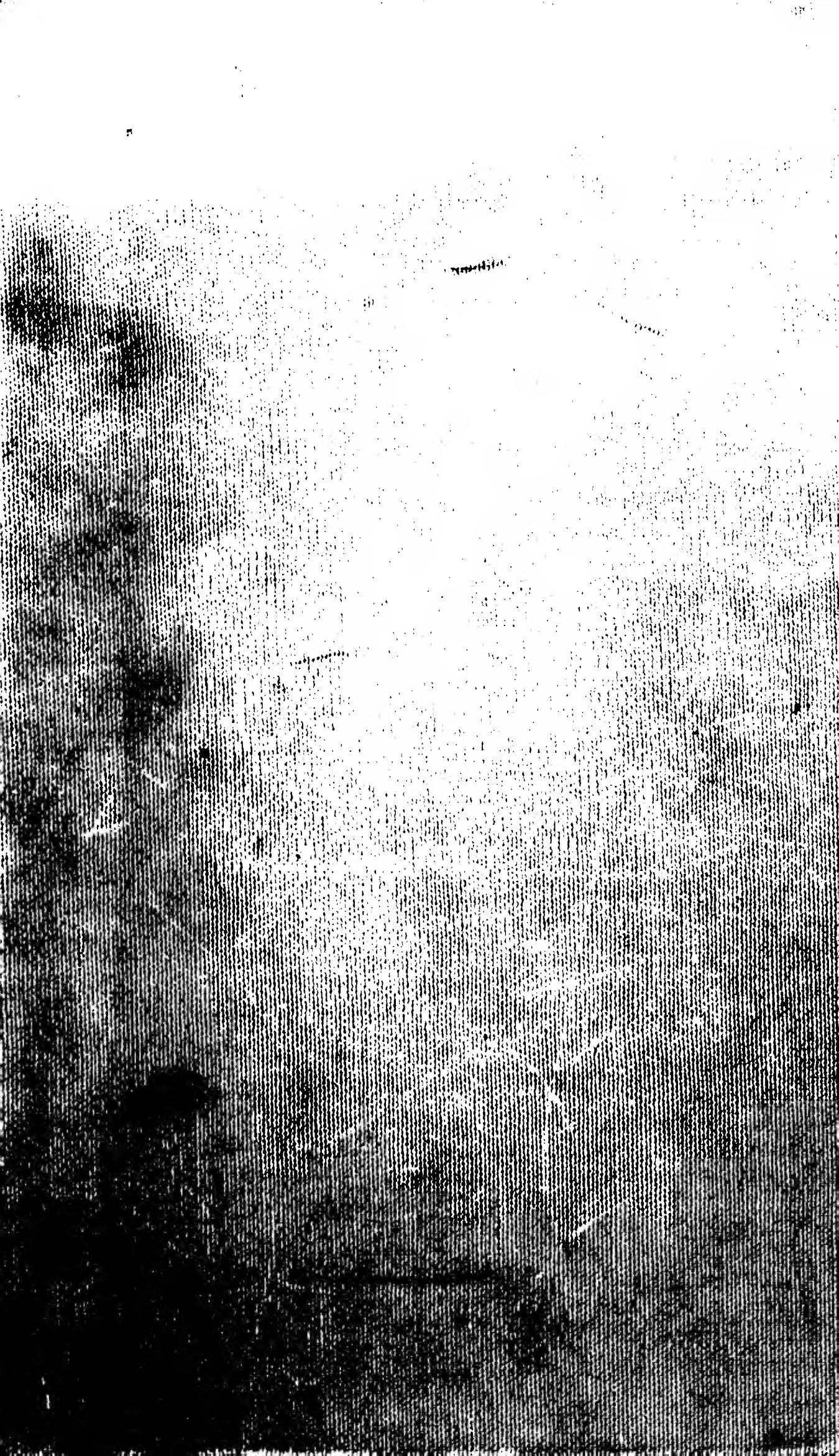


COLOURED FIGURES

OF

ENGLISH FUNGI

OR

MUSHROOMS,

BY

JAMES SOWERBY, F. L. S.

DESIGNER OF ENGLISH BOTANY, ETC.

. . . . "Was ev'ry falt'ring tongue of man,
Almighty Father! filent in thy praife,
Thy works themfelves would raife a general voice;
Even in the depth of folitary woods,
By human foot untrod, proclaim thy power."

VOL. I.———TAB. I.—CXX.

LONDON:

PRINTED BY J. DAVIS;

And fold by the Author, JAMES SOWERBY, No. 2, Mead Place, near the Afylum; and Meffrs. WHITE, Bookfellers, Fleet Street; JOHNSON, St. Paul's Church Yard; SYMONDS, Paternoſter Row; and by all Bookfellers in Town and Country.

MDCCXCVII.

TO THE

RIGHT HONOURABLE

SIR JOSEPH BANKS, BART. K. B.

PRESIDENT OF THE ROYAL SOCIETY,

AND TO

JAMES EDWARD SMITH, M. D. F. R. S.

PRESIDENT OF THE LINNÆAN SOCIETY,

THIS PUBLICATION IS INSCRIBED.

TO THE FIRST OF THESE GENTLEMEN I HAVE GREAT OBLIGATIONS FOR GRANTING ME ACCESS TO THE FIRST LIBRARY IN THE WORLD, AS WELL AS MOST READY ASSISTANCE IN ANY ENQUIRY WHATEVER RELATING TO NATURAL HISTORY.

TO MY ACQUAINTANCE WITH THE LATTER IT IS OWING THAT I HAVE NOT LONG SINCE QUITTED THE PLEASING SCIENCE OF BOTANY; AND FOR HIM, AS THE WRITER OF ENGLISH BOTANY, I FEEL PECULIAR RESPECT AND ESTEEM.

THAT THIS TRIBUTE OF GRATITUDE MAY NOT PROVE UNWORTHY OF THEIR ACCEPTANCE, IS THE SINCERE DESIRE OF THEIR

MOST FAITHFUL

HUMBLE SERVANT,

J. SOWERBY.

No. 2,
Mead Place, Lambeth, Surry,
Sept. 1st, 1797.

PREFACE.

HAVING undertaken the preſent Work, I feel great ſatisfaction in the encouragement it receives from the public, which I ſhall endeavour to continue to deſerve.

The Twelfth Number contains the promiſed Index, in which are included ſome ſynonyms from different authors, many of them not quoted in the deſcriptions to the figures; nor could I, with confidence, have cited all of them at the time thoſe deſcriptions were written, as I daily acquire a better knowledge of the ſpecies of Fungi; ſo that I flatter myſelf with being able in the end more perfectly to diſtinguiſh them than could at firſt have been expected. In this, Nature ſeems ready to lend her aſſiſtance; that very ſimplicity of ſtructure which in many caſes appears to have led authors into confuſion, being, one would think, more likely to make this tribe of plants eaſily underſtood. Some of them are exactly a year in their progreſs to maturity; yet their changes in the courſe of that progreſs are very trifling, compared with thoſe we ſee in (what are termed) perfect plants: ſuch ſlight changes however have given riſe to many ſuppoſed ſpecies. Much more frequently therefore have varieties been deſcribed as ſuch, ſo that

one ſpecies often happens to have been figured or deſcribed ten times over. It is indeed eaſier to deſcribe or draw an individual variety, than to aſcertain to what ſpecies it belongs, while it may be compared to ſo many in different authors. When they are more clearly aſcertained, we ſhall poſſibly be able to cultivate the uſeful kinds; for only one, the *common Muſhroom*, or *Agaricus campeſtris*, is at preſent cultivated. Some I am ſure would be admired as ornaments; others are already made uſe of for culinary and œconomical purpoſes, more particularly in foreign countries. Some I am perſuaded would aſſiſt in dyeing. Several of the Sphærias yield the fineſt black I ever met with. The Lycoperdons afford in their ripe ſtate different browns very copiouſly, in a fine impalpable powder, fit for immediate drawing when mixed with a little gum arabic water. I intend when I figure ſome of the Lycoperdons to uſe their own powder to repreſent itſelf.

TAB. I.

AGARICUS VOLVACEUS *Bulliard t.* 202.

FOUND in great plenty in the bark-beds of hot-houſes about London in the year 1785. The Rev. Mr. Relhan, ſo well known by his *Flora Cantabrigienſis*, diſcovered it in Dr. Harwood's bark-bed at Cambridge laſt year 1794, and, conſidering it as a great curioſity, very kindly favoured me with ſpecimens. The ſame year I met with it growing in a lane at Peckham, inclining to the appearance of Bulliard's A. *vaginatus*. On the 21ſt of Auguſt 1795 I found in Earl Spencer's park at Wimbledon a ſpecimen reſembling that figure which is juſt diſengaging itſelf from the *volva*, but four times as large, with a lighter coloured *pileus*, but gills correſponding in colour to theſe; it grew on a very rotten ſtump of a Lime-tree.

TAB. II.

AGARICUS CEPÆSTIPES.

A. LUTEUS *With. vol.* 3. 344.

A. CRETACEUS *Bulliard t.* 374.

NOT uncommon in bark-beds about London, moſtly found of a chalky white, eſpecially when in a half dry ſtate, to which Bulliard's name alludes. At Sir A. Hume's at Wormley-bury in 1793 I obſerved the bark-bed full of it, all perfectly yellow, agreeing with Dr. Withering's denomination. As the white and yellow kinds differ in nothing but colour, and are undoubtedly the ſame ſpecies, I have named it from the form of the ſtalk (like that of an onion) which will always characterize this ſpecies.

TAB. III.

PEZIZA CEREA *Bulliard t.*

SURELY ſufficiently diſtinct from *veſiculoſa* & *cochleata*, as the two following plates will ſhew. It is found on tan-beds.

TAB. IV.

PEZIZA VESICULOSA *Bulliard t.* 457.

VERY common on expoſed dung-hills. It may have been paſſed over for P. *cochleata*, which is rather more rare, and affects a different ſituation. It is eaſily diſtinguiſhed from *cerea* & *cochleata* by being found more or leſs compoſed of an inner and outer cup (ſee the perpendicular ſection), between which the fructification ſeems to be produced.

TAB. V.

PEZIZA COCHLEATA *Linn.* & *Hudſ.*

THIS is certainly diſtinct from the two preceding. It grows in woods and damp places, and is always involuted more or leſs in a ſpiral manner.

TAB. VI.

RETICULARIA SINUOSA *Bulliard t.*

FOUND in woods and under damp hedges, growing parafitically on various decayed herbage. Bulliard's name is very apt.

TAB. VII.

AGARICUS GLUTINOSUS *Schæff. t.* 26. *f.* 1, 2, 3, 4.
A. LIMACINUS *Dickf. faſc.* 1. *t.* 15.
— VELATUS *With. vol.* 3. 290.

GATHERED in a fir wood near Bungay, Suffolk, in company with Mr. Woodward, to whoſe accuracy the botany of England is ſo much indebted. I have alſo found it in Eſſex.

The gluten which envelops this plant is of a very ſingular nature, being extended from the edge of the *pileus* to the *ſtipes*, and paſſing the gills without touching them. As it recedes or diſſolves it leaves a portion of a cobweb ſubſtance, accompanied by a fine powder. If this powder be the ſeed, may the gluten contain any thing analogous to pollen?

TAB. VIII.

AGARICUS LIMACINUS.
A. LIMACINUS *Schæff. t.* 312?

FOUND very abundantly in an airy hilly aſpect among firs in Sir William Jerningham's plantations at Coſſey near Norwich, Oct. 1794. It agrees with Schæffer's *limacinus* in the yellowneſs of the gills, but

the pileus is much brighter than he repreſents it; his figure exactly accords with the plant in a drying ſtate, and with ſome ſpecimens leſs perfect than thoſe here delineated. Our largeſt figure nearly agrees with Dr. Withering's deſcription of A. *cæſarius*, but does not accord with any of the plates quoted for that ſpecies. Our *limacinus* is enveloped in a veil of gluten when young. The ſtalk is ſomewhat pithy.

TAB. IX.

AGARICUS COLLINITUS.

THIS was found in Peckham (or Oak of honour) wood Oct. 9 and 16, 1794, tolerably plentiful. When young it is enveloped in a veil of gluten, which is durable on the dried ſpecimen, and has a beautiful tranſparent appearance like iſinglaſs. The gills are of a ruſty iron colour, rounded at their baſe, and detached from the ſtalk, though partly connected by cobweb-like threads inclining downwards. Similar threads ariſe upwards from the *annulus*, meeting the former. The ſtalk is nearly ſolid, but rather pithy.

TAB. X.

AGARICUS FRAGRANS, *Major Velley in With.* v. 3. 307.

NOT uncommon among graſs in ſpring and autumn. I have frequently found it by the fragrance it emits to a conſiderable diſtance, and which is often ſo powerful as to ſcent a whole box of other fungi. It is however ſometimes ſcentleſs, and the odour always evaporates in drying. This odour reſembles that of Woodroof, or of Vernal graſs *Anthoxanthum odoratum*, near which laſt it often grows. Can it derive any fragrance from thence?

TAB. XI.

HELVELLA RELHANI.

THE Rev. Mr. Relhan found three ſpecimens of this plant growing at a little diſtance from each other on the north ſide of Gogmagog hills. The upper ſide of the pileus was ſilky, and the edges ſlightly fringed with the ſame ſilky membrane, like *Agaricus araneoſus*.

There ſeems ſome affinity between this little fungus and *Lycoperdon phalloides* Dickſ. Faſc. 1. 24, figured by Mr. Woodward in the Phil. Tranſ. vol. 74, 423, t. 16. and in Dr. Smith's Spicilegium t. 12. See alſo *Phallus conicus* Flo. Dan. t. 1554.

TAB. XII.

RETICULARIA HEMISPHÆRICA *Bulliard t.*

GATHERED in Hampſtead and Hornſey woods, Wanſtead gardens, &c. in moiſt places, growing on decaying plants of various kinds, on moſſes, ſticks, &c. in all directions.

TAB. XIII.

PEZIZA EPIDENDRA *Bulliard t.* 467.

THIS beautiful fungus was found at Camberwell among rotten ſticks, ſometimes protruding from a

ſtick more than an inch deep in the bank. The outſide is very woolly, attaching it to ſtraws and other ſubſtances in its way. In drying it becomes toughiſh and leathery, and leſs vivid in colour.

TAB. XIV.

AGARICUS CLYPEOLARIUS *With.* v. 3. 379.

THIS occurs frequently in woods and fir plantations in damp weather. It certainly includes the A. *meleagris* of Withering. The ring is occaſionally wanting, nor can I call it permanent.

Many Agarics have, like this, a looſe pith, but ſo tender it often ſlides along with the blade of the inſtrument uſed to divide the ſtalk.

TAB. XV.

HYDNUM DAVIESII.

A RARE ſpecies, hitherto I believe diſcovered only by the Rev. Mr. Hugh Davies, on a decaying apple-tree in Llyſdulas garden Angleſea, 1790, from whom I have been favoured with excellent and well preſerved ſpecimens. It much reſembles *Boletus verſicolor* in colour and texture, and by the upper ſurface might be miſtaken for that fungus.

TAB. XVI.

PEZIZA MARGINATA *Relh. Fl. Cant. Suppl.* 2. 29.
With. v. 3. 440.

THE Rev. Mr. Relhan communicated the ſpecimens from which the figure was drawn. It may be ſeen alſo in *Flo. Dan. t.* 779. *f.* 1.

TAB. XVII.

PEZIZA BICOLOR *Bulliard t.*

COMMON on fallen branches of oak and other trees, often covering them copiouſly on every ſide. It is either ſeſſile or ſtipitate. This differs from P. *nivea* of Dickſon and Withering in its orange-coloured centre, and in having occaſionally a ſtalk; nor do I know that any Britiſh writer has noticed it.

TAB. XVIII.

PEZIZA STERCORARIA *Bulliard t.* 376 & *t.* 438.

FOUND on cows dung near Stapleford Abbot, Eſſex. This and the P. *punctata* ſeem to connect the genus of *Peziza* with that of *Sphæria*.

TAB. XIX.

AGARICUS CROCEUS *Bulliard t.* 362. *With. v.* 3. 319.

THE pileus has an opaque leathery appearance in moderately dry weather, which is peculiar to this ſpecies, but in wet weather it becomes ſomewhat glutinous and ſhining.

TAB. XX.

AGARICUS CERACEUS *Dickſ. Faſc.* 1. 16. *With. v.* 3. 369.

FOUND in damp weather among graſs in Kenſington gardens and other places. The ſemitranſparent and waxy appearance eaſily diſtinguiſhes it. It taſtes like the common muſhroom, A. *campeſtris*, and no doubt is equally wholeſome.

TAB. XXI.

MERULIUS FŒTIDUS.

UNDER the above name I was favoured with excellent ſpecimens of the fungus here delineated, by the Rev. Mr. Relhan, Auguſt 10, 1795, who found them in Madingley wood near Cambridge; nor has this ſpecies, to my knowledge, been before obſerved. The ſpecimens changed but little in drying, except that they, not unfortunately, loſt their original diſagreeable garlic-like odour.

TAB. XXII.

LYCOPERDON CARPOBOLUS. *Hudſ.* 644. *With. v.* 3. 463.

WE have ſeen this curious plant in many places. The Rev. Mr. Abbot obligingly ſent it from Lord Oſſory's fir plantation at Ampthill, gathered in October 1792. We had an opportunity of ſeeing it in a rather remarkable ſituation in May 1793, growing in the Duke of Portland's hot-houſe at Bulſtrode, on the edge of the tub which contained that rare Eaſt Indian aquatic the *Nymphæa Nelumbo*. This was at the ſame time a damp and very hot ſtation, the ſtoves being at that time heated to an unuſual degree.

When young theſe fungi are nearly covered with a white cotton-like ſubſtance, ſpreading down their ſides, and attaching them firmly to each other and to whatever they grow upon. This web may poſſibly aſſiſt in the expanſion of the yellow outer caſe when it throws out the white globular part, which it does to the diſtance of ſix or eight inches, or more, making a ſlight, but diſtinct, cracking ſound. At the ſame time this outer caſe burſts into five or ſeven rays or ſegments, the caſe immediately within puſhing itſelf forth, and adhering to the ball; which when fallen is an empty tranſparent veſicle, with the inner caſe attached to its bottom, and a hole through that caſe, by which probably the ſeeds are diſcharged. On diſſecting the ball previous to its being thrown out, we find it full of a whitiſh ſubſtance. When weak the plant only forces the ball to the points of its rays, often drying with it in that poſition.

TAB. XXIII.

LYCOPERDON HYDROPHORUM.

PEZIZA HYDROPHORA. *Bulliard t.* 410.

THIS is evidently next akin to the *L. Carpobolus.* We have found it annually for three years paſt in Auguſt and September, on the decaying trunk of a willow near Tothill-Fields.

In a young ſtate it is ſomewhat depreſſed, a little woolly; afterwards becoming rounder, and finally projecting the ball, much as in the preceding ſpecies. We have indeed been able to detect it only on the edge of the red outer caſe, which in this ſpecies does not ſplit into rays; but we find many empty cups or caſes, from which doubtleſs the balls have been thrown to a diſtance.

TAB. XXIV.

PEZIZA SCUTELLATA. *With. vol.* 3. 442.

FOUND, not very unfrequently, in the rotten parts of hollow trees. The hairs in this are black. There is an Engliſh *Peziza* found on cow-dung (*Elvella equina*, *Flo. Dan. t.* 1329), which though ſmaller in all its parts, paler, and ciliated with hairs of the ſame colour as the diſk, ſeems to be a variety of this. There are ſome without hairs, but we doubt whether that can make a ſpecific diſtinction. See *Lightf. Flo. Scot.* 1053.

TAB. XXV.

AURICULARIA TABACINA.

A. NICOTIANA. *Bolton* 174. *With. vol.* 3. 433.

COMMON in woods and many other places, on ſtumps and branches of decaying trees. It is thin and flexible, attached by the back, the upper part projecting, a little rugged and zoned, and either growing in an imbricated manner, or forming elegant undulations, from three or four inches to two or three feet in extent, made more conſpicuous by the light yellow margin being contraſted with the bright, and often nearly red, brown of the upper and under ſide. It thrives moſt in damp places or in wet weather, ſometimes exuding reddiſh drops (poſſibly coloured with the ſeeds) from the under ſurface. In drying it becomes ſhrivelled and loſes all its original ſplendor, and may then be compared to dried tobacco, to which we ſuppoſe the name *Nicotiana* was meant to allude.

TAB. XXVI.

AURICULARIA FERRUGINEA. *Bull. t.* 378. *With. vol.* 3. 433.

HELVELLA RUBIGINOSA. *Dickſ. Crypt. faſc.* 1. 20.

NOT uncommon on gate-poſts, &c. generally placed ſo low as to be partly hid by the earth and neighbouring plants. It is imbricated, and chiefly attached by the back. The upper projecting ſurface is of a ruſty colour, rather rugged and zoned. Edges finely downy, the light colour of the margin rather brighteſt inwards. The under ſide is of a duller hue, partially zoned, rugged with irregular protuberances, and when magnified appearing ſomewhat downy. The whole plant is thin and brittle, changed but little by drying.

TAB. XXVII.

AURICULARIA REFLEXA. *Bull. t.* 274. *With. v.* 3. 434.

THE moſt common of all fungi, growing on decayed trees, on pales, gates, and old water-tubs, often ſpreading in circular patches, without projecting ſo as to acquire the woolly upper ſurface, in which one of its moſt diſtinguiſhing characters reſides. It is however eaſily known in either ſtate, the front, or under ſurface, varying but little from its reddiſh hue. The whole plant is thicker than the two laſt-mentioned, but moſt reſembles the A. *tabacina* in mode of growth. At firſt ſight it might eaſily be confounded with the *Boletus verſicolor*.

The upper ſurface varies in colour, and is very woolly. Some of the zones are always yellow, as is ſometimes the whole plant.

TAB. XXVIII.

NIDULARIA CAMPANULATA. *With. vol.* 3. 445.

PEZIZA LENTIFERA. *Linn. Hudſ.* &c.

OF frequent occurrence in neglected gardens and fields, attached to various ſubſtances. I have found it

in great quantities on a bank near Kennington, Surrey, and hoped ere this to have detected the formation of thoſe lenticular bodies with which the cups are half filled, and which bear ſome reſemblance to thoſe in the little cups upon *Marchantia polymorpha*, *Engl. Bot. t.* 210. They often hang out of the cup of this fungus by means of the elongation of the threads which are attached to the centre of one of their flat ſides, and are ſometimes ſcattered upon the earth, the cup ſtill remaining upright. In a young ſtate the upper half of the cup is occupied by a veſicle containing a fluid, which ſeems to be diſcharged downwards towards theſe lenticular bodies, after which the upper part or cover dries up and cracks. Dr. Withering's generic name *Nidularia* is very expreſſive.

TAB. XXIX.

NIDULARIA STRIATA. *With.* v. 3. 446.

PEZIZA STRIATA. *Hudſ.* 634.

P. LENTIFERA β. *Linn. Sp. Pl.* 1650.

FOR moſt perfect and beautiful ſpecimens of this curious plant we are obliged to the favour of Lady Arden, who gathered them October 1ſt and 7th, 1795, under beech-trees in Nork park near Epſom, Surrey, often growing on the fallen ſeed-veſſels. The receptacle of fluid is very apparent in this ſpecies. The outſide very woolly, with pointed tufts regularly diſpoſed, which when viewed in front give a ſtellated appearance to the edge of the cup.

TAB. XXX.

NIDULARIA LÆVIS. *With.* 446.

PEZIZA LÆVIS. *Hudſ.* 634.

NOTWITHSTANDING its name, this is ſcarcely ſo ſmooth as N. *campanulata*. It is found in Combe wood near Kingſton, Surrey, on various ſubſtances. Mr. Pitchford of Norwich favoured me with ſome very good ſpecimens, growing on a piece of a fir-tree.

TAB. XXXI.

AGARICUS XERAMPELINUS. *With.* v 3. 331.

I FOUND this brilliant ſpecies, and moſt of its varieties deſcribed in Withering, growing either ſolitary or cluſtered, but ſeldom hollow, in Sir William Jerningham's plantations near Norwich, as well as in a pine-grove at Ditchingham in company with Mr. Woodward. The gills are invariably of a bright yellow, very partially fixed to the ſtem, rounding off in ſome degree from the *pileus*. Their edges are thick, and ſeem to ſplit, ſo as perhaps to emit the ſeeds; a circumſtance which may be obſerved in ſeveral other ſpecies.

TAB. XXXII.

AGARICUS VIRGINEUS. *Jacq. Miſc. v.* 2. 104. *t.* 15. *f.* 1.

A. NIVEUS. *With.* 346.

A. EBURNEUS. *Bolt.* 4.

A. ERICEUS. *Bull. t.* 188.

SEEN often in great abundance in expoſed ſituations, more ſparingly in woods. It is generally plentiful in Kenſington Gardens and Greenwich Park in the autumn. It aſſumes various appearances according to the weather, and may, though rarely, be found with a hollow ſtalk. Its colour moſtly reſembles the whiteneſs of ivory; its flavour when freſh approaches to that of the common muſhroom, A. *campeſtris*.

TAB. XXXIII.

AGARICUS TENER. *With.* v. 3. 359.

GENERALLY found in the greateſt perfection about Auguſt and September, in damp meadows, and may

readily be diſtinguiſhed by the narrow bright fox-coloured gills. Among the longer graſs, refuſed by cattle, it is drawn up, as in our talleſt figure. When gathered in perfection it dries well. Is the A. *Colus*, *With.* 383, diſtinct from this?

TAB. XXXIV.

BOLETUS PIPERATUS. *Bulliard t.* 451.

WE believe this *Boletus* has appeared only in Bulliard's admirable work. It grows in tolerable plenty on Hainault Foreſt, towards Chigwell Row, Eſſex, though not hitherto mentioned as a native of this iſland, but we have reaſon to think it is not uncommon. The pores are very open and irregular, and ſometimes ſo ſhallow as to be mere reticulations, as in ſome foreign *Boleti*. Its colour varies a little. The name expreſſes its pungent effect on the tongue and throat, like that of the *Capſicum*.

TAB. XXXV.

HELVELLA SPATULATA.

CLAVARIA SPATHULA. *Dickſ. Crypt. faſc.* 1. 21. *With. v.* 3. 450.

I GATHERED this fungus, in the autumn of 1794, in the plantations at Coſteſy near Norwich, in company with its original diſcoverer James Crowe, Eſq. of Lakenham. It is to be found there every year in great abundance. As a ſpecies it is ſufficiently diſtinct, though as to its genus, according to our preſent ſyſtems, ſomewhat obſcure, being nearly equally allied to *Peziza*, *Helvella*, *Lycoperdon*, and *Clavaria*. The ſeeds are diſcharged in the form of ſmoke, from pores in the edges, and may perhaps be imbedded in the ſubſtance, as has been obſerved in *Peziza veſiculoſa*.

TAB. XXXVI.

AGARICUS ELEPHANTINUS. *Bolt. t.* 28. *With. v.* 3. 319.

COMMON in moſt woods, parks, &c. about the month of October. In decaying they gradually turn quite black, as if burnt to charcoal, and ſeem almoſt as durable as that ſubſtance. They are ſo abundant in one part of Kenſington Gardens, that when in the black ſtate (which they are during great part of the year) a caſual obſerver would think fires had been made where they grow. When in perfection they are ſometimes nearly white. The gills often branch, and run one into another, but are always clumſy. This fungus has a pleaſant nut-like taſte; when cut it changes reddiſh. In the black ſtate it ſupports ſome paraſitical fungi, which we ſhall hereafter take an opportunity of delineating.

TAB. XXXVII.

AGARICUS PERONATUS. *Bolt. t.* 58. *With. v.* 3. 329.

THIS ſpecies is beſt diſtinguiſhed by the leathery appearance of the *pileus*, and the ſtalk being clothed half way up from the root with a yellowiſh woolly felted ſubſtance, above which it is ſmooth, except being a little wrinkled. We have found it at Ditchingham, Norfolk, alſo plentifully at Hampſtead, and under hawthorns in Greenwich Park. Lady Arden has obſerved it under beech-trees, growing on the fallen capſules and leaves. The flavour of this ſpecies is pungent. It dries ſo well as to be eaſily recognized in that ſtate.

TAB. XXXVIII.

PEZIZA STIPITATA. *Hudſ.* 636. *With. v.* 3. 436.

RATHER a ſcarce plant. Theſe ſpecimens were found on Finchley Common. The ſtalk is ſolid, and, as well as the outſide of the cup, ſlightly downy. The upper ſide is ſmooth; its texture wax-like.

TAB. XXXIX.

HELVELLA MITRA. *Linn. Sp. Pl.* 1649. *Hudſ.* 632. *With. v.* 3. 430.

FOUND in ſeveral parts of Norfolk, eſpecially to the weſt of Norwich. The Rev. Mr. Abbot obſerved it at Houghton Conqueſt, Bedfordſhire.

The remarkable flutings and ſinuoſities of the ſtalk characterize this ſpecies. The *pileus* varies a little in form and colour, and the whole fungus ſometimes turns black in decay.

TAB. XL.

CLAVARIA CORNEA. *Relh. Suppl.* 3. 34.
C. ACULEIFORMIS. *Bull. t.* 463. *f.* 4.

I HAVE been favoured with ſpecimens of this ſpecies by the Rev. Mr. Relhan himſelf, with his own name to them, and alſo by Thomas Walford, Eſq. of Birdbrook, Eſſex, under that given by Bulliard. The gentleman laſt mentioned found them upon timber that had been ſquared, ſituated longitudinally with the grain of the wood, never acroſs it. I have obſerved the ſame at Hampſtead, and in Kenſington Gardens.

TAB. XLI.

AGARICUS LACHRYMABUNDUS. *Bull. t.* 194 & *t.* 525.

COMMON in woods, the ſides of green lanes, &c. in damp weather. The diſcharge of a fluid in little tranſparent globules, from the ſides of the maculated gills, is peculiar to this ſpecies. Theſe drops ſeem to flow from near the inſertion of the ſeeds, and commonly unite with them at the edges; a curious ſubject for microſcopic inveſtigation. There is a variety more ſolid than that here delineated: otherwiſe it is not a very variable plant.

TAB. XLII.

AGARICUS ODORUS. *Bull. t.* 176 & *t.* 556.

IT is remarkable that the pleaſant *ratafia* odour of this plant ſhould have eſcaped notice ſo long; but it appears not to be a very common Agaric, and is generally found ſolitary. Is this Dr. Withering's *viridis*, *vol.* 3. *p.* 320?

TAB. XLIII.

AGARICUS SANGUINEUS. *Jacq. Miſc. v.* 2. *t.* 15. *f.* 3.

THE ſanguine red which pervades the inner ſubſtance, and the peculiar rigidity of the *pileus*, &c. will readily aſcertain this ſpecies, and diſtinguiſh it from the red ſpecimens of the variable *Agaricus aurantius* with which it has ſometimes been confounded.

TAB. XLIV.

AGARICUS SULPHUREUS. *Bull. t.* 168 & *t.* 545. *f.* 2.

THIS, I believe, has not been noticed by any Engliſh author, partly perhaps owing to its being found in the thickeſt parts of woods. It is a very diſtinct ſpecies, and may readily be known by its general habit and colour, as well as by a certain peculiar odour, ſomewhat like that of an hyacinth, but rather fœtid, which is conſtant.

TAB. XLV.

AGARICUS FIBULA. *Bull. t.* 186 & *t.* 550. *f.* 1.

A. PARVUS. *With.* 347. *var.* 1.

VERY common in damp meadows and ſimilar places among graſs and moſs. It is often hollow.

TAB. XLVI.

AGARICUS CANTHARELLUS. *Linn. Sp. Pl.* 1639.
Bull. t. 62.

A. CHANTARELLUS. *Hudſ.* 609.

MERULIUS CANTHARELLUS. *With.* 281.

VERY frequent in fir woods, &c. The branching ſhallow gills, and colour like the yolk of an egg (as Dr. Withering ſays), will eaſily diſtinguiſh this ſpecies. It has a pleaſant odour like that of apricots, both when recent and when partly dry, as we obſerved in ſome ſpecimens communicated by Lady Arden. This kind of Agaric is frequently eaten, though it often proves rather tough.

TAB. XLVII.

AGARICUS CANTHARELLOIDES.

HELVELLA CANTHARELLOIDES. *Bull. t.* 473. *f.* 3.

WHEN I firſt found this fungus in Peckham-wood, Nov. 16, 1794 the trivial name above given readily preſented itſelf as very applicable; and although not perhaps ſtrictly according to rule, being ſo near that of the preceding ſpecies, I have ventured to retain it, as it had likewiſe occurred to Mr. Bulliard. I believe this Agaric has not been noticed as an Engliſh plant till now. As to its genus, we muſt leave the abſolute deciſion of that point till we have more light on the ſubject.

It may be proper to obſerve that Bulliard has alſo an *Agaricus cantharelloides*, which appears to me a black-ſtalked variety of *A. Cantharellus*.

TAB. XLVIII.

AGARICUS RADICATUS. *Relh. n.* 1040. *With.* 335.

A. LONGIPES. *Bull. t.* 515 & *t.* 232?

THIS is among the more variable kinds. The ſtalk is occaſionally ſolid, pithy or hollow, and externally ſmooth or hiſpid. The gills are ſometimes fixed to the ſtalk, ſometimes looſe, and they are often branching or even inoſculating. Their colour is always white, or nearly ſo, but they acquire a pink hue in drying. The ſtalk, as well as the *pileus*, varies in colour from nearly white to a cheſnut brown. Sometimes it much reſembles the A. *velutipes*, except in

being always erect. Lady Arden favoured me with a ſpecimen of a curious variety, with the ſkin of the *pileus* cracked into ſquares, leaving white reticulations between.

I cannot help ſuſpecting that the following four ſpecies of Dr. Withering will, on mature examination, prove varieties of that now before us, viz. *Umbraculum*, p. 289, *agreſtis*, ibid. *gracilis*, p. 313, and *ſplendens*, p. 334.—For the 1ſt ſee his reference to Batſch, t. 4. The 2d ſeems to deſcribe imperfect ſpecimens gathered late in the ſeaſon and in wet weather. The third expreſſes the ſtate of its maturity in fine weather; and the 4th as I have found it when the gluten is dried up after a dewy morning. In the early part of the ſeaſon, about Auguſt, I have obſerved a thick gluten on the *pileus* at 7 in the morning, changed by 11 into a varniſh, quite reſplendent in the ſun, the heat of which haſtening the progreſs of the fungus to maturity, the gills become reddiſh, and the ſeeds are found, as Dr. Withering deſcribes them, at their edges. Many Agarics, eſpecially the paraſitic ones, are diſpoſed to have long roots. I have found that of A. *radicatus* 12 inches in length, and Mr. Relhan ſent a ſtill longer ſpecimen to the Linnæan Society.

TAB. XLIX.

TRICHIA DENUDATA. *Bull. t.* 502. *With.* 478.

CLATHRUS DENUDATUS. *Linn. Sp. Pl.* 1649. *Hudſ.* 630.

FOUND in the crevices of ſtumps of trees, and other damp places, growing in all directions. At firſt it might be taken for a group of ſmall inſects' eggs, being white and nearly ſeſſile, but it is of the conſiſtence of cream. It next acquires a crimſon hue, with a partial ſkin, which ſeparates at length, diſcloſing a woolly texture replete with fine powder.

TAB. L.

TRICHIA NUDA. *With.* 477.

T. AXIFERA. *Bull. t.* 471. *f.* 1.

T. TYPHOIDES. *Ibid. f.* 2.

CLATHRUS NUDUS. *Linn. Sp. Pl.* 1649. *Hudſ.* 630.

THE progreſs of growth in this ſpecies is ſimilar to the laſt; but the long form of its head, and the continuation of the ſtalk through its woolly ſubſtance, are ſufficient marks of diſtinction.

TAB. LI.

HELVELLA ESCULENTA.

PHALLUS ESCULENTUS. *Linn. Sp. Pl.* 1648. *Hudſ.* 629. *With.* 447.

THIS varies a little in ſhape and colour. Mr. Jacob Rayer found ſome buff-coloured ſpecimens on a bank in Kent. I have gathered plenty of the blackiſh kind at Newington, Surrey, on an old garden ground among ſugar-bakers rubbiſh.

This ſpecies ſurely belongs much more properly to the genus of *Helvella* than to that of *Phallus*, eſpecially if we conſider its texture, duration, or qualities. it is well known by the name of Morel, and much eſteemed as an ingredient in ſauces and ſoups, for which purpoſe it may be preſerved dried for many months or even years. The people employed in gathering Morels in Germany, having obſerved that they grew moſt plentifully where wood had been burned, proceeded to promote their propagation by ſetting fire to the woods, till it was found neceſſary to forbid that practice by law.

TAB. LII.

LYCOPERDON EPIDENDRUM. *Bull. t.* 503. *With.* 468. *Linn. Sp. Pl.* 1654. *Hudſ.* 645.

DIFFERS from the generality of Lycoperdons in being ſoft and pulpy when young, ſomething like *Reticularia ſeptica*, *With.* 470, deſcribed by Mr. Woodward, who has alſo obſerved the plant now before us.

TAB. LIII.

ÆCIDIUM FUSCUM. *Relh. n.* 1199. *Linn. Syſt. Nat. ed. Gmel.* 1473. *Gent. Mag. for May* 1793, 414.

LYCOPERDON ANEMONES. *Pult. in Tr. of Linn. Soc. v.* 2. 311?

I BEG leave to refer the reader to Dr. Pulteney's learned obſervations on this fungus, or one at leaſt nearly related to it, in the Tranſactions of the Lin-

nean Society above quoted; at the ſame time acknowledging my obligations to the Rev. Mr. Relhan for the following account:—

The *Æcidium fuſcum* is a paraſitical fungus, growing on various plants, uſually on the under ſurface of their leaves; but it ſometimes grows on their upper ſurface, and even on the petals of *Anemone nemoroſa*. It does not appear that the eſſential parts of fructification in the *Anemone* are injured by its preſence on the petals.

Mr. Relhan favoured me with ſpecimens anſwering to the above account. It grows from under the ſkin, and is ſimply compoſed of a thin coat, containing fuſcous ſeeds.——Whether Dr. Pulteney's plant be really the ſame ſpecies is doubtful, as he deſcribes the powder of a white colour.

TAB. LIV.

SPHÆRIA PUNCTATA.

PEZIZA PUNCTATA. *Linn. Sp. Pl.* 1650. *Hudſ.* 634. *With.* 435. *Bull. t.* 252 & *t.* 438. *f.* 1.

THE upper ſurface of this plant in its young ſtate emits a fine powder or farinaceous duſt, without any appearance of punctures. In a more advanced ſtate it becomes punctured, and the ſpots are found on examination to be the mouths of little ſphærical cavities, hollowed out of the ſubſtance of the fungus. They contain a black duſt, probably the ſeed.

TAB. LV.

SPHÆRIA HYPOXYLON.

CLAVARIA HYPOXYLON. *Linn. Sp. Pl.* 1652. *Hudſ.* 639. *With.* 456.

C. CORNUTA. *Bull. t.* 180.

COMMON on old ſtumps of trees, poſts, railing, &c. all the year round, in one ſtate or other. The ſummits are at firſt white; afterwards the ſtalks are covered towards the top with half-imbedded ſphærules, containing black ſeeds. There is a ſtriking generic affinity between this and the laſt.

TAB. LVI.

AGARICUS CONTIGUUS. *With.* 302. *Bull. t.* 240.

NOT ſo common as ſome of the genus. The inoſculating and branching of the gills, and the involuted woolly edge, eaſily diſtinguiſh this from moſt other ſpecies.

TAB. LVII.

HELVELLA AGARICIFORMIS. *Bolt. t.* 98. *f.* 1. *With* 430.

IN darkiſh damp holes in the ſtumps and rotten roots of trees very common. It varies a little in ſhape and colour, often turning quite black as it verges towards decay.

TAB. LVIII.

BOLETUS HEPATICUS. *Hudſ.* 625.

FISTULINA HEPATICA. *With.* 405. *Bull. t.* 74, 464, & 497.

BULLIARD's figures of this, often elegant, ſpecies are excellent. It is very plentiful in autumn among oak-trees, growing on their trunks or ſpreading roots. Its vegetation is moſt rapid in wet weather. When very young it reſembles a ſtrawberry, and advancing in growth it becomes hiſpid with tubular protuberances, ſhaped like florets (*fig.* 1). By degrees it acquires a diſtinct under ſide of a pale yellow, with ſimilar protuberances (*fig.* 2); and as theſe become more diſtinct,

the upper ones loſe their form. At length the under ſurface becomes covered with diſtinct and ſeparate tubes, entire at their orifice (*fig.* 3), turning brown and emitting ſeeds at their edges, which often hang in feſtoons on little cobwebs formed by ſome inſect of the ſpider kind. The fungus afterwards either rots or turns black in decay.

It varies in ſhape and ſize, but commonly reſembles liver, being ſaturated with a blood-coloured fluid, which adds to the reſemblance. Its taſte is like that of the common muſhroom, *Ag. campeſtris*, and ſome perſons reckon it nearly as good.

TAB. LIX.

PEZIZA ACETABULUM. *With.* 436. *Bull. t.* 485. *f.* 4.

I HAVE been favoured with recent ſpecimens of this *Peziza* by the Rev. Mr. Budſtone, who found them at Sand Hutton near York, growing in the earth at the bottom of a ſhady hedge, not, as uſually reported, on rotten wood.

TAB. LX.

SPHÆRIA MILITARIS.

CLAVARIA MILITARIS. *Linn. Sp. Pl.* 1652. *Hudſ.* 638. *With.* 450.

FOUND in Kenſington gardens in autumn, moſt frequently among moſs (*Bryum undulatum*), growing from a periſhed chryſalis, or the unquickened remains of a ſpider's neſt. It varies in form and ſize.

TAB. LXI.

AGARICUS PILEOLARIUS. *Bull. t.* 400.

———— CASEUS. *With. v.* 3. 287.

———— SUBINVOLUTUS. *Batſch. t.*

IT ſeems by Bulliard and other writers, that this plant has not been obſerved by them in the later or advanced ſtate, when it becomes remarkably cupped. Lady Arden favoured me with ſpecimens from Nork-Park, near Epſom, Surry, and I have found others in moſt of the woods about London in October and November. Dr. Withering's reference to Bulliard and Bolton may be right; but I cannot agree with him in quoting Schæffer t. 78 for this ſpecies. It varies a little in colour, the pileus being often greyiſh. The ſtipes has long pale blotches of a reddiſh brown.

TAB. LXII.

AGARICUS PALMATUS. *Bull. t.* 216. *With. v.* 3. 341.

THE ſtation of this plant is well deſcribed by Bulliard in Withering "growing on the ſquared ſides of timber," &c. It appears to be a conſtant annual. I found it on the ſide of an elm that had been ſawed down, three years together, in November, in the decaying ſtate. It ſeems allied to Withering's A. *fœtidus*.

TAB. LXIII.

PEZIZA TUBEROSA. *Dickſ. Crypt. faſc.* 2. 25. *With.* *v.* 3. 436.

FOUND in Caen wood, Hampſtead, by Mr. Hunter, who firſt favoured me with ſpecimens. I have ſince received others from J. L. Knapp, Eſq. who found them near Kenſington Gravel-pits, April 11, 1796. They are ſurely paraſitical on a *Lycoperdon Tuber*, as they evidently grow on that ſubterraneous fungus, and are not a continuance of the ſame ſubſtance. The cup only is above ground. This does not agree in every particular with P. *radicata* of Bulliard, &c. its tuberoſity excepted.

TAB. LXIV.

PEZIZA CINEREA. *Batſch. t.* 26. *fig.* 107.

VERY common upon rotten ſtumps, bits of wood, &c. on the under and ſhady ſides, in damp woods and other places in the autumnal months. Dr. Withering has well deſcribed it as a *Tremella*, but in his 3d edition has referred it to *Peziza*.

TAB. LXV.

PEZIZA NIVEA. *Dickſ. Crypt. faſc.* 1. *p.* 21.

FREQUENT in holes of rotten ſtumps, and on decaying plants, &c. growing in various directions.

TAB. LXVI.

AGARICUS COMPRESSUS. *With. v.* 3. 354.

NOT uncommon in fir-groves, &c. The ſtipes is more or leſs compreſſed according to the weather or ſituation, being filled with a looſe pith; the *lamellæ* or gills are deepeſt towards the ſtipes, and occaſionally fixed towards the top.

TAB. LXVII.

AGARICUS ULMARIUS. *Bull. t.* 510.

THIS plant, common on old rotting elm-trees, ſeems hitherto to have eſcaped the notice of Engliſh authors, although it is a very conſpicuous annual. I have ſeen it conſtant on the ſame tree three or four years following. It commonly begins to grow in September, and continues till December or later, when each becomes frequently two or three feet in circumference. Authors ſeem to have noticed the varieties, without identifying or thoroughly knowing the ſpecies. I am inclined to think Schæffer's

AGARICUS *candidus*, *t.* 225.

——— *dimidiatus*, *t.* 233.

——— *pallidus*, *t.* 50. varieties of this plant. In an early ſtate and dry ſeaſon I have ſeen them reſemble Schæffer's A. *ſquamoſus*, *tab.* 29 and 30; yet I think they are diſtinct.

It varies much from its ſituation on the tree. If on a flat ſurface in the hollow, it commonly grows upright with the ſtipes central, and in a young ſtate often reſembles white coral. When more advanced, and from the ſides, the *pileus* is ſpreading and undulating like an eſcallop ſhell. Sometimes it grows downwards with a ſtipes 5 or 6 inches long, or protrudes to the outer ſurface in an horizontal direction; when quite external, the ſtipes is often nearly lateral or almoſt ſeſſile. This fungus is either white with a mealy ſurface, or greyiſh, &c. I have ſeen it accidentally reſemble Bulliard's *fig. tab.* 510, with red and brown ſpots. I ſuſpect Agaricus *teſſellatus*, tab. 513. fig. 1. of the ſame author to be a variety alſo.

TAB. LXVIII.

AGARICUS TIGRINUS. *Bull. t.* 70.

I HAVE been favoured with recent ſpecimens of this pretty ſpecies by Thomas Walford, Eſq. of Birdbrook in Eſſex, who gathered them from an aſh in his plantations in September laſt. Some were found growing from the ſides, ſomewhat horizontally, others near the root, upright, in cluſters or ſingle. When freſh they are very tender and eaſily lacerated; when dry coriaceous, and the ſtipes is of a very ſolid and firm texture. I have ſpecimens which accord ſo well with Schæffer's Agaricus *tubæformis*, tab. 248 and 249, that I think them varieties of this ſpecies. The *tigrinus* in the latter ſtate has ſerrated gills, and much reſembles A. *ſquamoſus*.

TAB. LXIX.

CLAVARIA DIGITATA. *Linn. Sp. Pl.* 1652.
SPHÆRIA DIGITATA. *Bull. t.* 220.

FOUND frequently near the roots of old or decaying poplars in Kenſington Gardens, and at Lambeth. I once found ſome at the root of an elder at Batterſea. They commence growing very early in the ſpring, and continue through the ſummer, ripening their capſules in autumn annually. Though at firſt ſomewhat pointed, and covered with a whitiſh duſt or farina, as it advances this fungus aſſumes a more conical form, and the farina is more on the top. It finally becomes blunter, and the head is covered with ſphærules copiouſly diſcharging a denſe black ſoot-like powder. The inner ſubſtance is very white and ſolid, the fibres diverging from the centre upwards: in breaking they form an inverted cone. This ſpecies is frequently very ſportive.

TAB. LXX.

HELVELLA GELATINOSA. *Bull. tab.* 473. *fig.* 2.

NEARLY a gelly when freſh and young, but harder and ſomewhat compreſſed when at maturity. The largeſt was ſent me from Bedford; the others I have found in different woods in autumn.

TAB. LXXI.

AGARICUS NITENS. *Schæff. tab.* 238.

LADY ARDEN ſeems the firſt diſcoverer of this plant in England. Her Ladyſhip gathered them in Nork-Park, and favoured me with freſh ſpecimens in October and November laſt. If Dr. Withering had ſeen this plant, he would have eſteemed Schæffer's tab. above quoted one of his beſt figures, not a bad figure of A. *eburneus*. When freſh this fungus is beautifully white, the *pileus* glutinous and ſhining: it is beſpangled with dew-drops on the upper part of the ſolid but pithy ſtipes: when advanced it becomes cupped, and in decaying or when bruiſed acquires patches of a bright flame-coloured or ſcorched appearance, finally turning to a reddiſh or foxy brown; it has a faint pleaſant odour.

TAB. LXXII.

AGARICUS ROSEUS. *Bull. t.* 162. 507. *With. v.* 3. 364.

THESE are abundant in moſt woods all the autumn, either of a pale purple or roſe colour, in odour and taſte like cabbage: the purple are the moſt common, and generally ſmalleſt. May not this be *purpuraſcens* of Withering, and *fauthinus* of Batſch?

TAB. LXXIII.

HYDNUM IMBRICATUM. *Linn. Sp. Pl.* 1178. *Schæff. t.* 140.

THE Rev. Mr. Charles Abbot favoured me with theſe ſpecimens from Lord Ongley's plantations in Bedfordſhire, Oct. 11, 1796.

TAB. LXXIV.

PEZIZA CORNUCOPOIDES. *Linn. Sp. Pl.* 1650. *Bull. t.* 150.

PLENTIFUL in moſt of the woods near London, &c. in the autumnal months. Theſe fungi are of an opaque woody texture: the faux is ſlightly undulated, forming imperfect reticulations, which on the outer ſide are covered with a greyiſh powder reſembling the bloom on fruit.

TAB. LXXV.

HELVELLA FLORIFORMIS. *Dickſ. Crypt. faſc.* 3. 22. *Schæff. t.* 278.

HELVELLA CRISPA. *Bull. t.* 465.

IN woods about London, &c. in autumn, but not very common. Sometimes it has a yellowiſh border or fringe. I have found a more carnoſe ſort near it, which appears to me a variety; though further experience may evince the contrary.

TAB. LXXVI.

AGARICUS TERREUS. *With.* v. 3. 311.

OCCASIONALLY a very common plant, particularly in pine groves, cluſtering and often forming very large circles. Sometimes it grows erect, and the whole ſurface is ſmooth; more generally cracked and diſtorted, or aſſuming variety of appearances. See Schæffer's A. *multiformis*, tab. 14. undoubtedly a ſportive variety.

TAB. LXXVII.

AGARICUS AUREUS. *Bull. t.* 92.
FILAMENTOSUS. *Schæff. t.* 209.

ON ſtumps of hornbeam, &c. not very common, ſometimes 24 inches in circumference. I have generally found it in September, varying but little in colour or other reſpects. I believe it but little known in the perfect ſtate, and perhaps a variety of this may be the A. *piloſus* of Withering, 295, confounded with A. *floccoſus*, which I can ſhew by ſpecimens to be a diſtinct plant. May not this be Schæffer's A. *obſcurus* alſo?

TAB. LXXVIII.

PEZIZA COCCINEA. *Hudſ.* 636. *Bull. t.* 474. *Schæff. t.* 148.

I HAVE many dried ſpecimens of this plant, and cannot agree with Dr. Withering, that it is the ſame ſpecies with P. *cipidendra.*

TAB. LXXIX.

PEZIZA LEPORINA. *Fl. Dan. t.* 1077.

I RECEIVED ſpecimens of this firſt from my kind friend the Rev. Mr. Charles Abbot from Clopt-Hill, Bedfordſhire, in September 1792, and have found it in plenty in Sir William Jerningham's plantation near Norwich. It differs from P. *coccinea* in being oblique and involuted towards the baſe, alſo in the outſide being radulated or rough like a file or raſp.

TAB. LXXX.

LYCOPERDON RECOLLIGENS. *Woodward, Tr. of Linn. Soc. vol.* 2. 58.

VERY plentiful in Major Money's plantations at Trowſe, near Norwich, in October 1794. Theſe puff-balls are partly under ground till the *volva* burſts, which is apparently with ſome elaſtic force, as they are commonly found tumbled about in different directions. It has been found on a graſs plat in a garden at Walthamſtow ſeveral different years.

For a full and very ingenious account of this and ſome others of the ſtellated *Lycoperdons*, I beg leave to refer as above.

TAB. LXXXI.

AGARICUS ALLIACEUS. *Bull. tab.* 153, & 524. *fig.* 1.

NOT uncommon in woods during moſt of the autumnal months. It grows attached to fallen oak leaves, without any earth about the roots. The ſtipes is ſomewhat velvety, often ſolid; the long gills generally fixed to the top of the ſtipes. The pileus is commonly plaited. The garlick-like ſmell is very perceptible, and remains till the fungus is almoſt dry. Can this be the *Agaricus alliatus*, Schæff. tab. 99? Jacquin's *alliaceus* is a different plant; ſee *With. vol.* 4. 277.

TAB. LXXXII.

AGARICUS PSITTACINUS. *Schæff. t.* 301. *With. ed.* 3. *vol.* 4. 264.

——— CHAMELEON. *Bull. tab.* 545.

MOST frequent in moiſt graſſy places in parks, &c. It has all the characters (except colour) which belong to ſome of the varieties of *Agaricus aurantius*, more eſpecially of *Agaricus dentatus* of Linn. Hudſ. &c. In ſome ſtages of the growth of this plant the pileus is dentated at the edges. It is beſt diſtinguiſhed by the green tinge at the upper part of the ſtipes, which is retained almoſt to the laſt.

TAB. LXXXIII.

CLAVARIA OPHIOGLOSSOIDES. *With.* 3d. *ed. v.* 4. 365.

SIR Thomas Gery Cullum, Bart. favoured me with ſpecimens from near Stone-henge on Saliſbury plain, found in Sept. 1792; and I am indebted to the Rev.

Mr. Abbot for ſome uncommonly large plants gathered early in Oct. of the ſame year. Lord Viſc. Lewiſham brought me others late in Oct. and having alſo obſerved it myſelf, I judge it to have been that year rather plentiful. I have ſpecimens from Wales, communicated by the Rev. Mr. Hugh Davies. I could not poſitively detect ſphærules, although the velvety hairs which clothe the head appear, when ſtrongly magnified, thickeſt towards the baſe. This ſpecies ſeems the connecting link between *Sphæria* and *Clavaria*.

TAB. LXXXIV.

CLAVARIA FERRUGINEA.

I FOUND great quantities of this under the cloſe ſhade of firs on a riſing ground in Sir Wm. Jerningham's plantations near Norwich, Oct. 1794. The inſide of the head is ſomewhat pithy; ſtipes a little rough on the upper part. It might eaſily be paſſed over as a ſmall Agaric.

TAB. LXXXV.

TRICHIA TURBINATA. *With. ed.* 3. *v.* 4. 400.

CLATHRUS TURBINATUS. *Hudſ.* 632.

VERY frequent on rotten ſtumps, &c. in damp places either out of doors or in cellars. It may be found early in the morning, whitiſh, and reſembling cream. At noon of the ſame day it becomes of a drier texture, with an outward ſkin, and is then yellow. The ſkin will often begin to ſeparate, and the ſeeds to ripen the ſame evening, next morning leaving only the minute ſaucer-formed empty baſes. If the ſun ſhines upon them, they may happen to dry into a little horny ſubſtance.

TAB. LXXXVI.

BOLETUS IMBRICATUS. *Bull. tab.* 366.

HAS grown annually for ſome years on the ſame ſtumps in Kenſington gardens, often of very large dimenſions. When freſh, it is eaſily bruiſed, at firſt turning red, afterwards nearly black. It occaſionally grows thinner, and divides ſomething like Boletus acanthoides of Bulliard. The pileus is finely ſquamoſe; the pores minute, and ſeldom deep; their ends are ſomewhat ſpongy.

TAB. LXXXVII.

BOLETUS FRONDOSUS. *Dickſ. Crypt. faſc.* 1. *p.* 18.

OFTEN found growing in very large cluſters beautifully branching and reuniting, forming lateral ramifications in a very curious manner. The top or pileus is generally of a greyiſh brown; the ſides lighter; the pores and inner ſubſtance very white.

TAB. LXXXVIII.

BOLETUS ULMARIUS.

MAY be found on old or rotting elms (*ulmus campeſtris*) thriving in damp weather moſt part of the year. It is a very ſolid, tough, unſhapen maſs, often very large, commonly attached by the back ſo as only to ſhew the edge of the rugged pileus. The pores are very fine, frequently in many ſtrata under each other of various length. I have a large ſpecimen from a cellar, found in an angle between two brick walls without any ſigns of wood being near. The moiſture ouſing from the wall muſt be very powerfully ſaturated with the vegetable matter to form ſo denſe a ſubſtance; and if ſome beam was the cauſe, the bricks muſt have filtered it to a nicety, which is another proof of the ſubtilty

of the vegetable matter of which this Boletus is compoſed. I believe this plant is not before deſcribed. I found a large maſs ſpreading full three feet, laſt autumn, in the hollow of an old elm in St. James's park, forming a groteſque kind of cieling of different tints. About the ſides of the cavity were beautiful varieties of Agaricus ulmarius, and I think a variety of Agaricus palmatus (tab. 62) hanging very fancifully, ſome reſembling eſcallop ſhells, and others corallines, &c. prettily relieved by the dark red wood, making a kind of Fairy grot, remarkably clean, as if Puck had been

" ———— ſent with broom before,
" To ſweep the duſt behind the door." SHAKESP.

TAB. LXXXIX.

BOLETUS NUMMULARIUS. *Bull. t.* 124.

I WAS firſt ſhewn this plant on a bit of hazel ſtick, and have ſince found it in Lord Spencer's park at Wimbledon, on a Salix or willow, in various ſtates, and in other places likewiſe. The Rev. Mr. Abbot favoured me with a ſpecimen from Bedfordſhire. Theſe fungi vary very much in ſhape and ſize, and differ alſo in ſubſtance and texture according to the age or time of gathering. At firſt they are ſomewhat leathery, afterwards more horny. They are either ſtipitate or ſeſſile; with or without a black baſe. The pores are irregular, but ſmall. May not Boletus Calceolus, Bull. t. 360 and 445, fig. 2, and alſo Boletus elegans, t. 46, of the ſame author, belong to this ſpecies?

TAB. XC.

CLAVARIA CYLINDRICA. *Bull. t.* 463, *fig.* 1.

FOUND plentifully in autumn in a wet field by the New River, between Stoke Newington and Hornſey; the ſoil is an hard loam. The texture of this ſpecies is of a wax-like friable nature.

TAB. XCI.

PEZIZA CELLULARIA.

CELLULARIA CYATHIFORMIS. *Fl. Dan. t.* 1450.

THIS is at preſent a new and rare Engliſh plant. Our ſpecimens were found on an old deal maſt near the river Thames at Batterſea. I have ſince ſeen ſome very ſmall ones on a deal plank, that had been ſeaſoned in the Thames near Lambeth. It is very eaſily dried, becoming hard, reſembling horn, and not changing colour.

TAB. XCII.

AGARICUS NUTANS.

A LITTLE elegant agaric, paraſitic on fern ſtalks, &c. It might with ſome propriety be called Agaricus denticulatus, having uncommonly diſtinct little teeth at the edge of the pileus. The longer gills of this plant have threads along their edges affixing them to the ſtipes. The gills are either ſingle or in pairs. In damp weather the pileus is ſomewhat glutinous. This is preſumed to be hitherto nondeſcript.

TAB. XCIII.

AGARICUS SQUAMULA. *Batſch. t.* 84.

MERULIUS SQUAMULA. *With.* 3 *ed. v.* 4. 151.

MOST common on ivy leaves, though ſometimes found on other decayed foliage, &c. The ſtipes is a little downy, as obſerved by my friend Wm. Mathew,

Eſq. of Bury, and hollow. This ſpecies varies in ſize from $\frac{1}{8}$th of an inch to an inch or more in height, and is often as much at maturity when of the former ſize as of the latter. The gills appear to be ridges of the ſame ſubſtance as the pileus; hence it has been conſidered by ſome as a *Merulius*.

TAB. XCIV.

AGARICUS ANDROSACEUS. *Linn.*
MERULIUS ANDROSACEUS. *With.* 3 *ed.* v. 4. 148.

OFTEN found on oak leaves, &c. The Agaricus Rotula of Scopoli has commonly been confounded with this ſpecies.

TAB. XCV.

AGARICUS ROTULA. *Scopoli.*
MERULIUS COLLARIATUS. *With.* 3 *ed.* v. 4. 148.

VERY common on ſticks, &c. &c. I think Scopoli's name expreſſive, as the radii or gills terminate in a manner peculiar to this ſpecies, forming a junction not unaptly reſembling the nave of a wheel, the centre receiving the ſtipes like an axle. I believe no author has mentioned the branching of this plant, which it ſometimes does almoſt without end. May not abortive branching ſpecimens of this agaric have been miſtaken for ſomething elſe? They bear ſome analogy to *Rhizomorpha fragilis*, (ſee tab. 100). The ſtipes is hollow.

TAB. XCVI.

AGARICUS FLAVIDUS. *Bolt. t.* 149.

IN Auguſt 1793 a meadow near Kennington common, Surrey, was almoſt covered with this ſpecies. We cannot think this the equeſtris of Linnæus.

TAB. XCVII.

AGARICUS NIVEUS. *Dickſ. Crypt. faſc.* 1. *p.* 17.

——— SESSILIS. *Bull. t.* 152.

COMMON in damp woods, and ſhady hedges, on ſticks, &c. attached laterally or at the back, growing in great quantities on the under ſide of the ſtick, ſo that only the upper part, or ſnowy white pileus, preſents itſelf at firſt ſight, and has a very elegant effect.

TAB. XCVIII.

AGARICUS MOLLIS. *Dickſ. Crypt. faſc.* 1. *p.* 17. *Schæff.* 213.

FOUND on an elm trunk near Stapleford abbot, Eſſex.

TAB. XCIX.

AGARICUS ECHINATUS.

THIS is of an elaſtic jelly-like ſubſtance, ſimilar to Agaricus mollis. The gills divaricate from a little eccentric button of a white downy ſubſtance oppoſite to the attachment by the pileus, which is rough with hairs and rigid points intermixed. Mr. Pitchford firſt ſhewed me ſpecimens of this plant at Norwich. I have ſince found it in abundance on a decaying maple in Greenwich-park.

TAB. C.

CLAVARIA PHOSPHOREA.

RHIZOMORPHA FRAGILIS. *Roth. Crypt. minus nota*, 7.

HIMANTIA UMBRINA. *Perſoon Diſſ. meth. fung. gen.* 73.

AGARICUM NIGRUM RETICULATUM COMPRESSUM, &c. *Michel. Gen.* 125. *t.* 66. *f.* 3.

FUNGUS NIGER COMPRESSUS, VARIE DIVARICATUS ET IMPLEXUS INTER LIGNUM ET CORTICEM. *Raii Syn.* 15.

FOUND in a wine cellar in Little St. Helens, London, creeping among ſaw-duſt and bottles in the autumn of 1796, communicated by Mr. B. M. Forſter. It is remarkable for being luminous in the dark, when freſh, at the ends of the ſhoots. Mr. Forſter has doubted whether this phoſphoric appearance may not be owing to ſome vinous moiſture imbibed, rather than a natural property of the fungus.

TAB. CI.

AGARICUS STIPITIS. *With. ed.* 3. *v.* 4. 191.

VERY common on ſtumps of trees in the autumn, frequently growing in large cluſters, as Dr. Withering obſerves. We do not often find it in a perfect ſtate: the rain waſhing more or leſs of the beautiful ſcalineſs from its pileus, and darkening the colour of the ſtem, &c. makes great alterations in its appearance. In a young ſtate it reſembles A. *laricinus*, W. 193, if it be not the ſame ſpecies. It varies in colour, ſometimes almoſt to white, and often aſſumes a pinky hue. This is alſo A. *annularius*, Bull. t. 377, and t. 540, f. 3. *Fuſco pallidus*, Bolt. t. 136, *congregatus*, t. 140, *mellcus*, t. 141. It has often been figured, and has too many names to be enumerated here. I beg therefore to refer the reader, as in many other caſes, to the Index.

TAB. CII.

AGARICUS TURBINATUS. *Bull. tab.* 110.

THIS ſpecies ſeems hitherto to have been overlooked. Lady Arden favoured me with ſpecimens from Nork Park, Surrey, where it was growing in plenty from September 20 to November 2, 1796. It has a ſtrong unpleaſant odour and taſte, cauſing a bitterneſs in the throat. The ſkin of the pileus eaſily peals, and is often glutinous. The acute-edged bulb (if I may ſo call it) is very general. The other leading characters are endeavoured to be expreſſed. We have not known it to have varied much, though it becomes, like moſt Agarics, ſomewhat diſtorted in the latter ſeaſon, aſſuming a cup ſhape, and various other forms.

TAB. CIII.

AGARICUS TORMINOSUS. *Schæff. t.* 12.

THIS ſhould ſeem to be A. *piperatus* of Dr. Withering, p. 172, which he gives as the true A. *piperatus* of Linnæus; but it is remarkable that we find no mention of the branched gills, which are conſtant in this and the commonly received A. *piperatus*, or A. *Liſteri*, With 158. Schæffer is not ſo accurate with regard to the gills; otherwiſe his figures have a general very good reſemblance, though many were evidently done from bad ſpecimens. Ours ſeem to be pretty good ones. His A. *ſcrobiculatus*, t. 227, and A. *crinitus*, 228, are ſurely the ſame ſpecies as this. The juices are very milky.

TAB. CIV.

AGARICUS LISTERI. *With. ed.* 3. v. 4. 158.

HAS many of the characters of the A. *torminoſus*. The ſpecific difference ſeems to depend on the proportions, and want of the beautiful reticulated fringe of wool at the incurvated edge of the pileus; neither are the lamellæ ſo broad. This has always been thought the A. *piperatus* of Linnæus, till Dr. Withering told us the contrary. An acrid milky fluid exudes copiouſly from it when wounded.

TAB. CV.

AGARICUS RUTILUS. *Schæff. t.* 55. *With. ed.* 3. v. 4. 180.

FOUND often abundantly in fir plantations in autumn, ſometimes very large. I have ſeen it in Norfolk with the pileus ſeven inches in diameter, and the reſt in proportion. It has a woolly or cobweb-like annulus in the young ſtate, which is often entirely loſt in advanced age. The gills are diſtant and clumſy.

TAB. CVI.

AGARICUS MURINACEUS. *Bull. t.* 520.

I FOUND this in Peckham Wood. It has an uncommon appearance. The lamellæ branch and inoſculate, which is rarely the caſe when they are not decurrent. The ſeeds ſeem to be lodged near the lower edges. It is very brittle, but dries tolerably well. The taſte is unpleaſant.

TAB. CVII.

AGARICUS BUCCINALIS. *Batſch. fig.* 214.

MERULIUS BUCCINALIS. *With. ed.* 3. *v.* 4. 149.

NOT uncommon in damp places among moſs, &c. This ſpecies varies but little.

TAB. CVIII.

AGARICUS LATUS. *With. ed.* 3. *v.* 4. 231.

——— LIVIDUS. *Bull. t.* 382.

VERY common, and extremely variable. It has been figured many times under different names. We have found it almoſt white, partly fleſh-coloured, mouſe-coloured, and nearly black; varying in ſize from a ſtem half an inch long, and pileus in proportion, to a much larger ſize than is here repreſented. When young the gills are moſtly white, changing to pink in a few hours after gathering, or as it advances in age, till it ſheds a ſnuff-coloured powder, the gills then being browniſh. It is beſt diſtinguiſhed by the ſomewhat webbed reticulated ſtem, which mark is always more or leſs perceptible in this ſpecies, and inclines me to think it does not belong to A. *volvaceus*, as Dr. Withering ſeems to conjecture. It certainly reſembles it in many reſpects, as the *volvaceus* varies much. Our plant dries well, although it is always flaccid. A. *volvaceus* is apt to imbibe a moiſture, and become covered with whiteneſs like a *Byſſus*, perhaps *Byſſus albus*, and is therefore much more difficult to dry.

The fibrous root in A. *latus* is often remarkable and conſpicuous; taſte inſipid, leaving an unpleaſant ſenſation in the throat. I ſuſpect this to be A. *cervinus*, Schæff. t. 10, and *leoninus*, t. 48, of the ſame author.

TAB. CIX.

AGARICUS FLABELLIFORMIS. *With. ed.* 3. *v.* 4. 302.

——— SEMIPETIOLATUS. *Lightf.* 1030.

——— STYPTICUS. *Bull. t.* 140. & *t.* 557, *f.* 1.

VERY frequent on cut ſtumps of oaks, &c. in the beginning of the autumnal ſeaſon, reſembling lightiſh tanned leather. If dry weather continually occurs it will become very dry, white, and ſcurfy; if wet, commonly of a deep tan colour all over. The autumnal plants may be found in the following ſpring, in their latter ſtate, giving it ſomewhat a new appearance; but the ſtipes is ſo ſtrongly characteriſed by ſpreading towards the lamellæ, it can never be miſtaken when once known; not to mention the beautiful ramifying of the lamellæ, which ſeems to have been overlooked. Is not this A. *lateralis* of Hudſon?

TAB. CX.

BOLETUS AURANTIACUS. *Bull. t.* 236 & *t.* 489. *With. ed.* 3. *v.* 4. 312.

IN woods not unfrequent, generally growing ſeparately, and often very large. I found ſome in Peckham Wood in the autumn of 1795, eight inches high, and the pileus nearly as much in diameter; the latter being ſomewhat conical, and in colour giving an idea of the red calx of iron, or *crocus martis*. Its ſurface is a little rough, and the margin hangs a little over the edges below the pores, which are always pale brown, not attached, but rounded off at the baſe from the ſtipes, which is roughly covered with dark brown powder in irregular reticulations. It is cylindrical, but ſmalleſt at the top. May not *Boletus procerus* of ſome authors belong to this in a young ſtate? I have ſome models of varieties which ſeem to confirm ſuch an idea.

TAB. CXI.

BOLETUS EDULIS. *Bull.*

I FOUND great plenty of this, in the autumn of 1795, in Peckham Woods, Surrey, much larger in ſize than is here repreſented. This varies a little in the colour of the pileus; ſometimes being nearly white, ſometimes ſtill redder than our figure, but the tubes are moſtly of a bright yellow. The ſtem is cylindrical, partly compreſſed, having oblong indentations which catch the ferruginous ſeeds that fall from the pores, giving a pleaſing effect to the golden ſtem. It is very remarkable that the plant, although very carnoſe, does not change colour when cut. It is ſaid to be good eating when properly dreſſed; the taſte when ſimply broiled is not unpleaſant. It is white internally, and eats like veal, though ſomewhat tough.

TAB. CXII.

HYDNUM SUBLAMELLOSUM. *Bull. t.* 453. *fig.* 1.

THE Rev. Mr. Charles Abbott, of Bedford, favoured me with theſe ſpecimens, found in Clapham Wood, in that county, Oct. 26 and Nov. 2, 1796. I believe this fungus was not before known to grow in England. The points ſpread a little, and are irregular, more or leſs concave on one ſide, giving it the appearance of a *Boletus*, to which it is nearly allied.

TAB. CXIII.

BOLETUS LACHRYMANS. *Jacq. Miſc. Auſt. v.* 2. *t.* 8. *Dickſ. faſc.* 1. *p.* 18.

MUCH too common in England, taking poſſeſſion even of the bond timber in houſes, and often attached by the back under ſtair-caſes. &c.* In damp places the fructification is very frequent, and has often an extremely elegant groteſque appearance, hanging in in-

* The beſt way to guard againſt this evil, is to introduce a free circulation of freſh air, and avoid building in damp ſituations.

verted cones and other ſhapes. The porous ſurface is very unequal, forming various reticulations and ſinuſes. Their colour varies from yellow to orange, or a bright red brown. The whole fructification often forms a circle from one to ſix or eight inches in diameter, ſurrounded with an outer ſubſtance, tender, and pithy or cottony, of a pale brown. The upper part is commonly clothed with a white mucor. This pithy ſubſtance, without fructification, is often found by itſelf, and is very dry; whence the Engliſh name of dry rot: yet as the fructification is ſeldom without drops of water reſembling tears, the Latin name *lachrymans*, or weeping, has been given. Dr. Withering's reference to Bolton makes it appear he never ſaw the plant. The latter ſeems unwilling to perſuade himſelf that his figure, *tab.* 167, was B. *lachrymans*, and could only reconcile it by the pores "having ſomewhat the appearance of falling tears." It is certainly a very different ſpecies, and, as he ſays, agrees well with his B. *obliquus*, *tab.* 74.

TAB. CXIV.

PEZIZA RADICULATA.

FOUND in Wanſted Garden, Eſſex, Oct. 13th, 1794, and in the autumn of 1795, rooted up to the cup in litter and earth. The inſide is a thin lining of nearly an uniform yellow. The outer ſide and the radicle are white, a little woolly; the bottom of the cup being ſomewhat corrugated with irregular reticulations or veins. This fungus ſhrinks much in drying, and becomes leathery. May the figure in Ray's Synopſis, ed. 3. t. 24. f. 4. have been taken from a bad ſpecimen of this ſpecies?

TAB. CXV.

PEZIZA OCHROLEUCA. *Bull. t.* 105. *f.* 1. *With. ed.* 3. 349.

NOT uncommon in the damp receſſes of moiſt woods. It varies a little in the proportion of the pileus and ſtipes. The Rev. Mr. Abbott, of Bedford, ſent me ſpecimens of this, among which one or two had a ſtipes full an inch long. It is ſomewhat leathery and elaſtic, when freſh, but in drying ſhrinks much, and becomes hardiſh and horny.

TAB. CXVI.

PEZIZA CALYCULUS. *Bull. t.* 416. *f.* 3.

THIS differs but little from P. *ochroleuca*, except in proportion and colour, and in having the ſtipes ſhorter with reſpect to the cup. It does not ſhrink much in decay.

TAB. CXVII.

PEZIZA FRUCTIGENA. *With. ed.* 3. *v.* 4. 350.

THIS ſeems to want more than a deſcription to diſtinguiſh it from P. *calyculus*. It is however more waxy, uniformly lighter in colour, and when on the ſides of the fruit, &c. on which it grows, the ſtem is lengthened, weak and flexuoſe. It ſhrinks much in drying, and becomes yellower.

TAB. CXVIII.

PEZIZA COMITIALIS. *Batſch. fig.* 152.

I WAS favoured with theſe ſpecimens by the Rev. Mr. Relhan, who gathered them in Madingley Plantations. This is in appearance a very near approach to a *Lichen*.

TAB. CXIX.

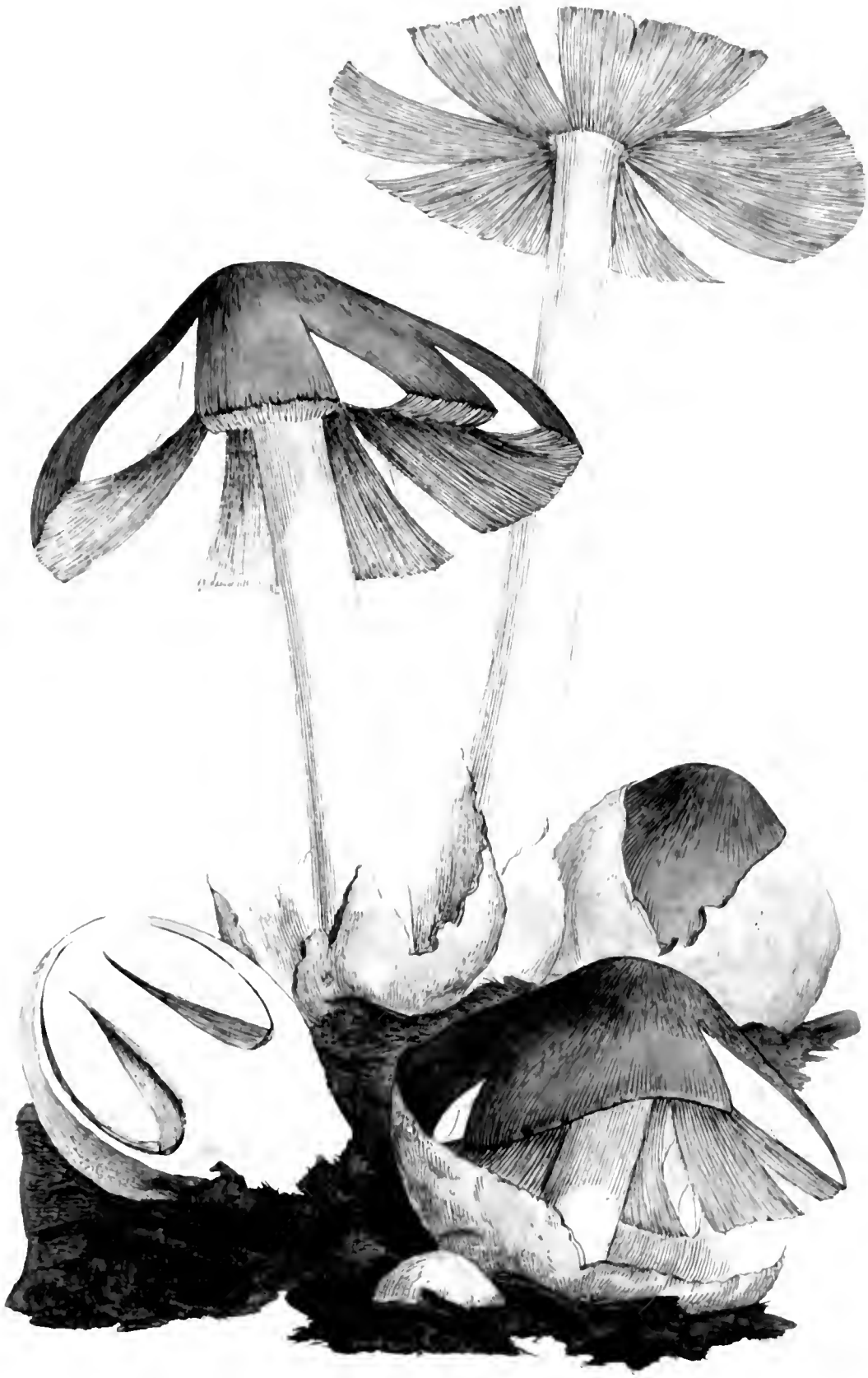
SPHÆRIA ACUTA. *Relhan. Fl. Cant. Supp.* 3. *p.* 34. *Hoffm.* 22. *tab.* 5. *f.* 2.

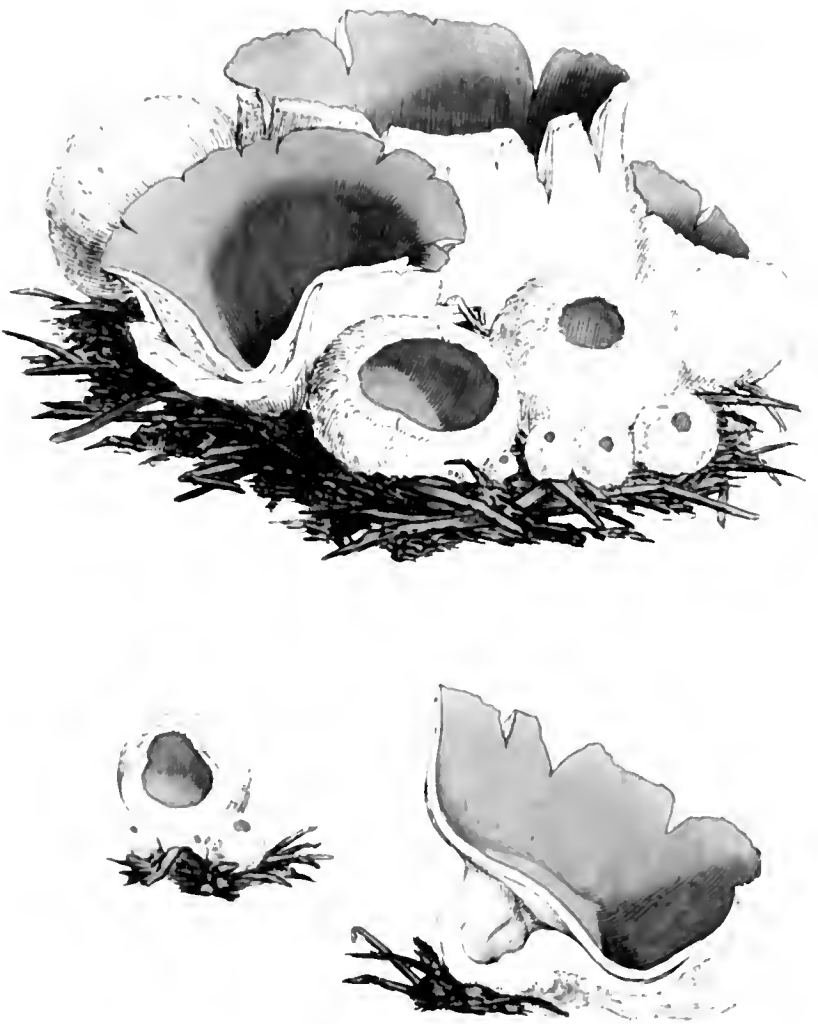
THE Rev. Mr. Relhan firſt obſerved this ſpecies in England. It is moſt common, late in the winter and early in ſpring, on the decayed ſtalks of herbage, particularly nettles, under hedges by the ſides of ditches, &c.

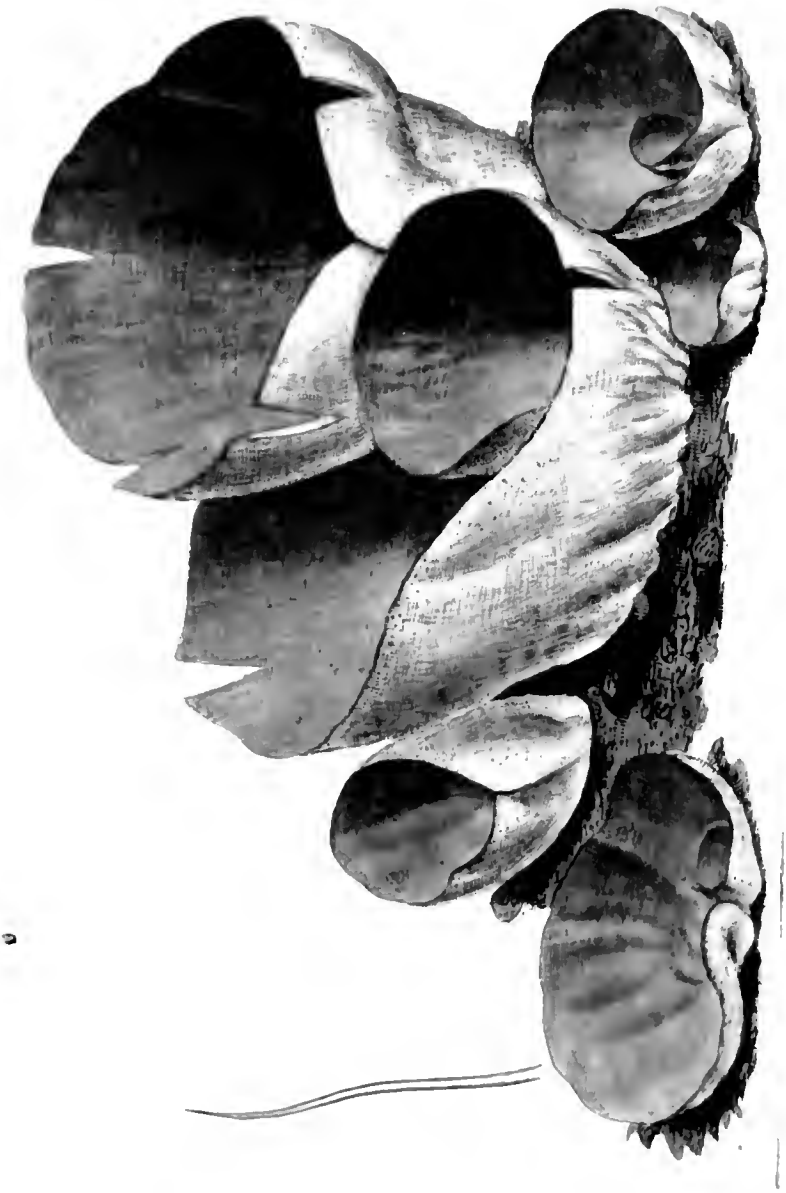
TAB. CXX.

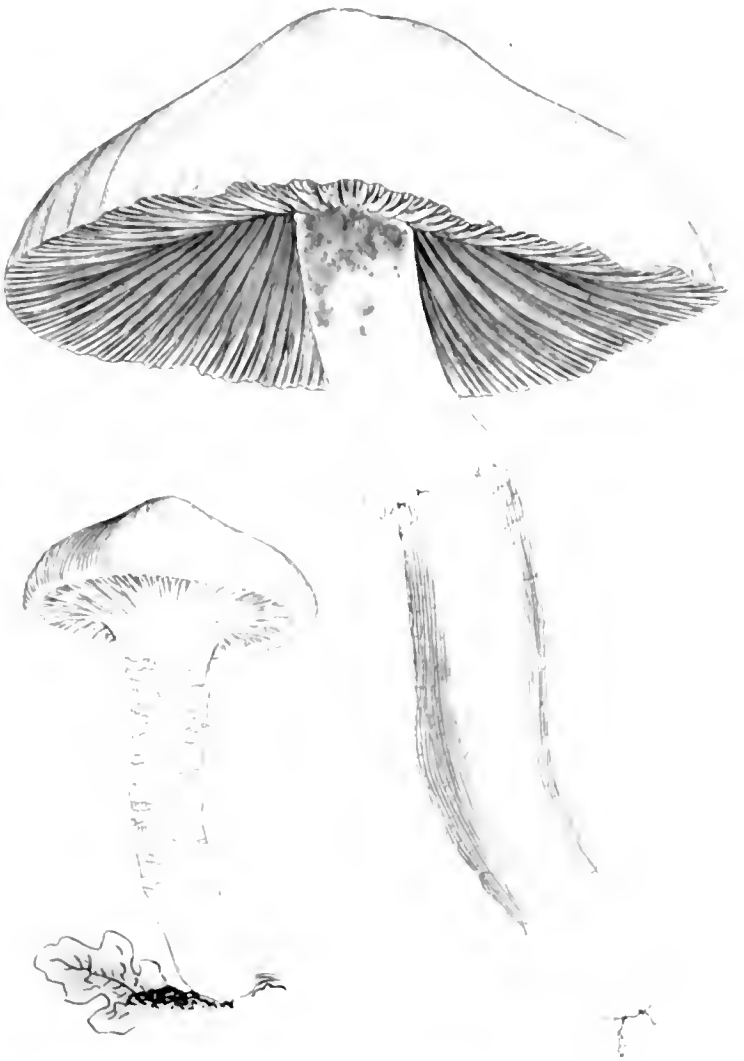
SPHÆRIA TENTACULATA. *Batſch. fig.* 183.

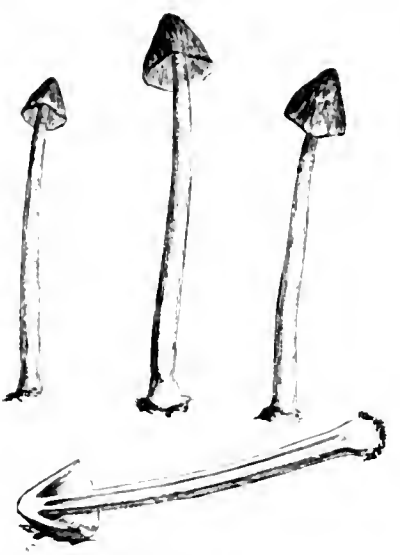
I FIND this moſt common in Kenſington Gardens in damp places on rotten pieces of timber, the lower part immerſed in the remains of the bark or in the wood. The cylindrical mouths are viſible to the naked eye like little bundles of hair. The adjacent wood is ſometimes ſtained with black.

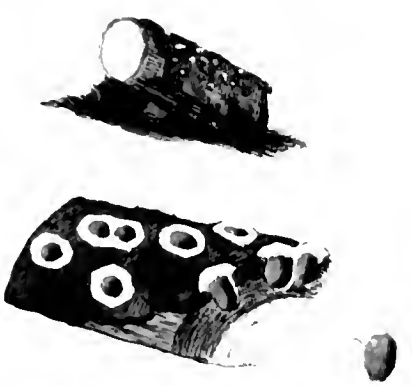


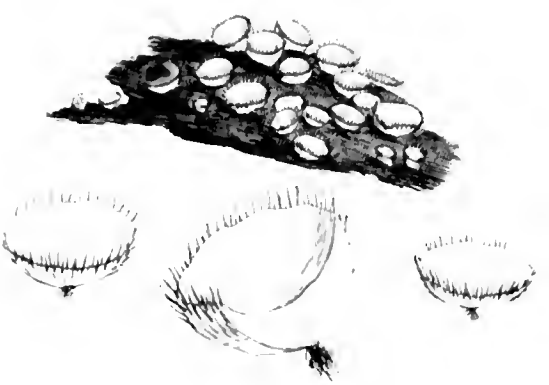


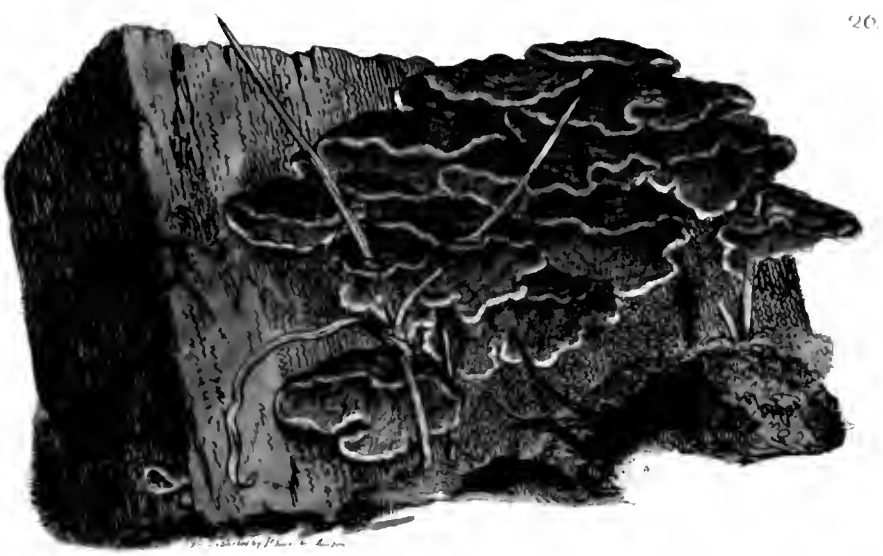


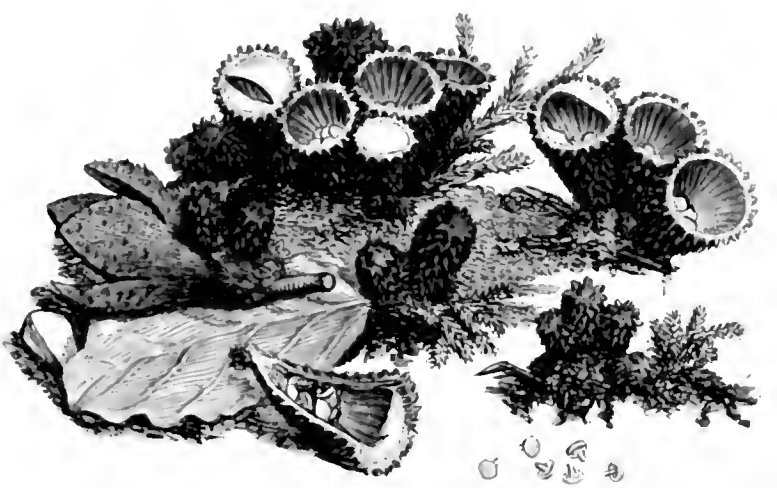


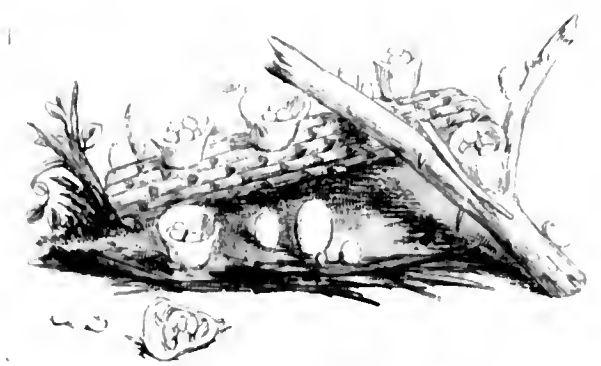


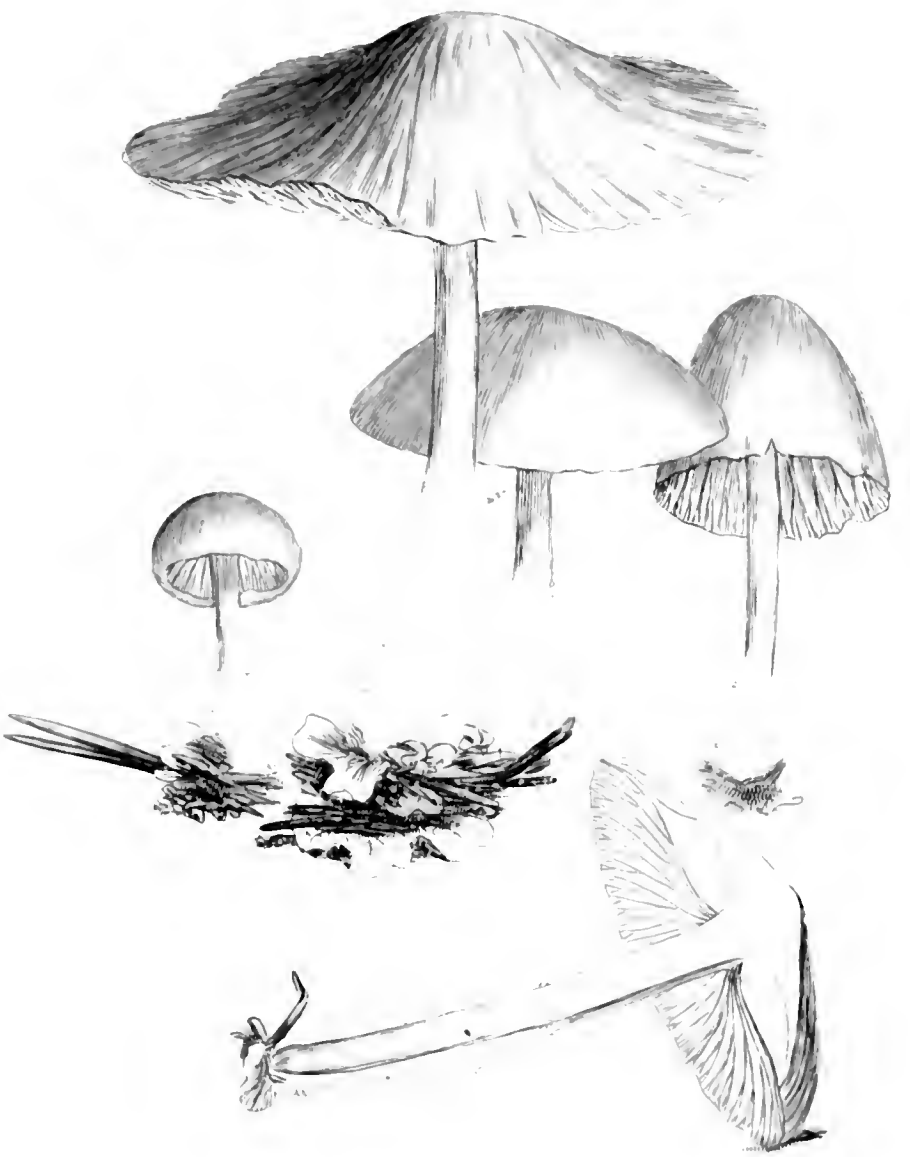


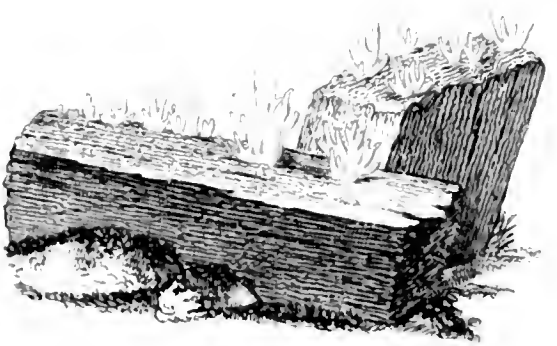


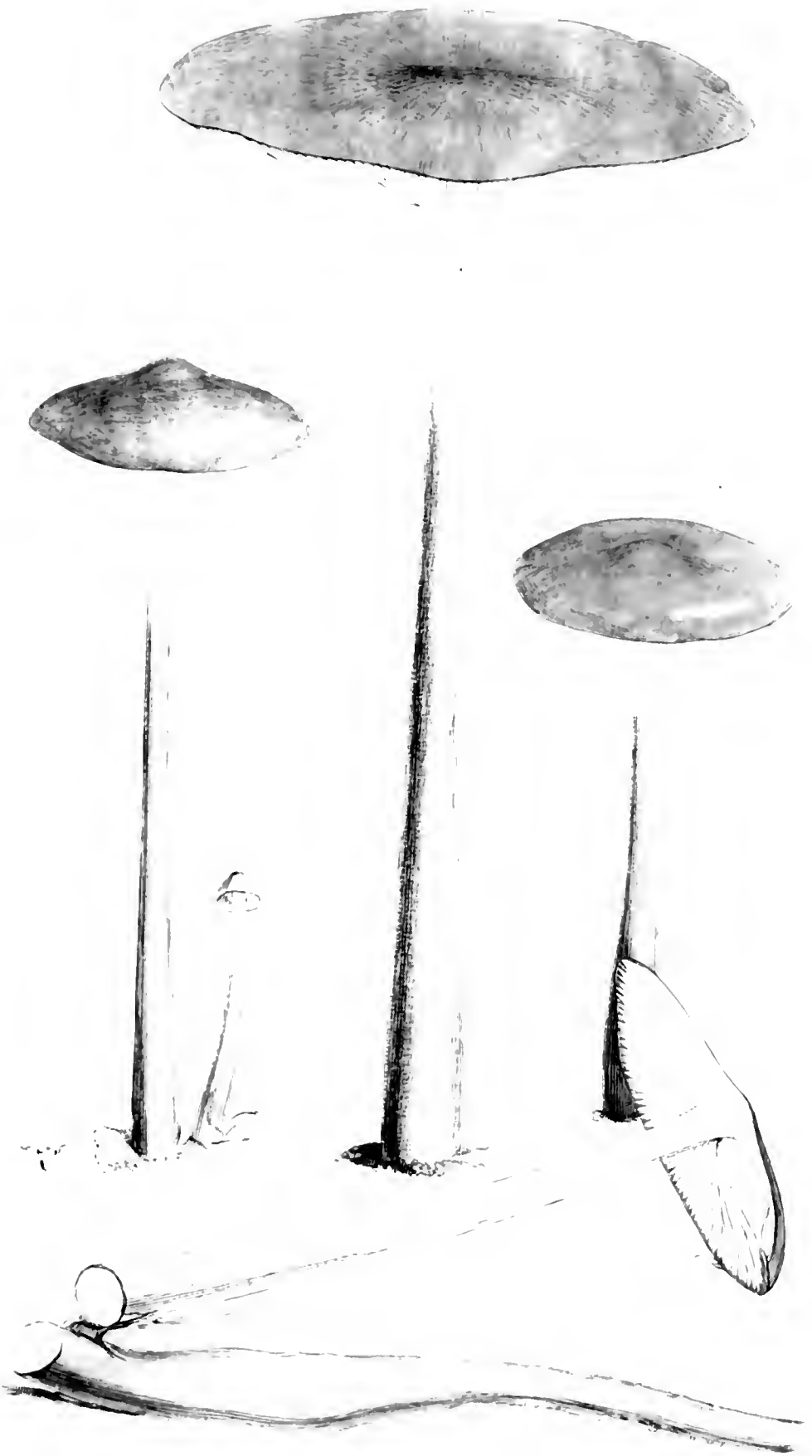


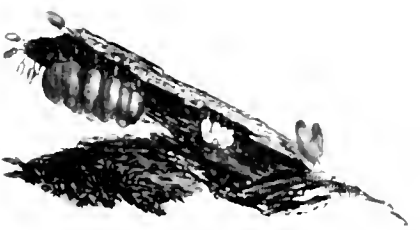


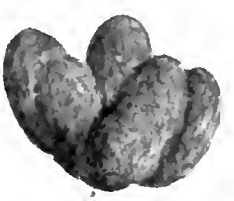


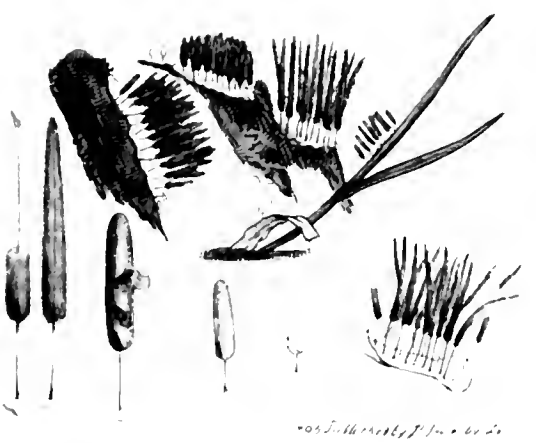


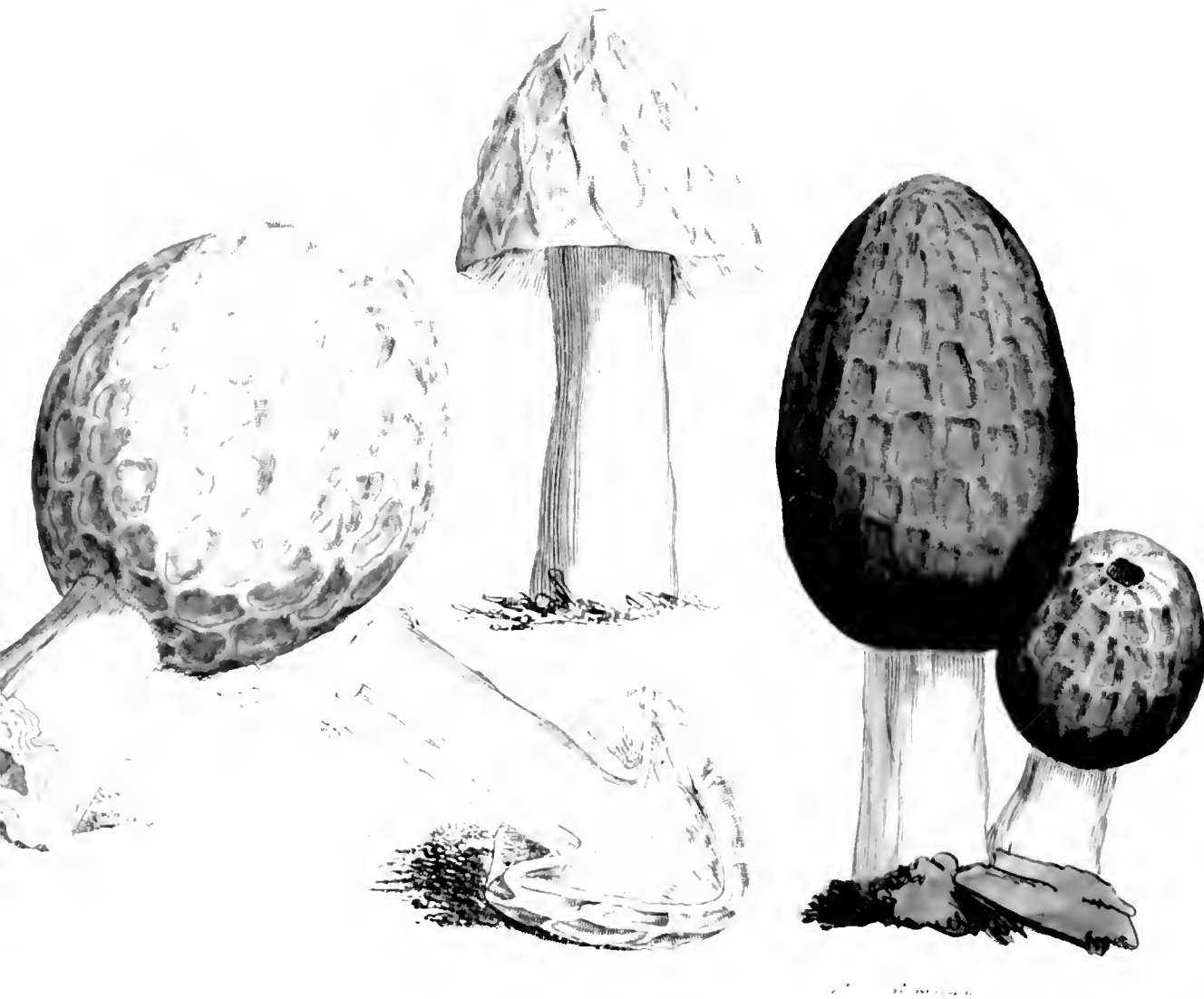


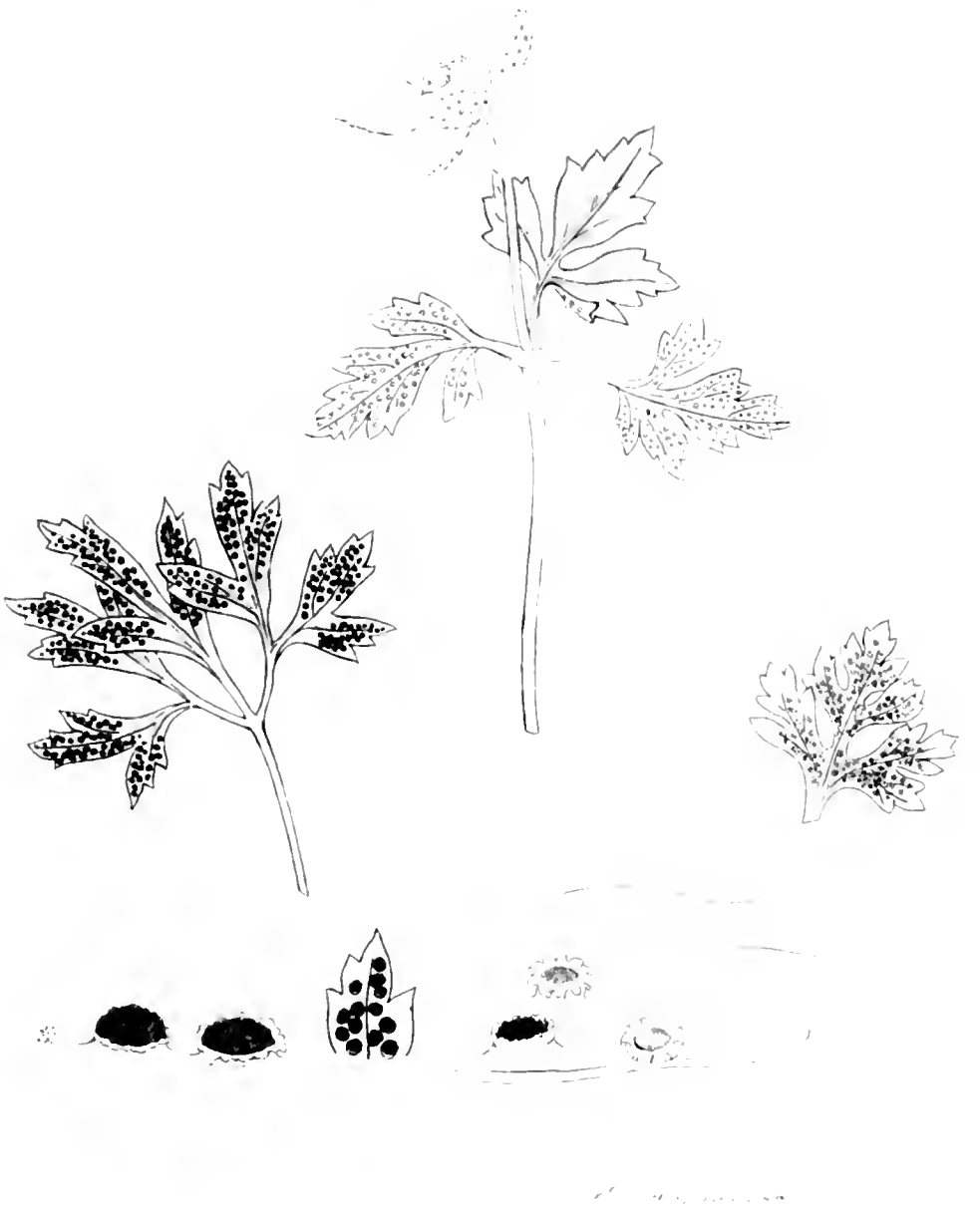


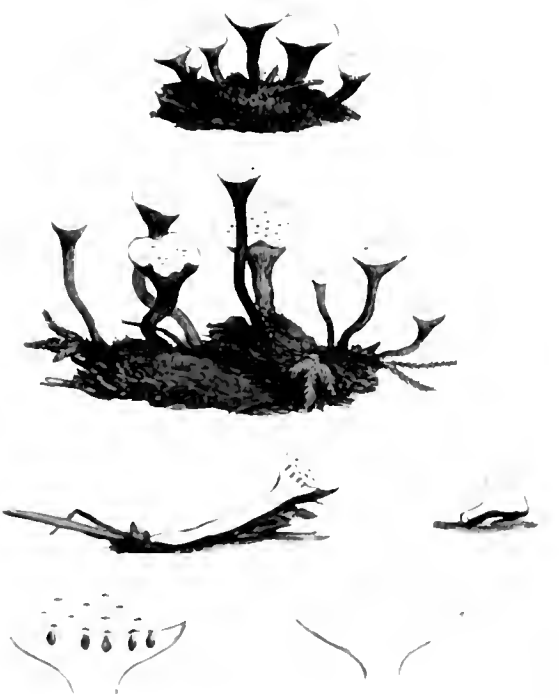


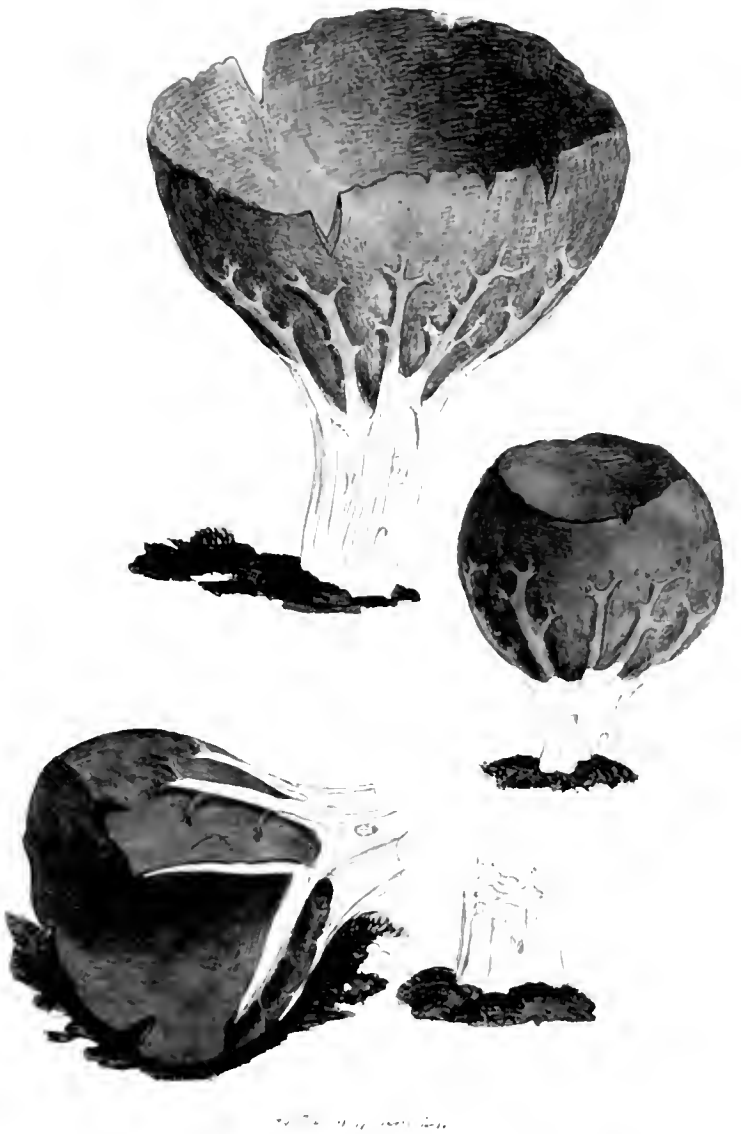


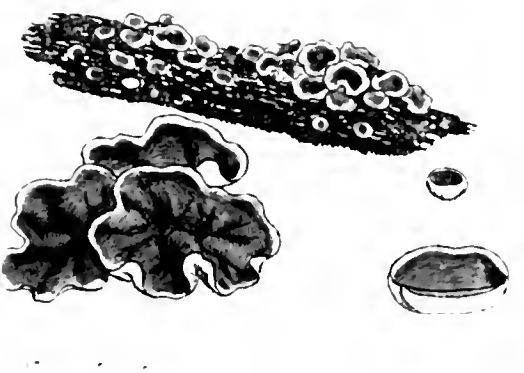


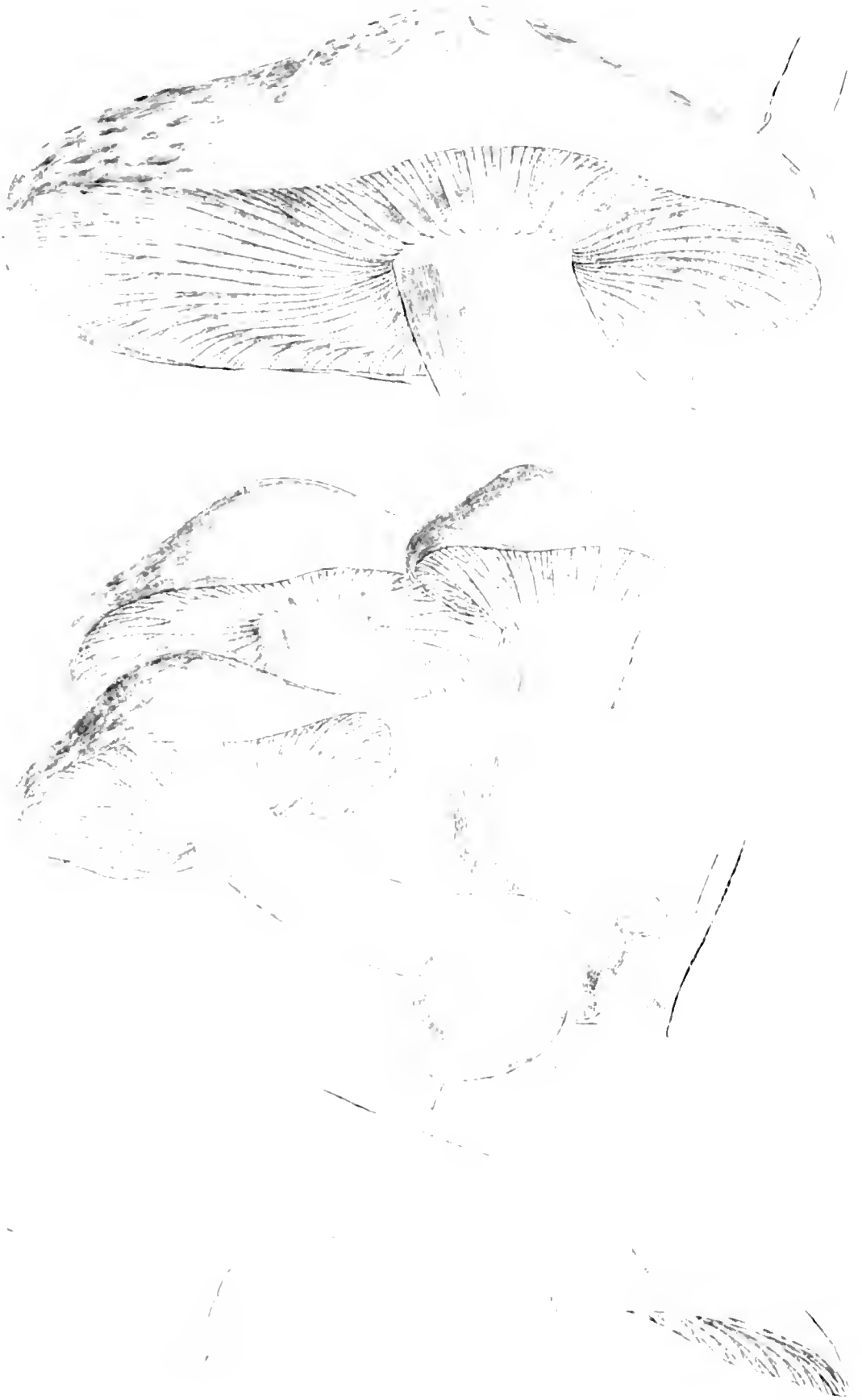


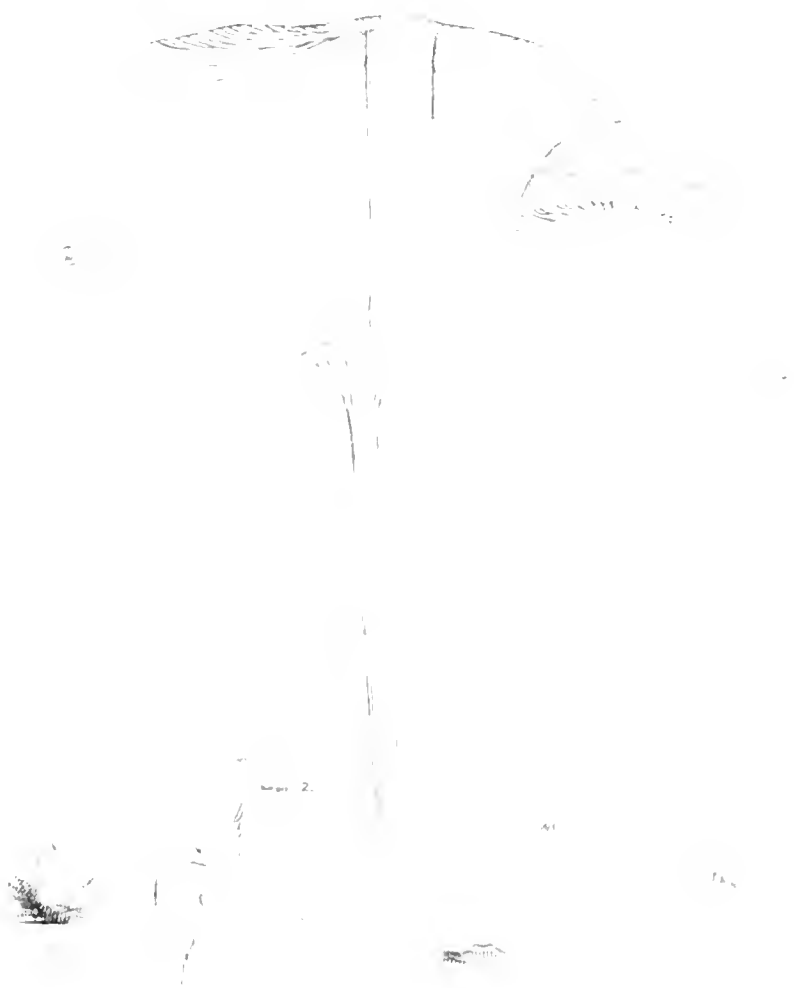


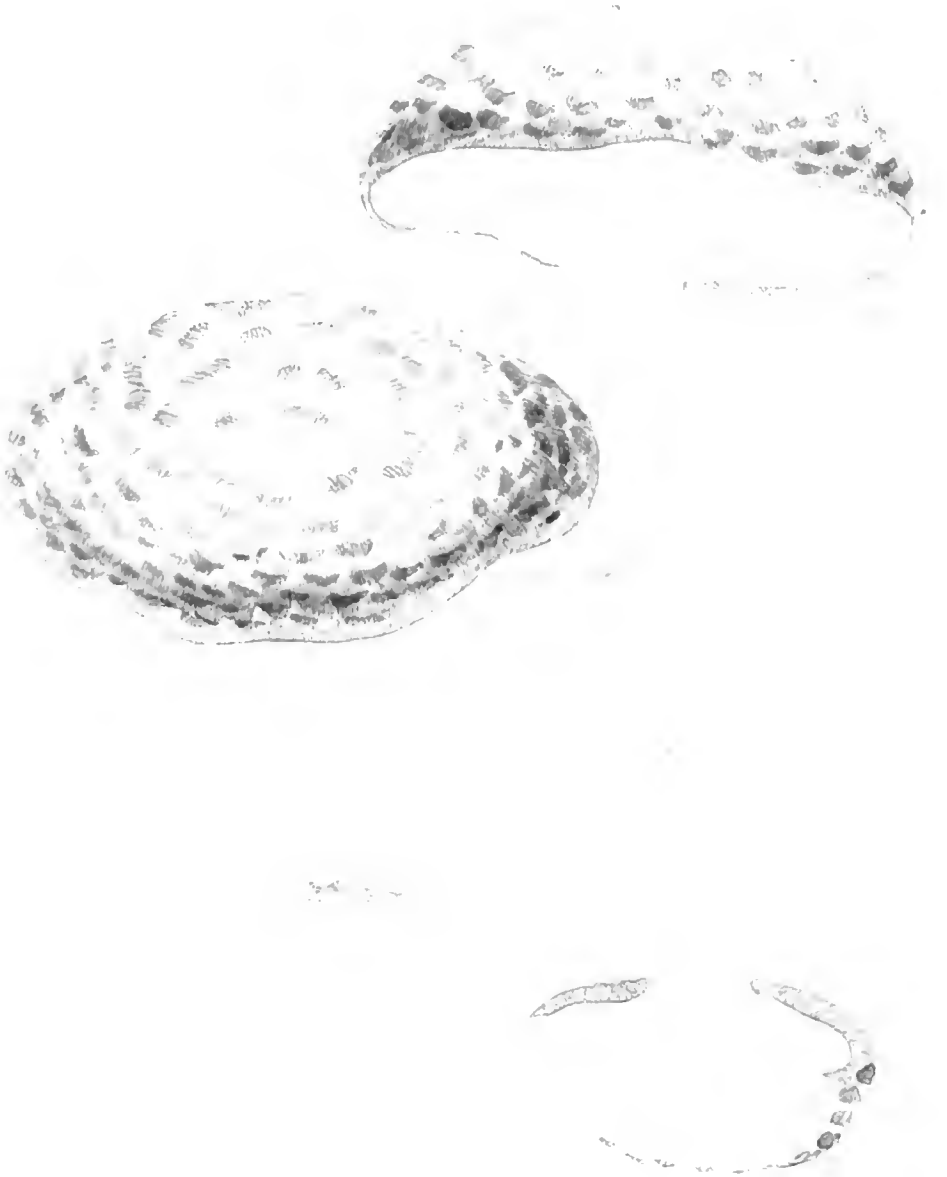


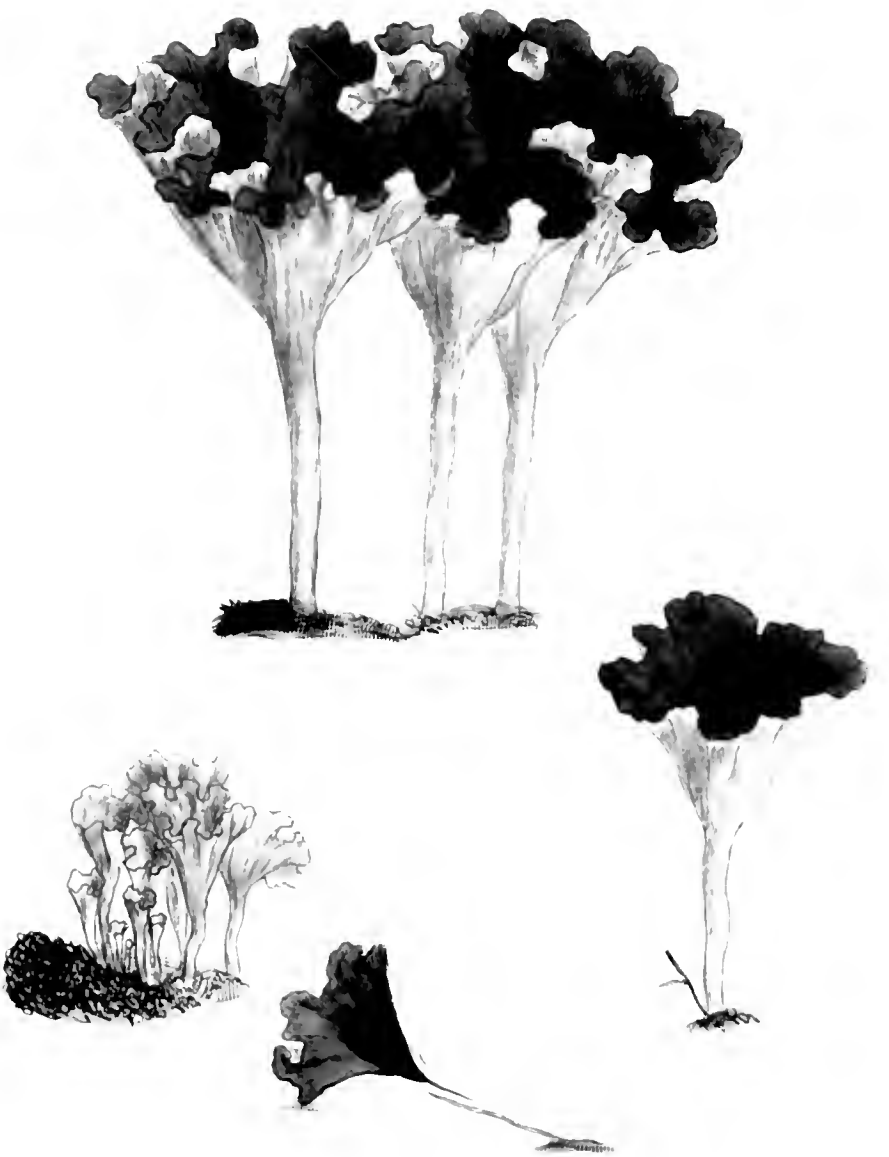


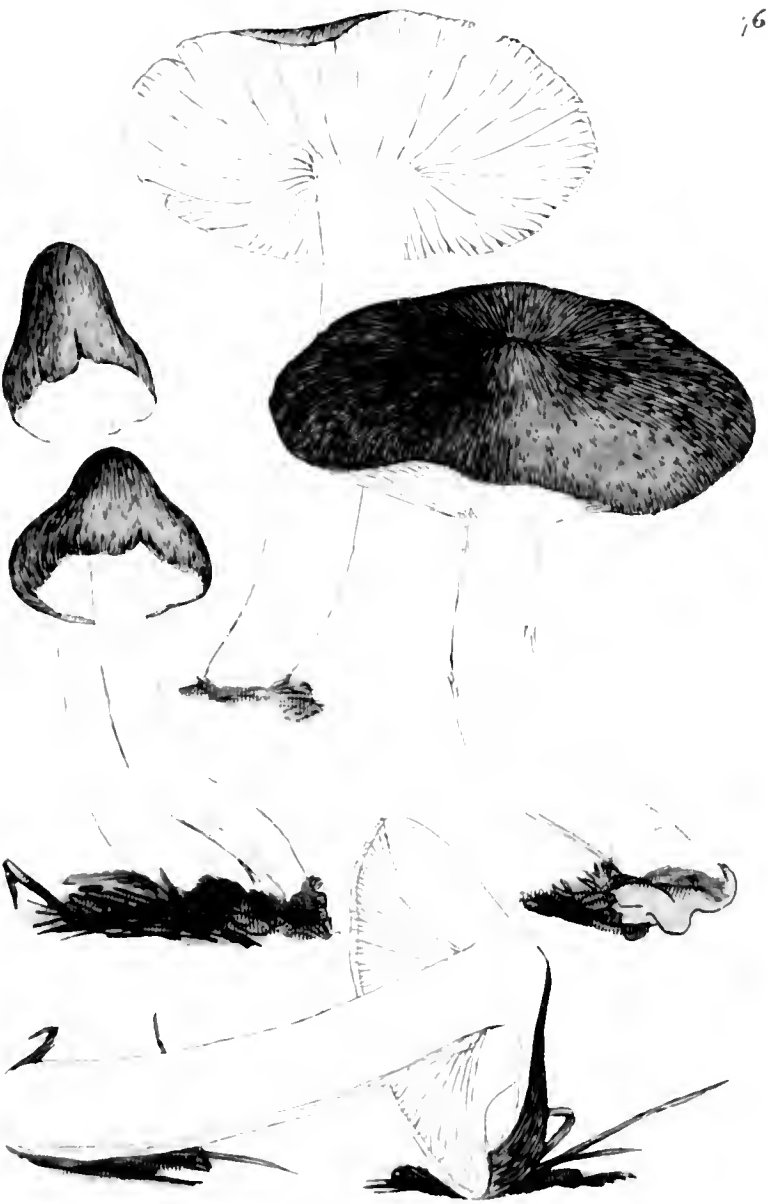


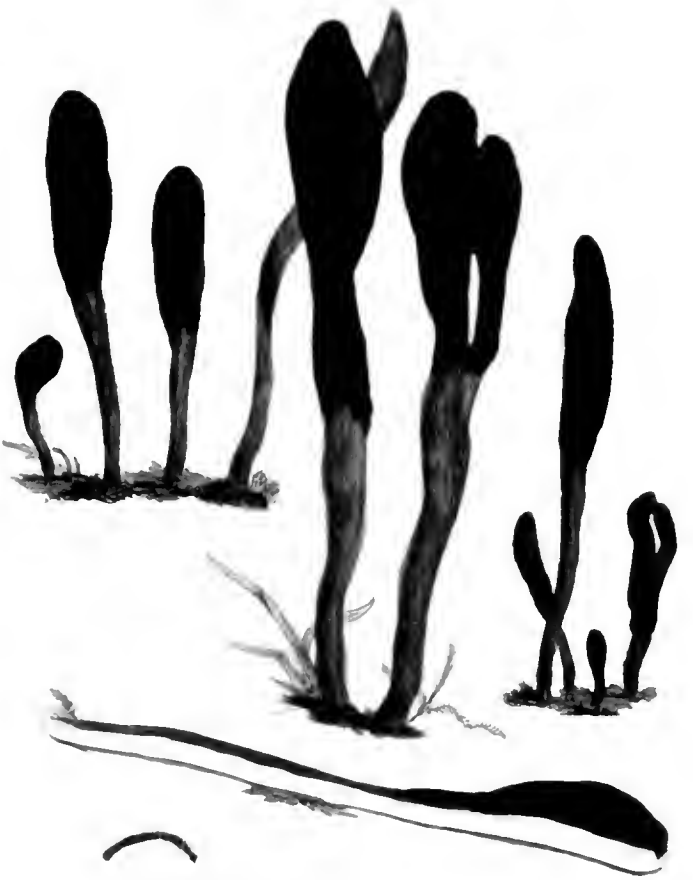


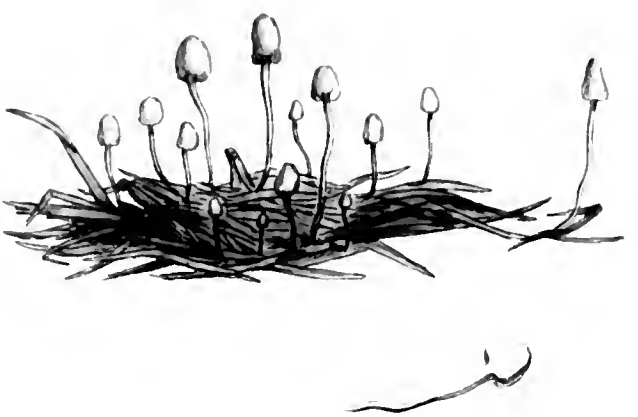


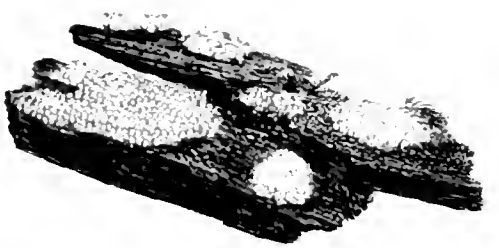


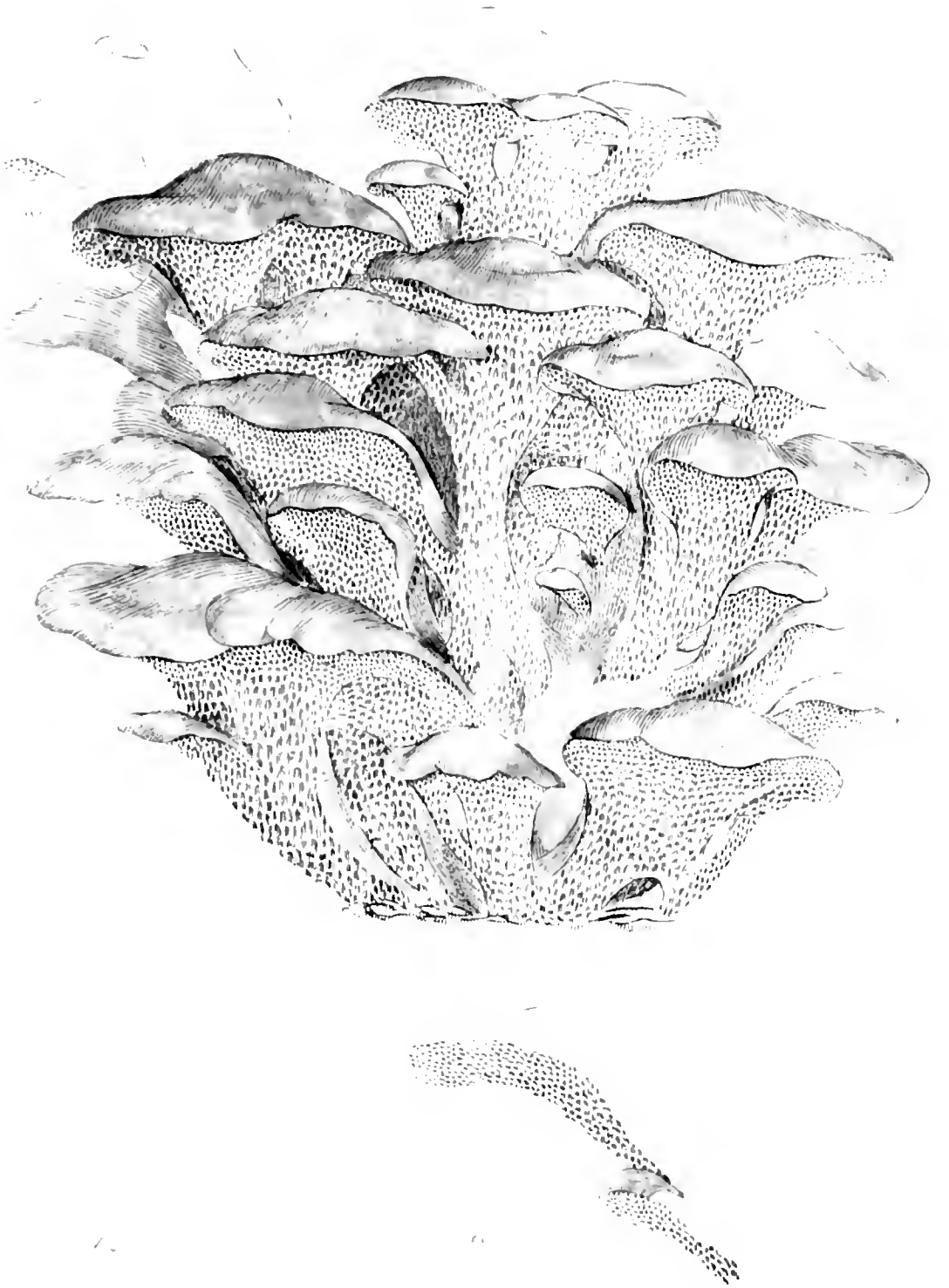


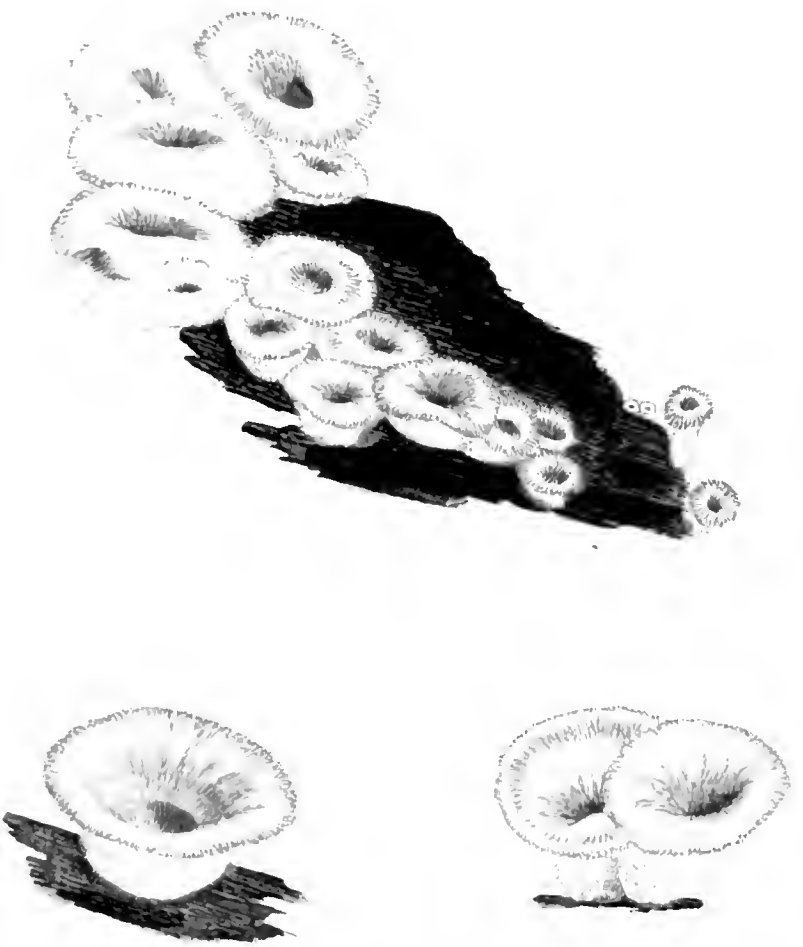


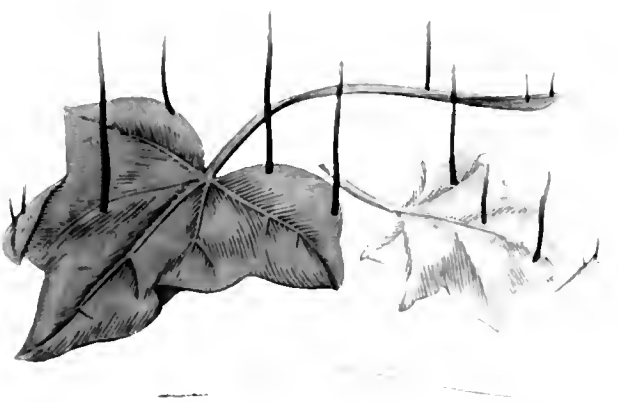


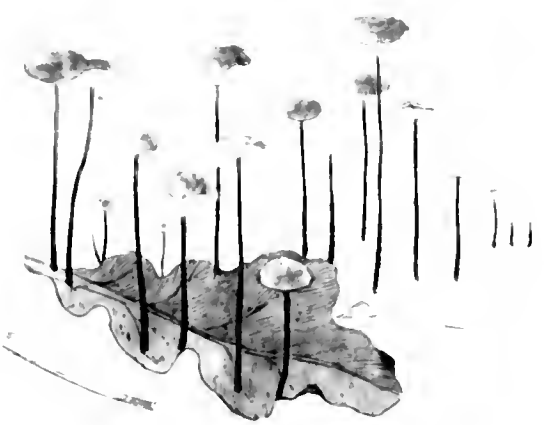


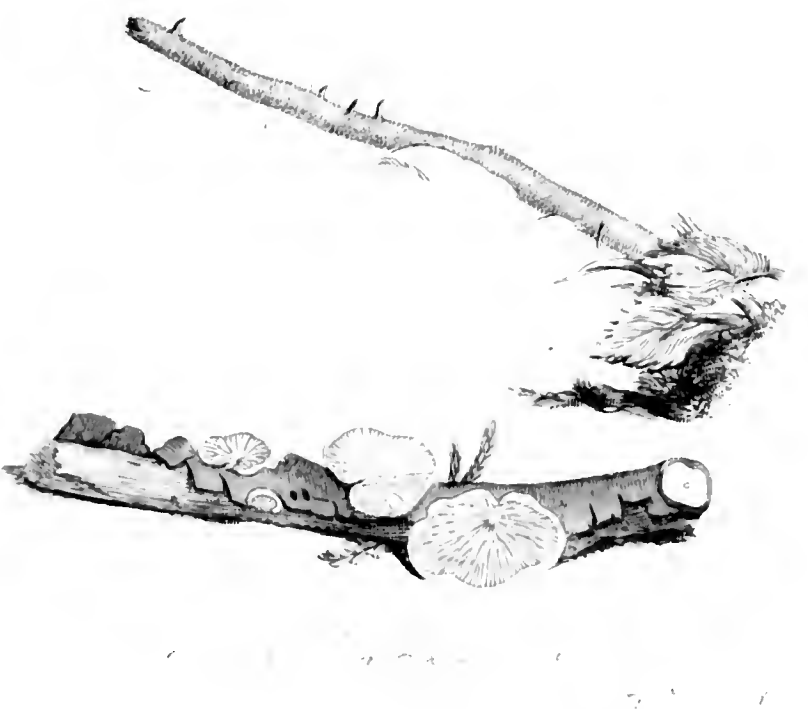


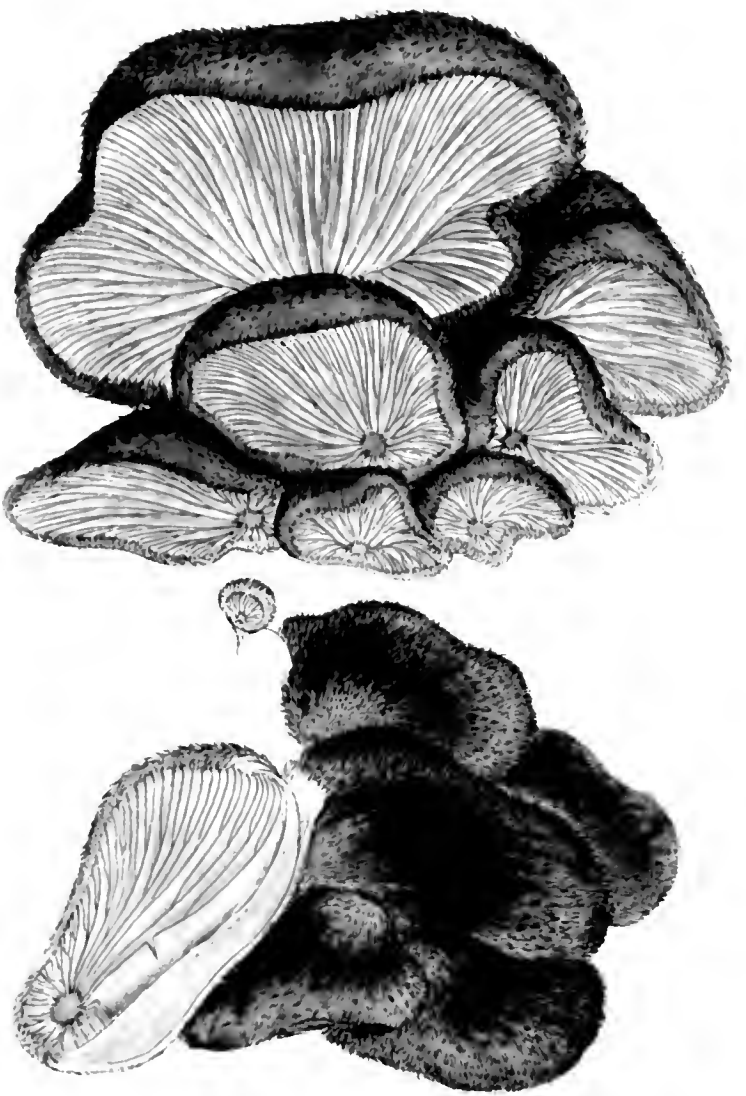


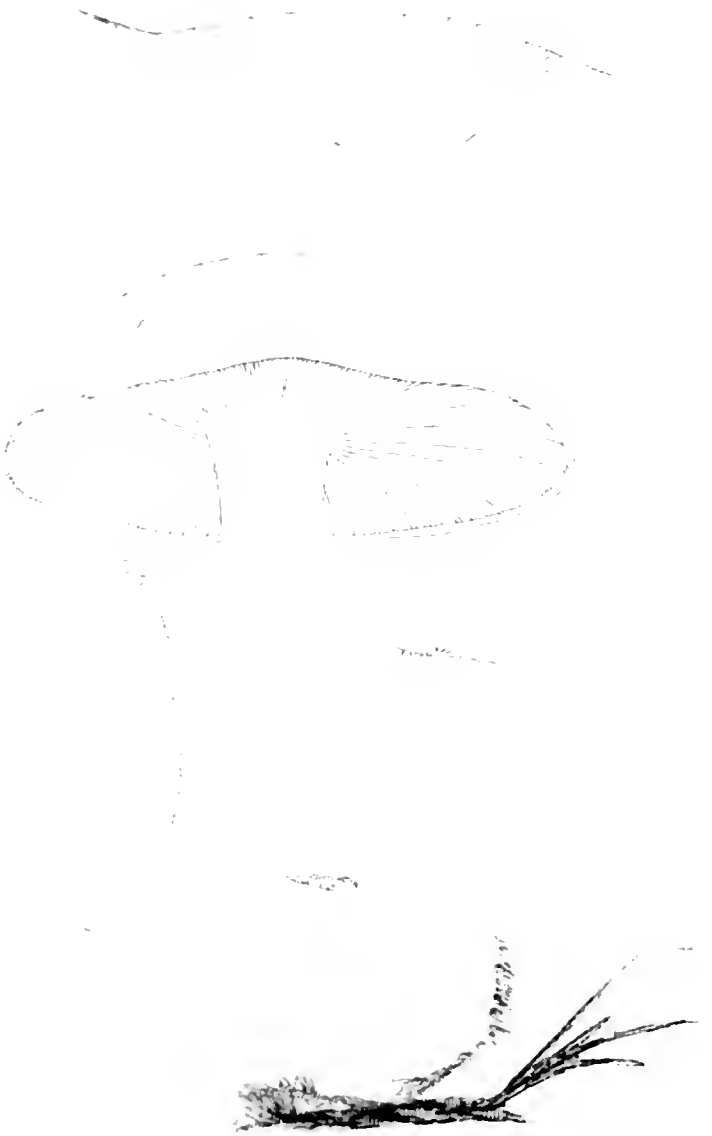


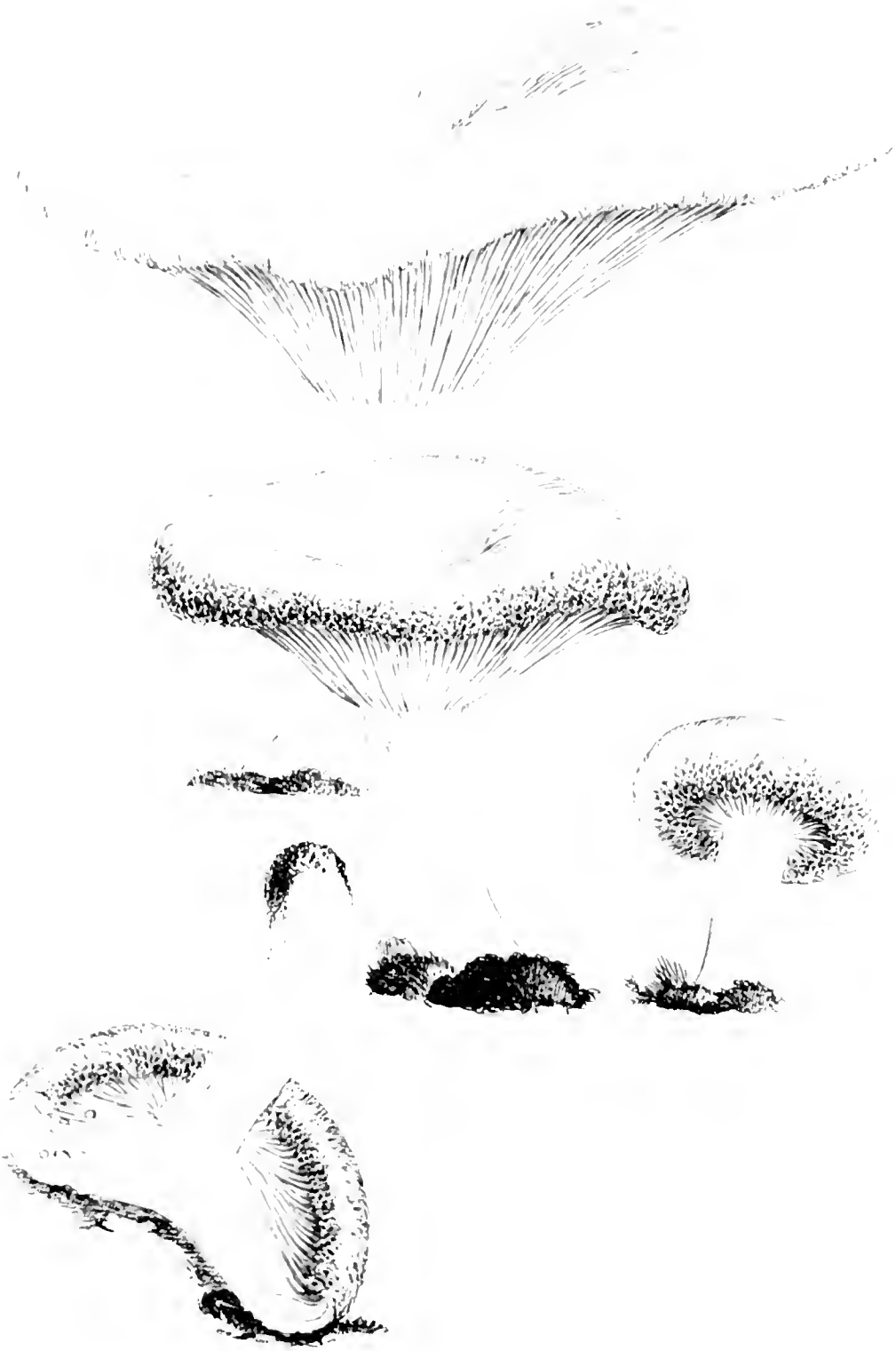




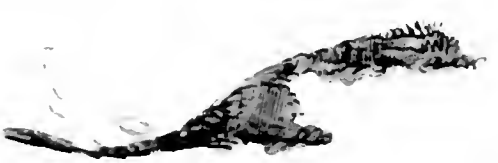


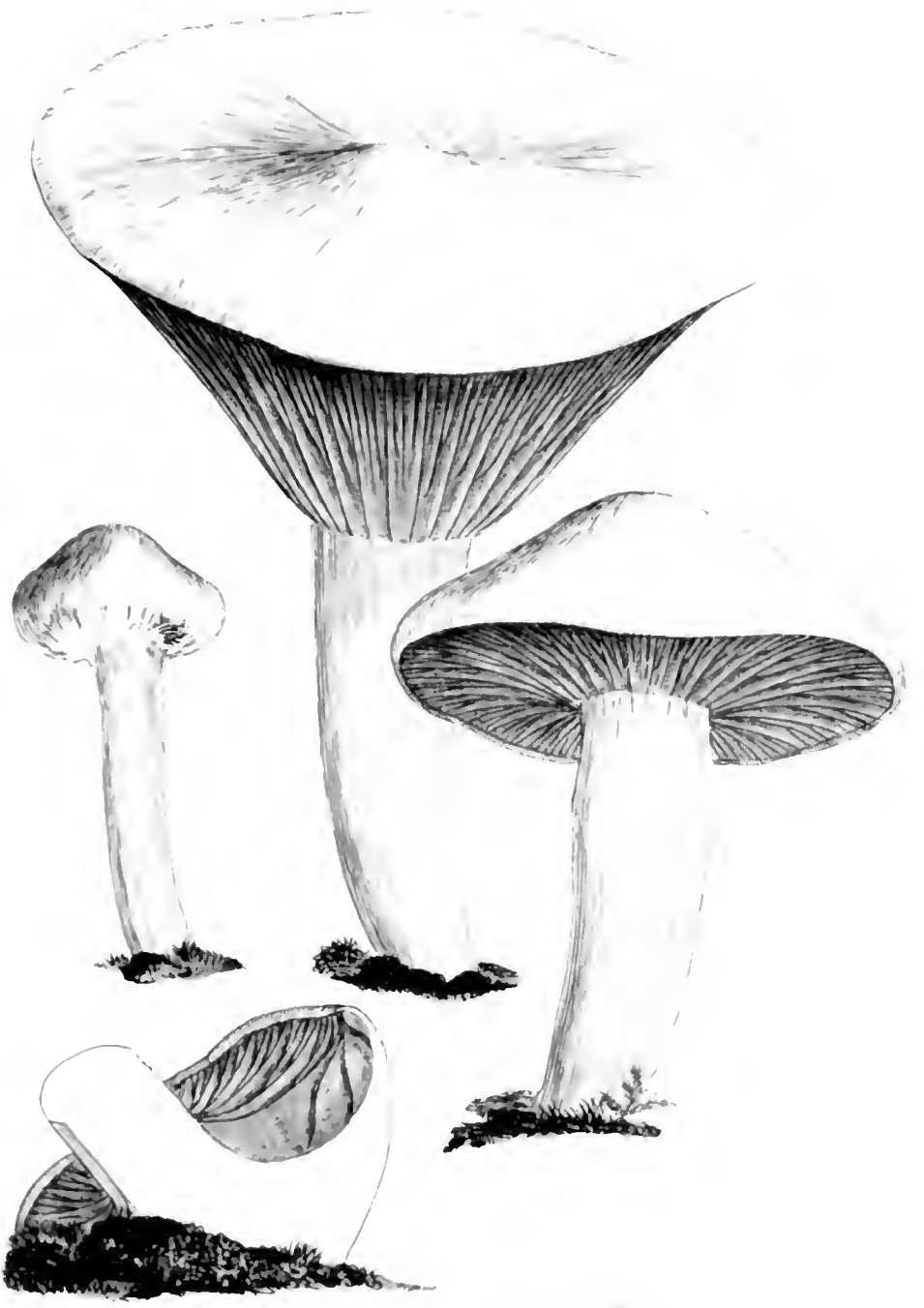


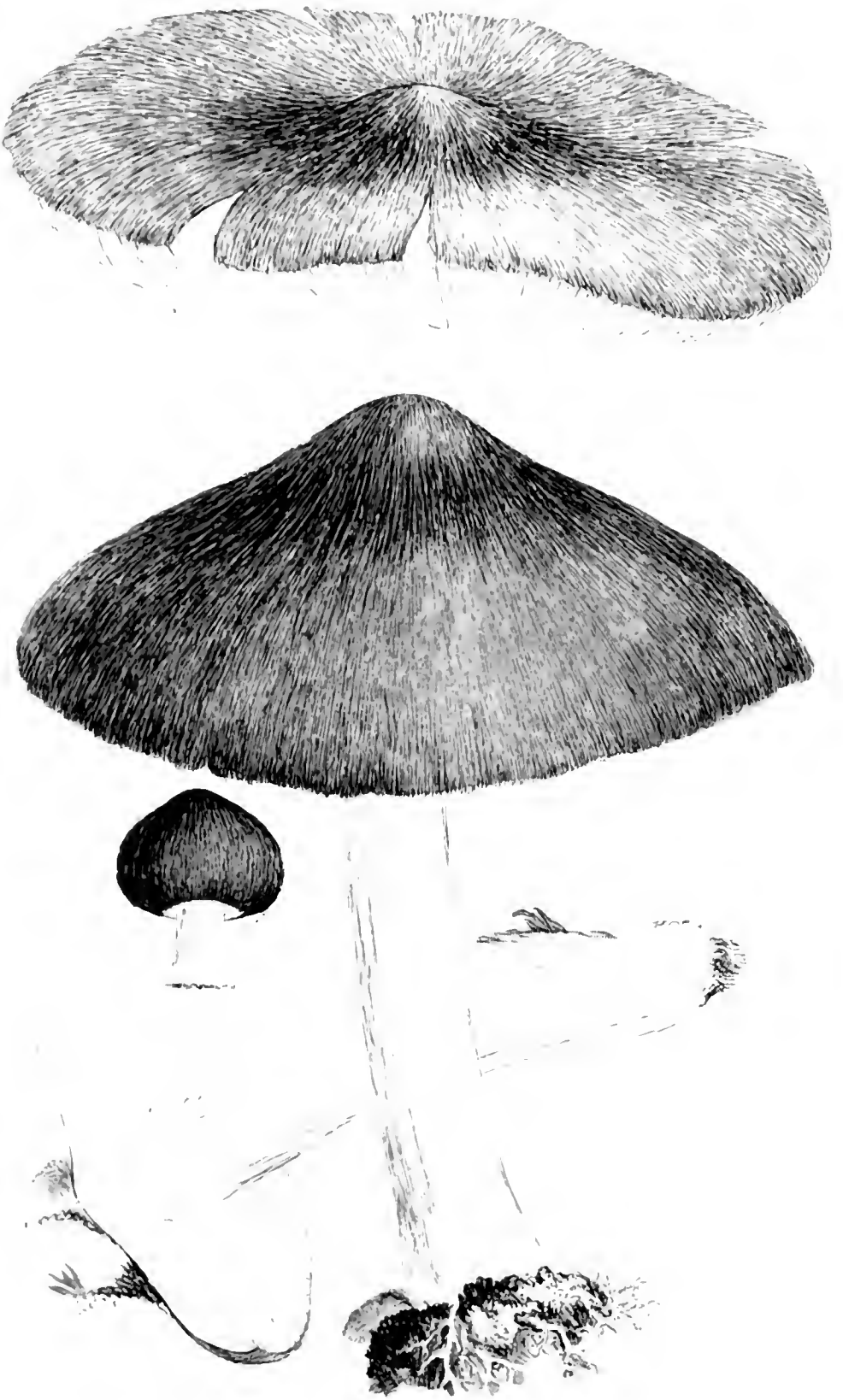


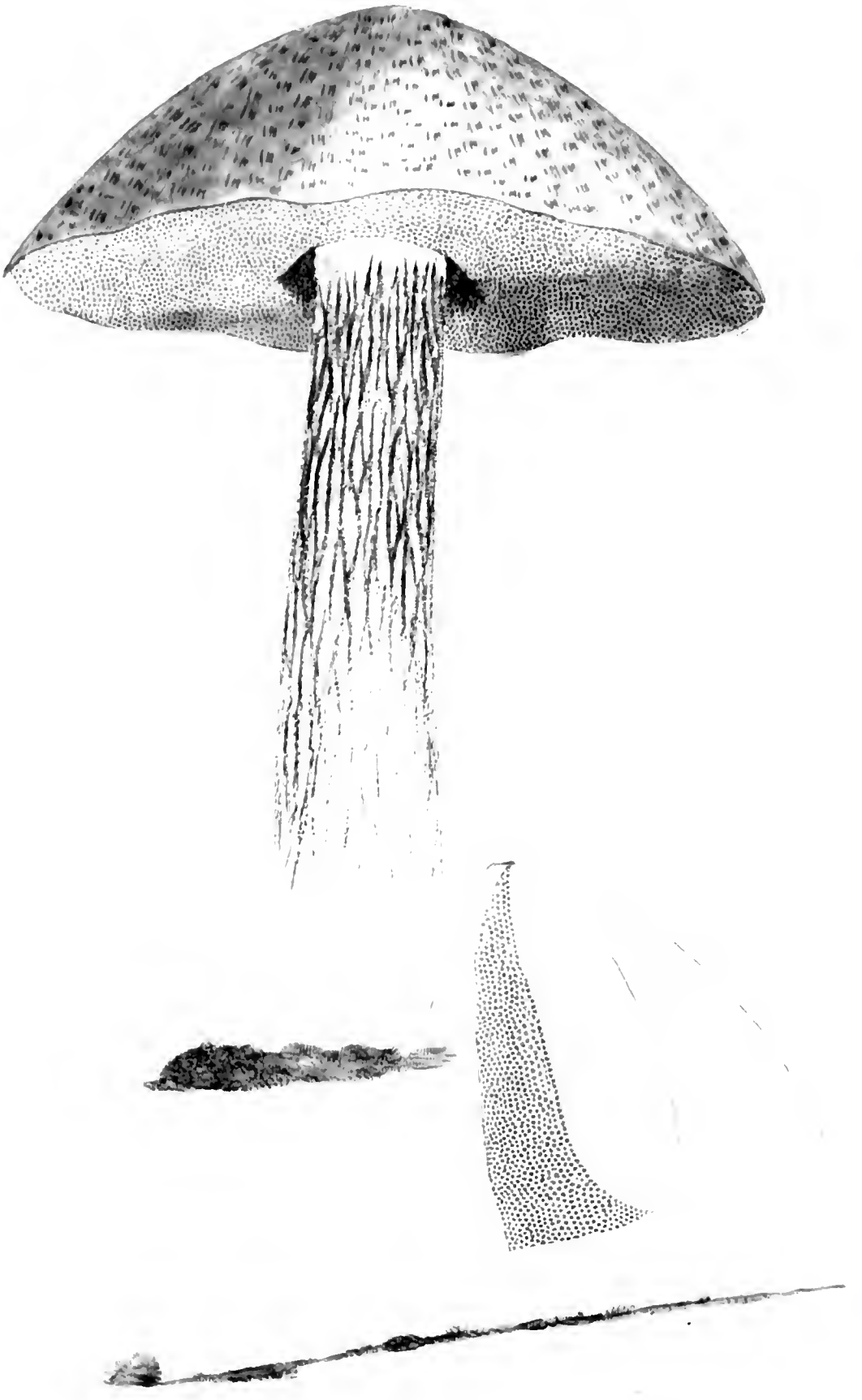


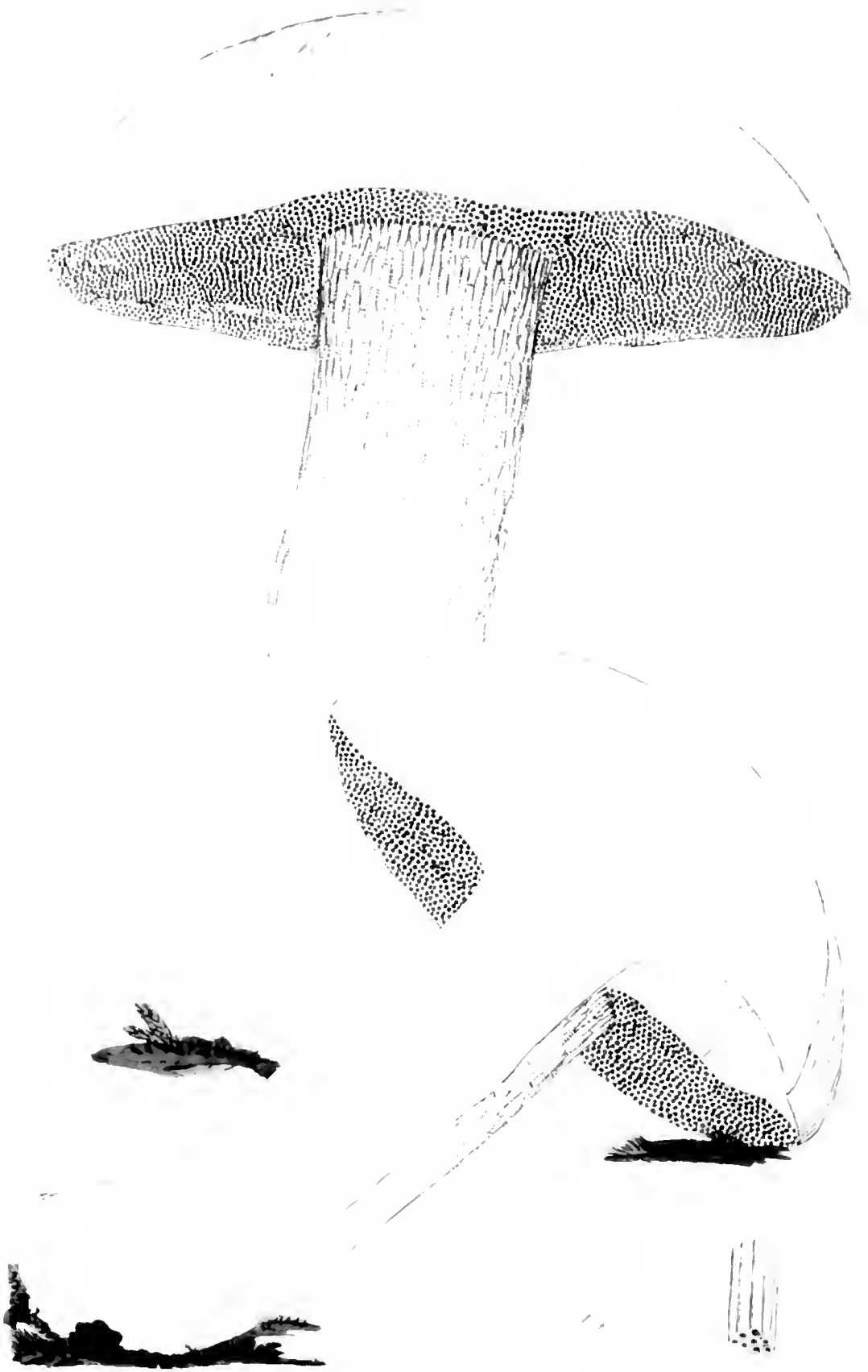
L. velleda

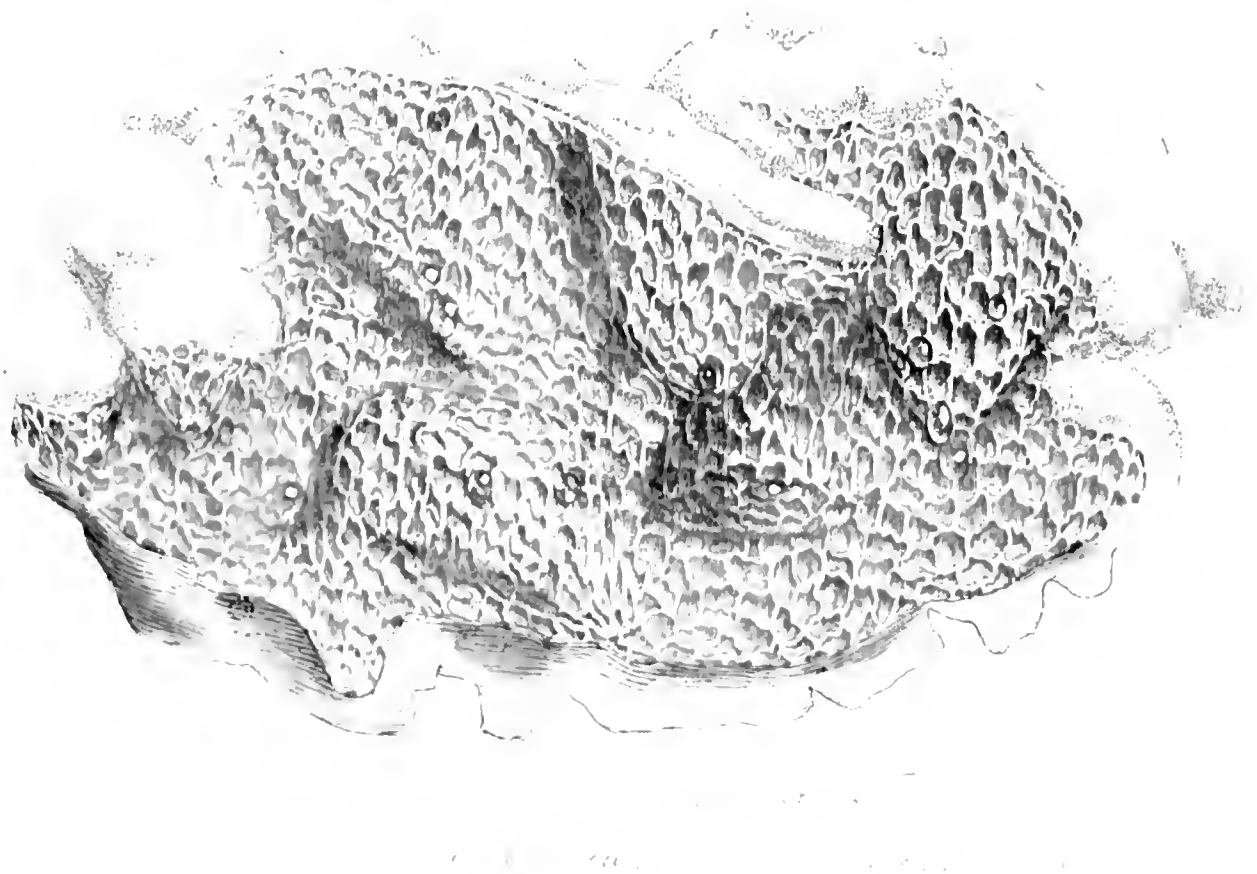


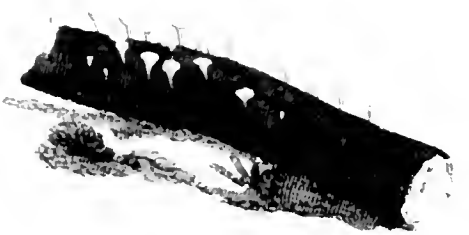


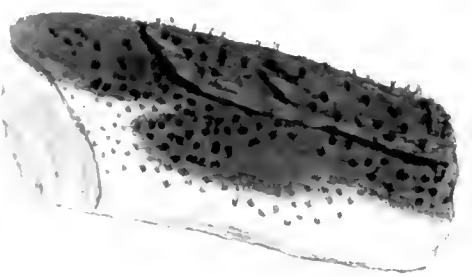












COLOURED FIGURES

OF

ENGLISH FUNGI

OR

MUSHROOMS,

BY

JAMES SOWERBY, F. L. S.

DESIGNER OF ENGLISH BOTANY, ETC.

. . . . " Wa- ev'ry falt'ring tongue of man,
Almighty Father! filent in thy praife,
Thy works themfelves would raife a general voice;
Even in the depth of folitary woods,
By human foot untrod, proclaim thy power."

VOL. II.———TAB. CXXI.—CCXL.

LONDON:

PRINTED BY J. DAVIS, CHANCERY-LANE;

And fold by the Author, JAMES SOWERBY, No. 2, Mead Place, near the Afylum; and Meſſrs. WHITE, Fleet Street; JOHNSON, St. Paul's Church Yard; SYMONDS, Paternoſter Row; and by all Bookſellers in Town and Country.

MDCC XCIX.

TAB. CXXI.

AGARICUS Cossus.

THE higheſt parts of Peckham Wood, Surrey, produce this ſpecies annually about October, where I have always found it in great plenty ſince the year 1792. It is alſo to be found in other woods. The pileus is covered with a gluten, which conſtantly gives a ſtrong goat-like odour, exactly reſembling the wounded *larva* of Phœl. Coſſus. When this gluten is dried by the wind, the ſcent ſtill remains on the hand that has touched it, for many hours. In colour and ſhape this Agaric varies but little from the figure here given.

TAB. CXXII.

AGARICUS ALBELLUS. *Schæff. tab.* 78.

THIS is not a common plant, nor have I found it more than twice. It ſurely is the ſame ſpecies as quoted above, varying a little in the proportion, &c. It is very fleſhy and ſolid from the pileus to the root; the gills are very narrow. I have found it greyiſh, but the preſent ſpecimen was nearly white where it was not bruiſed; the bruiſes were reddiſh.

TAB. CXXIII.

AGARICUS DEALBATUS.

THIS little elegant ſpecies is often found under a canopy of firs, ſome with partly conical, and ſome with undulating or waving tops, in different proportions, dancing, as it were, in rings and mazes arrayed in virgin white.

TAB. CXXIV.

AGARICUS GEOPHYLLUS. *Bull. Pl.* 522. *fig.* 2.
——— INODORUS. *Bull. Pl.* 524. *fig.* 2.

VARIABLE in colour; the pileus is ſometimes brown all over, and more or leſs ſcaly, the boſs generally darkeſt, and moſtly brown, though the reſt of the pileus may happen to be purple or lilac. The gills vary from nearly white to a dark brown. Is this A. *umbonatus* of Dr. Withering? and may not the gills be ſometimes quite white, as he deſcribes them? It is not uncommon in September and October.

TAB. CXXV.

AGARICUS IMPUBER. *Batſch. tab.* 23. *fig.* 116. *a. b. c.*

IF a diſtinct ſpecies, this is a very pretty one. I have found it three or four times in different places in October and November very plentifully, but not always with purple on the ſtem; in other reſpects it ſeems very conſtant.

TAB. CXXVI.

AGARICUS SEJUNCTUS.

NOT uncommon in autumn in moſt woods, although it ſhould ſeem to have hitherto eſcaped notice. This kind commonly grows to a large ſize. The pileus is of a dirtyiſh yellow, or nearly white, the gills whitiſh, and thickeſt near the ſtipes, ſomewhat flattened, as it were, by ſeparating from it in a peculiar manner, and partly adhering to each other. This is conſtant in the many individuals I have ſeen.

TAB. CXXVII.

AGARICUS DRYOPHYLLUS. *Bull. Pl.* 434. *fig.* 2.
———————————— *With.* 289. *ed.* 3.

VERY common, and nearly in ſimilar ſituations with the Champignon, A. *pratenſis*, Hudſon, A. *orcades*, Withering, and forming circles like that ſpecies. The pileus is moſtly brownith in the centre, the gills arched upwards, the ſtipes ſmooth and hollow.

TAB. CXXVIII.

AGARICUS TITUBANS. *Bull. Pl.* 425. *fig.* 1.

FOUND in Kenſington Gardens, but not very often, and generally ſolitary. The brown or ſalmon-coloured gills form the moſt remarkable feature in this ſpecies.

TAB. CXXIX.

AGARICUS CRASSIPES. *Schæff. tab.* 88. *With.* 184. *ed.* 3.
———————— FUSIPES. *Bull.* 106, & 516. *fig.* 2.
———————————— *Dickſ. faſc.* 1. *page* 15.

VERY common, and in many reſpects reſembling ſome varieties of Agaricus *ſtipitis* (excluſive of the annulus and generally greater roughneſs of the latter), but is tougher and more elaſtic; growing in cluſters from the fiſſures of old ſtumps, and between them and the earth, generally ſo confined at the roots, that a large cluſter often ariſes from a ſingle point. The ſmall bundle here repreſented grew on the ſtump of a ſawn-down oak, and had radicles. Surely this is A. *claſticus* Withering, 190? The gills are often quite white..

TAB. CXXX.

AGARICUS BULBOSUS.

PLENTIFUL in Earlham plantation of firs, by the road leading to Norwich, in autumn. I could not help giving it the above name. It ſhould ſeem to be the A. *bulboſus* of Hudſon. The A. *bulboſus* of Schæff. Bolt. With. 3d ed. 217. &c. ſeem all to be no other than a variety of A. *muſcarius* Linn. which has been multiplied to many ſpecies.

TAB. CXXXI.

AGARICUS SEMI-OVATUS. *With.* 296. *ed.* 3.
———— HELVEOLUS. *Schæff. t.* 210.
———— PAPILIONACEUS. *Bull. Pl.* 58.
———— SEMIPUTRIS. *Bull. Pl.* 66.

COMMONLY found in a leſs luxuriant ſtate than repreſented, yet often larger. This variety of proportions has given it ſo many appearances, that it is eaſily enough taken for different ſpecies. It is A. *acuminatus* of Schæff. when the pileus is found acuminated, which is not uncommon; A. *ciliaris* of Bolt. when occaſionally lacerated; A. *ſemiovatus* of Dr. Withering, when the plant is neareſt to perfection in all its parts. The gills are, in the beginning, edged with a white farina, or powder; by degrees they become mottled with brown, and finally black, when they are ſeen to be double, and compoſed of capillary tubes, which deliqueſce along with the black ſeed. In a perfect ſtate, it has an annulus, and is moſt plentiful in moiſt meadows, on dung, in ſpring and autumn. On a dewy morning the pileus is covered with a moiſture, through which it ſhines with a beautiful ſparkling luſtre.

TAB. CXXXII.

BOLETUS IGNIARIUS. *Linn. Sp.* 1645. *F. S.* 1252. *Hudſ.* 1 *ed.* 497. *With.* 3 *ed.* 333. *Woodville's Med. Botany, Pl.* 274. *Bull.* 82.

BOLETUS UNGULATUS. *Schæff.* 136, 137 ? *Bull.* 401, & 491.

ON willows moſt frequent. It is ſeſſile, varying in ſhape, but often reſembling an horſe's hoof. The pileus, when young, is fox-coloured, and ſomewhat tomentoſe, but becomes very hard, though fibrous by age, ſo as to endure all ſeaſons, and even defy the ravages of inſects for more than 7 or 8 years, growing or dried. The tubes are long, and moſtly cylindrical, very fine, growing under each other in layers periodically; in the beginning of each period, commonly giving a whitiſh farina, afterwards a ferruginous powder. This is the Agaricus *chirurgorum*, Edin. Pharm. formerly having been recommended as a ſtyptic. It is manufactured for tinder, &c. on the Continent in many places, by beating, boiling in lye and ſaltpetre, &c. In Franconia, they are ſaid to beat the inner ſubſtance into the form of leather, and ſew it together for garments.

TAB. CXXXIII.

BOLETUS FOMENTARIUS. *Linn. Sp.* 1645. *F. S.* 1252. *With.* 3 *ed.* 333.

SEEMS commonly confounded with the preceding, and often reſembles it in every varied ſhape, but grows quicker, ſeldom enduring more than a ſeaſon, perhaps from Auguſt to December. The fibres are ſofter, and eaſily pervaded by inſects, &c. It is made into tinder without beating, and uſed in Germany, particularly about the Hartze, ſo famous for its rich mines. I have the authority of the ingenious Dr. Afzelius, formerly a pupil of Linnæus, for authenticating this ſpecies. The tubes are moſtly equal, and exude copiouſly a glaucous farina in the growing ſtate, which may be ſcraped off. In the latter ſtate, they exude a ferruginous powder. Are not B. *pſeudo-igniarius* Bull. 458, and B. *ungulatus* Schæff. 138, this ſpecies?

TAB. CXXXIV.

BOLETUS LUCIDUS. *Curt. F. L.* 224.

——— RUGOSUS. *Jac.* 169. *With.* 321.

——— OBLIQUATUS. *Bull. Pl.* 459. *ed. Pl. a. b. c.*

THIS has ſome affinity to the laſt, is of a fibrous texture, and ſometimes ſeſſile, but ſofter, and the generally richly lacquered appearance of the pileus and ſtem makes it conſpicuous. The varniſh ſeems a coloured gum, ſimilar to what often iſſues in the autumn from the hornbeam, of a dark brown or black, reſembling bitumen. I have moſtly found it on the hornbeam, or *Carpinus betulus* Linn. It is ſeldom found in the ſoft ſtate, when the part growing is yellow or whitiſh, and very tender, when it recedes from the leaſt touch, ſo that graſs, &c. may eaſily be ſurrounded by it, and ſeem to grow through it. I have found it two or three times ſo on Hainault Foreſt, Eſſex, &c. Mr. Walford, of Birdbrook, Eſſex, favoured me with the ſpecimen here figured, from his plantation.

TAB. CXXXV.

BOLETUS SULPHUREUS. *Bull.* 429. *With.* 3 *ed.* 331.

ON walnut, oak, and willow trees, &c. after rain, in ſpring, ſummer, and autumn. It is of quick growth, and ſometimes forms an imbricated moſs in a few days of three or more feet in circumference. This eaſily dries, when it becomes friable, and is readily reduced to a powder for tinder, for which it is occaſionally uſed in ſome places upon the Continent. When freſh, it is ſoft and tender, and, if laid with the pileus downwards, will produce pores like the under ſide; thoſe protuberances that are ſheltered under the imbrications are commonly covered with pores. In very ſhady places it will often become ramoſe, and be altogether covered with pores, whence Bull. B. *ramoſus*, pl. 418.

TAB. CXXXVI.

LYCOPERDON FRAGILE. *Dickſ. Faſc. tab.* 3. *fig.* 5. *With.* 3 *ed.* 385.

IT may ſeem as if the ſeeds of this plant floated in the autumnal air, and lighting where chance directed. I have found them on living graſs, &c. a foot or more from the earth, fixed by a gummy matter rather than a root. In the morning, like a thick cream in one maſs, which ſoon becomes yellow, and begins to ſeparate, but, on the leaſt touch, will run together again. It grows harder, and forms diſtinct plants towards evening. The following day they ſeem perfected, and conſiſt of a cheſnut brown and brittle caſe, full of dark powder, on ſomething like a looſe woolly receptacle.

TAB. CXXXVII.

SPHERIA DECORTICATA.

HYPOXYLON NUMMULARIUM. *Bull. Pl.* 468. *fig.* 4.

THIS ſpecies is common in Kenſington Gardens. The Rev. Mr. Kirby, who ſent me fine ſpecimens from Suffolk, ſuggeſted the name of S. *decorticata*, much more applicable than the above of Bulliard. I have found it nearly covering ſticks three or four feet long.

TAB. CXXXVIII.

SPHERIA CIRRHATA. *Hoff. tab.* 6. *fig.* 1.

HYPOXYLON CIRRHATUM. *Bull. Pl.* 487. *fig.* 4.

FOUND occaſionally in Kenſington Gardens and Hornſey Wood. Moſt of the ſphæria diſcharge a looſe powder; this diſcharges a wax-like ſubſtance like fine thread or tendrils, reſembling vermicelli.

TAB. CXXXIX.

UREDO LONGISSIMA.

POA Aquatica, very plentiful in one part of Lambeth Marſh, bears this paraſite on the foliage early in autumn, which gives the appearance of the fructification of an *Aſplenium*. It ſeems nearly allied to R. *ſegetum* of Bull. *pl.* 472. *fig.* 2. (viz.) the ſmut, as it is commonly called, of the corn; but this fine duſt is brown, and imbedded in longitudinal ſtreaks in the ſubſtance of the foliage, covered by the epidermis, which it burſts on the front, and is viſible by being tranſparent at the back. The ſmut ſeems a change of the ſubſtance of the ſeed, covered by its epidermis, and is much blacker. See Uſtulata in *Bibliotheca Bankſiana*, vol. 3. p. 422, and 431. The French call it Ergot. Uredo is a new genus of Perſoon, in his work on Fungi.

TAB. CLX.

UREDO FRUMENTI.

MUCH too common on wheat in low places, or where too cloſely ſown, eſpecially after rain in the early part of autumn. This takes poſſeſſion of the foliage like the laſt, but rather in ſhape of upright ſhort clavated threads, black at the top, appearing ſcorched at the baſes, in ſhorter ſpaces, and frequently burſt on both ſides. It alſo more commonly covers the upper and outer parts of the ſtem, calyx, &c. for near two feet, ſeldom touching the ſeed, although it may ſtint it more or leſs by weakening the plant. This is commonly diſtinguiſhed by the appellation of the blight.

TAB. CXLI.

AGARICUS MINIATUS. *Schæff. tab.* 213.

FOUND by Lady Arden at Boxhill, Surry, and alſo by the Rev. John Hemſted, Newmarket. It is not very rare, although I believe hitherto unnoticed by any Britiſh author. It is ſomewhat ſportive; which, however, in all the fungi depends much on the place of growth, or variableneſs of the ſeaſon. Pileus ſometimes with a large boſs, at other times more hemiſpherical; generally of a deep buff hue, as well as the gills, which are rather wide aſunder. The ſtipes is lighter coloured, ſolid, but pithy.

TAB. CXLII.

AGARICUS OPACUS. *With. ed.* 3. *p.* 183.

THE ſilvery glare and opaque ſurface of the pileus will generally diſtinguiſh this plant; yet under particular circumſtances we have ſeen it without this mark, when it occaſionally repreſents A. *infundibuliformis*, t. 286, and A. *fimbriatus*, Bolt. t. 61. It is a very common plant, growing in woods, on heaths, &c. and occaſionally along with A. *orcades*, which it reſembles in flavour, but is more watery and tender. The opaque glare will eaſily rub off when freſh, though we have dried ſpecimens that retain it.

TAB. CXLIII.

AGARICUS PALLIDUS. *Schæff. tab.* 50.

HAINAULT Foreſt produces this plant plentifully in October. It has ſome reſemblance to the laſt ſpecies. The pileus is often opaque, but not ſilvery or ſhining. It has a ſtrong mealy ſmell, and diſagreeable taſte. The gills invariably produce on their outer ſurfaces a pinky powder, in the advanced ſtate, and in drying.

TAB. CXLIV.

AGARICUS AROMATICUS.
——————— GLUTINOSUS. *Bull. t.* 258. & 539.

FIRST ſent me by Mr. B. M. Forſter. Found at Walthamſtow. The agreeable ſpicy odour ſuggeſted its name. It appears to be A. *glutinoſus* of Bulliard, though his gills are colourleſs; a name applicable to many of the fungi, (and would do for this were it not previouſly engaged,) as it is ſometimes altogether a gluten, or jelly. The pileus has generally a thick glutinous ſkin of a cinnamon colour: the gills are ſomewhat pinky; they appear to be decurrent in the young ſtate, but when advanced they ſeparate, ſo as to appear naturally looſe or ſeparate from the ſtipes, which is ſomewhat hollow and pithy. The whole plant when freſh is often ſo tender, I have not been able to gather it whole; in bruiſing it becomes blackiſh. As the plant dries, the ſkin corrugates, and often becomes very prettily reticulated; (may not this be A. *reticulatus* of Dr. Withering, ed. 3. 289?) The taſte is watery, with a peppermint-like coolneſs in the mouth, and a laſting roughneſs in the throat.

TAB. CXLV.

LYCOPERDON RADIATUM.

THIS remarkably curious and new ſpecies, perhaps a new genus, (which, however, ſeems to belong to the *Lycoperdon phalloides* of Philoſophical Tranſactions, *v.* 74. 473. *t.* 16. and *Spicilegium botanicum*, t. 12.) was ſent me from Holt in Norfolk by the Rev. R. B. Francis, who found it on a plaſtered wall of a ball-room. The rays appear to be the root by which it is attached to the wall, and are compoſed of an infinite number of fine woolly filaments nearly white. The little ball in the centre is nearly ſolid, and finely tomentoſe on the outſide. Under a magnifier we can diſcover a fine duſt or ſeed, cloſely reſembling that of the *Lycoperdon phalloides*, but much leſs copious.

TAB. CXLVI.

LYCOPERDON ACARIFORME,

ALSO a new ſpecies, found at Walthamſtow by Mr. B. M. Forſter. The little radiate roots are compoſed of ſimilar fibres to the preceding, ſpreading in a much ſmaller proportion, ſomewhat knee'd, and divided into irregular lobes bearing ſome reſemblance to claws, giving it altogether the appearance of an animal. The ball is ſcarcely tomentoſe, nor can we be poſitive that it is a Lycoperdon.

TAB. CXLVII.

PEZIZA HISPIDA. *Rel. Sup.* 1051.

——— LANUGINOSA. *Bull.* 204.

——— ALBIDA. *Schæff.* t. 151.

THE Rev. Charles Abbot favored me with the larger ſpecimens of this plant from Whitewood, Bedfordſhire. Bulliard has ſome figures much larger, ſpreading and recurved, in a campanulate form, nearly half an inch beyond the hiſpid part. The ſmall figures were from Eſſex, gathered by Thomas Walford, Eſq. and differ in ſize only.

TAB. CXLVIII.

PEZIZA ARGILLACEA.

OCCASIONALLY on common black modelling clay, where, to the artiſt, it is a troubleſome intruder, it being generally neceſſary to work the part again to get rid of it. It is held to the clay by very fine attenuated cobweb-like fibres from the ſides, as it were to aſſiſt the little knobby root.

TAB. CXLIX.

PEZIZA MELASTOMA.

THIS pretty plant was ſent with a neat drawing from Hexham in Northumberland, by Francis Scott jun. of that place, who obſerves, that it is frequent on the root of *Erica vulgaris*, &c. that it is of a thick hard ſubſtance in every ſtage of growth, growing ſingly or in groups in upland ſhady woods, about February and March. The black inſide in drying forms cracks, and when magnified we ſee whitiſh threads croſſing them.

TAB. CL.

PEZIZA AUREA.

HELVELLA AUREA. *Bolt.* 98. *With. ed.* 3. 340.

COMMON on cut ſtumps of oak, &c. in autumn.

TAB. CLI.

PEZIZA CITRINA. *With. ed.* 3. *p.* 347.

FREQUENT on bits of wood in damp ſhady places.

TAB. CLII.

PEZIZA CHRYSOCOMA. *Bull. tab.* 376.

FOUND on bits of wood, very frequently on the under ſide.

TAB. CLIII.

HELVELLA INFUNDIBULIFORMIS. *Schæff. tab.* 277.

GATHERED in Kenſington Gardens, October 1797. It exactly reſembles an Agaric with the lamellæ taken out. Our ſpecimens were ſeemingly more perfect than thoſe referred to; but do not quite ſo well agree with the title of *infundibuliformis*, or funnel-ſhaped.

TAB. CLIV.

HELVELLA FULIGINOSA. *Schæff.* 320. *With. ed.* 3. 341.

VERY plentiful, in October 1797, in the fir plantations of Thomas Walford, Eſq. of Birdbrook, Eſſex, by whoſe favour I received them. It ſhould ſeem very nearly allied to *Peziza ſtipitata*. The odour was diſagreeable.

TAB. CLV.

HELVELLA PANNOSA.

FOUND by Mr. Hunter in Lord Mansfield's garden, Hampſtead, Middleſex. Woody in texture, irregularly infundibuliform, being more or leſs lacerated, rugged, or torn even to the inner ſide.

TAB. CLVI.

CLAVARIA ANTHOCEPHALA. *Bull.* 452. *With. ed.* 3. 366.

SENT by my kind friend Thomas Walford, Eſq. with *Helvella ſiliginoſa.* I have found it ſparingly on Hainault Foreſt; it is of a tough woody texture.

TAB. CLVII.

CLAVARIA MUSCOIDES. *With. ed.* 3. 368.

FREQUENT in many woods and gardens, &c. in Autumn.

TAB. CLVIII.

CLAVARIA LACINIATA. *Bull. t.* 415. *With. ed.* 3. 366.

THIS came from Birdbrook. It is much rooted in the earth, and ſeems to depend on the riſing irregularities and herbage for ſupport, ſpreading elegantly in all directions.

TAB. CLIX.

SPHÆRIA CLAVATA.

THE Rev. John Hemſted favoured me with ſpecimens gathered laſt Autumn from a plantation on Newmarket Heath, Cambridgeſhire. It is a rare and new plant; I found three ſpecimens in Sir William Jerningham's plantations at Coſtely near Norwich, in the year 1783.

TAB. CLX.

SPHÆRIA FRAXINEA. *With. ed.* 3. 393.

THIS is certainly a very curious production, being a continued parasite on itself. The general shape is hemispherical, though often very uneven. It forms whitish farinaceous threads (if I may call them so) and black sphærules in alternate order around the whole surface, which, having fructified, remain in striæ concentrating from the root or base. The white threads destitute of farina becoming greyer, and the appearance of capsules in the black striæ being totally lost, give it the exact resemblance of the grain of the wood in some charcoal. This fungus is found on ash, hornbeam, and other trees, and often grows to three inches diameter, in some situations continuing to grow many months.

TAB. CLXI.

AGARICUS COLUMBARIUS. *Bull. t.* 413, *fig.* 1.

THIS is not an uncommon Agaric, but varies ſo much in colour as not to be eaſily known under all its changes. The moſt perfect plants are generally of a lead, or blueiſh colour; the pileus darkeſt and ſomewhat ſmooth, with a downy and ſilky appearance. When they vary to a dark-brown or foxy tint, they are then more ſportive as to ſhape.

TAB. CLXII.

AGARICUS MURINUS.

I WAS favoured with this curious plant by Lady Arden two or three times in September 1797. It had always a ſtrong odour of mice. I can no where find a deſcription agreeing correctly with this ſpecies, therefore ſuppoſe it new.

TAB. CLXIII.

AGARICUS CAULICINALIS. *Bull.* 522, *fig.* 1.

SENT in September 1796, by the Rev. J. Hemſted of Newmarket, from a fir wood in that neighbourhood. It is a plentiful ſpecies where it grows at all. I believe no Engliſh author has deſcribed it.

TAB. CLXIV.

AGARICUS PILOSUS. *Hudſ. Fl. Angl.* 622.

MR. B. M. Forſter favoured me with ſpecimens of this curious Agaric from Hollybuſh-Hill near Wanſted in Eſſex. Mr. Dickſon, I believe, firſt found it on the decayed foliage of Holly (*Ilex aquifolium*) near Croydon, Surry, and gave it to Mr. Hudſon.

TAB. CLXV.

AGARICUS GALERICULATUS. *Schæff. tab.* 52.

FREQUENT on willow ſtumps in autumn or ſpring, eſpecially in damp weather, moſtly iſſuing from under the bark, or where it is rotted away near the ſurface of the earth. We find the general appearance of this fungus pretty conſtant; the ſtipes is tough.

TAB. CLXVI.

AGARICUS STRIATUS. *Bull.* 552, *fig.* 2.

VERY frequent on willow ſtumps, growing in large cluſters.

TAB. CLXVII.

AGARICUS ZYLOPHILUS. *Bull. t.* 530, *fig.* 2.

ALTHOUGH very frequent on bits of ſtick, old roots of furze, &c. yet it ſeems to have been overlooked in England. The ſtellated appearance is moſt common. In dry weather, and in its latter ſtate, it is ſometimes more opaque. Occaſionally ſome fragments of an annulus are apparent.

TAB. CLXVIII.

AGARICUS CONFLUENS.

I RECEIVED ſpecimens of this curious Agaric by favour of the Rev. Charles Abbot of Bedford, (whoſe diſcernment and kindneſs I have not always had opportunity to acknowledge), two or three times in the autumn of 1796. One cluſter was four times the ſize of the largeſt figure. The irregular protuberances on the pileus differ from any thing I had before ſeen in any of the Agarics.

TAB. CLXIX.

AGARICUS PROLIFERUS.

THIS curious ſpecimen was found at Kennington, Surry, among a gravelly ſand by the ſide of a ſtream, where there was above a buſhel of them, all with long roots ſeemingly in proportion to the thickneſs of the coat of ſand, as if they belonged to the bank beneath; the ſand appeared to have lain there ſome time. A great many were with cluſters of heads on one ſtem, as here figured.

TAB. CLXX.

AGARICUS PICACEUS. *Bull. tab.* 146.

NOT very common. I found it on Hainault foreſt Eſſex, and at Peckham-wood, in October and November 1795. Lord Viſcount Lewiſham obſerved it about the ſame time.--Surely it is very nearly allied to *Agaricus conſperſus* of Dr. Withering, though much larger.

TAB. CLXXI.

AGARICUS MELIAGRIS.

I AM obliged to Lady Arden for beautiful ſpecimens of this Agaric found in an hot-bed, May 24th, 1798. I have named it A. *meliagris*, as the former A. *meliagris* proves a variety of A. *chrysocomus*. The preſent is undoubtedly a new plant, having a ſolid ſtipes and a curious ſomewhat reticulated root. In drying, it becomes of a bluſh-red all over except the lower part of the ſtipes, which retains the darker hue.

TAB. CLXXII.

AGARICUS ELIXUS.

I CANNOT trace out any account or figure of this, therefore preſume it to be a new ſpecies—we find it pretty frequent in damp meadows, &c. generally very much ſodden. It may be found every autumn (along with A. *compreſſus*, tab. 66), in Kenſington-gardens.

TAB. CLXXIII.

AGARICUS NUCLEUS. *With.* v. 3, 232.

VERY frequent in fir woods, &c. We are not quite ſure that this is Dr. Withering's ſpecies; but as it differs but little from his deſcription, we venture to uſe his ſpecific name, which is very apt. In the latter ſtate it has often little blotches on the pileus, and the farinaceous powder is quite loſt. We have ſeen it alſo much larger.

TAB. CLXXIV.

AGARICUS MOLLIUSCULUS.

GROWS in damp places on very rotten wood. Theſe ſpecimens were found in a grove under poplar-trees in Lambeth-marſh, Auguſt 27th, 1795. I have ſeen it ſince there, and in other places, ſtrictly agreeing with what are here delineated.

TAB. CLXXV.

BOLETUS SCABER. *Bull. t.* 489, & 132, *var.*
BOLETUS BOVINUS. *Schæff. tab.* 104?

VERY frequent in woods, &c. It varies much in ſize and length of ſtipes, but leſs in the colour and general ſhape of the pileus and gills; the pileus has ſomething of a dull leathery appearance, and is of a dirty greyiſh crimſon. Its ſhape is hemiſphærical, ſomewhat flattened. The pores are a dirty or greyiſh green, ſometimes nearly white; their tubes very ſhort towards the ſtipes, longer in the middle, and ſhortening again at the edge of the pileus; their diameter always ſmall, but they ſeem when magnified regularly ſhaped. This I am told is a favourite food among the Ruſſians and Poles, who have many ways of cooking and pickling it. Mr. Frazier was ſo kind as to bring me ſome from thence pickled, very rich in ſpices. Inſects ſoon breed in this fungus.

TAB. CLXXVI.

HYDNUM REPANDUM. *With.* v. 3, 336. *Schæff.* 318.
——————————— *Bull. tab.* 172.

IN Peckham and Hornſey Woods, plentifully every autumn. It is frequently ſportive in ſhape, even to the very points, which I have found lamellated as in the figure. The colour varies but little. The ſubſtance is very brittle.

TAB. CLXXVII.

PEZIZA PAPILLARIA. *Bull. t.* 467, *fig.* 1.

FOUND on rotten ſtumps in Hornſey Wood and other places, in damp autumns. It appears that the hairs at the edges and the ſides are deciduous. It is very much frequented by inſects, which are ſo much covered by it, as to appear like the fungus in motion, or the mites in cheeſe; but a magnifying lens ſoon diſcovers the deception.

TAB. CLXXVIII.

PEZIZA HYDNOIDES.

ON bits of ſticks, &c. in damp woods and ſhady places.

TAB. CLXXIX.

RETICULARIA MULTICAPSULA.

THIS is at firſt of a frothy, afterwards a mucilaginous texture. As it advances towards maturity, it ſettles into little roundiſh protuberances, and ſeems a ſomewhat condenſed powder. At length we find it compoſed of an innumerable quantity of oblong capſules, filled with a fine powder or ſeed. The operculum, or cover, ſeems, like the ſame powder, a little hardened by external moiſture, or ſome mucilaginous matter. I am not quite ſatisfied to call it a Reticularia; but muſt leave the definitions of all the Genera till we are more informed.

TAB. CLXXX.

TRICHIA POLYMORPHA.

I FIRST found this in the outſide gallery above the dome of St. Paul's Cathedral, London, April 5th, 1794, on a cindery ſubſtance. I have frequently ſeen it ſince on putrifying bones, &c. The Rev. Mr. Alderſon, of Hevingham, Norfolk, found ſome on Norfolk cheeſe, in his cellar, which was brought me by Mr. Dawſon Turner, of Yarmouth, June 1ſt, 1798. All cheeſe ſeems to have it in a young or imperfect ſtate, as the yellow, orange and red tints indicate; the ſubſtance is extremely tender and mealy, but durable if not touched. I have both ſpecimens by me, not decayed.

TAB. CLXXXI.

AGARICUS QUERCINUS. *Linn. Sp. Pl.* 1644. *With.* v. 4. 307.

MOST common on old oak poſts, railing, or cut ſtumps: being leaſt frequent on the trees themſelves. Theſe plants are attached by a broad baſe or back, often aſſuming the appearance of a *Boletus* on the under ſide, being full of ſuch peculiar cells as to have cauſed a doubt of the genus. One ſpecimen frequently unites in itſelf the three genera, *Agaricus*, *Boletus*, and *Hydnum*: being lamellated, porous, and with points. The pileus is more or leſs rugged, but not at all hairy. Subſtance very much like cork, clumſy, but often formed with the lamellæ elegantly dropping into labyrinths, folds, &c.

TAB. CLXXXII.

AGARICUS BETULINUS. *Linn. Sp. Pl.* 1645. *With.* v. 4. 305.

A NEATER plant than the laſt, growing ſometimes in ſimilar ſituations, and frequently on ſtumps of the Birch (*Betula*), whence I ſuppoſe its name. It is attached by a broad baſe or back, and in a young ſtate is truly a *Boletus*, but in maturity acquires very diſtinct lamellæ, which finally become extremely thin, ſtiff, ſomewhat wrinkled, and folded. The ſhorter lamellæ end abruptly at right angles. The pileus is tomentoſe, variegated with different browns, greatly reſembling B. *verſicolor*. Thoſe growing on the birch moſtly aſſume a woolly whitiſh ſurface like pluſh.

TAB. CLXXXIII.

AGARICUS ALNEUS. *Linn. Sp. Pl.* 1645.

I AM glad to have an opportunity, by favour of the Rev. Mr. Watts, F.L.S. to preſent my botanical friends with a figure of the true *Agaricus alneus*, with ſome certainty of its being of Engliſh growth. The above gentleman found the elegant ſmall united ſpecimen, No. 1. on a beer-barrel in his cellar at Aſhill, Norfolk. Some ſmall ones I gathered in London, by favour of Colonel Patterſon, F.L.S. but the box they grew upon

came from the Eaſt Indies. The ſtem, when any, is ſhort, lateral, woolly and white; lamellæ very different from any other Agaric known, and always ſplit, turning backwards towards the pileus. They are finely fibrous within. None of my ſpecimens have them branched*; they are irregularly paired, and ſeldom inoſculate except towards the baſe. The pileus is woolly, ſcolloped, zoned, and ſtriated with furrows oppoſite to the lamellæ. Texture ſomewhat leathery and durable. I have been favoured with ſpecimens from Owhyhee by Mr. Menzies, and from Sierra Leone in Africa by Dr. Afzelius. Mr. B. M. Forſter found ſeveral on a timber between Shoreditch and Hackney; but from whence it came he knew not. The plant is common in the South of France.

TAB. CLXXXIV.

AGARICUS MILLUS.

THIS curious Agaric was gathered in Kenſington Gardens, where there were great plenty, January 1796. I am not ſure of its being a ſpecies; but as it is difficult to make out ſatisfactorily to what it belongs, I could not reſiſt figuring it. The prickly collar is moſt likely to afford a ſpecific difference.

TAB. CLXXXV.

AGARICUS FLACCIDUS.

A DISTINCT ſpecies not uncommon in pine woods. Mr. Hunter ſhewed me plenty in Lord Mansfield's wood at Hampſtead, in the autumn of 1796. This fungus is apt to vary in its proportions and growth. The ſtipes is cottony at the baſe, from a quarter of an inch to an inch or more in height, often lateral. The gills are cloſe, with ſome intermediate ones, but not ſufficiently regular to reckon in pairs or regular numbers. The pileus is thin, and reſembles tanned leather. It is often prettily ſtained or blotched in an advanced ſtate. A. *mollis* Bull. may poſſibly be this plant.

* It ſhould ſeem that A. *betulinus*, tab 182, (ſee the end of the deſcription,) may have been received as this plant; and it is remarkable, that the conſtriction of the gills has been miſtaken both in Bulliard's excellent plates, and Batſch, who has conceived them branched. However, Linnæus ſays lamellis *bifidis*, but of A. *betulinus* lamellis ramoſis. *Sp. Pl.*

TAB. CLXXXVI.

AGARICUS LOBATUS.

——— INFUNDIBULIFORMIS. *Bull. t.* 553.

KENSINGTON Gardens have often afforded this Agaric in great plenty, and with little variations. The ſtipes for the moſt part grows thickening upwards, and ſpreading into the pileus; gills numerous, lighter than the pileus, which is of a browniſh red.

TAB. CLXXXVII.

AGARICUS AMETHYSTINUS. *With. v.* 4. 180?

SHELTERED in the damp parts of woods, not unfrequent. Air and ſun would affect the tender but beautiful colour. The lamellæ in the young plants are ſomewhat arched, and fixed; in the older they ſeparate from the ſtem, and often ſeem as if never fixed. In the latter ſtate the pileus ſometimes hollows into the hollowed ſtipes, and the whole plant has a ruſty hue, much reſembling A. *farinaceus* of Hudſon; but ſurely it cannot be the ſame ſpecies.

TAB. CLXXXVIII.

AGARICUS FIMETARIUS. *Linn. Sp. Pl.* 1643.

——— OVATUS. *With. v.* 4. 293. *Curt. Lond. faſc.* 2. *t.* 72.

FOUND uſually at the bottom of poſts or paling, but not always. The ſtipes is rugged at the baſe, and up to the edge of the pileus in the younger plants, retaining there a permanent mark; the reſt is ſmooth; the whole ſiſtuloſe and very brittle. The gills are looſe, of a ſilvery white, with a white farinaceous powder at their edges. The ſides are connected by little points and pores fitting each other on either ſide; and the lamellæ

will more readily ſplit than ſeparate, till in advancing to decay, the pileus expanding, ſome occaſionally ſplit and ſome ſeparate elaſtically, ſo as to diſperſe the ſeed from their pores. In wet weather they decay at the edges into an inky fluid, like the following ſpecies.

TAB. CLXXXIX.

AGARICUS CYLINDRICUS. *With.* v. 4. 286. *Schæff.* 46, 47, & 48.
AGARICUS FIMETARIUS. *Curt. Lond. faſc.* 2. *t.* 73.

FOUND growing occaſionally every where, more particularly among garden ſweepings, and other rubbiſh in damp places, ſingle, or in cluſters. Stipes hollow, containing a pith reſembling a thread of cotton. The pileus is more cylindrical than any other Agaric at preſent known, even in the general appearance; and I once ſaw it at Sir Abraham Hume's, Bart. Hertfordſhire, full four inches long, and only one and a half in diameter. Some of the plants are eighteen inches high, in the advanced ſtate decaying at the edges of the pileus, the ſeeds with the gills dropping off in a fluid ſtate. The annulus is remarkably permanent, though ſmall.

TAB. CXC.

AGARICUS PROCERUS. *Schæff.* 18, 19, 32, & 33. *With.* v. 4. 271. *Hudſ.* 612. *Curt. Lond. faſc.* 4. *t.* 69.

A COMMON plant, varying but little except in proportion. The ſtipes is ſomewhat fibrous and brittle. The gills are leſs brittle, and join to the pileus half an inch from the ſtipes. The pileus is tough and ſpongy, eſpecially when dry; the annulus double; the outermoſt reſembling the coating of the pileus, the inner its ſpongy ſubſtance: ſo alſo are the ſcales of the pileus.

TAB. CXCI.

BOLETUS BIENNIS. *Bull. t.* 449. *fig.* 1.

FOUND by the Rev. Mr. Hemſted in the neighbourhood of Newmarket. According to Bulliard, it is apt to vary much. The ſtipes (occaſionally central, and covered with naked pores) is ſomewhat tomentoſe. Pores varying, into ſinuſes and labyrinths very irregularly. The pileus is rather hiſpid. It hardens in drying, becoming woody.

TAB. CXCII.

BOLETUS PERENNIS. *Linn. With. ed.* 3. 314.

THIS may be found every year in Sir William Jerningham's plantations near Norwich, according to my experience for ſome years. It is of a woody texture, and appears nearly the ſame whether freſh or dried. Miſs Johnes ſent it to Dr. Smith from Hafod, Cardiganſhire.

TAB. CXCIII.

BOLETUS ANGUSTATUS.

MR. Robſon of Darlington firſt ſent me a bit of this plant. I have ſince found it at the foot of a poplar in Lambeth, and elſewhere. The character ſeems conſtant. It is fixed by the back; the pores are long and narrow, with ſome variations; the pileus flattiſh, much blotched with a dull crimſon, zoned and lobed, ſomewhat ſatiny at the edges, which are of a ſilvery brown.

TAB. CXCIV.

BOLETUS SINUOSUS.

IN September 1793, I gathered the uppermoſt ſpecimen on the root of an old poplar in Lambeth, where there were many larger ones all attached by the back. The pores are ſinuous, oblong, or varying in every direction; the pileus tomentoſe, knobby, zoned, and undulating in ridges towards the edges, often much imbricated. The lower ſpecimen was gathered from the ſame ſpot in the December following, when the plants were almoſt black, with a gum or glutinous pitchy-looking ſubſtance on the pileus, particularly towards its edges, and the tomentoſe appearance was loſt: at both periods they were whitiſh within, and altogether of the ſame fibrous or woolly texture, and woody hardneſs.

TAB. CXCV.

BOLETUS IMPUBER. *Bull.*

RARELY found in an advanced ſtate. Lady Arden firſt ſent me full grown ſpecimens. When firſt appearing it often reſembles a Byſſus, with here and there ſome pores indicating a Boletus *. Sometimes we find little elſe than pores †. It is attached by the back, the pores ſomewhat unequal and ſmall; the pileus rugged and zoned; its growing edges velvety. At an advanced period it is more or leſs ſmooth in its general ſurface.

* I have ſomewhere ſeen it under the name of B. *byſſoides*.

† Boletus *reſupinatus* Bolton.

TAB. CXCVI.

BOLETUS RADIATUS.

WAS gathered in Stone-Park, Withiham, Suſſex, on a decaying ſtump, perhaps an oak. It grows radiating from a centre, or ſmall woolly beginning, burſting through the bark. The pores are nearly equal and ſmall; pileus at its attachment ferruginous, browner in the middle, zoned and yellower towards the edges; texture woody. Perhaps this may be B. *verſicolor Schæff. tab.* 136.—but ſurely not of *Linn.*

TAB. CXCVII.

AGARICUS COCCINEUS.

THE Rev. Mr. Hemſted of Newmarket ſent me this pretty Agaric. I do not know that it is any where noticed. The ſtipes is woolly at the baſe, ſolid, and nearly of equal thickneſs; the long gills fixed to the ſtipes; the pileus thin and ſomewhat conical. Although a tender plant, it does not change colour in drying, but ſhrivels much. It grows paraſitically on pine cones, &c.

TAB. CXCVIII.

LYCOPERDON FORNICATUM. *Hudſ.*

THIS very ſingular plant has been frequently found in Norfolk and Suffolk. My ſpecimen was met with in Kent. So ſtrange a vegetable has ſurpriſed many; and in the year 1695 it was publiſhed under the name of Fungus Anthropomorphus, and figured with

human faces on the head. It is at firſt roundiſh; in ripening the head burſts through the two coats or wrappers; the inner wrapper, detaching itſelf from the outer, becomes inverted, connected only by the edges; the coats moſt conſtantly ſplit into four parts. See Mr. Woodward's excellent account of moſt of the ſpecies in *Linn. Tranſ.* vol. ii. p. 32.

TAB. CXCIX.

CLAVARIA TUBEROSA.

I FOUND this alſo in Stone-Park, Suſſex, growing on ſticks, burſting its way through the bark. The root is tuberous, and held to the wood by threads a little above the baſe, ſomewhat knobby where the plant aſcends, which is a little tubular and pointed.

TAB. CC.

SPHÆRIA HYPOTRICHOIDES.

HYPOXILON LOCULIFERUM. *Bull. t.* 195. *fig.* 1. A.B.

HORSEHAIR USNEA. *Dill. Muſc.* 67. *t.* 13. *fig.* 11. A.B.

BROUGHT me by Mr. Jonathan Peckover, who found it growing on an old ſack of ſaw-duſt in his wine-cellar at Wiſbeach. Even this plant, ſo finely fibrous, has white farinaceous ends, analogous to pollen or fructifying duſt; alſo capſules below. Thus it anſwers to the claſs *Monœcia* of Linnæus—a circumſtance which ſeems proper to the *Sphærias*. My friend William Skrimſhire Eſq. jun. of Wiſbeach firſt obſerved the farinaceous powder on this plant.

TAB. CCI.

AGARICUS INTEGER. *Linn. Sp. Pl.* 1640.

THIS beautiful plant is extremely common moſt of the year. It inhabits cool receſſes of woods at midſummer, ſpreading more at large in the autumn to midwinter even among froſt and ſnow. It is moſtly ſolid, but ſpongy, and very brittle. The lamellæ are moſt conſtantly entire from the edges of the pileus to the ſtipes, affording a certain ſpecific diſtinction. It is ſometimes ſportive in form, but varies moſt in the tints, and may be found of all the colours of the rainbow, green ſcarcely excepted. It is often much eaten by ſnails, and is highly acrid. Krapf has figured it in 10 plates, exhibiting nearly 100 figures, which are erroneouſly reckoned ſeveral ſpecies.

TAB. CCII.

AGARICUS DELICIOSUS. *Linn. Sp. Pl.* 1641. *Schæff. t.* 11, &c.

THE Rev. R. B. Francis favoured me with fine ſpecimens of this plant from the neighbourhood of Holt in Norfolk. It is ſomewhat ſpongy: the rich orange juice reſides in the extremities of the under-ſide of the plant, lining the inner edge of the ſtipes, &c. The gills branch and anaſtomoſe, and in ripening or drying become covered with a fine pinky farina. The plant I taſted was very pleaſant. Mr. Francis, however, found ſome that were more or leſs acrid. I had one dreſſed, which was very luſcious eating, full of rich gravy, with a little of the flavour of muſcles. It changes green when bruiſed, as Dr. Smith * and Mr. Stackhouſe remark. Is this the real *A. Cæſarius?* I have even been told *A. muſcarius* of Linnæus is, and that it is good eating. I have found it pleaſant taſted, and ſhall be glad of information on ſo doubtful a point.

* See Trans. of the Linnæan Soc. vol. 1. 180.

TAB. CCIII.

AGARICUS ZONARIUS. *With.* 3 *ed.* *v.* 4. *p.* 193.
——— FUSCUS. *Schæff.* 285.

MUCH like A. *delicioſus*, but conſtantly of a browner colour, and the lamellæ in ſets, not branching or anaſtomoſing, ſomewhat rounding from the ſtem, varying from almoſt white to fuſcous. The milk is conſtantly very acrid.

TAB. CCIV.

AGARICUS LACTIFLUUS. *Linn. Sp. Pl.* 1641. *With.* *v.* 4, *p.* 257.

IN the greateſt perfection in fir plantations; in other places commonly varying to Bulliard's A. *dulcis t.* 224, and A. *vinoſus t.* 54. The whole plant is of a reddiſh cinnamon colour, the pileus reddeſt. The lamellæ join the ſtipes in nearly a ſtraight line; the milk is commonly mild, but leaves a roughiſh acrid taſte in the throat. *Dulcis* is a poor variety, and *vinoſus* is found in oak and other woods like a ſtrayed plant. This Agaric has ſomething of an oily ſmell, and ſomewhat rancid taſte. It is brittle, and eaſily crumbles under the touch.

TAB. CCV.

AGARICUS CINNAMOMEUS. *Linn. Sp. Pl.* 1642. *With.* *v.* 4, *p.* 257.

TO be known from the laſt in the younger ſtate by its cobweb-like annulus; afterwards by the gills as it were rounded off from the ſtipes, which is yellower, ſomewhat ſtriated; and by its breaking into clefts at the edge.

TAB. CCVI.

AGARICUS SPINIPES.

RECEIVED by favour of the Rev. Mr. Hemſted from the neighbourhood of Newmarket, Cambridgeſhire. It appears an undeſcribed ſpecies, and is paraſitical on pine cones, ſticks, &c. The ſtipes is clothed at the baſe with a rigid woolly ſubſtance like ſpurs, above it is downy. The gills partly rounding from the ſtipes or pileus nearly white. The pileus almoſt regularly convex, of a duſky brown.

TAB. CCVII.

AGARICUS SCABER. *F. Dan. t.* 832.

OCCASIONALLY very numerous in the ſhady parts of woods, and what I have found keep a conſtant uniformity. The ſtipes in breaking ſeems encruſted with a bark. The edge of the pileus in the younger ſtate is attached to the ſtem with woolly threads.

TAB. CCVIII.

AGARICUS FARINACEUS. *Huds.* 616.
——— LACCATUS. *Scheff. t.* 13. *With. v.* 4. *p.* 236.

VARYING, ſwelling in wet, twiſting and diſtorting in dry weather. The lamellæ are ſtraight from the edge of the pileus to the ſtem, or decurrent, always copiouſly covered with a farinaceous pinky powder, moſt conſpicuous when the fungus is drying. It often reſembles the bleached varieties of *A. amethyſtinus*, which has occaſioned ſome confuſion.

TAB. CCIX.

AGARICUS VIOLACEUS. *Linn. Sp. Pl.* 1641. *With. v.* 4. *p.* 207.

THIS varies to a purple all over. The ſtipes is very cottony, extending to the edge of the pileus, and forms an annulus which often catches the ferruginous ſeeds. The taſte is ſimilar to A. *campeſtris*, the common muſhroom, but not ſo good. This ſpecies is ſometimes ſold at Covent-garden market, under the name of Blewits for making ketchup.

TAB. CCX.

AGARICUS TURFOSUS.

I WAS favoured with theſe gathered by the Rev. Mr. Francis of Holt, Norfolk, November 1798, who finds them on heathy ground where turf ſtacks have ſtood. They ſomewhat reſemble *Merulius fœtidus* of the Rev. R. Relhan. See Eng. Fung. *tab.* 21. They however have little ſcent, and the ſtipes is ſmooth, the whole plant alſo leſs rigid. Perhaps it ſhould be a *Merulius?* I hope to ſettle that point at the end of the work.

TAB. CCXI.

BOLETUS SPUMEUS.

THIS, which I believe to be a new ſpecies, oozes from decaying elms in a very ſoft frothy maſs, hardening in a day or two; and, if it dries favourably, the pileus becomes hiſpid. The pores are ſmall, and nearly round; the tubes not long. I have found it in Kenſington-gardens, at Kennington in Surry, and other places.

TAB. CCXII.

BOLETUS BETULINUS. *Bull.* 312.

FOUND for ſeveral years on an old birch near Hevingham, Norfolk, by the Rev. Mr. Alderſon. The ſhort lateral ſtipes ſeems to imbibe much of the reddiſh hue of the inner brown bark of the tree, and even granular particles of its ſubſtance. The outer coats are of a lightiſh brown; cracking from the pure white, cloſe, cork-like ſubſtance of the plant in advanced age, as if from a white-waſhed wall. The pores vary, and are ſhortiſh and uneven at their mouths, of a yellowiſh hue, and pretty cloſely attached to the ſubſtance of the plant.

TAB. CCXIII.

AURICULARIA CARYOPHYLLEA. *Bull.* 278.
HELVELLA CARYOPHYLLEA. *Dickſ. Crypt. faſc.* 1. 20.

A VERY common paraſite on the expoſed fantaſtic roots of old firs in autumn. The ſpecimens are of a woody or rather leathery ſubſtance, and grow in various forms, attaching themſelves by their backs to any thing in the way; their colour is moſtly a ferruginous brown, ſometimes with white edges.

TAB. CCXIV.

AURICULARIA PULVERULENTA.

FIRST found by the Rev. Mr. Watts on the whitened fir-beams in the wall of an out-houſe at Aſhill, Norfolk, in December 1798. Mr. D. Turner has ſince communicated ſome from Yarmouth, found in a ſimilar ſituation. The ſubſtance is like the Dryrot, or *Boletus lachrymans*, Eng. Fung. *tab.* 113. It protrudes umbilically in concentric circles, emitting a ſnuff-coloured powder, nearly with the ſame regularity. The upper edges of the back, detaching themſelves from the wall, and hanging over, forms the top.

TAB. CCXV.

CLAVARIA ARDENIA.

THIS curious plant was gathered by Lady Arden, in Nook Park, near Epſom, November 29, 1798, who favoured me with ſpecimens. It is certainly an entirely new botanical acquiſition. It grows paraſitically on rotting hazel ſticks, ſpringing from the under ſide half an inch or more under the earth among decaying foliage. The baſe is woolly, the ſtipes tomentoſe, and at the bottom fiſtuloſe and cylindrical. The head dilates upwards, and in the younger plants is ſomewhat pointed and covered with a lightiſh mealy powder. In the more advanced ſtate it becomes truncated, and covered with a browner powder, ſplitting longitudinally in decay. Its whole duration ſhould ſeem to be about a week.

TAB. CCXVI.

SPHÆRIA DEPRESSA. *With. v. 4. p. 394.*
VARIOLARIA PUNCTATA. *Bull. tab. 432. fig. 2.*

NOT uncommon on bits of rotten ſticks, and ſomewhat reſembling *Sphæria decorticata*, *t.* 137, in a young ſtate; but it differs in not ſpreading ſo much, being thicker and more elevated, with more crowded or double rows of ſphærulæ, and the inner ſubſtance is whiter. This fungus burſts the cuticle of the branches, which ſoon curls back.

TAB. CCXVII.

SPHÆRIA DECOMPONENS.

THIS ſeems to have eſcaped notice. It is found on ſticks deſtitute of bark, ſtaining a portion of many feet nearly all over, and ſeemingly decompoſing the outer ſubſtance into a charcoal, or at leaſt a charred appearance, the ſphærulæ lying underneath more in the ſubſtance of the ſtick.

TAB. CCXVIII.

SPHÆRIA SATURNUS.

A SINGULAR production. I have had it growing on decaying peach and apricot grafts at Lambeth theſe two years. The ſphærule is held to the orbit, or black ring, ſurrounding it, by fine whitiſh cottony threads. This ring is found by a perpendicular ſection to be the edge of a ſort of ſalver including the ſphærule, from which ſometimes exudes a gummy tendril through the cuticle or outer bark. The face is ſeen diſtinctly on the next coat, and the ſubſtance is imbedded in the under browniſh bark.

TAB. CCXIX.

SPHÆRIA NIVEA. *Hoff.* 6. 3. *With. v.* 4. *p.* 390.

TO be found, moſt part of the year, on ſtumps in Kenſington-gardens. It ſpreads widely. The white woolly coat includes a black ſphærule.

TAB. CCXX.

SPHÆRIA LICHENIFORMIS.

OBTAINED in January 1799, by favour of the Rev. Mr. Alderſon, who gathered it at Hevingham, Norfolk. The ſphærulæ are imbedded in the ſtone, as thoſe of *tab.* 217 in wood, ſeemingly throwing out the ſtain which gives the Lichen-like appearance, which makes it reſemble L. *niger* in a young ſtate. If the ſtone had not been broken, we might have waited long in expectation of fruit. A ſingular conformity with the L. *miniatus*, Eng. Bot. *tab.* 593, and the two following, points out the affinity of many different genera in theſe intricate vegetables.

TAB. CCXXI.

AGARICUS HYBRIDUS.

COMMON on ſome parts of Epping-foreſt, in September and October: I have ſeen it but ſeldom elſewhere. It partakes a little of the characters of ſome other Agarics; I have therefore called it hybridus. The pileus ſomewhat reſembles A. *glutinoſus* of Curtis, and, like moſt of the Fungi, is glutinous in wet weather.

TAB. CCXXII.

AGARICUS POLYGRAMMUS. *Bull. t.* 395.

THE ingenious author of the Herbier de la France, who ſo very aptly caught the different appearances of the Agarics, did not let the beautiful ſatiny ſtriated appearance of this plant eſcape his notice. I follow his example in deſcribing it as a ſpecies, and adopt his ſpecific name, though I ſuſpect it may be a variety of A. *varius* of Dr. Withering, *clypeatus* of Linnæus, &c. of which I hope to enable the reader to form a general idea, when I figure the uſual appearance of the plant.

Some individuals of the Agaric now before us have a very long extent of root or ſtem under ground.

TAB. CCXXIII.

AGARICUS GLAUCOPUS. *With. vol.* 3. 206.

I AM obliged from my own obſervation to ſay, I think this and A. *violaceus* Linn. ſee *tab.* 219, are varieties of A. *arancoſus*, and A. *nudus* of Bulliard, and alſo A. *ſubpurpuraſcens* of Dr. Withering, which Batſch ſeems to have figured, *tab.* 74, from an half-dried ſpecimen, under the name of A. *obſoletus*. Theſe and other obvious varieties having been made ſpecies, I am afraid of being under the neceſſity of adding more figures in order to make all the varieties clearly underſtood.

TAB. CCXXIV.

AGARICUS SUBLANATUS.

I GIVE this a ſpecific name, but not without ſome diffidence, as it may poſſibly be a new variety of the laſt. I found it in great plenty in Hampſtead-wood, October 1792. The floccoſe and conical pileus might appear very obvious diſtinctions, but weather and ſituation have a wonderful effect on this tribe of plants.

TAB. CCXXV.

BOLETUS COMMUNIS. *Bull. t.* 393.

FOUND in woods, frequently of this bright colour, eſpecially when in a young ſtate. It is no leſs frequently of a duller colour when more advanced, reſembling the pileus of B. *ſcaber*, *tab.* 175. The yellow or lemon-coloured pores, and their being ſtrait from the edge of the pileus to the ſtipes (ſcarcely decurrent), will readily diſtinguiſh the one from the other. Does not Dr. Withering's B. *ſanguineus*, 319, belong to this ſpecies? It changes blue when cut.

TAB. CCXXVI.

BOLETUS ALBIDUS. *Schaff. tab.* 124.

A VERY tender ſpecies. When freſh, it cannot be touched, however gently, without ſhewing the bruiſe, by immediately turning blue. The Rev. Mr. Hemſted has ſent it me ſeveral times from the neighbourhood of Newmarket, and I have found it on the Croydon road, and at Hainault foreſt. It ſeldom produces good ſpecimens, and is frequently indiſtinct, as exhibited in Schaeffer's figures. The pores are ſmall, and ſometimes irregular.

TAB. CCXXVII.

BOLETUS SALICINUS. *Bull. t.* 433. *fig.* 1.
——— ALBUS. *Hudſ.* 626.

THIS moſtly inhabits the upper part of old willow ſtumps, while the Boletus ſuaveolens ſeems to grow on the lower part. I cannot very readily diſtinguiſh between them. The upper plants grow more ſeparate and regular, with ſhort tubes and ſmall pores. The whole at firſt beautifully white, afterwards becomes yellowiſh, and laſtly of a browner hue.

TAB. CCXXVIII.

BOLETUS SUAVEOLENS. *Linn. Enſlin. diſſ. t.* 6. *p.* 32.

I DO not know any other figure of this plant than the above. Bulliard, *tab.* 310, ſurely repreſents *V. guercinus* of this work. *tab.* 181, variety *Boletiformis*. Our plant, as obſerved in the laſt paragraph, grows generally at the bottom of decaying willows, commonly tiled with much irregularity. The tubes are generally ſhort, but both they and the pores are irregular, commonly mixed with graſs and other herbage. When freſh it is very white, and changes but little, as inſects ſooner

poſſeſs it than the former, devouring the larger proportion of the inſide ſo completely as to leave only the pileus and pores to the viciſſitudes of the weather. The character of "ſupernè lævis" *(Linn.)* does not quite agree with either of theſe plants. This is always more or leſs downy, though the B. *ſalicinus* in the latter ſtate is often nearly ſmooth. This and the two preceding exhale a fragrant ſcent till they become quite dry.

TAB. CCXXIX.

BOLETUS VERSICOLOR. *Linn.*

WHETHER this plant found on the oak, or thoſe ſo frequent on the willows, be what Linnæus intended, has created ſome doubts. I think this is exactly his B. *verſicolor*, and it may very well include the thinner varieties that grow on the willow. The pileus in the former is of a tawny colour, in the latter grey or blueiſh. I have a Boletus altogether of a tawny hue, which ſeems leſs acceptable to inſects, and which I believe is a variety. The two firſt are conſtantly eaten by inſects. They prefer the thickeſt, not deſpiſing any that has the leaſt ſubſtance between the pileus and pores. All theſe varieties are covered with different degrees of pubeſcence, either pluſh-like or ſatiny, in concentric zones; the variety of whoſe colours adds much to the effect of light and ſhadow cauſed by their relief.

TAB. CCXXX.

BOLETUS PELLOPORUS. *Bull.* 501, *fig.* 2.

THIS and the following plant ſeem very nearly related. The figures of Bulliard, with my ſpecimens, make me think them ſpecies. In the more perfect ſtate than figured by Bulliard they are without black pores, which ſeem the effect of decay.

TAB. CCXXXI.

BOLETUS CARPINEUS.

——— FLABELLIFORMIS. *Batſch. fig.* 226.

ON the Carpinus Betulus or Hornbeam ſtumps not unfrequent. The pileus is of a light fawn-colour, a little rugged. The pores very ſmall and grey even in the younger ſpecimens, always leaving a whitiſh margin on the under ſide, which will readily diſtinguiſh it.

TAB. CCXXXII.

CLAVARIA GRACILIS. *Bolton, tab.* 3. *fig.* 1.

LADY Arden favoured me with ſpecimens of this plant from Nork Park, in 1797. It has ſcarcely any perceptible ſtipes, and ſwells a little upwards terminating more or leſs acutely. Nearly three parts of the whole length ſeem to conſtitute the head, being of a different texture from the reſt, and probably holding the ſeed. This figure of Bolton is ſurely erroneouſly quoted by Dr. Withering and other writers for C. *phacorhiza*.

TAB. CCXXXIII.

CLAVARIA PHACORHIZA. *Dickſ. faſc.* 2. 25.

FIRST found in a garden at Walthamſtow. I have gathered it ſince in Kenſington-gardens. The plant is a ſlender ſimple undulating thread, terminating rather bluntly at the apex. The ſubſtance at the baſe ſomewhat reſembles a bean or ſeed ſplitting to protrude a young plant. Sometimes the head is ſtraighter, and reſembles a bodkin or netting-needle.

TAB. CCXXXIV.

CLAVARIA FUSIFORMIS.

NOT very rare on Hampſted-heath and in Hornſey-wood in autumn. It does not vary much. The ſubſtance friable when freſh, pithy, moſt firm in the external part.

TAB. CCXXXV.

CLAVARIA RUGOSA.

———— PISTILLARIS. *Lightf.* 1056?

I FIRST received fine ſpecimens of this from Mr. E. Forſter jun. in September 1792; and have ſince met with the ſame with little variation. The ſubſtance more tender than in the preceding, and moſtly hollow.

TAB. CCXXXVI.

SPHÆRIA PAPILLOSA.

I HAVE found this plant covering whole trunks of felled trees that were decaying: my friend the Rev. Mr. Kirby has alſo ſent me ſpecimens from Barham, Suffolk. Some plants have a marked ring round the mouth, with the appearance of an operculum. This circumſtance is very diſtinct in a ſpecies brought by Mr. Menzies from Owyhee, which reſembles ours in every reſpect, except being about twice the ſize. I believe this plant has eſcaped our Engliſh authors, nor have I ſeen it anywhere figured.

TAB. CCXXXVII.

SPHÆRIA COMPOSITA.

I FOUND this compound Sphæria upon a ſtick on Kennington-common, Surry. The principal one is for the moſt part immerſed in the inner bark, the upper part impreſſing the cortex, and the mouth protruding through the epidermis, often ſcarcely viſible, although the tendril is occaſionally very conſpicuous. The younger ones are placed in the form of ſatellites to a planet on the inner bark, and ſeem not to be ripe enough for fructifying. It ſomewhat reſembles *Namaſpora chryſoſperma* of Perſoon.

TAB. CCXXXVIII.

HELVELLA HYBRIDA.

SENT me by Mr. Robſon, May 29th, 1797. It is, I believe, quite a new ſpecies. The elaſtic, tranſverſe, wrinkled, ſtriated appearance, length of the ſtipes, and general proportions diſtinguiſh it from H. *eſculenta*, *tab.* 51. It is much of the ſame ſubſtance and taſte, but perhaps more leathery.

TAB. CCXXXIX.

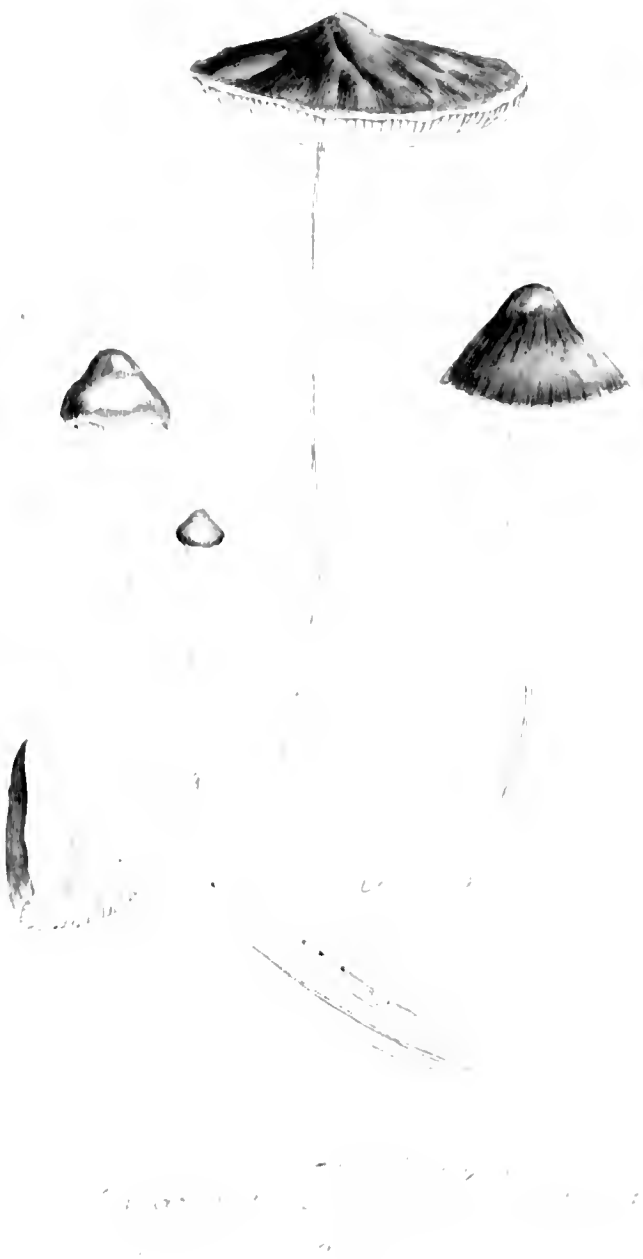
CYATHUS MINUTUS. *Hoffm. Veget. Crypt.* 1790. 6. *t.* 2. *f.* 2.
TRICHIA MINUTA. *Relh. Suppl.* 3.
NIDULARIA MINUTA. *With.*

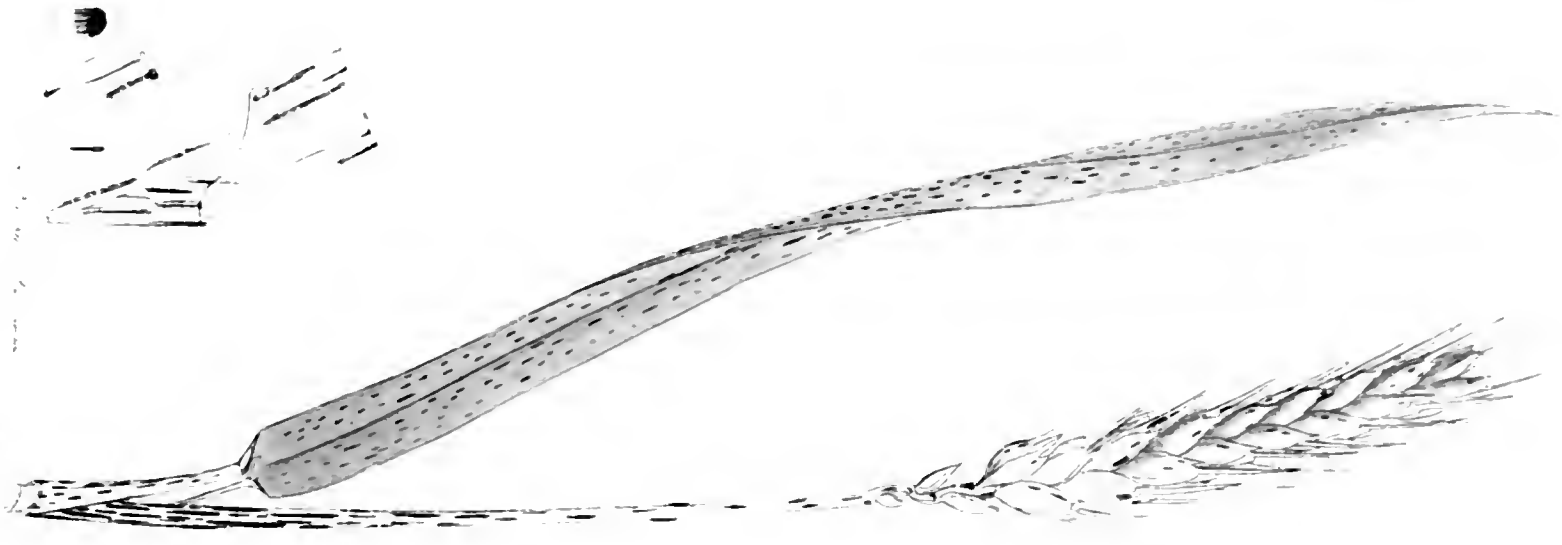
A CURIOUS little fungus that often covers ſticks, and ſtraws of graſſes, &c. in great abundance in Hornſey-wood and other places. The uppermoſt figures reſemble the *Diderma vernicoſum* of Perſoon.

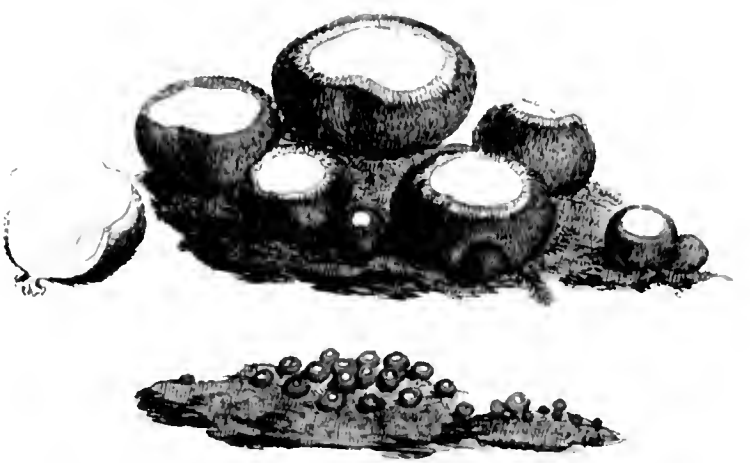
TAB. CCXL.

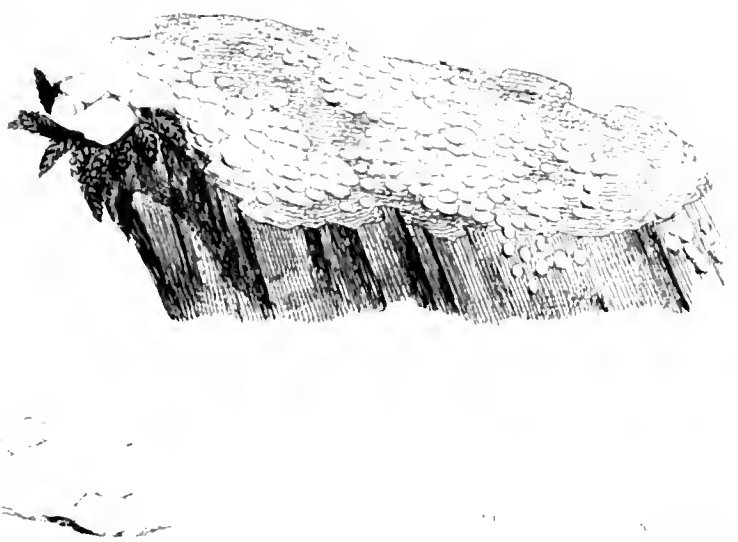
TRICHIA SPHÆROCEPHALA.
CLATHRUS SPHÆROCEPHALUS. *Relh.*
MUCOR. *Flora Scot.*

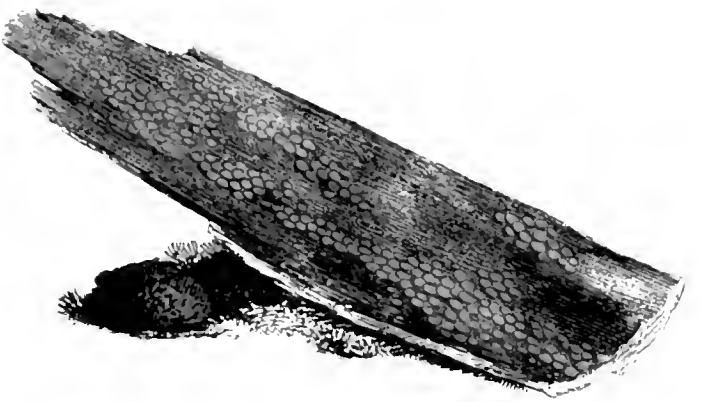
NOT unlike *Diderma globoſa* of Perſoon, *tab.* 4. *fig.* 4. but his has no footſtalk, and is a ſomewhat compreſſed globe. Ours is very frequent on various ſubſtances, ſuch as moſs, ſticks, &c.

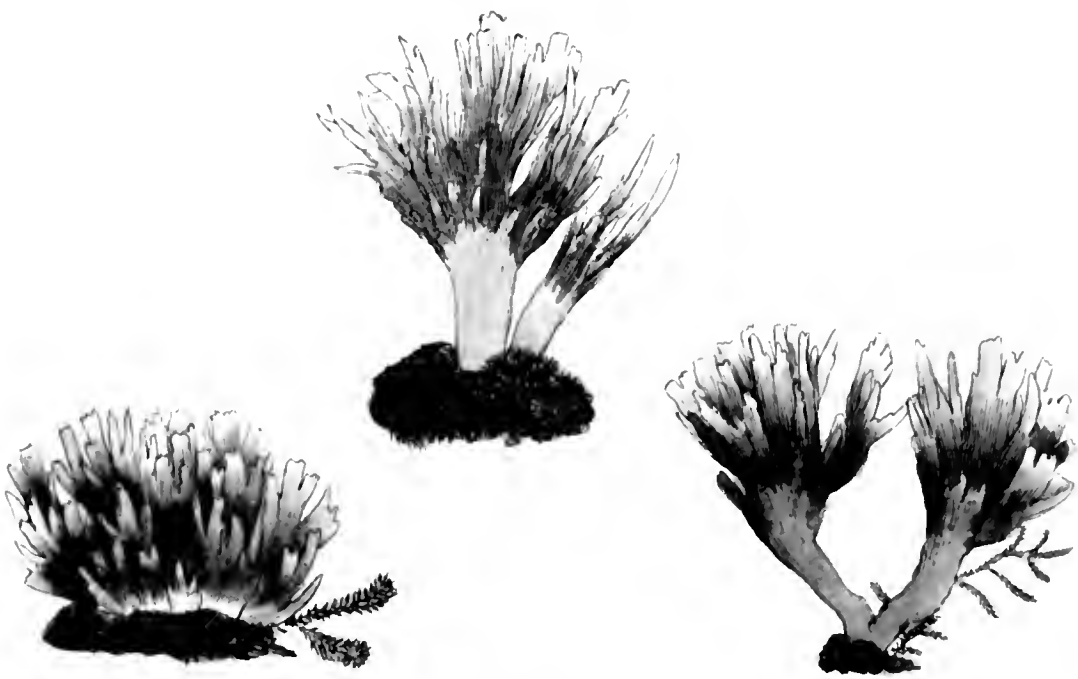


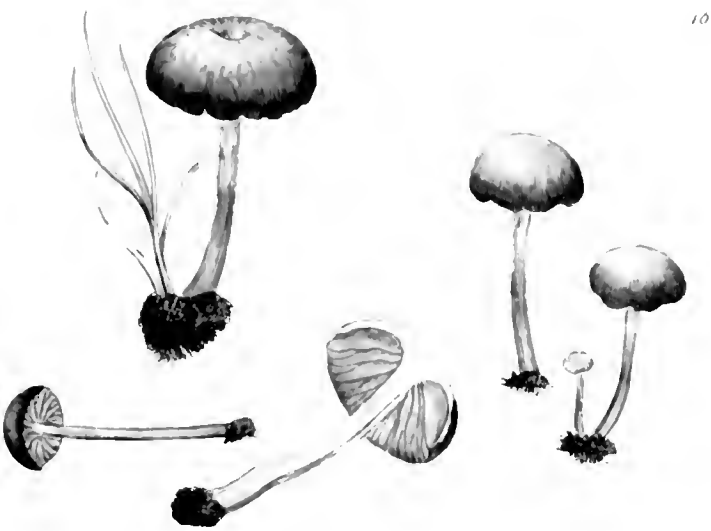


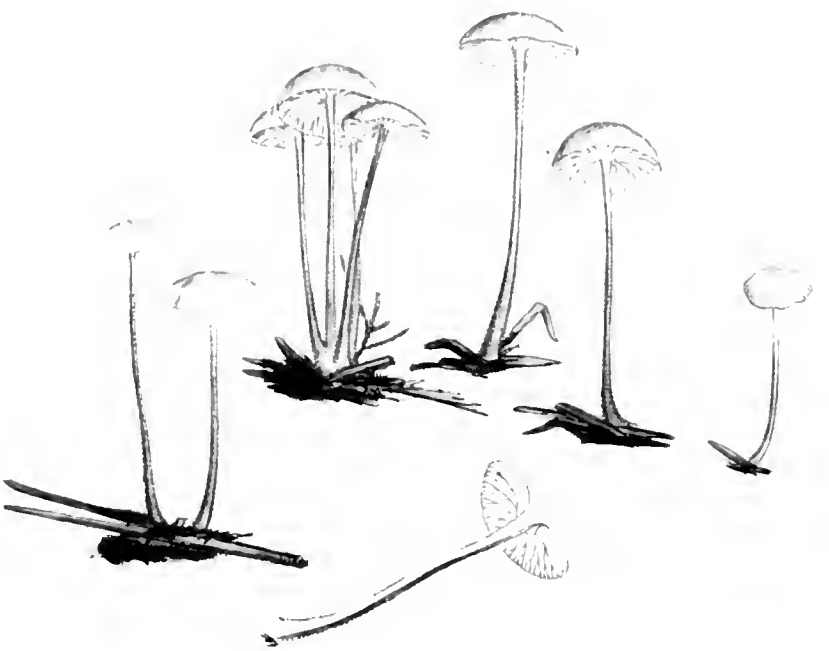


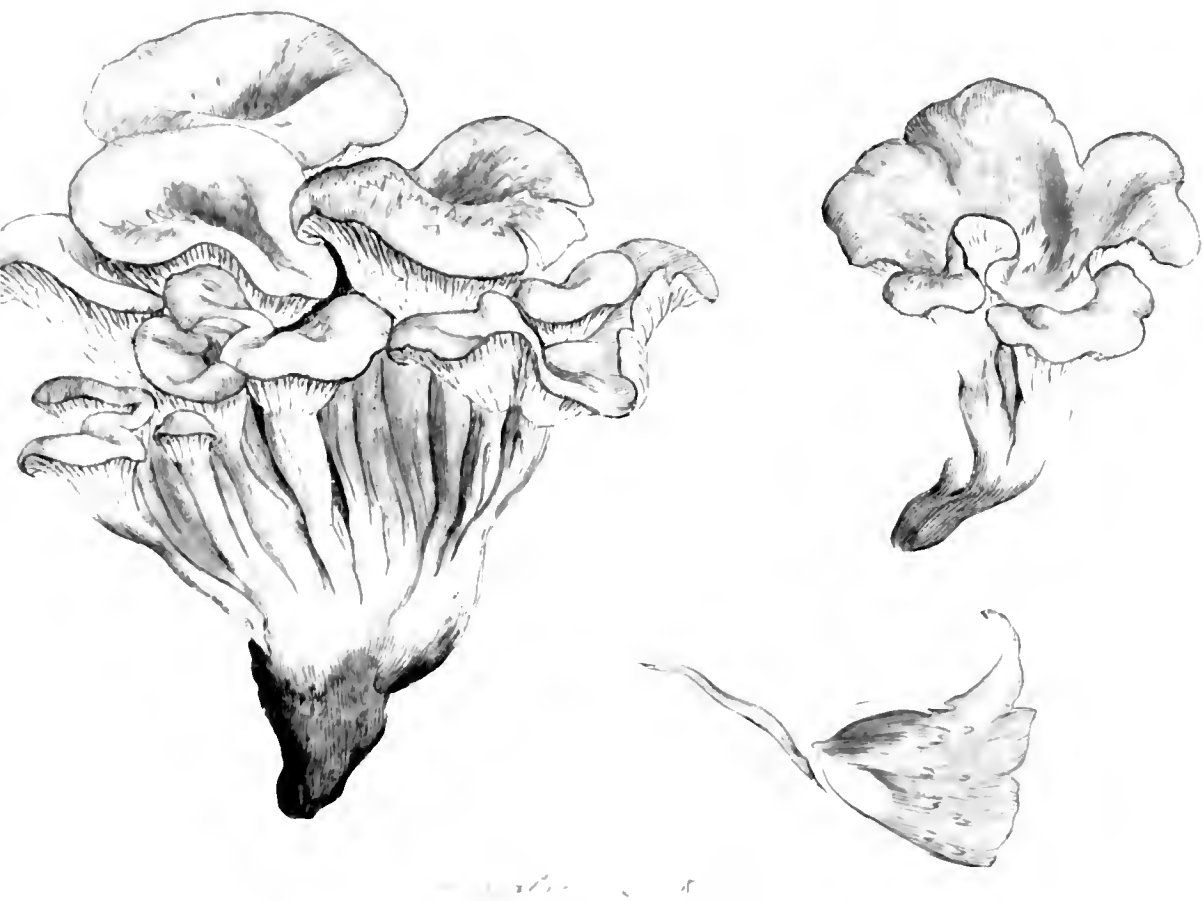


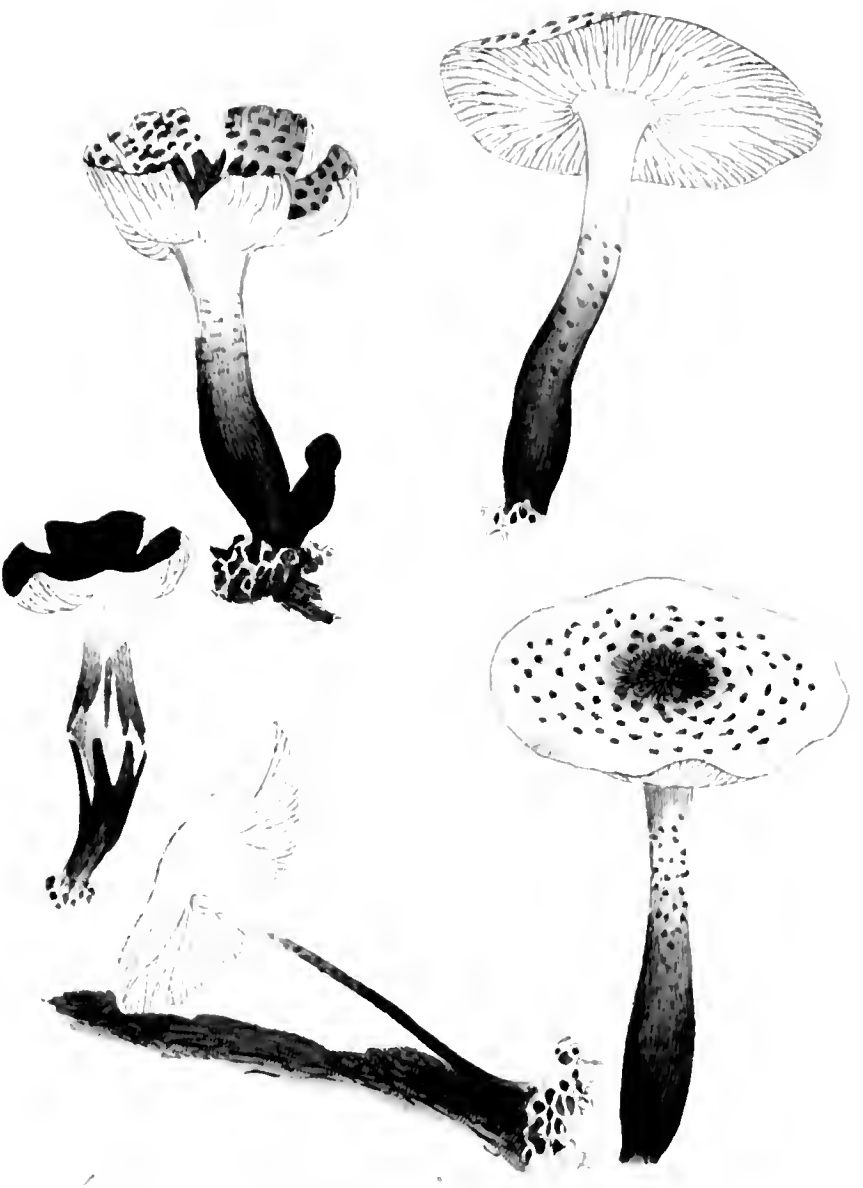


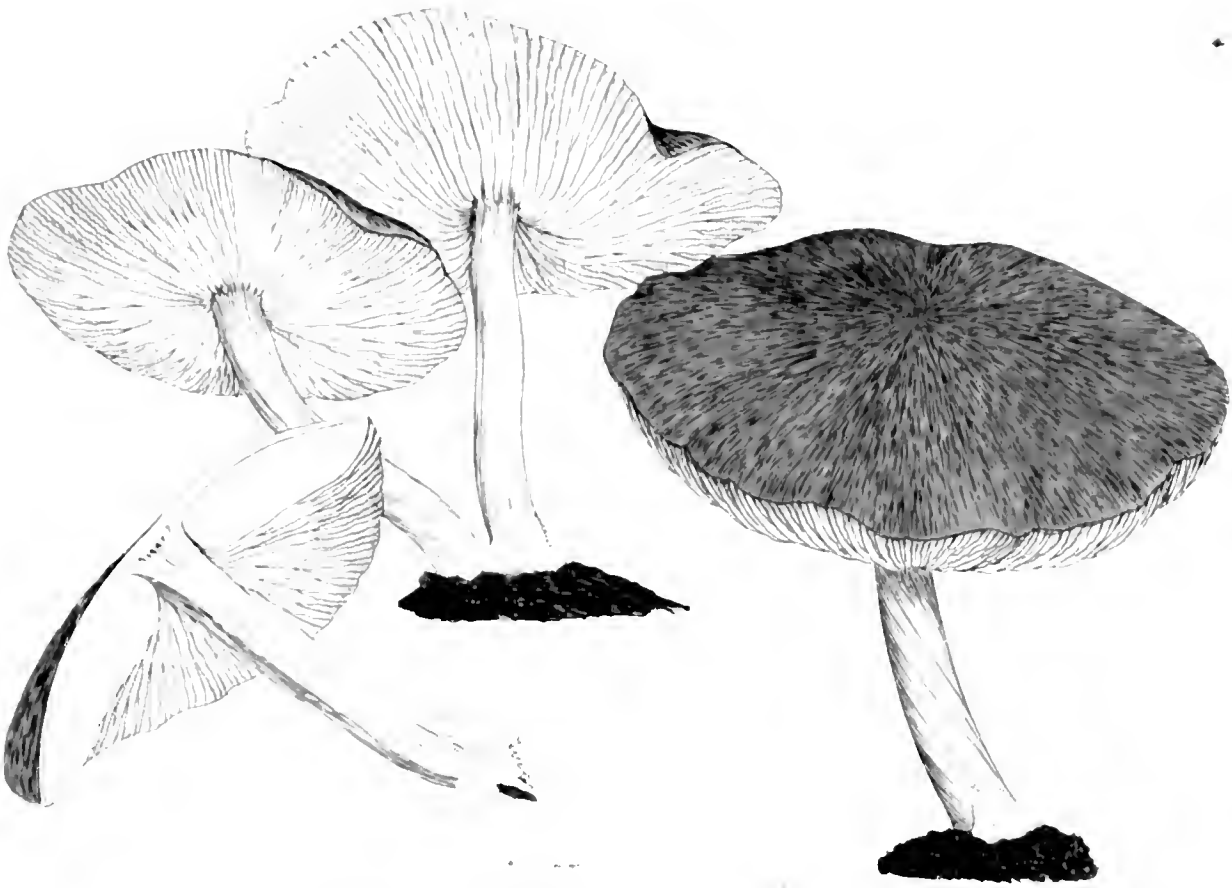


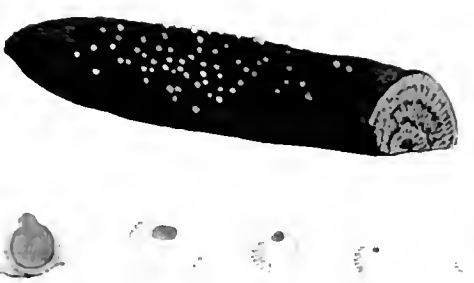


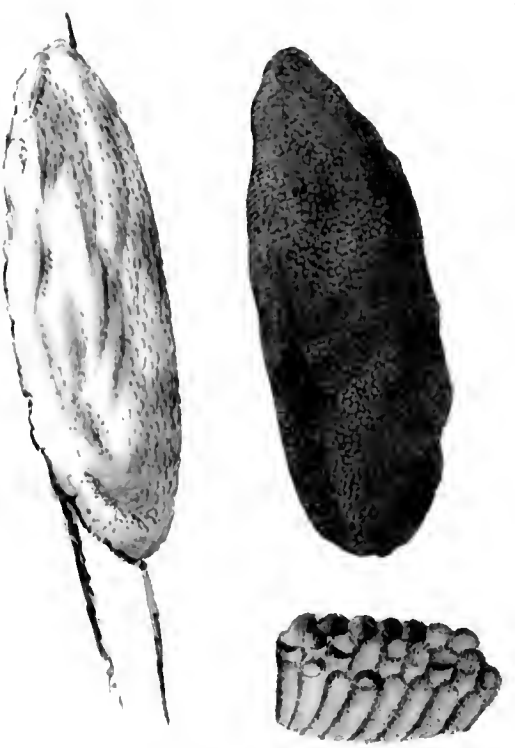


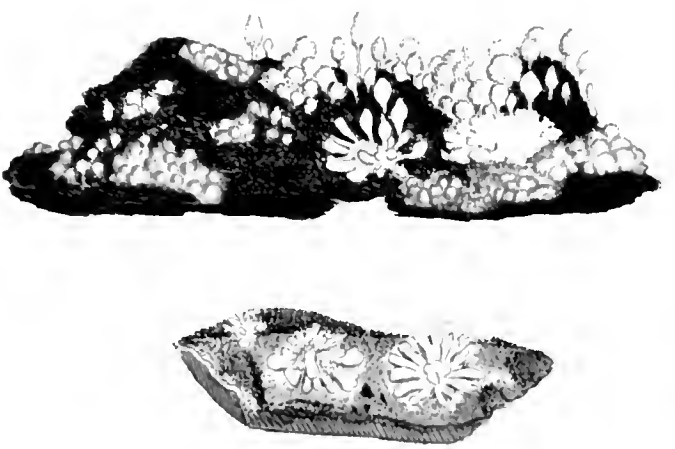


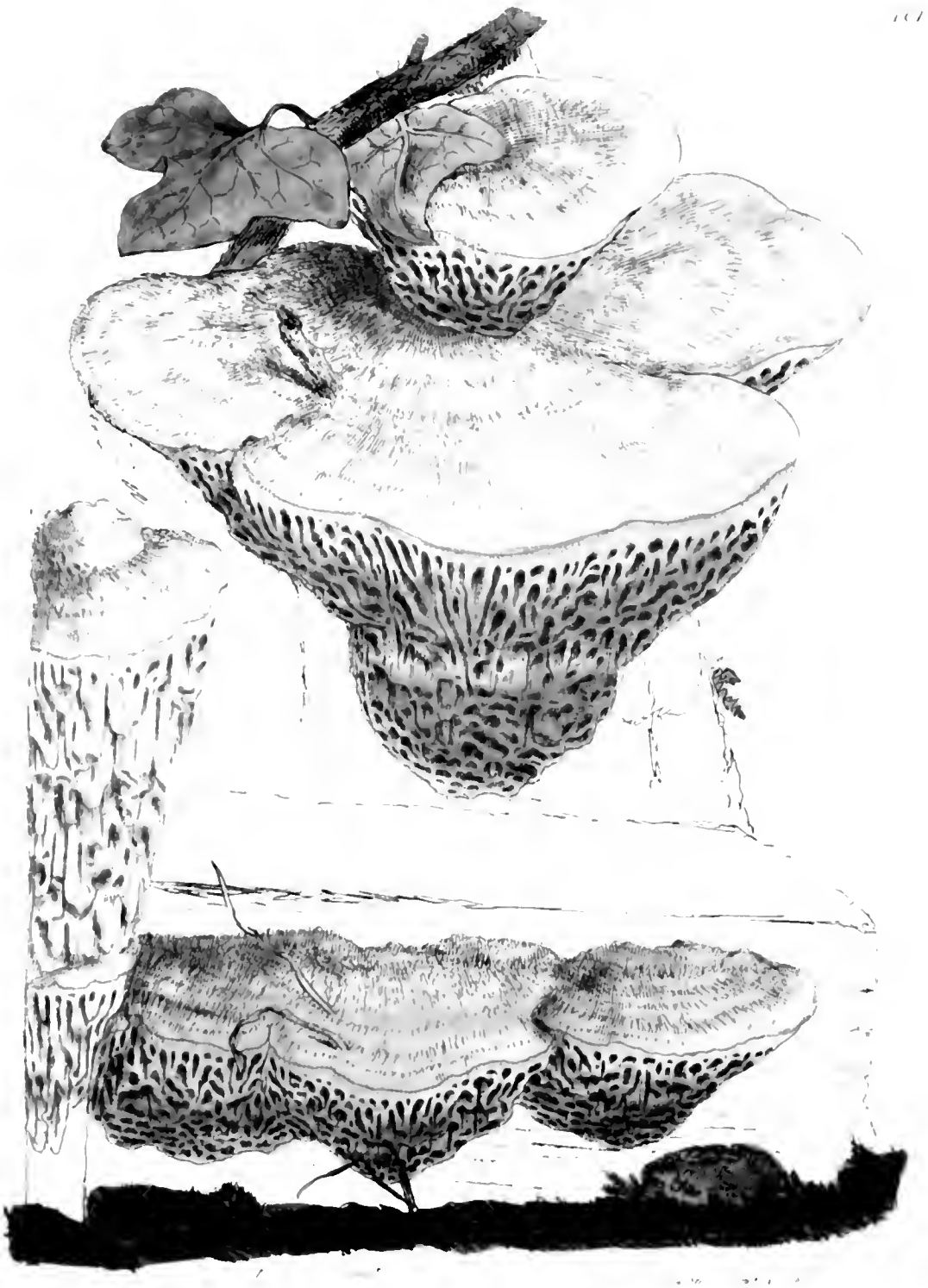


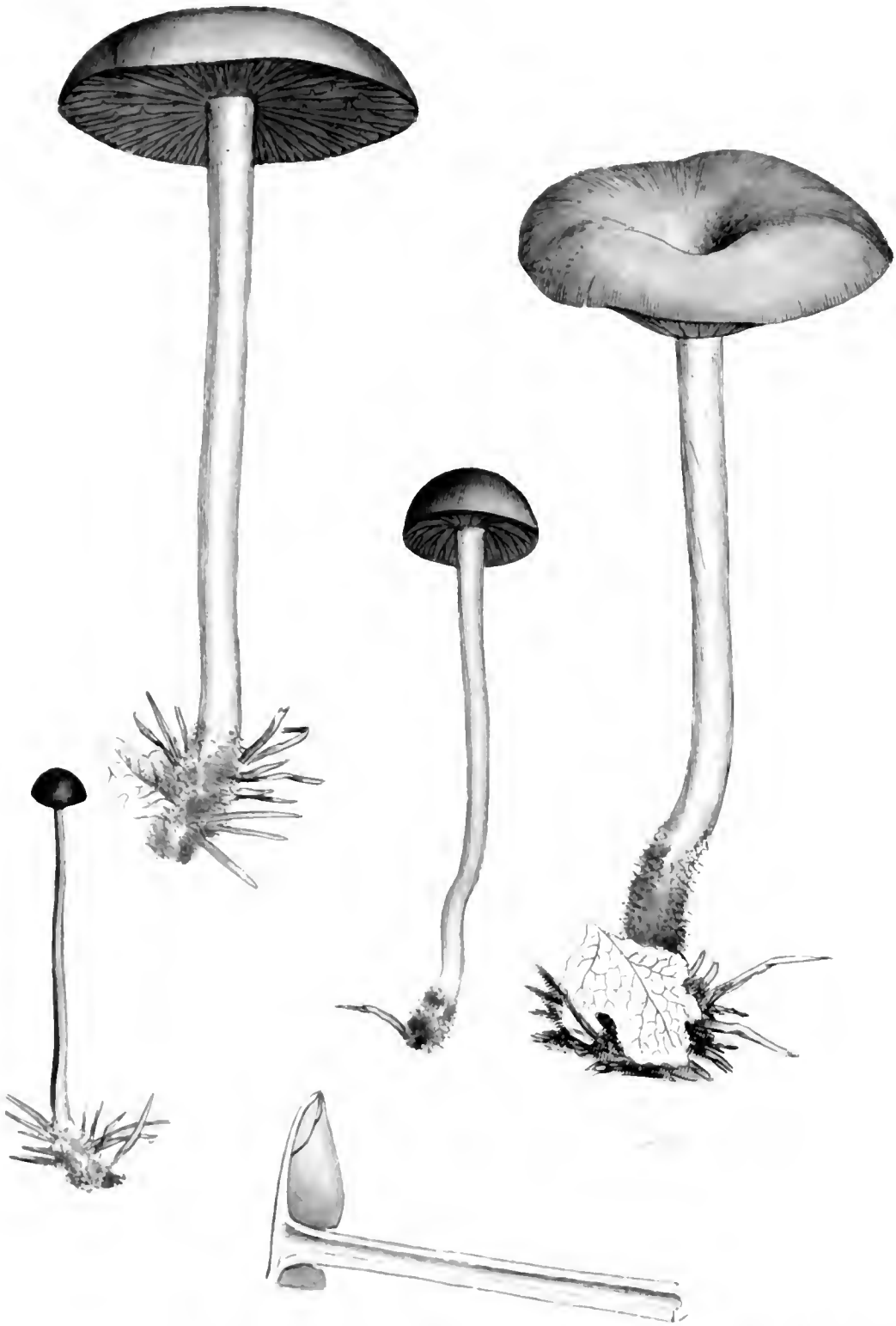


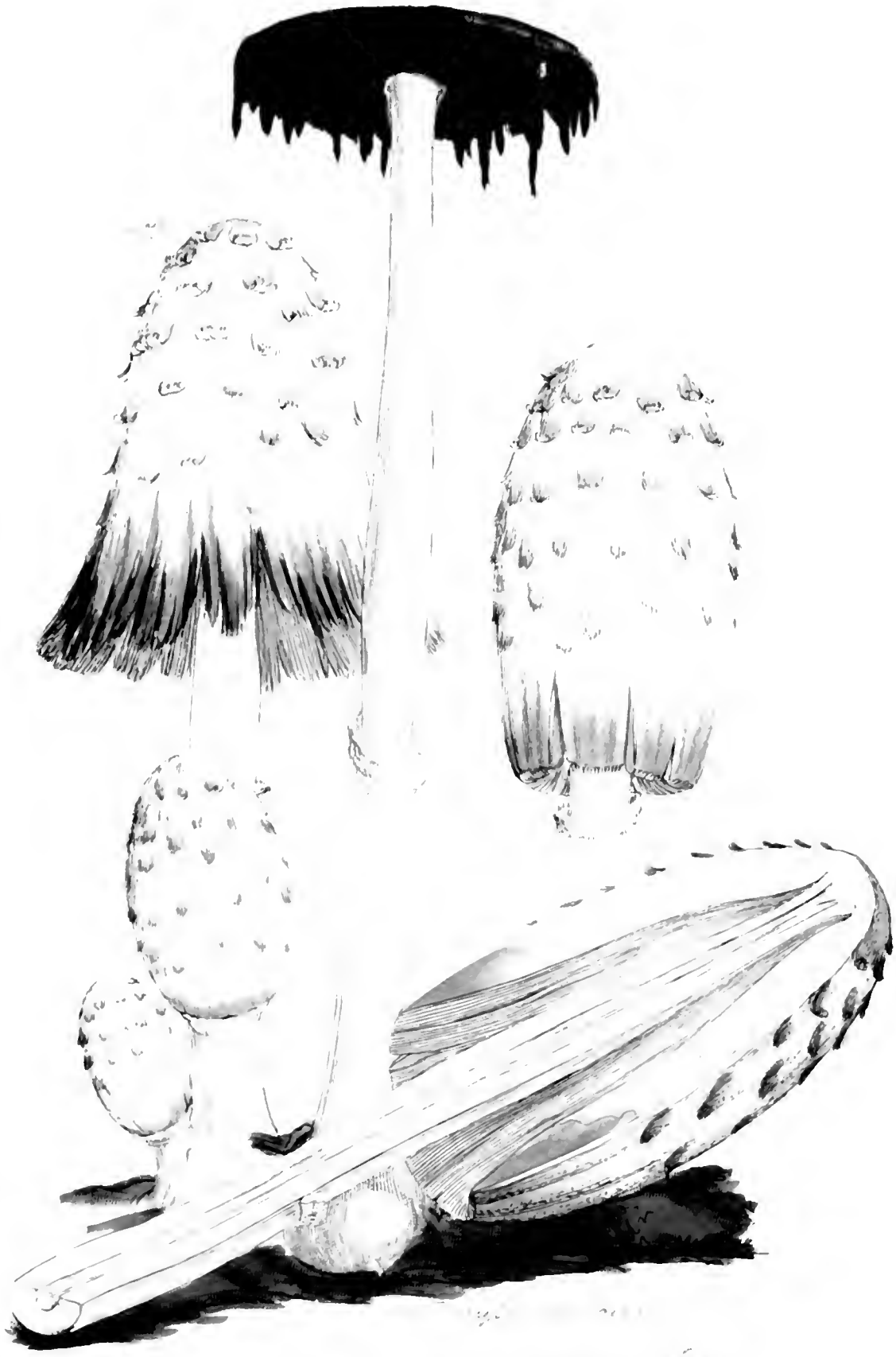




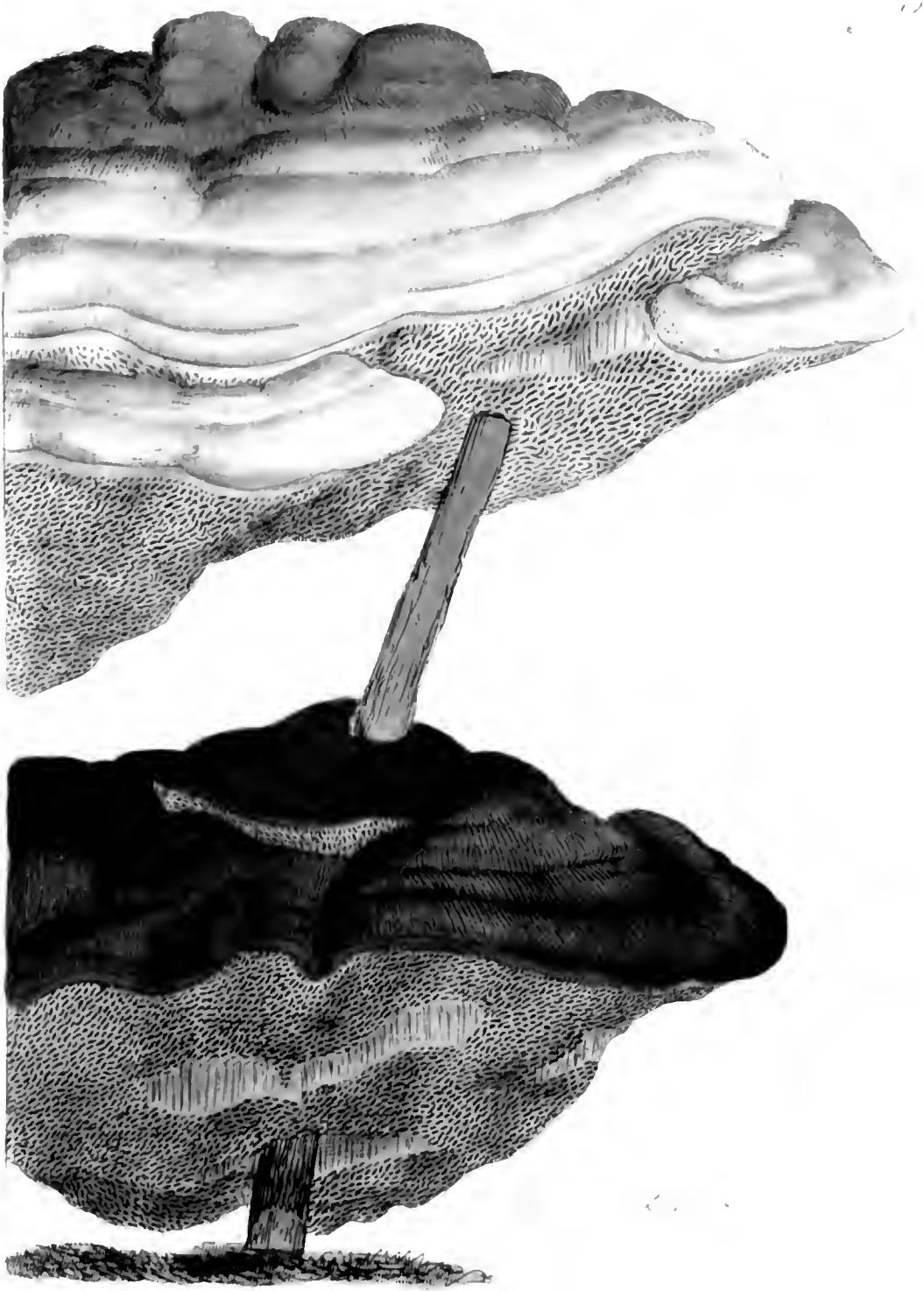


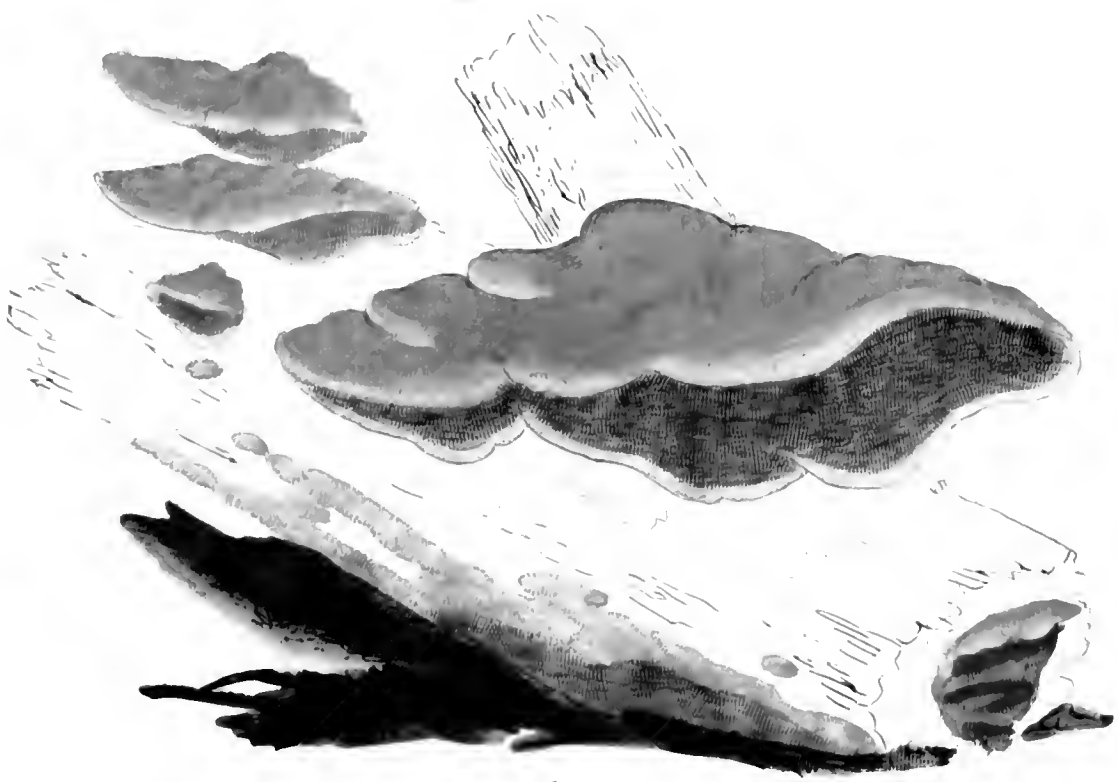


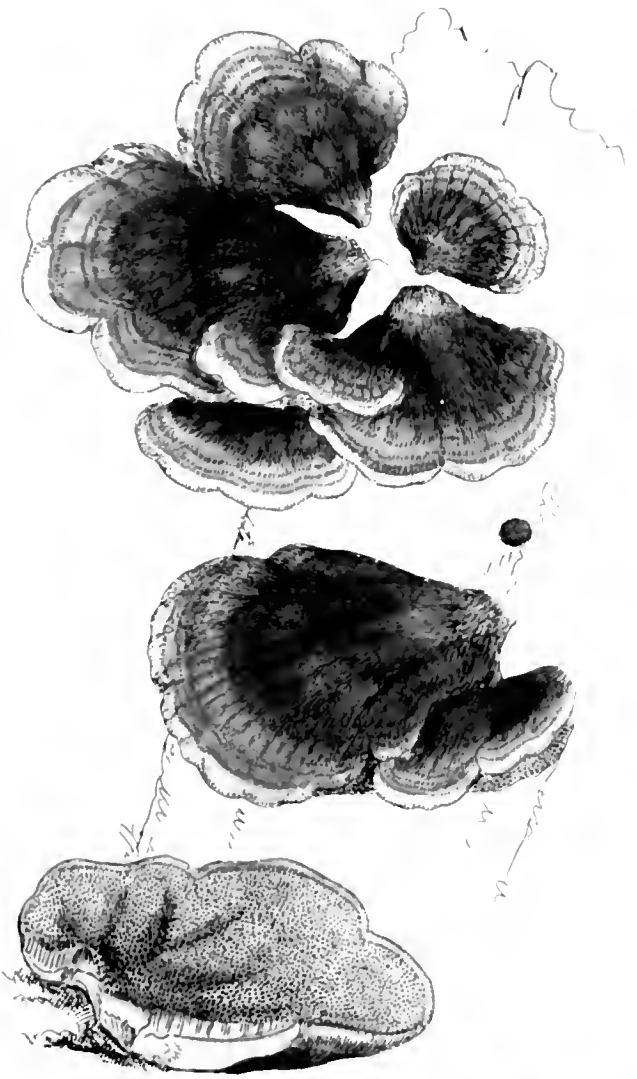




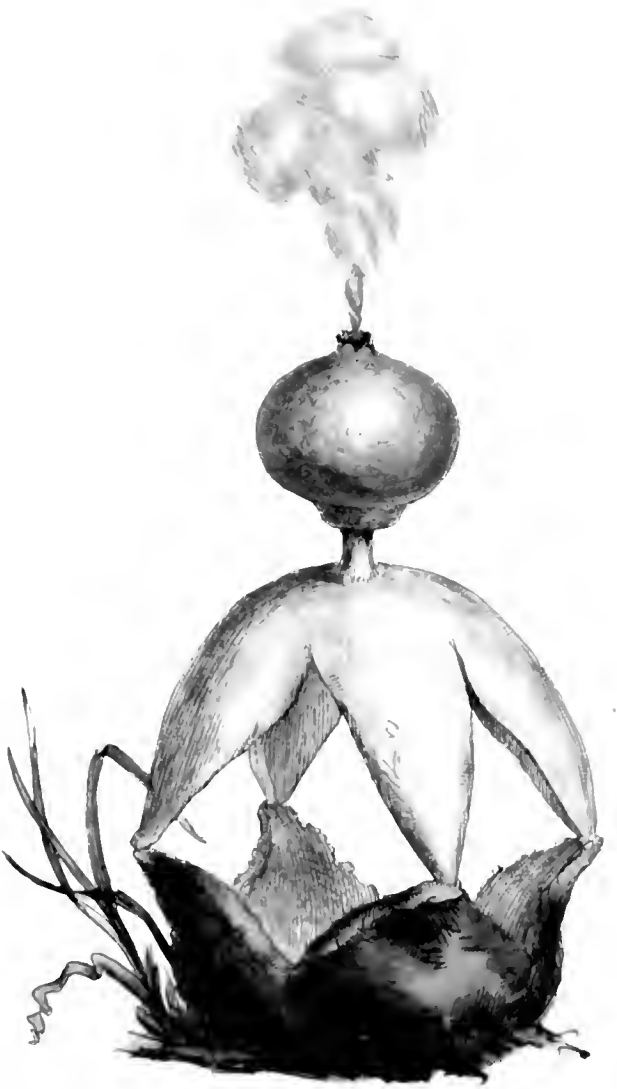
Testudo unguiculata Bell Jun.

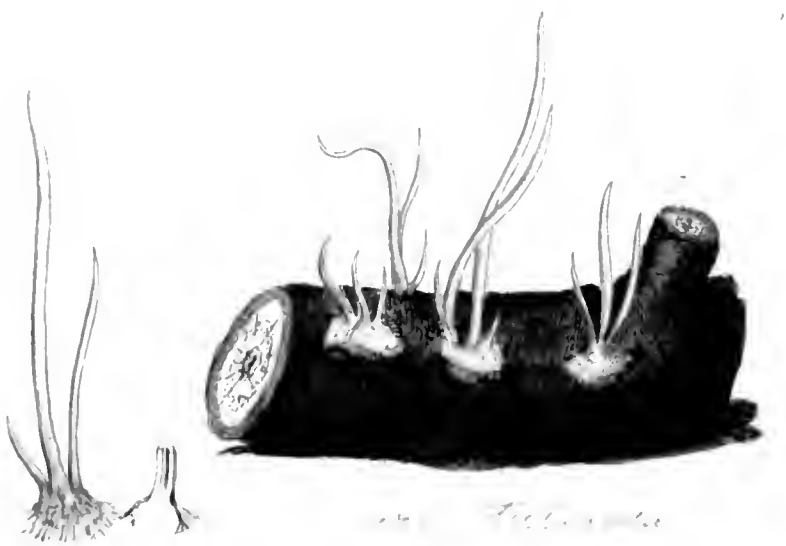


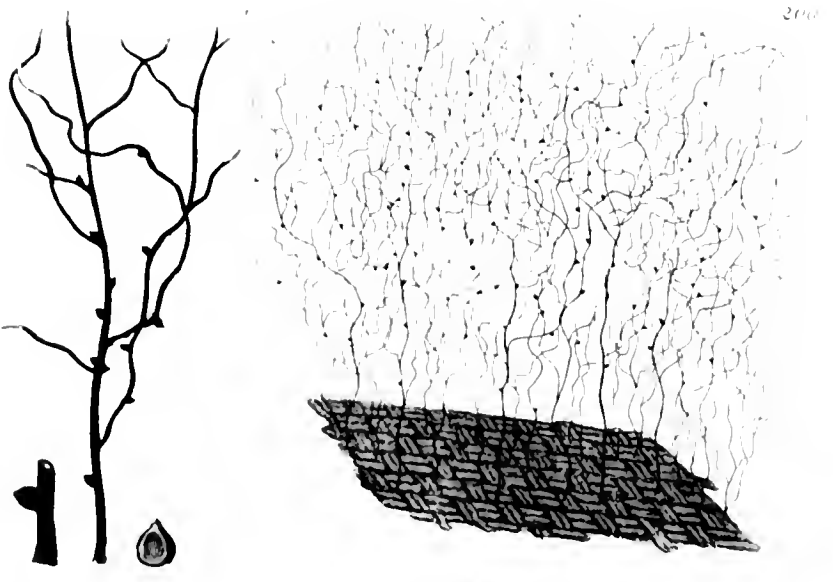


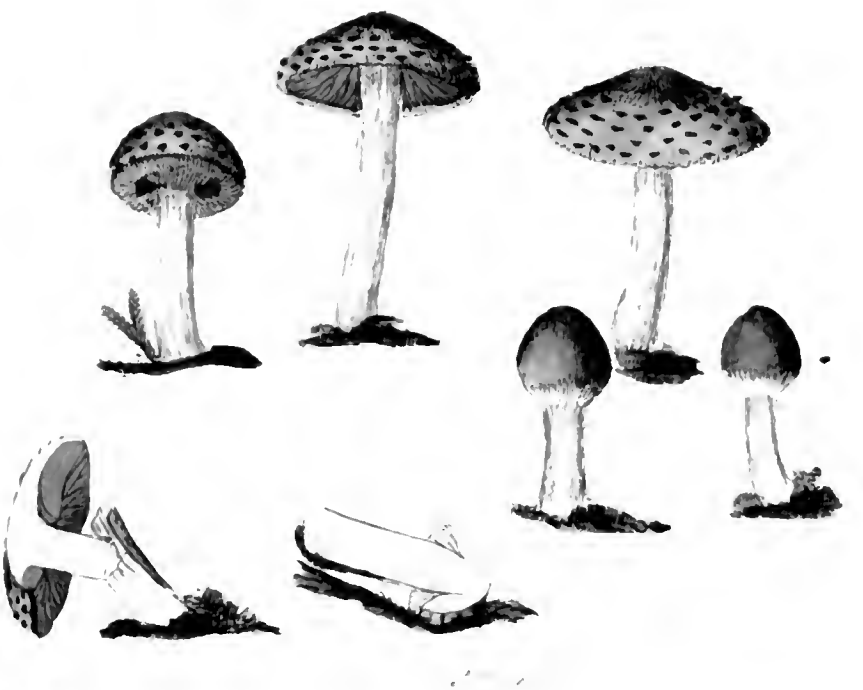


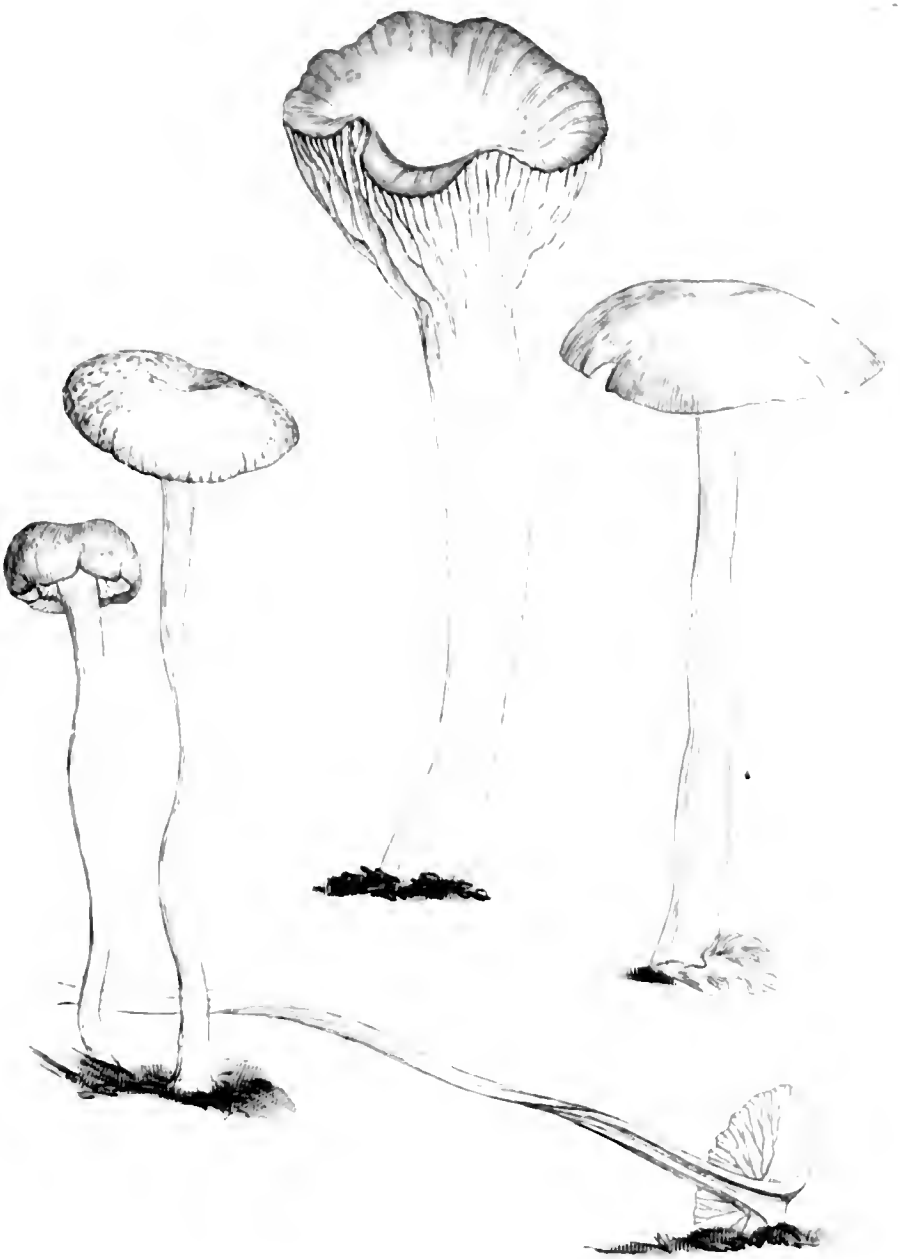
Polyporus radiatus Fr. = P. [illegible]

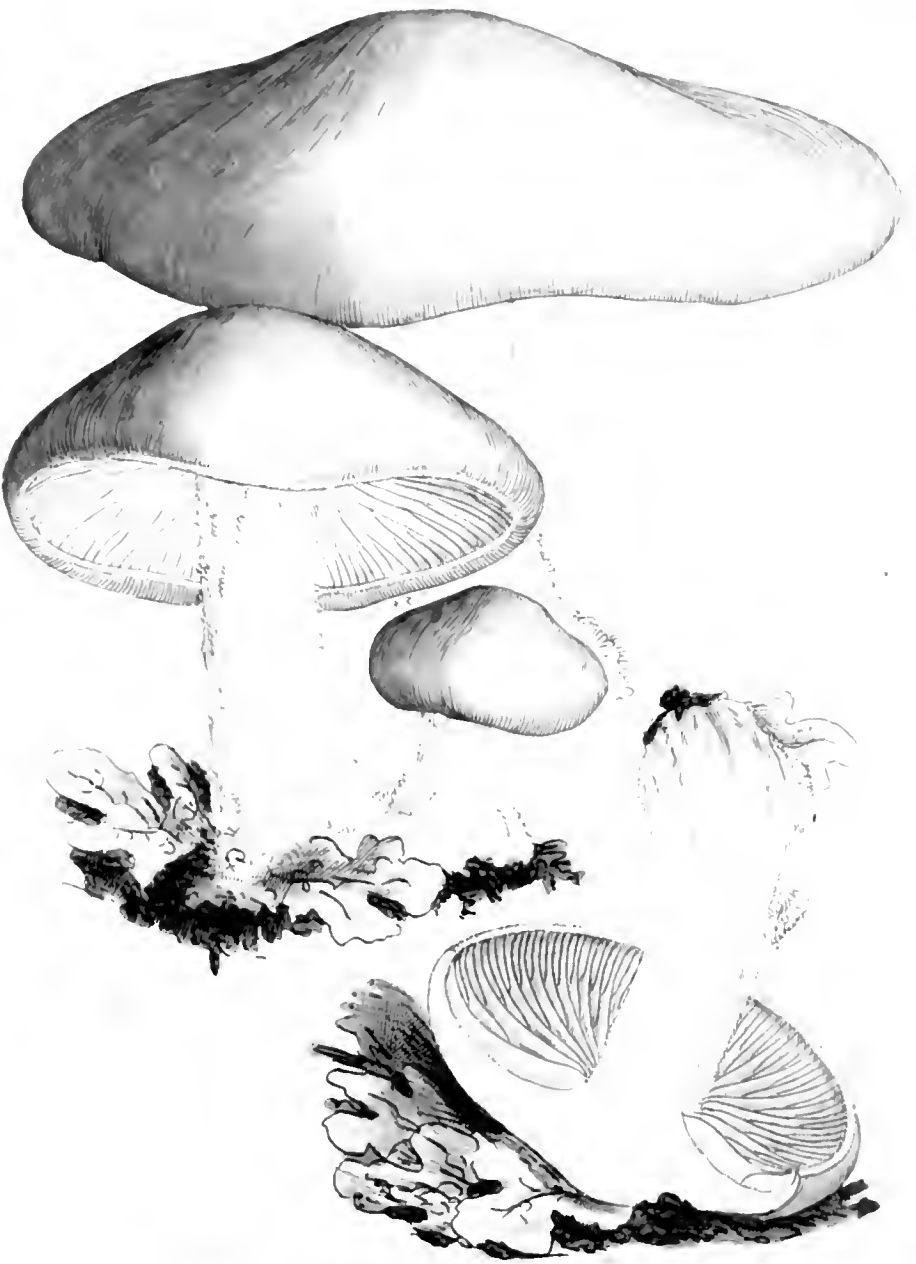


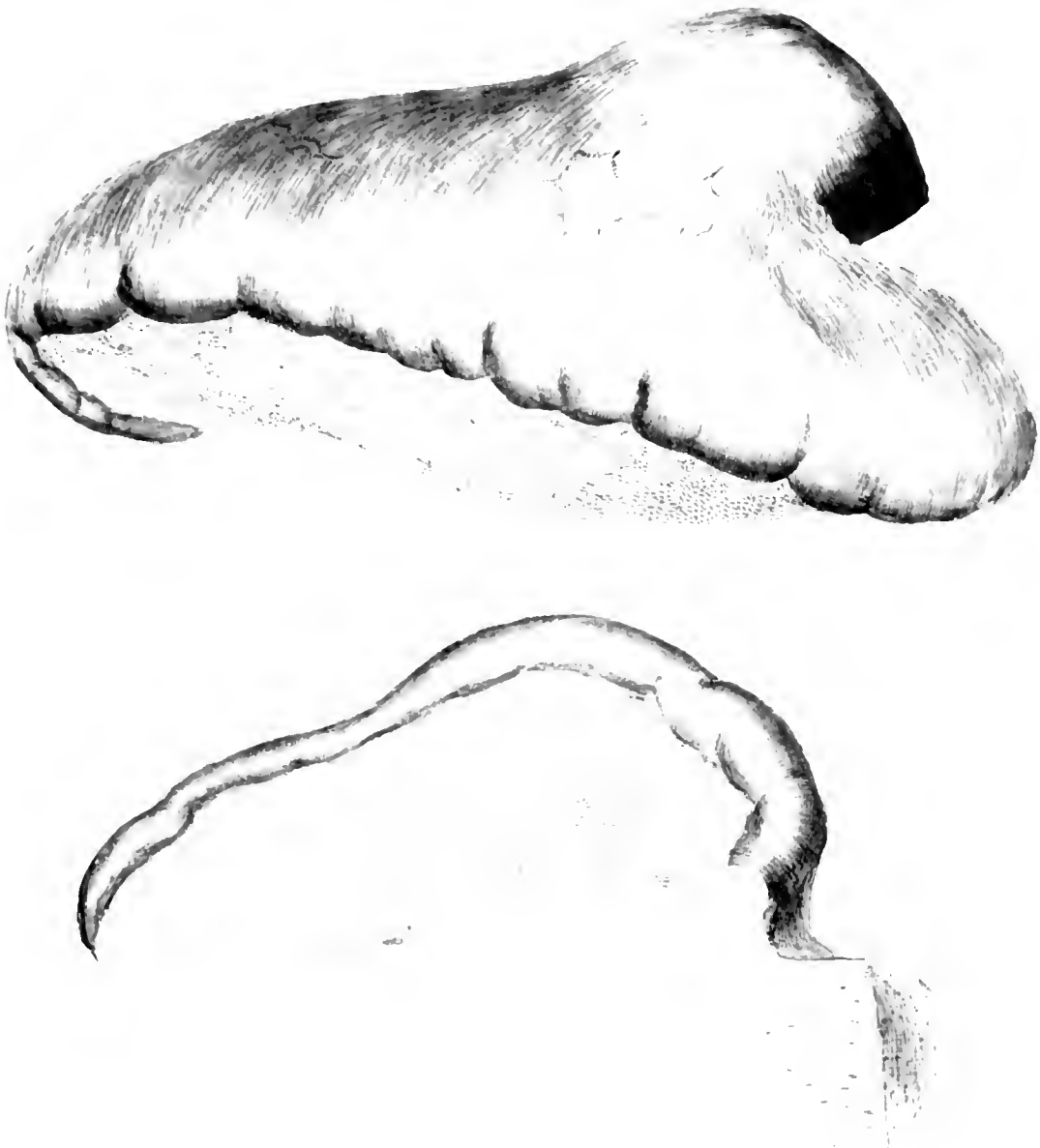


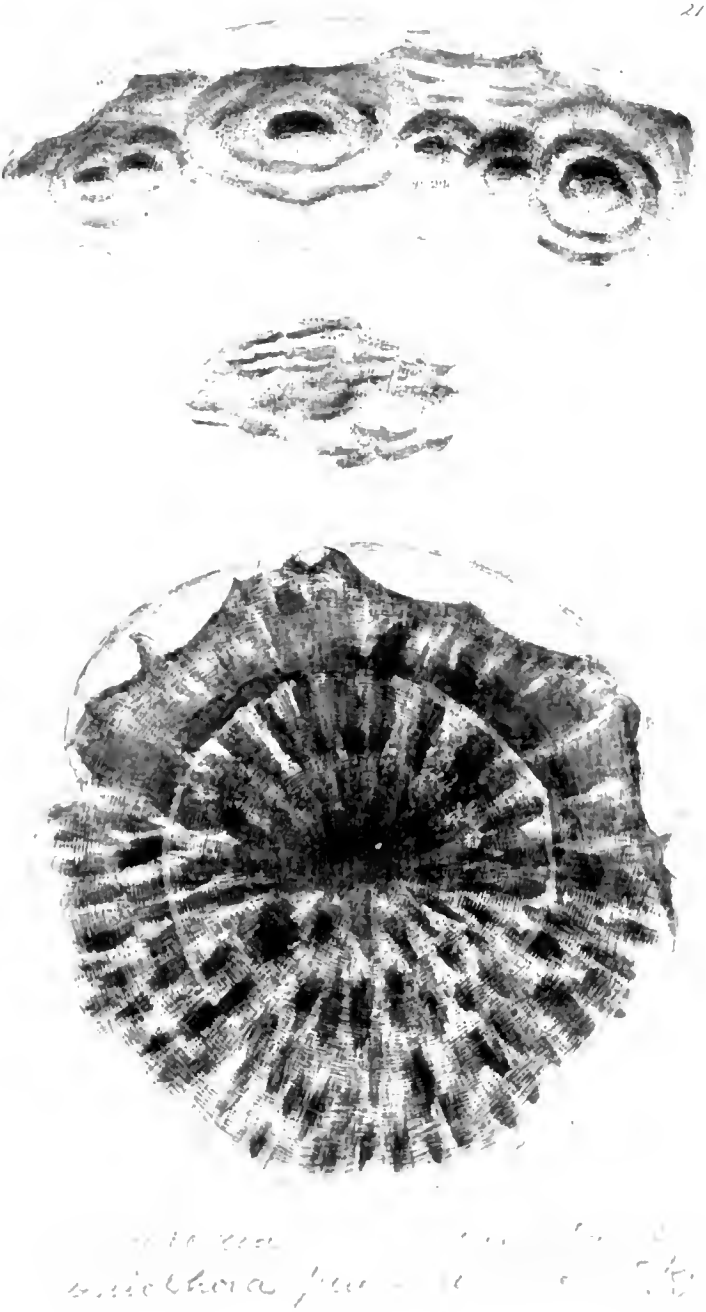


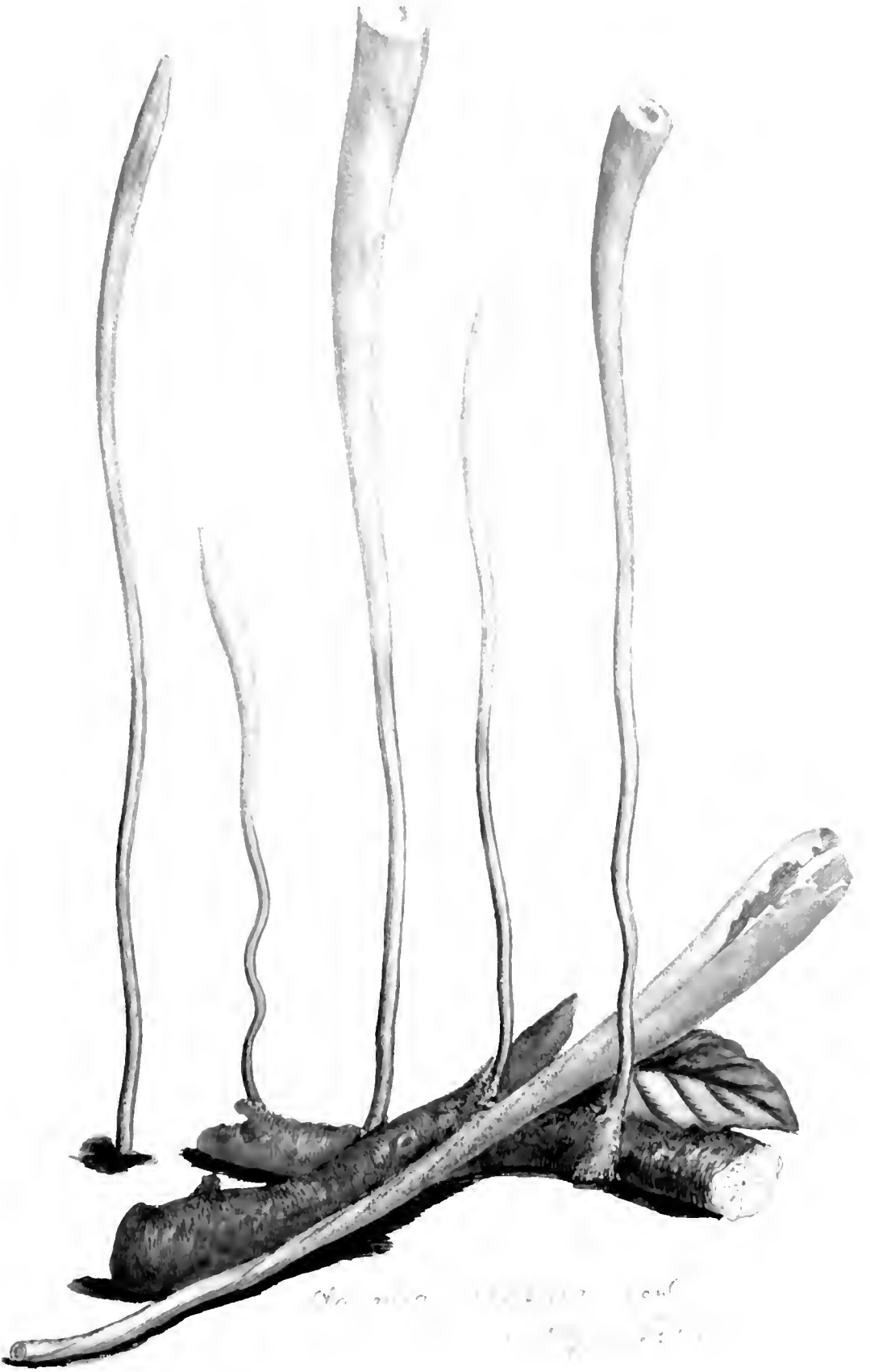


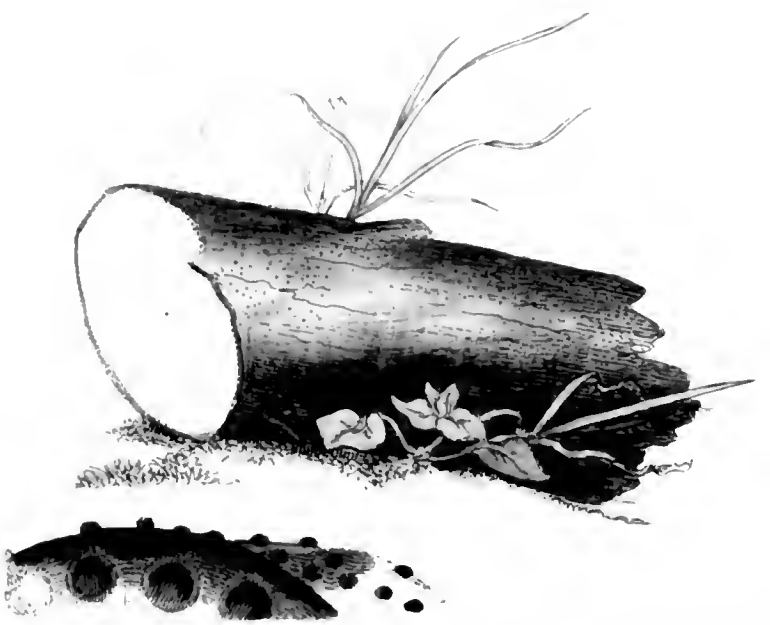


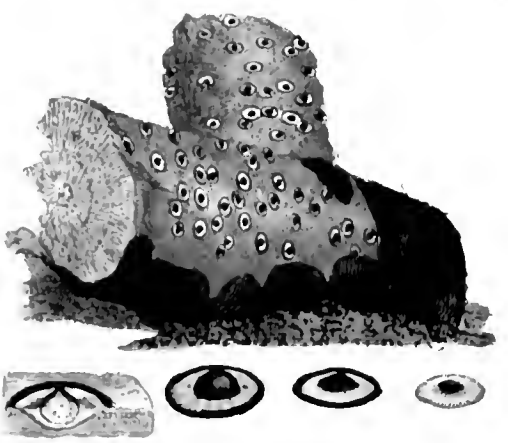


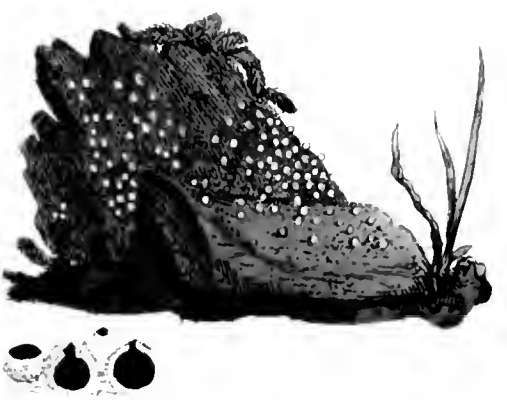


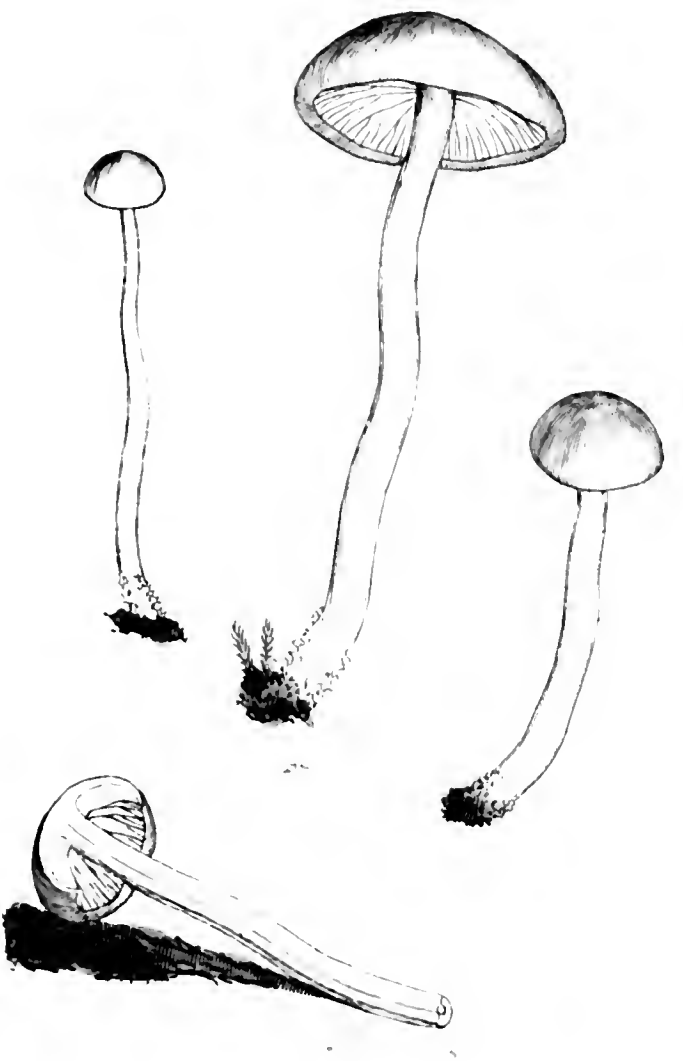




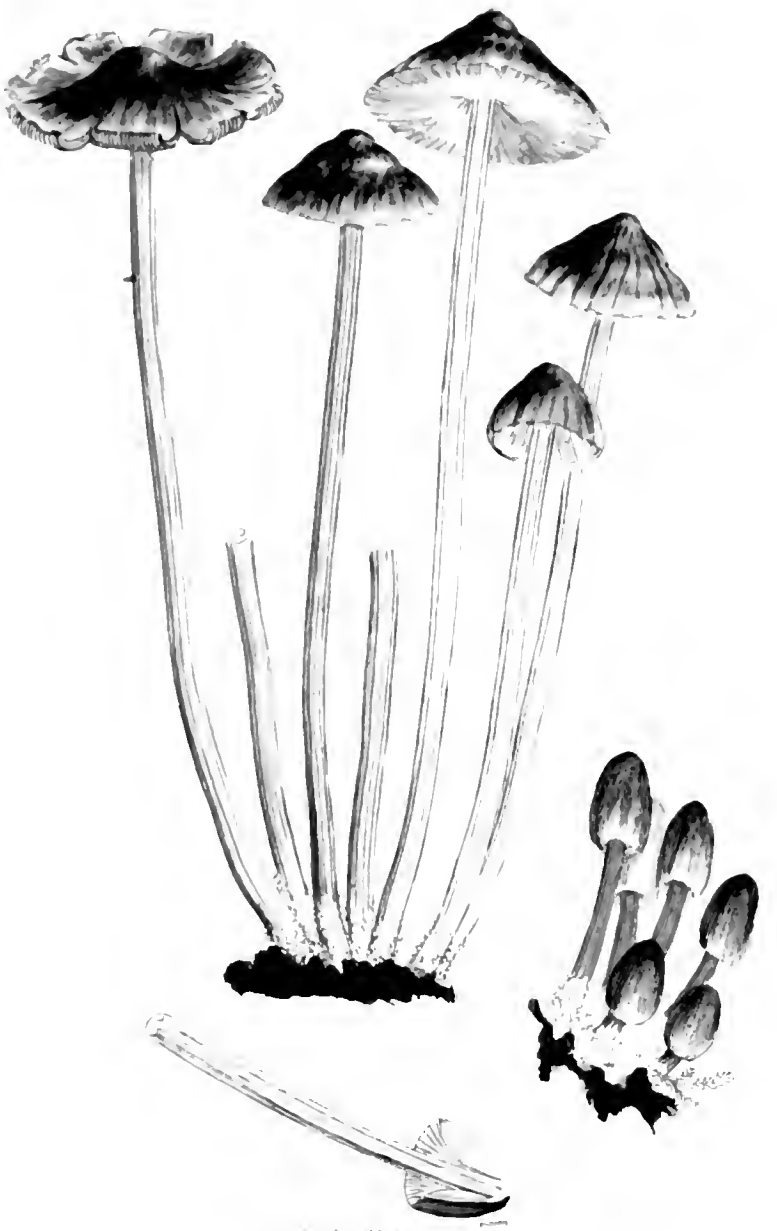


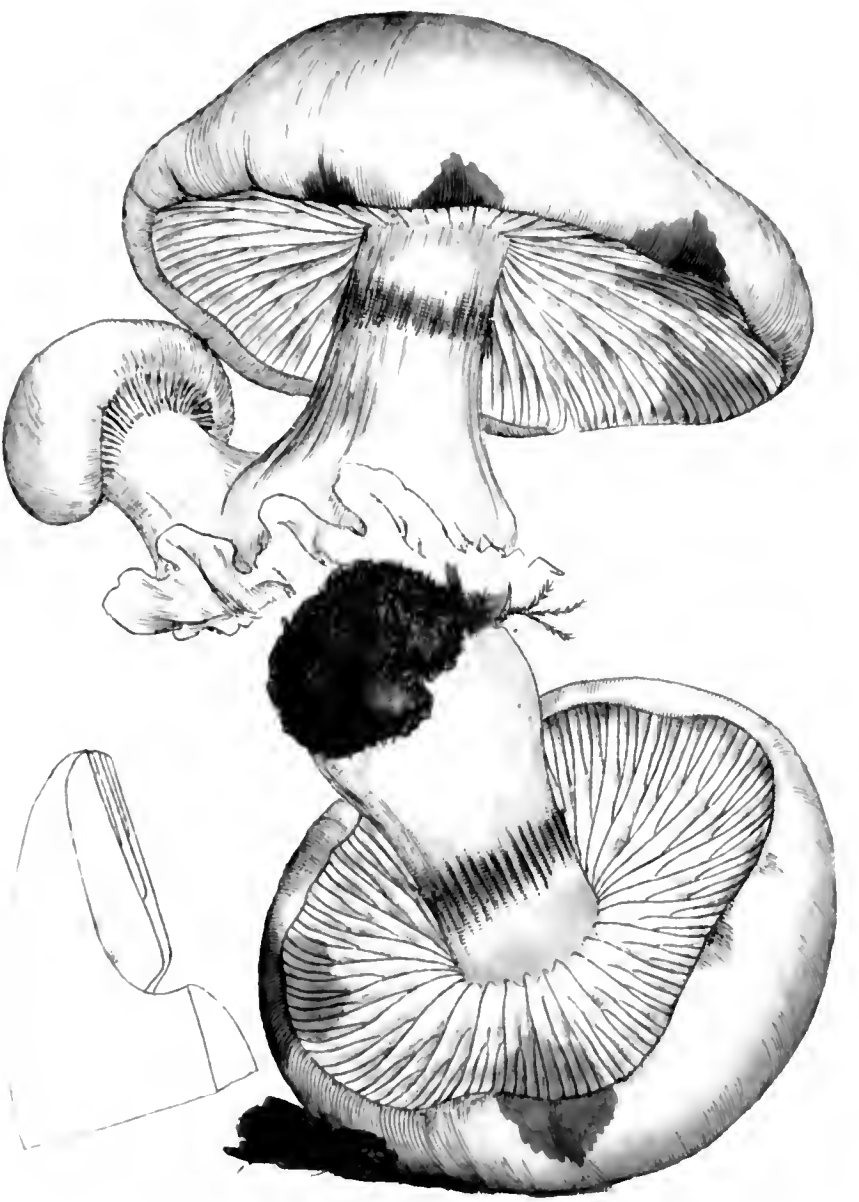


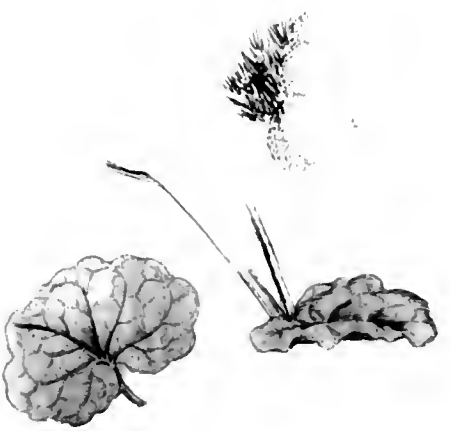


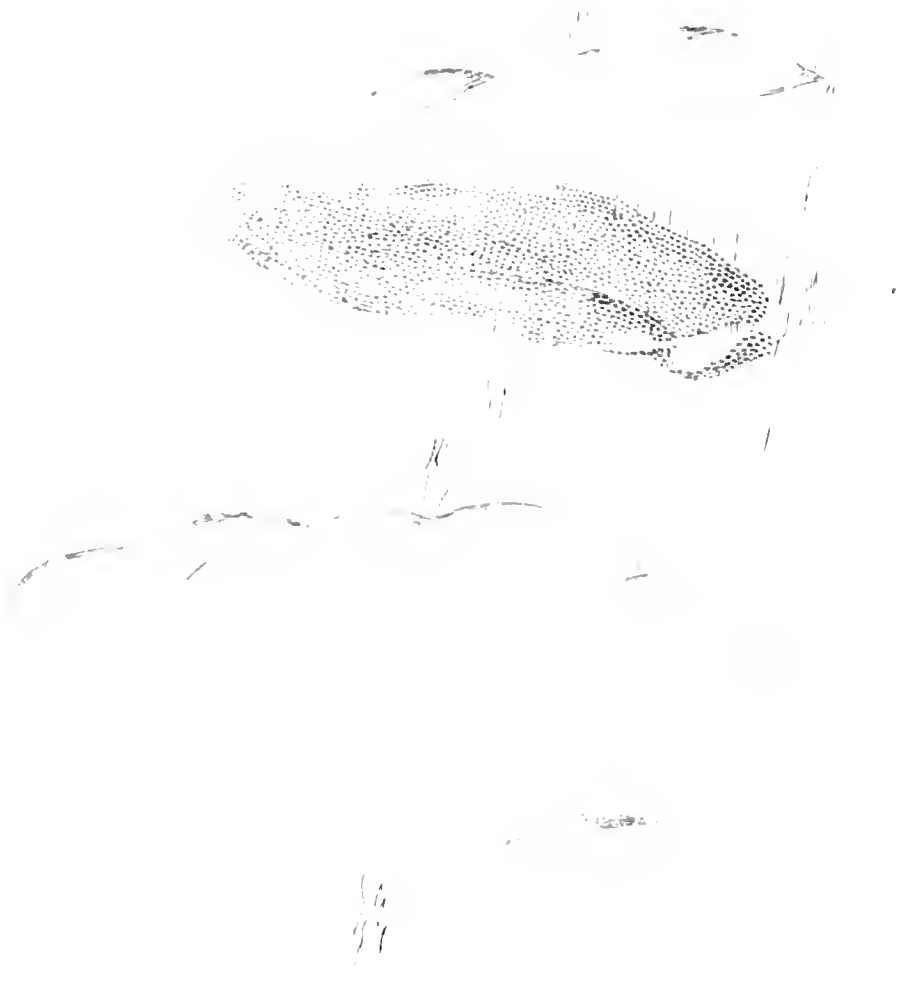


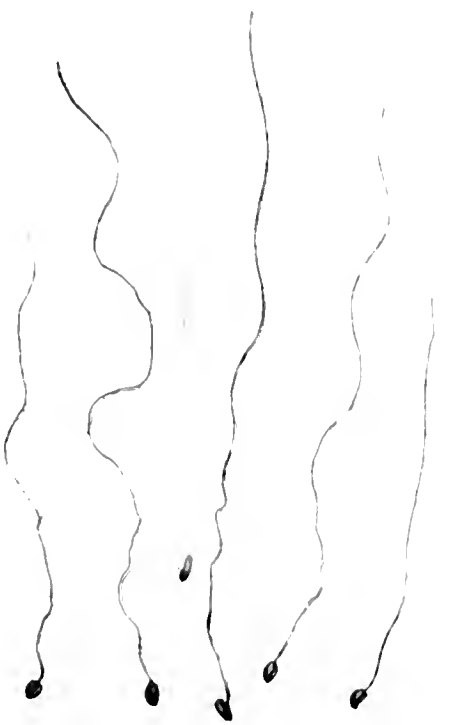
Ex vidi quae [illegible] Ex vidi Ad. Inoper[illegible]

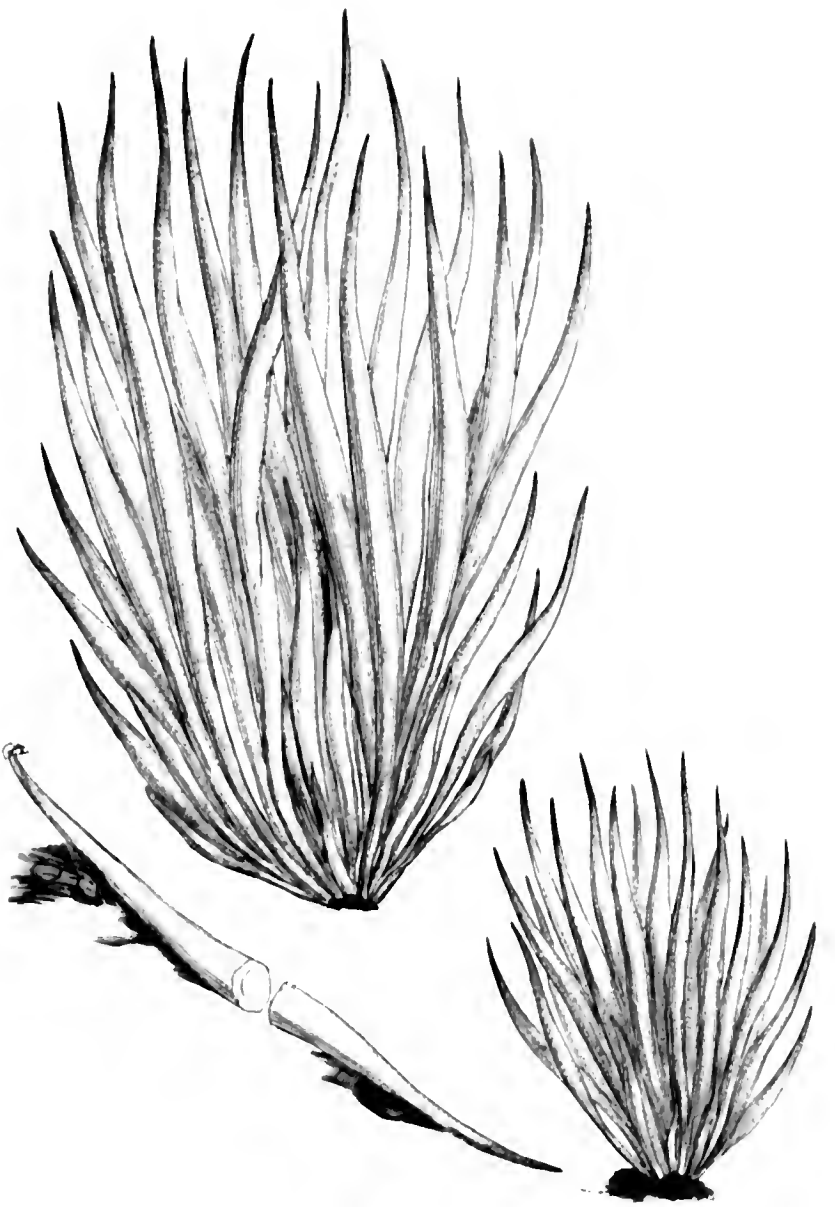


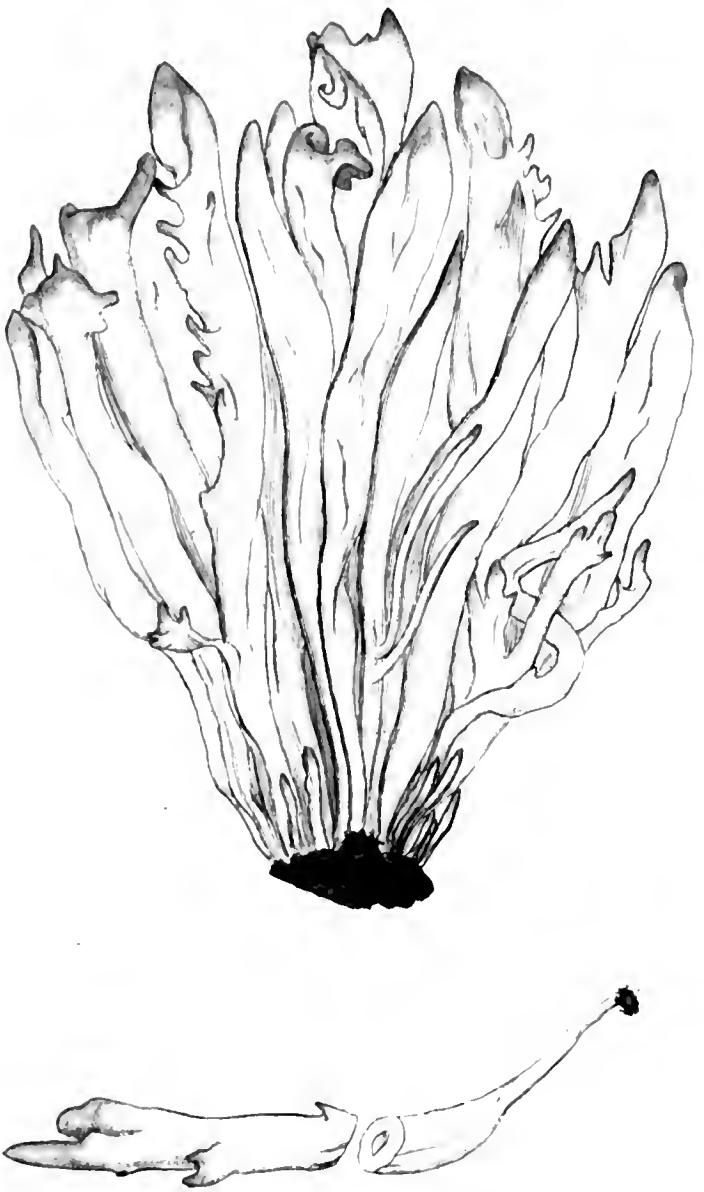


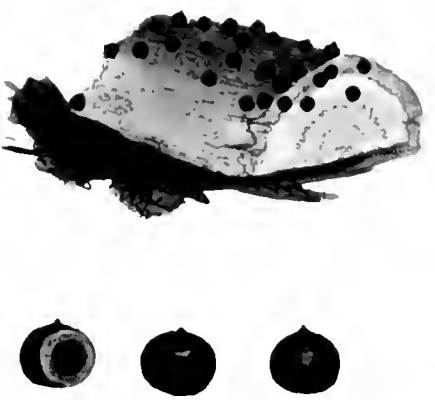


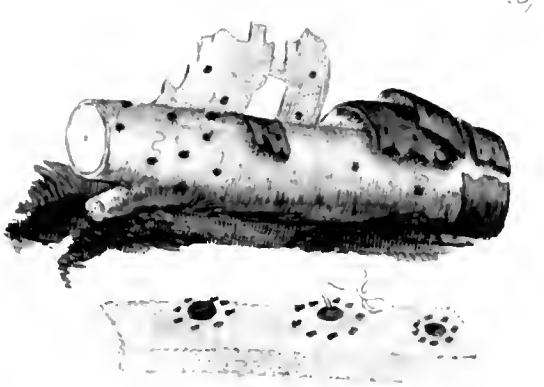


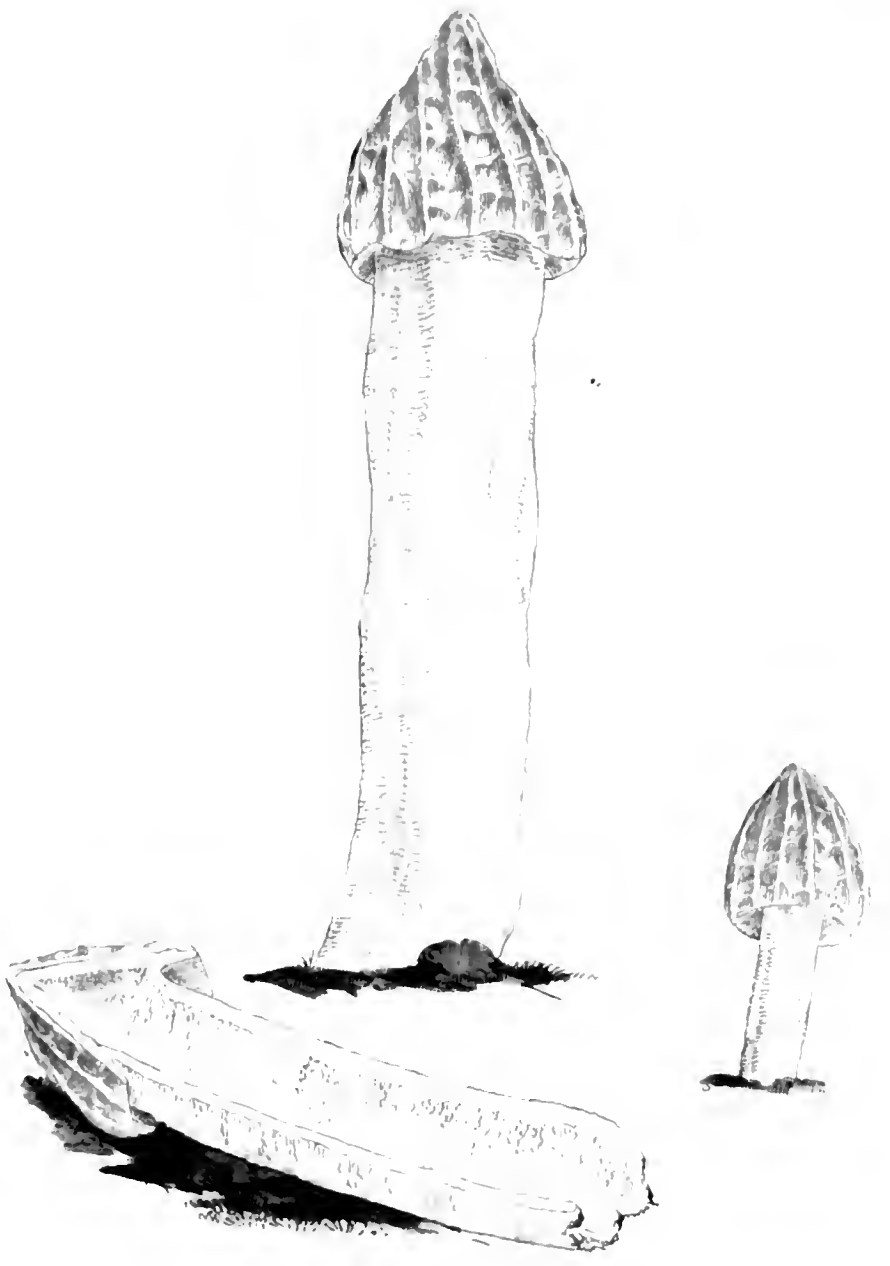


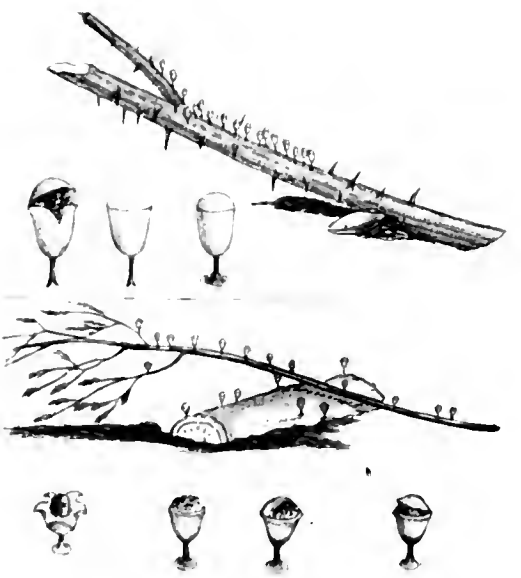


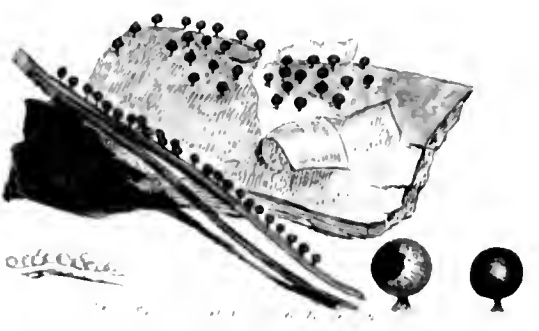












COLOURED FIGURES

OF

ENGLISH FUNGI

OR

MUSHROOMS,

BY

JAMES SOWERBY, F.L.S.

DESIGNER OF ENGLISH BOTANY, ETC.

. . . . " Was ev'ry falt'ring tongue of man,
Almighty Father! ſilent in thy praiſe,
Thy works themſelves would raiſe a general voice;
Even in the depth of ſolitary woods,
By human foot untrod, proclaim thy power."

VOL. III.——TAB. CCXLI.—CCCC.

LONDON:

PRINTED BY R. WILKS, CHANCERY-LANE;

And ſold by the Author, JAMES SOWERBY, No. 2, Mead Place, near the Aſylum;
Mr. WHITE, Fleet-Street; SYMONDS, Paternoſter-Row; and by all
Bookſellers, &c. in Town and Country.

MDCCCIII.

TAB. CCXLI.

AGARICUS OSTREATUS. *Curt. Lond. faſc.* 3. *t.* 71. *With. ed.* 3. *v.* 4. 300.

MOST common on decaying willows, varying much in colour, and not a little in form, according to the part of the tree or ſtump on which it grows. It is either ſtemleſs, or with a lateral ſtipes; or perhaps a central one. A variety generally of a light brown colour, with very decurrent lamellæ, anaſtomoſing and ſomewhat reticulated, found on elms, ſeems to be the A. *conchatus* Bull. 298. In October laſt I gathered an Agaric with an annulus much reſembling this ſpecies, upon the trunk of an elm.

TAB. CCXLII.

AGARICUS TREMULUS. *Schæff. t.* 224.

SENT me by the Rev. Mr. Abbot of Bedford; it was paraſitical on the Auricularia caryophyllea of this Work, *t.* 213. I have not ſeen ſpecimens ſo far advanced as ſome that Schæffer figures.

TAB. CCXLIII.

AGARICUS CORTICALIS. *Bull. t.* 519. *fig.* 1.

ON ſtumps of trees in damp weather, and may be miſtaken for A. *horizontalis*, as it varies like that in colour.

TAB. CCXLIV.

AGARICUS GIGANTEUS. *Sibth. Oxon.* 420.

IF this be Dr. Sibthorp's plant, it will appear he was the firſt to notice it as a Britiſh ſpecies, to which it certainly has a claim. The general magnitude of the head on a ſhort thick ſtipes, and the profuſion in which it occurs, will readily diſtinguiſh it. I once found it in Richmond Park, where there were ſome ſpecimens more than nine inches in diameter. The upper part of the ſtipes is ſomewhat tomentoſe.

TAB. CCXLV.

AGARICUS LISTERI. *With. ed.* 3. *v.* 4. 158.

I BELIEVE this no other than a plant of *Agaricus Liſteri*, and think myſelf wrong in making *tab.* 104 Liſter's plant, which is ſurely another ſpecies. A. *lactifluus acris*, Bull. 200; A. *acris* 538, except H and G; A. *plumbeus*, *tab.* 282; and A. *plumbi*, *tab.* 559, *fig.* 2, are moſt likely the true *Liſteri*. I have found it in great quantities without branched gills, from a parchment white, to almoſt black *, reſembling A. *elephantinus*, from which it is readily diſtinguiſhed by the cloſeneſs of its lamellæ: my *tab.* 104 † has conſtantly branched and inoſculating lamellæ; and I never found it blacken in decay.

* In this ſtate it is the A. *plumbeus* Bull. as above; A. *plumbeus* of Dr. Withering is undoubtedly a variety of A. *muſcarius* Linn.

† A. *piperatus* of moſt Engliſh authors muſt have another name, ſuppoſing Dr. Withering right in his idea of A. *piperatus*.

TAB. CCXLVI.

AGARICUS CARNOSUS. *Curt. Lond. faſc.* 5. *t.* 71.

NOT very rare, but ſometimes ſo varying from the common character as not readily to be diſtinguiſhed, though certainly a diſtinct ſpecies, and by no means related to A. *clypeolarius*, as Dr. Withering ſeems to intimate. I have found it in Lord Mansfield's woods, Hampſtead, in woods in Norfolk, on Mouſhold heath near Norwich, and other places.

TAB. CCXLVII.

AGARICUS PRATENSIS. *Huds.* 616.
——— OREADES. *With. ed.* 3. *v.* 4. 221.

CHAMPIGNONS are well known to be uſed in ſauces and made diſhes in many parts of England, as well as on the Continent. Bulliard diſtinguiſhes two ſorts, which appear to me to be varieties, depending on ſoil or other circumſtances. They grow in meadows, heaths, road-ſides, banks, &c. in moſt ſeaſons, after rain plentifully; always tending to form circles or fairy-rings as they are called. The different ſpecimens vary a little in colour from a light to a deep buff. The pileus is ſomewhat convex; the lamellæ not numerous; the ſtipes ſeldom quite ſmooth; the whole plant inclining to a leathery texture. This ſpecies is ſometimes called the Scotch bonnet. See *Raii Syn. p.* 6. *n.* 27. It frequently has an agreeable odour like almond kernels.

TAB. CCXLVIII.

AGARICUS SEMIGLOBATUS. *With.* 3. *ed. v.* 4. 270.
——— GLUTINOSUS. *Curt. Lond. faſc.* 3. *t.* 69.

COMMON almoſt every-where. It is moſt generally of a hemiſphærical form, yet, like other fungi, occaſionally varies, and perhaps may furniſh a new

argument, that thoſe gathered in wet places or bad weather are unwholeſome. The varieties 1, 2 and 3, with the pileus acuminated, are moſt certainly of this deſcription, and nearly proved fatal to a poor family in Piccadilly, London, who were ſo indiſcreet as to ſtew a quantity (found in St. James's Green Park) for breakfaſt. See Mr. Everand Brande's account in Dr. Bradley's Medical and Phyſical Journal of this month, p. 41. Mr. Curtis did not conceive it had any bad qualities, and called it A. *glutinoſus*, becauſe it is frequently covered with a glutinous matter.

TAB. CCXLIX.

AGARICUS PILIPES.

THIS Agaric grew on a whitiſh variety of A. *plumbeus* or A. *Liſteri* mentioned *tab.* 245. It came to me in a phial of Hungary water, and ſeemed all of one colour, which it ſtill retains.

TAB. CCL.

BOLETUS RUBEOLARIUS. *Bull.* 100 and 490. *fig.* 1. *With. ed.* 3. *v.* 4. 315.

——— LURIDUS. *Schæff.* 117.

NOT very rare. I have found it at Hornſey-wood, and at Hainault foreſt, Eſſex. My friend, the Rev. Mr. Charles Abbot, ſent me a ſpecimen from Bedfordſhire. The fine carmine, cinnabar, or vermillion-coloured powder or ſeed, is often ſo copiouſly ſhed as to ſtain every thing that touches it, and is ſo thick under the pores as almoſt to obſcure them.

TAB. CCLI.

PEZIZA MURALIS.

THE larger ones herein figured were ſent by favour of the Rev. Mr. Alderſon, from ſome clay walls in his garden at Hevingham, Norfolk. The ſmaller grew on ſome pipe-clay intended for modelling at my own home, Mead Place. They differ much in ſize, but agree ſo well in ſhape and ſubſtance that I conſider them as the ſame ſpecies.

TAB. CCLII.

HYDNUM CORALLOIDES. *Schæff.* 142. *With. ed.* 3. *v.* 4. 334.

——— RAMOSUM. *Bull. t.* 390.

THIS curious production was ſent me in September laſt by the Rev. Mr. Forby, who found it on a wood-ſtack on his premiſes at Wereham, Norfolk: the figure repreſents it in profile. The ſpecimen is more than eight inches wide, very white, and tough, in compariſon to *Hydnum repandum.*

It appears by a manuſcript note that the late Rev. Mr. Lightfoot met with a ſpecimen of this *Hydnum* in a hollow tree near Uxbridge in 1782.

TAB. CCLIII.

CLAVARIA VERMICULATA. *Lightf.* 1057.

——— PISTILLARIS. *Hudſ.* 638.

THESE ſportive plants are apt to create difficulties; and there ſeems ſome neceſſity of attending to the ſubſtance. This, when freſh, is very brittle. C. *herculeana*, which I have lately received from Windſor-foreſt, is very pithy, and moſt certainly a diſtinct plant, which I hope to make very clear when I figure it.

TAB. CCLIV.

SPHÆRIA SANGUINEA. *With. ed.* 3. *v.* 4. 390.

BY the brightneſs of the colour this ſmall plant may be known, with a little experience, at firſt ſight. On a nearer inſpection, the generally contracted apex will diſtinguiſh it. I have found it growing on oak, elder and other ſtumps, and ſometimes prettily relieved by a ground of the *Sphæria decorticans*.

TAB. CCLV.

SPHÆRIA MORI. *With. ed.* 3. *v.* 4. 391.

GROWS generally in cluſters, the ſpecimens commonly ſo preſſed together at their baſe as to make that part the ſmalleſt; and the apex is more or leſs indented, very viſibly ſo in dried plants.

TAB. CCLVI.

SPHÆRIA FRAGIFORMIS. *With. ed.* 3. *v.* 4. 391.

FOUND in great abundance on ſticks, ſtumps, &c. in every damp hedge, field, or other place out of doors, in numerous cluſters. Each individual is granulated, ſomething like a ſtrawberry; whence the name.

TAB. CCLVII.

LYCOPERDON FULIGINOSUM.

ON the ſides of floating deals in the Thames, at Batterſea, we may frequently find this ſooty production. It appears to conſiſt of branching threads affixed to the deal, and holding a denſe maſs of ſooty powder. Over the whole is a thin deciduous pellicle.

TAB. CCLVIII.

SPHÆROCARPUS SESSILIS. *Bull.* 417. *fig.* 5.

I HAVE met with this in Kenſington-gardens; it differs from *Trichia turbinata* in having a dark and more fragile outſide.

TAB. CCLIX.

TRICHIA ALBA. *With. ed.* 3. *v.* 4. 398.

ROTTEN ſticks and ſtumps in very wet ſituations commonly afford this plant, growing in different directions. In the latter ſtate, when the white ſkinny powdery deciduous covering (which may poſſibly be the polleniferous part) is diſſolved, the inner entangled fibres, containing the ſeeds, are diſcloſed, forming a dark-brown head, occaſionally having ſome of the ſkinny coat left at the bottom, which makes it accord with *Clathrus recutitus* Linn. Is it not in this latter ſtate *C. ater* of Hudſon, and *Mucor cancellatus* of Batſch?

TAB. CCLX.

TRICHIA NUTANS. *Bull. t.* 502. *fig.* 3. *With. ed.* 3. *v.* 4. 398.

THE diſtinction of this ſpecies reſts ſolely perhaps on colour. I have found *Trichia denudata* approaching the buff colour by degrees, even to half an individual plant, at the ſame time more than uſually lengthened and reclining. The plant here figured grew under a balcony in great perfection, and ſo full of fine powder, or ſeed, as almoſt to conceal the form of each individual, eſpecially in the advanced ſpecimens.

TAB. CCLXI.

AGARICUS CONGREGATUS. *With. ed.* 3. 280.

A VERY common Agaric about ſtumps and gate-poſts, nearly allied to A. *fimetarius*, *tab.* 188 of this work, and differing chiefly in the longitudinal ſtriæ on the pileus, as well as in being generally of a fox colour. When darker it has been named A. *micaceus*, as being of a ſlate colour. Dr. Withering quotes Schæffer's *tab.* 17, A. *fuſcefcens*, which is certainly no other than A. *fimetarius* above mentioned.

TAB. CCLXII.

AGARICUS STERCORARIUS. *Bulliard.* 542 and 68. *With. ed.* 3. 274. *Scopoli, No.* 1483.

THIS is alſo very common on dunghills, &c. and aſſumes ſo great a variety of forms as to appear more than one ſpecies. It is more or leſs cottony in the young ſtate, ſo that Bull. (*tab.* 138) calls it A. *tomentoſus*. Dr. Withering has accidentally quoted this *tab.* of Bull. for A. *congregatus*. The ſtipes is extremely brittle, and the whole plant tender and very ſhort-lived, ſeldom continuing more than twelve hours. Is it not the A. *momentaneus* of With. 294?

TAB. CCLXIII.

AGARICUS VELUTIPES. *Curt. F.L. faſc.* 4. *t.* 70.
——— NIGRIPES. *Bull.* 509 and 344.

THE velvety ſtipes of this fungus affords an excellent ſpecific diſtinction, however variable the plant. The preſent figure is a variety that grew in a wood-ſhed at Mr. Nottidge's, Ruſſel-ſtreet, Bermondſey, which Lady Wilſon was ſo good as to inform me of. The paleneſs of the pileus, and extraordinary length of

the ſtipes, were plainly the effects of the ſituation; but a more curious circumſtance is, that the confined place of growth ſeemed to prevent the pollen or white duſt from ſpreading, ſo that it lay on the upper half of the ſtipes like white-waſh; which gave the plant quite a new aſpect. I went to Kenſington Gardens the ſame day, and found ſpecimens of almoſt all the various appearances growing about one old ſtump. Thoſe ſituated underneath the others moſt nearly reſembled theſe. I have more than once found the ſtipes branching.

TAB. CCLXIV.

AGARICUS ÆRUGINOSUS. *Curt. F. L. faſc.* 5. *t.* 70. *With. ed.* 3. 259.

OFTEN very beautifully varied in its colours, but eaſily to be diſtinguiſhed by the general habit, except a faſciculated variety from which the upper ſpecimen in the plate was taken, and which is moſtly deſtitute of an annulus.

TAB. CCLXV.

BOLETUS LUTEUS. *Linn. Schæff.* 114.
———— ANNULARIUS. *Bull.* 332.

THIS is ſo variable a plant under different circumſtances, that its varieties might very eaſily be ſuppoſed to conſtitute different ſpecies. Certainly that here repreſented is the ſame with B. *flavus* of With. 320. It is ſometimes quite yellow all over, at others ſo full of fine brown powder and ſo covered with gluten, as to give it another appearance. The pores are ſometimes decurrent. The annulus is conſtantly preſent, and is often very large. I know no other Engliſh ſpecies with an annulus.

TAB. CCLXVI.

BOLETUS SQUAMOSUS. *With. ed.* 3. 323.

PERHAPS one of the moſt mutable of this tribe of plants, whence it is called B. *polymorphus* by Bulliard, *t.* 114. The moſt curious is the branched variety, figured in Phil. Tranſ. abr. *pl.* 20. *f.* 109. at p. 705. and in Bolton, by the name of B. *rangiferinus*, *tab.* 138. Theſe both grew in cellars: mine was taken from the bark of a tree at Willoughby, Lincolnſhire, by Mr. Thomas Ordoyno. I have ſeen a fan-ſhaped variety growing in the Apothecaries Garden at Chelſea, full three feet wide.

TAB. CCLXVII.

HYDNUM AURISCALPIUM. *Linn. Sp. Pl.* 1648. *Hudſ.* 629.

FOUND moſt frequently on the rotting cones of *Pinus ſylveſtris*, or Scotch Fir; ſometimes on the Pine leaves. It can by no means be a variety of H. *imbricatum* Linn. as Dr. Withering, after Linnæus, hints. Not to mention the place of growth, ſize, and difference of ſtructure, the ſubſtance is very different.

TAB. CCLXVIII.

LYCOPERDON AURANTIACUM. *Bull.* 270. *With. ed.* 3. 379.

SOMETIMES found in cluſters, often ſingly; and in a young ſtate it looks ſomewhat like L. *cervinum*. N. B. The little circle No. 1. in the plate contains the powder or ſeeds mixed with gum arabic.

TAB. CCLXIX.

LYCOPERDON CERVINUM. *Hudſ.* 641.

THIS muſt not be confounded with the L. *cervinum* of Bolton, which is only a young ſpecimen of the ſpecies in the laſt plate. This may be readily diſtinguiſhed by the granular covering and brittle texture. The former is of a tough and ſomewhat leathery ſubſtance, with a ſcaly outſide, and grows moſtly above ground. This ſcarce ſhows its upper part above ground. They both break irregularly, and have very few fibres among the ſeed.

TAB. CCLXX.

LYCOPERDON GRANIFORMIS.

FIRST ſhown me in Lord Mansfield's wood, Hampſtead, by Mr. Hunter, who ſhowed me the laſt. It grows looſe, lying like ſmall ſhot above ground without any apparent root. From its firſt or ſmalleſt ſize it alters but little in colour. The riper ones are very brittle, and crack irregularly. They encloſe a black powder.

TAB. CCLXXI.

LYCOPERDON VARIOLOSUM. *Fl. Ang.*
SPHÆRIA LYCOPERDOIDES. *With. ed.* 3. 392.

FREQUENT on ſtumps and ſticks in damp woods, though not readily obſerved in the young or ſmall ſtate; but when nearly matured, it may moſt readily be diſtinguiſhed by the cruſtaceous covering of a brick-red on the outſide, and whiter within. This covering is ſomewhat brittle, when ripe cracking irregularly, and encloſing a blackiſh ſeed.

TAB. CCLXXII.

RETICULARIA LYCOPERDON. *Bull.* 446. *fig.* 4. *With. ed.* 3. 386.
LYCOPERDON FUSCUM. *Hudſ.* 645.

FOUND occaſionally on trees and paling after rain, chiefly in autumn. At firſt it has a mucilaginous appearance, ſomewhat frothy and whitiſh; afterwards the outward ſkin reſembles parchment with a ſilvery gloſs, but is very tender. At length, the leaſt breath of air will lacerate it, and a fine brown powder is expoſed to view, mixed with a few fibres. I doubt whether this be properly a *Reticularia*. If it be, ſo are L. *epidendrum*, and its variety L. *piſiforme* of Jacquin. The plants of this genus are mucilaginous in the beginning; they vary extremely withinſide, as may be ſeen in our R. *multicapſula*, *tab.* 179, and R. *alba*, *tab.* 280.

The repreſentation of the duſt in the lowermoſt figure is coloured with the powder of the plant itſelf.

TAB. CCLXXIII.

SPHÆRIA ACINIFORMIS.

I FOUND this curious compound Sphæria firſt on ſtones near the Lizard Point, in Cornwall, afterwards in the Valley of Stones near Linmouth, in the ſame county, in June 1799. The little ſphærulæ of the coat ſeem perfect, as well as the inner one compounded of them.

TAB. CCLXXIV.

SPHÆRIA SPICULIFERA.

THIS extraordinary production was found inveſting the ſtalks and blades of a large green tuft of graſs in Batterſea meadows, early laſt autumn. When freſh gathered, the little ſpiculæ are continually protruding themſelves with a ſort of ſpontaneous motion, looking in the ſunſhine like ſo many ſparks of fire. Future inquiries muſt determine whether it be a proper Sphæria or not.

TAB. CCLXXV.

SPHÆRIA NITIDA. *Dickſ. With. ed.* 3. 393.

THE ſmooth ſubſtance in which the little ſphærulæ are imbedded will moſt readily diſtinguiſh this ſpecies. It is ſeldom cracked or rugged, but in conſequence of very dry weather.

TAB. CCLXXVI.

CLAVARIA POLYMORPHA.

OFTEN to be ſeen on decaying elm leaves in Kenſington Gardens. The baſe is ſomewhat brown, and harder than the reſt of the plant, which is of a waxy texture, differing much in ſhape, and generally hollow.

TAB. CCLXXVII.

CLAVARIA HERCULANEA. *Bull.* 244. *With. ed.* 3. 362.

BROUGHT me from Windſor Foreſt, by Mr. Jenkins of Eton. It is certainly a very diſtinct ſpecies from thoſe joined with it by authors as varieties. The ſubſtance within is beautifully ſoft and cottony; the outſide, of a dull orange colour.

TAB. CCLXXVIII.

CLAVARIA CORALLOIDES. *Hudſ.* 640. *With. ed.* 3. 367.

A VERY common fungus. It is equally variable in form and colour, but moſtly white. The ſubſtance is brittle, denſe, nearly ſolid. The taſte is agreeable, reſembling that of the common Muſhroom, *Agaricus campeſtris*. Found in great plenty in the ſhrubbery at Wanſtead Houſe, Eſſex, by Mr. B. M. Forſter.

TAB. CCLXXIX.

SPHÆROCARPUS FRAGILIS.

HAVING adopted Bulliard's *Sphærocarpus ſeſſilis* in *tab.* 258, I beg leave to retain the genus for the preſent. This differs in being ſhaped like a pear, or ſomewhat ſtalked, and is alſo more fragile. It reſembles *Sphærocarpus ficoides* of Bull. *tab.* 417. *fig.* 3. but that figure is all black, both capſule and ſeeds, if I may ſo call them.

TAB. CCLXXX.

RETICULARIA ALBA. *Bull.* 236.

CERTAINLY allied when young to *tab.* 272, &c. but differing materially in the latter ſtate, having many very irregularly formed capſules, more or leſs ſtalked. This is *Spumaria Mucilago* of Perſoon's "Tentamen Diſpoſitionis methodicæ Fungorum," *tab.* 1. *fig.* a. b. c. The different individuals are of various ſizes, and grow on different plants, either freſh or decaying.

TAB. CCLXXXI.

AGARICUS GRAVEOLENS. *With. ed.* 3. *v.* 4. 181.
——— GRAMMOPODIUS. *Bull.* 548.

WE preſume this is the plant meant by Withering, and that it is not different from *A. grammopodius* of Bulliard as quoted by him, though he refers by miſtake to *t.* 585 of that author, inſtead of *t.* 548. The figures vary extremely. This plant is to be ſeen in many places. The preſent ſpecimens were ſent from near Newmarket, by favour of the Rev. Mr. Hemſted.

TAB. CCLXXXII.

AGARICUS ACICULA. *Schæff.* 222.

THIS pretty little agaric moſt frequently occurs on rotten ſtumps that are clothed with *Hypnums*, &c. It is ſomewhat local, but not rare. It ſeems hitherto to have eſcaped the notice of Engliſh authors, unleſs it be *Agaricus Hypni With. ed.* 3. We find the gills ſometimes fixed to the ſtipes, as he deſcribes them.

TAB. CCLXXXIII.

AGARICUS MONSTROSUS.

THE ſingularity of this fungus made me give it a figure, though I am not ſure it is a ſpecies. I found it in vaſt abundance on the left-hand ſide of the road leading to Coſteſy, about a mile and a half from Norwich, ten years ago.

TAB. CCLXXXIV.

AGARICUS FLOCCOSUS. *Curt. Fl. Lond. With. v.* 4. 266. *Schæff.* 61.

——— SQUAMOSUS. *Bull.* 266.

IT is plain Dr. Withering, as he himſelf ſays, never ſaw this plant in any perfection; for though Schæffer's figures are very good, yet Curtis's ſhows the moſt general appearance of the plant. Withering ſeems to have had a rough ſpecimen of *A. Stipitis* before him, with a bad one of *A. floccoſus*. The gills of this agaric are rounded from the ſtem, more or leſs brown; thoſe of *A. Stipitis* (E. Fungi *tab.* 101) generally adhere to the ſtem, or are fixed, (as Dr. Withering terms it) and are ſometimes a little decurrent. The baſe of the ſtem is occaſionally a little bulbous, hard, and blackiſh.

TAB. CCLXXXV.

AGARICUS FASCICULARIS. *With. vol.* 4. 268.

THIS plant, when in perfection, may be readily known by its green gills, in which conſiſts its moſt diſtinguiſhing character. It is very common on ſtumps of trees, bottoms of gate-poſts, &c.; and occaſionally varies ſo much as to loſe even the above character, as well as the pretty fox-coloured tint of the pileus; eſpecially in rainy weather, when the whole plant aſſumes a dulliſh brown. If not too much ſoaked, it may however regain its original tints, particularly that of the pileus. It is pleaſant to ſee the colour return again, either from the middle or the edge of the pileus. I have known an experienced botaniſt to bring this plant home in a moiſt ſtate, and ſcarcely know it again when dry. It is ſeldom deſtitute of its finely filamentous annulus, or curtain.

TAB. CCLXXXVI.

AGARICUS MUSCARIUS. *With. v.* 4. 184.

HERE is an example of running into error by being too nice: Linnæus ſeems to have deſcribed this plant but once, and we with great pleaſure go back to our original maſter. The varieties that occur have been by different authors deſcribed as ſo many ſpecies. I muſt notice ſome of its varieties here, with a few of their ſynonyms; but will endeavour to enumerate them more fully hereafter. The whole plant is ſometimes yellow, whence Schæffer's *A. citrinus*, exhibited in my ſmalleſt figure. Small varieties of the red one with the remains of the annulus beautifully ſpotting the pileus, are called *Agaricus imperialis* by Batſch, and without the ſpots *A. Puella*. When of a lead colour it has been called *A. plumbeus* by Schæffer, and others. On account of its being ſpotted it has been called *A. maculatus*; when the ſpots are ſmall *A. puſtulatus*, ſee Schæffer *tab.* 90 and 91. When the ſpots reſemble warts it has been called *A. verrucoſus* by Curtis, &c. when tawny *A. fulvus* by Schæffer. *A. bulboſus* Schæffer, &c. is another variety. This plant conſiſts of more parts than any other Agaric we know of, having a volva, annulus, and ſtipes*. We have occaſionally met with an Agaric in all reſpects like theſe, but wanting the annulus, which however ſeems ſcarcely to conſtitute it a ſpecies. Linnæus ſays this is a moſt poiſonous Agaric, and that a decoction of it in milk will deſtroy *muſcæ* or flies; whence its name. He alſo recommends it as deſtructive to the *Cimex lectularius* or bed bug, by being applied to furniture twice or thrice in a ſeaſon.

TAB. CCLXXXVII.

AGARICUS RACEMOSUS.

THIS ſingular Agaric we have once met with in Peckham wood, in October 1794. It was unluckily gathered too precipitately, and therefore we are ignorant what ſort of a root it had, or whether it was paraſitical like that figured by Mr. Perſoon, in his Tentamen Diſpoſitionis Methodicæ Fungorum, *tab.* 3, *fig.* 8, which is paraſitical on a ſimilar ſubſtance with our *Peziza tuberoſa*, ſee *tab.* 63. Perſoon calls the latter *Sclerotium lacunoſum*, *tab.* 3, *fig.* 7.

* It muſt be remembered that the volva of Linnæus is now called the annulus, and *velum*, or veil, by Withering, when thin or tranſparent.

TAB. CCLXXXVIII.

BOLETUS SUBEROSUS? *Linn.*

I CAN find no plant that ſo well accords with Linnæus's deſcription as this. The figures quoted for his plant by our Engliſh authors, I am confident, belong to other ſpecies. It has certainly a more cork-like texture than any other with which I am acquainted. I do not exactly comprehend what Linnæus meant by *poris acutis* (pores acute). I ſuſpect it to be white when perfectly freſh.

TAB. CCLXXXIX.

BOLETUS HYBRIDUS.

THIS *Boletus* has many characters in common with the *B. lachrymans* and *B. Medulla-panis*. It is generally found growing horizontally under rotten floors attached by its back, ſpreading in large patches, forming more or leſs broad ramifications, often inoſculating, of a cottony ſubſtance like the above mentioned, which are commonly known by the name of Dry-rot. The pores (which are ſeldom ſeen) are long, tubular, and cylindrical, by which it is diſtinguiſhed from the other two.

TAB. CCXC.

AURICULARIA CORRUGATA.
———————— TREMELLOIDES. *Bull.* 290.
PEZIZA TREMELLOIDES. *With.* 344.
TREMELLA CORRUGATA. *Relh.* 898.

VERY common on decayed gate-poſts, old hewn trunks, &c. attached by the back in large maſſes, forming a pileus in a ſimilar manner to *A. reflexa*. The under ſurface is light-brown, becoming darker, ſometimes purpliſh, and more corrugated when it gets older. The ſubſtance is at firſt gelatinous, inclining to cartilaginous, but dries hard and horny. The under ſide reſembles in ſome reſpects *Peziza auricularia* of Withering.

TAB. CCXCI.

AURICULARIA AURANTIACA.

I HAVE never found this with an upper ſurface or pileus, but in great abundance as here repreſented. The back is attached to the wood on which it grows. Its whole ſubſtance is of an orange colour. The extremities are very finely fibrous and ſattiny. The texture of the plant is ſomewhat woody, and if well dried it becomes horny, retaining its original colour.

TAB. CCXCII.

LYCOPERDON EQUINUM. *With. v.* 4. *p.* 378.

NOT an uncommon plant, though it has been confounded with *Lichen byſſoides*. It is well deſcribed by Mr. Griffith in Withering. It is readily diſtinguiſhed by wanting the ground of a Lichen. The figures are drawn from fine ſpecimens on a decayed horſe's hoof found near London, and a little bit of ram's horn from near Maiden-caſtle, Dorſetſhire.

TAB. CCXCIII.

CLAVARIA EPIPHYLLA. *Dickſ. faſc.* 3, *tab.* 9, *fig.* 10. *With.* 360.

———— PHALLOIDES. *Bulliard* 463.

SOME of theſe plants were ſent me by the Rev. Mr. Hailſtone, gathered on Rumblesmoor, a few miles from Bradford in Yorkſhire, in ſome peat-holes; and alſo by Mr. T. F. Forſter, collected in a deep running ſtream at Tunbridge-wells. The ſpecimen which ſo much reſembles an Agaric was found ſome years ago.

TAB. CCXCIV.

CLAVARIA COCCINEA.

EXTREMELY common on rotten ſticks, &c. in autumn, or damp weather. It is ſeldom without a foot-ſtalk, though apparently ſeſſile; as may be eaſily perceived by a perpendicular ſection. This we think will prove it is not a Tremella; and we preſume our great maſter Linnæus muſt have examined ſome young *Tremella* (perhaps *meſenterica*), which he called *T. purpurea*, which in a poor ſtate often reſembles this plant on old pales, and ſeems to have been hitherto confounded with it. We preſume the *Tremella purpurea* of Hudſon and *Sphæria tremelloides* of Withering to be that here exhibited.

TAB. CCXCV.

SPHÆRIA COMMUNIS.

THIS moſt common plant on old walls, at leaſt near London, is readily obſerved among the mortar from its blackiſh appearance. It often aſſumes the look of a *Peziza*, being ſomewhat cup-formed in its latter ſtate.

TAB. CCXCVI.

SPHÆRIA SUBCORTICALIS.

THIS is ſituated above the *liber* or inner bark, and adheres to the *cortex* or outer bark, piercing it with its neck, the mouth ſpreading into the cuticle or *epidermis*. It is not uncommon on rotten ſticks. In drying, the ſpecimens become depreſſed or even concave at the bottom.

TAB. CCXCVII.

SPHÆRIA FLORIFORMIS.

I FOUND this curious *Sphæria* on a hornbeam on Hainault foreſt. It is moſt readily diſtinguiſhed by the plaited and flower-like appearance at the mouth.

TAB. CCXCVIII.

RHIZOMORPHA DICHOTOMA.

THIS ſort of vegetation ſeems to avoid the light, growing immured between the wood and bark of trees, in cellars, &c.; the preſent ſpecimen was diſcovered many fathoms under ground, in the level of a copper-mine, by Mr. Croſthwaite. The ſpecimens ſent me from Durham by his friend the Rev. Mr. Harriman were ſome of them above 6 feet long, and indicating an almoſt endleſs length, as they were very little diminiſhed in the diameter from the thickeſt to the thinneſt end. I find nothing like root. It ſeems to adhere by a tenacious quality.

TAB. CCXCIX.

RHIZOMORPHA SPINOSA.

FOUND by the Rev. Mr. Harriman. The branches being chiefly at right angles and ſomewhat ſpinoſe, ſeem to give it a ſpecific diſtinction, as well as the taſſel-like fructification, if I may ſo call it.

TAB. CCC.

MUCOR URCEOLATUS. *Dickſ. faſc.* 3, *tab.* 6. *With. v.* 4. *p.* 401. *ed.* 3.

THIS curious production may be found in abundance on horſe-dung in damp or dewy mornings or evenings, almoſt all the year. At firſt it is cylindrical with a ſmall yellow head. In a few hours the *ſtipes* inflates towards the top, and becomes pitcher-ſhaped, and at the ſame time the head gradually changes brown, by degrees it becoming totally black. The plant being arrived at perfection, by its inflation or expanſion it burſts, and projects the head to the diſtance of 3 or more inches, probably to diſperſe the ſeeds.

TAB. CCCI.

AGARICUS APPLICATUS. *Batſch. tab.* 24. *fig.* 125.
——— *With. v.* 4. 305.

MOST common under chips of rotten wood, or on the looſened bark of decaying ſtumps. It is generally attached by the pileus, and lamellæ, though ſometimes protruded by a ſtalk which curiouſly elongates the top of the pileus, and makes the whole fungus aſſume the ſhape of a bell. The pileus is ſomewhat hairy, and commonly of a greeniſh gray colour; the lamellæ are of a lighter hue.

TAB. CCCII.

AGARICUS SETOSUS.

ABOUT the year 1793, I found this Agaric in great abundance in Sir W. Jerningham's plantations at Coſtesy near Norwich, growing on the fallen leaves of young Beech, *Fagus ſylvatica*; but I have never ſeen it ſince. The hairy ſtipes is its moſt remarkable character.

TAB. CCCIII.

AGARICUS ACETABULOSUS.

FOUND near Mill-bank, Weſtminſter, a little above highwater mark, in May 1795. This is very like a poor ſpecimen of *Agaricus congregatus*, *E. Fungi*, *tab.* 261. but the pileus is more plaited. The lamellæ are remarkably glandular on their ſides; and inſtead of a bare baſe or foot it ſtands in a little ſocket-like volva.

TAB. CCCIV.

AGARICUS GEORGII. *Linn. With. v.* 4. 226.

THIS plant differs very little from the common Muſhroom, of which it is perhaps only a variety, and often not to be diſtinguiſhed from it; however, adepts and epicures will never ſubſtitute the one for the other. This always partakes of the ſame form as the Muſh-

room, but is generally of a firmer texture, whiter and ſmoother, ſometimes ſtained with blotches of yellow, more particularly if touched or bruiſed. The young lamellæ are ſeldom of ſo bright a red as thoſe of the true Muſhrooms. It often grows very large; and I have no doubt but the plant mentioned by Mr. Stackhouſe to Dr. Withering of the enormous ſize of 18 inches over the pileus, the ſtem as thick as a man's wriſt, and every part in proportion, was no other than *A. Georgii*, as I have ſeen many equally large at Stapleford Abbot, in Eſſex, where the people call them White-caps, laughing at thoſe cockneys who take them for Muſhrooms. I have ſeen perſons from London gathering hampersfull of them for the markets, where they are ſold as Muſhrooms. Their dry and tough quality renders them unfit for the table in any ſhape, though we do not know that they poſſeſs any poiſonous quality. Parkinſon 137. 4. ſays "they are called St. George's muſhrooms, becauſe they grow up about that time." (St. George's day.)

TAB. CCCV.

AGARICUS CAMPESTRIS. *Linn.*

WE have ſeen this, the common or true Muſhroom, in the greateſt abundance on the iſland of Sheppey, near Minſter, and of a very large ſize, but not equal to the preceding. It is ſeldom ſo white as the other, being moſt commonly of a browniſh hue. The pileus is a little floccoſe, and the plant altogether more tender, and more readily lacerating into fibres. In the young plants the ſtipes is moſtly ſolid, but in the old ones pithy and ſomewhat hollow. We have found ſeveral varieties of this Agaric in Kenſington gardens (particularly, one group) of a very dark colour, which on the leaſt bruiſe emitted a very red juice, and had a peculiarly rich flavour. This has not the yellow tinge on the pileus which *A. Georgii* has.

TAB. CCCVI.

PEZIZA INFLEXA. *With. v.* 4. 349.

THE Rev. Mr. Kirby of Barham near Ipſwich, F. L. S. favoured me with ſpecimens of this remarkably pretty little plant, which ſometimes grows larger, according to Bolton's figure. It is of a brittle texture when freſh, and dries waxy. The ciliated appearance at the edge is a continuance of the ſame ſubſtance with the reſt of the Fungus, and we always find the ciliæ inflected.

TAB. CCCVII.

PEZIZA NIGRA.

THIS was found paraſitical upon *Clavaria coralloides* at Hampſtead, October 7th 1792. It is generally ſphærical and echinated. We have called it *Peziza*, but do not know that it is ſtrictly ſo. We hope to ſettle this with ſome other alterations in the cloſe of the work.

TAB. CCCVIII.

CLAVARIA FARINOSA. *With. v.* 4. 366.

NOT uncommon in crevices of old walls, or at the bottoms of trees, growing on decayed ſpiders' neſts, and rotten *pupæ* or other remains of inſects. It is ſcarcely ever of any determined ſhape, extremely tender, and mealy on the outſide ; ſometimes yellowiſh under the farinaceous ſurface.

TAB. CCCIX.

TUBER CIBARIUM. *With. v.* 4. 371.
LYCOPERDON TUBER. *Linn.*

TRUFFLES are found in various parts of England, always under ground. They are frequently ſought for by dogs in Hampſhire, Wiltſhire, and Kent. They are eſteemed a dainty in ſoups, and are ſold at Covent-garden market at a conſiderable price. The outſide is curiouſly corrugated and black.

TAB. CCCX.

TUBER ALBUM. *With. v.* 4. 371.
———————. *Bull.* 404.

THIS Truffle differs from the laſt in having a lighter-coloured and ſmoother ſurface, which is always of a tawny white. As an article of food, its qualities are much the ſame as thoſe of the preceding.

TAB. CCCXI.

LYCOPERDON DEFOSSUM. *Batſch.* 229. *With.* v. 4. *p.* 382.

——————— SPADICEUM. *Schaff.* 188.

THIS Lycoperdon, which is often ſolitary, and ſomewhat variable, has been deſcribed under various ſynonyms. It is ſometimes warty, and has a longiſh attenuated ſtem. It is very well figured in Vaillant, *tab.* 16. *fig.* 7. Batſch, *tab.* 42. has figured it without a ſtem, and with the root immediately ſpringing from the head, as in one of my figures. His ſeems to be taken from a bleached ſpecimen. Vaillant, *tab.* 16. *fig.* 5 and 6. and ſome of Schæffer's figures, which I can conſider as no other than a variety of this plant, are called *Tuber ſolidum* by Dr. Withering, 3*d ed. vol.* 4. *p.* 372.

TAB. CCCXII.

LYCOPERDON STELLATUM. *Woodw. Tr. of Linn. Soc.* v. 2. 54. *With.* v. 4. 374.

A CURIOUS ſpecies, ſimilar in many reſpects to *L. recolligens*, figured at *tab* 80. of this work, from which it differs more particularly in having a ſupport or ſtalk to the head above the volva, which however is hardly to be diſcovered in the recent ſpecimen, on account of the great thickneſs of the volva while moiſt. The mouth is prominent, and generally fringed.

TAB. CCCXIII.

LYCOPERDON COLIFORME. *Woodw. Tr. of Linn. Soc.* v. 2. 59. *With.* v. 4. 373.

I AM obliged to T. J. Woodward, Eſq. of Bungay, F. L. S. author of the diſſertation to which I have already referred *tab.* 80. for excellent ſpecimens of this rare plant. It differs from the others of its tribe in having ſeveral orifices to emit the powder, as well as many little pillars or ſupports to the head above the volva.

TAB. CCCXIV.

SPHÆRIA SOLIDA.

THIS Fungus, ſo frequent on dead ſtalks of umbelliferous plants, has ſeldom been found with the little ſpiculæ or mouths as here figured. It is chiefly compoſed of a white ſolid ſubſtance, more or leſs oblong, and covered with a black cruſt.

TAB. CCCXV.

SPHÆRIA SULCATA. *Bolt.* 124.

MR. Griffith in Dr. Withering's Botanical Arrangement, *vol.* 4. *tab.* 395. obſerves that this plant is the old ſtate of *Lichen tricolor*. I have had it from Mr. Abbot and others on pieces of ſtick, &c. where it ſhould appear the *Lichen tricolor* could never have exiſted. Small morſels of *Lichen ſcriptus* may reſemble it a little, but a ſcrupulous examination of the true plant will prove it to be really diſtinct.

TAB. CCCXVI.

SPHÆRIA BIFRONS.

VERY common on the decayed leaves and ſtalks of the Holly, *Ilex aquifolium*, but we believe it has hitherto eſcaped publication. We have called it *bifrons*, on account of its having the ſame appearance on either ſide of the leaf. It is nearly flat, riſing a little above the diſk of the leaf, and quite black. There are cottony fibres penetrating the leaf from one ſide to the other. We could not detect any thing like ſeeds.

TAB. CCCXVII.

SPHÆRIA CONCAVA.

SOMEWHAT more common than the laſt mentioned, and readily to be diſtinguiſhed by its concave diſk, which only penetrates through the upper ſide of the Holly-leaf. It has an operculum or cover, which appears to be the cuticle or outer ſkin of the leaf. It is obſervable that the leaves of the Holly are compoſed of two ſets of nerves as well as membranes, upper and under, which in decay ſeparate.

TAB. CCCXVIII.

ÆCIDIUM LACERATUM.

FOUND at Batterſea on a May-buſh, *Meſpilus Oxycantha Fl. Brit.* It grew upon the young buds, and ſeems nearly related to the following Fungus.

TAB. CCCXIX.

ÆCIDIUM CORNUTUM. *Flora Danica*, *t.* 838. *Perſoon Obſervationes mycologicæ*, *tab.* 4. *fig.* 2 & 3.

I WAS favoured with this plant, found in the neighbourhood of Woodbridge, Suffolk, by the Rev. Mr. Lathbury. It is generally very abundant where it takes poſſeſſion, and infeſts the *Pyrus aucuparia Fl. Brit.* for ſome years. I preſume the *Pyrus* never gets rid of its paraſitical companion. The ſize of the plant, and the remarkable length of the curved tube, is the chief diſtinction between this and the foregoing.

TAB. CCCXX.

UREDO AUREA.

THIS little gold-coloured paraſite was found on *Oſmunda criſpa*. The ſeeds were large for the ſize of the plant, and particularly brilliant, having always a bright golden luſtre. The cover is ſimple, and partakes of the ſame ſplendour, though in a leſs degree.

TAB. CCCXXI.

AGARICUS PUBESCENS. *Fl. Dan.* 1073.

Is always of a ſnowy white, and grows on rotten wood, in damp places, under the bark of decaying trees. The minuteneſs of this Fungus, and its frequently being found, in a young pubeſcent ſtate, without gills, may have cauſed it to have been overlooked; and indeed the gills are ſeldom to be ſeen without cloſe examination. They are few in number, not very prominent, and generally in pairs. Thoſe in *Fl. Dan.* are larger ſpecimens.

TAB. CCCXXII.

AGARICUS MURALIS.

We do not find this plant anywhere taken notice of, though extremely common on old walls, &c. With regard to its general form, it is very ſportive. The pileus is ſometimes contracted, and at other times very large in proportion to the reſt of the plant. The gills join the ſtem, which is nearly cylindrical and more or leſs curved. The whole plant is of a foxy brown, but the gills are paler and yellower. This is often accompanied by another Agaric, which is ſometimes paler, or even totally white, and in form more clumſy, though we at preſent imagine it not to be a different ſpecies.

TAB. CCCXXIII.

AGARICUS RIMOSUS. *Bull.* 388.

We have found this in many places; but in England it ſeldom appears to aſſume the dry ſtate, as figured ſo excellently in Bulliard. Even when young the cheſnut ſkin of the pileus is diſpoſed to crack, and prettily ſhows the lighter parts between. In age the whole plant aſſumes a paler colour. The gills are of a yellowiſh olive brown. The ſtipes is ſomewhat lighter, generally ſolid, and ſometimes bulbous.

TAB. CCCXXIV.

AGARICUS APPENDICULATUS. *With. ed.* 3. *v.* 4. *p.* 288.

I HAVE found this Agaric moſt frequently in Kenſington Gardens. It agrees in all parts with *Agaricus ſemiglobatus*, E. F. 248, except in the pileus being generally broader, gills very ſhallow, annulus broader, and often hanging in appendages to the edges of the pileus. The ſtipes is ſomewhat thicker: it is pithy, hollow, or ſtringy, as the other often is; but the preſent is more rugged, thickeſt towards the baſe, and often woolly.

TAB. CCCXXV.

BOLETUS UNICOLOR. *Bull.* 408 & 501. *fig.* 3. *With. ed.* 3. *v.* 4. *p.* 329.

NOT rare on old trees, willows in particular, affecting to grow in more ſhady parts than the *Boletus verſicolor*, from which it differs pretty conſtantly in its uniform colour, as Bulliard remarks; to which we may add, that the pores are labyrinthiform in a freſh ſtate; but when drier the tubes ſhrink up and crack irregularly, ſometimes forming points like a *Hydnum*, for which it has often been taken. The proper form of the pores may at any time be ſeen by taking a piece of the old plant and wetting it.

TAB. CCCXXVI.

BOLETUS MEDULLA PANIS. *Jacq. Miſc. v.* 1. *p.* 141. *t.* 11. *Dickſ. p.* 18. *With. ed.* 3. *v.* 4. *p.* 325.

SOMETIMES an inhabitant of dark cellars on very rotten wood, or of the ſhady parts of damp woods. In addition to its general character of looking like the crumb of bread, or the inſide of a loaf, we may remark that in its latter or browner ſtate, mouldering or rotting away, it reſembles raſpings of bread. It frequently branches to a conſiderable length, the broader parts more or leſs producing pores, which are irregular with rugged diviſions. The whole plant is perfectly white, except in decay, when the pores become of a yelloviſh brown. The texture is of a fine cottony nature.

TAB. CCCXXVII.

HYDNUM MEMBRANACEUM. *Bull. pl.* 481. *fig.* 1.

FOUND on the under ſide of rotten branches, lying on the ground. It is of a ferruginous tint. The upper parts of the points have ſometimes a glandular appearance. They are often whitiſh below, and terminate with little hairs. We have always found this *Hydnum* attached by its back, forming patches of different dimenſions.

TAB. CCCXXVIII.

HYDNUM BARBA-JOVIS. *Bull. pl.* 481. *fig.* 2.
——— BARBA-JOVIS. *With. ed.* 3. *v.* 4. *p.* 337.

THE rude appearance of this plant, which has been found by Lady Arden in Nork Park, and by myſelf in Kenſington Gardens, would hardly at firſt excite curioſity; but when examined by a moderate magniſier it preſents a very curious ſtructure. The points are irregular, whitiſh and downy, ſomewhat branching, and in their latter ſtate protruding other points of an orange colour, which are covered with hairy ſpiculæ. It is attached by its back like the laſt.

TAB. CCCXXIX.

PHALLUS FOETIDUS.

——— IMPUDICUS. *Linn.*

THESE are called Stinkhorns in moſt country places. The odour is by ſome compared to rotten cheeſe, by others to burning bricks, bones, and the fumes of hartſhorn manufactories; but we think, with Mr. Curtis, that the ſmell is peculiar to itſelf. We have found this Fungus in moſt woody places where we have been about London, as in Kenſington Gardens, and alſo about Norwich. It ſeems to be propagated by the root, which is very fibrous, and generally contains numerous bulbs, from the ſize of a pin's head to that of a common hen's egg. When approaching to maturity the greater part of the plant is above ground. The ſtipes is a good example of ſudden growth, as we have known it to riſe ſix inches in as many hours. The pileus hangs over the ſtipes in the form of a cap. The top is a little expanded, and perforated by one or two holes, below which are cellular reticulations holding the dark fœtid jelly-like ſubſtance, which probably contains the ſeeds, and which quickly attracts flies and other inſects, who ſoon devour it without any apparent injury to themſelves.

TAB. CCCXXX.

PHALLUS INODORUS.

——— CANINUS. *Hudſ. Fl. Angl.* 630. *Curt. Lond. faſc.* 4. *t.* 73.

THIS curious little plant is more rare than the above. I have ſeen it at Hampſtead in Lord Mansfield's wood, where Mr. Hunter the gardener finds it annually. I have alſo found it abundantly in General Money's plantations near Norwich, where I have obſerved the creeping root more than half a yard long, with the bulbs, ſome juſt formed, and others quite arrived at maturity. Theſe either contain the plant in its more or leſs perfect ſtate, or are found occaſionally empty; for it often happens, with this as well as the former ſpecies, that the ſtipes and all above it are diſcharged by the elaſtic force, or collapſing, of the volva or bulb. The bulb is more ovate than the laſt; the ſtipes is of a ſimilar conſtruction; the top or head is continued from the ſtipes, having horizontal plaits, and is of a brick red, covered with an olive-coloured powder, mixed with a gelatinous inodorous ſubſtance, and protected by a thin membrane. The ſtipes of this plant will expand as rapidly as the laſt. I have often placed ſpecimens by a window over night while in the egg form, and they have been fully grown by the morning. They have never grown with me in the day-time.

TAB. CCCXXXI.

LYCOPERDON BOVISTA. *Linn. ed.* 13. *t.* 2. *p.* 726.
——————— GLOBOSUM. *With. ed.* 3. *v.* 4. *p.* 382.

WE believe this is ſomewhat leſs common than *Lycoperdon Proteus*, with which it has been confounded. It is moſt frequent in its ſmall ſtate, and may generally be known by its globoſe ſtructure, ſmoothiſh ſurface, and light colour; the whole forming a ſimple covering to the white cottony ſubſtance within; which ſubſtance, in an advanced age, becomes a maſs of finely entangled fibres of a dark colour, holding an immenſe quantity of extremely ſubtile and fine powder, we preſume the ſeeds. The covering too becomes dark, more or leſs of a browniſh ſlate colour, of a ſilky luſtre, and ſtiff ſattiny texture. Small plants in this ſtate have been called *Lycoperdon ardoſiaceum* by Bull. 192. and With. 383. I have found this plant in Kenſington Gardens and other places, from the ſize of a pea to twenty or thirty inches in circumference. It has the ſame number of ſkins as *Lycoperdon Proteus*, but the outer one never ſo rough; which will help to diſtinguiſh it, as well as its being deſtitute of the cellular part at the baſe. A ſmall figure of this is called *Lycoperdon giganteum* by Batſch, *p.* 29. *f.* 165.

TAB. CCCXXXII.

LYCOPERDON PROTEUS.

A NAME quite applicable to this ſpecies. Its many ſhapes are hardly to be deſcribed. It is ſometimes globoſe, like the laſt, and reſembles it ſo much that they have been generally confounded. However, the outer ſkin in the preſent is generally rougher, and commonly forms woolly *ſtellæ*, more or leſs regular, whence Bulliard's *Lycoperdon cælatum*; his *Lycoperdon Boviſta*, *tab.* 447, being the ſame, with the *ſtellæ* waſhed or worn off, and its general form rounder, reſembling the true *Lycoperdon Boviſta*. The lower part of this plant conſtitutes its moſt diſtinguiſhing character, being always cellular, which is not the caſe with the other, though this ſtructure is not to be ſeen in its younger ſtate. Its ſeldom being merely globular will help to diſtinguiſh it. It is ſometimes bottle-ſhaped, whence Bulliard's *Lycoperdon utriforme*, *pl.* 450. It is alſo occaſionally ſhaped like a pear or an onion, whence *Lycoperdon pyriforme* and *Lycoperdon cepæforme* of the ſame author. We have alſo ſeen it branching and inoſculating. The cellular part often grows out into a long *ſtipes*, whence Bulliard's *Lycoperdon*

excipuliforme. The ſtem is ſometimes lacunated, whence Bulliard's *Lycoperdon lacunoſus*, &c. *tab.* 52. We have ſeen the plant in this laſt ſtate growing in woods, but we ſuſpect the furrows to have been eaten by ſome ſpecies of Limax when the fungus was young. Both this and the laſt plant renew their outer coats after being wounded. The cellular part affords ſome powder, though very little in proportion to the general cavity above, which powder, as in the preceding ſpecies, is attached in immenſe quantities to minute fibres. The *ſtellæ* are ſometimes formed in regular points, three or more, ſpreading or coming together, varying from a perfect white to a deep black. Large ſpecimens of this are called *Lycoperdon maximum* in Schæffer, *tab.* 191.

TAB. CCCXXXIII.

CLAVARIA ACUTA.

I HAVE found this plant often, moſtly growing ſolitary, varying very much in ſize. The upper part is always ſharply conical, ſomewhat opaque and mealy. The ſtipes is partly tranſparent, and cylindrical, about the ſame length as the head. The root is compoſed of a few ſmall fibres. Of the many I have ſeen, I did not perceive that it grew from decaying or putrid *Larvæ*.

TAB. CCCXXXIV.

CLAVARIA OBTUSA.

THIS curious little paraſite is found on Fern-ſtalks in autumn, either on the upright growing plant or the decaying remains of it. We have found it varying a little; ſee fig. 1 and 2. Fig. 1. has a ſmoother head than fig. 2, the head of which is nearly ſimilar to a *Sphæria*, and its ſtalk when magnified is a little hairy. They are both ſolid, and of a ſomewhat friable texture, but in drying become a little horny.

TAB. CCCXXXV.

CLAVARIA BYSSOIDES.

FOUND on old ſtumps of trees in Kenſington Gardens and other places, not unfrequently. Its delicate whiteneſs will ſometimes help to diſtinguiſh it. The branched ſtems form irregular intricate tufts, reſembling a *Byſſus*, or rather a minute Coral.

TAB. CCCXXXVI.

SPHÆRIA ARUNDINACEA.

MOST common on the old ſtalks of *Arundo phragmites*, burſting its way through the outer coat of the ſtalk, moſtly in oblong ſeries. The *ſphærulæ*, which lie lengthwiſe in ſingle rows, can ſcarcely be diſcerned without a magnifying glaſs.

TAB. CCCXXXVII.

SPHÆRIA CLAVIFORMIS.

THIS is ſomething like Bulliard's *Hypoxylon clavatum*, *tab.* 444. *fig.* 5. differing chiefly in being rough on the outſide. It grows from the inner bark of rotten ſticks, lacerating the outer bark, and ſeldom holding more than one ovate capſule, which is ſupported in the middle of the head or clavated part on an irregular ſtem. I have always found it black, except the middle coat of the capſule, which is white.

TAB. CCCXXXVIII.

SPHÆRIA MAXIMA. *Dickſ. Crypt. faſc.* 1. *p.* 23.
———— DEUSTA. *Hoff. faſc.* 1. *t.* 1. *fig.* 2. *Perſoon's Obſ. myc. t.* 1. *fig.* 4 & 5.
HYPOXYLON USTULATUM. *Bull. t.* 437. *fig.* 1.

I HAVE found this *Sphæria* in great abundance in ſome parts of Kenſington Gardens, where it grows annually, beginning to ſhow young plants about January, at the ſame time that the old ones are in their laſt decaying ſtate. They ſeem to be truly monœcious, firſt producing a whitiſh farinaceous duſt on the whole ſurface. It ſeems in perfection about midſummer, when the *ſphærulæ* or capſules are forming, and copiouſly producing black ſeeds, which they eject in autumn. In the younger ſtate the texture is ſomewhat leathery, in the old very fragile. Sometimes it ſpreads into large patches on old rotten trees.

TAB. CCCXXXIX.

SPHÆRIA CILIARIS. *Bull. pl.* 468. *fig.* 1.

NOT unfrequent in damp places on rotten ſticks and other woody ſubſtances, clothing them in parts with black hairs which iſſue from the minute *ſphæruliæ*. We have not detected it in its white powdery form, as repreſented in Bulliard's figure.

TAB. CCCXL.

UREDO THLASPI.

VERY common in the autumn and ſpring, on the Shepherd's Purſe, or *Thlaſpi Burſa-paſtoris*, about London. It has alſo been ſent me from the neighbourhood of Norwich by Miſs Hancock, where it likewiſe occurs in tolerable plenty. It is compoſed as it were of the ſcarf ſkin, or cuticle of the plant, covering a fine white downy ſubſtance, which holds a very fine powder. The *Botritis paraſiticus* of *Perſoon's Obſ. myc. tab.* 5. *fig.* 6. & a. b. which we ſhall figure hereafter, is alſo very common on the Shepherd's Purſe.

TAB. CCCXLI.

AGARICUS HORIZONTALIS. *Bull.* 324. *With. v.* 4. *p.* 224. *ed.* 3.

OFTEN grows in abundance on the trunks of old elm trees late in the autumn, during rainy weather or ſoon after. It ſometimes reſembles *Agaricus corticalis*, *tab.* 243. which has a hollow ſtipes and fixed gills. The preſent fungus has a ſolid ſtipes and looſe gills. They are rounded off between the pileus and ſtipes, if it can be ſo termed, as the ſtipes ſwells into the pileus imperceptibly.

TAB. CCCXLII.

AGARICUS INORNATUS.

I CANNOT find a deſcription or figure of this Agaric. It is ſcarcely to be diſtinguiſhed in ſhape from *Agaricus aromaticus*, *tab.* 144. but the fixed lamellæ when young, and decurrent when older, or, when the pileus is funnel-formed, being conſtant, will help to diſtinguiſh it. The baſe is ſometimes a little bulbous. Its odour is not peculiar; ſomething like that of *Agaricus campeſtris*.

TAB. CCCXLIII.

AGARICUS PARASITICUS.

FOUND in bundles on ſome of the larger decayed Agarics in very wet weather. It has a hollow ſtipes, the gills or lamellæ fixed, or ſomewhat decurrent, and clumſy. The ſtipes and the pileus are nearly white, with ſometimes a browniſh umbo. The gills ſometimes are of a fleſh colour.

TAB. CCCXLIV.

AGARICUS FUSCIPES.

I FIND no deſcription of this Agaric, and have named it from the brown ſtem, which is ſolid, with a pith. The gills are rather broad, of a deep buff colour; the pileus lighter buff, with a darker colour ſhaded by degrees into a brown in the centre, which almoſt forms an umbo. I found this in ſmall quantities in Sir William Jerningham's plantations at Coſteſey near Norwich.

TAB. CCCXLV.

BOLETUS VELUTINUS. *With. v.* 4. *p.* 331. *ed.* 3.

THIS *Boletus* has a pileus in its early ſtate ſo very like velvet, that the name could not be more apt. When more advanced it almoſt deſerves the term hiſpid, as it reſembles pluſh; afterwards it becomes black, and rots, the pores at firſt being occaſionally of a whitiſh or light yellow colour and ſhort; they grow longer and browner till they emit a yellow powder, which is more readily ſeen when its weight cauſes the threads of the ſpiders which have run over the pores to hang down in feſtoons like *Boletus hepaticus*, *tab.* 58. The edges of the pores are ſometimes perceptibly fringed. This fungus grows moſt commonly on apple trees, and often to a very large ſize.—Is it *B. villoſus* Hudſon? *B. ſpongioſus* Lightfoot?

TAB. CCCXLVI.

BOLETUS ARBOREUS.

NOT uncommon on rotten willows in the autumn in the Willow Walk, Chelſea. We found the ſame on an old oak ſtump in Stone park near Withyam, Suſſex. A flat ſpecimen was brought me by Mr. Jenkins, gathered by himſelf, Dr. Nœhden, and Mr. Gotobed, in Black park, near Eton. It varies in ſhape, conforming to the inequalities of the trees it grows on, lining their cavities with its irregular ſinuoſities or pores, which are ſomewhat central, and moſtly of a reddiſh brown. The extremities are rugged and white. In rainy weather, it is of a jelly-like ſubſtance: in dry, horny.

TAB. CCCXLVII.

HELVELLA ÆRUGINOSA. *Dickſ. faſc.* 2. *p.* 24. *With. v.* 4. *p.* 341. *ed.* 3. *F. Dan.* 534. 2.

FOUND on rotten ſtumps in humid places. It varies much in ſhape, is moſtly of a vivid green, and ſomewhat tremulous. The wood on which it grows is always more or leſs ſtained with the ſame green colour as the fungus.

TAB. CCCXLVIII.

HELVELLA MEMBRANACEA. *Dickſ. faſc.* 1. *p.* 21.
——— RETIRUGA. *Bull.* 498. 1.
MERULIUS MEMBRANACEUS. *With. v.* 4. *p.* 153. *ed.* 3.

GROWS on moſs, &c. in damp places, to which it is held by its back either with or without a root-like membrane. The whole plant is ſomewhat like wet parchment, lobed and waved irregularly, with veins or reticulations on the under ſide. It is moſtly of a light brown colour.

TAB. CCCXLIX.

AURICULARIA PAPYRINA. *Bull.* 402. *With. v.* 4. *p.* 342. *ed.* 3.

GROWS on the under ſide of the branches of decayed oaks in ſmall patches, often without the central ſinuoſities, which are in the larger ones almoſt prominent enough to make it a *Boletus*. It ſometimes is detached ſo as to ſhow part of the upper ſide, like other *Auriculariæ* or *Boleti*. This is ſomewhat more like thin leather or paper than *t.* 346 and 348., yet they ſeem very nearly related.

TAB. CCCL.

AURICULARIA PHOSPHOREA.
BYSSUS PHOSPHOREA. *Linn. Mant. p.* 721.

THE young and moſt common ſtate of this plant has the appearance of a *Byſſus*, and often ſeems little elſe than the purple colour cauſed on the wood by the damp or the gallic acid, and the friction and iron of a ſaw. When older it becomes of a more vivid deep purple, and often under favourable circumſtances forms an *Auricularia*; which appearing to be its moſt perfect form, we refer it to that genus. Its fibres penetrated the ſubſtance of the paper it was wrapped up in, and began to form on the oppoſite or outer ſide, being ſhut up in a damp box. The whole is of a more or leſs denſe cottony or fibrous texture.

TAB. CCCLI.

PEZIZA DOMESTICA.

THIS has been known about ten years on new plaiſtered cielings, or walls which admit the rain. It firſt clothes the places that have been thus wetted, with a fine cottony or membranous film, nearly as white as the plaiſter, which is in a ſhort time partly covered with ſalmon-coloured knobs. Theſe at length form a kind of upright *Peziza*, externally villoſe.

TAB. CCCLII.

PEZIZA EQUINA.
HELVELLA EQUINA. *F. Dan. tab.* 779. *fig.* 3.

FREQUENT on horſe-dung in damp ſhady places, and generally in abundance. It ſeldom expands, is of a dull fox colour, and rough or hiſpid on the outſide.

TAB. CCCLIII.

CLAVARIA HERBARUM? *Perſoon Comment. de Fung. clavæf. t. 3. fig. 4.*

FOUND near Lacham houſe, Devon, the ſeat of my good friend Colonel Montague, by Mr. Gibbs, growing on dead ſtalks. It is like *C. ophioglofſoides* in miniature, but is ſmoother and of a more uniform colour all over.

TAB. CCCLIV.

SPHÆRIA AGARICIFORMIS. *Bolt.* 130.

I HAVE only ſeen one ſpecimen of this fungus, for which I am obliged to the Rev. Mr. Francis, whoſe lady found it at Holt in Norfolk. Being gathered too haſtily, ſo as to be broken from the root, it was conſequently imperfect; and inſects having made it more ſo in my herbarium, I am unwilling not to figure it while there are ſome remains to identify ſo rare a ſpecies, which with the help of Mr. Bolton's figures I am enabled to do. The baſe is like a *Lycoperdon*; the ſtipes fiſtular, yellowiſh and ſmooth; the head oval or egg-ſhaped, brown, and ſo ſmooth on the outſide that the mouths of the imbedded ſphærulæ are ſcarcely perceptible.

TAB. CCCLV.

SPHÆRIA GRANULOSA. *Bull.*

MOST frequent on dead birch-branches. It firſt burſts from between the cuticle and cortex in a light ſpongy-looking knob, ſoon enlarging to half an inch or more in diameter, and a quarter thick, having ſphærulæ imbedded in the ſurface, whoſe mouths touch the outſide. In this ſtate the whole is black, and the outſide ſomewhat cruſtaceous.

TAB. CCCLVI.

SPHÆRIA AUREA.

THE remarkable appearance which this fungus occaſions on the dead branches of the willow, cannot but be admired. The Rev. Mr. Relhan of Cambridge firſt ſent it me in the ſpring of 1801, under the name of *Sphæria aurea*. The Rev. Mr. Holme has ſince communicated a ſpecimen on the *Salix cinerea* from Hinton near Cambridge, Nov. 1, 1801; and the Rev. Mr. Kirby of Barham, Suffolk, favoured me with ſpecimens on the leaves of *Salix caprea*, Nov. 30, 1801, too late to make any addition to my figure. The yellow margin is a curious effect cauſed by the growth of the fungus; and even the fungus itſelf ſeems chiefly compoſed of the bark, which is changed into a ſhining black, covering a quantity of black powder, but not very regularly; and when old the cuticle burſts irregularly, often on one ſide, emitting the duſt. There is more or leſs of a white ſubſtance below the powder. It ſeems to laſt a year from the firſt breaking out, exhibiting the yellow margin moſt vivid in ſpring, the black powder in autumn.

TAB. CCCLVII.

SPHÆRIA STERCORARIA.

THIS was given me by Dawſon Turner, Eſq. found near Yarmouth, and is one of thoſe that upon minute examination ſhows the white powder encloſed in the circumference which ſeems analogous to pollen, and the black powder in the middle to ſeed. The mouth at the top may ſometimes be ſeen with the black powder edged by the brown caſe that holds it; the next two circles being formed by the white powder; and the outer caſe, which ſeems partly covered by a roughiſh clothing, adhering to the ſtraws, &c. Another ſpecies I have obſerved is either in a leſs perfect ſtate, or of a more ſimple conſtruction, with a more acuminated mouth, and a ſingle black caſe with or without black powder. I propoſe to call it *Sphæria ſolitaria*. It grows on the earth. See the lower figure.

TAB. CCCLVIII.

XYLOSTROMA GIGANTEUM. *Tode Meck. fel.* 1. *p.* 136. *tab.* 6. *fig.* 51.

FUNGUS CORIACEUS QUERCINUS HÆMATODES. *Eph. Germ.* D. 1. A. 4 & 50.

OAK LEATHER. *Ray* 25. *no.* 27. *Lightf.* 1004.

THIS may truly be named *giganteum*, from the gigantic ſtrides it takes through ſome of our largeſt oaks. It appears to be compoſed of minute branched fibres which are leſs compact internally, with little veſicular-like ſubſtances, ſomewhat egg-ſhaped, reſting by their broadeſt baſes on the ends and other parts of the branches. The narrow end ſeems ſomewhat opaque, as if it were an operculum. There is alſo ſcattered duſt of a browniſh caſt, copious among the rotten remains of the wood, giving it the appearance of Scotch ſnuff. It ſhould ſeem that this fungus may have given riſe to the uſe of *Agaricus Chirurgorum*, Pharmac. Edin. and *Agaricus querneus*, Pharmac. Gener. as Ray ſays it was uſed by the country people of Ireland to cure wounds; and thus I think the true ſtyptic Agaric ſhould be the *Agaricus querneus*, *Linn. tab.* 181. and not *Boletus igniarius*, *tab.* 132. which I believe never has been found growing on the oak, although *Boletus fomentarius*, *tab.* 133. which nearly reſembles it, ſometimes does. It ſeems the oak Agaric is moſt ſtrongly recommended. See Dr. Woodville's *Med. Bot.*, vol. 4. p. 159. *Agaricus quercinus* neareſt reſembles the Oak Leather in delicate fibrous texture, and may be readily cut into ſlices and freed from impurities. The other two are of a leſs delicate colour, and require more preparation.

I have ſpecimens of part of a poplar affected with a fungus ſomething like the above, which penetrates the tree more thoroughly, as it were taking place of the wood; but in this I have diſcovered nothing like fructification.

TAB. CCCLIX.

MUCOR BOTRITIS.

BOTRITIS PARASITICUS. *Perſoon Obſervationes mycologicæ, tab.* 5. *fig.* 6.

VERY frequent on the Shepherd's Purſe, *Thlaſpi Burſa-paſtoris*, as is the *Uredo Thlaſpi, tab.* 340. This has longer ſtems than that, which are often not perceptible, and grows on the outſide of the plant, without the cuticle for a covering. May this not be the ſame one leſs deeply ſeated in the plant?

TAB. CCCLX.

FARINARIA SEMINARIA.

THIS little production, found on leaves of a Willow, not yet deſcribed I believe, was ſent me by the Rev. J. Holm of Cambridge. It appears to agree with ſome other things in my collection which are not referable to any known genus. I therefore call it *Farinaria*, being chiefly compoſed of fine powder.

No. 1.

Forms a little white neſt holding black compacted powder-like ſeeds, if I may ſo call them; ſome I found empty, with the impreſſions remaining where theſe ſeeds ſeemed to have been.

No. 2. FARINARIA AURANTIACA.

Are ſomewhat ovate particles ſcattered on the leaf, of an orange-colour, more or leſs in bundles; ſome in a compacted maſs, others forming a kind of neſt mixed with a few cottony filaments towards the edges.

No. 3. FARINARIA ROSEA.

Roſe coloured particles rather indiſtinct, and neſtling with ſome hairs at the extremities more or leſs encloſing them.

TAB. CCCLXI.

AGARICUS VULPINUS.

FOUND at Iſlington in a hollow elm. It was quite ſeſſile, the gills reaching to the tree on which it grew. The *pileus* is thickiſh, very rough on the ſurface, and ſomewhat of a fox-colour.

TAB. CCCLXII.

AGARICUS PLANUS.

THIS curious Agaric was ſent by the Rev. Dr. Abbot of Bedford. There is nothing particularly ſtriking in its appearance till we come to look at the gills, the edges of which are obtuſe or flattiſh; from whence hangs a looſe powder, appearing, when magnified, to conſiſt of minute, round, pellucid globules. The reſt of the gills is compoſed of two ſeries of ovate and ſomewhat ſnuff-coloured veſicles.

TAB. CCCLXIII.

AGARICUS SORDIDUS. *Dickſ. Crypt. faſc.* 1. *t.* 3. *f.* 1.

WE preſume this is the *Agaricus ſordidus* of Dickſon, and the name accords well with it when gathered in a wet ſtate. In dry weather its ſurface is ſatiny, and agrees well with *A. ſericeus* of Bulliard and *A. rufus* of Withering. It varies both as to the *pileus* and *ſtipes*, and is either of a yellowiſh, brown, or greyiſh colour, and often comes very near to *t.* 161. of this work. The gills of each are ſometimes ſcarcely fixed.

TAB. CCCLXIV.

AGARICUS PLICATILIS. *Curt.* 200.

THIS Agaric may be beſt known in its latter ſtate, when the gills are moſt diſtant from the *ſtipes*, leaving a ring round it: at the ſame time the centre of the *pileus* becomes depreſſed. The reſt is plaited, and the ridges riſe above the centre. The gills are few, frequently only one at each plait.

TAB. CCCLXV.

AGARICUS PALLIDUS.

THIS has very little character to make it a ſpecies, and differs only from Bulliard's *A. leucocephalus* in not having a ſolid *ſtipes*, and perhaps in ſwelling a little where the *annulus* is uſually found. I have found it very often, or had not figured it here.

TAB. CCCLXVI.

AGARICUS FLAVIDUS. *With. ed.* 3. *vol.* 4. *p.* 209. 2*d var.*

WE have not met with a figure of this Fungus anywhere; but we venture to uſe one of Schæffer's names, which Withering quotes with a ſort of doubt, and which we think no other than a variety of *A. ſtipitis*. Ours ſeemed to agree pretty well with Withering's deſcription, except the colours of our Fungus being altogether more lively.

TAB. CCCLXVII.

BOLETUS HETEROCLITUS. *Bolt.* 164.

THIS is not very uncommon on the ſtumps of old willows. It does not always aſſume the yellow hue expreſſed in the figure, yet that often ſeems its moſt remarkable characteriſtic.

TAB. CCCLXVIII.

BOLETUS VARIEGATUS.

—— VERSICOLOR. *Schæff.* 136.

WE have found this Fungus on the ſame ſtump in General Money's plantations near Norwich, at two very diſtant periods. It very much reſembles *B. lucidus*; but being ſtemleſs, imbricated, and of a ſomewhat different texture, we have ventured to conſider it a ſpecies. But Schæffer's name *B. verſicolor* being engaged, and a variety of *B. hepaticus* being called *B. variegatus*, we have uſed the latter name as appropriate to this ſpecies. Schæffer's *Boletus ſemiovatus* ſomething reſembles ours, and perhaps may not be diſtinct.

TAB. CCCLXIX.

FIG. 1. PEZIZA HYBRIDA.

THIS *Peziza* ſomewhat reſembles *P. hiſpida*, and is hairy on the outſide, but whiter: the inſide partakes of the redneſs of *P. ſcutellata*. We have had it growing two or three years at Mead Place, without any conſiderable variation.

FIG. 2. P. CARTILAGINEA. *Bolt.*

FOUND on old damp walls, half hid among moſs, very commonly in the ſpring and autumn. It reſembles ſomewhat the ſhield of a *Lichen*, is of a bright ſcarlet colour, and of a cartilaginous texture.

FIG. 3. P. RUGOSA.

FOUND on bits of old rails in damp woods. It always ſtands erect, and moſtly crowded.

FIG. 4. P. PEDICELLATA. *P. cyathoidea? Bull.* 416.

COMMUNICATED by the Rev. Hugh Davies from North Wales. It neareſt reſembles *P. cyathoidea* of Bulliard, but is ſmaller and ſmoother. Its texture ſomewhat leathery.

FIG. 5. P. ARANEOSA? *Bull.* 280.

THIS is found in damp places, on old ſtumps of willows, and very much reſembles *P. ſcutellata*, though ſeldom ſo finely coloured, neither has it the *ciliæ* at the edges. It is ſomewhat woolly at the back.

FIG. 6. P. TRICOLOR.

SENT us by favour of William Brunton junior, eſq. of Ripon, in Yorkſhire. It ſeems to differ from any we have ſeen before, and we have named it *P. tricolor*. The inſide is of a pale yellow; the outer rim, which is ſomewhat thick, is of a darkiſh grey; the bottom white.

FIG. 7. P. BICOLOR. *var.?*

THIS we believe to be no other than a variety of our *P. bicolor*, *t.* 17. being much larger and rather ſmoother. Found at Hampſtead.

FIG. 8. P. NIGER.

SENT by the Rev. Dr. Abbot from Bedford. It is very ſmall, totally black, and ſomewhat cartilaginous, growing on bits of old paling.

FIG. 9. P. IMMERSA.

THIS is remarkable for forming holes in the wood on which it grows. It is ſomewhat woolly on the under ſide. The whole Fungus is black.

FIG. 10 and 11. P. ERECTA.

THIS is a very variable Fungus. We can trace it by degrees to *P. ſcutellata*. It is ſometimes deſtitute of hairs, ſometimes has *ciliæ* only, or is without *ciliæ*, with hairs at the back and underneath; ſometimes it has both *ciliæ* and hairs. It is oblong and upright, ſometimes ſhort and clumſy, often ſpreading. It varies from a deep red to a greeniſh yellow and a pale yellow, and is found on very wet moſs in damp places.

FIG. 12. P. RIMOSA.

WE are obliged for this, as for many other ſpecimens to the Rev. Mr. Alderſon, who obſerved it on brown paper on a beer barrel in his cellar. It is white and cartilaginous, but when old is apt to crack in the centre.

TAB. CCCLXX.

FIG. 1. SPHÆRIA MINUTISSIMA.

THIS minute Fungus, which is not to be ſeen without a magnifier, appears, as far as we can determine, to be a *Sphæria*.

FIG. 2. S. POTENTILLÆ.

MANY plants bear the ſame ſpecies of *Sphæria* in common, but this ſeems to differ from all others. We have only ſeen it on *Potentilla verna*, lying upon the ſurface of the leaf.

FIG. 3. S. TOFIELDIÆ.

THIS differs from the laſt in being immerſed in the leaf of *Tofieldia paluſtris*.

FIG. 4. S. PUSTULATA.

IN the cuticle of ſome trees this forms a flattiſh puſtule.

FIG. 5. S. CORNI.

THIS *Sphæria* is found on *Cornus ſuecica*. It lies under the cuticle, but ſtains it black, ſo as to make it appear as the upper ſurface of itſelf.

FIG. 6. S. ARBUTI.

WE have ſeen but little of this Fungus. It ſcarcely forms a ſphærule; yet from analogy we ſuppoſe it may, and we figure it here that it may lead to further inveſtigation.

FIG. 7. S. SUBCONFLUENS.

VERY frequent on decaying oak, ſycamore, and other leaves. We have alſo found it on the ſtalks of ſmall plants. It forms little black dots on the outer ſurface of the leaves, which are connected, 3, 4, or more together, by a black compact ſubſtance under the cuticle.

TAB. CCCLXXI.

FIG. 1. SPHÆRIA CORIACEA.

THE leathery aſpect of this *Sphæria* ſuggeſted its name. It is compoſed of a number of egg-ſhaped capſules of different ſizes, with the points downwards; the upper or broader part often as it were puſhed in.

FIG. 2. S. RUPESTRIS.

THE preſent *Sphæria* came accompanied with *Lichens* on fragments of the ſhiſtoſe rock from Ludlow, by favour of Dr. Babington. It is a ſimple ſphærule, ſtanding almoſt looſe upon the rock.

FIG. 3. S. KIRBII.

THE penetrating eye of the Rev. W. Kirby diſcovered this minute Fungus on the cores of apples. We here beg leave to correct the name of *Sphæria decorticans*, *E. Fungi*, *t.* 137, ſent by the ſame gentleman, which has been unluckily printed *S. decorticata.*

FIG. 4. S. LAURI.

THIS alſo was ſent me by the Rev. W. Kirby. It may be known on the upper ſide of the leaf, by a little filmy covering over the mouth, ſometimes perforated in the middle, and a riſing black circle round it. It penetrates the leaf in a curious manner, forming a black ſpot or ring on the under ſide.

FIG. 5. S. HEDERÆ.

THIS generally riſes through the cuticle of the leaf in a ſomewhat conical form.

FIG. 6. S. BETULINA.

THIS ſeems to ſwell the cuticle, forming an oblong black ſpeck on the ſurface, and a woolly ferruginous margin.

TAB. CCCLXXII.

FIG. 1. SPHÆRIA SALICINA.

THIS differs but little from the *S. Lauri*, *t.* 371. *fig.* 4, and ought to follow it. The mouth on the upper ſide of the leaf has a ſmaller covering, and the bottom of the ſphærule by its peculiar conſtruction, after penetrating the leaf, forms a black circle, ſometimes with a black dot in the middle.

FIG. 2. S. PERFORATA.

THIS forms roundiſh holes through the cuticle of the ſticks on which it is found, iſſuing from the cortex either ſingle or in bundles, with their mouths a little beneath the holes.

FIG. 3. S. ELLIPSOSPERMA? *Bull.* 492. *fig.* 3.

THE ſeeds were ſo conglutinated together in our ſpecimens, that we could not poſitively diſcern their elliptic forms, though we were almoſt confident they were of that figure.

FIG. 4. S. BOMBARDICA. *Bolt.*

A VERY common *Sphæria*, often ſpreading over old ſtumps of trees; and often one over another, not unaptly reſembling grains of gun-powder. In the young ſtate, a white powder iſſues from the mouths, afterwards a black jelly or powder, till at length they become empty ſphærules.

FIG. 5. S. CORTICIS.

THIS Fungus reaches entirely through the cortex. The mouth perforating the cuticle ſwells it a very little, and ſometimes a ſtain appears round it.

FIG. 6. S. ASPER.

WE put this among the *Sphæriæ* from its reſemblance, although it ſeems deſtitute of the common covering of the genus. It burſts the cuticle in ſo rough a manner as to give the ſtick it grows on the appearance of a raſp or file.

FIG. 7. S. MARGINATA.

THE mouth of this *Sphæria* perforates the cuticle, and the edges turn back upon it, forming a broad whitiſh border: ſometimes theſe have 2 or 3 perforations in them, and 2 or 3 mouths beneath.

FIG. 8. S. SUBIMMERSA.

ABOUT half of each ſphærule riſes, ſwelling the cuticle hemiſpherically, and giving it a dark greyiſh tinge.

FIG. 9. S. PUNCTUM.

THE ſphærule is nearly round, buried in the upper part of the cortex. The mouth perforates the cuticle, and has round it a blackiſh ſtain.

FIG. 10. S. EMERSA.

THIS burſts through the cortex, forming a mouth under the cuticle, with a ſpreading black circle round it, occaſionally perforating the cuticle with a ſmaller circle or ſtain round it.

FIG. 11. S. CRUSTACEA.

THE cruſtaceous cover of this Fungus ſpreads on the outſide of the wood, in parts forming little puſtulate ſphærulæ, with ſomewhat pointed mouths.

FIG. 12. S. INSIDENS.

ALWAYS on the outſide of the wood, or nearly ſo; ſometimes confluent, roughiſh and hard.

TAB. CCCLXXIII.

FIG. 1. SPHÆRIA VACCINII.

SOMEWHAT egg-ſhaped, ſtanding with the point upwards; it grows more or leſs crowded, ſurrounding the ſtalk of *Vaccinium Vitis-idæa*.

FIG. 2. S. RUBIFORMIS.

ROUND, moſtly crowded, and finely tuberculated.

FIG. 3. S. COLLAPSA. *Variolaria corrugata. Bull.* 432. 4. *Hyſterium nigrum. Tode Fung. Meckl.* 8. 64.

FROM its affinity to *S. fulcata*, we judge this alſo a *Sphæria*, it being apparently the ſame thing unrolled. It is ſometimes larger and a little different in ſhape, generally ſituated under the cuticle of the ſticks it grows on, and dries up irregularly.

FIG. 4. S. CIRCUMVALLATA.

FOUND on an oak leaf. The ſphærule is formed in the ſubſtance of the leaf. On the upper ſide appear 1, 2, 3, or more black convex ſpots, ſurrounded with a black margin at a little diſtance, penetrating the leaf perpendicularly.

FIG. 5. S. CURVIROSTRA.

THIS is very minute. Its ſphærulæ are imbedded in the plant on which they grow. The mouth is in length nearly twice the diameter of the ſphærule, ſtanding obliquely.

FIG. 6. S. GNOMON. *Tode Fung. Meckl. t.* 16. *f.* 125.

THIS *Sphæria* is very ſmall, but on examining it with a magnifier it may be readily underſtood.

FIG. 7. S. TERRESTRIS.

FOUND on the bare earth (an unuſual circumſtance with *Sphæriæ*) in Kenſington Gardens. It is ſomething like *S. hiſpida* of *Tode Fung. Meckl. t.* 10. *fig.* 84. but the hairs are chiefly at the bottom.

FIG. 8. S. SUBSECRETA.

THIS reſides under the cuticle, on rotting ſticks of poplar. The bark is generally in that caſe decompoſed, and very fibrous. The Fungus being inſerted in the interſtices of thoſe fibres. It is nearly round, but indented towards the top, which gives it a flattiſh appearance. The mouth protuberates a little, and has a ſingle aperture, although the lip, if I may ſo call it, is divided into 4 parts. It occaſionally perforates the cuticle.

FIG. 9. S. FULIGINOSA.

MOST common on rotten branches of oak. It ſpreads upon the ſurface of the cuticle, ſtaining it black, or riſing in irregular roughiſh tubercles, forming ſomewhat regular ſphærulæ within, altogether having a very ſooty appearance.

FIG. 10. S. DIFFUSA.

AFTER throwing off the cuticle, it diffuſes itſelf in different-formed patches on the ſurface of the cortex. The ſphærulæ within are ſomewhat egg-ſhaped, acuminating towards the mouth.

FIG. 11. S. CINEREA. *S. macula. Tode Fung. Meckl. t.* 13. *f.* 106.

THIS one might imagine was the young of *S. decorticans*; but as we have only found it in this ſtate, that is mere conjecture. It ſpreads upon the cortex under the cuticle, is of a cinereous colour with white punctures, which are the mouths of the little ſphærulæ holding a white ſubſtance.

FIG. 12. S. LICHENOIDES.

THIS was ſent me by the Rev. Mr. Relhan, who had not determined what to call it: therefore we have placed it among the *Sphæriæ*, although it may be nearly allied to a *Lichen*. The little ſphærulæ ſtand on the outſide, with a white ground which riſes round and covers each ſphærule.

TAB. CCCLXXIV.

FIG. 1. SPHÆRIA IMMERSA.

THIS *Sphæria* penetrates the wood in various directions, but forms the ſphærules on the outſide.

FIG. 2. S. POPULI.

NOT unfrequent on poplar leaves.

FIG. 3. S. ULMARIA.

A COMMON inhabitant in the autumn of the dead leaves of *Ulmus campeſtris*.

FIG. 4. S. PARALLELA.

THE ſurface of this is often nearly ſmooth. The ſphærules are more or leſs in number, imbedded in a blackiſh ſubſtance which riſes above the burſt cuticle, ſtanding in little parallel patches above it.

FIG. 5. S. PICEA.

THIS is irregular, and ſmooth on the ſurface, reſembling dry pitch, partly bleached to a browniſh colour, and cracked. The ſphærules are imbedded, but the whole Fungus lies on the outſide of the wood on which it grows.

FIG. 6. S. CONVERGENS. *Tode Fung. Meckl. t.* 14. *fig.* 111.

THIS ſpecies riſes from the cortex in a peculiar manner, ſimilar to a parcel of flaſks, having 4, 5, 6, or more together, preſſing the cuticle in a convergent manner upwards, and perforating it: their mouths are juſt ſeen through it. This ſpecies can ſcarcely be underſtood without cutting it in a tranſverſe direction.

FIG. 7. S. OBLONGA.

THIS ſpecies is ſomewhat allied to the preceding, but the cuticle is perforated in an oblong manner and nearly tranſverſe direction. The baſes of the ſphærules are irregularly ſeated; their necks are converged, more or leſs curved, and longer than the laſt.

FIG. 8. S. TUBERCULOSA. *With. &c.*

THIS ſeems ſometimes to form ſphærules round its ſurface, at other times not. When without thoſe ſphærules it often exactly agrees with the external appearance of *L. piſiforme*, *tab.* 271. E. Fungi; and ſometimes reſembles a ſmall *S. fraxinea*, *tab.* 160. E. Fungi; and we ſuſpected *L. acariforme* might alſo belong to it. Some ſpecimens the Rev. Mr. Francis lately ſent me confirm this, and he agrees with me. He alſo thinks that my figure of *L. radiatum* is nearly allied to it; other friends have formed the ſame conjecture.

FIG. 9. S. IRREGULARIS.

THIS *Sphæria* is irregular two different ways. It forms irregular tubercles of a browniſh black; the ſubſtance being of a reddiſh brown, including ſphærules ſcattered irregularly in it.

TAB. CCCLXXV.

FIG. 1. SPHÆRIA PUSTULA. *var. minuta.*

WE believe this to be a variety of *S. puſtulata* *, *tab.* 370. *fig.* 4. but rather ſmaller.

FIG. 2. S. SUPER-CRUSTACEA.

THE upper part of this little Fungus, burſting the cuticle of the ſticks on which it grows, forms 3 or 4 tubercular riſings ſomewhat cruſtaceous: below, it conſiſts of a rather irregular black maſs, not ſo hard as the upper part.

FIG. 3. S. RIMOSA.

THIS may poſſibly be a variety of *S. coriacea* E. Fungi, *tab.* 371. *fig.* 1. only growing in larger cluſters, and ſomewhat conglutinated together, forming cracks in drying.

FIG. 4. S. DUPLEX.

THIS is a very neat little Fungus, growing on the fiſtulous ſtems of ſome umbelliferous plants. The neat round ſphærule is formed in the woody part of it. The neck paſſes ſtraight to the cuticle. The mouth, ſpreading a little, makes a black ſpot on the outſide, which without careful examination might be taken for a perfect *Sphæria*, reſembling *S. puſtulata*, which is often found among it.

FIG. 5. S. GREGARIA.

THIS we place here upon old authority, but cannot poſitively affirm it to be a *Sphæria*. It appears to vary extremely in ſize and colour; ſometimes it is of a bright or dull orange. We could only diſcover it to be ſomewhat granulated on the outſide; the inſide is of a lightiſh brown. The whole is ſometimes in lobes, forming ſtellæ, or otherwiſe.

FIG. 6. S. PUNCTATA.

THIS little ſphærule ſtands upon the face as it were of a *Lichen*, forming black punctures, more or leſs round, of different ſizes. Coat cruſtaceous, black; within which is a whitiſh coat including jelly or black ſeed. This was ſent me for *Verrucaria punctata* of Hoffmann.

* Which ought to have been *puſtula*.

FIG. 7. SPHÆRIA DUBIA.

THE ſphærule is here indiſtinctly formed of a cottony ſubſtance, in the ſtalk of a vine, burſting the cuticle with a cottony mouth, through which iſſues a gelatinous tendril of a waxy appearance.

FIG. 8. S. VIRIDIS.

THE outſide of this little *Sphæria* is black, the inſide light green, with a ſmall hollow, ſo that when cut it appears clumſy. It is moſtly ſolitary. The wood it grows on is occaſionally ſtained greeniſh.

FIG. 9. S. OSTRACIA. *Hypoxylon oſtreaceum. Bull.* 444. 4.

WE only admit this as a *Sphæria* on the authority of thoſe who have gone before us; but we ſtrongly ſuppoſe it to be the nidus of an inſect, as the pupa of ſome one has always been found in it when in its moſt perfect ſtate. It opens like an oyſter-ſhell, and is often perforated at the top, perhaps by another inſect.

TAB. CCCLXXVI.

SPHÆRIA CARPINA.

NOT uncommon on hornbeam in Hainault Foreſt, Eſſex. I have ſeen the hard trunks of trees almoſt covered by it. The ſphærules are often difficult to find under the hard bark; they are ſomewhat compreſſed, often irregular, and at firſt rather waxy; afterwards they become a black, brittle, carbonaceous-like ſubſtance.

TAB. CCCLXXVII.

SPHÆRIA PROFUSA.

I UNDERSTAND a great deal has been ſaid about this curious production in Germany, but I believe it was ſtill left undetermined what it could be. Having diſcovered plenty of it in the neighbourhood of London, upon careful examination it proved to be a *Sphæria*,

FIG. 9. M. GLAUCUS.

THIS we alſo believe a variety of the ſame ſpecies. It is apt to throw the little ſeeds into a moniliform appearance. It is ſometimes gray as well as greeniſh: Micheli ſays it is found only on rotten apples.

FIG. 10. M. FERRUGINEUS.

FOUND ſometimes on old ſtumps of trees, decaying hay, &c. The ſtipes is thickeſt at the baſe; head irregularly powdery, and of a ruſty brown.

FIG. 11. M. ROSEUS. *Monilia roſea. Batſch. tab.* 12. *fig.* 58.

MOST common on the decayed kernels of nuts, within the ſhell, though more often on other rotting ſubſtances. The Rev. Mr. Alderſon ſent me ſome on rotten wood. The Rev. Hugh Davies ſent me ſome which he ſaid he found on *Tuber ſolidum*. It is moſtly in denſe patches, compoſed of numerous fibres more or leſs diſtinct, and round particles of farinaceous powder of a roſe colour.

FIG. 12. M. QUERNEA.

WE have only found this in the hollow of the great oak on Hainault Foreſt called Fairlop, where it is very abundant. It is compoſed of branched filaments with numerous ovate, powdery heads in little bundles, moſtly of a deep orange colour.

FIG. 13. M. CHRYSOSPERMUS. *Bull.* 504. 1.

THIS differs from the laſt in having round and lighter-coloured particles compoſing the heads. It is found on rotten *Boleti*.

FIG. 14. M. LIGNIFRAGUS.

DIFFERS from *M. glaucus*, fig. 9. in being in much more round faſciculi. I believe, however, theſe are only varieties of each other, and are the admired blue mould in rotten cheeſe, &c.

which, forming under the cuticle, ejects in aſtoniſhing abundance an orange gummy-looking matter in long ſportive tendrils: but what is moſt curious is, that the ſphærules are black, and included, 1, 2, 3, or more, in a black ſpongy ſubſtance, having alſo a black ſubſtance within, from whence the tendrils ſhoot. The ſphærules are not always to be found in either of theſe ſpecies.

TAB. CCCLXXVIII.

Fig. 1, 2 & 4. MUCOR TRICHOIDES.

THIS is often one of the firſt ſpecies of vegetation on ſubſtances that imbibe ſuperfluous moiſture, ſuch as decayed vegetables, &c. Some grew on paper, ſome on oak, and ſome on Lichens. The head is oblong, and pointed. It varies from white to green, and is often very minute.

Fig. 3. M. FUSCIPES.

FOUND on a piece of very wet oak. It had a dark brown ſtipes and an oval head. We are not ſure whether or not it be a variety of the laſt.

Fig. 5, 6 & 7. M. MUCEDO.

THIS varies extremely in ſize, depending upon the ſituation in which it grows. In very moiſt cellars on cat's dung, &c. it often grows very large, compoſed of tufts of very fine white pellucid filaments, from the 10th of an inch to three or four inches long, with round, pellucid watery heads, occaſionally producing white powder. It often grows large on paſte. The ſeeds, if I may ſo call them, ſometimes fall about the ſtipes, and are always diſcharged by ſudden drying.

Fig. 8. M. FULVUS.

THIS may be a variety of the laſt; it is moſtly found dwarfiſh; the head larger in proportion, and in its latter ſtate the ſeeds often placed in a radiated form

which, forming under the cuticle, ejects in aſtoniſhing abundance an orange gummy-looking matter in long ſportive tendrils: but what is moſt curious is, that the ſphærules are black, and included, 1, 2, 3, or more, in a black ſpongy ſubſtance, having alſo a black ſubſtance within, from whence the tendrils ſhoot. The ſphærules are not always to be found in either of theſe ſpecies.

TAB. CCCLXXVIII.

FIG. 1, 2 & 4. MUCOR TRICHOIDES.

THIS is often one of the firſt ſpecies of vegetation on ſubſtances that imbibe ſuperfluous moiſture, ſuch as decayed vegetables, &c. Some grew on paper, ſome on oak, and ſome on Lichens. The head is oblong, and pointed. It varies from white to green, and is often very minute.

FIG. 3. M. FUSCIPES.

FOUND on a piece of very wet oak. It had a dark brown ſtipes and an oval head. We are not ſure whether or not it be a variety of the laſt.

FIG. 5, 6 & 7. M. MUCEDO.

THIS varies extremely in ſize, depending upon the ſituation in which it grows. In very moiſt cellars on cat's dung, &c. it often grows very large, compoſed of tufts of very fine white pellucid filaments, from the 10th of an inch to three or four inches long, with round, pellucid watery heads, occaſionally producing white powder. It often grows large on paſte. The ſeeds, if I may ſo call them, ſometimes fall about the ſtipes, and are always diſcharged by ſudden drying.

FIG. 8. M. FULVUS.

THIS may be a variety of the laſt; it is moſtly found dwarfiſh; the head larger in proportion, and in its latter ſtate the ſeeds often placed in a radiated form

FIG. 9. M. GLAUCUS.

THIS we alſo believe a variety of the ſame ſpecies. It is apt to throw the little ſeeds into a moniliform appearance. It is ſometimes gray as well as greeniſh: Micheli ſays it is found only on rotten apples.

FIG. 10. M. FERRUGINEUS.

FOUND ſometimes on old ſtumps of trees, decaying hay, &c. The ſtipes is thickeſt at the baſe; head irregularly powdery, and of a ruſty brown.

FIG. 11. M. ROSEUS. *Monilia roſea. Batſch. tab.* 12. *fig.* 58.

MOST common on the decayed kernels of nuts, within the ſhell, though more often on other rotting ſubſtances. The Rev. Mr. Alderſon ſent me ſome on rotten wood. The Rev. Hugh Davies ſent me ſome which he ſaid he found on *Tuber ſolidum.* It is moſtly in denſe patches, compoſed of numerous fibres more or leſs diſtinct, and round particles of farinaceous powder of a roſe colour.

FIG. 12. M. QUERNEA.

WE have only found this in the hollow of the great oak on Hainault Foreſt called Fairlop, where it is very abundant. It is compoſed of branched filaments with numerous ovate, powdery heads in little bundles, moſtly of a deep orange colour.

FIG. 13. M. CHRYSOSPERMUS. *Bull.* 504. 1.

THIS differs from the laſt in having round and lighter-coloured particles compoſing the heads. It is found on rotten *Boleti.*

FIG. 14. M. LIGNIFRAGUS.

DIFFERS from *M. glaucus*, fig. 9. in being in much more round faſciculi. I believe, however, theſe are only varieties of each other, and are the admired blue mould in rotten cheeſe, &c.

TAB. CCCLXXIX.

FIG. 1. FARINARIA POMACIA.

ON October 29, 1799, T. A. Knight, Eſq. favoured me with ſome apple-tree leaves, ſome of which were diſordered, and covered with a very fine white powder, others more or leſs clothed in patches with dark brown particles, ſcarcely diſcernible to the naked eye. Their form was ſomewhat ovate, but irregular. Whether theſe are capſules or ſeeds it is undetermined. Mr. Knight obſerved, that on ſhaking the leaf over a piece of talc or glaſs he detected little oval bodies which ſhrivelled a little in drying. Some of theſe were transferred to other trees, and the diſorder along with each, every one producing its own ſpecies.

FIG. 2. F. ALBA.

I HAVE found this in great abundance on ſticks in Hornſey wood. It forms minute, round, ſcattered granules.

FIG. 3. F. SULPHUREA.

EXTREMELY common in every herbarium on the dried plants, being formed of very compact denſe granules of a ſulphur colour.

FIG. 4. F. BRUNNEA.

THIS conſiſts of ſomewhat ſpongy-looking brown granules. Found on dead willows.

FIG. 5. F. LANATA.

FORMS little granules ſeemingly mixed with woolly fibres and covered with other looſe fibres. It alſo has a blackiſh knob at the baſe, and may be met with on damp paper.

TAB. CCCLXXX.

FIG. 1. FARINARIA XERAMPELINA.

FOUND on French berries. The ſubſtance ſomewhat denſe and brittle, throughout of a lightiſh crimſon; a looſe browniſh wool lying about each maſs.

FIG. 2. FARINARA SPARSA.

FORMING mealy granular particles, ſcattered in faſciculi over large maſſes of ſtone, of a yellow colour, on the under-ſide of the Cromleigh, near Penzance in Cornwall.

TAB. CCCLXXXI.

AGARICUS AURANTIUS. *Schæff. t.* 2. *With.* 261. *ed.* 3. *vol.* 4.

——— CROCEUS. *Bull.* 50 & 554. *fig.* 3.

THIS Agaric is liable to many different appearances in form and colour, not however irreconcileable to the nature of the Fungus tribe. It is not uncommon on heaths and in meadows, &c. growing to maturity in two or three days. It may be bleached, or lighter coloured, in dry or ſunny weather; in damp weather it becomes twiſted and deformed; occaſionally the moiſture of the Fungus partly going off; the remainder becomes black, and like charcoal. This laſt change is very common, but does not always happen.

The yellowiſh figure, which is ſomewhat rugged, has been called *A. flammeus*. Hudſon called it *A. dentatus*, from Linnæus, I believe; but it is not at all a conſtant character for the lamellæ to be toothed. Their colour is ſometimes pinky, and they are moſtly looſe. The ſtipes is either ſolid, pithy, or hollow.

TAB. CCCLXXXII.

AGARICUS TUBÆFORMIS. *Schæff.* 248 & 249. *With. t.* 177. *ed.* 3. *vol.* 4.

SURELY only a variety of *A. tigrinus*, *tab.* 68. of this work. It is ſtrangely ſportive, and liable to various appearances from not always producing the pileus and lamellæ. See fig. 249. Schæff. Thus Holmſkiold in the *Fungi Danici*, thought it to be of the *Clavaria* tribe, calling it *Ramaria ceratoides*, *tab.* 9. and Mr. Dickſon has figured a variety, as may be readily ſeen in *Clavaria lignoſa* of his faſciculus 4. *tab.* 12. *fig.* 9. The woody

texture no doubt ſuggeſted the name. It is always hard in the dry ſtate, yet altogether very tender when freſh. *A. ſquamoſus*, Schæff. 29. and 39. which I have received from Dr. Smith and Mr. Crowe, are doubtleſs varieties of this ſpecies. The gills when produced are occaſionally notched, but not always. It is often blackiſh, or brown, at the baſe.

TAB. CCCLXXXIII.

AGARICUS LYCOPERDONOIDES. *Bull.* 466. *With. fig.* 228. *ed.* 3. *vol.* 4.

I HAVE no doubt of this being an Agaric, according to Bulliard *. I however have not been ſo fortunate as to find it in the perfect ſtate. I found it on the black remains of *A. elephantinus* in Peckham Wood in November a few years ſince. The lamellæ, according to Bulliard's figure, are thick and ſhort.

TAB. CCCLXXXIV.

FIG. 1. AGARICUS ARANEOSUS, *var. of* 223.
—— 2. —————— ULMARIUS, *var.* 67.
—— 3. —— ——— VELUTIPES, *var.* 263.

AGARICUS araneoſus ſometimes varies ſo extremely that it is difficult to recogniſe the ſpecies. The ſpecimen as here figured may be known beſt by the webby films about it: the elongation of the ſtipes and the ſmallneſs of the pileus are a great diſguiſe to it.

A. ulmarius. This imperfect ſtate of this ſpecies has given riſe to the idea of a new ſpecies; I therefore figure it here, to ſhow how eaſily we may be deceived in this diviſion of Fungi.

A. velutipes. The ſpecimen figured in plate 263 being more curious than common, I could not avoid giving a figure of it. It became therefore neceſſary to give the more common appearance of it here, as found on willow trunks, its uſual habitat. In moderate ſeaſons it often grows much larger, with ſimilar characters.

* The lamellæ however are ſaid to conſtitute it a Merulius of ſome authors, as they are not very prominent.

TAB. CCCLXXXV.

FIG. 1. AGARICUS TENTACULUM. *Bull.* 560. *fig.* 3.

THE great width of the lamellæ where fixed to the ſtipes is the great characteriſtic of this Fungus, and I am apt to think it a variety of the two following.

FIG. 2 & 3. A. ADONIS. *Bull.* 560. *fig.* 2 & 3.

THESE ſeem to have no ſpecific difference, and are like the laſt, except the lamellæ and colour.

FIG. 4. A. PUMILUS. *Bull.* 260.

THIS agrees with Bulliard's figures, except that the ſtipes of ours is much longer, and the lamellæ ſomewhat darker in colour.

FIG. 5. A. TENUIS. *Bull.*

BESIDES the attenuated length of the ſtipes, the lamellæ are moſtly narrow, and attenuated, and ſcarcely touch the upper part of the ſtipes. The firſt four of theſe I have occaſionally found to have milky ſtipes: they are probably only varieties. The fifth is certainly only a variety of *A. varius* figured in our *tab.* 222. under the name of *A. polygrammus*. I have ſeen ſpecimens near a foot long in the ſtipes, with every appearance the ſame except ſize, and ſometimes with a root of five or ſix inches in addition.

TAB. CCCLXXXVI.

FIG. 1. SPHÆRIA SPHINCTERICA. *Bull.*

WE find this curious *Sphæria* growing in a remarkable manner on *Lichen pertuſus*, ſent by Mr. Brunton jun. of Rippon in Yorkſhire; and by Mr. Borrer from near Brighton in Suſſex. It is paraſitic in the ſubſtance of the cruſt of the Lichen, and protrudes from it, reſembling the natural fructification ſo much that it might be eaſily miſtaken for it in a Lichen leſs known. The hairs ſurrounding the mouth ſometimes are whitiſh.

FIG. 2. S. PARASITICA.

THIS little *Sphæria* grows on the fructification and cruſt of *Lichen vernalis*. It was ſent by the Rev. Mr. Harriman from Durham.

FIG. 3. S. HIRSUTA.

WAS found by the Rev. W. Kirby between the plaſter walls of his houſe, while repairing. It grows in little bundles, each tubercled and covered with fine hairs. The outſide is blackiſh, the inſide ſometimes has a border of white.

FIG. 4. S. SCOPULA.

FOUND on rotting baſkets of wicker, and on old hoops, at Mead Place. At firſt the Fungi ſeem only little tufts of fine black hairs; but ſome more advanced contain a little black ſphærule: the hairs are feathered, or furniſhed with little hairs upon them.

FIG. 5. CLAVARIA TENUIS.

FOUND on bits of rotting wood at Mead Place in the coal cellar, in damp weather. It reſembles a little black hair thickening upwards.

TAB. CCCLXXXVII.

FIG. 1. FIBRILLARIA STELLATA.

I THOUGHT it neceſſary to figure this, and another or two of the imperfect Fungi, that they might be the better underſtood when found.

Moſt Fungi, apparently when ſeedlings, produce ſmall cottony fibres, and ſome aſſume a more determinate form, without coming to their full growth or figure. If repreſented, and for the preſent named, in ſuch a ſtate, they can be hereafter traced to their proper genera, when they happen to unfold their fructification. This figure is not uncommon, and on examination ſeems compoſed of ſmall white fibres, branching, and ſpreading flat on bits of ſtick in a ſtellated manner.

FIG. 2. F. RAMOSISSIMA.

THIS is not uncommon on plaſtered brick walls, and ſometimes branches very irregularly, at others concentrically, often in very large patches. This is a piece of one which grew on a wall in a middle cellar at Mr. Forſter's at Lambeth, and was above two feet in diameter.

FIG. 3.

THE fibrillæ of which this is compoſed are not much unlike the two laſt, though ſomewhat more tender when freſh, and brittle when dry. This is figured by Dillenius 1. 12; and Dr. Withering, in the 3d ed. of his Arrangement, vol. 4. page 146, traces it from a yellowiſh or reddiſh colour to brown, and at length to black, obſerving that it reſembles the ſkin of a mouſe: he ſhould have added 'when compreſſed.' He thinks it a variety of figure 6 following. If ſo, it is a *Boletus*.

FIG. 4. CLAVARIA FILIFORMIS. *Bull.* 448. 1.

THIS is not uncommon among dead leaves when thickly ſtrewed on the ground. It is compoſed of fibrillæ not unlike *Byſſus barbata*, E. Botany, tab. 701; but in drying ſhrivels up almoſt to nothing.

FIG. 5. BOLETUS TERRESTRIS.

FOUND on the ground in woods, often ſpreading an inch or two in diameter, without any ſign of being any thing but a compound of fine and ſmall fibres interwoven and lying flat on the ground. However, we have met with it forming pores ſo as to conſtitute it a *Boletus*.

FIG. 6. BOLETUS HYBRIDUS. *See tab.* 289 *of this work.*

THIS beautifully white, moſt delicately tender and fine fibrous cottony ſubſtance is often copious in cloſe cellars, along with what is repreſented at *fig.* 3. (this latter has ſometimes been found on rotten wood under the earth), and is compoſed at firſt of fibres, not unlike the longer ſtems of *Mucor mucedo*, *tab.* 378. *fig.* 6. nearly as figured by Dill. *tab.* 1. *fig.* 9. and is ſaid to

be *Byſſus ſeptica* of Linnæus. Dr. Withering traces it, in his opinion, to *fig.* 3. of this plate. We, however, have no aſſurance of the latter having been detected with pores, or other fructification, like this white one, which has been found in great abundance, and was brought me from Oxford by my good friend Dr. Williams. Its fibres are eaſily decompoſed. The figure repreſents it in ſome degree compreſſed.

FIG. 7. BOLETUS VERSICOLOR?

THIS is a *Poria* of ſome authors, and is not uncommon under wooden window-ſills or copings over the little brick walls in hot-houſes, extending to a foot or more in length. I do not know that it has been found with a pileus. The pores reſemble thoſe of *B verſicolor*, being moſtly round and white, ſometimes lengthened out. The ſubſtance is nearly the ſame, being white cottony fibres cloſely compreſſed. *B. verſicolor* is occaſionally very ſportive, and deſtitute of a pileus.

FIG. 8. BOLETUS FIBULA.

I WAS favoured with ſpecimens of this *Boletus* by D. E. Davey, Eſq. of the Grove, Yoxford, in Suffolk. They grew on his wine-cellar door. The button-like form, with an umbilical root, like a ſhank, gives this ſpecies a remarkable appearance. The pores in the centre are irregular, ſmall, and ſhallow; the ſubſtance ſomewhat cottony, and cloſer than the dry rot, *Boletus lacrymans*. I cannot help mentioning here a large flat ſpecimen of *Boletus lacrymans*, kindly communicated to me by the Earl of Dartmouth, about nine inches in diameter, the pores irregular in the outward circle, the centre compoſed of ſmall, irregular, ſomewhat botroid protuberances.

FIG. 9. BOLETUS LATUS.

THIS may be often found ſpreading, in irregular patches, on bits of ſtick, &c. in damp places. The pores, when any, are ſomewhat central. The ſubſtance rather reſembles *fig.* 1. of this plate, but is more compreſſed.

FIG. 10.

A curious fungus-like ſubſtance, although not really ſo, as far as we know. It was brought me from among ſome fir fire-wood, and appears to be a particular decompoſition of the longitudinal fibres of the wood, giving them a white cottony texture, the croſs fibres being loſt. This ſeems the ſame as found by Mr. Jameſon in Scotland, which he aptly deſcribes as follows: "The wood having loſt its latitudinal coheſion renders it ſoft; but the longitudinal fibres are ſtrong and tough, ſo that they are ſplit and twiſted to form halters for cattle in Aberdeenſhire." I do not know that the remaining white fibres in mine are tough enough for a ſimilar uſe: they are, however, tolerably ſtrong when in ſmall bundles. The ſtronger or turpentine part of the wood is nearly equally liable to the ſame decompoſition.

I have pieces of oak, where a ſimilar decompoſition has taken place, in regular ſpots, about an inch in circumference, with mucor in the centre of each.

A mucus-like ſubſtance is ſometimes formed in water, on rotten leaves, in vinegar, and on or in ink, and among preſerves, &c. if too watery, which, when produced on the ſurface, have the round duſty head, or other appearances, of *Mucor mucedo?* or *Ligni fragus*. The fibres, on examination when dry, ſeem the ſame as the ſtipes of other Mucors when entangled or condenſed.

TAB. CCCLXXXVIII.

FIG. 1. AURICULARIA PERSISTENS. *Bull.*

I AM ſomewhat doubtful as to this being a ſpecies, as it differs very little, if at all, from ſome varieties of *Auricularia reflexa*, which, in wet and cold ſeaſons, are often purple, and bordered with purple in various ways.

FIG. 2. AURICULARIA LÆVIS.

FOUND on trees late in the autumn, not very common, and may poſſibly be the remains of *Auricularia reflexa*. The difference is, that the upper as well as under ſide is ſmooth. The whole is moſtly of one colour, of a purpliſh brown.

FIG. 3. AURICULARIA CINEREA.

NOT uncommon on rotting fallen branches very late in the autumn, on their under ſide. It ſpreads very much, and has moſtly a browniſh margin. The middle generally is full of irregular protuberances, of a greyiſh colour, and ſometimes very minutely ſcattered with ſmall whitiſh ſpots.

TAB. CCCLXXXIX.

FIG. 1. PEZIZA SESSILIS.

VERY ſmall, with a white cottony outſide; ſmoothiſh and whitiſh within; found on rotten ſticks.

FIG. 2. P. IMMERSA.

THIS was ſent me by the Rev. Mr. Harriman. It is diſtinct from any thing I had before ſeen. It conſiſts of ſimple, roundiſh, almoſt globular cups, ſeemingly of a leathery texture when dry, but tender when freſh. They appear nearly ſmooth on both ſides, and are generally ſunk in little holes in the earth, their upper part being about level with its ſurface.

FIG. 3. P. STERCORARIA? *Aſcobolus furfuraceus Perſoon. Myco. t.* 4. *f.* 3. *a.* 3—6.

THIS is not often found with the ſeed-veſſels ſo diſtinct, which are of the peculiar ſtructure here delineated, having eight ſeeds: theſe are projected from them to ſome diſtance, occaſioned ſeemingly by their progreſſive ripening; for the latter ones crowd and ſwell, ſqueezing out the riper ones as they advance under them. The variations of weather and conſtruction

will readily account for this. Theſe octoſperm ſeed-veſſels have given name to the genus *Octoſpora* in Hedwig, which includes many of the *Peziza*, as having a ſimilar ſtructure. Theſe before us are of a light greeniſh yellow, varying to brown.

FIG. 7. P. SUBDIAPHANA.

OF a ſemi-tranſparent waxy appearance; not uncommon on the under ſides of rotting wood in ſomewhat cloſe places, and may be a variety of *P. cinerea*, *t.* 64, dried before perfected.

FIG. 8. P. ABBOTIANA.

THIS pretty fungus was ſent me, ſome time ſince, by the Rev. Dr. Abbot, from Bedfordſhire. I ſketched it as ſoon as it came, but waited for more of it, as I expected to find ſome with foliage to conſtitute it a Lichen. As the ſpecimen here figured had not any thing like the cruſt or foliage of a Lichen, I therefore venture to figure it as Fungus.

TAB. CCCXC.

FIG. 1. LYCOPERDON PHALLOIDES. *Sm. Spicil. t.* 12. *Dickſon's Faſ. Cryp.* 1. 24.

THE firſt author who appears to have noticed this moſt extraordinary Fungus is Mr. Woodward, of Bungay, in Phil. Tranſ. of London, *v.* 74. 473. *t.* 16. It has been found in ſandy banks near Norwich, and in Suffolk, by Mr Woodward. Mr. Davey, of the Grove, Yoxford, finds it annually in Suffolk. I do not know that it has been detected in the ſtate of an egg, or ball, which appears to be formed under ground as the balls of the *Phalli*, *tab.* 329 and 330, are above ground. The ſtipes and pileus are included in a curious manner. The outer and coarſer volva has a ſort of lining, which covers the fructification on the volva that ſurrounded the ſtem, the peculiar protruſion of which burſts the whole, tearing the covers, &c. and forms a cap, or pileus, of the three coverings, with part of the ſtem

above the ground. The innermoſt coat has a ſort of briſtly pile that holds the powder. The two outer ſkins wither off, and are blown away, leaving the ſeeds to diſperſe themſelves. It afterwards dries, and ſeems to periſh. The root is fibrous. It is ſomewhat extraordinary that this root and fungous bulb ſhould be ſix or eight inches under ground; and it is poſſible that, the ſeeds being diſperſed, it may form new bulbs for its annual ſupport under ground, which I ſhould be glad to ſee with the Fungus in perfection.

TAB. CCCXCI.

CLAVARIA MINUTA.

THIS pretty little Fungus was diſcovered, growing on the bracteæ of *Dipſacus piloſus*, by the Rev. R. B. Francis, F. L. S. who favoured me with theſe ſpecimens. They were found at Raleigh, in Eſſex.

TAB. CCCXCII.

FIG. 1. RHIZOMORPHA PATENS.

WAS ſent me by the Rev. Mr. Relhan, the ingenious author of the Flora Cantabrigienſis; found on old willows near Cambridge. Old willows are hardly ever deſtitute of Rhizomorpha-like ſubſtances, which may perhaps be real roots; and other trees, under certain circumſtances, protrude their fibres to ſuch a diſtance, and in ſuch a manner, as to create a puzzle. The real roots, however, may, I believe, always be diſcovered by their having the *medulla* or pith, *wood* and bark; and the Rhizomorpha by being deſtitute of the inner pith, having only a fibrous and cottony inner ſubſtance and bark.

FIG. 2.

I BELIEVE this to be a variety of the above, and of *tab.* 299. It has been called *Rhizomorpha ſpinoſa*. The three already mentioned, and one given me by the Rev. W. Kirby, found under the bark of an old water-pipe on the Middleſex ſide of Weſtminſter-bridge, ſeem to be the ſame ſpecies.

FIG. 3. R. HYBRIDA.

OLD or rotten wood, roots, &c. are occaſionally covered with a black ſubſtance, which ſometimes produces a ſort of fructification, determining it to be a perfect Fungus, or *Sphæria*. This approaches but little towards a perfect Fungus, yet I was not willing to leave it unnoticed in a work where it might be expected. It is of a conſiſtence like the bark of the *Rhizomorpha*, and of a browniſh colour, ſpreading over, and often in, the cracks of decaying wood. This was covered externally with a powdery light-brown ſubſtance.

TAB. CCCXCIII.

FIG. 1. SPHÆRIA NIGRA.

SMALL, flattiſh, indented at the top, black on the ſurface, found on the ſtalk of a decaying umbelliferous plant.

FIG. 2. S. TUBEROSA.

SOMEWHAT verrucoſe, black on the outſide, and white within. Its ſubſtance is ſolid, penetrating, or often protruding, through the thick bark of the plant it grows on.

FIG. 3. S. BRASSICA. *Dickſ. faſc.* 1. *p.* 23.

NOT uncommon on cabbage-leaves that are left to rot in the autumn. It is often the ſize of a pea, forming a kind of tubercle, with a blackiſh cruſt on the outſide, and white within. Theſe two laſt have been received into the genus *Verrucaria* by Mr. Perſoon; but it is doubtful whether we may not be deceived by them, as by *Sphæria tuberculoſa* of this work, *tab.* 374. *fig.* 8. See deſcription.

FIG. 4. S. LONGA.

FORMS a black oblong ring, ſmall, and penetrating, or fixed to the depth of the bark (if I may ſo call it) of a piece of decaying reed. The top is lightiſh in the middle; the inſide is quite white.

FIG. 5. S. GUTTA.

BLACK, nearly conical, very minute, brittle, and almoſt ſolid.

FIG. 6. S. LONICERÆ.

ON the ſtalk of woodbine; black; round or oval, with a little nipple, inſerted into the bark.

FIG. 7. S. CORONA.

SHAPED like a crown or cap; indented towards the middle with a little central roundiſh protuberance; the inſide grayiſh.

FIG. 8. S. PISI.

FOUND by the Rev. William Kirby on pea-ſtalks; round within the bark, or protruding outwards with a conical point or mouth, giving it the form of an egg with the point upwards. It covers the ſtalk, &c. almoſt all over in little ſpots.

TAB. CCCXCIV.

FIG. 1. SPHÆRIA FUSCO MARGINATA.

SUNK about half-way in the bark of nettle-ſtalks. The upper part is elevated, or convex, with the mouth in the centre; black, encircled with a lightiſh colour, ſoftening into a brown. This was ſent me from Barham, Suffolk, by the Rev. William Kirby.

FIG. 2. S. NIDULA.

CLUSTERED in concave parts on the root of the bean; ſmall, black, nearly round, the mouth forming a ſort of blunt point.

FIG. 3. S. ACUMINATA.

SCATTERED on the ſtalk of a thiſtle, ſome nearly on the ſurface, others deeper, ſomewhat egg-ſhaped, with the pointed end upwards; the mouth a little elongated, forming a ſmall conical point. They only appear on ſome parts of the ſtalk.

FIG. 4. S. BREVIS.

SHORT or flat, ſeated in the bark of a decaying branch. The mouth is ſeen on the ſurface, with a white ſpace round it, terminated by a blackiſh ring, or border.

FIG. 5. S. LÆVIS.

ON hazel? inſerted into the bark, and ſwelling a little above it, in ſmooth, ſhining, oblong, black blots; the inſide whitiſh, with many egg-ſhaped ſphærulæ. Found at Barham by the Rev. William Kirby.

FIG. 6. S. TAXI.

FOUND on dead leaves of the yew (*Taxus baccata*) in Hainault Foreſt. It is generally under the cortex of the foliage, blackening it in little ſcattered ſpots, ſomewhat conical at the top, flattiſh at the baſe, with one, two, or three little ſphærulæ.

FIG. 7. S. RECTA.

ON the ſtalks or petioles of the leaves of ſome water plants; Arrow-head, (*Sagittaria ſagittifolia*, *Sparganium*, &c.) inſerted into the cortex. It is very round, with a ſtraight neck paſſing through the cuticle. The minute black mouths are ſcattered irregularly, and are almoſt imperceptible.

FIG. 8. S. MULTICEPS.

ON decaying ſticks, in black ſooty-looking irregular patches, on the ſurface of the bark, or cuticle, uniting in numbers, each with a ſort of pointed or acuminated mouth. Subſtance green within.

FIG. 9. S. MACULANS.

SPOTTING bits of ruſh leaves with its little black mouths, and an additional blackiſh ſtain. The ſphærules are underneath, in the middle of the leaves, in cluſters, between the upper and under ſkins, their mouths penetrating one ſide only.

FIG. 10. S. PTERIDIS.

FORMING elliptical and pointed black ſcattered wings on the ſtalk of the Brake, *Pteris aquilina*. The ſphærulæ are inſerted underneath in the ſame form, and are round and black. *Rev. Mr. Kirby.*

TAB. CCCXCV.

FIG. 1. SPHÆRIA RAMOSA. *Dickſ. faſc.* 4. *t.* 12. *fig.* 7.

FIRST obſerved on wood covering a drain, near Mead Place, Nov. 24, 1797. It runs a yard or two under the planks on which it is found, branching and dividing continually. The male fructification, or farinaceous part, white, at the flattiſh and moſtly acuminated ends: this part is often attached to the wood. The ſphærulæ, or capſules, are roundiſh, ſituated in the ſwelling or larger parts, which are moſtly twiſted ſpirally, as well as ſome of the other parts of the fungus. The branches are often extended beyond the capſules.

FIG. 2. S. REPTANS.

THIS was found on a piece of rotten wood in Kenſington Gardens. The black cruſtaceous ſubſtance, of which the *Sphæriæ* are uſually compoſed, ſeems in this to have been in a ſort of fluid ſtate, running into branches, at the ends of which the oblong capſules are formed, turning upwards: the upper part holds the ſphærule, which is rather oblong, the ends being ſomewhat capitate and whitiſh.

FIG. 3. S. FUSCA.

CONSISTS of little round ſphærulæ, of a browniſh colour, profuſely ſcattered over a rotting piece of fir that had been worked. They are ſo ſtrongly attached as to leave their baſes if we try to rub them off.

TAB. CCCXCVI.

FIG. 1. FARINARIA STELLARIÆ.

STELLARIA graminea, and ſometimes *Stellaria holoſtea*, are affected with this in the pollen, ſwelling and burſting the anthers, ſhrivelling the petals, and often burſting from the germ, as it ripens: it is of a dark brown colour. The ſame ſeems to be found on *Bromus mollis* and ſome other graſſes, &c.

FIG. 2. F. SCABIOSÆ.

SEEMS a paraſitical deſtroyer of the pollen of the *Scabioſa arvenſis* (Field Scabious), filling the anthera ſo copiouſly that it is ſoon ſcattered all over the flower, giving it the appearance of having been rubbed in a duſty road, the powder being of a lightiſh brown colour.

FIG. 3. F. SPHÆROIDEA.

FORMED partly within the ſtem of *Agaricus elephantinus*, in the latter ſhrivelled and carbonated or black ſtate, ſometimes emerging half way, or more. This is rather more cruſtaceous on the outſide than *Farinariæ* generally are. The colour is ferruginous.

FIG. 4. F. CARBONARIA.

SWELLS the ſeeds of *Carex micheliana*, diſtorting them into an oblong curved black body.

FIG. 5. F. VARIA.

THIS was found on ſome mouldy French berries. It is black, and of various ſhapes.

FIG. 6. F. POÆ.

COMMON on *Poa fluitans*, (*Sm. Fl. Brit. p.* 95.) In the early flowering of the plant it begins to ſwell the ſeeds, that are affected very conſpicuouſly. In the latter ſtate they become lengthened and curved, the outſide emitting a farinaceous-looking duſt.

FIG. 7. F. TRIFOLII.

ROUND black particles, in cluſters, found on the bark of the foliage of *Trifolium fragiferum*, or Strawberry Trefoil, in damp weather, early in the autumn, while the flowers of the plant are in full perfection.

TAB. CCCXCVII.

FIG. 1. ÆCIDIUM TUSSILAGINIS.

GROWS in ſmall ſcattered cluſters on the back of the leaf of *Tuſſilago Petaſites*, or Butterbur. The border is roundiſh, ſomewhat regular, cracking, and reflexed, of a light yelloviſh brown, lighteſt on the inſide.

FIG. 2. Æ. TRAGOPOGINIS.

MOSTLY ſingle, ſcattered, ſmaller than the laſt, lighter coloured, and ſometimes plain, as if rubbed, not being ſo well ſecured as the laſt is by the woolly leaf. Theſe are poſſibly varieties of each other. The *Æ. Tragopoginis* ſeems to contract and ſpoil the growth of the foliage, &c.

FIG. 3. Æ. CORNI.

FORMS a largiſh cluſter or two on the back of the foliage of the *Cornus ſanguinea*. Its border is moſtly plain. The Fungi are crowded, and ſitting on an orange-coloured riſing ſubſtance, darker than the caſes, which are, however, ſomewhat tinged, as it were, by it at their baſes.

FIG. 4. Æ. RANUNCULI.

NEARLY like the laſt, though ſomewhat paler, and more ſcattered over the back of the foliage. It is moſt common on the Pilewort, or *Ranunculus Ficaria*.

FIG. 5. Æ. BERBERIDIS.

MOSTLY to be found on the back of the foliage of the Berberry, *Berberis vulgaris*, more particularly in chilly weather, after cold rains, in ſpring or autumn, as is the caſe with all *Æcidia*. The border is moſtly plain, the cup lengthened out, pale yellow, on a deep orange-coloured ground, which, ſpreading, ſupports the Fungi in cluſters of two, three, or more.

FIG. 6. Æ. CONFLUENS.

GROWS on the back of the foliage of *Mercurialis perennis*, or Dogs' Mercury, forming confluent patches without regularity. The filmy covering burſts at the edges, ſides, or centre.

TAB. CCCXCVIII.

FIG. 1. ÆCIDIUM RUBI.

SCATTERED on the back of the foliage of ſome of the *Rubi*. It is moſtly of a light brown, with a fine woolly ſubſtance, at or ſurrounding the baſe, upon the leaf.

FIG. 2. Æ. FRAGARIÆ.

LARGER than the laſt, moſtly of a light yellow. The caſe containing the farinaceous duſt is ſimple.

FIG. 3. Æ. MENTHÆ.

LIGHTISH yellow brown, flattiſh, ſcattered on the back of the foliage of Mints.

FIG. 4. Æ. SALICIS.

LIGHTISH brown, very flat, ſcattered on the back of the foliage of Willows.

FIG. 5. Æ. CARDUI.

DARK brown, very frequent on the back of the foliage of *Carduus pratenſis*. Two or three ſorts of Muſcæ, or Flies, are occaſionally found dead on this

plant at the time of the *Æcidium* being upon it, which is after wet weather in the ſummer, or early in autumn: being apparently tempted by its flavour, they over eat themſelves, or elſe are deſtroyed by ſome poiſon.

FIG. 6. *Æ.* RHEI.

VERY ſmall, ſcattered on the back of the foliage of *Rheum rhaponticum* in autumn.

FIG. 7. UREDO SPIREÆ.

THIS is of a larger ſize, occaſionally ſpreading, or confluent; its colour a brightiſh yellow.

FIG. 8. U. ROSÆ.

CONSPICUOUS upon various parts of roſes, and other plants. It is variouſly ſhaped, bright yellow, the inſide or ſeed largiſh, reſembling *tab.* 320, and may, perhaps, be the ſame ſpecies. This ſpecies is obſervable on many plants, as wheat, graſſes, &c. in autumn.

FIG. 9. U. CHENOPODII.

ON the foliage of *Chenopodium olidum.* It is flat, lightiſh brown, the cover ſomewhat pulverulent.

TAB. CCCXCIX.

FIG. 1. RETICULARIA HORTENSIS. *Bull.* 424. *fig.* 2. *With.* 3 *ed. v.* 4. *p.* 387.

COMMON on tan in hot-houſes. It at firſt appears to ferment, as it were, in a kind of whitiſh froth, in a few hours becoming yellowiſh, and ſeemingly mixed with a powder; at length it grows fragile, flattens, and aſſumes a lightiſh brown on the outſide, being replete with dark powder or ſeeds in irregular diviſions within, after which it ſoon falls to pieces. In the freſh ſtate it ſmells not unlike rotten cheeſe.

FIG. 2. R. LUTEA. *Bull.* 380. *fig.* 1.

THIS is, at firſt, often of a bright yellow, and quite a ſoft frothy ſubſtance, hanging, or ſeemingly dropped,

on healthy graſſes, &c. and not oozing out, or in the leaſt degree appearing to grow from them. Sometimes it runs over dead leaves, &c. in woods and other places. It decays like the laſt, varying according to the weather, and is often ſmoother coated, in ſome parts occaſionally whiter, as if bleached. It occurs after rain in autumn.

FIG. 3. R. CARNOSA. *Bull.* 424. *fig.* 1.

THIS caſually falls (if I may ſo ſay) on thriving graſſes, &c. It is very nearly allied to *R. alba*, being cottony, like that, on the outſide, but more condenſed within, holding a black powder in ſomewhat labyrinthiform cells, like the two former.

FIG. 4. R. CEREA.

PERHAPS a variety of the laſt; dried ſomewhat waxy before it was quite ripe, as ſometimes happens to ſome of the Fungus tribe.

TAB. CD.

FIG. 1. LYCOPERDON ECHINIFORMIS.

THIS may poſſibly be a variety of *L. ſimplex*, *t.* 272? The cracks in the ſkin are perhaps cauſed by drying ſuddenly.

FIG. 2. L. EPIDENDRUM.

A VARIETY in a very luxurious and moiſt ſtate, as I have often detected it in Kenſington Gardens, though in ſmaller quantities.

FIG. 3. THE SAME IN A LATER STATE.

THESE two figures are taken from drawings made by Miſs Browne, of Netherſet, near Norwich.

FIG. 4. MUCOR FULVA.

THIS grew on rats' dung. The ſtipes is of a tranſparent white, tapering upwards; the head round, compoſed of a yellow powder, with a few pellucid drops of moiſture attached to it in different parts.

FIG. 5. SPHÆROCARPUS SEMITRICHOIDES. *Bull. p.* 387. *fig.* 1.

I HAVE only met with this beautiful ſpecies once in Kenſington Gardens. The ſtipes is pellucid, white, tapering upwards; the head round, its upper half curiouſly netted, the lower entire, yellow, including duſt of the ſame colour.

FIG. 6. SPHÆROCARPUS PYRIFORMIS. *Bull.* 417. *fig.* 2.

THESE ſpecimens, I ſuppoſe, were not perfected, as they were moſtly burſt, or preſſed, ſo as to diſcharge moiſture. They were of a yelloviſh white, or cream colour, the ſtipes whitiſh, tapering upwards, the head yellow; ſome pear-ſhaped.

FIG. 7. MUCOR ERYSIMI.

NOT unfrequent on the pods, &c. of garlic muſtard, *Eryſimum alliaria*. It is very ſmall, covering the plant ſo as to give it a powdered appearance. When highly magnified, each Fungus is found branching in nearly biternate order, each branch terminating with little oblong or ovate veſicles, with a furrow on one ſide.

FIG. 8. DEMATIUM ARTICULATUM? *Perſoon Diſp. Meth. p.* 41. *t.* 4. *fig.* 2.

FOUND on dead leaves at Batterſea, &c. It forms ſmall bundles, creeping, jointed, without apparent ſwellings, but ſomewhat attenuated towards the apex.

FIG. 9. PUCCINIA RUBI.

VERY common, in autumn, on the leaves of brambles, ſpotting their backs with little ſooty-looking cluſters, which, when magnified, are found to conſiſt of a number of tranſparent ſtems, tapering upwards, each with three or four oval heads, reſembling little black beads placed on each other, the uppermoſt ſomewhat acute at the apex. It is alſo not uncommon on the foliage of ſome of the *Roſæ*.

FIG. 10. P. MINUTA.

THIS was difcovered on the head of *Agaricus lycoperdonoides*, and conſiſts of a minute ſtipes, with many minute, bead-like, tranſparent, ſomewhat ovate veſicles, placed on each other, gradually enlarging upwards.

FIG. 11. P. SUBSESSILIS.

NOT uncommon on the remains of reeds dragged out of ditches in autumn. It is compoſed of little black ovate veſicles, placed on each other in extremely minute bundles.

FIG. 12.

FOUND on a bee-hive by the Rev. Mr. Kirby. It is ſeemingly an imperfect fungous ſubſtance, dried ſomewhat waxy, and may belong to the *Auriculariæ*, or *Boleti*.

TAB. CCCCI.

LYCOPERDON RECOLLIGENS *Woodward in Linn. Trans. vol. 2. 58. With. vol. 4. 375.*

I HAVE long wished to add the description of this curious Fungus, as a debt owing in the third volume of this work. It is omitted by Gmelin; and he seems to confound L. *sessile* with L. *stellatum*, from which it is certainly distinct—see my *plate* 80, which I have called L. *recolligens*. I am greatly obliged to the Rev. Mr. Dalton for setting me right, by favouring me with the specimens of L. *recolligens* here figured. From many experiments with L. *stellatum*, and what I would call L. *sessile*, I find it more apt to recoil or expand than they are, and in a more remarkable manner; for by damping it the *volva* immediately expands, and in drying it contracts, contrary to what they do, which expand in drying, and coil up on being damped.

It has other characters by which it may be distinguished from them. Its head is orbicular with a large mouth, a little flattened; the *volva* is thin and smoother. The one figured at *tab.* 80, now L. *sessile*, has an ovate head, rather pointed apex, and the mouth scarcely more than as if torn; the head always sessile. The head of L. *stellatum* is rounder and pedunculated, so is that of L. *fornicatum;* but its standing so regularly on four points is a sufficient distinction; although their being so nearly alike in other respects has caused some dispute whether this may not be accidental: I have, however, sufficient specimens to show that it is constant.

TAB. CCCCII.

MERULIUS HELVELLOIDES.

GATHERED in November, 1808, by Miss Rackett, who obligingly sent me specimens from Spetisbury, in Dorsetshire. I was much surprised, when it first took my attention, to see so regular an *Helvella* with a smooth surface beneath; but on a more attentive examination I discovered veins beneath, which however are very inconspicuous, and only close to the edge of the *pileus*, projecting very little, but sometimes inosculating or branching, or having a shorter one of about a line in length intervening with the larger ones, which are about two or three lines in length. Three parts of the under side are characteristic of *Helvella*, and the fourth of *Merulius*; and this is the first species I have seen which seems a tie or uniting link between the two genera.

The specimens grew in a fir wood, as the leaves about them show, and there was a chalky marle about the root.

TAB. CCCCIII.

MERULIUS LAMELLOSUS.

LADY Wilson gathered this undescribed Fungus at the bottom of a rotten bin in a cellar at Charlton House, Kent. When growing, it is perhaps one of the most elegant of the Fungus tribe, as it appears that a large cluster of it was found growing almost in every varied direction. The elastic, delicate, and soft leather-like *pileus* assumes a colour from perfect white to a pale yellow or buff. The pale veins beneath the smaller parts, and the browner older parts relieving them on a dark ground in the cellar, must have an extraordinary effect. The veins are deepish, and inosculate very much, and sometimes resemble the sets of lamellæ of the Agarics. In examining them with a high magnifier they appear clothed with hairs and glands—see *the right hand figures*. In colour and texture the Fungus has altogether a strong resemblance to Boletus *lachrymans*, or Common Dry-rot, *tab.* 113, in some states.

TAB. CCCCIV.

CLAVARIA RUGOSA.

THE Rev. H. Davies of Beaumares gathered this Fungus on bean-stalks in autumn. Stem simple, soon spreading into irregular claviform divisions, ending obtusely or furcated, the whole covered with brown scales, whitish within, which, when magnified, appear irregularly margined and cellular, perhaps containing the rudiments of brown seeds.

TAB. CCCCV.

ÆCIDIUM RUMICIS.

COMMON in spring, in chilly damp places, on the leaves of Rumex *acutus*. The specimen figured was gathered between Battersea meadows and the hilly rise towards the Wandsworth road. The beauty, if it once attracts the attention, is indisputable; but red and yellow in low leaves are so usually blended with the decayed parts of plants, that it is liable to confound usual observation. It is often very conspicuous, and when examined closely will be found to have a border commencing from the vivid green of the leaf from pale to deeper yellow passing to full red. In the more central parts of the rather blotched rising circles are the little cups of fructification in circular clusters sunk in the red substance, having a somewhat regularly lacerated spreading border, whitish, with darker granulæ in orderly arrangement.

TAB. CCCCVI.

LYCOPERDON PEDUNCULATUM.

L. PEDUNCULATUM *Linn. Syst. Veg. ed.* 13. 1029. *Bulliard t.* 294 & 471. *With. vol.* 4. 465.

TULOSTOMA BRUMALE *Pers. Syn. Meth. Fung.* 139.

HOW I happened to leave this out of the first part of this work I cannot tell, as I have never been in want of specimens, either from the walls* of Hyde Park, or from a wall near the halfway-house to Greenwich; besides having received fine specimens from Norfolk long since by favour of Dr. Sutton.

The former ones are generally like the smaller and smoother ones figured, and have peduncles nearly solid or full of pith, whereas in the stems of the latter ones the pith is loose, or like a string running through a tube —see *Bulliard* 471. These had, generally, roughish cracking *squamæ* on the peduncles, which expand at the top close to the head, and some *squamæ* at the bottom of the head expand opposite to them, forming a confused and peculiar sort of neck, sometimes representing a double *annulus*. The peduncles of these were generally of more equal thickness than in the former, with the addition of a broad base. The stalks of the others taper a little towards the top.

My friend Mr. A. Menzies found many specimens of a gigantic representation, as it were, of this species at Owhyhee, the peduncles of which are about twice as long, and four times the thickness, with a head in proportion. I think the peduncle, however, is more woody, and the stem is sometimes truly squamose, the *squamæ* pointing upwards. Are these sufficient distinctions to characterize it as a species?

* We think there is some mistake in Withering's saying that it is found in "meadows and pastures," as we never understood that it has been found in any situation but amongst moss on walls.

THIS PRESENT NUMBER

OF THE

ENGLISH FUNGI,

DESIGNED PARTICULARLY FROM MOTIVES OF HUMANITY WITH REGARD TO MY FELLOW CREATURES IN THIS LIFE,

I BEG LEAVE TO DEDICATE

TO THE

REV. HUGH DAVIES, F. L. S.

OF BEAUMARIS,

WHOSE KINDNESS HAS MUCH CONTRIBUTED TO ELUCIDATE IT,

AND OF WHOSE HUMANITY AND BENEVOLENCE

I HAVE HAD PLEASING EXPERIENCE:

THAT IT MAY BE ACCEPTED BY HIM AS A SINCERE TOKEN

OF THE MOST LIVELY ESTEEM AND GRATITUDE,

IS THE WISH OF HIS

HUMBLE AND FAITHFUL SERVANT,

JAMES SOWERBY.

No. 2, *Mead Place, Lambeth,*
April 1*st*, 1809.

INTRODUCTION.

SINCE I began the Work, to which I now call the present a Supplement, much has been done in Botany, and many new Genera have been made, especially among the Cryptogamia, and generally with great propriety. It is, however, to be regretted that it is not always so, and attempts at nicer discrimination have given room for descriptions much too particular for certain tribes, especially the Fungi, which vary so much that such very nice discriminators would describe every variety as a distinct species, which has been in part the case with the poisonous Agaricus Muscarius; see tab. 130 of this Work. I should not have spoken of it in this place, but for the sake of caution, and as a reason for my not describing the species of this sportive tribe too laboriously. It is from the above reasons, probably, joined by other natural circumstances, that the most exact and learned Authors have made so many species of that so universally acknowledged poisonous Fungus (Ag. Muscarius) in which, at first sight, they appear to have outdone the great LINNÆUS, who did not swell his Catalogue by making varieties of this into species, and consequently left an account of this poisonous Agaric entire; the circumstance of their now being divided into many species, may tend to mislead and give occasion to the epicure in Fungi to suppose, that only the identical plant described by Linnæus was to be avoided. But to describe this variable tribe, it was necessary that they should be seen in every season and situation, tracing well the different appearances, and taking rather a large scope as to their general characters; for, if we too nicely describe the most perfect specimen, perhaps we shall never see the like again. Thus, while it is very plentiful in a more common appearance as the poisonous Fungus, we shall scarcely be able to recognize it in another state, but think it an wholesome species.

It may also become a cruelty, to describe varieties under different specific names, in as far as it may lead to fatal consequences. In my endeavour to make my work most useful, I had taken in, in general, such varieties only, especially of the well-known species, as should add another example, rather than become a counter-part of another work. For example, of Agaricus glutinosus of Curtis's Flora Londinensis, I have figured varieties found under different circumstances from those which he has figured, and have added a conical variety to shew one of its extremes, and for the useful purpose of identifying it in the state in which it was gathered, and had nearly proved fatal to a family that had eaten of it, (see tab. 248) as has been the case at Mitcham in Surrey, and Christ-Church in Hants; see description.

I intend to finish models of the more particularly poisonous Fungi, and of those which are edible, to prevent, as far as possible, future mistakes, for the use of the Public, and request those who have opportunities to help in their investigation, to favour me with information. I hope also that such persons will exert themselves to make the poisonous ones known as much as possible. Every Clergyman, Gentleman, Physician, and Apothecary, or public character looked up to for information, throughout the kingdom, should get acquainted with them for this philanthropic purpose; for which, and for other useful purposes, I have long kept my Collection open for public inspection every first and third Tuesday in each month, from Eleven until Three o'Clock.

TAB. CCCCVII.

AGARICUS VIROSUS*.

A. GLUTINOSUS *Curt. Fl. Lond.*

A. SEMIGLOBATUS *With. and Eng. Fungi.*

THIS Species, (the same as the one cited above) may be equally noxious, under every form in which it may appear. Mr. Dickson, the well-known and excellent Cryptogamist, brought me many specimens, which my experience convinces me belong to this species, and which were the same sort that had fatal effects at Mitcham upon those who eat of them. Of these I have secured drawings, considering it of much importance to make the species well known, and I shall therefore here publish an arrangement of its varieties. I know not how some of them could be taken for Champignons, or what are commonly called Fairy Ring Funguses, which has got them the trivial name of *Orcades*, (not one of the most fortunate as many Agarics form rings; and Mr. Bolton, who I believe was the first to give it this title, has been still more unfortunate in his figure, which is as much like the poisonous as the edible one; and if that figure had been referred to, might account for the fatal mistakes.) I should think it possible that the English term *Scotch Bonnets*, the name under which the Fairy Ring Fungus appears in Ray's Synopsis, derived from the form of the pileus, might also mislead; but our poisonous Agaric is seldom so formed, and is always more brittle than the edible one, and more varied, as I will amply shew in detailing the figures. Fig. 1. has something of the shape of the Agaricus Orcades in the pileus, but it has some fuscous seeds on the stem, and is more varied in colour. Fig. 2. 3. 4. 5. and 6. are varieties of the same, gathered at Mitcham, on the spot, by Mr. Dickson and the man who assisted in gathering those which unhappily proved so fatal. No. 7. and 8. are some varieties sent me from North Wales by the Rev. Hugh Davies, who observed that they were like Agaricus semiglobatus, but that the gills were generally on a plane with the rim of the pileus. No. 9. and 10. are other varieties, rather sodden, gathered at Mead Place, having nothing by which it may be distinguished as belonging to this

* I thought such a name would operate as a caution, else I do not like new names.

species, except the little claws of the larger gills. No. 11. is a still more extraordinary variety, being hollow in the centre of the pileus. No. 12. is a variety which, under the circumstances when found, Bulliard, tab. 84, calls Agaricus nitens. No. 13. was called Ag. glutinosus, by Mr. Curtis, having a glutinous pileus, and the stipes thickened with gluten. No. 14. is the more perfect form; it is frequently found under and agrees with the term semiglobatus. No. 15. *a*, *b*, *c*, are three lamellæ, or gills, separated to shew their usual shapes; they are nearly white, (more rarely buff,) or snuffy brown, grey, and almost black, and sometimes have a white dusty edge;* and the principal ones have always a permanent membranaceous sort of claw which holds them to the stipes (see tab. 248.; the artist sometimes forgot to make some of them whitish,) but when gathered, separate very easily from the stem and seem to have been always loose, unless very attentively examined. No. 16. a small sodden one, in such a state as to be scarcely recognizable.

Fungi grow best and most perfect, perhaps, after a wet summer, and in dewy mornings many species may be found covered with a substance that has a glutinous appearance, which is totally gone at noon. The same species on a rainy morning may be sodden and swelled without having any glutinous appearance, but this happens most commonly late in Autumn, when they are in a less perfect state. Frequently the direct contrary happens. This, I presume, clearly indicates much difference in the appearance of this most fugacious tribe of vegetables; and to this, in a great measure, is undoubtedly owing that difference in the same Fungus that makes Authors differ so widely, both in description and opinion, as I presume the figures will point out. These from Mitcham are all, no doubt, varieties of the same species, and being chemically examined, exhibited similar substances; and as far as the little we had to make trial upon, they all produced a gluten which is of a peculiar quality, rather insipid to the taste at first, but after a while somewhat strangely acrid in the throat. We intend a further examination the first opportunity. They generally grow from horse-dung.

* This I consider as analogous to Pollen; the seeds being in the blotches of the gills, which I mean to examine further when opportunity occurs, something like Tab. 362.

TAB. CCCCVIII.

CONTAINS figures of other varieties of Ag. virosus, having the lamellæ or gills paler than usual. No. 1. has the annulus or ruffle large. No. 2. with a thick stem and the annulus darker on the side towards the gills, pileus with an umbo or rising in the middle. No. 3. a somewhat bulbous long-rooted variety: I have seen the root with fibres an inch long. No. 4. a flat-topped variety. No. 5. with the pileus incurved to the large annulus. No. 6. shrivelling as they do in slow drying, though in quick drying they sometimes crack or turn up. I gathered this sort in Kensington Gardens, in June 1795, and August, 1796; and I observed some boys gathering them for Champignons or Ag. orcades, but advised them to throw them away, lest they should eat them. In the Green Park, about the same time, a nursery-maid, seeing me a little curious, asked me about some of those figured in this plate. I gave her, and two little ones that were with her, the same advice; she was, however, confident in her own opinion, that they were good to eat; but I had the satisfaction to see her throw them away when at a distance from me*.

TAB. CCCCIX AND CCCCX.

ÆCIDIUM CANCELLATUM.

CANCELLARIA PYRI.

LYCOPERDON CANCELLATUM. *Jacq. Fl. Aust. t.* 17.

AFTER treating of the Fungi poisonous to the human constitution, it may not be improper to say something of those that affect vegetables and our food. This present has been long a troublesome parasite in many places, and has been the cause of much loss as to the trees which it attacks, as well as in expensive and useless attempts to get rid of it. I think, however, its very nature, like the dry rot, bespeaks an easy cure, but easy cures do not always gain the confidence due to them. I did not dare to give an easy receipt for the cure of the dry-rot, till it was proved to be a good one by Lord

* Every season seems to furnish us with cogent reasons for more particularly attending to this tribe of poisonous Fungi, as well in other countries as in this; a whole family in France died with eating some such Champignons as these a year or two ago. See Phil. Mag. vol. 34. p. 395.

Heathfield, who found it succeed. I now may, therefore, venture to give my opinion*.

By my advice, Lord Heathfield caused proper passages for the admission of common dry air, which became an effectual cure, and, I persist in it, that where there is a certain proportion of dry air, these Fungi are not to be found, but only in those seasons when such is natural to the climate. They indicate a certain temperature, like a thermometer, pointing it out when we otherwise do not perceive it; and we may be assured, that a certain degree of moisture and temperature is as necessary for the growth of the Fungus tribe, as any other. The ancients were aware of the effects of certain winds being more or less wholesome; and the architects advised the buildings in the streets to be placed accordingly; and when fœtid lakes or any other reasons occurred, to avoid the ill effects with what care they could.

Tab. 409. On June 17, 1807, John Walker, Esq. sent me specimens of the leaves from some wall trees, at his seat at Southgate, on the surface of which grew the present parasite. It covered nearly in this manner a large number of trees. The individual leaves did not appear much affected around it. The yellow margin of the Fungus succeeding the green of the leaves, passes into an orange-colour, on which are numerous blantish conical projections, often emitting from their centre an orange substance, of a jelly-like appearance, and looking very much like little volcanos; some seem riper, and are nearly black, and the substance at the mouth appears decayed and whitish; and from the transverse section we might suppose them to belong to the Genus Sphæria, the inside filled more or less with this substance, forming, from the centre in the upper half of the leaf, while the cuticle and cortex forms the orange or black conical covers; the under side of the leaf is apparently perfect and not at all disturbed. Mr. Walker had the leaves stripped from the trees.

* Vitriol of iron or sulphate of Iron, and other means had been used without success; drying stoves had also been tried, but for want of caution as to the simple means of eradicating the damps, by admitting sufficient dry air, caused it to flourish. Some person offered to prevent the evil effects of this Fungus at half a guinea per foot—an handsome price!

Tab. 410. On October 12, the same year, William Lewis, Esq. sent me from Hendon, the leaves of a Charmontelle pear-tree, which grew against an open fence, the inclination of which was to the South-East. The upper surface of these leaves contained, to all appearance, the same parasite as above, in the older or latter state; and immediately under it, as it were, the lower half of the leaf was swelled into irregular protuberances, more prominent than the conical forms on the opposite side, including in their centres a sort of capsule, which in the more central ones of the group emerges from them more than half its length, the apex of these have a central knob or embossment, from which a number of filaments descend, giving it a somewhat pyriform appearance, a line in length, forming to the base, or being divided in peculiar lines, so as to allow seeds to pass out, which were apparently arranged in order upon them as upon a receptacle.

This Fungus, which grows under the leaves has been considered a distinct species; but from these specimens it seems scarcely doubtful that they are analogous to the dioecious class of plants, and are of one and the same species. Those on the upper side of the leaf might have been considered, if alone, as a Sphæria, but as they may belong to the opposite parasite, they must be included as one dioicous species.

Monsieur De Candolle speaks of the upper one as being in points or spots opposite and attendant on the under one. The peculiarities of particular Fungi will afford much entertainment, but proper research would take up more agreeable time than falls to my lot at present.

TAB. CCCCXI.

UREDO Porri.

THIS pretty parasite was found on the waste part of the leaf of a leek, toward the base, and was most conspicuous within the leaf. It is not uncommon, and I believe does not much hurt the growing plant. It seems to burst from under the cuticle like other Uredos, and is composed of a number of round, nearly transparent, light green stiped capsules, each about 1000dth of an inch in diameter, containing apparently bright orange seeds.

It is somewhat remarkable that this kind of parasite grows on living plants, whereas the Sphæriæ and many others are more usually found on decaying or dead vegetables. I presume a little marked attention will point out the way to avoid these evils, which, if such attention be omitted, may occasionally aggregate into a serious evil. We ought to thank Sir Joseph Banks for his account of the Blight in Corn, Uredo Frumenti, tab. 140.; and his highly magnified figures. It is a very laudable undertaking for men of fortune to support the more expensive elucidations in Natural History.

We have no doubt of seeds floating in the air, notwithstanding De Candolle's* argument. See Description and Tab. 136 and tab. 318. Helvella membranacea, which is attached to living mosses and grasses by a thin film.

* De-Candolle sur les champignons parasites. Annales du Museum d'Histoire Naturelle, tome neuvieme, 1807.

TAB. CCCCXII.

Fig. 1.

AURICULARIA ELEGANS.

I HAVE gathered this species several times, and was favoured in the spring of 1809 with some specimens from the New Forest, by my friend Charles Lyell, Esq. The present very elegant specimen, with which I was favoured in May last, from near Alcester, by Thomas Purton, Esq. corresponds with all the others, and seems to confirm its title to being considered a new species. It divaricates more or less from a centre in larger or smaller segments of circles, with occasional elevations, having a very white, fine woolly or cottony surface, neatly bordered near the extremity, with generally one, sometimes two black lines. The under side is brownish, covered with a greyish bloom, corrugated nearly like the upper side, as it is rather thin. It is sometimes imbricated in much larger clusters than this figure, and is often more confused.

Fig. 2.

LYCOPERDON PERTUSUM.

This Lycoperdon with which I was favoured by Dr. Smith, was gathered by him, among moss, on the stem of a beech in Bisham Wood, Berkshire.

It is remarkable for bursting extremely raggedly, and having a number of holes in it, at first sight looking very much like insects holes; it is also generally so weak, that it becomes almost pendant by the root.

Fig. 3.

TRICHIA.

This Trichia-like parasite grew from a decaying bulb in the parlour of Richard Cotton, Esq. in Duke Street, St. James's Square. Perhaps its construction might warrant its being made into a new genus. The top is a nearly crustaceous, orbicular, dark grey envelopement, open at the under side round the stipes; it is lined with a softer substance inside opposite to a ball attached to the simple dark stipes, and to which are attached hairs in clusters, with a little swelling to each, which seem to hold the seeds in the form of a black powder. The heads are sometimes upright, and sometimes nodding.

I think it is figured by some old Author, but I cannot recollect where.

TAB. CCCCXIII.

AGARICUS SUBCANTHARELLUS.

THERE seemed a necessity for figuring this perhaps unfavourable variety of Agaricus cantharellus. It seems to possess most of the characters belonging to that Fungus, yet few persons recognize it; first, because it is always poor and thin, and next, because it has rather an unpleasant odour; whereas Ag. cantharellus is thick and fleshy, generally whiter within, and of a pleasant odour; see Description and Tab. 46. It is not uncommon in our woods in Autumn.

TAB. CCCCXIV.

AGARICUS FIBROSUS.

THIS elegant Fungus was sent me by Miss Rackett from Keynston wood, near Spetisbury, Dorsetshire, in the autumn of 1808. It does not agree with any species I remember to have seen. The stipes is cracked, showing its fibrous texture; the pileus is somewhat fibrously striated on the upper margin; it rises to an umbo, where it is a little cracked into small tessera; the umbo is of a full fox colour, and becomes delicately lighter towards the edge; it is internally whiter. The lamella are rather deep, partly fixed by a kind of claw, in three or four sets, deep fox colour; stipes pale, whitest at the top and bottom, inclining to bulbous. The blush-colour in the crack is the commencement of decay. The specimens soon became covered with Mucor, which spread over the gills and pileus very full and finely thready, sometimes branching, and with little ovate vesicles, all of a light fawn colour.

TAB. CCCCXV.

AGARICUS INCRASSATUS.

I RECEIVED this and others of a similar description by the same favour as the last, August 16, 1810. The stipes is ruggedly hollow, and in some more swoln than in the figure; the lamella rather broad and thin, and in three or four sets. Pileus thin, more or less of a pale fawn colour.

TAB. CCCCXVI.

AGARICUS COMPACTUS.

MISS RACKETT gathered this in Keynston wood, Aug. 22, 1810. It seems to me distinct from every species I can

find described, I therefore take upon me to distinguish it by a trivial name. The present figure is of the middle size, and has the general character of the species; some of the specimens were smaller, and some nearly twice the size. Stem cylindrical, nearly solid and central, about half the width of the pileus, and about twice as long as it is thick, flecked with a warm brown as far as to where the pileus was attached, then whiter; white and blush-coloured within, probably it has sometimes a rugged or cobwebby annulus. A few obscure brown radicles. Gills about three in the set, scarcely fixed, pale buff, with a blush shade more or less conspicuous, curving with the pileus at the margin. Pileus bluntly bossed curving inwards at the margin, flecked with a fine warm brown and somewhat viscous, white within, and rather thick.

TAB. CCCCXVII.

AGARICUS LANATUS.

I GATHERED these on the delightful Mount Edgecumbe in August, 1812, where I had the most elevated pleasure I ever felt in this life, in contemplating the sublime ways of Providence, every aspect, hill and dale, bespoke its contrivance, a charming lesson for mortals, that

"Nought was made in vain, or not for admirable ends!"

It was perhaps the more felt from the chance that brought me to Plymouth, (viz.) to inspect H. M. S. the Queen Charlotte, with a view to ascertain, if possible, what might be adviseable to prevent the spreading of the Fungi, &c.* I was thus brought to ascertain a new species of the Fungus tribe; it grew on a few dead branches of a hard or rough grown Sloe-bush, evidently roughened by its peculiar aspect at certain seasons, and liable occasionally to premature decay, thus becoming food for a parasite, a pretty little Agaric with a rather solid cylindrical pithy stipes thinnest at the top, brown outside with woolly fibres, lighter within: lamella in threes, partly fixed, broadish for the size, whitish brown: pileus rather thin, involute at the edges, semi-orbicular, and thickly covered with brown tufted or pointed bundled woolly fibres.

* I presume this was the era of the worst examples of the want of due and proper attention to the management of wood: the Ship was saved by my advice. I think much pains has since been taken by individuals, I hope according with my theory, without mistaking the principles.

TAB. CCCCXVIII.

AGARICUS Boletiformis.

THIS remarkable Fungus was found in great abundance in Nov. 1812, chiefly on unsquared deals in a Thames Dock, certainly unfit from its aspect for preserving wood, and I presume the wood had been unseasonably committed to the water? The Fungus is without stipes or sessile, attached somewhat centrically or by the back, governed by the circumstances of the position of the wood, and even becomes inverted when the wood gets turned up by the tide, as occasionally happens. The lamellæ spread from one or more centres, or from a centrical continuing line, often inosculating into labyrinthiform order; there are some pores like a Boletus, generally light or dark brown. The pileus is rather thin fibrous, corrugated or with varied segments of circles like plush, velvet, or tufty hairs, &c. deepest brown towards the centre, and lighter at the edges; sometimes the edge is bordered with nearly white. The inside leathery fibrous, of a fine Ochre or Rhubarb colour.

TAB. CCCCXIX.

BOLETUS solidus.

STIPES solid, round, thickest at the base, white, partly reticulated with fine thready veining towards the upper part, and becoming finer and browner, with impressions of the pores at the top, whitish inside. Pores rounding from the stipes, or what is called loose, very deep, or thick and massive, rather angulated. Pileus thick, roundly imbossed, tapering at the edge, which is rather involute, somewhat largely undulating, light brown at the top, white within, sometimes changing to light brown the day after gathering, changes red when cut. Gathered in Hainault Forest, Essex, August 25, 1810.

TAB. CCCCXX.

BOLETUS lactifluus, *With.* 320. *var.* *Schæff.* 133?

STIPES irregularly cylindrical, varying at the base, somewhat flecked with brown on the lower part, yellowish upwards, solid. Pores rather irregular, thinly placed and fixed to the stem, yellow or yellowish brown. Pileus broadly embossed, chesnut-brown, extremity incurved, thin, produced

a little beyond the pores. Odour like that of Agaricus ulmarius; it exudes a yellowish juice from the pores when fresh. Gathered by Miss Rackett in August, 1810.

TAB. CCCCXXI.

BOLETUS FUSCO-ALBUS.

STIPES thickest at the base, with a few fibres; often clumsy, sometimes tapering, with dark brown ruggedly reticulated flecked sides; white or brownish beneath; inside white, sometimes changing to brown, or even black on exposure by cutting in the air, especially if in a tender state or bruised. Pores in a thick mass, rounding from the stipes, nearly white; single pores fine, often scarcely discernible. Pileus rounding, rather thick, light or dark brown. The larger specimen was gathered by Miss Rackett in Dorsetshire, and the smaller ones I gathered in Hainault Forest, where I saw larger ones, but not good specimens.

TAB. CCCCXXII.

BOLETUS RUGOSUS.

I FIRST received this species from my Friend, James Brodie, Esq. found near Forres, and since from Miss Fanshaw, who has made an excellent drawing, showing pretty tints of lilac and light purple. It is, however, chiefly whitish and corky, solid, and the rugged parts lightish brown, or having a scorched appearance. These rugged parts seem to be the partly concentrating and sometimes divaricating edges of the plant, owing to its mode of growth: towards the base it is rudely forked, and of a dark colour, mingled with the mould.

TAB. CCCCXXIII.

BOLETUS IRREGULARIS.

FOUND growing on pine leaves near Brodie house, by Forres, by James Brodie, Esq. to whose friendship I am so much indebted. Pores small, shallow, and irregularly placed in hollows under the thin, irregular, but plainer surface. Pileus bluntly lobed, and placed one part over another, inosculating, and forming sinuses and arches, tiles and cups, and otherwise sportive, with some concentric risings, smooth, not shining, some parts downy; edges and under side fawn-coloured.

TAB. CCCCXXIV.

BOLETUS RESUPINATUS.

FOUND under an open shed at Battersea, August, 1801. The singular pink coloured vermicular appearance of the pores attracted notice, and the pileus being strongly rooted in the ground appeared equally strange. Such pores as were rounder were inversely tiled in order next the others, and the pileus was more or less interspersed with largish holes in the whiter thicker substance. The piece at the bottom is a little enlarged, to show the shallow, somewhat labyrinthiform pores, and the pileus white and irregularly thickened.

TAB. CCCCXXV.

LYCOPERDON CAPSULIFERUM.

THIS may not strictly correspond with the Generic Character of Lycoperdon, (opening at the top, seeds fixed to filaments connected with the inner coat of the Fungus or plant). It is the only specimen I have seen, and was apparently broken, yet the top appeared to be tender, and to become naturally softer than the other parts, as the capsules seemed to be dissolved, losing their character and becoming powder. It was, however, strong and very rugged, but the congeries of seeds, if I may so call them, were enveloped or compressed into forms laying by each other, giving a reticulated appearance in some directions, being mostly rather oblong, and of a dark brown colour. The smaller part towards the base is of a yellowish hue, and looks like pollen bursting from something analogous to anthers, thus it reminds us of a fig, which includes two sorts of fructification. With a very high power the woolly seed-like appearances at Fig. d. presented themselves, towards the top they were least distinct, seeming more powdery, in the middle most distinct, and below less ripe.

The late Mr. Jackson found this curious specimen on the top of Highgate Hill, about ten Years since. I know of no Genus that quite corresponds with this, but as in general contour it resembles Lycoperdon, I expect it would most likely be looked for under that title, and may remain in that Genus for the present. It has, however, been figured under the title Pisolithus arenarius, Fungi Niskiensis de Alberti XVII. 82.

TAB. CCCCXXVI.

TUBER MOSCHATUM. *Bulliard.*

GATHERED by Miss Fanshaw in Nork Park, near Epsom. As it seems to be the same as Bulliard's, and not knowing it otherwise, I am glad to add it to the list of British Fungi. It differs from Tuber album, E. F. 310, in being less smooth and black, and from Tuber cibarium, E. F. 309, in being destitute of ornamental corrugations. The cut figure shows the seeds ripening, the darker part the seeds more ripe and spreading over the surface.

TAB. CCCCXXVII, numbered CCCCXXV, Fig. 1 and 2.

PEZIZA CRISPA.

THIS specimen was sent from near Alcester, by Thomas Purton, Esq. in May, 1810. Being usually found dry, it is crumpled and crowded, so as scarcely to look like a Peziza, but upon being wetted, naturally or otherwise, it reassumes its proper form of a cup. It is of a dark umber brown colour, and smoothish within; lighter, greyer, and a little rough outside. Grows under the epidermis on Elm, I believe.

TAB. CCCCXXVIII.

PEZIZA POLYMORPHA. *With. &c.*

NOT unusual in Autumn on stumps of Oak, solitary or groupped, laying in damp places. It is tremulous when fresh, pear-shaped when young, of an ochraceous brown a little flecked, forming a concave apex, which dilates to a cup, of a dark brown or black colour as it grows older; it continues to expand till it protrudes its seed, which it does from a sort of capsule or pores, holding eight seeds each, from which circumstance Hedwig makes it an Octospora; it still continues spreading and flattening, its surface becoming more or less wrinkled when it is either eaten by insects, rots or dries to a small hard black wrinkled mass, as figured on the small specimen.

TAB. CCCCXXIX.

RHIZOMORPHA IMPERIALIS.

IN 1806, this parasite was discovered growing in Elm pipes at Weymouth, under rather peculiar circumstances, having completely stopped up the pipes, and prevented the water from passing them. It is altogether rather tough, and is composed of a whitish pith, looking like cotton, and a rather rugged dark brown bark or rind, which is apt to break transversely at right angles, and to split longitudinally. It extends to a great length, perhaps an hundred or more feet; Lady M. Markham sent me a moderate sized piece, which measured between thirty and forty feet; it is branched, the branches being very long, irregular, and simple. It appears to differ from any before figured, and in consequence of its magnitude I have called it Imperialis. The Rev. W. Kirby brought me some small pieces very similar to it, in March, 1802, from a water-pipe that had been taken up near Westminster Bridge, but it had scarcely any pith. The lustre of both is nearly silky outside; the larger branches are of the darkest brown; the inside of the bark rather lighter than the outside.

TAB. CCCCXXX.

RHIZOMORPHA Stokesii.

FOUND in the Chalk at the Sand-pits at Blackheath Hill, by Charles Stokes, Esq. in 1811. It is in flat reticulated entangled masses, the main stems compressed, forming various angles, and the shoots and branches nearly at right angles, rounded, and bluntly ended. The Chalk sometimes adheres to the roughish or more wrinkled surface of the main branches. The whole plant is of a dull foxy brown colour.

TAB. CCCCXXXI. Fig. 1.

RHIZOMORPHA Harrimanni.

MAIN stems irregularly angular, brittle, bark or outside breaking frequently at right angles, giving it a bugle necklace form; outside dull brown; inside white, cottony, tough; branches long, continuous, undulating. Found in the Mines in the neighbourhood of Keswick by Mr. Crosthwaite, and sent in July, 1806, by the Rev. J. Harriman. No fruit discoverable.

Fig. 2.

RHIZOMORPHA variegata.

FOUND three feet under ground at Reading in Berks. Stems long, round, nearly uniform in thickness; smaller branches placed in bundles, lighter coloured than the larger ones; the smallest lighter still, with a silky lustre. The whole crowded; little or no pith, and no fruit discoverable.

Fig. 3.

RHIZOMORPHA Martini

CONSISTS of very fine rounded threads, branching in all directions, mostly serpentine, extremely attenuated and hair-like, matted so as to resemble wool or cotton, or tufted hair; brown in texture, brittle, and woody, bark-like. Mr. Martin found this in large masses in some of the deepest Mines in Derbyshire, and sent it from Buxton. I name it in respectful commemoration of the assiduous Author of "Outlines of the Extraneous Fossils," &c.

TAB. CCCCXXXII.

FIBRILLARIA vinarius.

The mouse-skin cask Byssus. *Dillenius Tab.* 1. *Fig. A.*

I COULD not resist saying something more about my Tab. 387, Fig. 3, and recanting something of what I have said

about it, as I do not now think it belongs to Boletus hybridus, "promoting putrefaction, dissolving and destroying the hardest wood." *Linn.* but as probably Byssus septica, which is promoted by putrefaction, and caused by rotten hoops on pipes of wine, &c. and is never white or like Dillenius, tab. 1, fig. 9. Withering's variety 2 is distinct, and the proper species growing on wine casks, and the hoops, &c. in wine cellars, as well as in ale and beer cellars.

It is apparently composed of minute fibres, closely matted together, and partly covered with fine dust, and grows in masses of the size of a pea, an acorn, a walnut, or spreading, and is in cellars or vaults, attached to the sides and cielings, hanging in large accumulated masses of several feet wide; scopiform, clawed, fingered, and in inosculating or fanciful shapes. It is very tender, burns when dry like touchwood. It is of a greenish brown when small, and blacker when older and more massive. The smaller lumps, if thrown when fresh against any thing, stick to it.

TAB. CCCCXXXIII.

FIBRILLARIA PULVERULENTA.

THIS was found three feet under ground, on rotten wood, near Reading in Berks, in April, 1809; it appears more compact than the last, more powdery, and of a rather redder brown; otherwise the fibres, when magnified, scarcely differ from it.

TAB. CCCCXXXIV.

FIBRILLARIA CORTICINA.

THIS I have found on the inner and outer sides of the bark of trees, covering it in wide, black, fibrous, cloth-like patches, the sixth of an inch thick. Sphæria bombardica, tab. 372, fig. 4, often accompanies it on the outside of the bark. Kensington Gardens, Hornsey Wood, &c. in autumn.

TAB. CCCCXXXV.

TRICHIA METEORICA.

TREMELLA METEORICA. *Linn. Gmel.* 2. 1446. *Persoon.*

THE utility of figuring this under this title will be obvious, seeing the nature of the substance, and how it has misled, and still may mislead, and that it may be the means of coming to a more perfect knowledge of it. There are various Genera among the Cryptogamia which have a mucilaginous and tremulous beginning, very different from their more advanced and latter state, and these when gathered in their young state dry and become of a horny texture as gelatinous substances do, but when suffered to arrive at maturity, not only

assume a very different appearance, so as not to be recognizable, but actually assume a different chemical character. Such are several of the Trichiæ, and I suspect this to be very nearly related to Trichia nuda, tab. 50, which I have detected very nearly in this state in Kensington Gardens and the Grove, Lambeth. Thus if this substance is found and watched, perhaps a few hours or the next day may have completed its change to such a state in which it may be recognized; at present it appears to be beginning to form into lengthened heads, leaving a part for the stipes, like a very close congeries of unripened Trichia nuda, and it has apparently surrounded stalks, leaves, &c. copiously as Trichia nuda often does. It burns with a vegetable, and not an animal scent, as also does Tremella nostoc, English Botany, 461. Frog-spawn, either with or without the little embryo which has been taken for the seeds, may be detected by this means, as when burnt it has the smell of burnt bones. My highly esteemed and ingenious friend, the Rev. H. Davies, has greatly elucidated this subject in Welch Botanology, pages 115, 116, 117.

TAB. CCCCXXXVI.

SPHÆRIA MULTICAPSULA.

MR. Thomas Purton sent me this from Alcester on the 2nd of Nov. 1810. It is in the aggregate, a flattish or conical, somewhat spreading mass, deep brown, and a little rugged externally: mouths of the capsules obsolete: when cut laterally it is very black, and the sphærules appear crowded in two or three irregular tiers above each other, and are about the size of the air-vessels in the wood which are dry and blackish in its vicinity, and look nearly like a continuance of it.

TAB. CCCCXXXVII.

SPHÆRIA PEDUNCULATA. *Dicks.* 4. 27.

DR. ABBOT was so kind as to send me specimens of this in April, 1805, from Bedford. The species comprehends Sphæria pedunculata and varieties bicapitated in the usual state of monœcious plants, either with peduncles or sessile, besides the longer rhizomorphous looking stipes and root. I suspect it may possibly be thought a sportive variety of Sphæria hypoxilon, tab. 55, as well as S. ramosa, tab. 395. One of the specimens had a roughly tuberous base.

TAB. CCCCXXXVIII.

See TAB. 420, lower figures.

SPHÆRIA FLUENS.

MY kind friend Charles Lyell, Esq. sent me this some time since from the New Forest. It seems to flow in cracks of the

bark of trees with conspicuously rich yellow and orange or reddish variegated lustre, in lengthened continuous or shorter broken patches. When examined with a microscope it appears rising in the cracks or hollows in elongated capsules or spherules, sometimes emitting a thick mucilaginous liquid more copious than the capsule, and sometimes it is contracted to dryish cups, as if it had had a seed or powder. The magnified section shows this.

TAB. CCCCXXXIX.

PUCCINIA BUXI.

BOX-HILL, so famous for the Buxus sempervirens, E. B. 1341, produced this parasite rather plentifully. It forms under the skin of the leaf like most Aecidiums. It has, however, only a rugged broken border, and not any regular notches or serratures. The seed, when highly magnified, appears to be included in numerous stiped double capsules about 1000th of an inch in diameter, and of an ochraceous brown.

TAB. CCCCXL.

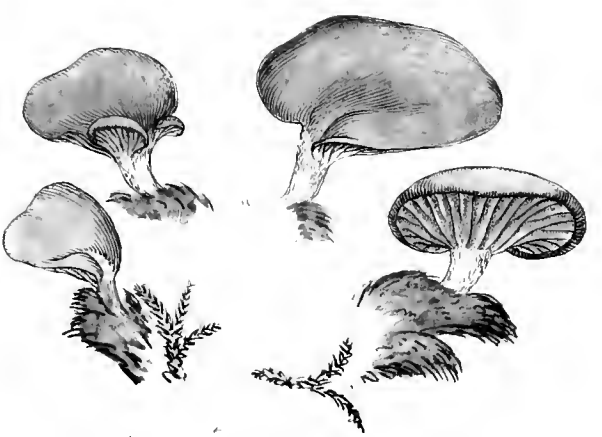
GRANULARIA VIOLÆ.

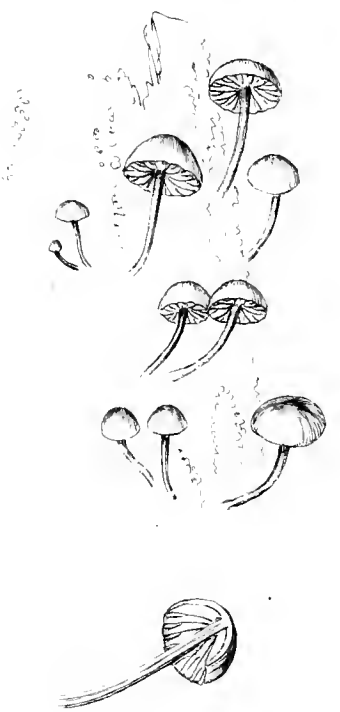
MY son, J. D. C. Sowerby, who brought the last specimen from Box-hill, brought me this from Dorking on the 11th of August, 1814. It was the apparent cause of a very swollen peduncle (three or four diameters bigger than usual) to the leaves, now and then forming in little black looking spots outside and within, which on examination with a magnifier only exposed little clusters of minute spherulate granulæ, those in the centre brown, and those on the sides lighter. These or other small parasites belong more or less to all known plants.

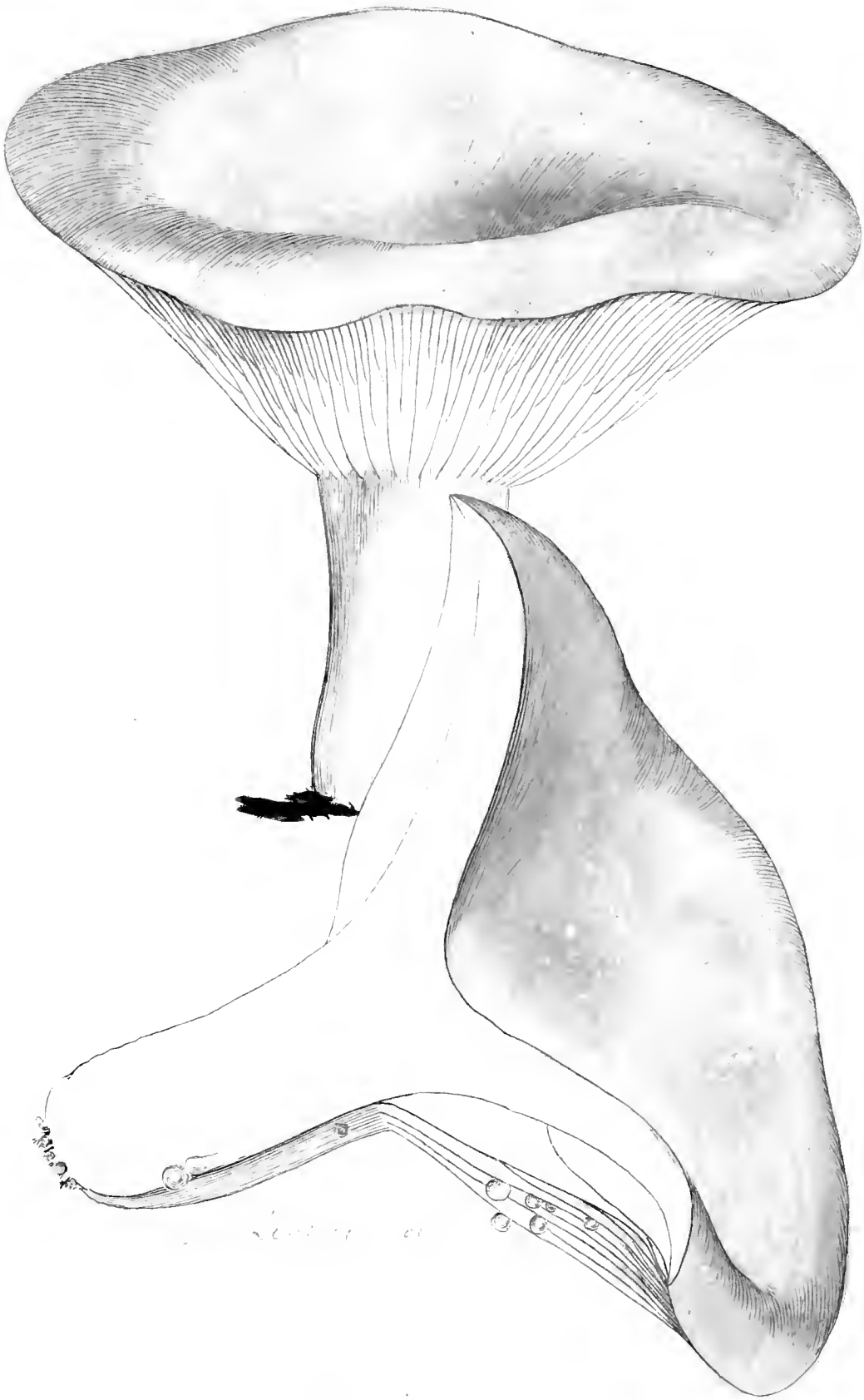
ADDITIONAL OBSERVATION ON

TAB. 387, FIG. 6.

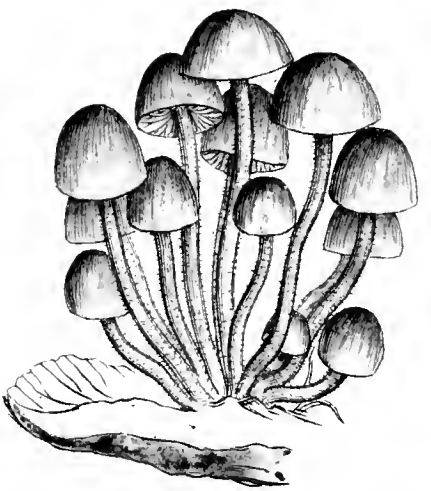
I SOMEHOW forgot to mention these three rings of colour. In the description of that plate I noticed the commencement of Fungus matter, and meant to show that colour in wood sometimes preceded it; yellow perhaps oftenest, gray or bluish next, and crimson, sometimes alone and in succession; and that the beginning of decay in various subjects might be thus indicated. I have, however, met with those who have considered the first and last as indications of soundness in wood, at the same time as it has been the cause of extensive mischief and expensive loss.

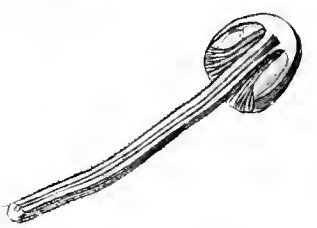


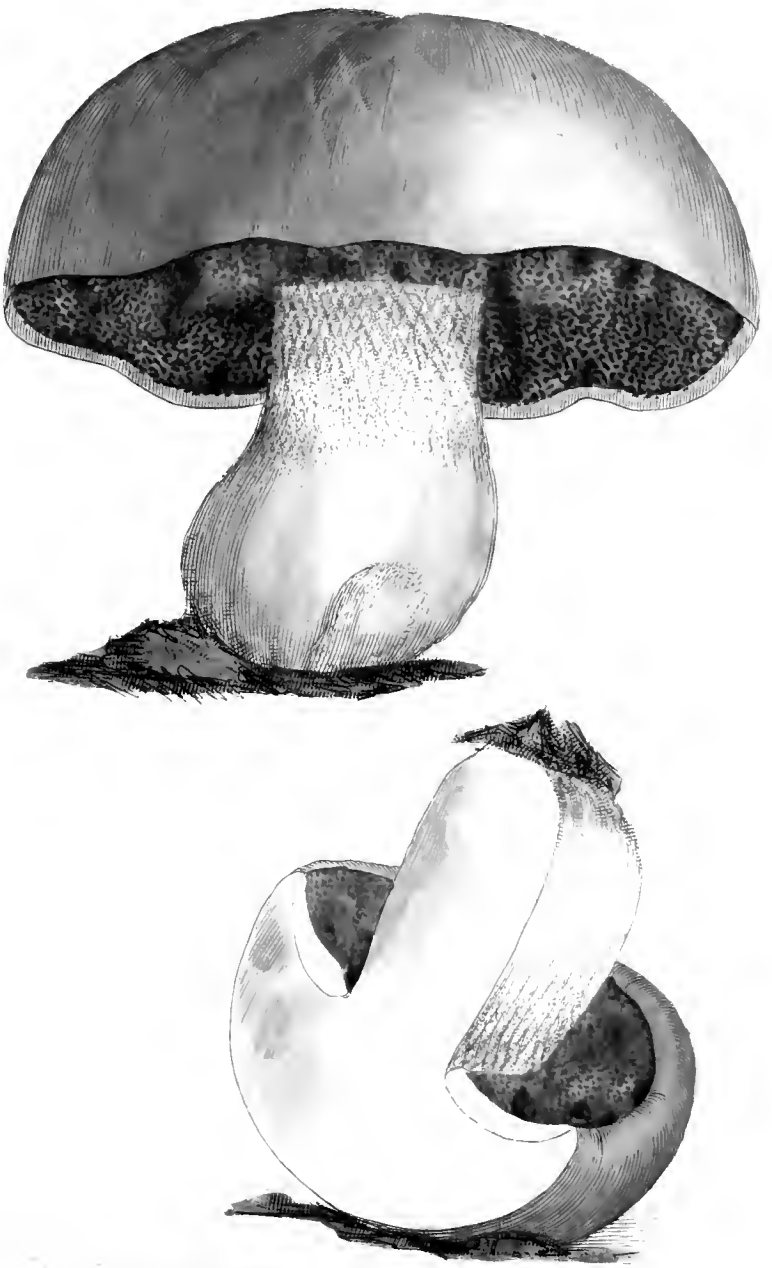


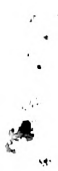


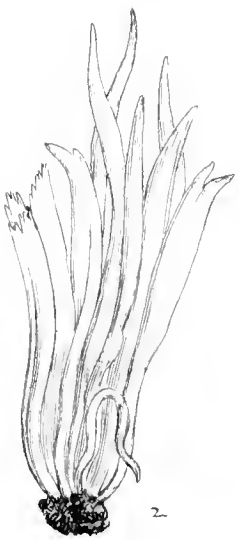

3
2
1

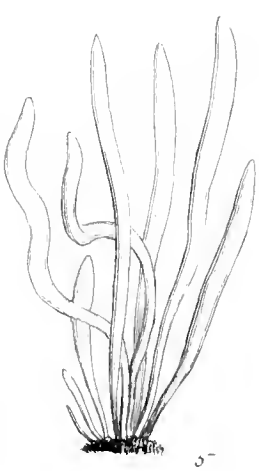


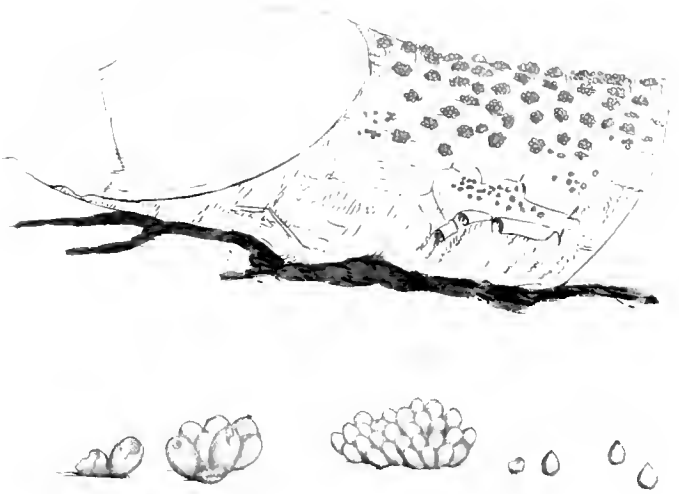


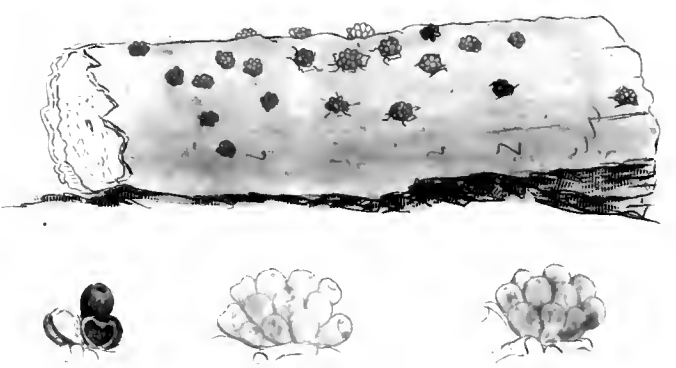


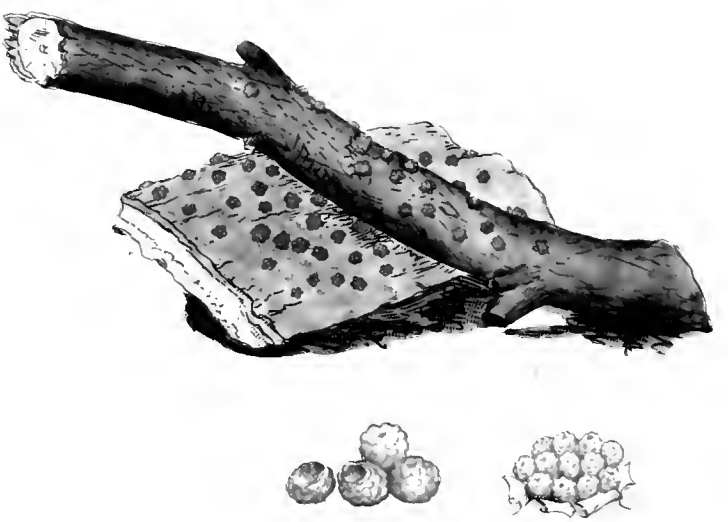


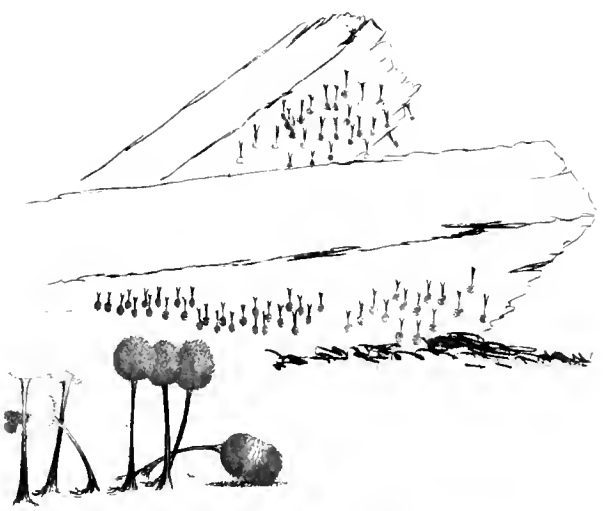


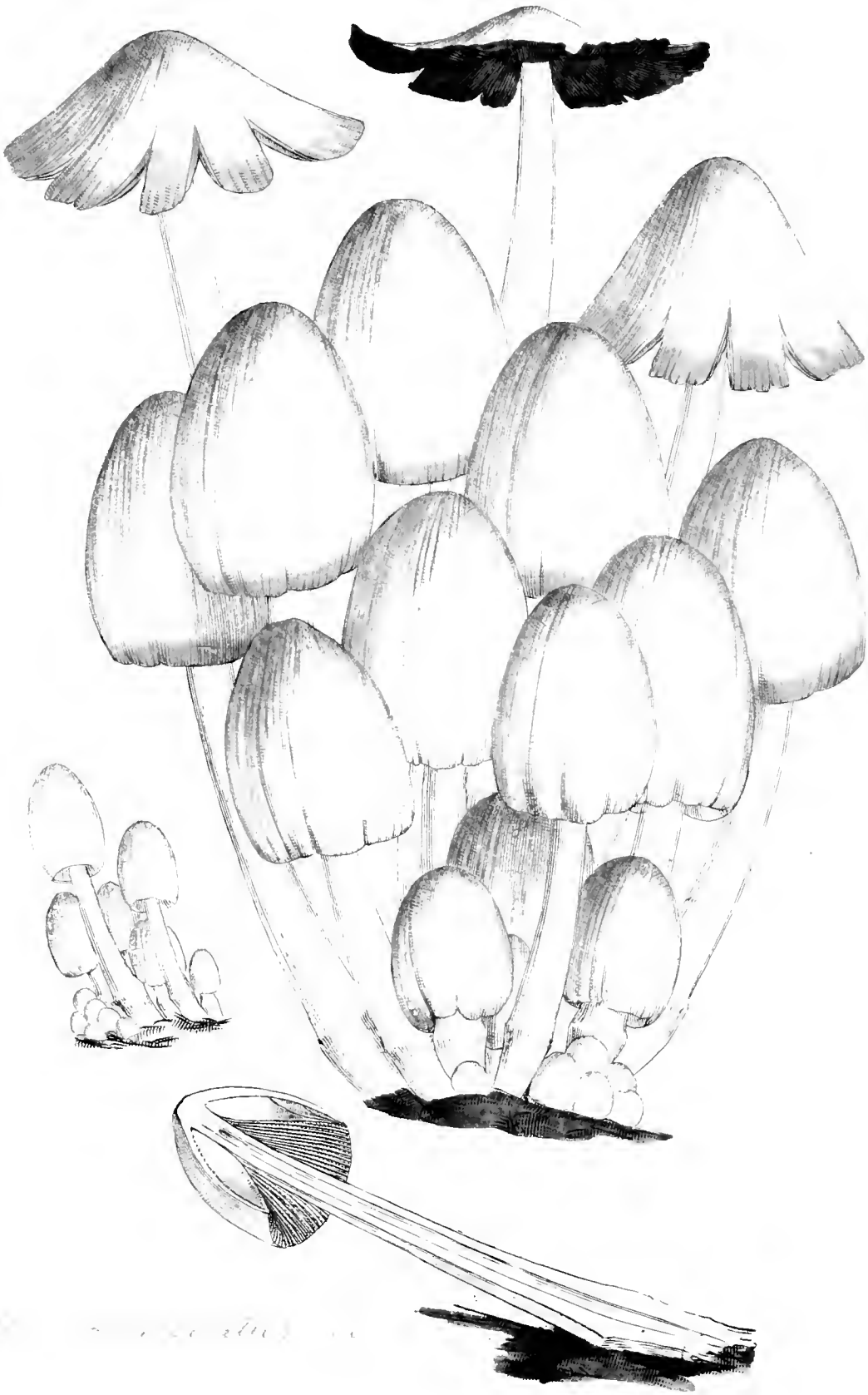




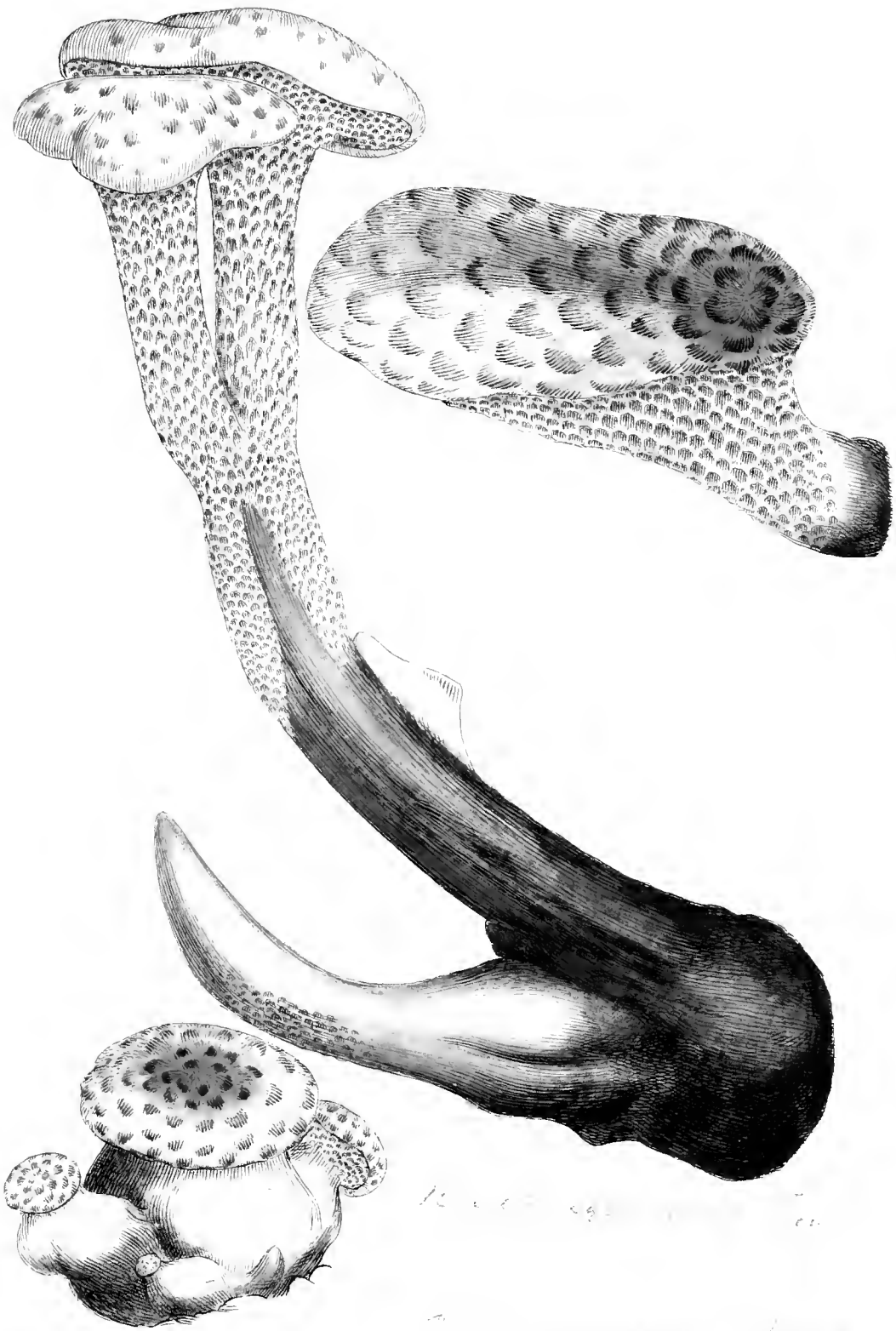


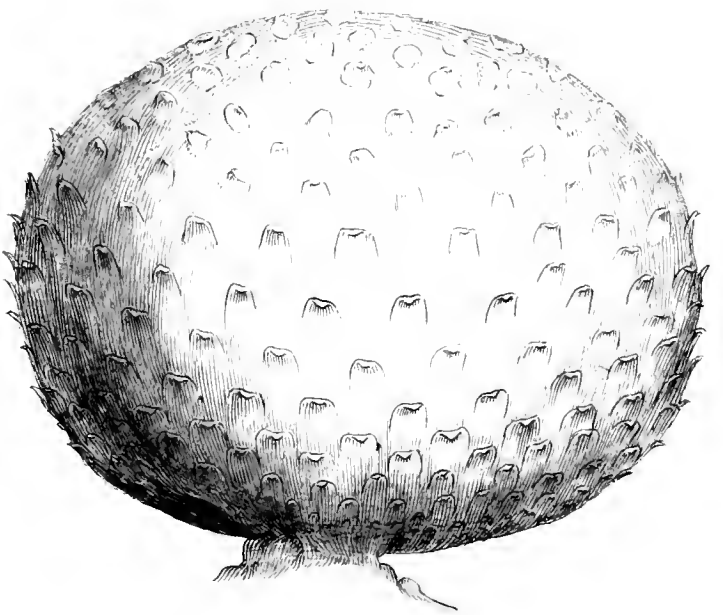


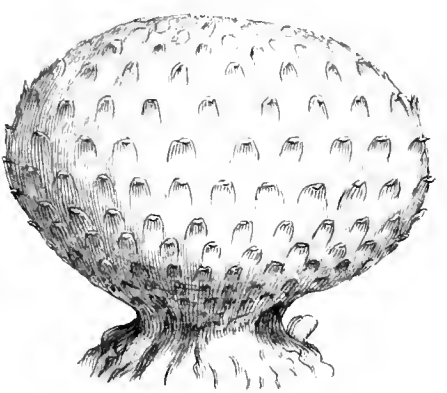




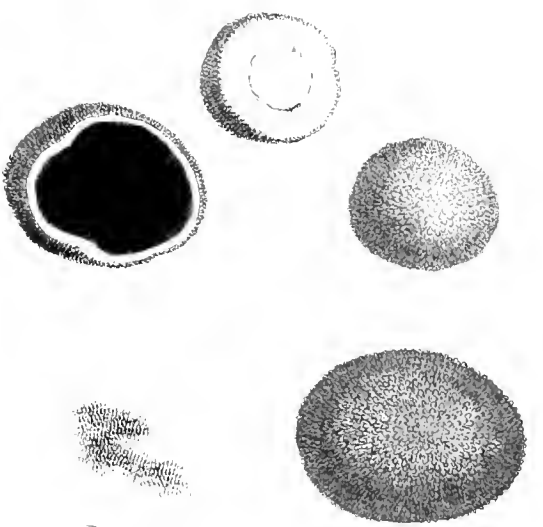
Ag. aeruginosus

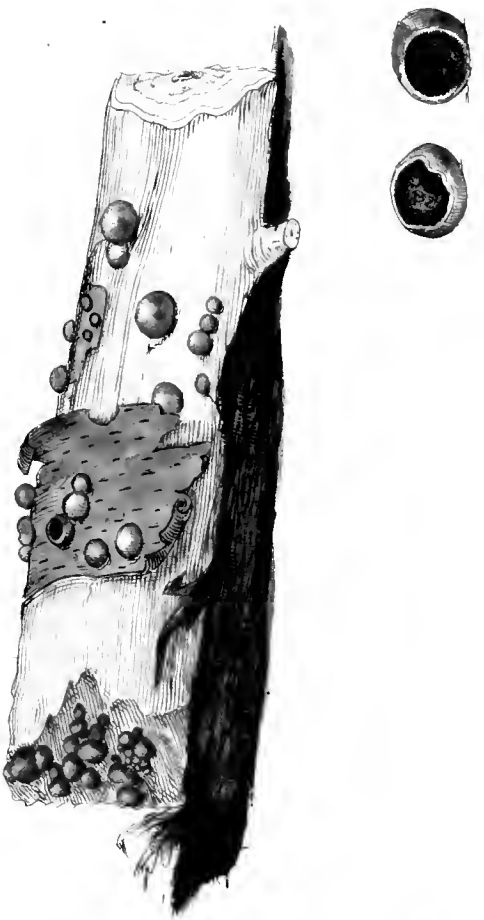


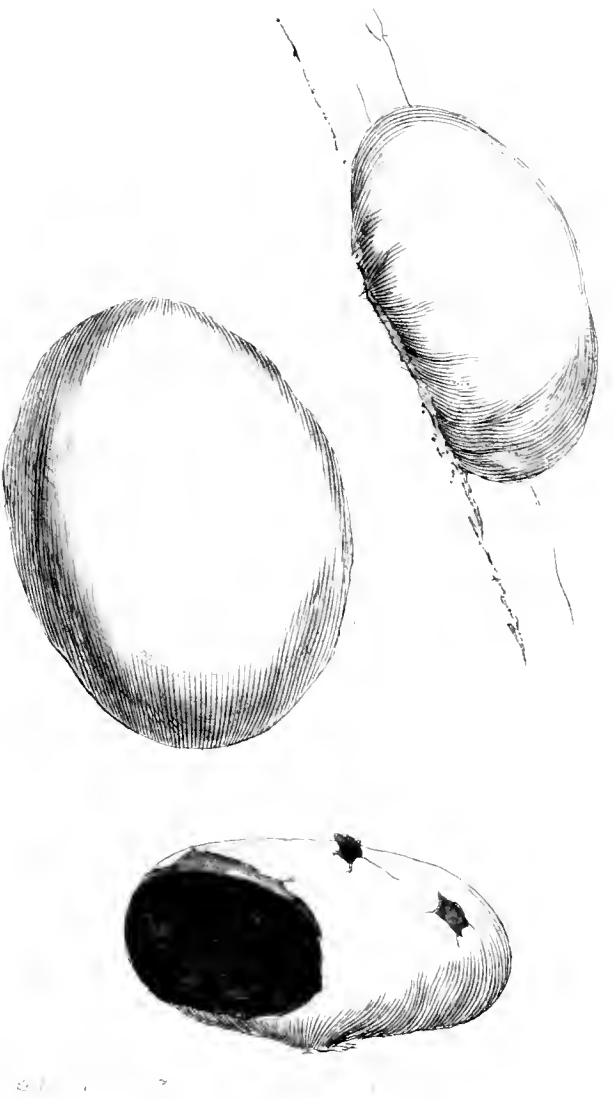


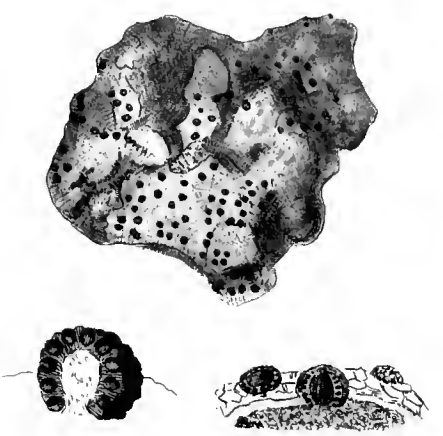


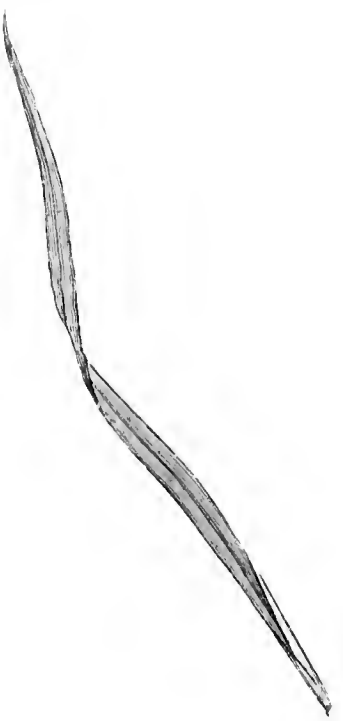
1.

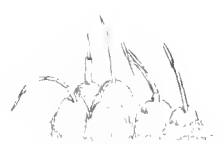


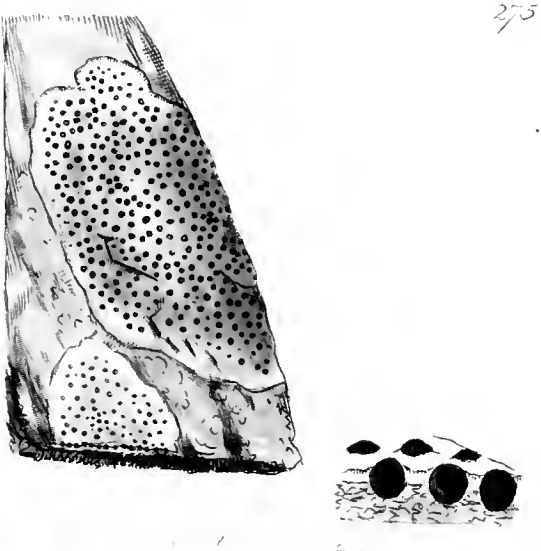


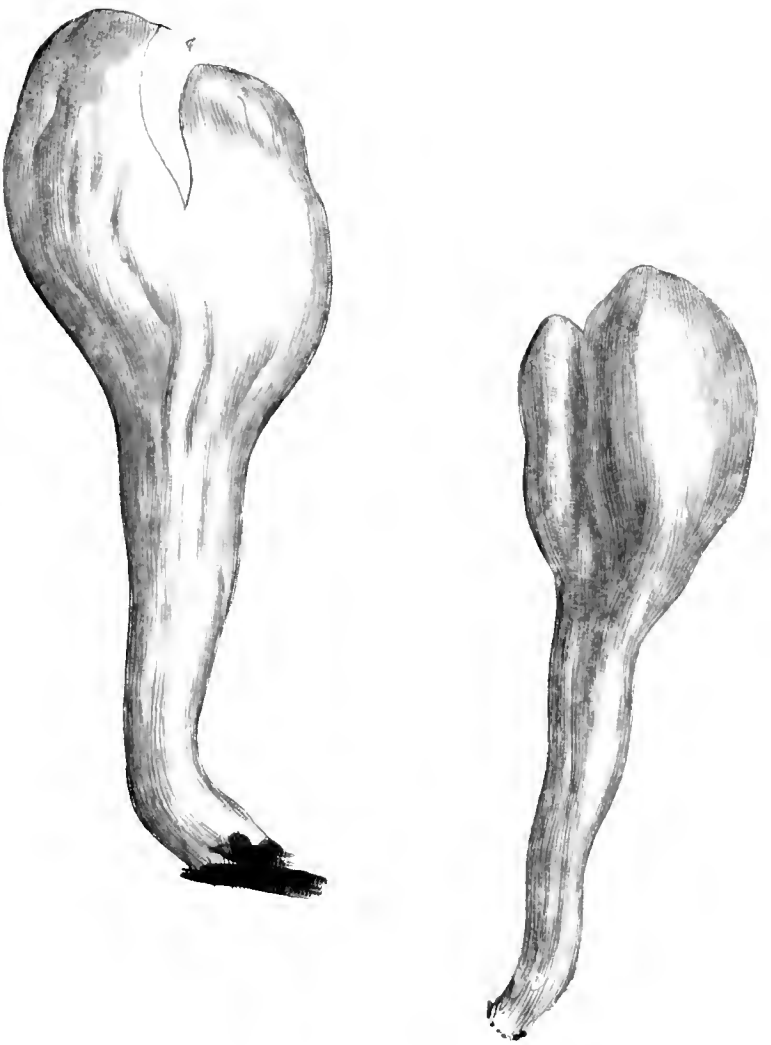




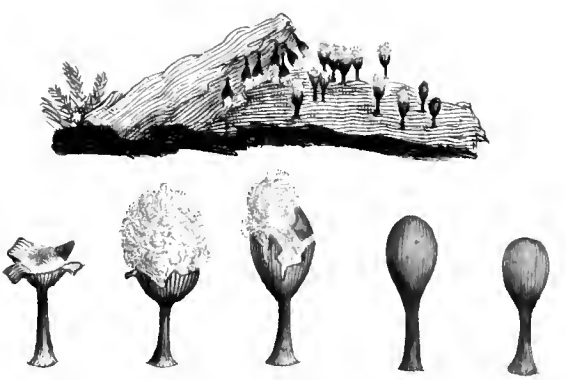


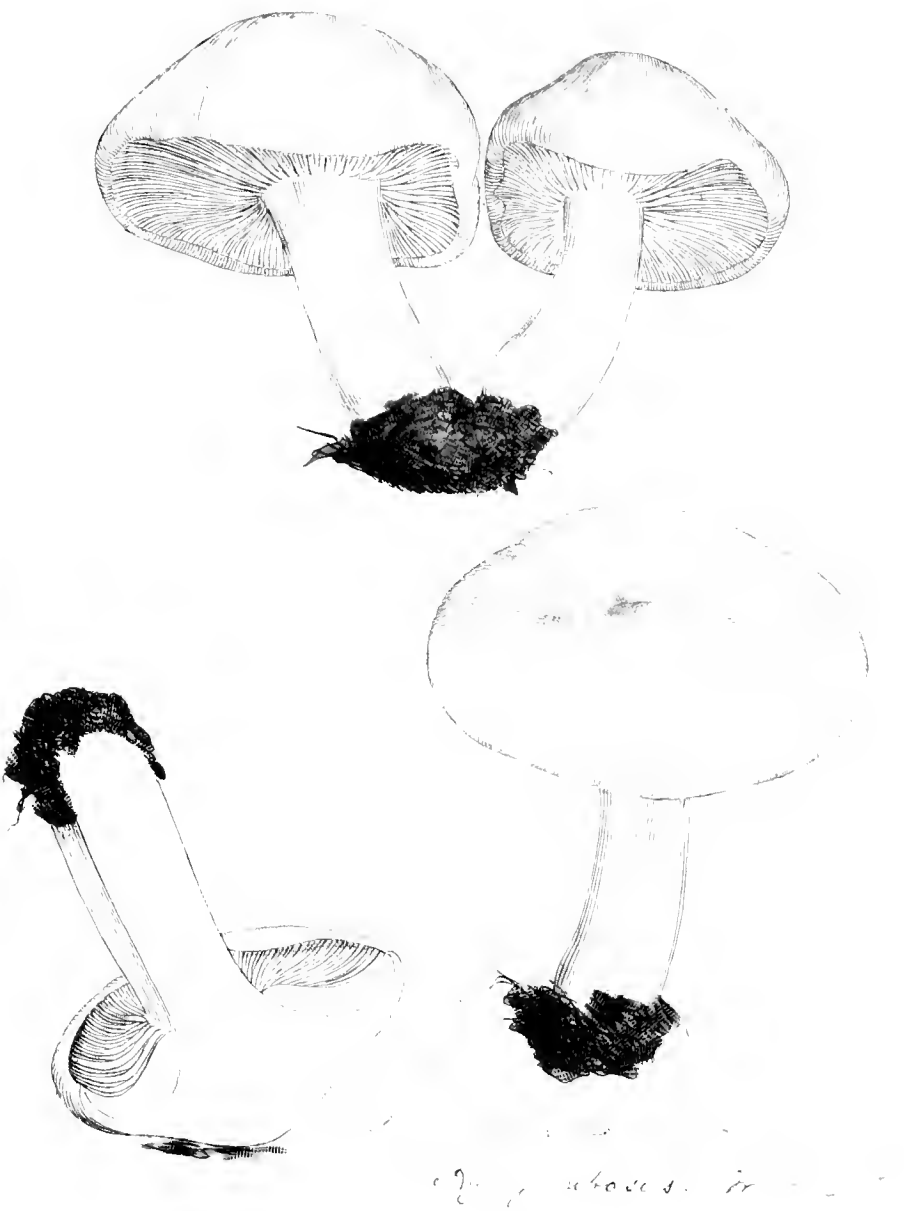


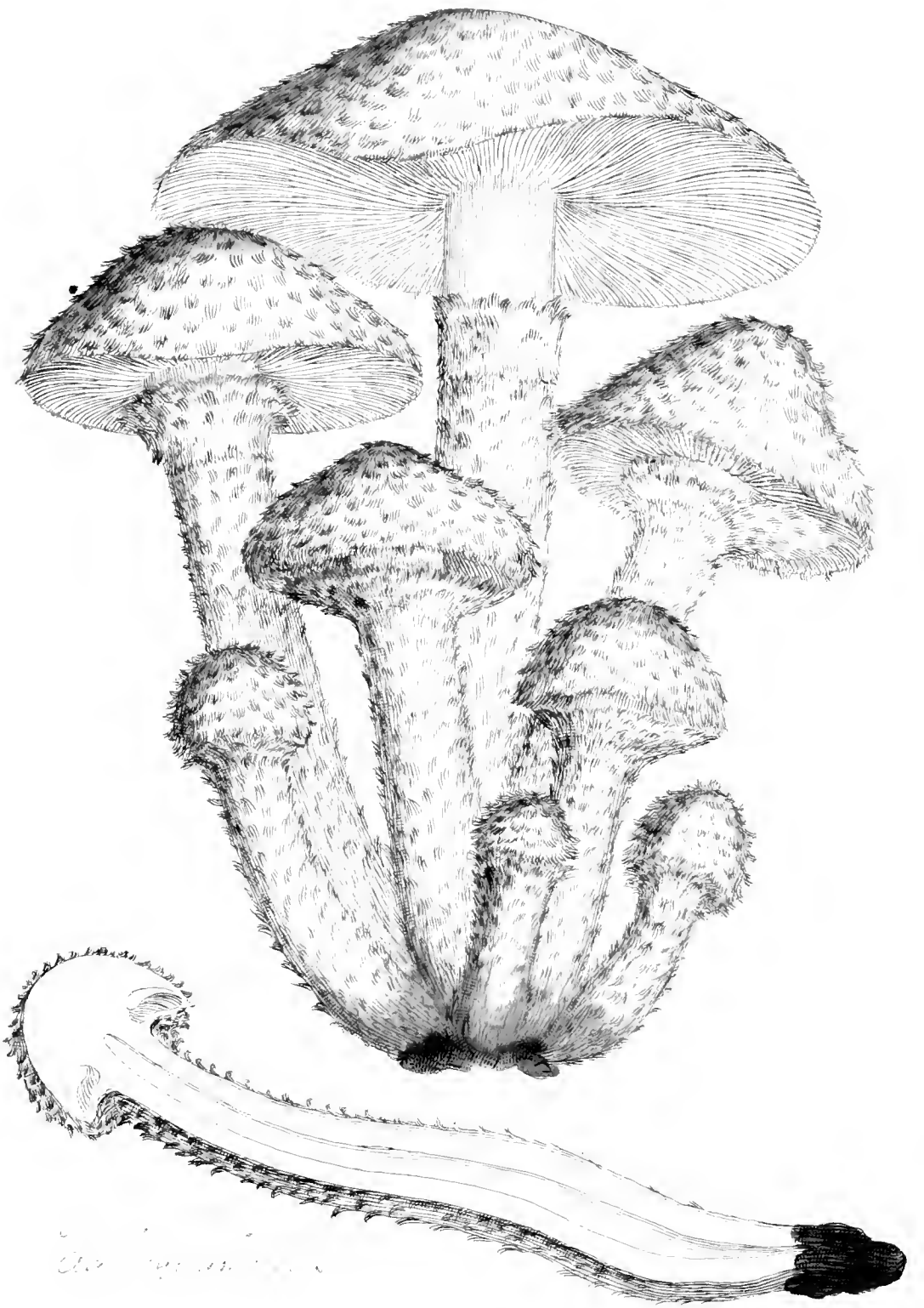


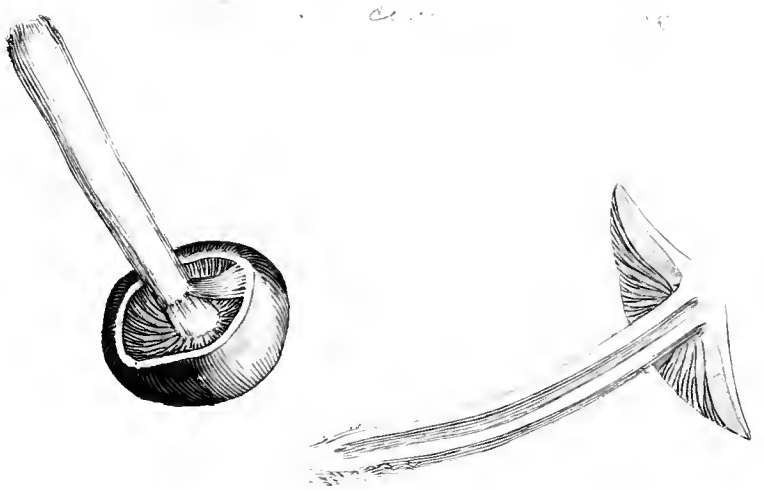



2
3
4
5
6

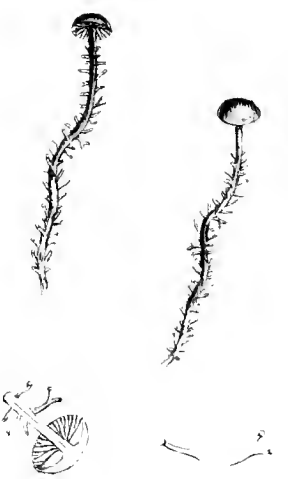


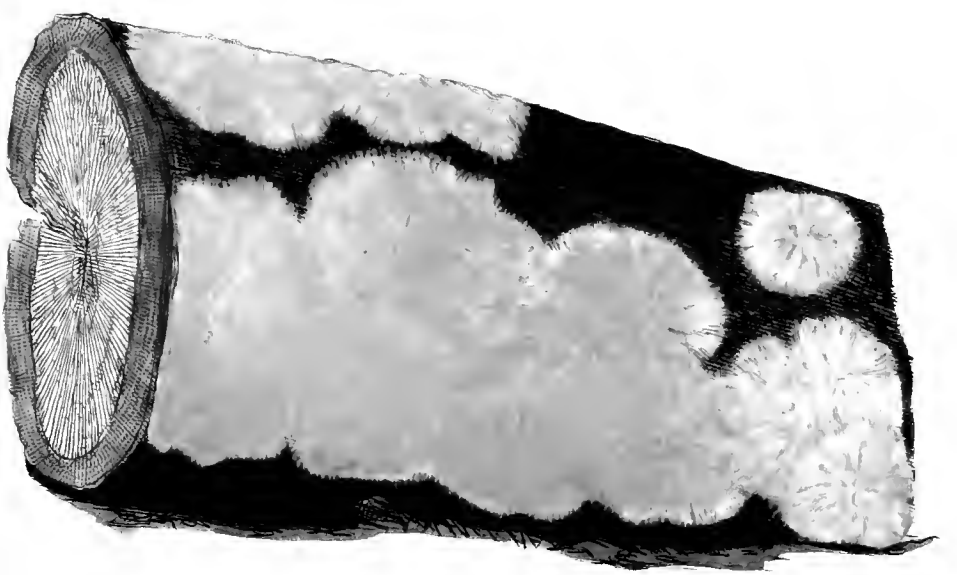


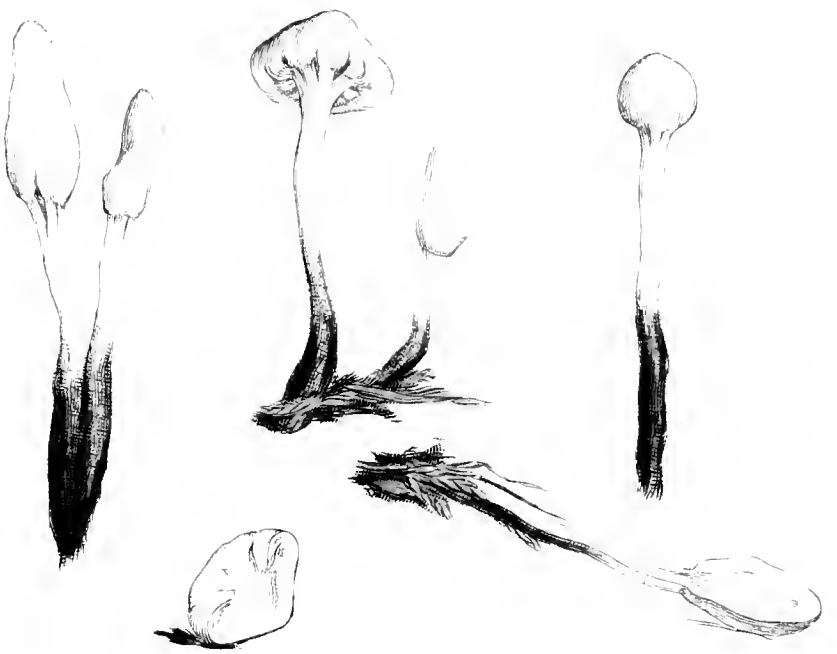


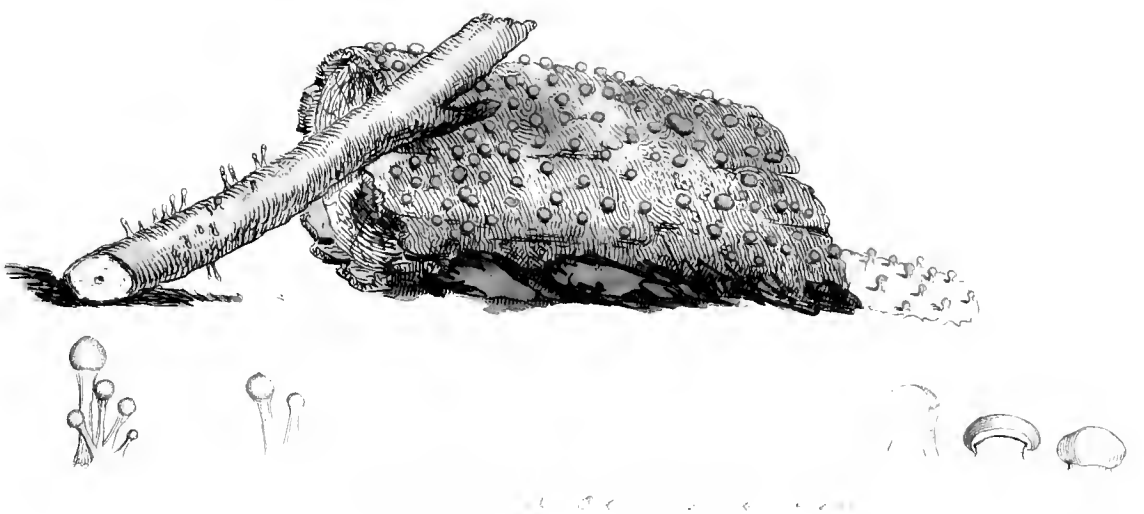


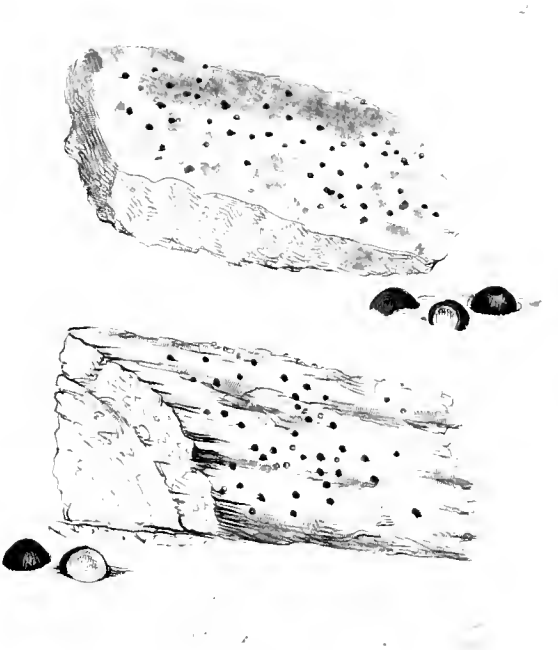
Ag. fasciculari[illegible]

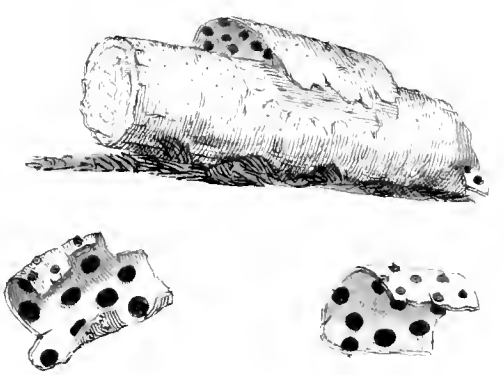


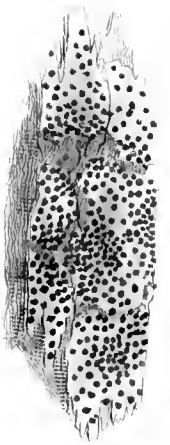


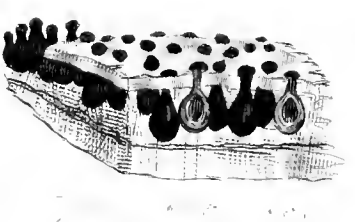


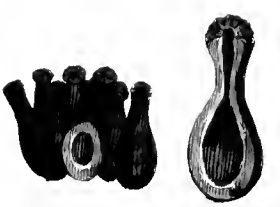




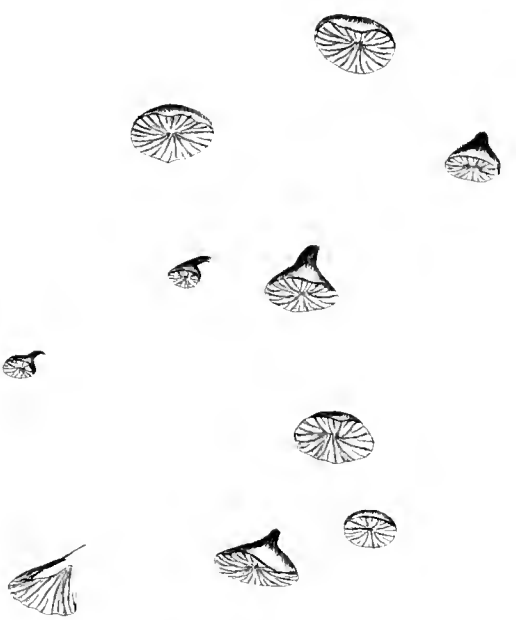


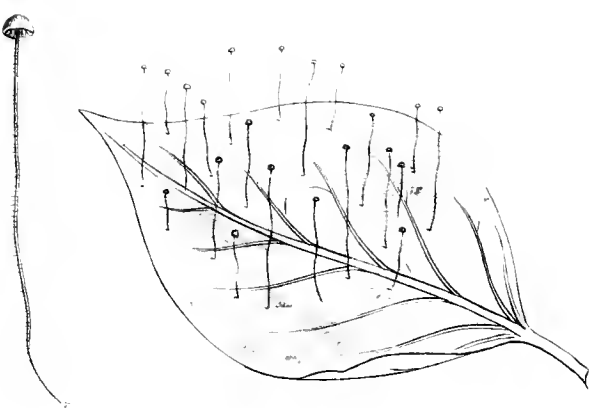




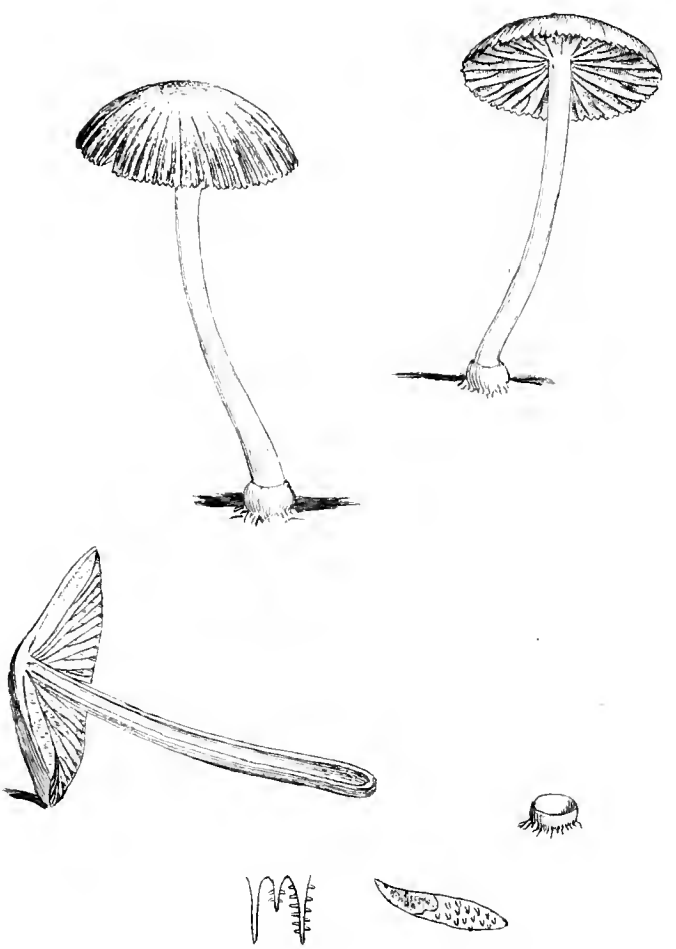



2
1





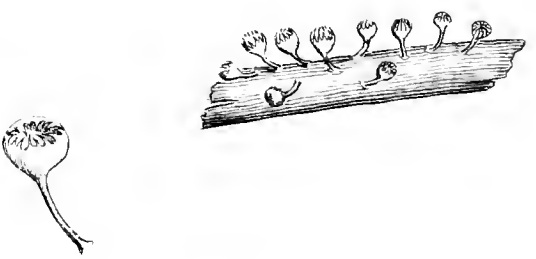
Jan.y 1 1801 Published by Jas Sowerby London



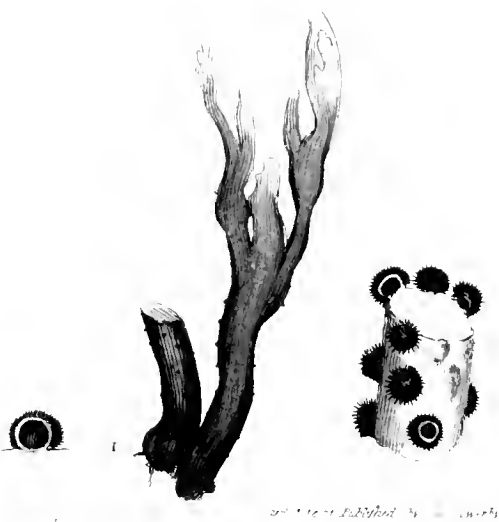
June 1 1801 Published by Jas Sowerby, London

Jan.y 1. 1801 Published by Ja.s Sowerby London

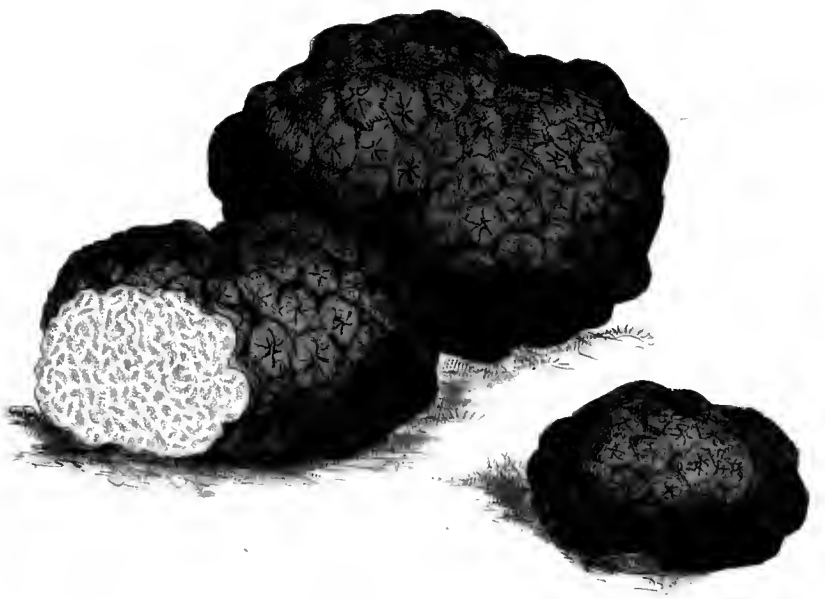
June 1 1801 Published by Jas Sowerby. London.



Jan.ʸ 1 1801 Published by J.F. Dove, Fleet Street London

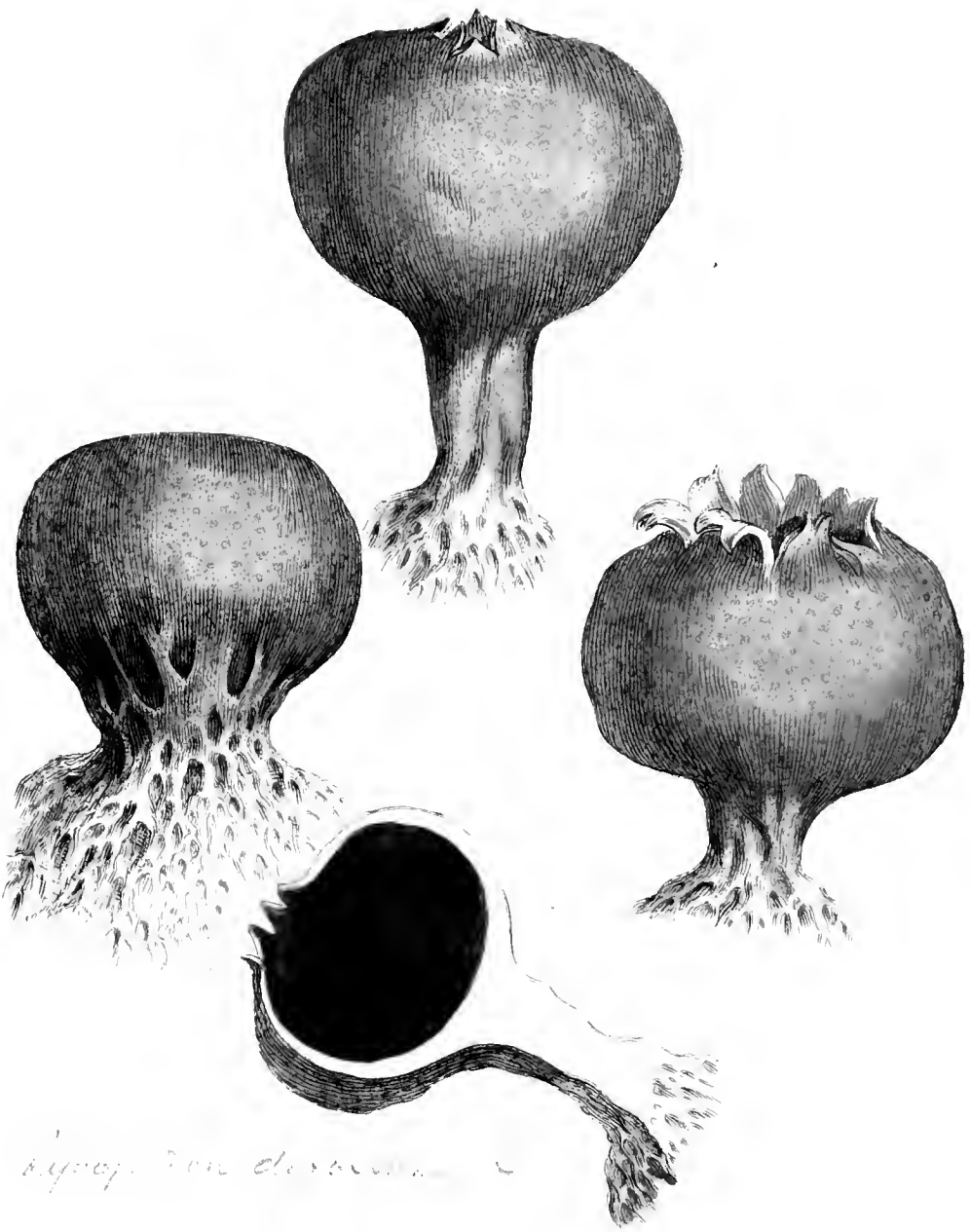


Drawn from Dried Specimens by Geo. Murphy Jordan



June 1 1801 Published by J. Sowerby, London.

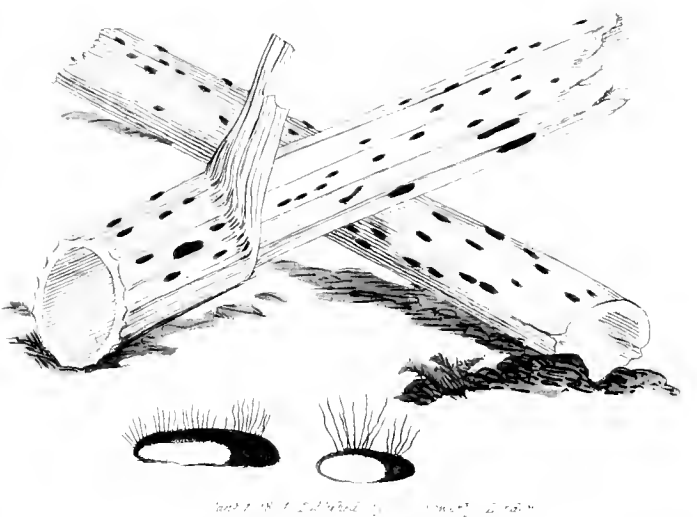
Published by Jas Sowerby London

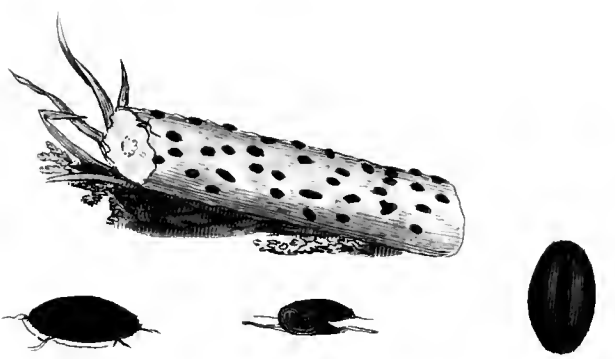


Published by Jas. Sowerby London.

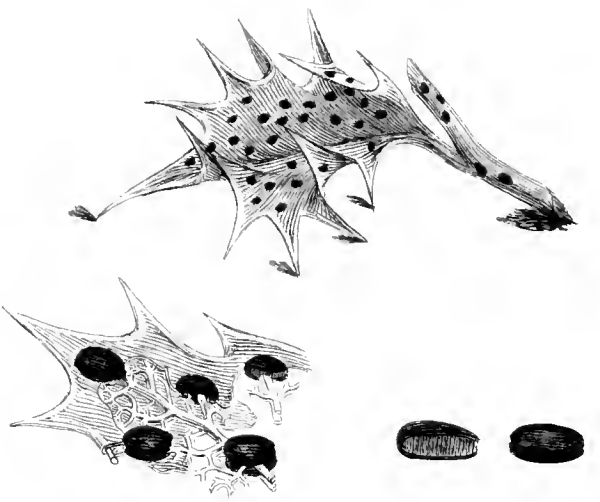
Jan.ʸ 1 1801 Published by Jas. Sowerby, London.

Tab. 1 1801 Published by Jas Sowerby London

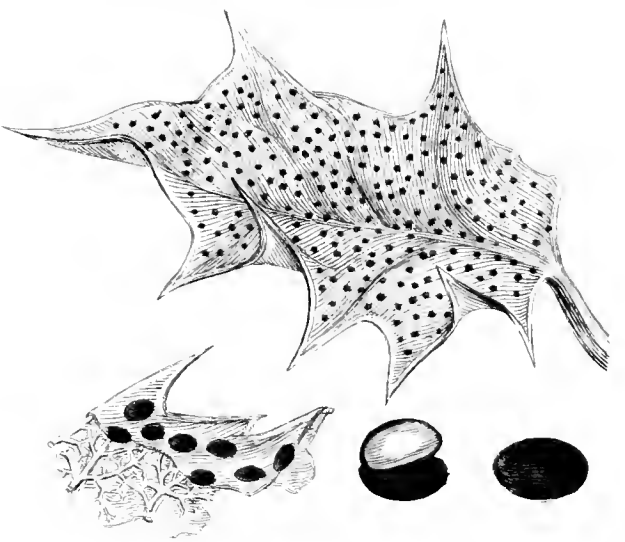




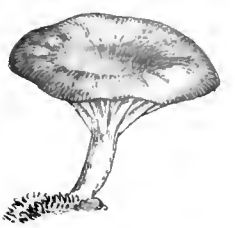
Pubd 1 1804 Published by the Proprietors Bradley

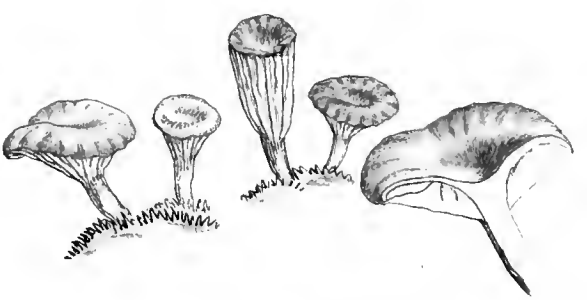


Tank 1820 Published by Jo. Sowerby, London



Oct 1 1801 Published by Jas Sowerby, London.

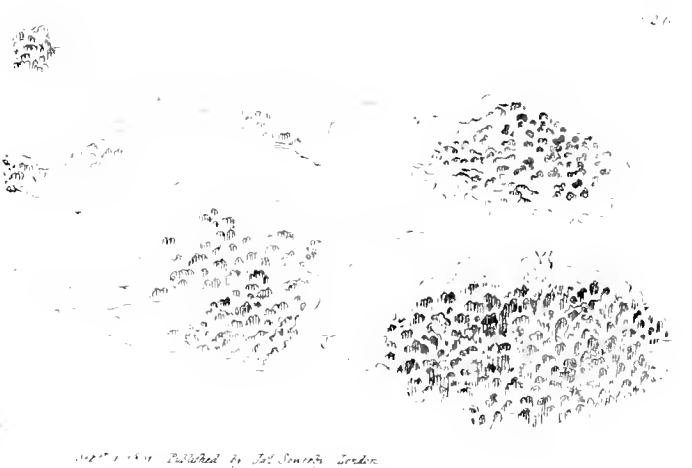


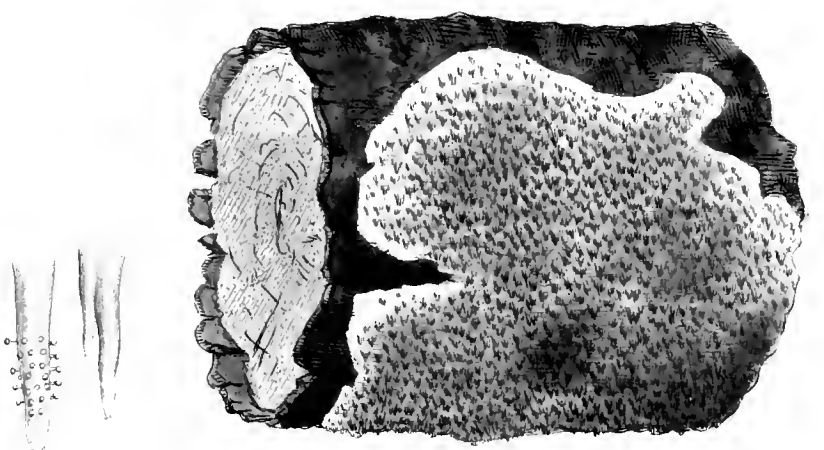


Sept.r 1 1831 Published by Jas Sowerby London

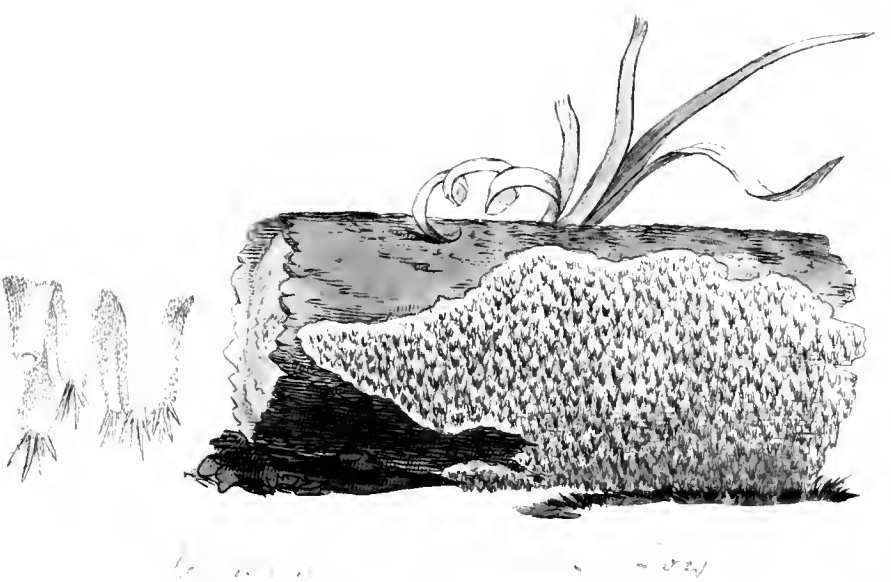
Sept. 1833 Published by Sowerby &c.

Sept 1 1808 Published by Ja. Sowerby London

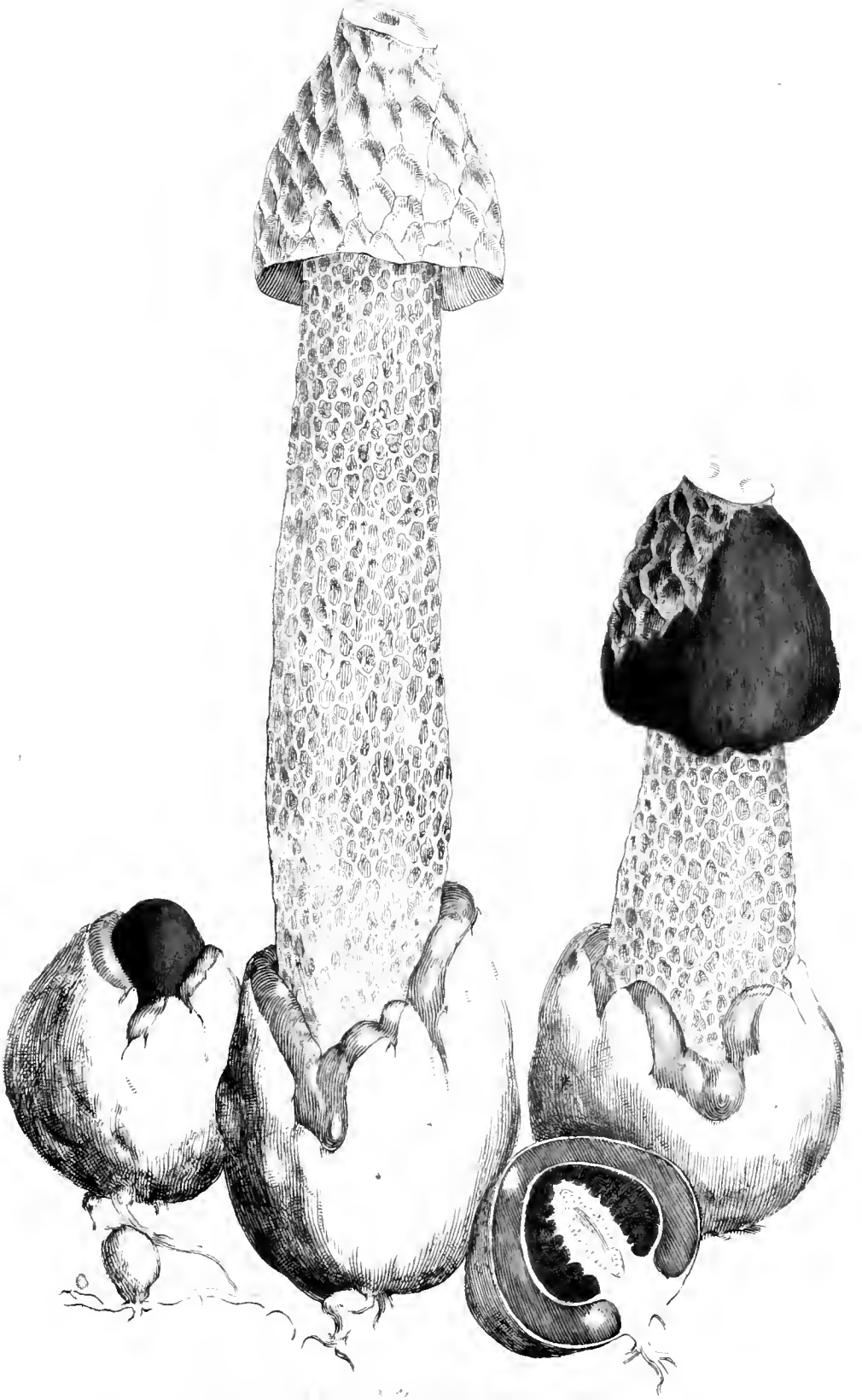




Sept.r 1 1830 Published by Jas. Sowerby, London

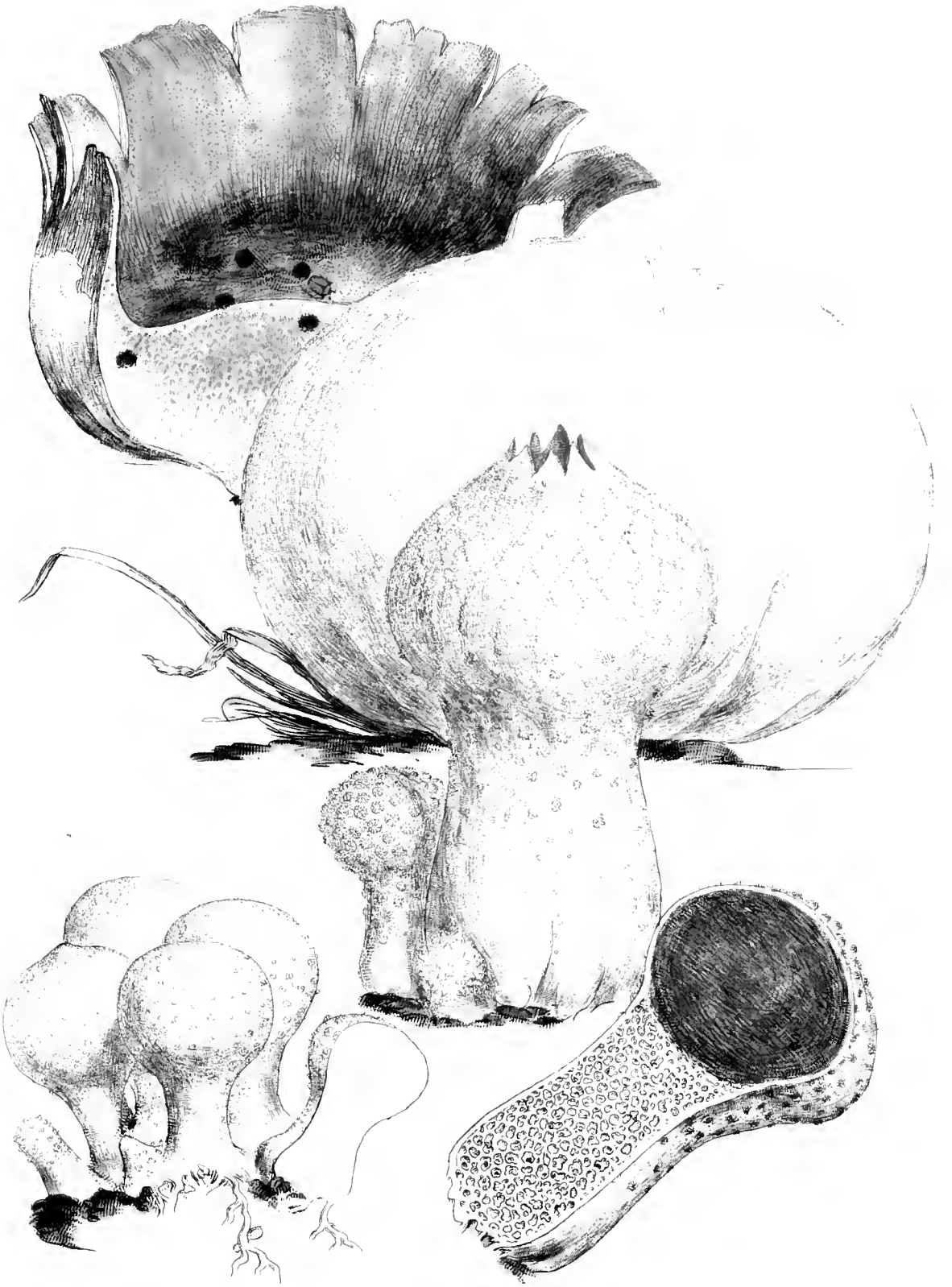


Sept.r 1 1801 Published by Jas. Sowerby, London



Sept.r 1801 Published by Jas. Sowerby London

Published by Ja. Sowerby, London



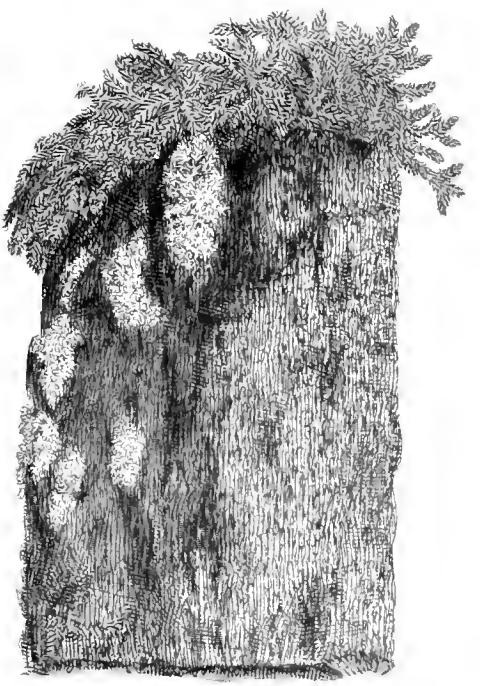
Sept.r 1. 1811. Published by Jas. Sowerby London.

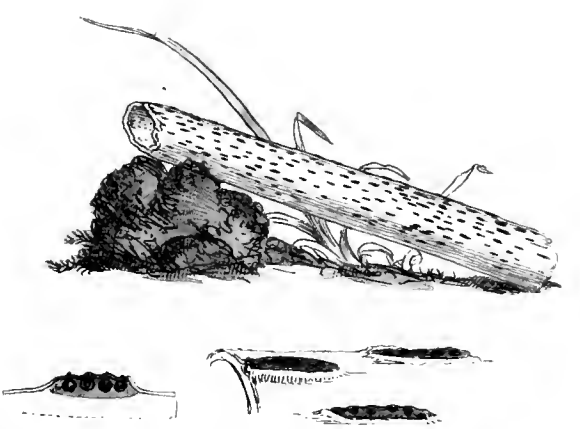
1

2

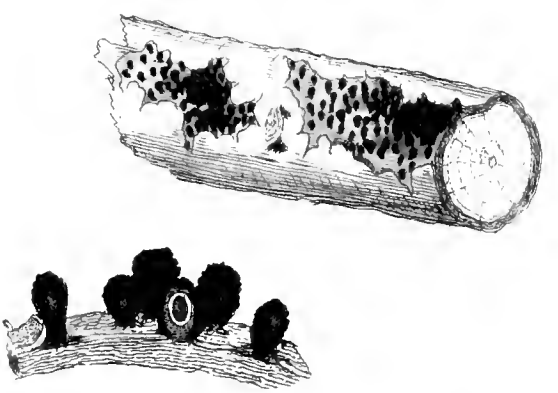
1

Sept.r 1 1801 Published by Jas Sowerby London

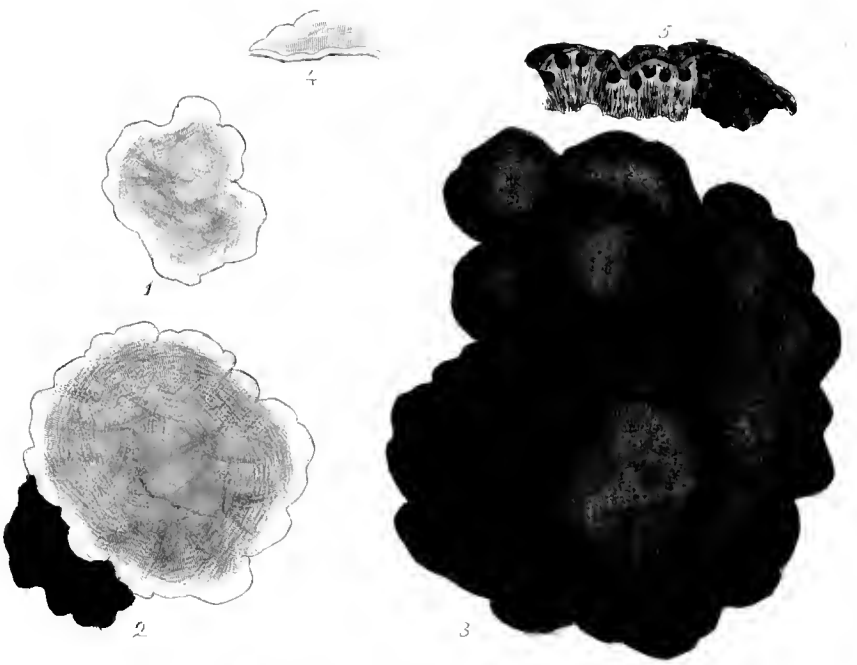




September 1 1801 Published by Geo. Nicol London



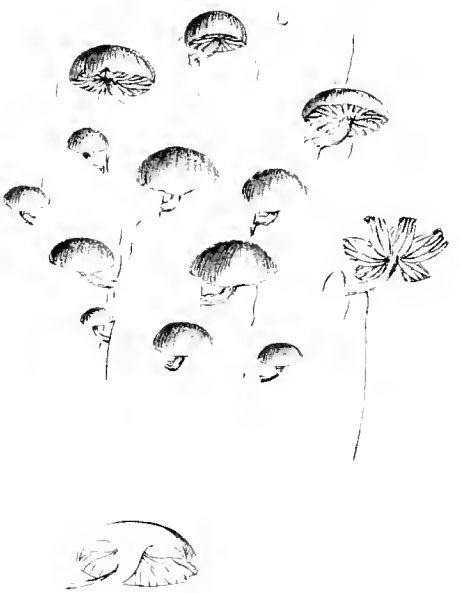
September 1 1801 Published by Jas. Sowerby, London



Sept.r 1 1801 Published by Jas Sowerby London

Sept. 1st 1811 Published by Jas. Sowerby London

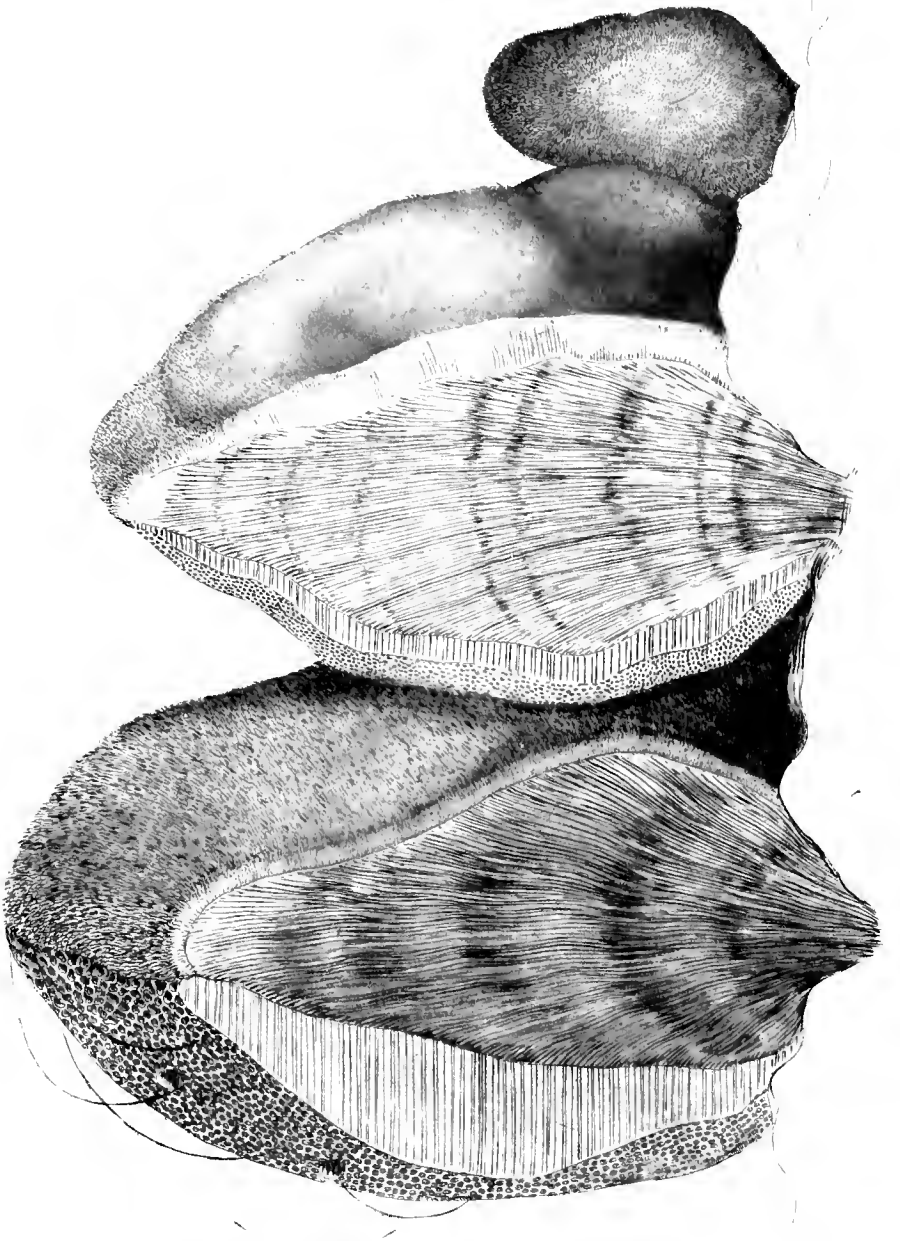
Sept. 1 1803 Published by J. & J. Sowerby, London



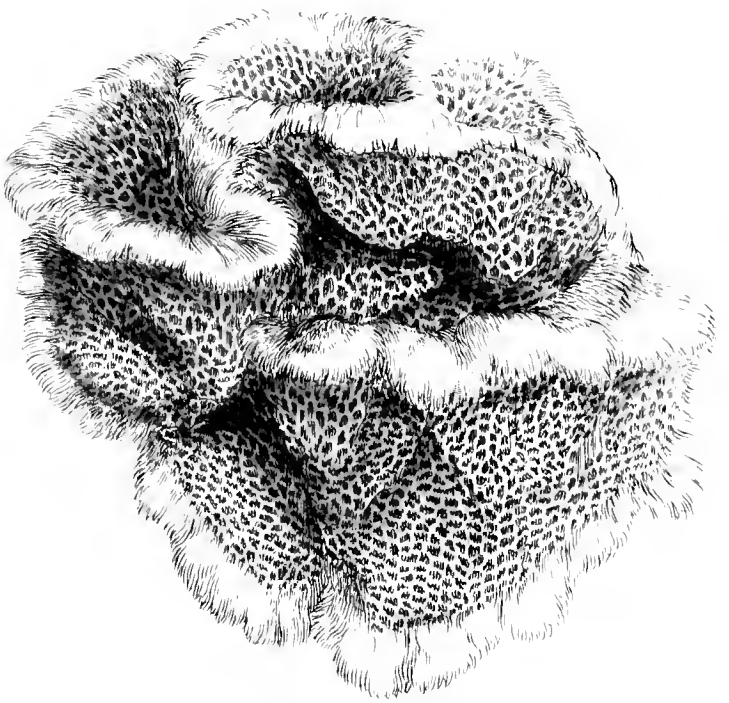
Jan.ʸ 1.1832 Published by Sol.ᵗ Swainson London

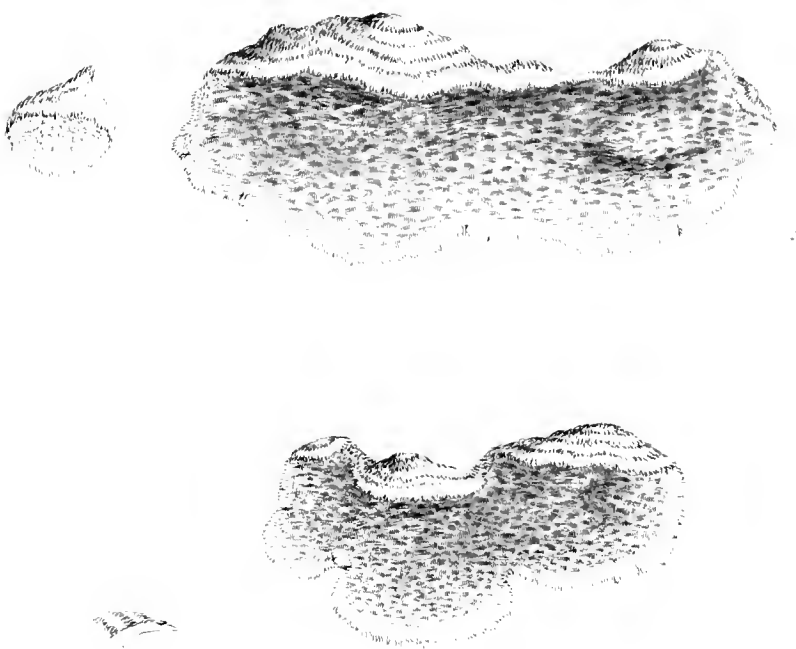
June 1. 1832 Published by Sir J. Sowerby, London

Jan.ʸ 1802 Published by Jas Sowerby London

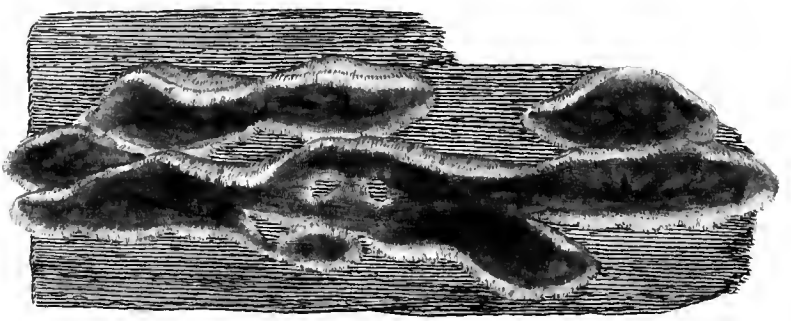


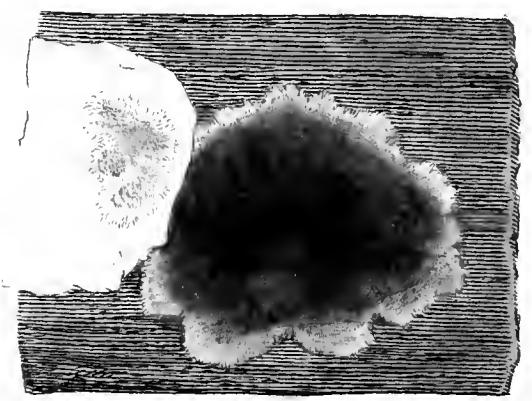
Jan.y 1. 1802 Published by Jas Sowerby London.

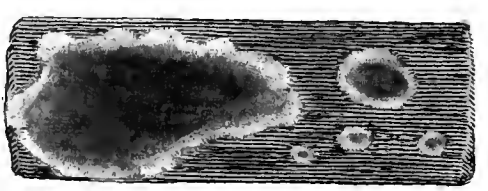




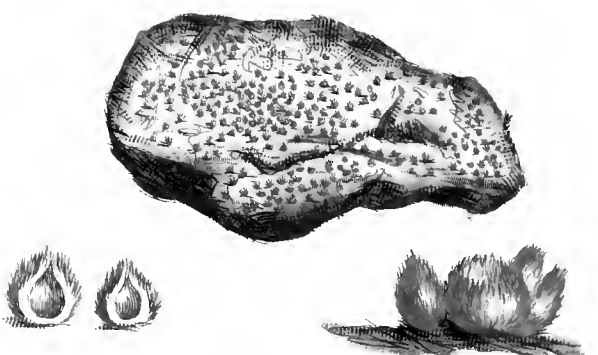
Jan.y 1. 1803. Published by Jas. Sowerby, London



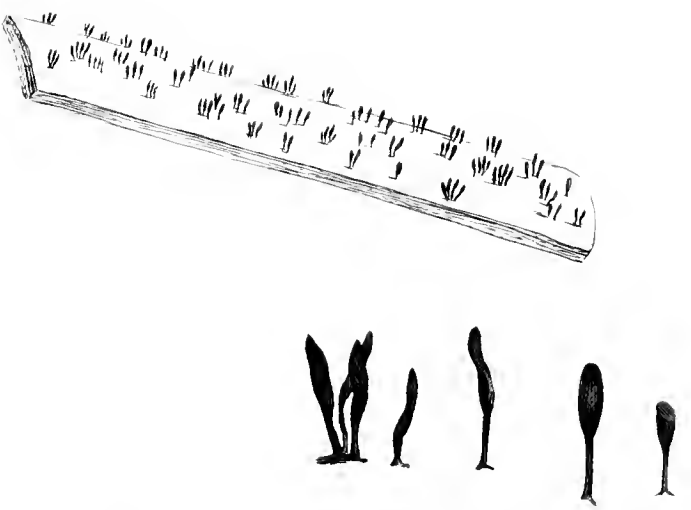




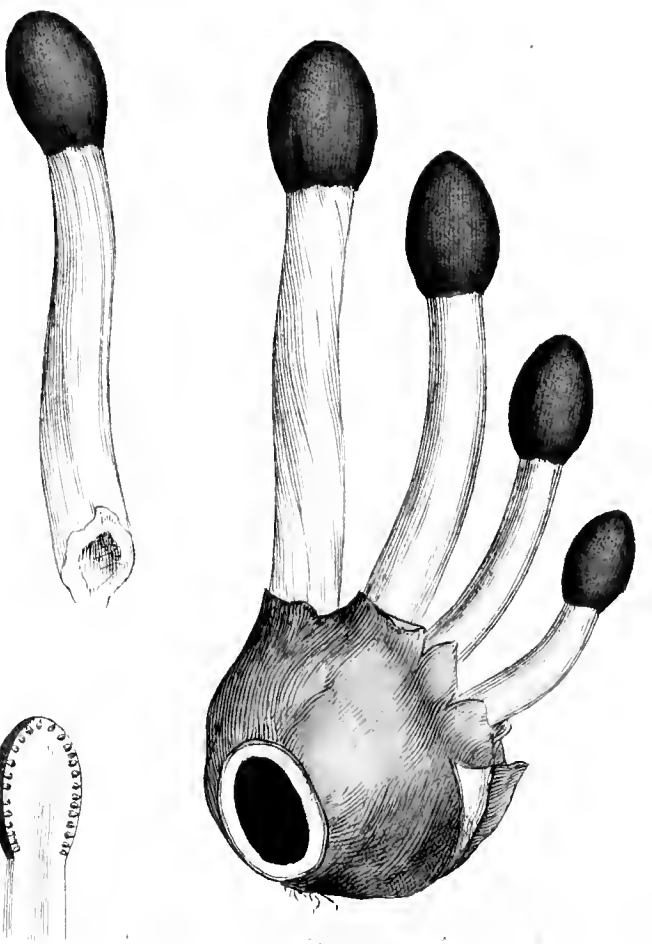
Tom.I 1802 Published by Jas. Sowerby, London.



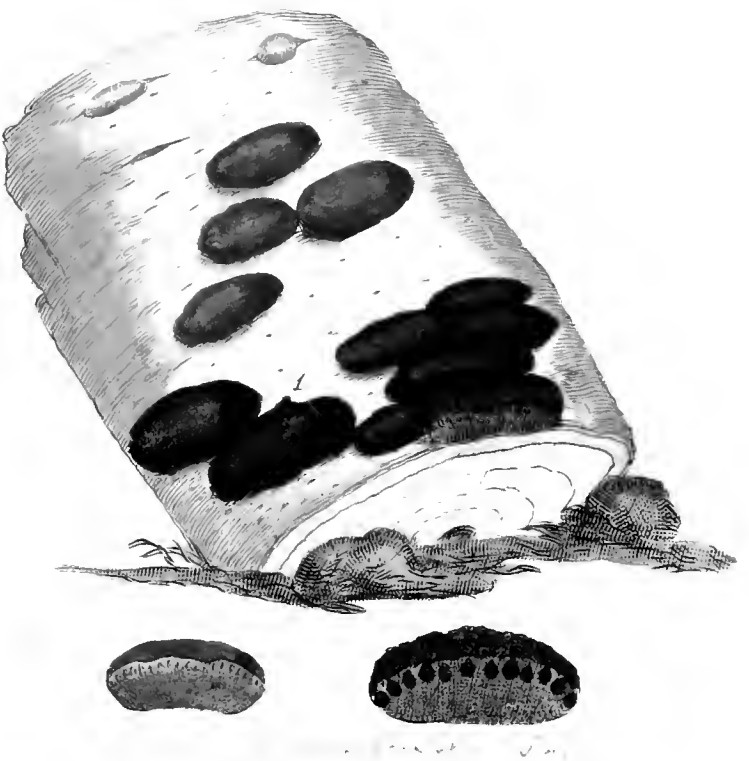
Sept 1 1802 Published by Jas Sowerby London.



Published by G. Sowerby, London

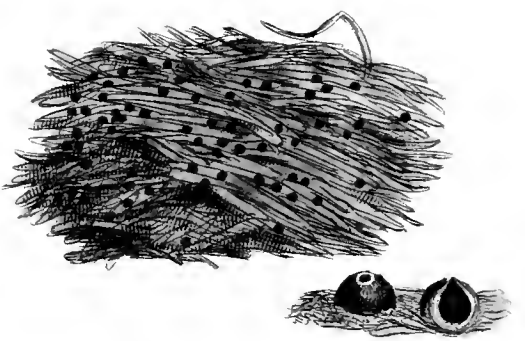


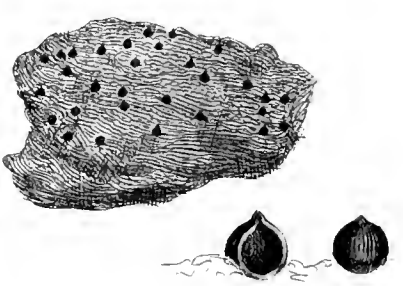
Jan.y 1 1802 Published by Jas Sowerby, London.



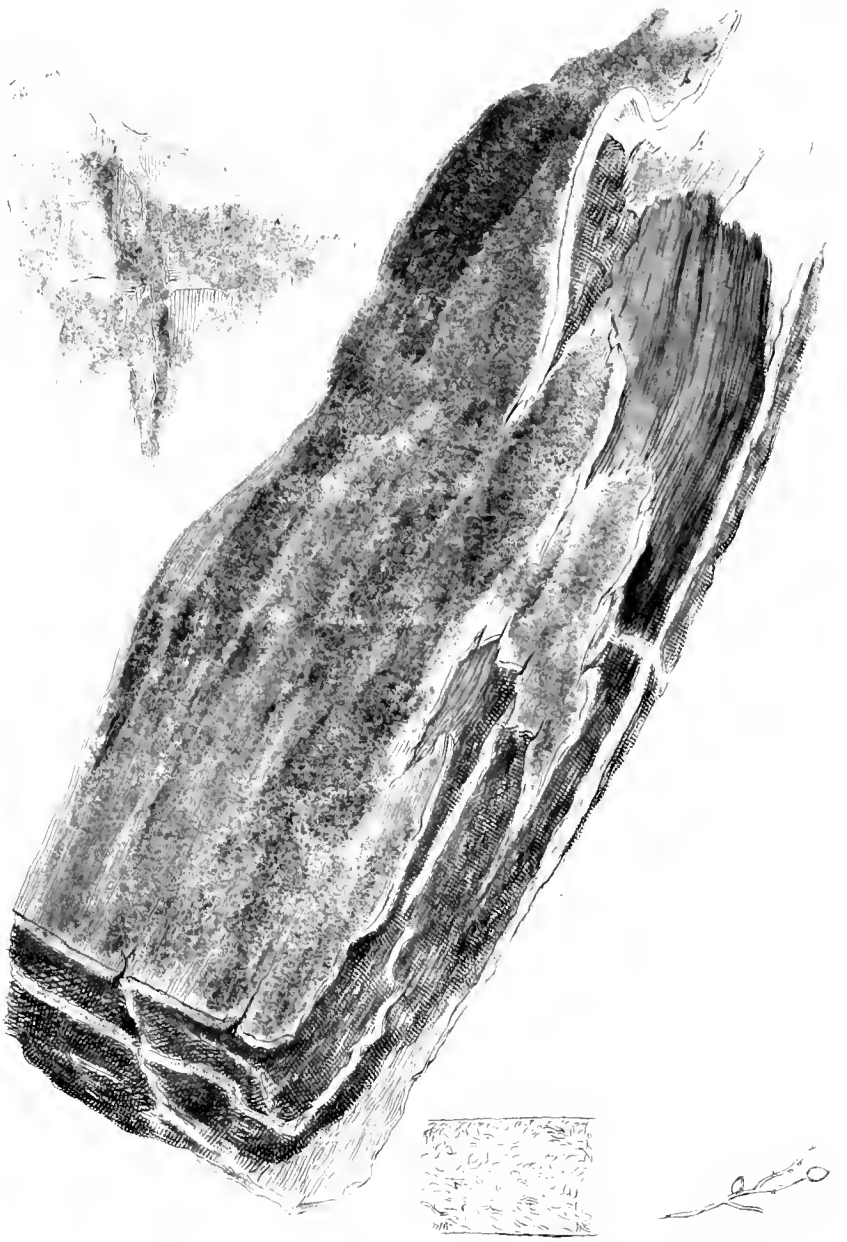
June 1. 1802 Published by Jas Sowerby London

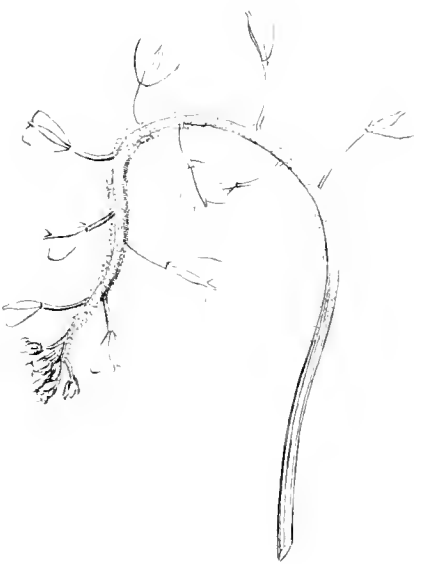
Jan.y 1 1802 Published by Jas Sowerby London

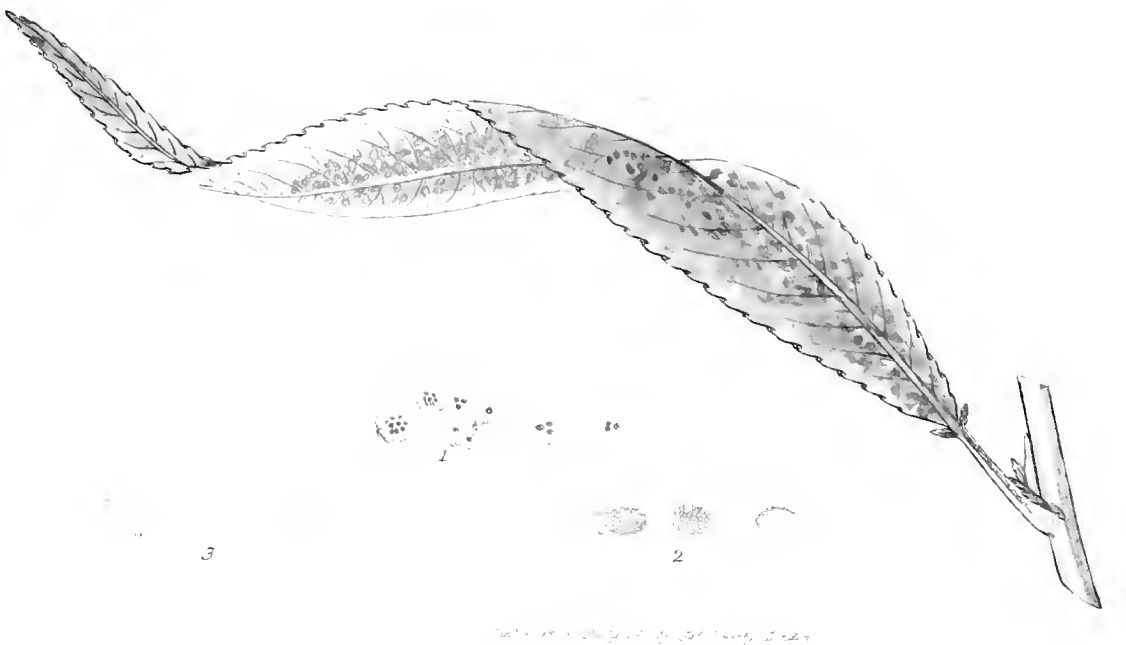


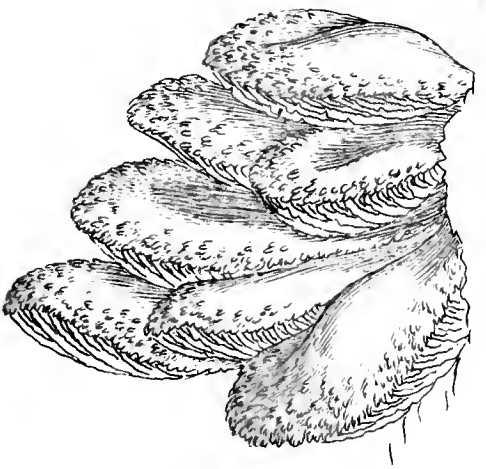


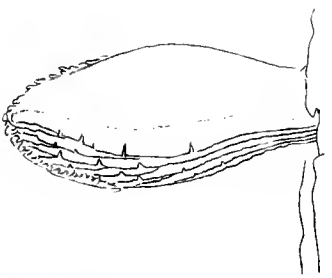
June 1 1819 Published by J. Taylor, London



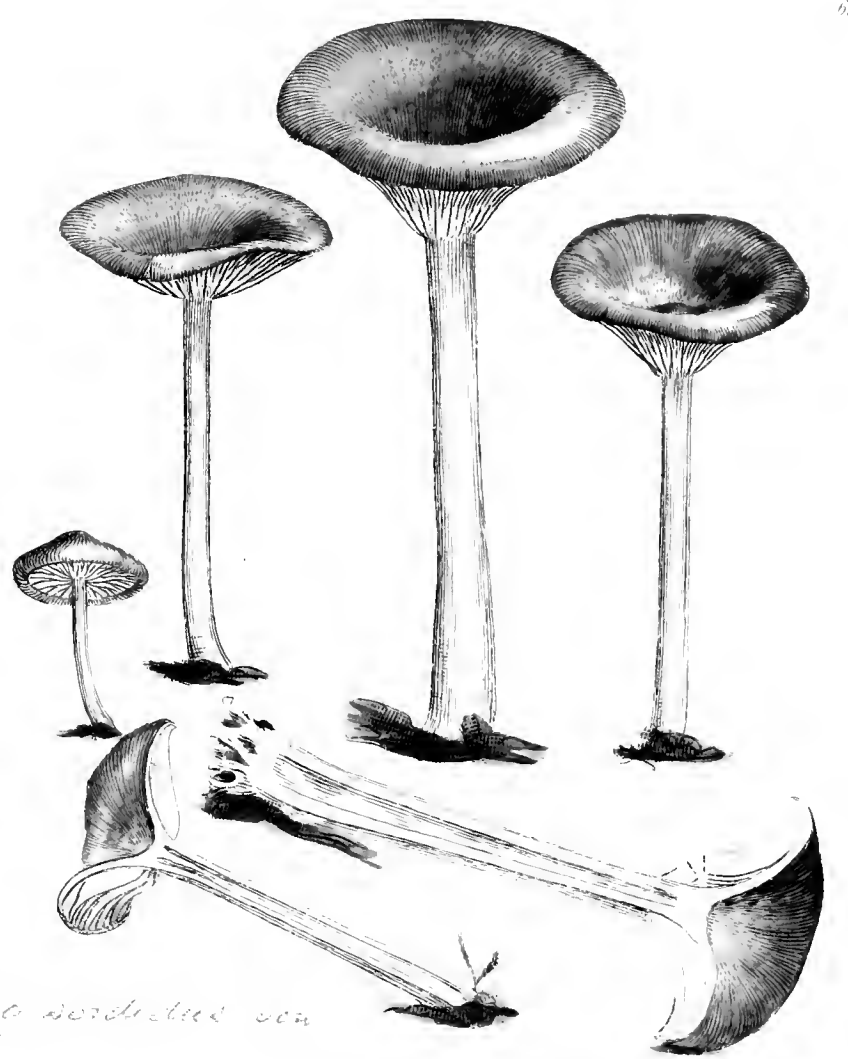



1
3
2





Pub.d 1st 1802 Publish.d by Jas. Sowerby London.



Cl. Sowerby del. et sc.

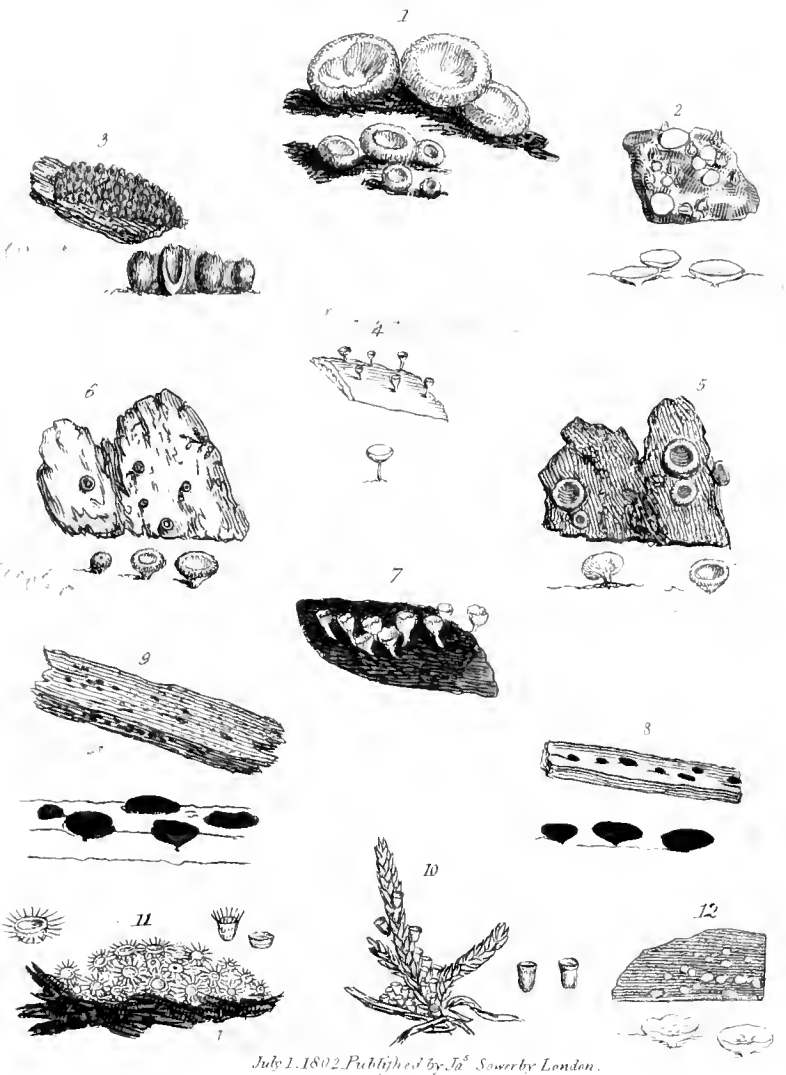
Publ.d 1802 by Sowerby, London

July 1st 1802. Published by Jas Sowerby. London

Pub. 1803 Published by Vol. Sowerby, London

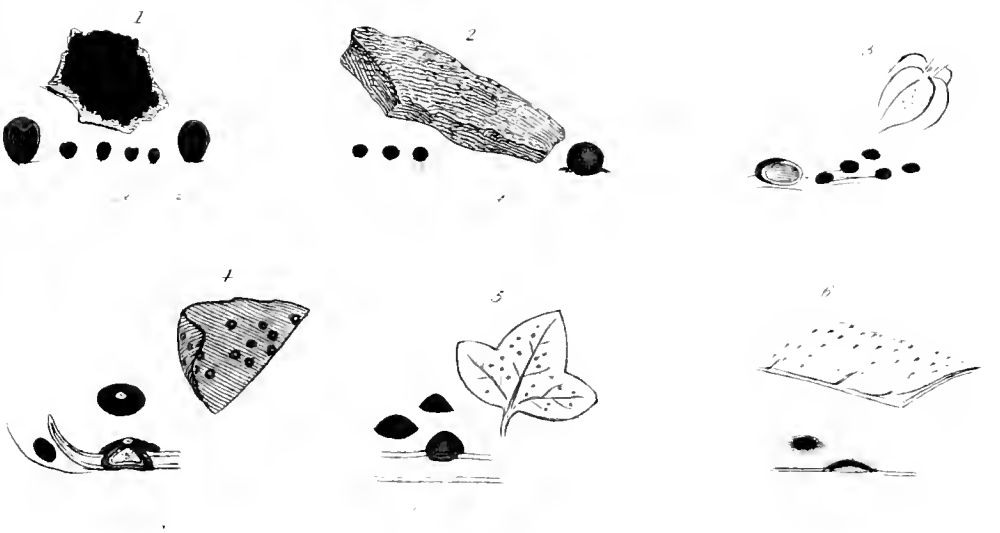
July 1. 1802 Published by Jas Sowerby London.

July 1. 1802 Published by Jas. Sowerby London

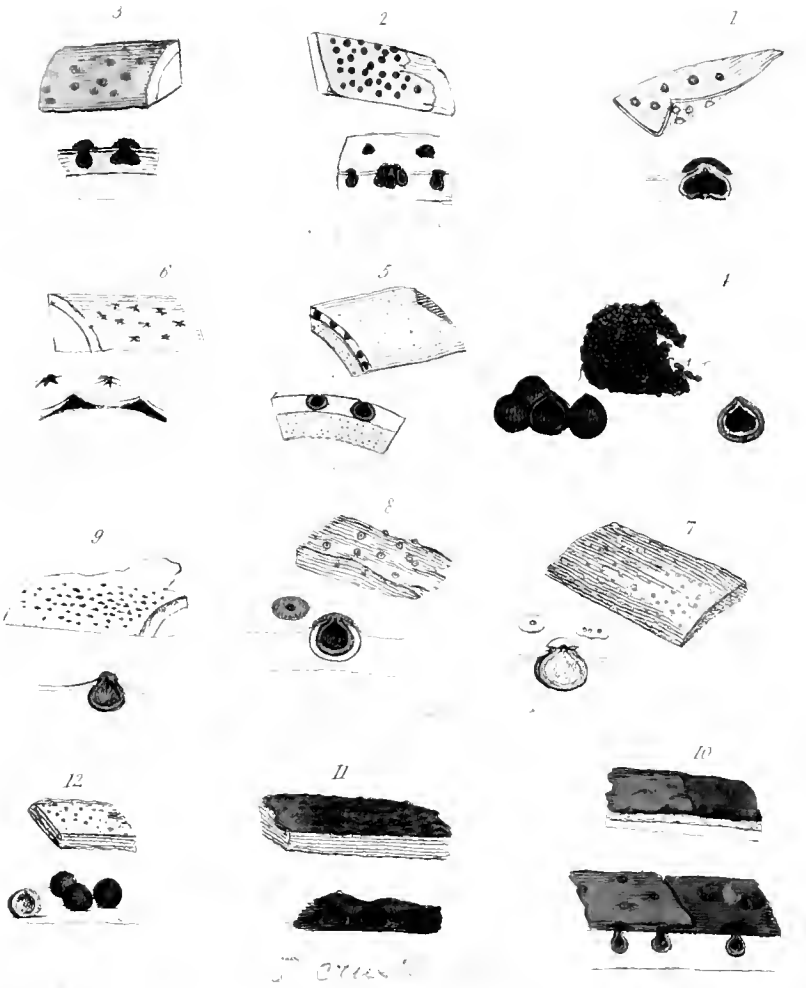


July 1. 1802. Published by Jas. Sowerby London.

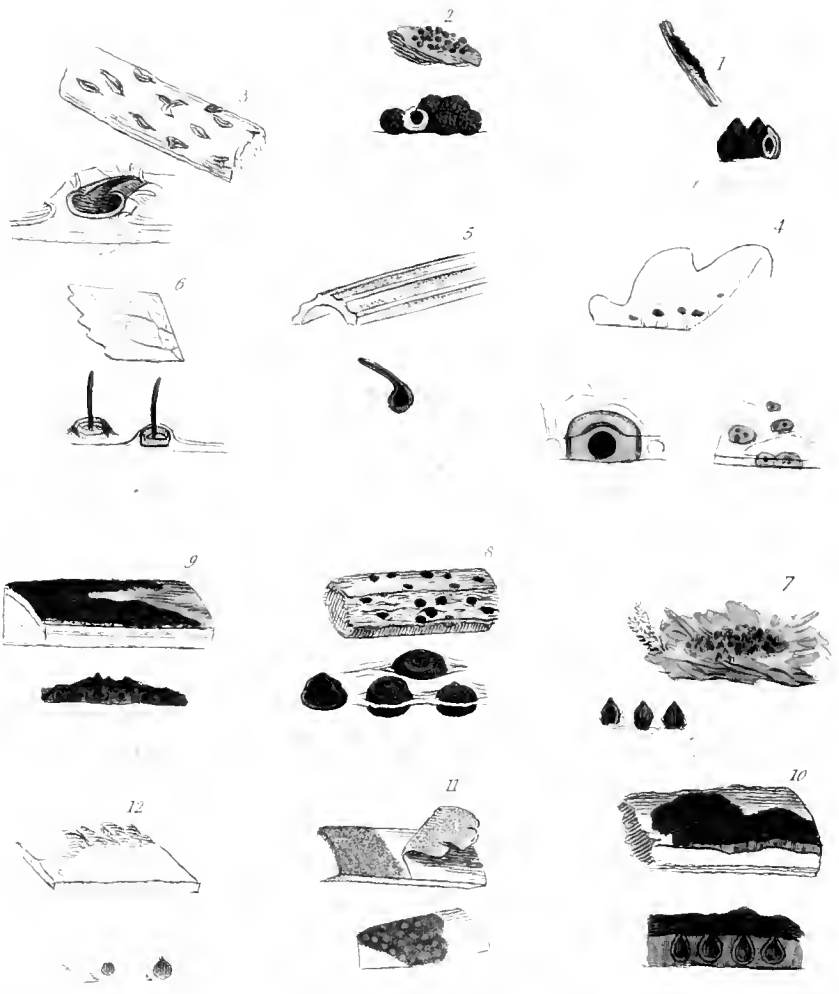

3
2
1
6
5
4
7
7



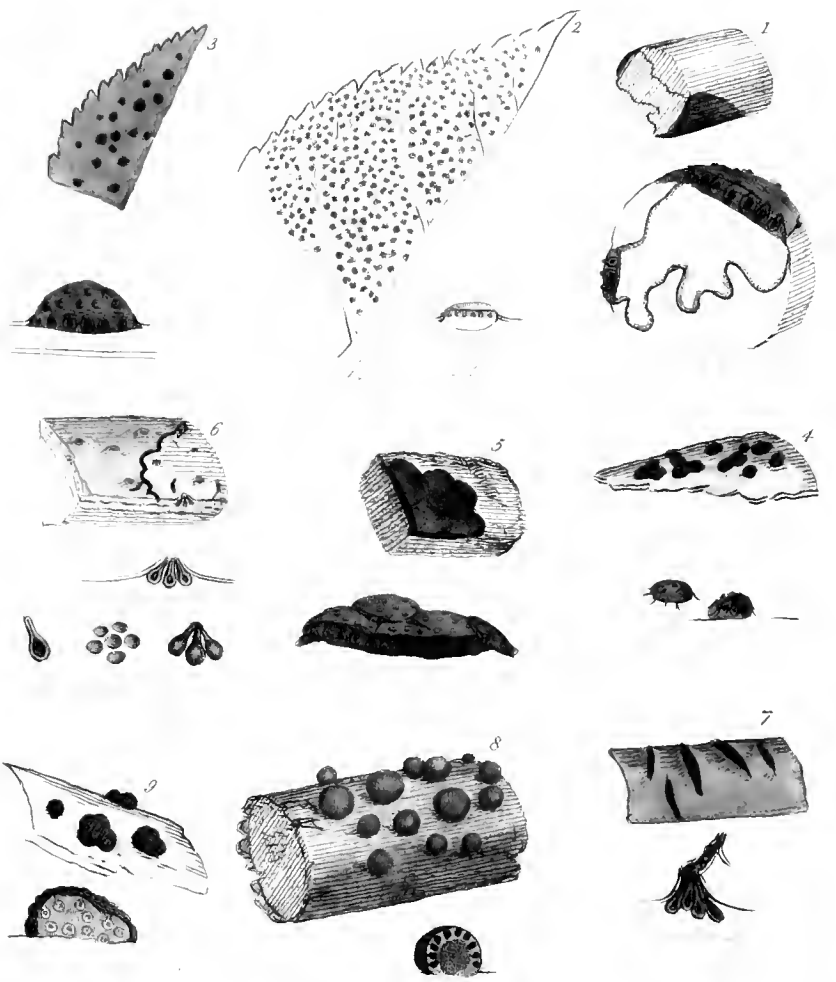
July 1 1802 Published by Jas Sowerby London



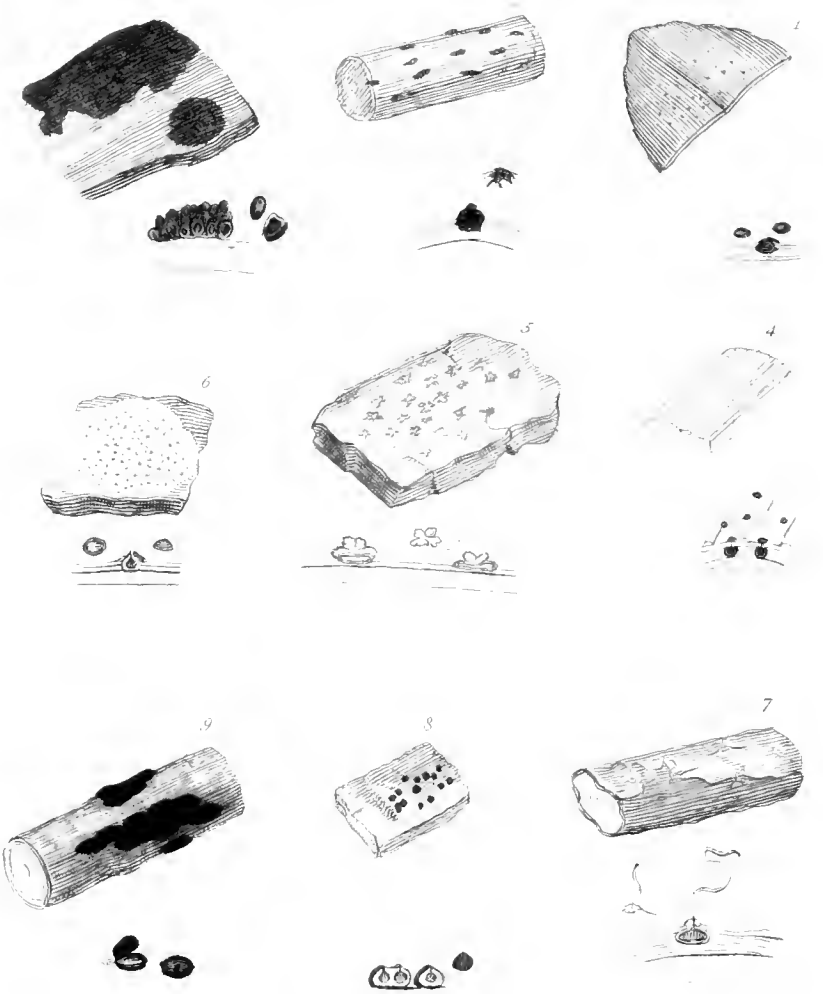
July 1 1802 Published by Ja. Sowerby Lon.

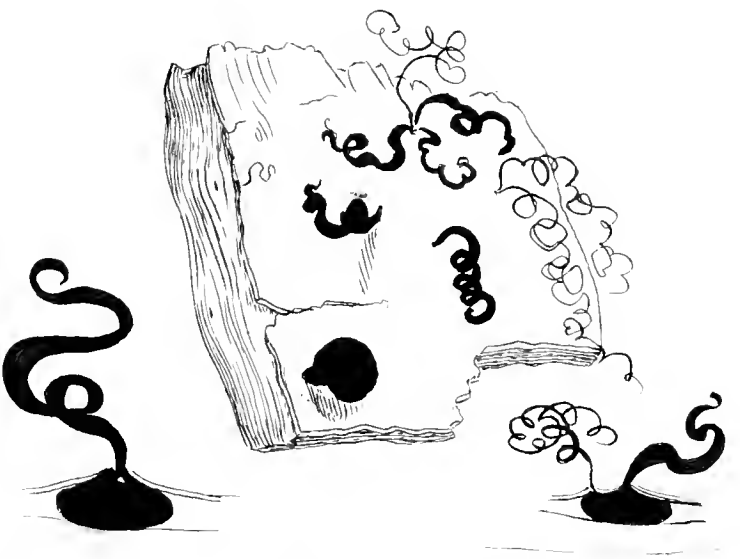


v. I. 1802. Published by Ja. Sowerby, London.

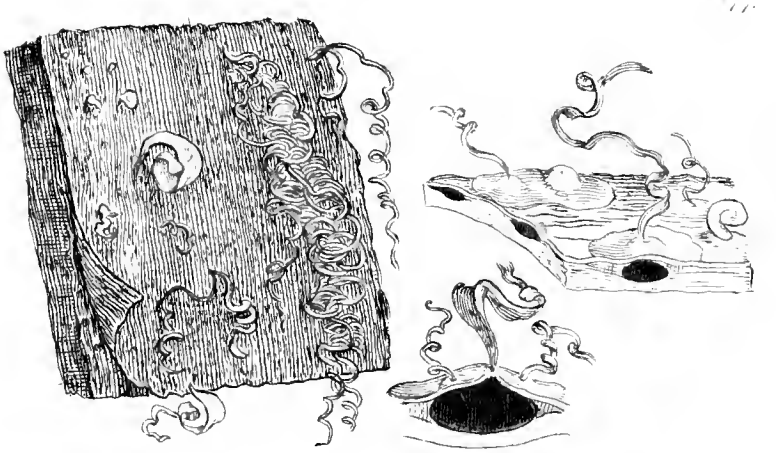


July 1 1802 Published by Ja.s Sowerby London

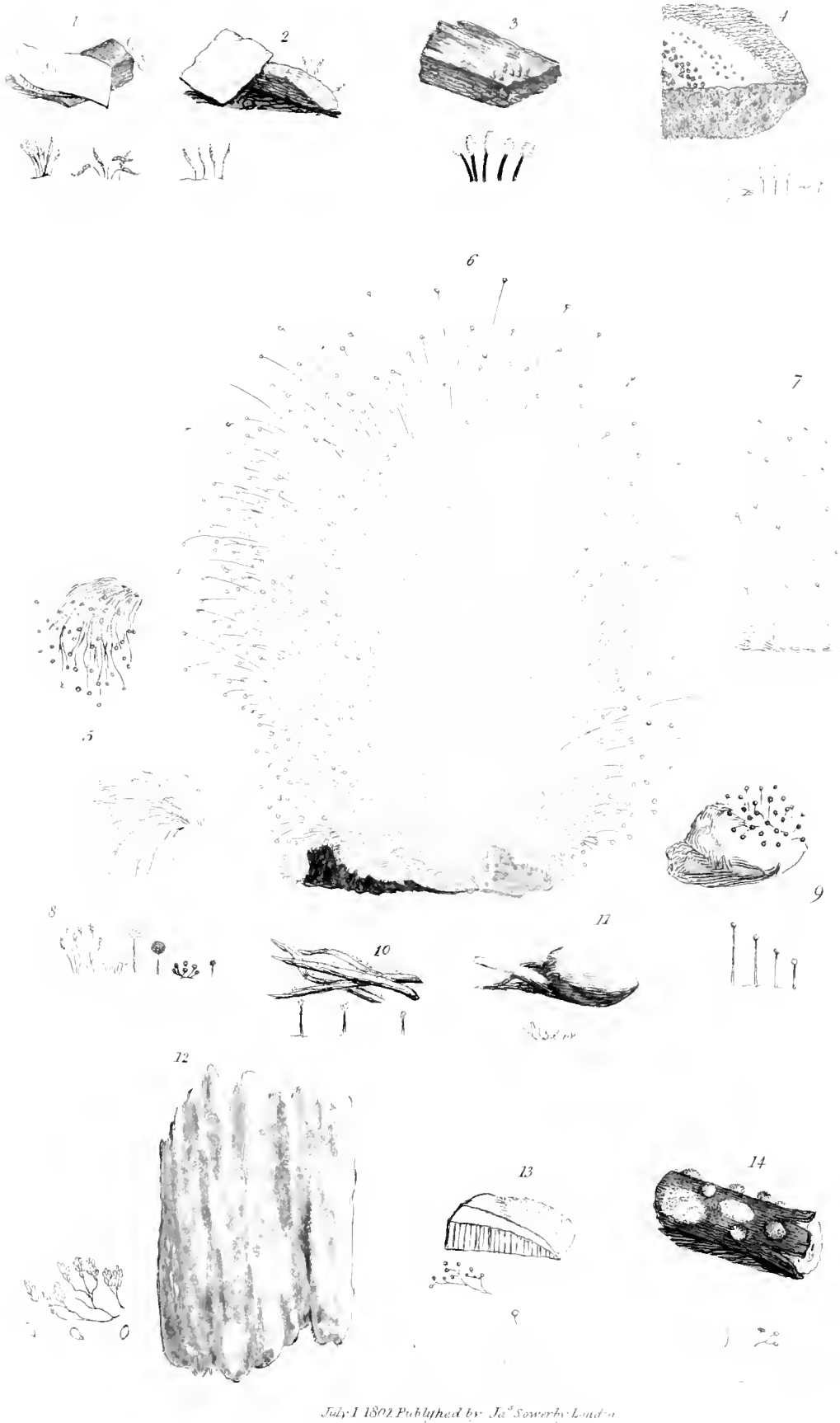

1
2
3
4
5
6
7
8
9



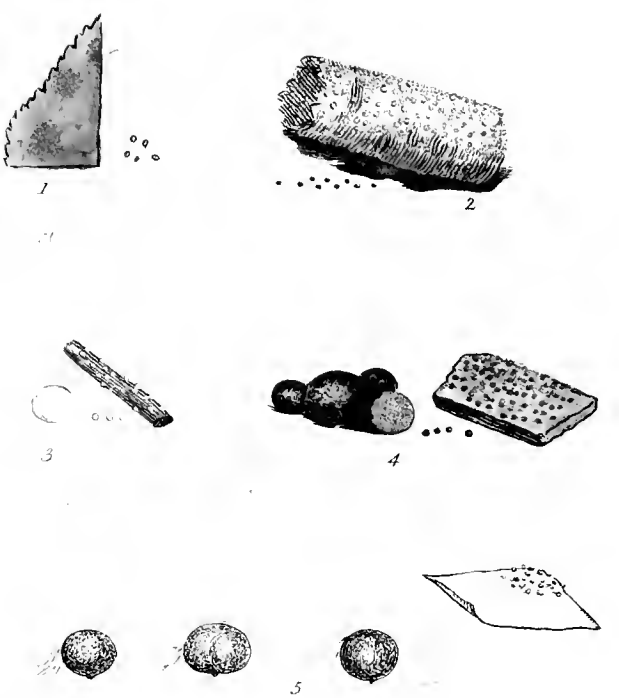
July 2. 1802. Published by Jas Sowerby London



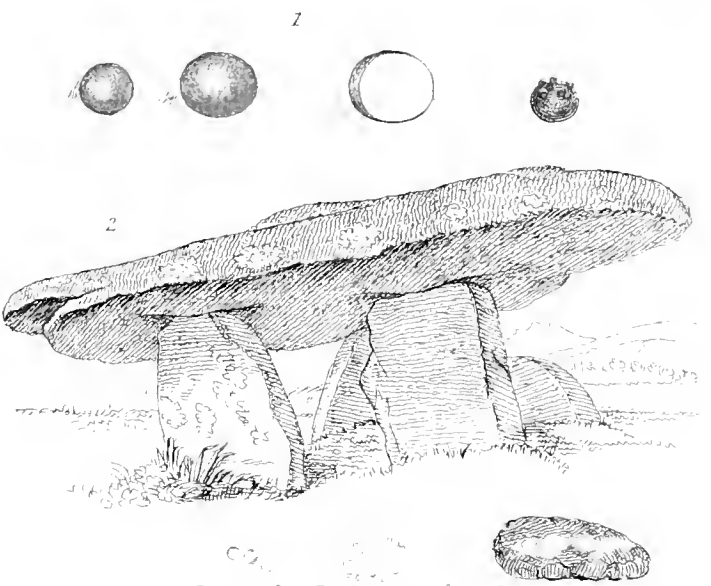
July 1 1802 Published by Ja.s Sowerby London



July 1 1802 Published by Ja.s Sowerby London

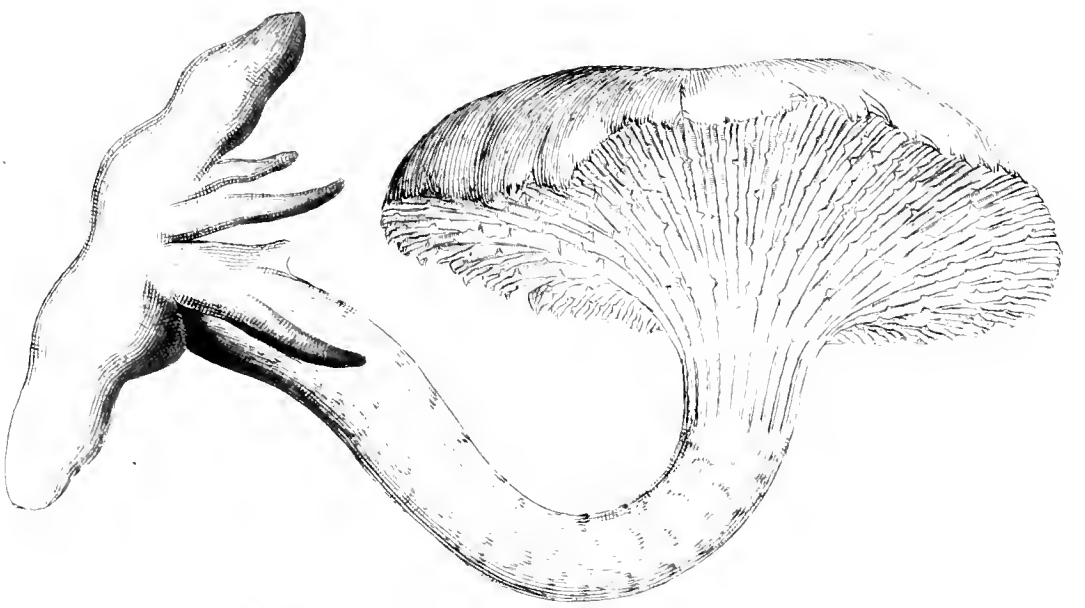


Jul·1 1802 Publyshed by· Ja.s Sowerby London

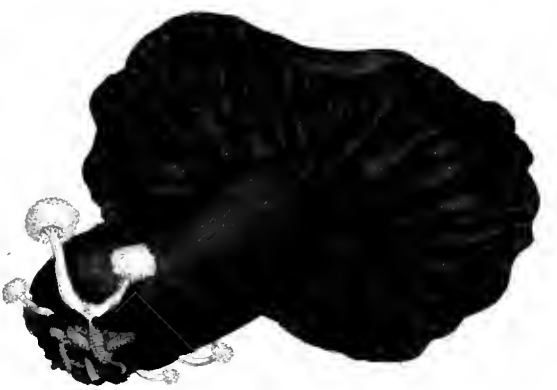


Tab. 1 1802. Published by Ja.s Sowerby London.

Jan.ʳ 1 1803 Published by Ja. Sowerby London



Jan.ʸ 1 1803. Published by Ja Sowerby London

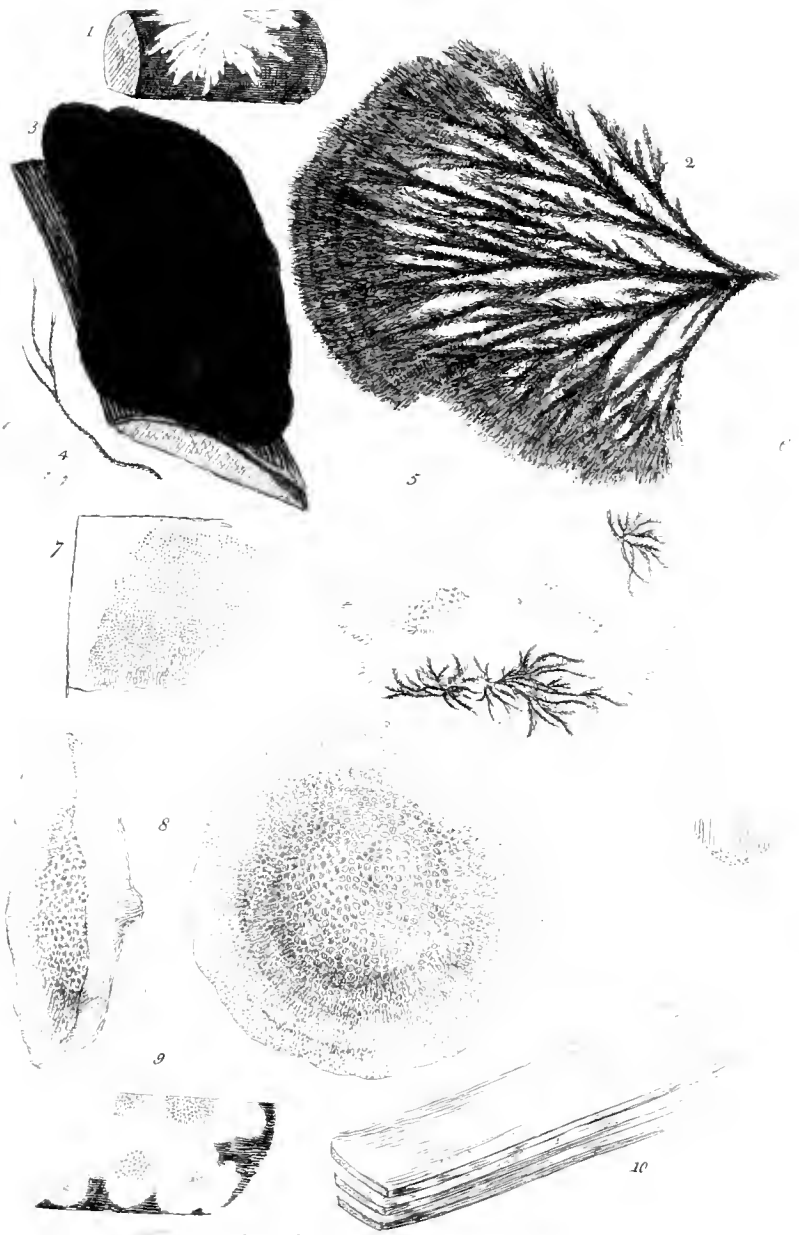


Jan.y 1 1803. Published by Ja.s Sowerby London

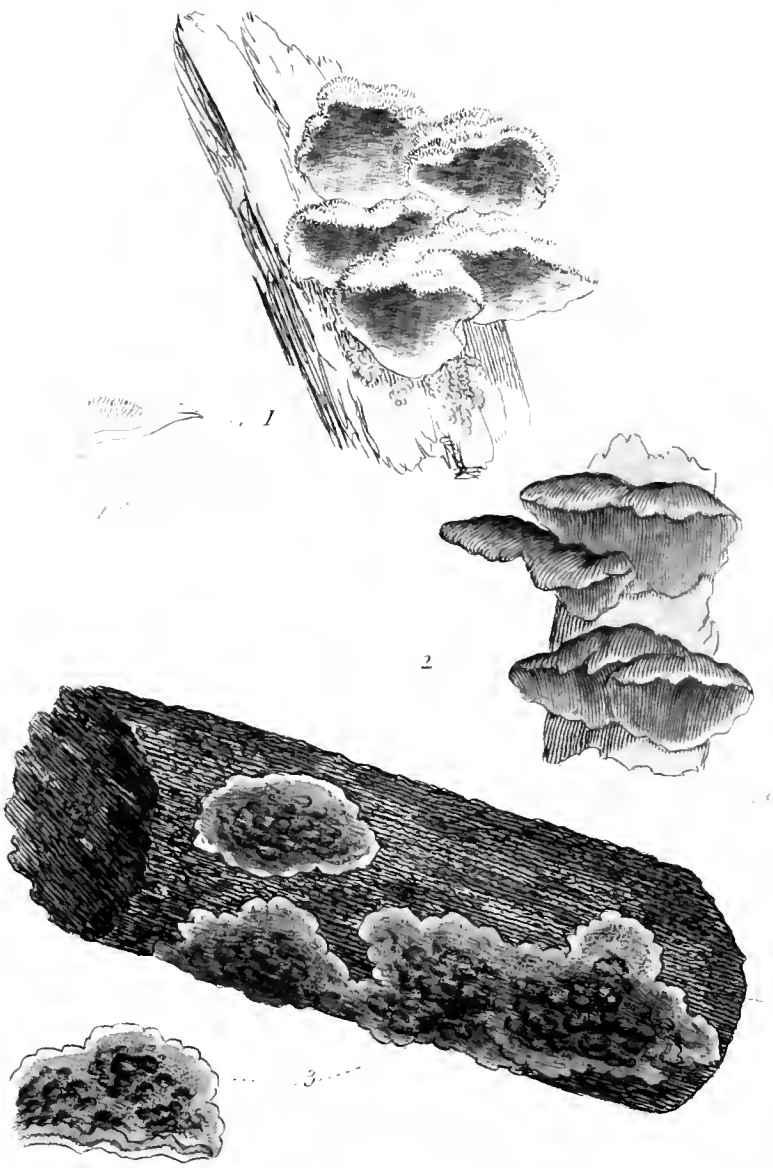
Jan.ʸ 1. 1805 Published by Jas.ᵒ Sowerby London

Tab. 1 1804. Published by Jas. Sowerby Lond.

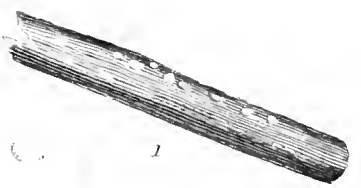
Jan 1803 Publishd as Act directs London



Jun.ʳ 1 1803 Published by Jaˢ Sowerby, London



Jan.ʸ 1 1803 Published by Jaˢ Sowerby London



1

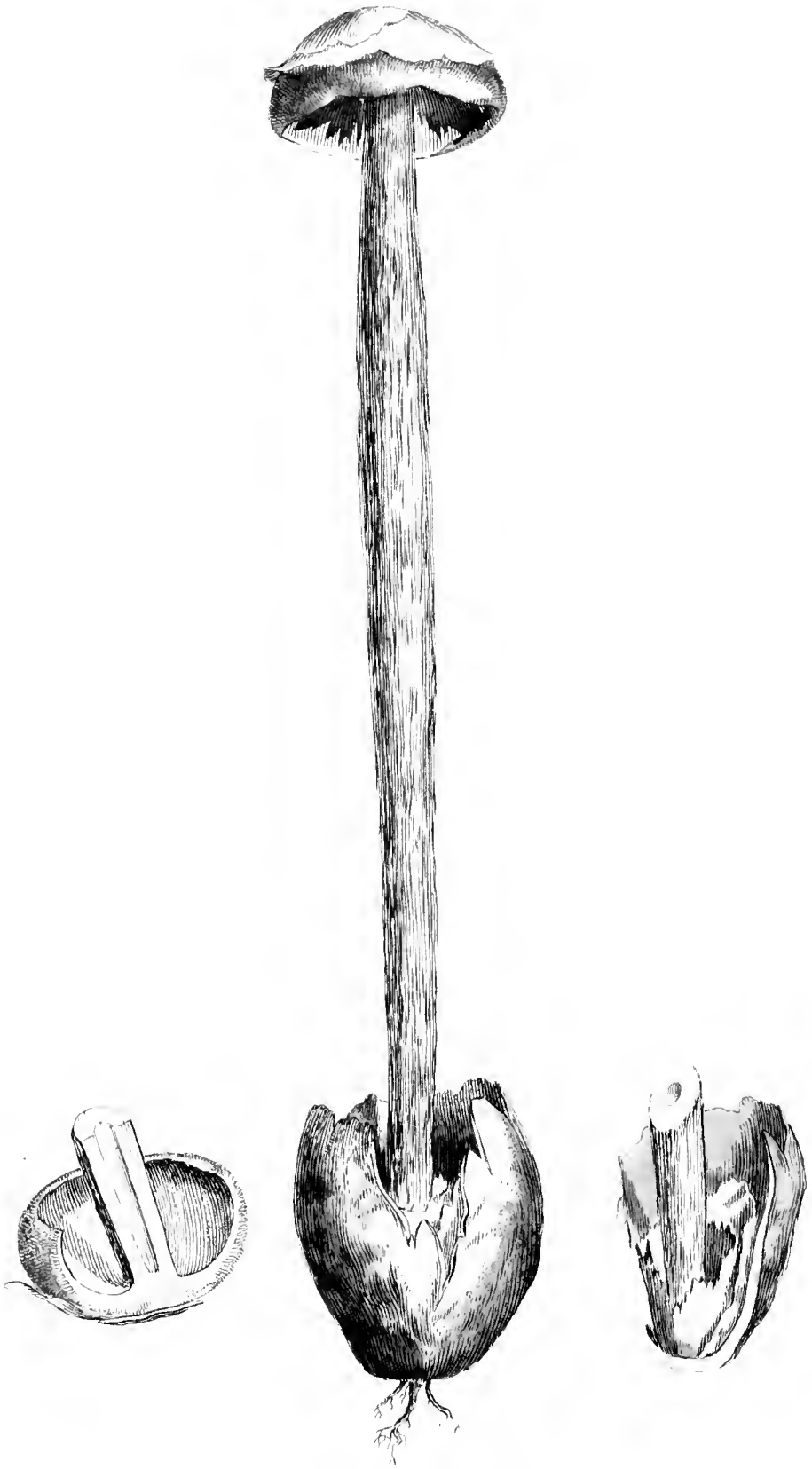
2

6 5 4 3

8

7

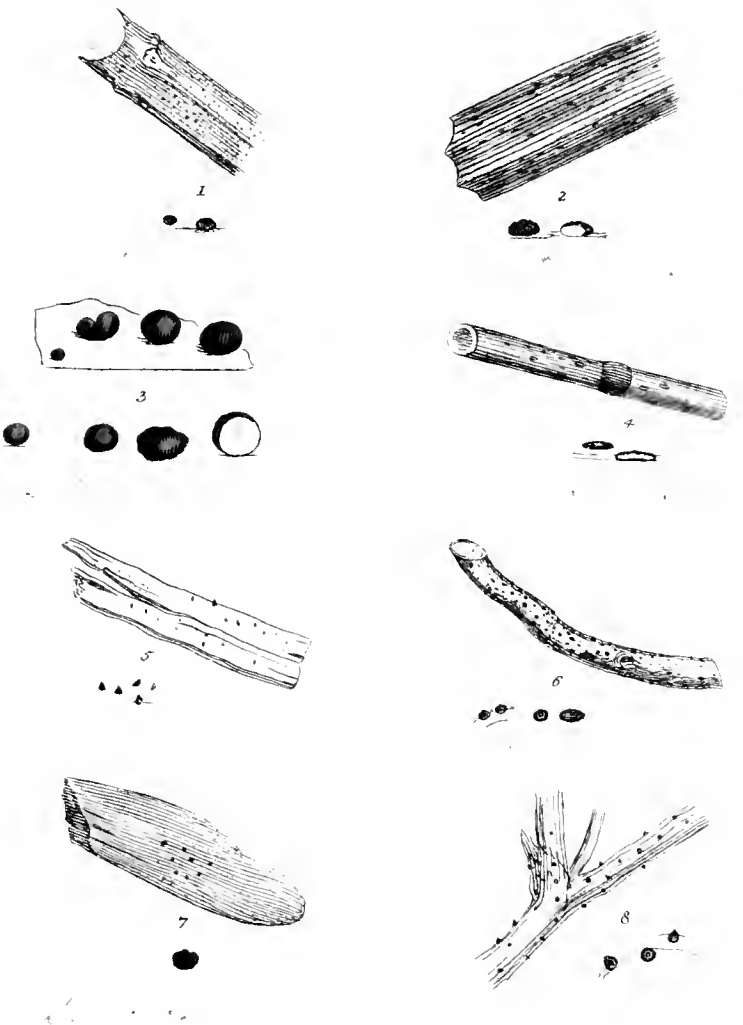
Jan.ʸ 1803 Published by Ja.ˢ Sowerby, London



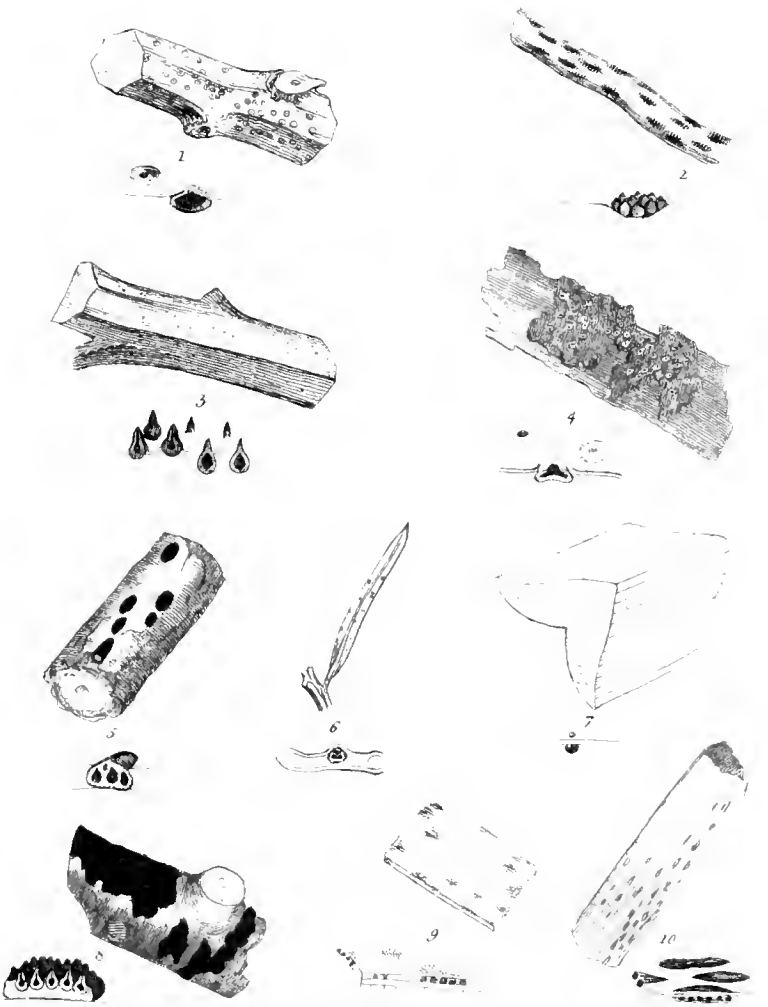
Jan.ʸ 1 1803 Published by Ja.ˢ Sowerby London

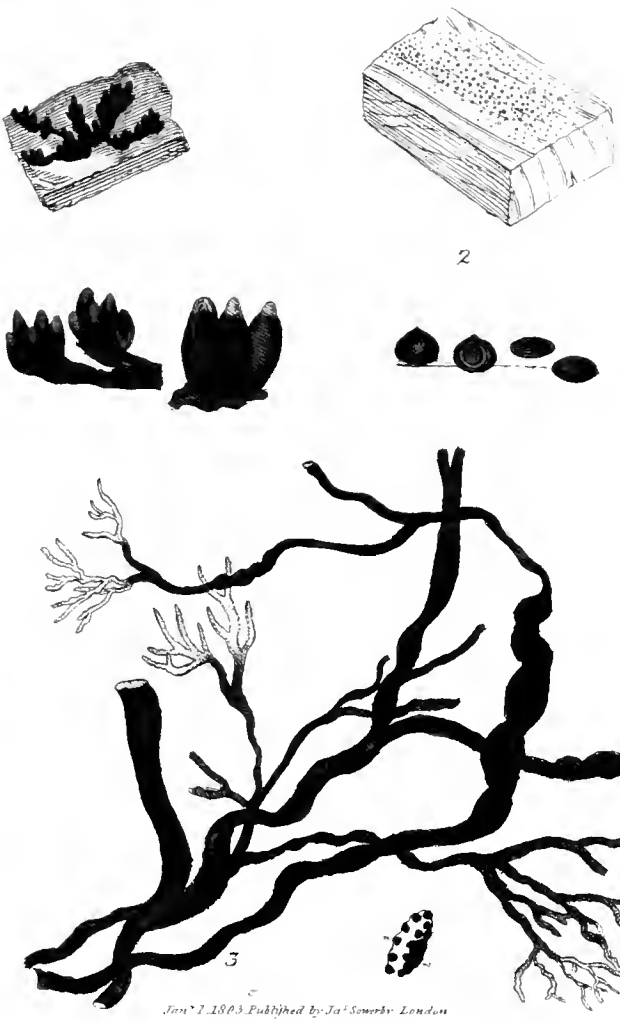
Jan.ʸ 1 1813 Published by Sr. Somerby London

Jan.ʳʸ 1 1803 Published by Ja.ˢ Sowerby London



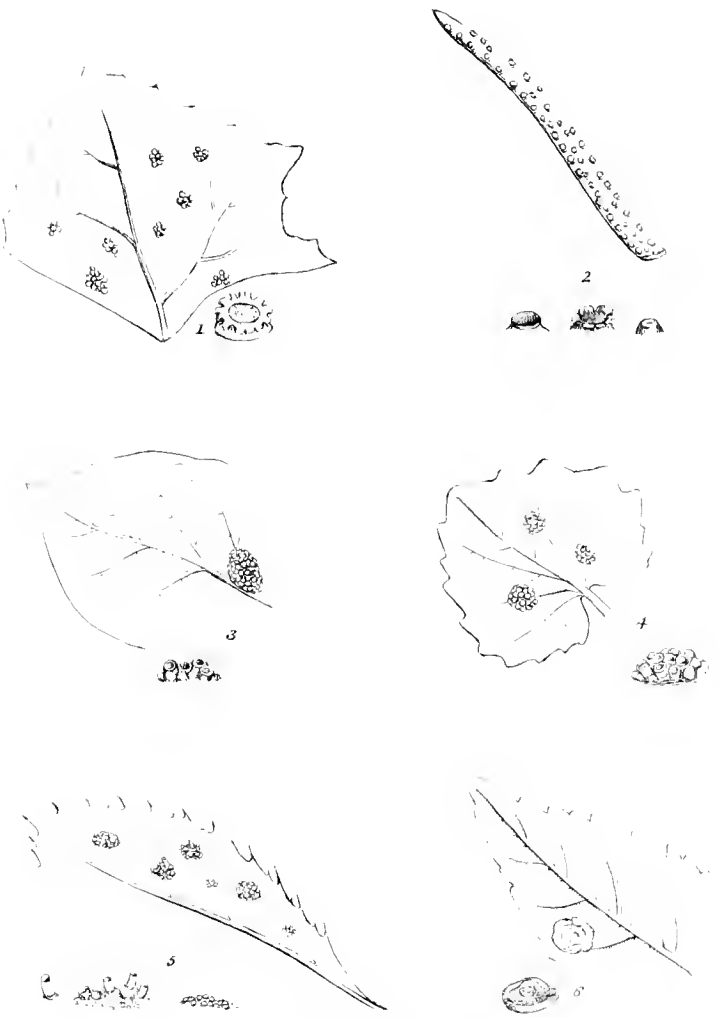
Jan.y 1 1803, Published by Jas Sowerby London


1
2
3
4
5
6
7
8
9
10

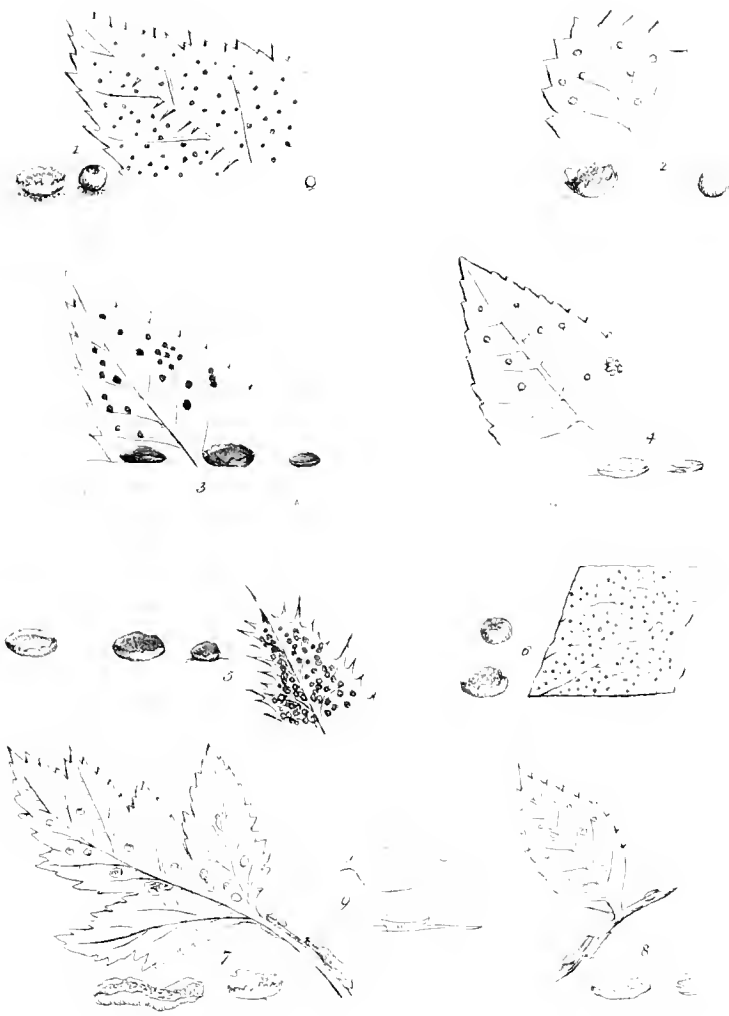


Jan.ʸ 1.1803 Published by Jaˢ Sowerby London

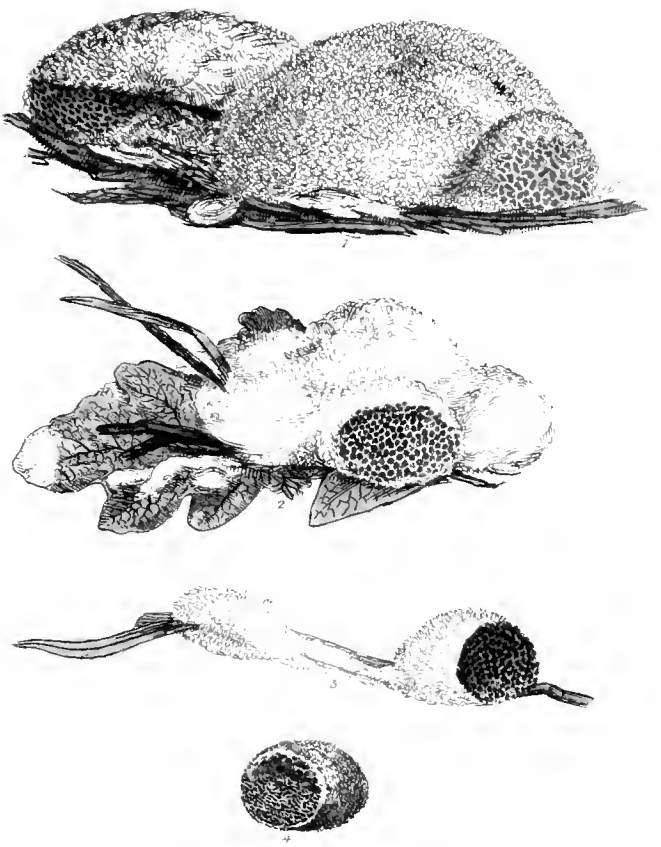
June 1 1803 Published by Sir J. Smith & Co. London



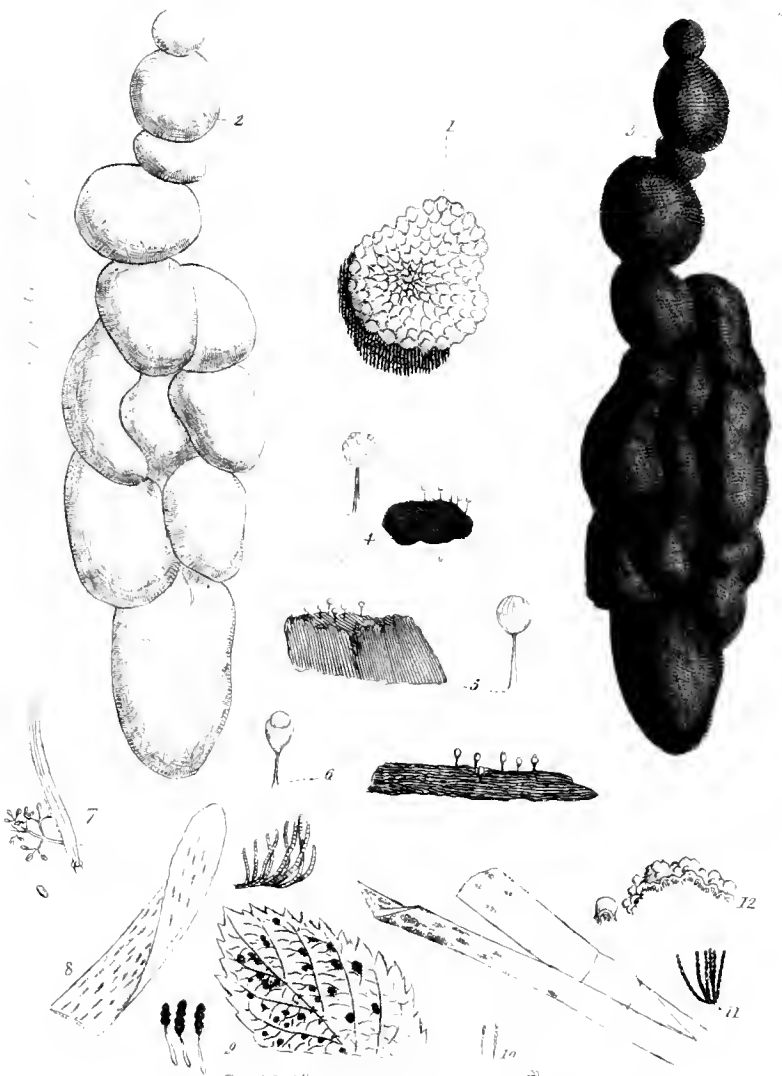
Jun.ª 1 1805. Published by Te Shoreditch Lond.ª



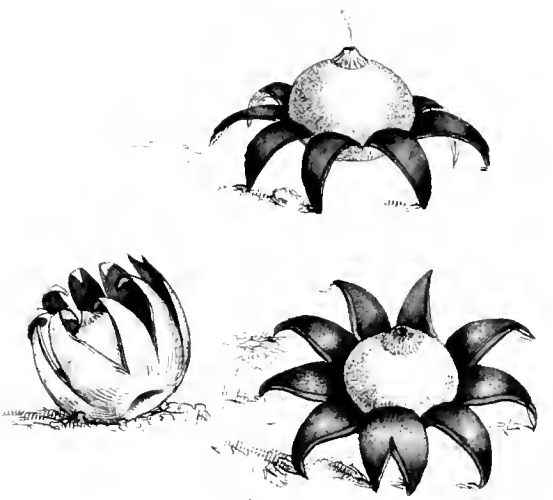
Jan.ʸ 1 1801 Published by J. Sowerby London



Jun.ª 1 1803 Published by Jas Sowerby London



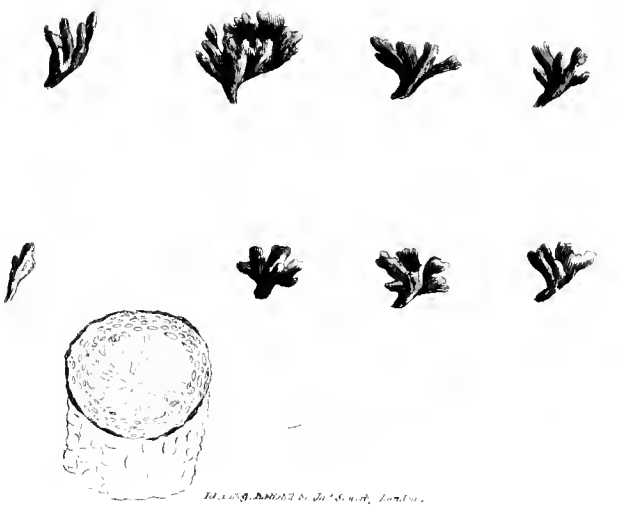
Tab. 2. 1803. Published by Jas. Sowerby, London.

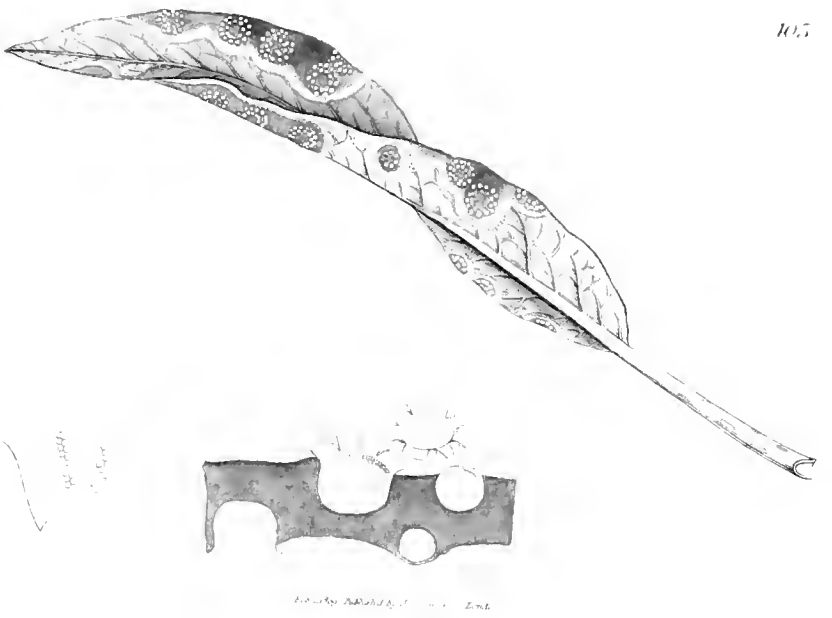


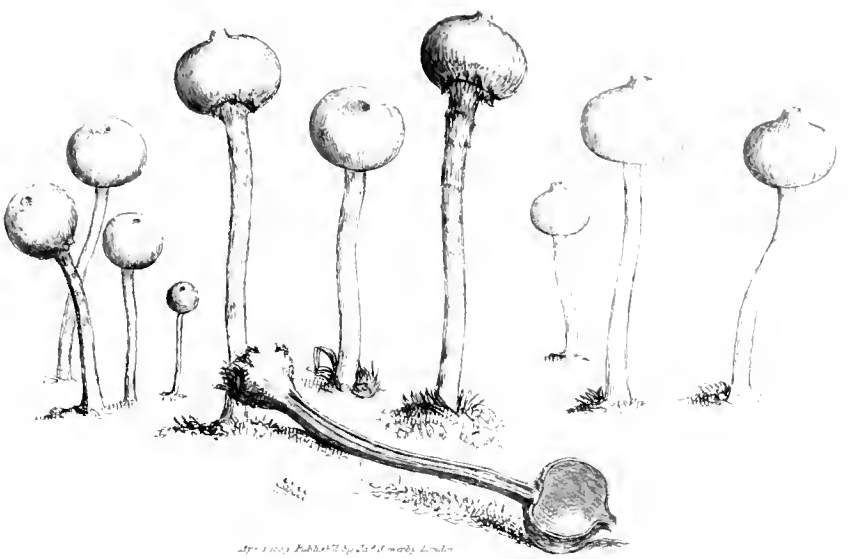
July 1 1805 Published by Tho.s Stewart Leeds

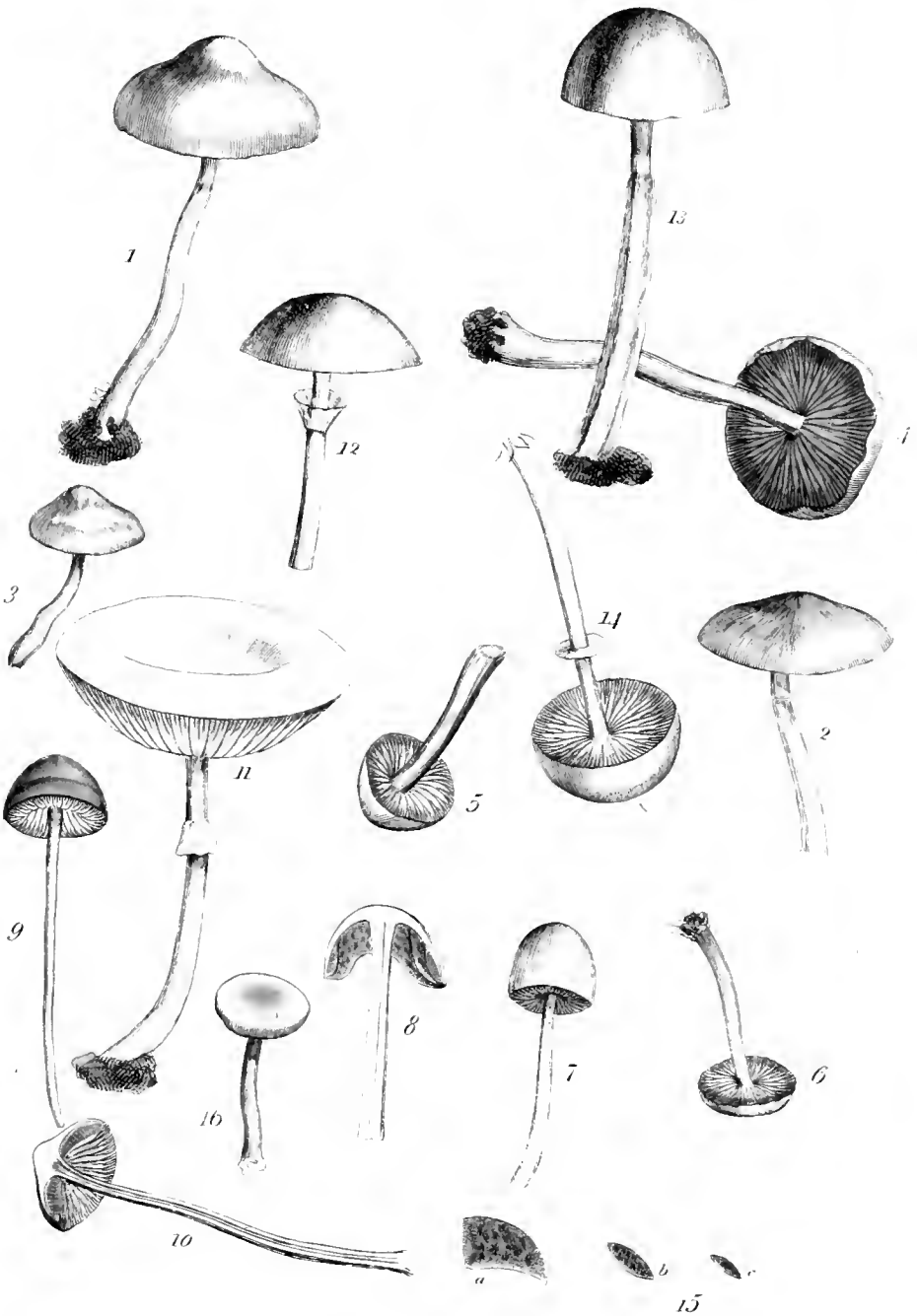
Feb. 1. 1809. Published by Jas. Sowerby London.

Published by Jas Sowerby London

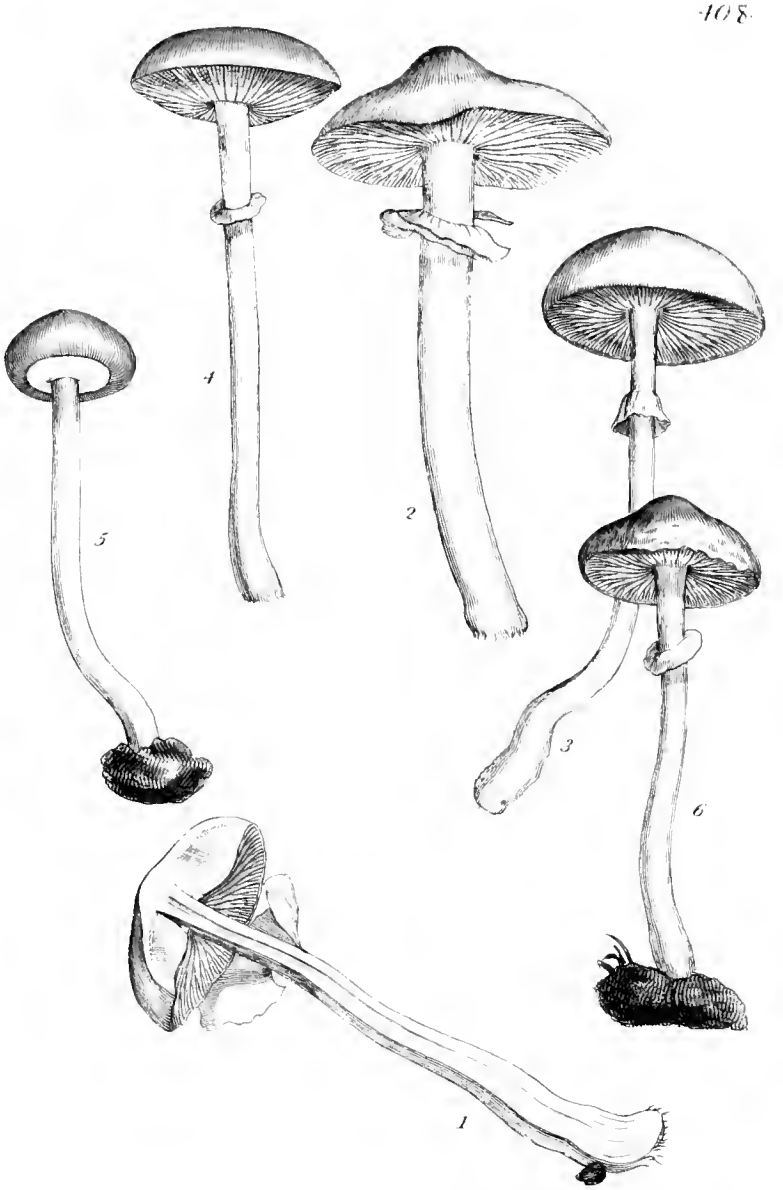






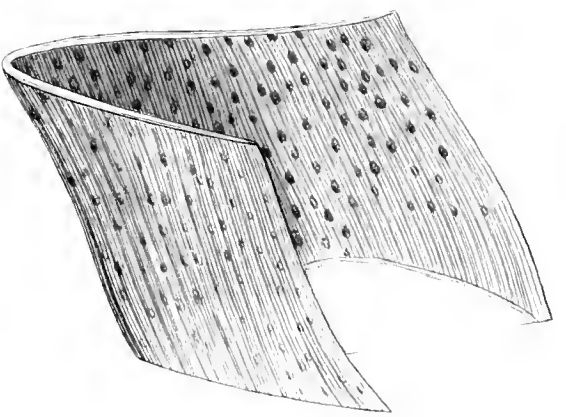


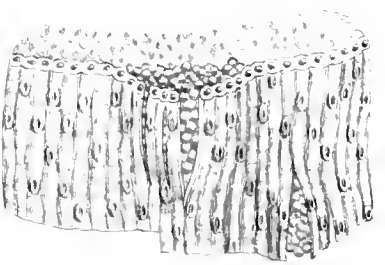
April 1.1809 Published by J.Sowerby Mead Place



Apr 1 1816 Published by J Sowerby Mead Place

April 1 1850 Published by Jas Sowerby London



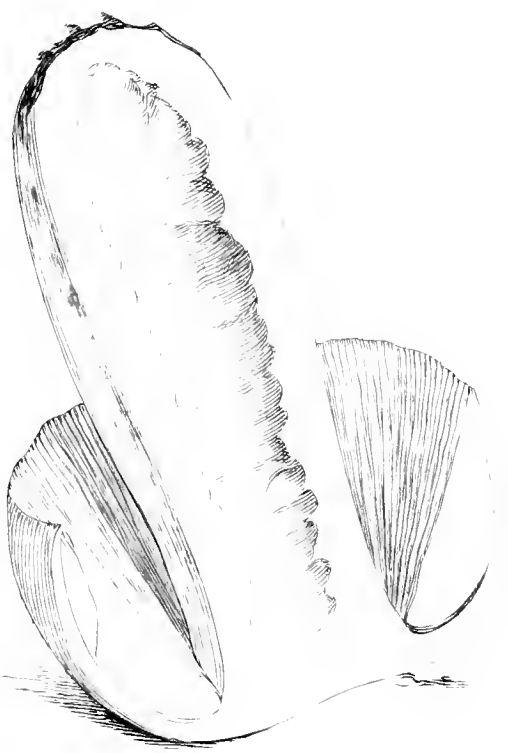


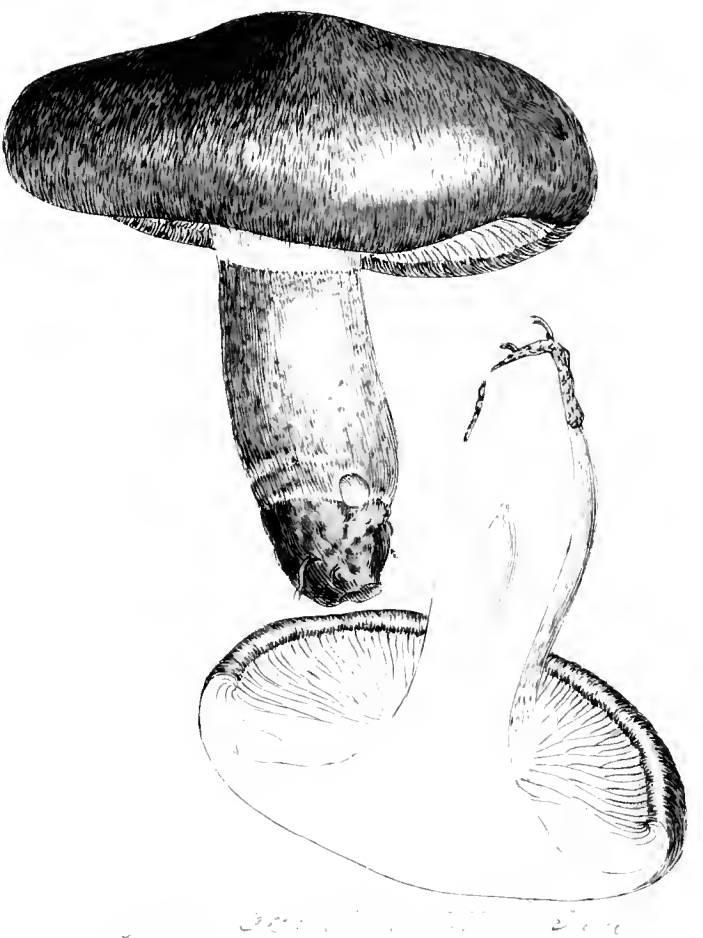
April 1 1830 Published by Jas Sowerby London

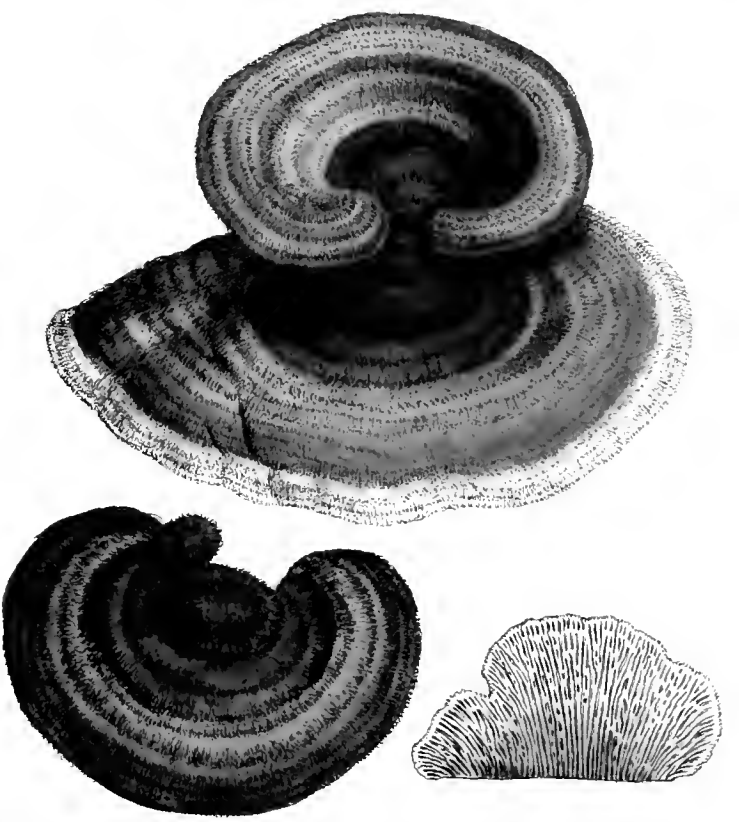
1

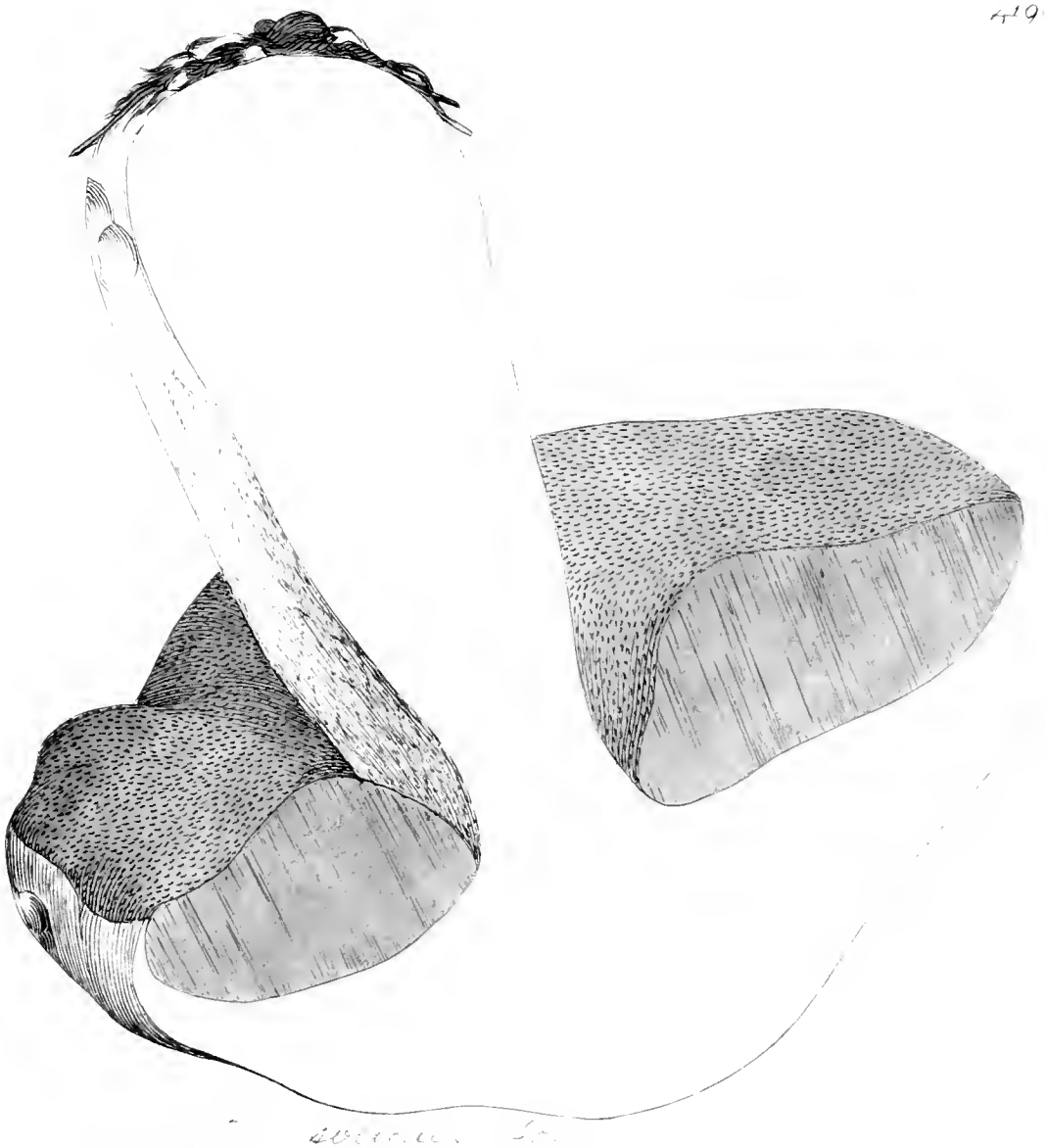
2

3





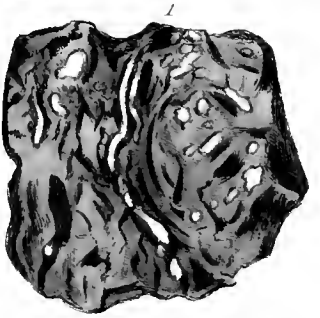


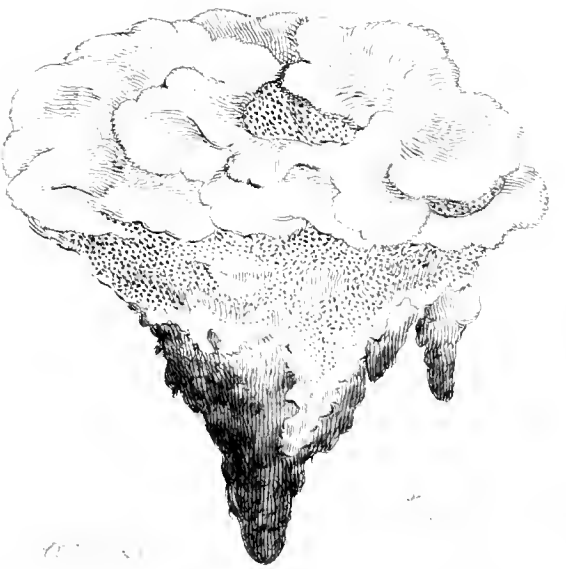


438

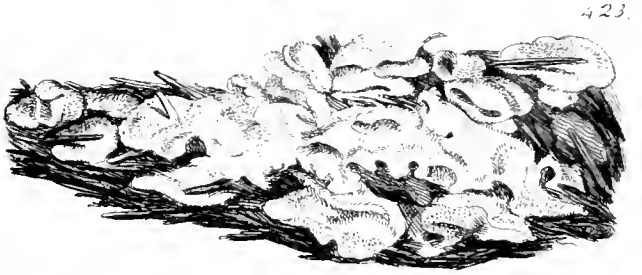
2

1

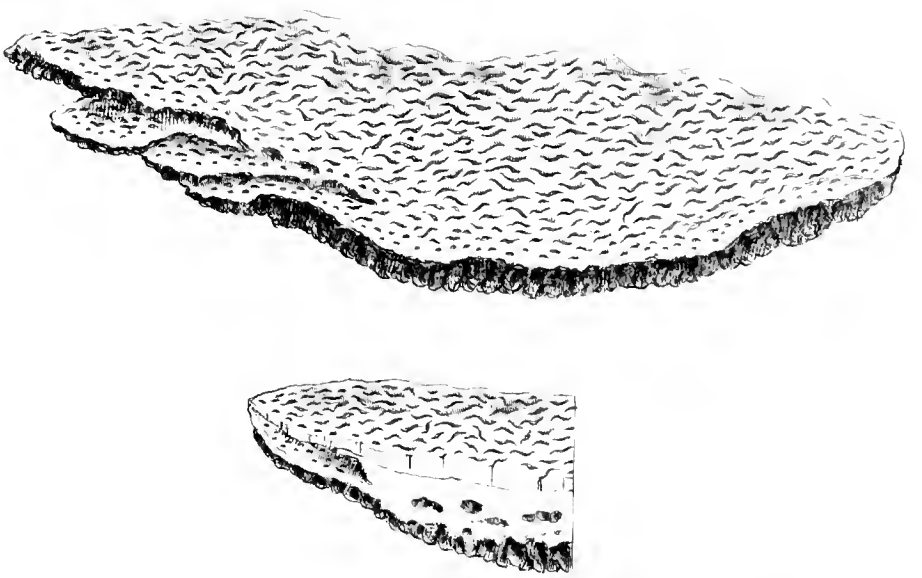


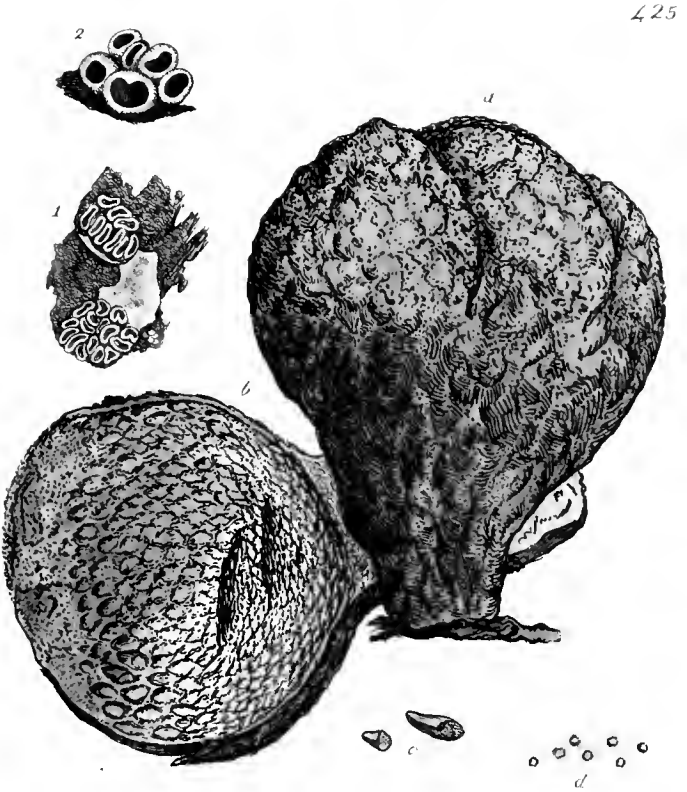


423.



Published as the Act directs by Jas. Sowerby London.





1 Peziza crispa Sow—
Peziza fascicularis —
2 Lycoperdon capsulifer um Sow—
Polysaccum pisiaceum

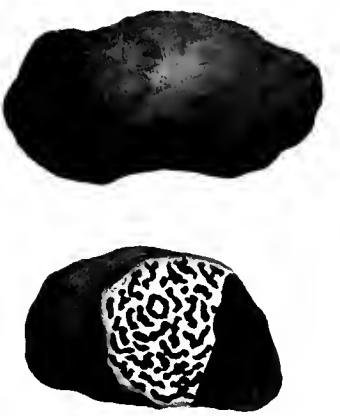
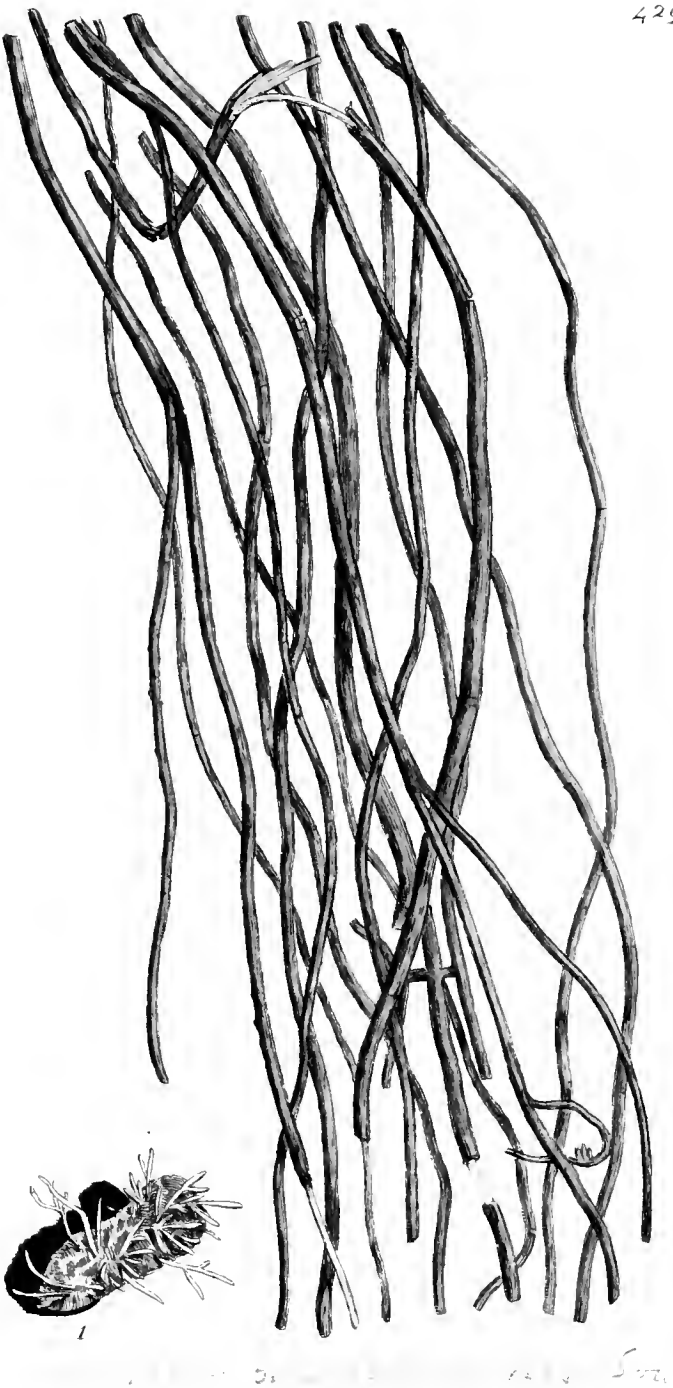
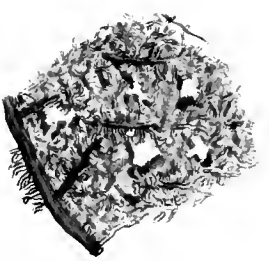


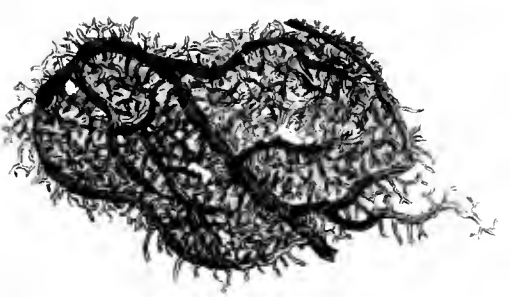
Fig. 1. Agaricus (Lepiota) [illegible]

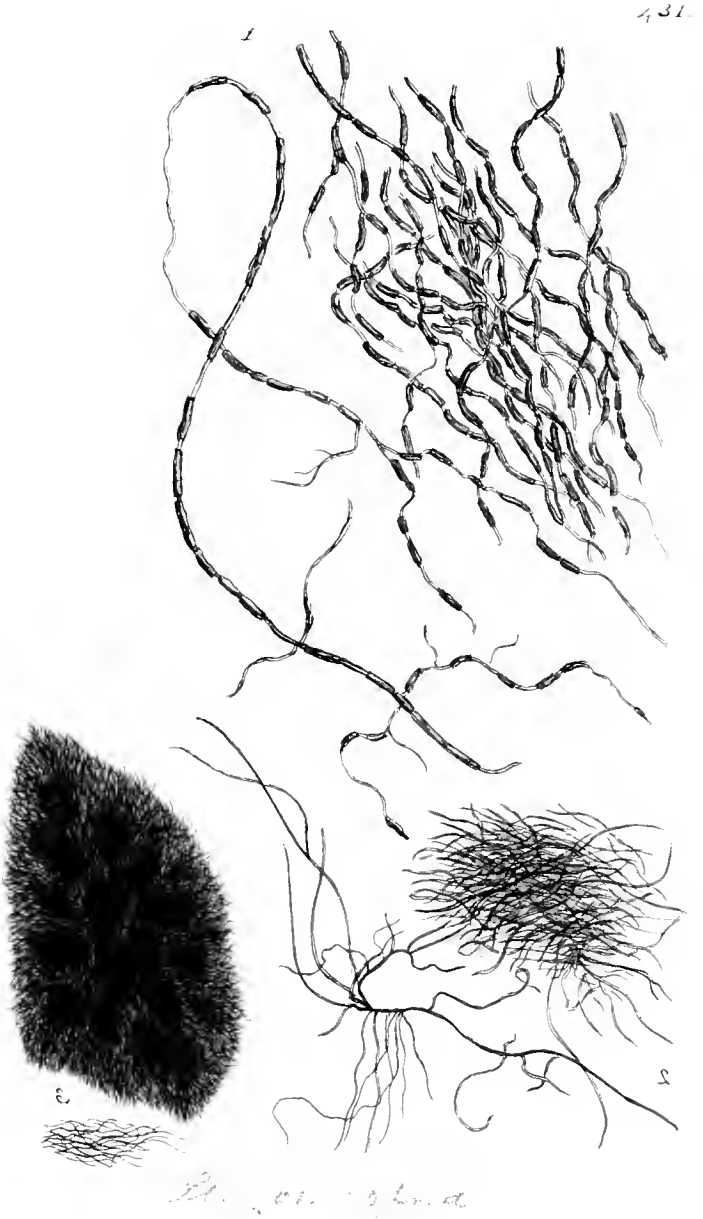
Fig. 2. Boletus inquinans [illegible]



1



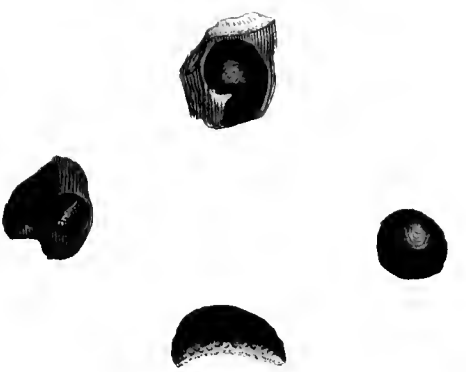


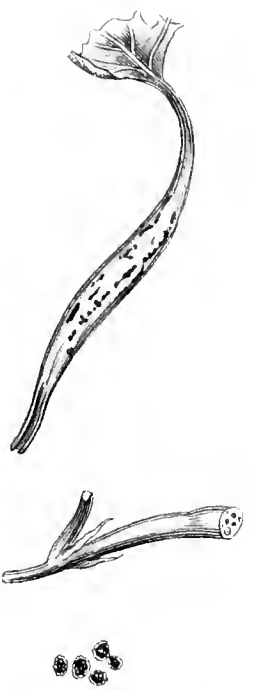

1
2
3

Ulmaria vinarius von
Racodium cellare γ
Racodium cellare β

Fibrillaria [illegible]

Fig. 1. Axis cervicalis.





INDEX.

INDEX.

* The ſynonyms are all erroneous.

INDEX

TO THE

SECOND VOLUME.

INDEX.

Supplementum Index

Daedalea	inquinata	400
	flabelliformis	410
	ochracea	404
	unicolor	405
	variabilis	407
	sinuosa	413
	quercina	407 — 0
Fistulina	hepatica	410 — 10
	Texensis	403
Fistulosia	Clavus	412
Boletus	flavidus	421
	irregularis	423
	mitis	420
	variegatus	424
	vagus	422
	subtomentosus	419
Craveria	rugosa	404
Sibillaria	cortina	434
	pulverulenta	433
	viscosa	432
Granularia	viola	440
Lycoperdon	capsuliferum	425
	pedunculatum	426
	pertusum	412 fig 2
	verrucosum	401
Merulius	sebrilloides	402
	lamellosus	403