $\frac{1}{2}$ - $1\frac{1}{2}$ inch; flesh-colour, white-pruinose, internally purple; simple, solid, cylindrical.

On the ground. Terrington, Norfolk.

44. *C. acuta*, *Sow.* (p. 283); 1-3 in.

45. *C. uncialis*, *Grev.* (p. 284); 1 in.

GENUS 52. CALOCERA, *Fr.* (p. 284).

* *Branched.*

1. *C. viscosa*, *Fr.* (p. 284); 1 in. Epping Forest.

2. *C. palmata*, *Fr.*; orange-yellow; branched, tremelloso-tough, compressed, dilated upwards, divided; branchlets somewhat round, divaricate, obtuse.

On wood. Twycross.

C. tuberosa, *Fr.* Transferred to *Clavaria*, No. 40.

** *Cæspitose.*

3. *C. cornea*, *Fr.* (p. 284); $\frac{1}{2}$ in. Epping Forest.

4. *C. corticalis*, *Fr.*; $\frac{1}{12}$ in., pallid flesh-colour; cæspitose, erumpent, soft, pellucid; clubs small, awl-shaped, somewhat distinct.—*Batsch. f.* 162.

On dead bark. Penzance.

*** *Simple, distinct.*

5. *C. stricta*, *Fr.*; $\frac{1}{2}$ -3 in., yellow; simple, solitary, elongated, blunt at base, linear, even when dry.—*Bonord, f.* 255.

On ash. Belvoir Castle.

6. *C. striata*, *Fr.*; yellow; simple, solitary, tough, lanceolate, acute, striate when dry.—*Hoffm. Germ. t. 7, f. 1.*

On prostrate trunks. Batheaston.

7. *C. glossoides*, Fr. (p. 284); $\frac{1}{2}$ in.

GENUS 53. PTERULA, Fr.

Cartilaginous, filiform, arid, equal, without a distinct stem; hymenium pubescent, then smooth; simple or branched.

1. *P. subulata*, Fr.; $1\frac{1}{2}$ in.; densely crowded, tense and straight, thread-like, equal except at attenuated base; sparingly branched, branches growing into each other, whitish cinereous, multifid at apex, awl-shaped, smooth, becoming yellow.—*Linn.* 1830, *t. 11, f. 4.*

On wood. Burnham Beeches.

2. *P. multifida*, Fr.; 1–2 in.; pallid-whitish, then dirty pale-yellowish; very much branched, very delicate, flaccid, slightly tough; branches tense and straight, almost hair-like, heaped as if swept together, somewhat fastigiate, spear-shaped at apex, same colour.

On dead branches.

GENUS 54. TYPHULA, Fr. (p. 284).

1. PHACORRHIZE.—*Springing from sclerotoid hybernacula.*

1. *T. erythropus*, Fr. (p. 284); $\frac{1}{2}$ in.

2. *T. phacorrhiza*, Fr. (p. 284); 3–4 in. Epping Forest.

3. *T. incarnata*, Lasch. (p. 285).

4. *T. gyrans*, Fr.; white; simple, very tender, somewhat cylindrical; stem thin, pubescent; hybernaculum pallid, becoming fuscous.—*Batsch.* *f. 164.*

On straw, etc. Uncommon. The hybernaculum is *Sclerotium complanatum*.

5. *T. musicola*, Fr. (p. 285); 2–3 in.

II. LEPTORRHIZÆ.—*Radical tubercle wanting.*

6. *T. Grevillei*, *Fr.* (p. 285).
7. *T. gracillima*, *White*; white; stem very slender, curved, smooth, club elongated.
On various herbaceous plants. Perth.
8. *T. filiformis*, *Fr.* (p. 285).
9. *T. gracilis*, *B. and Desm.* (p. 285); $\frac{1}{12}$ in.
10. *T. translucens*, *B. and Br.*; minute; white; pellucid; stem short, thickened upwards; head irregular, somewhat obovate.

On the ground. Glamis.

GENUS 55. PISTILLARIA, *Fr.* (p. 285).

1. *P. micans*, *Fr.* (p. 285); $\frac{1}{12}$ in.
2. *P. culmigena*, *Fr.* (p. 285).
3. *P. quisquiliaris*, *Fr.* (p. 286); $\frac{1}{3}$ in. Epping Forest.
4. *P. furcata*, *Sm.*; $1\frac{1}{4}$ in.; clubs white or yellowish; waxy, then tough, compressed, broad at apex, attenuated downwards, generally furcate and cæspitose.

In greenhouses.

5. *P. puberula*, *Berk.* (p. 286); $\frac{1}{12}$ in.
6. *P. pusilla*, *Fr.* (p. 286); $\frac{1}{12}$ in.

GENUS 56. MYCROCERA.

External veil persistent, membranaceous-floccose, breaking above into many laciniæ; receptacle fleshy, club-shaped, formed of simple spore-bearing fibres, spores fusiform, arcuate.

No British examples recorded.

ORDER 6. TREMELLINEI.

GENUS 57. TREMELLA, Fr. (p. 286).

i. MESEENTERIFORMES.—*Gelatinous, inclining to cartilaginous, foliaceous, naked.*

1. *T. fimbriata*, *P.* (p. 286) ; 2–3.
2. *T. frondosa*, *Fr.* (p. 286).
3. *T. foliacea*, *P.* (p. 287) ; 1–2. Epping Forest.
4. *T. lutescens*, *P.* (287) ; $\frac{1}{2}$ –1 in.

ii. CEREBRINÆ.—*Firm, then pulpy, somewhat pruinose with the spores.*

5. *T. mesenterica*, *Retz.* (p. 287). Epping Forest.
6. *T. intumescens*, *Sm.* (p. 288).
7. *T. vesicaria*, *Eng. Bot.* (p. 287).
8. *T. albida*, *Hud.* (p. 287) ; 1 in. Epping Forest.

iii. CRUSTACEÆ.—*Diffused, becoming plane.*

9. *T. viscosa*, *B.* (p. 288).
10. *T. epigæa*, *B.* and *Br.* (p. 289).

iv. TUBERCULIFORMES.—*Small ; somewhat eruptive.*

11. *T. violacea*, *Rehl.* = *Dacrymyces violaceus*, *Fr.* (vol. i. p. 290).
12. *T. indecora*, *Sommerf.* (p. 288) ; $\frac{1}{3}$ in.
13. *T. moriformis*, *Eng. Bot.* (p. 287).
14. *T. tubercularia*, *B.* (p. 288).
15. *T. foliicola*, *Fckl.* ; white above, brown below ; scattered, crowded, somewhat sessile, granular, globose, gelatinous above, hard and dry below, when dry cup-shaped.
On lower surface of leaves of *Rubus fruticosus*, with *Phragmidium*.

16. *T. torta*, *B.* (p. 288). $\frac{1}{4}$ in.

17. *T. versicolor*, *B.* (p. 288).

T. sarcoides, *Sm.* = *Ombrophila sarcoides*, *Jacq.*
one of the *Discomycetes*.

GENUS 58. EXIDIA (p. 289).

I. AURICULINÆ.—*Pezizoid.*

1. *E. truncata*, *Fr.*; 1 in., black; shining, soft, distended with jelly; disc truncato-plane, glandular, at length cavernous, rough with dots beneath; stem very short.

On lime branches. Yester Gardens.

2. *E. recisa*, *Fr.* (p. 289).

II. SPICULARIÆ.—*Somewhat plane, unpolished beneath,
glandular, here and there gyrose.*

3. *E. glandulosa*, *Fr.* (p. 289); 2–3 in. Epping Forest.

4. *E. saccharina*, *Fr.* (p. 89).

GENUS 59. HIRNEOLA, *Fr.* (p. 289).

1. *H. auricula-Judæa*, *B.* (p. 289). 1–3 in.

GENUS 60. FEMSJONIA, *Fr.*

Cup-shaped, distended with firm jelly, different on the two sides; disc thick, heterogeneous, even, not glandular; sporophores immersed, globose; spores oblong, curved; on wood, erumpent, brightly coloured.

No British examples recorded.

GENUS 61. NÆMATELIA, *Fr.* (p. 290).

1. *N. encephala*, *Fr.* (p. 290); $\frac{1}{2}$ in.

2. *N. nucleata*, *Fr.* (p. 290); $\frac{1}{3}$ in.

3. *N. virescens*, *Corda* (p. 290).

GENUS 62. GUEPINIA, Fr.

Gelatinous inclining to cartilaginous ; free ; different on the two sides, variable in form ; substipitate ; hymenium confined to one side ; sporophores linear, long-forked, two spored ; spores curved.

1. *G. peziza*, *Tul.* ; yellow ; cup-shaped, somewhat sessile, smooth on both sides, adnate behind ; stem slender.

On wood. Shere.

GENUS 63. DACRYMYCES, Nees (p. 290).

* *Red.*

1. *D. macrosporus*, *B.* and *Br.* ; rose-colour ; gelatinous, tuberculated.

On dead branches. Batheaston.

** *Yellowish.*

2. *D. deliquescentia*, *Dub.* (p. 291) ; $\frac{1}{2}$ in. Epping Forest.
3. *D. stillatus*, *Nees.* (p. 291). Epping Forest.
4. *D. chrysocomus*, *Tul.* (p. 291). Epping Forest.

*** *Pallid or fuscous.*

5. *D. sebaceus*, *B.* and *Br.* ; $\frac{1}{3}$ in., whitish ; somewhat round, composed of filaments which are variously branched and often clavate above.

On twigs of ash and maple. Bath.

6. *D. succineus*, *Fr.* ; amber-colour ; punctiform, somewhat gelatinous, smooth, becoming pale externally when moistened, disc darker and immarginate.

On pine leaves, Grantown, Morayshire.

7. *D. vermiformis*, *B.* and *Br.* ; grey ; minute, worm-shaped ; sporophores globose, pallid-fuscous.

On rotten wood. Batheaston.

D. violaceus, Fr. ; removed to *Tremella violacea*.

Apyrenium lignatile, Fr. }
 (p. 291) ; } Probably imperfect forms of
Hymenula punctiformis, } other fungi, not belonging to
B. and Br. (p. 291) ; } the Fam. *Hymenomycetes*.
Ditiola radicata, Fr. (p. 291) = *Dacrymyces deliquescent*.

FAMILY II.—GASTEROMYCETES.

ORDER 7. HYPOGÆI.

64. OCTAVIANIA, Vitt. (p. 292).

1. *O. asterosperma*, Vitt. (p. 293) ; generally near the surface, often partially exposed.

2. *O. Stephensii*, Vitt. (p. 293) ; $\frac{3}{4}$ in., near the surface, often wholly superficial ; often covered with dead leaves.

3. *O. compacta*, Tul. ; small ; snowy-white ; peridium rather soft, cottony ; cells rounded or oblong, very minute, soon obliterated, septa scarce conspicuous ; spores very small, spherical, rough, yellowish, then ochraceous.—*Tul. Hyp.*, 79, t. xi. f. 3.

In woods. Shoreham.

65. MELANOGASTER, Cda. (p. 293).

1. *M. variegatus*, Tul. (p. 293) ; gregarious ; some two or three inches beneath the surface, or partly exposed, only covered by leaves and twigs ; under beeches, poplars, etc.

2. *M. ambiguus*, Tul. ; same habit as last.

66. HYDNANGIUM, *Wallr.* (p. 293).

1. *H. carotæcolor*, *B.* (p. 293) ; generally superficial.
2. *H. carneum*, *Wallhr.* ; subglobose, irregular, smooth, flesh-coloured ; cells pale flesh colour, immutable ; basidia prominent ; spores spherical, echinulate ; spinules long, slightly coloured.

Generally superficial.

About the roots of *Eucalypti*. Edinburgh.

67. HYSTERANGIUM, *Vitt.* (p. 294).

1. *H. nephriticum*, *B.* (p. 294) ; commonly eight or nine inches deep in the ground, with copious mycelium.
2. *Thwaitesii*, *B.* and *Br.* (p. 294) ; habit same as last.

68. RHIZOPOGON, *Tul.* (p. 294).

1. *R. rubescens*, *Tul.* ; almost superficial, but often some inches deep in very light peaty or fibrous soil.

69. HYMENOGASTER, *Tul.* (p. 295).

1. *H. Klotzschii*, *Tul.* (p. 295).
2. *H. muticus*, *B.* and *Br.* (p. 295).
3. *H. luteus*, *Vitt.* (p. 295).
4. *H. decorus*, *Tul.* (p. 295).
5. *H. vulgaris*, *Tul.* (p. 296).
6. *H. pallidus*, *Tul.* (p. 296).
7. *H. citrinus*, *Vitt.* (p. 296). Edible.
8. *H. olivaceus*, *Vitt.* (p. 296).
9. *H. tener*, *B.* (p. 296).
10. *H. Thwaitesii*, *B.* and *Br.* (p. 297).
11. *H. pusillus*, *B.* and *Br.* (297) ; the habit of all the species of *Hymenogaster* is nearly superficial.

ORDER 8. *PHALLOIDEI.*70. **PHALLUS**, *L.* (p. 297).

1. **P. impudicus**, *L.* (p. 297).
2. **P. iosmus**, *B.* (p. 298).

71. **MUTINUS**, *Huds.*, *Fl. Angl.*

= *CYNOPHALLUS*, *Fr.* (p. 298).

1. **M. caninus**, *Fr.* (p. 298).
2. **M. bambusinus**, *Zoll. Syst. Verz.* 1854, p. 11; whole fungus about 4 in. high; stem pallid, rubiginous, or rosy, 6–8 mm. thick, the walls containing one stratum of cavities; capitulum long, half the entire length, acutely conical, dingy purple, externally rugose, impervious at apex; mass of spores, sooty-olive; spores 6 × 4 mm.

On the ground. Sunningdale.

72. **CLATHRUS**, *Mich.* (p. 298).

1. **Clathrus cancellatus**, *L.* (p. 298).

ORDER 9. *TRICHOGASTRES.*73. **BATARREA**, *P.* (p. 299).

1. **B. phalloides**, *P.* (p. 299).

74. **TULOSTOMA**, *P.*

1. **T. mammosum**, *Fr.* (p. 299).

75. GEASTER, *Mich.* (p. 299).

1. *G. coliformis*, *P.* (p. 299).
2. *G. fornicatus*, *Fr.* (p. 299).
3. *G. striatus*, *D. C.* (p. 300).
4. *G. Bryantii*, *B.* (p. 300).
5. *G. limbatus*, *Fr.* (p. 300).
6. *G. fimbriatus*, *Fr.* (p. 300).
7. *G. mammosus*, *Chev.* (p. 300).
8. *G. rufescens*, *P.* (p. 300).
9. *G. hygrometricus*, *P.* (p. 301).
10. *G. Michelianus*, *Worth. Sm.*; outer peridium pale buff, thick, fleshy, generally splitting into five or six sub-equal laciniae, clothed on the outside with a thin, dark brown bark, which again splits into elegant honeycomb patterns; inner peridium pale slatey buff, spherical; mouth prominent, obtuse, dentate, paler in colour than body of inner peridium; spores tuberculoso-echinulate.—*G. Chron.* 1873; *Grevillea*, ii. p. 35, f. xiii.; *Mich. t.* 100, f. 1; *Cke. Handbook*, No. 1079. *G. tunicatus*, *Grevillea*, i. p. 40; *G. cryptorrhynchus*, *Kalchb.*

On the ground.

Spores .00014" dia. When mature, and when the outer peridium bursts, this plant sometimes throws itself nine or more inches away from its place of growth.

11. *G. saccatus*, *Fr.*; outer peridium saccate, cleft into many flaccid subinvolute laciniae; interior peridium sessile, crowned with a circular flat disc, and a sharp, silky mouth: spores dark brown, slightly echinulate.

By hedge banks. Truro.

Spores .00013 in. dia.

12. *G. lagenæformis*, *Vitt.*; outer peridium splitting

to the middle, in nearly equal, acuminate laciniæ, inner stratum very thick, evanescent; inner peridium sessile, flaccid; mouth determinate, plano-conic, ciliato-fimbriate; columella rather long, clavate.—*Vitt. Lycop.* t. 1, f. 2; *Payer*, f. 519, 520; *Grevillea*, ii. p. 35, p. xiv.

On the ground.

In infancy this Geaster resembles an antique jar with a narrow mouth, hence the specific name; spores spherical, in this differing from the majority of Geasters, '00012" dia.

76. BOVISTA, Dill. (p. 301).

1. *B. nigrescens*, P. (p. 301).
2. *B. plumbea*, P. (p. 301).

3. *Bovista ovalispora*, Cke. and Mass.; subglobose; sessile; cortex thin, whitish or ochraceous, subpersistent; peridium thin, flaccid, smooth, dull lead-colour, dehiscing by an irregular apical rupture; capillitium and spores umber in the mass; threads 12–16 mm. at the thickest part, much and vaguely branched, tapering to long slender tips, dirty umber by transmitted light; spores oval, $6 \times 4\frac{1}{2}$ mm., brownish umber, with a narrow hyaline border caused by the thickened episore; pedicels long and stout, hyaline.

On the ground. Kew.

Differing from *B. plumbea* in being 2 inches or more large, in the oval spores, and from *B. nigrescens* in the oval spores and absence of the purple tinge in the capillitium and spores.

4. *B. olivacea*, Cke. and Mass.; globose, $1\frac{1}{2}$ –2 in. dia., with a short, stout, rooting base; cortex very thin and evanescent; peridium thick, at first soft and pliant like leather, becoming brittle and breaking away in patches, pale ochraceous,

at length whitish ; mass of spores, and very dense capillitium bright citrine, then olive ; threads thin, flaccid, simple ; spores globose, smooth, pale yellow, sometimes pedicellate, 5 mm. dia.

On the ground. Durdham Down.

77. LYCOPERDON, *Tourn.* (p. 301).

1. *L. giganteum*, *Batsch* (p. 302).
2. *L. cælatum*, *Fr.* (p. 302).
3. *L. atro-purpureum*, *Vitt.* (p. 302).
4. *L. pusillum*, *Fr.* (p. 302).
5. *L. saeacatum*, *Vahl.* (p. 302).
6. *L. gemmatum*, *Fr.* (p. 302).
7. *L. pyriforme*, *Schaeff* (p. 303).
8. *L. Cookei*, *Mass.* ; gregarious ; $\frac{1}{2}$ – $\frac{2}{3}$ in. dia., hemispherical or globose, abruptly contracted into a short, thick stem-like base, smoky-brown above, white below, minutely areolato-furfuraceous, dehiscing by a small irregular mouth ; capillitium continuous with the well-developed cellular sterile base ; threads varying in thickness, simple, firm ; spores bright citrine yellow, then olivaceous-umber, globose, smooth, sometimes stipitate, 4 mm. dia.

On the ground. Norfolk. Kew.

9. *L. Hoylei*, *B. and Br.* ; peridium stipitate, subglobose, bristling with elongated rigid brown warts, sterile base small, confluent with the capillitium ; spores globose, echinulate, lilac.

On the grouud. Reading.

Stem 1 in. high, $\frac{3}{4}$ in. thick, lacunose ; olivaceous within ; peridium 2 in. across ; warts $1\frac{1}{2}$ –2 lines high ; capillitium and spores lilac ; spores .00015 in. ; mycelium thread-like, white.

10. *H. echinatum*, *P.*; peridium turbinate, substipitate pale umber or yellowish, rough with rather distant stout spiny warts; spores echinulate.

In woods. Berks.

Spores echinulate, .0002-.00025" dia.

78. **SCLERODERMA**, *P.* (p. 303).

1. *S. vulgare*, *Fr.* (p. 303).

2. *S. Bovista*, *Fr.* (p. 303).

3. *S. verrucosum*, *P.* (p. 303).

4. *S. geaster*, *Fr.*; sessile; subglobose; growing pallid; peridium dehiscing at the apex in stellate laciniae; inner mass dirty purplish black; spores globose, verrucose.—*Seem. Jour. Bot.* ix. t. 116; *Trans. Woolh. Cl.* 1870, p. 252; *Icon.*; *Mich.* t. 99, f. 1.

On the ground, near Hereford.

79. **POLYSACCUM**, *D.C.* (p. 304).

1. *P. olivaceum*, *Fr.* (p. 304).

80. **CENOCOCCUM**, *Fr.*

1. *C. geophilum*, *Fr.*

FAMILY V.—ASCOMYCETES.

ORDER 23. ELVELLACEI.

242. **MORCHELLA**, *Dill.* (p. 358).

A. *Pileus adnate at base.*

1. *M. esculenta*, *P.*

Var. rotunda, *P.*; colour whitish-pallid, when dry straw-colour or pale yellow.

In woods and bushy places, chiefly on sandy soil.

2. **M. conica**, *P.*; pileus conical, oblong, adnate at base; primary ribs longitudinal, obtuse, secondary forming transverse folds; pits elongated, narrow, plicato-lacunose; stem subterete, cylindrical, whitish.—*Kromb.*, *t. 16, f. 7.*

On the ground; esculent; three or four inches high.

Var. deliciosa, *Fr.*; pileus subcylindrical, acute; stem short.

In grassy places. Spring. Esculent.

3. **M. crassipes**, *P.*; pileus subconical, brown, adnate at base; ribs irregularly undulating, thick; pits large, variable in form, deep, the bottom celluloso-plicate; stem large, tall, incrassated at base, lacunose, globose, somewhat flesh-coloured.—*Kromb.*, *t. 16, f. 1.*

On the ground. Spring. Esculent; attaining a height of 12 in.

4. **M. Smithiana**, *Cke.*; pileus subglobose, tawny, adnate at base; ribs irregular, undulating, thick; pits polymorphous, deep, plicate at bottom; stem large, tall, thickened at base, hollow, attenuated upwards, sulcate, tomentose, white or flesh coloured.—*Jour. Bot.* 1868, *t. 73.*

Spring. Esculent; reaching a height of 12 in. and a dia. of 7 in.

B. *Pileus free the base.*

5. **M. patula**, *P.* (p. 358).

6. **M. gigas**, *P.*; pileus conical, free at base, which is somewhat undulate; ribs longitudinal, anastomosing; pits large, elongated, lacunose within; stem stout, long, enlarged downwards, sulcate, dirty white, covered with ferruginous squamules, hollow.—*Vitt. Mang.*, *t. 15, f. 6-7.*

On the earth in shady places. Spring. Attaining a height of 8 in.

7. *M. semilibera*, *D.C.* (p. 358).

243. **GYROMITRA**, *Fr.* (p. 358).

1. *G. esculenta*, *Fr.* (p. 353). Audley End.
2. *G. gigas*, *Kromb.*; pileus large, lobed, unduloplicate or curled, pallid, whitish or ochraceous; lobes subadnate to the stem, adpressed, somewhat undulating; stem thick, cellular, waxy, whitish, externally lacunose, subglabrous. *Kromb.*, *t. 20, f. 1-5.*

On the ground. Esculent.

244. **HELVELLA**, *L.* (p. 358).

A. *Stem stout, sulcate.*

1. *H. crispa*, *Fr.* (p. 359). Epping Forest.
2. *H. lacunosa*, *Afz.* (p. 359). Epping Forest.
3. *H. sulcata*, *Afz.*; pileus deflexed, 2-3 lobed, adnate; stem stuffed, furrowed with equal ribs 2 in. long.—*Pat.*, *f. 272.*

Kew.

4. *H. subcostata*, *Cke.*; pileus deflexed, free, sublobate, even, under side paler, ribbed and veined; stem equal, longitudinally ribbed.

Pileus $2\frac{1}{2}$ in. broad; stem $2\frac{1}{2}$ in. long; under side of pileus free from stem, with branching ribs.

Glamis.

B. *Stem stout, nearly even.*

5. *H. infula*, *Schæff.*; pileus lobate, deflexed, even; margin adhering very closely to stem, at length undulate, subcinnamoneous; stem enlarged upwards, stuffed, then hollow, smooth, often here and there irregularly lacunose, pallid, slightly villous.—*Schæff.*, *t. 159.*

On the ground in woods. Rothimurchus. Brandon.

6. *H. monachella*, Fr.; pileus deflexed, lobate, adnate, even, subspadiceous; stem hollow, 1-2 in. long, even, glabrous, white.—*Kromb.*, t. 19, f. 22-26.

On sandy ground in mountain woods. Old Roar Wood, St. Leonard's.

7. *H. guepinoides*. B. and Cke.; pileus entire, deflexed, free, ochraceous; stem elongated, equal, even, hollow, whitish.

On the ground.

c. *Stem slender, even.*

a. *Externally pruinose, furfuraceous or glabrous.*

8. *H. elastica*, Bull. (p. 359).

9. *H. atra*, König.; fuliginous black; pileus deflexed, adpressed on both sides, free, even beneath; stem stuffed, furfuraceo-villous.—*Kromb.*, t. 21, f. 18-20.

In moist woods, summer and autumn. Aviemore, Loch Killein, and Loch Laggan.

10. *H. pulla*, Holms.; pileus deflexed, free, lobed, undulated, fuliginous, nearly naked underneath and also at middle of stem.—*Cke., Mycogr.*, f. 338.

On moist ground in woods, sometimes on old rotting trunks of trees. King's Lynn.

11. *H. Klotzschiana*, Cda.; pileus nearly two-lobed, deflexed, membranaceous, even, opaque, brown, margin repand, even beneath and yellowish; stem slender, subcylindrical, pale yellow, clear white within.—*Corda in Sturm. Flo.*, iii. t. 57. *Cooke, Mycogr.*, f. 168.

In fernery, Coed Coch.

12. *H. ephippium*, Lev. (p. 359).

245. VERPA, Swartz. (p. 359).

1. V. digitaliformis, P. (p. 359).
2. V. rufipes, Phill. ; pileus conical, rugulose, sublobate, umber, whitish and tomentose beneath ; stem ventricose, rufous squammolose, stuffed.—Phill. Brit. Disc. pl. 1, p. 1.

Terrington St. Clement's, North Wootton.

3. V. conica, Sow. (p. 259).
- (V. speciosa, Vitt. ; recorded doubtfully by B. and Br.—Ann. Mag. Nat. Hist. 1922.)

246. MITRULA, Fr. (p. 360).

1. M. cucullata, Fr. (p. 360).
2. M. paludosa, Fr. (p. 360).
3. M. alba, Sm. ; head globose, even, white ; stem stuffed, white ; asci cylindrical, sporidia lanceolate, hyaline, eguttulate, 16–3 mm. ; Grevillea, 1, t. 10, lower figure.

East Budleigh, Budleigh Salterton.

247. SPATHULARIA, P. (p. 360).

1. S. flava, P. (p. 360).

248. LEOTIA, Hill. (p. 360).

1. L. lubrica, P. (p. 360). Epping Forest.
2. L. chlorocephala, Schw. ; cæspitose ; pileus globose, very glabrous, nearly pellucid, aeruginous green ; stem very long, twisted, powdered ; asci clavato-cylindrical ; sporidia 8, fusiform, curved, 3-guttulate, 20–22 × 5 mm. ; paraphyses filiform.—Cooke, Mycogr., f. 174.

Variable in size, reaching 4 in. high.

On the ground. Hampshire.

3. **L. circinans**, *P.* ; gregarious, somewhat caespitose, or arranged in circles ; pileus fleshy, convex, afterwards undulate, margin involute, nerves underneath running down into stem ; stem fistulose, somewhat powdery ; asci clavate ; sporidia 8, linear, cylindrical, or clavate, straight or curved, multi-guttulate, $50-60 \times 3$ mm., paraphyses filiform, curved at apices.—*Pers. Icon. et Descr.*, t. 5, f. 5-7 ; *Cooke, Mycogr.*, f. 172.

On the ground in fir woods. Autumn. Forres. Aviemore. Glamis. Menmuir.

4. **L. acicularis**, *P.* ; gregarious or scattered ; small ; white ; pileus waxy, fragile, undulato-convex, margin straight, under-side granulose ; stem simple or branched, becoming crooked, discoloured ; asci clavate ; sporidia 8, fusiform, biguttulate, becoming pseudo-uniseptate, $25-28 \times 4$ mm., paraphyses filiform.—*Cooke, Mycogr.*, f. 369.

On decayed stumps of trees near the ground ; $\frac{1}{2}-1$ in. high. Halifax. Pophills. Appen. King's Lynn, etc.

5. **L. nana**, *Fr.* (p. 360).

249. VIBRISSEA, *Fr.* (p. 361).

A. Stipitate.

1. **V. truncorum**, *Fr.* (p. 361).

2. **V. Margarita**, *White* ; simple ; head orbicular, orange-vermilion, margin hispid ; stem cylindrical, hirsute with black articulated hairs ; internally whitish-cinerous ; asci cylindrical ; sporidia 8, filiform, multi-septate, 180×2 mm., paraphyses filiform, branched near apices, which are subclavate and brown.—*Phil. Trans. Linn. Soc.*, Ser. 2, vol. ii., t. 1, f. 10-16.

On dead sticks of heather in a pool at an altitude of 2200 feet.

Mòr. Shròn. Braemar.

3. V. Fergussoni, *B. and Br.*; stem short, thickened upwards; cups plane, externally dark brown, granulose; hymenium plane or pulvinate, yellow; asci elongated; sporidia filiform, 220 mm.; summits of paraphyses globose.—*B. and Br. Ann. Nat. Hist.*, No. 1490, t. 11, f. 6.

On *Prunus Padus*. New Pitsligo, N.B.

4. V. microscopia, *B. and Br.*; very minute; plane or cup-shaped; hymenium and receptacle grey; stipes short, slender, black; asci clavate; sporidia 8, filiform, 50–60 × 2 mm.; paraphyses filiform, numerous.—*Phil. Trans. Linn. Soc.*, Ser. 2, vol. ii. t. 1, f. 17–24.

On damp fir wood. Rannock, N.B.

b. *Sessile*.

5. V. Guernisaci, *Crouan*; minute, lentiform or turbinata; hymenium pallid, ochraceous, or grey, convex; asci cylindrical, long; sporidia 8, filiform, hyaline, 270 mm. long; paraphyses slender, branched near the clavate summits.—*Phil. Brit. Disc.*, pl. x. f. 61.

On dead submerged branches of *Salix* in water. May and June. Wexham. Habberley. Berrington.

6. V. turbinata, *Phil.*; scattered; turbinata; hymenium plane or convex, ochraceous yellow, margined by the thin edge of the receptacle, which is bluish grey, smooth; asci cylindrical; sporidia 8, filiform, 180 × 2 mm.; paraphyses slender, branched near the summits, which are slightly enlarged and brownish.—*Phil. Trans. Linn. Soc.*, Ser. 2, vol. ii. t. 11, f. 14–18.

On branches of ash in watercourse. Shrewsbury

7. V. leptospora, *B. and Br.*; hemispherical, then

expanded, sessile; hymenium pallid or straw-colour; externally lurid, from the scattered, black, adpressed flocci; margin crenulate; sporidia filiform; $200-230 \times 2$ mm. broad.—*Phil. Trans. Linn. Soc., Ser. 2, vol. ii. t. 2, f. 19-23.*

On decayed wood. About $\frac{1}{2}$ a line across. Jedburgh.

250. GEOGLOSSUM, P. (p. 361).

1. *G. viride*, P. (p. 361).

2. *G. olivaceum*, P. (p. 361).

3. *G. viscosum*, P.; glabrous; viscid; black; club cylindrical, confluent with the stem, afterwards slightly thickened, olivaceous-black below; asci cylindraceo-clavate; sporidia 8, linear, rounded at the ends, straight or slightly curved, 3-septate, brown; 80×95 mm.; paraphyses filiform, non-septate, apices globose.—*Cooke, Mycogr.*, fig. 10.

On the ground; mountain pastures, etc.; 2-3 in. high. Foxhall, Terrington.

4. *G. glabrum*, P. (p. 362).

5. *G. glutinosum*, P. (p. 362).

6. *G. microsporum*, Cke. and Pk.; glabrous; somewhat viscid; club obtuse, distinct; stem slightly squamulose; asci cylindrical, a little curved, hyaline, faintly 7-septate, 50×10 mm.; paraphyses filiform, straight, not enlarged at apices.—*Cooke, Mycogr.*, f. 11.

On the ground. Autumn. Hanham, Clifton.

7. *G. tremellosum*, Cke.; glabrous; tremellose; black; contiguous; club subcompressed, hollow; stem even, glutinous, same colour; asci clavate; sporidia fusiform, straight or curved, hyaline, $30-32 \times 5$ mm., at length 5-7 septate; paraphyses linear.—*Cooke, Mycogr.*, f. 47.

On the ground. Rannoch, N.E.

RHIZINA. Fr.

Sessile; effused like a crust, afterwards bullato-inflated, determinate; hymenium occupying the upper surface; under side furnished with root-like fibrils; flesh firm, persistent; asci cylindrical; sporidia 8, large.

1. *R. undulata*, *Fr.*; effused, undulate; bay-brown; margin inflexed; flocculose beneath, and pallid; asci cylindrical; sporidia 8, fusiform, subacute, 2-guttulate, at length pseudo-septate; $30-35 \times 9$ mm.; paraphyses filiform, enlarged and brown at apices, which adhere firmly together.—*Schäff.* *t. 153*; *Tul. Hyp.* *t. 21, f. 16*; *Curr. Linn. Trans.* *xxiv. t. 51, f. 7-9*.

On gravelly and sandy soil recently exposed to fire. Ascot Heath. Wrekin.

2. *R. lævigata*, *Fr.*; orbicular; even; brown; margin prominent; granulose beneath; fibrils pallid; asci cylindrical; sporidia 8, fusiform, acuminate, bi-guttulate, uniserrate, hyaline; paraphyses filiform.—*Grevillea*, *ii. t. 22, f. 1.*

On stumps. Glamis.

251. PEZIZA, L. (p. 362).

The genus *Peziza* of the *Outlines*, is now represented by the Order, *Pezizæ*, in two Series: *Nudæ* and *Vestitæ*. These Series contain twelve genera and twenty-nine subgenera, as compared with the eleven subgenera of the *Outlines*. The sequence of species now differs from the sequence as given in the *Outlines*. In the following list of British species, new since the publication of the *Outlines*, only those species are given which measure an inch or more in diameter.

P. acetabulum, *L.* (p. 362) ; 2 in.

P. Percevali, *B. and Cke.* ; 1½ in. ; solitary ; cup at length expanded, somewhat pruinose, margin closely inflexed ; stem somewhat thick, subattenuated below, with slender rooting fibrils ; asci clavato-cylindrical.—*Cke., Mycog., f. 192.*

On the ground. Glamis, etc.

P. ammophila, *Dr. and M.* ; 1 in. ; cup turbinate, fragile, thick ; hymenium brown externally, pallid, dry, margin splitting into triangular teeth ; stem elongated, rooting, very fragile.—*Cke., Mycog., f. 100.*

Immersed in sand on the sea-coast at the roots of *Psamma*.

St. Andrews, N.B., Brampton Burrows, Ilfracombe.

P. pleurota, *Phill.* ; 1¼ in. ; cup sessile, expanded, nearly cochleate, umber brown, paler externally, elongated on one side.—*Cke., Mycog., f. 351.*

On cow dung. Autumn. Shrewsbury.

P. onotica, *P.* (p. 363) ; 1–2½ in. Epping Forest.

P. leporina, *Batsch.* (p. 363) ; 1–3 in.

P. auricula, *Cke.* ; 1–2 in. ; sub-cæspitose ; fleshy, elongated on one side, ear-shaped, flesh-red, externally farinose ; asci cylindrical, stipitate.—*Cke., Mycog., f. 213.*

Ross, Herefordshire.

P. apophysata, *Cke. and Phill.* ; ½–1 in. ; cup sessile unequal, lobed, subcontorted, elongated on one side, externally umber-brown ; hymenium blackish-brown, smooth.—*Cke., Mycog., f. 350.*

On the side of a wet ditch. Autumn. Shrewsbury.

P. phlebophora, *B. and Br.* ; ½–1½ in. ; cup poculiform, oblique, substipitate, finely pulverulent, venoso-costate at base.

On clay bank. Kings Cliffe. Brislington, etc.

P. aurantia, *Fr.* (p. 363); $\frac{1}{2}$ -5 in. Epping Forest.

Var. stipitata, *Phill.*; disc bright scarlet; stem equal to height of cup, about $1\frac{1}{2}$ lines.

Wokingham.

Var. atro-marginata, *Phill.* and *Plow.*; cup $\frac{1}{2}$ -1 in. broad; hymenium blood-red, wrinkled, margin black, owing to the presence of minute, septate, bristle-like hairs.—*G. Chron.*, Feb. 11, 1882; *Icon.*

Clenchwarton, Norfolk.

P. luteo-nitens, *B. and Br.*; (p. 364).

P. badia, *P.* (p. 363); 1-2 in.

P. fibrillosa, *Curr.*; 1 in; cup nearly sessile, irregular, orange, clothed externally with dingy-white downy fibrillæ, which form a regular, dense, tomentose edging to cup.—*Cke. Mycog. f.* 207.

On the ground. Oct. Hanham Wood. Kings Lynn.

P. cochleata, *Bull.*; 1-2 in; sporidia not rough.

P. alutacea, *P.* 2 in; cup sub-sessile, contorted, pallid ferruginous; sporidia rough.—*Cke. Mycog. f.* 214.

On the ground in woods.

P. grandis, *P.*; 2-3 in; cæspitose or solitary, sessile, flexuous; externally olivaceous-umber, with a lacunose albo-tomentose base; hymenium ochrey yellow.—*Cke., Mycog., f.* 376.

On the ground in pine woods. Heywood Forest, near Hereford.

P. ochracea, *Boud.*; 1-2 in; cup sessile, cæspitose, entire, subflexuous, bright ochraceous, externally furfuraceous.—*Cke. Mycog. f.* 377.

On the ground in beech woods. Spring. Wrekin, Salop.

P. Adæ, *Sadler.*; $\frac{1}{2}$ -2 in; cup sessile, subcæspitose,

cochleate, irregular, becoming expanded, margin entire or lobed, reflexed; hymenium white, rosy-white, violaceous, or ochraceous.—*Grevillea*, vi. t. 97, f. 1-3.

On damp walls, etc. Inverleith House, Edinburgh.

P. isabellina, *Wor Sm.*; 1-2 in; cup sessile, cæspitose, fleshy, subglobose, internally smooth, brownish yellow with a shade of red, externally paler, sub-pruinose.—*Grevillea*, i. t. 9.

On decayed coniferous wood, Kings Lynn.

P. macropus, *P.* (p. 364); $\frac{1}{2}$ -1 in.

Var. flava, *Phill.*; less furfuraceous externally; colour brighter, yellow, not pallid-fuliginous.

On decayed wood. Moccas, Herefordshire.

P. trachycarpa, *Curr.*; $\frac{1}{2}$ - $1\frac{1}{2}$ in; cup orbicular, then plane, very often umbilicate; hymenium blackish-brown, rough, tuberculate; externally granulated.—*Curr. Trans. Linn. Soc.*, xxiv. t. 51, f. 3, 5.

On burnt ground. Summer and Autumn. Ascot, etc.

P. leiocarpa, *Carr.*; $1\frac{1}{2}$ -3 in., cup at first connivent, sub-globose, externally rough, principally towards margin; vinous-brown, thin, semi-pellucid, sometimes pallid near base, at length expanded, almost plane; hymenium olive-brown.—*Curr. Trans. Linn. Soc.* xxiv. t. 51, f. 4-8.

On burnt ground. Ascot.

P. repanda, *Wahl.* (p. 363); 1-4 in. Epping Forest.

P. reticulata, *Grev.* = *P. venosa*, *P.* (p. 362); 2-5 in.

P. coronaria, *Jacq.*; 4-5 in.; cup at first buried, then more or less exposed, sub-globose, splitting in a stellate manner, nearly violet or rosy, externally pallid; stem short, thick, rooting.—*Cke. Mycog. f.* 238.

On the ground, under trees. Spring. Street, Somerset. Chichester. King's Lynn, etc.

P. venosa, *P.*; 1-2 in., cup sessile or sub-stipitate; umber-brown, externally whitish, rugose, with costate veins; base produced into a very short stem. *Cke. Mycog. f. 228.*

On the ground. Spring. Said to be esculent. King's Cliffe. Sibbertoft. Apethorpe, etc.

P. succosa, *B.* (263); 1 in.

P. radula, *B. and Br.* (p. 364); 1 in.

P. pustulata, *P.* (p. 364) $\frac{1}{2}$ - $1\frac{1}{2}$ in.

P. vesiculosus, *Bull.* (p. 364); 1-3 in. Epping Forest.

P. cerea, *Sow.* (p. 363); 1-3 in.

P. bufonia, *P.*; cup hemispherical, often fragile; hymenium bright brown, externally warty, of the same colour, margin entire or laterally incised; stem short, rooting, becoming pallid.—*Cke. Mycog. f. 292.*

In moist woods, and on rubbish heaps. Grantham.

P. purpurascens, *P.*; $\frac{1}{2}$ -1 in., cup sessile, campanulate, then expanded, conically attenuated to base, livid-purple, glabrous.—*Cke. Mycog. f. 276.*

On the ground. Autumn. King's Lynn.

P. tectoria, *Cke.*; $\frac{1}{4}$ - $1\frac{3}{4}$ in., cup sessile, or substipitate, globose, afterwards expanded, applanate; hymenium plane, sub-umbilicate, pallid-ochraceous; externally whitish, furfuraceous, becoming smooth.—*Cke. Mycog. f. 263.*

On damp plaster walls. Summer and autumn. Epping Forest. Shrewsbury. Edinburgh. Marlborough, etc.

P. ampliata, *P.*; $\frac{1}{2}$ -1 in., cup sessile, fleshy, fragile, thin, expanding directly from the base, nearly cinnamon, externally pallid, nearly smooth.—*Cke. Mycog. f. 384.*

On rotting wood, and bark of oak, poplar, etc. Autumn and winter. Hereford. Guildford. Kew, etc.

P. cribrosa, Grev. (p. 372); $\frac{1}{2}$ -1 in.

P. tuberosa, Bull. (p. 365); $\frac{1}{2}$ -1 in.

P. radiculata, Sow. (p. 367); 1- $1\frac{1}{2}$ in. Epping Forest.

P. coccinea, Jacq. (p. 367); 1 in. Epping Forest.

P. corium, Weberb; 1- $1\frac{1}{2}$ in.; cups stipitate, waxy, when dry sub-coriaceous, saucer-shape, becoming expanded, sometimes laterally compressed; black; externally velvety; stem equal or thickened below, deeply sulcate or subrugose, glabrous, paler at base. Cke. *Mycog. f.* 187.

On the ground on sandy soil. Spring. North Wootton.

P. bulbosa, Hedw.; $\frac{1}{2}$ -1 in.; cups hemispherical, becoming expanded, waxy, when dry subcoriaceous, cinerescent, minutely squamulose; hymenium blackish brown; stem firm, rather slender, arising from a tuberform base.

On sandy soil. Summer and autumn. King's Lynn.

P. cocotina, Cke.; 1 in.; cups rooting, fleshy, hemispherical, becoming applanate, margin entire; hymenium pale orange; externally, together with the stem, whitish tomentose.—Cke. *Mycog. f.* 356.

On cocoa-nut fibre in a caterpillar-cage, and on sawdust. October. Epping Forest. Edinburgh. Brandon, etc.

P. macropus, P. (p. 365); 1-2 in. Epping Forest.

P. sepulta, Fr. (p. 365); 1-2 in.

P. hemispherica, Wegg. (p. 367); $\frac{1}{2}$ -2 in. Epping Forest.

P. Sumneriana, Cke. 1-2 in.; cup large, scattered waxy, sessile, at first globose, immersed, then partly exposed, becoming expanded, the margin splitting into irregular lobes; externally chestnut-brown, covered with

a dense coating of long, slender, brown, flexuous, septate hairs; hymenium pallid ochraceous, with a tint of flesh-colour.—*Cke. Mycog. f. 111.*

On the ground under cedars, larch, etc. Spring. Fitcham Park. Chiswick. Ware. Warwick, etc.

264. TUBER, *Mich.* (p. 376).

1. *T. brumale*, *Mich.*; commonly 2 or 3 in. deep; when under cedars quite superficial.

2. *T. aestivum*, *Vitt.*; copses, hedgerows, and open places in plantations, gregariously with other species of *Tuber*, generally in plantations of beech, oak, or birch, rarely pine; on an argillaceous or calcareous soil.

3. *T. macrosporum*, *Vitt.*; in clayey places under oaks and beeches, rarely willows and poplars; sometimes rather near the surface, at other times deep underground.

4. *T. bituminatum*, *B. and Br.*; this is the *T. mesentericum* of Vittadini; in sandy ground, calcareous soils and calcareous clays, deep beneath the surface.

5. *T. rufum*, *Pico*; two or three inches deep.

T. nitidum, *Vitt.*; this is merely the young condition of *T. rufum*.

6. *T. scleroneuron*, *B. and Br.*; deep in sand or sandy ground, sometimes in calcareous clays or calcareous soils.

7. *T. puberulum*, *B. and Br.*; in loose sand or leaf mould, two or three inches deep.

8. *T. dryophilum*, *Tul.*; habit same as last.

9. *T. excavatum*, *Vitt.*; subglobose, 1 in.; peridium discrete, ochraceous, minutely verrucose, firm; flesh horny, cinereous-red, liver-coloured or tawny; veins pallid ochraceous. *Jour. of Bot.* 1865, pp. 11, 137, tab. 30. Generally quite superficial, under dead leaves. Somersetshire.

10. *T. maculatum*, *Vitt.*; in loose leaf mould, 3 or 4 inches deep.

265. **CHOIROMYCES**, *Vitt.* (p. 377).

1. *C. meandriformis*, *Vitt.* (p. 377); open hilly positions among oaks, half buried in stiff soil. June and July.

266. **AMYLOCARPUS**, *Curr.* (p. 377).

1. *A. encephaloides*, *Curr.*

267. **PACHYPHLŒUS**, *Tul.* (p. 377).

1. *P. melanoxanthus*, *Tul.*; in loose soil and leaf mould, two or three inches deep.

2. *P. citrinus*, *B. and Br.*; habit same as last.

3. *P. conglomeratus*, *B. and Br.*; superficial, on dead sticks under leaves, &c.

268. **STEPHENIA**, *Tul.* (p. 377).

1. *S. bombycina*, *Tul.*; on lawns, &c.; almost superficial; sometimes an inch or two deep.

269. **HYDNOTRIA**, *B. and Br.* (p. 377).

1. *H. Tulasni*, *B. and Br.*; generally six or eight inches deep in sand.

270. **HYDNOBOLITES**, *Tul.* (p. 377).

1. *H. cerebriformis*, *Tul.*; superficial, under dead leaves.

271. **SPHÆROSOMA**, *Kl.* (p. 378).

1. *S. ostiolatum*, *Tul.*; habit same as last.

272. **BALSAMIA**, *Vitt.* (p. 378).

1. *B. platyspora*, *B. and Br.*; almost superficial, but immersed in fallen fir leaves.

2. *B. vulgaris*, *Vitt.*; habit same as last.
3. *B. fragiformis*, *Tul.*; superficial, covered with dead leaves.

273. **GENEA**, *Vitt.* (p. 378).

1. *G. verrucosa*, *Vitt.*; superficial, covered with dead leaves.
2. *G. Klotschii*, *B. and Br.*; habit same as last.
3. *G. hispidula*, *B.*; sometimes superficial, often just beneath the surface, involved in grass roots.

274. **ELAPHOMYCES**, *Nees.* (p. 378).

1. *E. anthracinus*, *Vitt.*; four or five inches beneath the soil.
2. *E. variegatus*, *Vitt.*; habit same as last. Epping Forest.
3. *E. granulatus*, *Fr.*; habit same as last.

286. **HYPOCREA**, *Fr.* (p. 383).

H. tremelloides, *Fr.*; fleshy, convex, with a compressed base, pallid, ferruginous-umber, perithecia immersed.

Sulston. Dinmore, Hereford.

H. citrina, *Fr.*; *forma Fungorum*; *Karst. Myc. Fenn.* ii. (p. 204).

On hymenium of *Polyporus betulinus*. Darnaway Forest.

H. ringens, *Fr.*; subcarneous, flattened, scarcely marginate, at length greenish-black; interior white; perithecia confined to the disc, scattered.

On dead wood. Brandon = *Sphaeria lenta*, *Sch.* and *Hypocrea rufa*, *var. umbrina*, *Sacc.*

H. alutacea, *Fr.*; fleshy, soft; head clavate. tan-coloured, pallid, confluent with the stem.—*Tul. Carp.* iii. t. iv. f. 1-6.—*Sow. t. 159.* = *Cordiceps alutacea* (Vol. I. p. 382)

Dinmore. Probably parasitic on *Spathularia flava*.

H. aureo-virida, *Plow.* and *Cke.*; pulvinate, then flattened, fleshy, pale yellow, then orange, disc becoming olive; perithecia confined to the disc, immersed.

On rotten oak and hazel. North Wootton.

Hypocrea lactea, *Fr.*; fleshy, effused, naked, white; perithecia rather large, globose; ostiola punctiform.

On hymenium of *Polyporus medulla-panis*. Castle Rising.

H. argillacea, *Phill.* and *Plow.*; pulvinate, clay-coloured, rather thin, 1–3 mm., perithecia rather large, darker, prominent, pale brown; ostiola minute, prominent.

On soft rotten wood, apparently ash. Dersingham.

H. strobilina, *Phill.* and *Plow.*; discoid, stroma whitish, thin, 1–4 mm. across; perithecia yellowish, honey-coloured, rather large.

On cones of spruce fir. Belmont, Hereford.

H. splendens, *Phill.* and *Plow.*; subglobose, then expanded, golden-yellow, then reddish-orange, when old with tinge of brown, fleshy, thick, hemispherical, then convex, bearing perithecia on the whole of the upper surface, 3–6 mm. across; flesh yellowish white, firm; perithecia minute, darker.

On laurel sticks. Leicestershire.

Hypocrea viscidula, *Phill.* and *Plow.*; stroma at first globose, flattened above, then discoid, becoming capulate; 5–10 mm. across, margin thin, at length repand and revolute, at first straw-coloured, viscid, shining; flesh firm, whitish, becoming yellow; disc dotted with dark green perithecia.

On wood and bark of *Pinus sylvestris*. Brandon.

H. moriformis, *Cke.* and *Mass.*; fleshy, hemispherical,

1 mm. dia., scattered, pallid, at length black; perithecia convex, minute, rather prominent, pierced with a pore.

On rotten wood. Carlisle.

Hypocrea contorta, *B. and Curt.*; subrotund, fixed to the matrix by the central portion, spreading, becoming thin towards margin, where it is free and variously lobed, dark olive-green externally, yellowish-white within; perithecia minute, globose, confined to the upper surface.

On a rotten stick. Foxley Woods.

288. XYLARIA, Schrank. (p. 384).

Xylaria Scotica, *Cke.*; suberose; stem very long, pallid, root-like, slender 1-3 times dichotomously branched above; branches elongated, or very short and fasciculate; heads elongated, sub-cylindrical; apex more or less acute, greyish-brown, then black, perithecia very numerous, slightly papillate.

On the ground. Meihlouer.

Entire length, including rooting base, 2-6 in.; clubs about 1 in. long.

Xylaria tortuosa, *Sow. and Cke.*; corky, brittle, repeatedly branched, slender and rhizomorphoid, black, about 4 inches high, here and there bearing clavate, fertile branches, which are obtuse; perithecia rather prominent, crowded.

On the ground.

329. ENDOGENE, Lk. (p. 408).

1. *E. pisiformis*, *Lk.*; doubtfully belonging to the *Tuberacei*; near the surface, but sometimes three or four inches below it.

2. *E. lactifluus*, *B. and Br.*; habit same as last.

ADDENDA.

THE following species and varieties have mostly been published as British whilst the foregoing sheets were passing through the press.

39a (p. 7). **A. (Lepiota) cepæstipes**; *Sow.*

Var. cretaceus, *Bull.*; pileus chalky-white, with darker scales.

39b (p. 7). **A. (Lepiota) citrophyllus**, *B. and Br.*; pileus obtuse or broadly umbonate, at length depressed, lemon yellow, clad with rufous scales; stem lemon yellow, stuffed, then hollow, squamulose; gills ventricose, rounded behind or attenuated, approximate, lemon yellow.

On the ground.

61a (p. 12). **A. (Armillaria) aurantius**, *Schæff.*; pileus fleshy, convex, then plane, obtuse, innato-squamulose, viscid; stem solid, equal, concolorous, guttate above, clad with orange scales, sub-annulate; gills adnexed, with a tooth, crowded, white.

In pine woods. Forres. Grantown.

66a (p. 13). **A. (Armillaria) citri**, *Inz. Sic.*; cæspitose; 1 in.; pileus fleshy, thin, convex, then plane, rather umbonate, smooth, sulphur yellow, margin crenulate, becoming white; stem slender, whitish, floccose at apex, pallid, rufescent at base; gills adnate, crowded, white.

On stumps. Odour of fresh meal.

91a (p. 17). A. (*Tricholoma*) *sculpturatus*, Fr.

Var. chrysites, Jungh.; golden.

94a (p. 18). A. (*Tricholoma*) *inodermeus*, Fr.; pileus fleshy, thin, conic, then campanulate, at length convex, umbonate, torn into fibrils and variegated with radiating scales, fuscous, turning reddish; stem somewhat stuffed, white, then reddish, sprinkled with red meal at apex; gills free, broad, distant, white, spotted with red when touched.

In grassy places.

119a (p. 22). A. (*Tricholoma*) *borealis*, Fr.; pileus fleshy, irregular, rather umbonate, smooth, rivulose when dry, flesh-colour, growing pale, margin even, naked; stem solid, elastic, unequal, often twisted, attenuated at base; gills emarginate, decurrent, thin, crowded, white.

In grassy places. Odour and habit of *A. prunulus*.

123a (p. 23). A. (*Tricholoma*) *circumtectus*, Cke.; 2-3 in.; pileus convex, dry, fleshy, obtusely umbonate at first, or not at all, disc tawny, cracking a little when old, circumference olive or dusky, margin tomentose, incurved, sinuate; stem obclavate, or sometimes attenuated downwards, whitish, striate, firm, solid; gills reaching the stem, a little sinuate, scarcely crowded, white.

On the ground.

138a (p. 26). A. (*Tricholoma*) *melaleucus*, Fr.

Var. polioleucus, Fr.; pileus obtusely umbonate, livid, then grey; stem nearly equal, whitish, pruinose at apex, gills whitish.

In grassy places.

150a (p. 29). A. (*Clitocybe*) *curtipes*, Fr.; pileus slightly fleshy, convexo-plane, obtuse, oblique, smooth; stem solid, short, rigid, unequal, brown, thickened up-

wards, sub-pruinose, shining white; gills adnate, crowded, white.

Amongst grass. Boat of Garten, Inverness-shire.

153a (p. 30). A. (*Clitocybe*) *opiparus*, Fr.; 2-4 in.; pileus compact, convex, then plane, obtuse, even, smooth, flesh colour, shining; stem solid, stout, smooth; gills adnato-decurrent, crowded, connected by veins, white.

In mossy places.

169a (p. 33). A. (*Clitocybe*) *amplus*, Pers.; pileus fleshy, convex, then plane, somewhat repand, fragile, becoming even, rather hygrophanous, disc compact, margin thin, naked, soon spreading, and reflexed; stem solid, stout, rather cartilaginous, naked, white, a little villous at the apex; gills decurrent, rather crowded, broad, fuliginous, then dirty white.

In woods.

173a (p. 33). A. (*Clitocybe*) *fumosus*, Pers.

Var. cæspitosus, Cke.; growing in tufts.

170a (p. 33). A. (*Clitocybe*) *subdecastes*, Cke. and Mass.; 2½ in., cæspitose; pileus fleshy, campanulate, convex, obtuse, even, smooth, white at the margin and lobed, becoming yellow at the apex, disc compact, elsewhere thin; stem solid, confluent at base, smooth, equal, fibrillose; gills broad, rather crowded, attenuated in front, rounded behind, white.

On the ground.

178a (p. 34). A. (*Clitocybe*) *occultus*, Cke.; 1½-2¾ in.; pileus fleshy, convex, then plane and depressed, even, smooth, but innately virgate, viscid, pallid, smoky about disc, whitish at margin; stem equal or slightly expanded above into the pileus, solid, white, striately fibrillose, often curved; gills rather distant and broad, adnate, a little

decurrent, scarcely emarginate, white; substance white, tough, cartilaginous.

Gregarious on charred ground.

182a (p. 35). A. (*Clitocybe*) *sinopicus*, Fr.; pileus fleshy, thin, plane, then depressed, umbilicate, dry, at length floccosely rivulose; stem stuffed, equal, rather fibrillose; gills decurrent, very crowded, rather broad, pure white, then turning yellowish.

In woods, chiefly on burnt places.

196a (p. 39). A. (*Clitocybe*) *cyathoides*, W. Sm.

Smaller than *A. cyathiformis*; pileus thin, plane, then depressed; gills white, turning yellowish; stem fibrillose, reticulate.

On the ground.

(This is *A. cinerascens*, Batsch, but as there is already *A. (Tricholoma) cinerascens*, Bull., Batsch's name cannot stand. There is also *A. Batschianus*, Fr.)

258a (p. 50). A. (*Collybia*) *eustygius*, Cke.; 1 $\frac{1}{4}$ -2 in.; pileus rather fleshy, convex, then plane, sometimes depressed, even, smooth, shining when dry, tough, dingy-white, a little darker about the disc, margin thin, smooth, occasionally flexuous; stem stuffed, rarely hollow, attenuated downwards into a rooting base, white above, sprinkled with small punctate scales, darker below, and often becoming fuliginous, somewhat longitudinally striate or fibrous; gills rather broad, rounded behind, not crowded, dark grey; whole plant on drying becoming black.

On the ground. Odour of rancid meal.

280a (p. 55). A. (*Mycena*) *olivaceo-marginatus*, Mass.; $\frac{1}{2}$ in.; pileus membranaceous, campanulate, tawny honey colour, striate up to the disc, darker when dry; stem fistulose, smooth, shining, naked, dry, slender, tinged with

rufous at the base, with a little white cottony tomentum ; gills rather distant, adnexed, uncinate, broad, slightly connected by veins, pallid, edge brownish olive, wholly greyish when dry.

On lawns.

314a (p. 60). *A. (Mycena) consimilis*, Cke. ; 1-1 $\frac{1}{4}$ in. ; gregarious ; pileus membranaceous, conically campanulate, margin soon reflexed, striate to the middle, at length splitting, smooth, opaque, cinereous, with umbo darker ; stem attenuated upwards, often compressed below, rather rigid, dry, smooth, paler than pileus, fistulose ; gills slightly adnate, nearly free, linear, scarcely crowded, cinereous.

Among grass. Odour none.

474a (p. 86). *A. (Entoloma) nigrocinnamoneus*, Kalch. 2-4 in., gregarious ; pileus slightly fleshy, convex, then flattened, depressed about the umbo, even, smooth, umber, becoming blackish ; stem hollow, rather twisted, fibrillose, grey, becoming tawny ; gills soon receding, rounded, distant, reddish cinnamon.

In pastures, etc. Odour of fresh meal.

540a (p. 101). *A. (Togaria) blattarius*, Fr. ; pileus rather fleshy, soon flattened, somewhat umbonate, smooth, ferruginous, hygrophanous, margin striate ; stem fistulose, equal, straight, ring entire, distant, white ; gills free, rounded, ventricose, crowded, watery cinnamon.

In gardens and cultivated places.

648a (p. 123). *A. (Flammula) purpuratus*, Cke. and Mass. ; 1-2 in. ; pileus rather fleshy, convex, then expanded, obtusely umbonate, purple or purple-brown, clad with minute floccose scales of the same colour ; stem curved, ascending, equal, smooth and pallid above, purple below and granulose, solid ; flesh pale yellowish above,

purplish below; ring fibrillose; gills adnate, somewhat rounded behind, not crowded, lemon-yellow, at length bright ferruginous.

On tree-fern stems. Taste very bitter.

700a (p. 135). A. (*Naucoria*) *nasatus*, *Kalch.*; pileus thin, rather fleshy, campanulate, terminated by a long papillæform umbo, margin striate or sulcate, smooth, ochraceous; stem fistulose, equal, flexuous, fibrillose, rather ferruginous; gills emarginate, with a decurrent tooth, somewhat crowded, broad, ventricose, ferruginous.

In swampy places.

762a (p. 148). A. (*Psalliota*) *campestris*, *L.*

Var. *silvicola*, *Vitt.*; pileus becoming even, shining, white; stem stuffed, elongated, somewhat bulbous, ring simple; flesh somewhat unchangeable; gills acute behind, whitish, then slowly becoming fuscous.

In woods.

762b (p. 148). *Var.* *albo-squamosus*, *IV. Sm.*; pileus large, fleshy, furnished with large, adnate, white scales, the remains of a very thin volva; flesh, dry, tough, changing to rose, yellow-sienna and brown on being cut or broken; gills crowded, changing to black, edge at first white; stem tough, with a distinct pith, and slight remains of volva at base; spores few, pale in colour.

On mushroom beds. *Icon. Mus. Brit.*

781a (p. 152). A. (*Stropharia*) *merdarius*, *Fr.*

Var. *major*, *Fr.*; much larger, pileus gibbous, straw colour; stem stuffed.

808a (p. 159). A. (*Hypholoma*) *instratus*, *Britz.*; cæspitose; 1 in.; pileus hemispherical, convex, broadly umbo-nate, dark brown, radiately rugose; stem hollow, equal, white and smooth above, fibrillose or squamulose below,

veil white, appendiculate; flesh brownish; gills subventri-
cose, adnate, brown, then purple brown, paler at edge.

On stumps.

31a (p. 187). C. (*Phlegmacium*) *testaceus*, Cke.; pileus $2\frac{1}{2}$ -4 in.; fleshy, convex, then flattened and obtusely umbonate or depressed, brick-red, rather vinous, growing paler with age, smooth, even, viscid; stem attenuated upwards from a sub-magninate bulbous base, whitish above, becoming rufous about the base, solid, longitudinally fibrously striate below; flesh rather flesh coloured, becoming ruddy at apex and base; gills broad, scarcely crowded, adnate, a little emarginate behind, dusky cinnamon.

On the ground.

51a (p. 192). C. (*Myxarium*) *nitidus*, Fr.; 2-5 in.; pileus fleshy, convex, then plane or depressed, smooth, viscid, discoid, tan-colour; stem somewhat stuffed, clavate, elastic, white, at first viscid, whitish-mealy at apex, then naked and dry; gills equally attenuated, decurrent, crowded, narrow, clay-colour.

On the ground.

111a (p. 205). C. (*Telamonia*) *lucorum*, Fr.; pileus even, when moist bay-brown, with a tinge of brick-red; stem firm, clavate, fibrillose, of one colour, pallid; gills emarginate, rather distant, watery cinnamon, with a fugacious tinge of violet flesh colour.

On the ground.

117a (p. 207). C. (*Telamonia*) *croceofulvus*, D. C.; 4 in.; pileus fleshy, flattened, umbonate, even, orange-tawny; stem solid, equal, yellow, becoming reddish, zoned with an orange line, pale at the apex; gills adnate, becoming ferruginous.

In woods.

159a (p. 217). *C. (Hygrocybe) angulosus*, Fr. ; 3 in. ; pileus rather fleshy, flattened, repand, fragile, quite smooth, hygrophanous, warm tawny-yellow, ochraceous and opaque when dry ; stem hollow, twisted, equal, striate, tawny ; cortina tawny, very fugacious ; gills adnate, thick, rather distant, tawny, edge entire, same colour.

In fir woods.

28a (p. 240). *L. involutus*, Sopp. Every part white with pale ochraceous tinge ; 1-2 in. ; pileus firm, equally fleshy to margin, smooth, even, convex, becoming plane or slightly depressed, margin arched, strongly involute, extreme edge minutely silky ; stem solid, equal, or slightly incrassated below, glabrous, even ; milk not scanty, white, acrid, unchangeable ; gills sub-decurrent, densely crowded, very narrow, sometimes forked.

On the ground.

17a (p. 249). *R. virginea*, C. and M. ; mild ; 2 in. ; pileus fleshy, firm, convex, then depressed, smooth, even, viscid when moist, polished when dry, margin even, white ; stem attenuated upwards, firm, solid, white, finely rugulose ; gills very narrow, crowded, sub-decurrent, repeatedly forked, connected by veins, brittle, white.

On the ground under trees.

45a (p. 256). *R. ochroleuca*, P.

Var. claroflava, Grove ; 2-3 in. ; pileus convex, at first bullate, then plane, slightly depressed in centre, chrome-yellow, margin turned down, at length patent, perfectly even or slightly striate when old, often paler than the disc, sometimes of a deeper colour, cuticle not easily separable as in *R. ochroleuca* ; flesh white, yellow beneath the cuticle ; stem smooth, white, cylindrical, blunt at base, slightly spongy within, at length rugose and cinereous,

or even blackish ; gills scarcely crowded, not reaching the stem so much as in *R. ochroleuca*, not united behind ; white, then pale lemon-yellow, at length sub-ochraceous.

Amongst grass in damp places.

12a (p. 318). *S. rugosum*, Fr.

Var. lauro-cerasi, B. On *Cerasus Lauro-cerasus*.

6a (p. 342). *L. perlatum*, P. ; peridium variable, sub-globose, with an elongated stem, sub-globose or depressed, and nearly sessile, umbonate, ochraceous, or dirty brown, at first covered with spinose warts, which are smaller downwards, disappearing with age, mouth small, torn at apex of umbo ; capillitium continuous with the convex, cellular, sterile base, and forming a columella.

In woods, especially of oak. Summer and autumn.

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