

Small Tubes of
Diatoms

Those in spirits or creosote
water - for burning on covers or slides,
and mounting in fluid are marked
breude.

S.

2

1 (Harwich W. H. Bridgman)
Amphiprora vitrea, *elegans* (very scarce), *Euph-*
emella acuminata, *Pleurosigma beltricum* (large
 and small), *strigosum*

2 (Harwich W. H. Bridgman)
Pleurosigma beltricum (large and small)
strigosum

3 (Fording W. H. Bridgman)
Campylodiscus spiralis (scarce), *Cymatoph-*
locha

3rd Grimsby, Lincolnshire - 3 N. (Feb 1862) 3 N. 328
Pleurosigma formosa, *beltricum* (large & small)
strigosum, *heteroc. undulata*, *Nac. formosa*

-5.

4 (Harwich W. H. Bridgman)
Pleurosigma formosum, *lultrium* (large
 and small), *Actinocyclus nudus*

5 (Aberdeen - Peterhead - D. Deffen)
Synedon minutifera, *gracilis*? (Peterhead
 - Aberdeen)

6 (Harwich W. H. Bridgman)
Pleurosigma fasciata, *Hippocampus*, *angulatus*,
stygium (Scarus), *lunellae gemma*

5

7 (Harwich "Bl. 1" W. H. Bridgman)
Pleurosigma *Hippocampus*, *angulatus*, *stygium*
scabellum, *Navicula pygmaea* & *psittacus* (W. H.)
Stauroneis salina

8 (Harwich "Bl. 2" W. H. Bridgman)
Tryptoxella acuminata, *gracilis* (unsp.)

8² (Breydon, Norfolk W. H. Bridgman, Sept. 7 1835)

Ampelisca ^{late var?} *fulvipes*, *Tryptoxella acuminata*, *Cyclotella* *Hantzschii*
Pleurosigma fasciata, *angulatus*, *stygium* ^{as in Breydon} ~~unsp.~~ ^{only found}
 — (as in 123) *Scabellum* *fulvipes*, *Epithema* *lunellae*, *ventricosa* var. *brevis*

9 (Flordon 1. W. H. Bridgman)
Campylodiscus costatus, *Navicula cuspidata*,
sericans, *Pleurosigma* *Spenceri*, *attenuatum*,
Puncta *diadema*, *Nitzschia* *lineum*, *tenues*,
minutifera

9² - Breydon Norfolk
Campylodiscus *cliffensis* - Breydon Sept. 1835

S.

- 10 (Spewick - Wigham. per N.H. Bridgman)
Pleurozium quadratum (large and coarse)
 striated!

- 11 (Formesby N.H. Bridgman)
Tricetum exiguum, ad ostium *T. bellaria*,
Navicula scutellaria, and inflata: (various)
Orthocentrus - *peritrichus*! *Ephemeris* gibba, some for
Cymbella maculata, *Cocconeum lanceolatum*, *Synchaeta*
capitata

- 12 (Harwich "H. no 2. Fresh water" N.H. Bridgman)
Navicula cuspidata, *amphibicarpa*, *Sema* ...
Nitzschia dubia, *Gyrodactylus*, *Solen*, *Pleuro-*
zium attenuatum, *Pinnularia viridis*,
Navicula splendens? *amphor* minutissima?

amphor

S

- 13 (Harwich "H. 3" N.H. Bridgman)
Pleurozium bellarium, *strigosum*

- 14 (Harwich "H. 7" N.H. Bridgman)
Pleurozium farinosum! *strigosum*, *Bellaria*
 (large and small), *quadratum*. *Navicula* *lanceolata*
 curved a ^{very small minute Sm} *Leyra* (very scarce, = *N. pulcherrima* Br.)
amphiprom ~~acuta~~, *alata*, *constricta*, *amphor-*
hyaline!

- 15 (Hull. A. Harrison)
Pleurozium elongatum, *angulatum*, *fasciola*.
Navicula *cuspidata*, *strigosa*, *Nitzschia dubia* β , *Navicula*
and *strigosa* ^{very small, marginate, acuminate}, *ad* *affinis*
germin, *Tayl.* *peritrichus*, *Pinnularia* *perforata*,
Schizium *crus*, *amphor* *affinis*, *navicul*
punctulata, *tumens*, *reticulata*, *amphibicarpa*,
amphor *amphicarpa*

16 (Hoxdon - "Bl. 6"
~~Richmond Virginia~~ - ~~aspid. D. Gregory~~)
~~Coscinodiscus~~ ~~exar. sp.~~ - ~~Plutonium~~ ~~hull. sp.~~
 (~~not diff. ab. o. t. main~~) Pinnularia oblonga, P.
 tenella:  +  nodosa, globiceps W. G. Navicula
 amphileta, gibberula (= limosa) Stauroneis gracilis
 aneup. & -

17 (Felthorpe M. Wigham 9:51)
 Navicul. sericans! Nitzschii. curvula! (medium
 form - same as in 3.196, 5.197 - Pinnula gibb-

18 (Hull April 1854 D. H. Murray)
 Amphiprora paludosa! Surirella Wrightwellii, oraba
 striatula! amphion toxosa, salina! Epithemia
~~costata~~ ^{and var.} Westermanni! Lybionella gracilis
 Pinnularia radiosa, Navic. Lemmeri, Cyclot. Kütz-
 ingiana, Synech. circularis gracilis, Melosira
~~var. Borei~~

see 5.174

19 (Arthur's den, Hunters bog - Grev. 33)
 Campylodiscus costatus, N. Nitzschii. sigmoides, am.
 . P. oraba, minutiflora, denticula sinuata, Epithemia
 superba, odontoides: Parasitium. Cymat. flavo-
 elliptica, sola

See 40, 5.30.

20 (Drain W. end of Duddington Lock - 4:54. Grev. 27)
^{digitate - nod. sp.}
 Pinnularia oblonga, gracilis? acuta, major, & P.
 Stauroneis gracilis, Dubin W. G. - Navicula Semeri (W. G.) gib-
 bula (limosa Kütz) dicapula, rhynchocaula, orthos. ovalis
 Cyclotella specul. Gontherium insignis W. G.

21 (Drain E. end of Duddington Lock - 4:54 - Grev. 29)
 Stauroneis aneup., gracilis, acuta, orthos. ovalis
 - evoluta, monodim. evoluta.

5.

- 22 / Hunterston, 20:4:54, near the gate in stone bridge)
odontidium mesodon, mutabile. Melosia
 varians

(for Crude see 439)

- 23 / Aberdeen, Pools near sea 19:4:54 D. Reid
Schizoneura Dillwyni :

frustulae oblong-elliptical, small
 with spermathecae - Kirby
 (for Crude see 425)

- 24 / River Dee, near Thurston 22:4:54 D. Reid
Schizoneura Dillwyni :

frustulae obtuse - at base S. obtuse : no trace
 of spermathecae
 (for Crude see 424)

5.

- 25 / Isle of Wight)

Coccineus Grevillei

25^b same from a specimen in Brodie's Lib. 1798

- 25³ / River Deptford, Deptford, Kent, 1862
Tetranychus emarginatus, *Gonion. dichotoma* L.
Cynobola v. sp. - *Cynobola* L.

- 26 / Cambridge, Newmarket 7.0.1862 OK. 233 /
Berkelya fragilis

any kind of
 non-*frustulae* - and *frustulae* of *frustulae*
 (for mounted see 56)
 (Crude)

- 27 / New York, in *Girardinia americana*)
Podocryptus americana Bail.

S.

28 (Torbay

Licmophor. flabellat.

(for crude from Wales - see 438)

29 (River Shannon, 7:53. *Aspeper Smith*)*Diatoma grande*29² Hull - listed G.N. "N.Y." OK. 365^{h+l}*Pinnular. gracilis* Sm. = *Deluthensis* Sm. not = *P. (N.) gracilis* W.G.f. 30, 31 + 32. *Melobes Porrea* &

30 (Hunter's bog, Arthur's seat - Grev.)

amphom minutifera, *odontidium parasiticum*

empty - for listed see S. 19 & 40

30² Cumbray in a caveR.N. 10:59
Navicula clavicularis Grev. var. & like *Pinnular*
and *Nav. appendiculata* f. 30, 31 + 32 (see S. 495 & S. 379²)
Shannon. - same as *Crude* (for listed see S. 110)

in S. 110.

S. 119)

S.

31 (Hull

A. Harrison)

*odontidium Harrisoni*crude (for listed see 468 57)

32, Granton Quarry 6:5:54 D. Greville)

Pinnulari. directa (very scarce), *P. directa* ^{directa} ~~crude~~ ^{small}*Pleurosigma angulatum*?

33 (Granton Quarry 6:5:54 D. Greville)

Pleurosigma angulatum? (s.d.:) *Pinnular**directa*! ~~*Spillonea* *maxima*~~ ~~*Spillonea* *maxima*~~ (see)*Synedra rivertensis*? *asterionella formosa*, *An**Phipron contracta*

S

34 (Granton Quarry D. Jewell 49)
Pinnularia Johnsoni - direct

35 (Granton Quarry D. Jewell) 63
amphor. salina S.V. |

much boiled

36 (Granton Quarry D. Jewell) 2
amphor. salina mostly F.V.

slightly boiled

S.

37 (Granton Quarry D. Jewell)
amphor. salina, *amphor. pulchra* very
 keen)

crude (for boiled see two last)

38 (Granton Quarry D. Jewell)
Melosira nummuloides very pure

(for crude see L13)

39 (Walton Ldg., Derbyshire - Li. 5.4 D. Rees)
^{vicinity of Foston}
Pinnularia gracilis, *Navicula amphibia*,
producta, *amphirhynchus*, *affinis*, *binodes*,
Cymbella amphicephala, *ventricosa* - very dark

42 (Loch Leven, near the outlier D. Gregory St. 1)
Cyclotella Notula. orthos. punctate?

S.

received as "S. Smithii" "

S.

46 (Sidmouth Miss Butler;
Schizoneura Smithii

received as "L. torquatus"

47 (Granton Quarry S.S. D. Jervill)
amphiprora constructa

crude (for birds, see next)

48 (Granton Quarry - S.S. D. Jervill)
amphiprora constructa

lightly boiled (for crabs, see last)

S.

49 (Granton, in pools by sea side, ^{S.S.} D. Jervill)
Schizoneura Smithii

50 (Granton Quarry D. Jervill)
Luridella fastuosa, nitescens ligula,
Schizoneura concinna, submarginatus subaegyptus
Oismula directa

51 (Hornby Point, May, Lancashire S.S. C.T.)
Diatoma elongatum J - Encyonema fastuosa

crude (for birds see 116 - for crabs
Encyonema see 435)

S.

52 (Woodward) J.T. Norman)
Pleurosigma Hippocampus, (see 533)
Pinnal. Johnsoni *Lehighensis*, 67-
 (see 533)
 - *clostr. Lehighensis*, *Doughertyi*, *N. Kuch*
aculum *Lehighensis*

for balsam

53 (Cumbria)
Cocconeus sandellum

only pt for Balsam

54 (Kingham, Fife) D. Greville)
Cocconeus apiculiformis juv.

(for crude in 404)
 52². River nys - *Lehighensis* of S. 25²
actinanthus *actinanthus* *actinanthus*

S.

55 (Woodward) 17.6.54 J.T. Norman)
Pleurosigma Hippocampus *Smithi* *Lehighensis*
Nitzschii *Toni* *Lehighensis*

(for crude in 404)

56 (Woodward) 17.6.54 J.T. Norman)
Nitzschii *Toni* - *Pleurosigma Hippocampus*

Crude (for crude in S. 55)

57 (Cumbria) Mrs. P. Rodger)
Fraxinus capricornis, *Melospiza* *various*
odontodermis *masodon*

Crude

5

58 (Fell End near Lancaster 6:6:54 C. J.)
Odontidium mesodon! *Fragilaria vrescens*
 [Scum], *Loricella biduata* [Scum] *Himantidium fusulin*
 - al. & majen (both small). *Synedra ulna*? *Colleton*
vulgar (like Nav. crispin, but emarginated and broader)
 (for crude see 409)

59 (Pentland Hills, 5:54 - D. Greville 59)
Epithemia gibba, *superba*! *Denticula lineata*!
Cocconeis Thwaitesi, *Navicula angustata*! (small - St.
cericula Grev.) *Ellastophis Grevillei*! *Pinnularia*
hemipter. *astaxionella Asperi*!

60 (Tantallon, Berwickshire - D. W. Greig)
Loricella crumena de Sub. -

59² Werribee river, Australia. I. S. Norm 1861 no 3. a
Synedra ulna, *radians* - for another sample from
 same place see 5.485[#]

5

61 (Granton Quarry 3:6:54 Greville n. 61)
Chironomus Grevillei

See 88.

62 (Pentland Hills 5:54 Greville n. 58)
Cymbella maculata! and *Cocconeis capulifera*
 ("Cymbella very unlike the any of Smith's" A. K. G.)
 It is *C. maculata* of Smith's slides, but not of his figures

63 (Bumbray 9:53 A. Kennedy)
Melosira Borreri

(For crude, see 412)

S.

- 64 / Grantham Lunny D'Gorelli 8 June 1884.
Schizoneura coarctata Hesse (ca. *multicincta*) = *S. diluvii*?
Podophtera etc - (thrown away)
 64² High Budge Yorksh OK. 520"
Diatoma vulgare Thwait and Hunt

- 65 / Exmouth - Miss Cutler C.)
Schizoneura Smithii

- 66 / Peruvian Guano - Dr. Anonny)
 bad - removed

- 66² Minatitlan near Vera Cruz G. Norm. G.N. 343
Lophoceros musica
 fresh 1 found

S.

- 67 / Hamilton 12: 6: 54 *Opomyza filia*
^{*Capitella arvensis* (L.) (anth. romana - Sib.)}
Epithemia turgida, gibb. *Pinnulana* *maja*
 67² Edgefield Hilt, Norfolk. - Mr. Wigham, Prof. F. Kitter 1862
Navicula levius (L. S. 17) ! - Himmant. undulata

- 68 / Stone in stream from Caroline Park 6: 54 /
Gonophorema olivaceum, *Lurarella minuta*, etc

- 69 / Lafford, on the boards of a ship 16: 6: 54 /
Achnanthes lineare. ^{Grev. no. 77}

for large size 3.76

71². Ellakker Lock. Hulle. G. Norm. Ex. 353 -
Symphonem curvatum. in 3. 70²

72 / Pentland Hills 5:12 J. Nevill 10/57
Oontidion. keemle var fide W. Sh.
(O. glauca N. J.?)

73 ^{Pashemi} ~~Depuch~~ from ~~Hungary~~, above the y. Carb. cliff -
Pinnularia. viridula cherty, *C. major*
 73² Brough near Hull - G. Nov. 1861 - G. N. 349
Goniatites curvatus

74 (Hull ~~and~~ ^{shows} the light parts of 23)
~~Euphyllia~~ ^{Euphyllia} ~~spiculata~~ ^{spiculata} W.
~~Retzius~~ ^{Retzius} ~~sp.~~ ^{sp.} - 1st. sign, Pleura.
 angulata, fasciola, elongata, - all scarce)

75² / *Wesolus* Linn 1856 I. Nom. 107 /
Nitzschia acicularis, *Pleurosigma stipes*,
fusiole, elongate, *Hippocampus* (small & large)
Navicula lyngbya Ks, *cryptocapsula*. *Tryblion*
-ella marginata, *Cyclotella Kützingeri* 3
75² / *Saccus* / *Baginella* Hall - I. Nom. 396
Staur. Baileyan - N. Tr. *Lyngbya* B. Linn
(Trice early)

5

76 (Hampstead. April 1854. J.T. Norman No. 1)
Surirella biduata a. *Splendida*, N. 2. 5. 5.
modica, *Navicula firma*!, *Pinnula viridis*,
nobilis - all large & fine

not

See S. 70

77 (Lafayette, in gravelly pool, D. Smith)
Nitzschia aciculosa, *N. curvula*, *Navicula affinis*, *Pinnula viridis* ^{maculata},
Stauroneis gracilis, *Cymbella affinis*, *Surirella linearis* (Scum)

78 (Bohemia, near Eger. J.T. Norman)
Campeplodiscus clypeus, *Navicula tumida*,
N. sculpta, *Stauroneis bohemiae* of Schindler. Mikoy
Pinn. pyramidalis Ehrh. (not seen) - in the water & I.

not same as S. 215

N.B. my fish 78 got injured by a million god-damn March
 from Hull - then in a lot of boiling and marked 70

5.

79 (Teignmouth ^{near coast},
Grammotophea marina, *Stauroneis*
areolaris

This form of *S. marina* has been easily seen by March
 or by ^{in ball} ~~in ball~~
 No 3 - and much coarser than in S. 539 - same as ~~the~~

80 (Tilbury fort
amphiprora alata

80² (Lutteridge, Lutteridge - J.T. Norman 1862. S. 394
Surirella nobilis, *Campepl. costatus*, *Staur. acuta*, *Staur.*
l., *Staur. gl. Sm.* the var. *Staur. bacillata* (very fine)
 var. *l.* (very fine) - *Epith. argus* & *Staur. l.*

81 (Tilbury fort ^{brides}
amphiprora alata - *Pinnula cyprina*,
Tryblionella acuminata, *Navicula connexa*,
Nitzschia ligula, *amphiprora utry* (very common)
Cyclotella ^{Gallesia} *hutchingsii* (S. 527) and *prominens* (S. 528)
Stauroneis, *Daphnia amphiprora* (very
 seen)

S.

82 (Tillbury foot J. T. Norman)
Amphion helina and? *a. tenera*

83 (Hull - Lum 1854 R. Harris)
Tryblionella punctata, *marginata*,
acanthus brevipes, *Lyndus affinis*, *Pod.*
Lila montagnei &c

84 (St. Helier, Jersey, Mr. Dobie for D. Landolt)
Ischnura elegans
 Pl². Solgelly Earth - Light parts - for heavy lens 120
Eumetia diadem &c

breeds in turpentine (see
 in spirit 30)

S.

85 (St. Helier, Jersey, Mr. Dobie for D. Landolt)
Ischnura elegans

Dried in acid

86 (Ponbury ^{in a bog} near Prestwich, April 8.7.54)
Pinnularia i. integra, *viridis*

87 (Yarmouth R. Higham No. 1)
Naucula elegans, *Pinnula peregrina*, &c

S.

88 (Yarmouth A. Wigham No 4)
Campylodiscus cribratus (very scarce) *Suiri-*
-relli striatula, *gemma*, *fastuosa*; *Pleurodiga-*
angulatus, elongat. ^{Hypocrepidia?} *acuminatus*, *Pinnular*
cyprinus, *Navicula elegans* & *punctata* (both scarce)
^{very common} *Euphyllia marginata*, *punctata*

89 (Breydon, Norfolk - Mr. A. Wigham No 3)
 (= 8 to 10 chit & small)
Suiriella arcuata 1/2 in. high, *gemma*, *constucta*, *Euphyllia*
marginata, *scutella* (very scarce) *actin. undulata*, *Euphyllia*
fulva (very scarce) *Campyl. cribratus*, *Podos. maculata*, *Bid.*
Euphyllia radiata F.V.
Dipl. orbiculus 1/2 in. high (very scarce), *Orbicular*, *Navicul*
smithii Birt
oval, *Lidippa*. - *Cyclot. punctata*? *amphipoda* like structure

90 (Moanarone, Co. Cork - April 5. Prof. Smith)
Meridion constuctum, *Trochilaria viridescens*,
Orthosia orichalcea, *odontidium mesodon*
Navicula rhomboides & (N. fusilla or tenorita?)
 perhaps mixed from S 247)

The *Orthosia* should be mounted dry

S.

91 (Falls of Clyde 1:7:54)
Epithemia calluta, *longicornis*, *gibb.*
Cocconeis Thwaitesii, *Denticula sinuata*

92 (Arran. 2 m. N. of Brodick 11:7:54)
Navicula crassirostris, *rhomboides*, *sericea*,
Pinnularia hemiptera, *viridis*, *Stauroneis*
gracilis, *Nitzschia curvula*

92. Anchored in S. George Bay, Bermuda. E. W. Smith 40 40
Campyl. notatus, *thectus* (unobscured grey). *Glyptothorax* as *similis* 11:62
Phytol. ornata, *Tricer. crassius* Ehrh. N. 1/2 - *Lundum* form *N. 1/2*
Danishian, *Euphyllia* & *Orbicular* Birt, *Pleuro. bellina* V. *Ph. mediana* Birt

93 (Brackish pool at Corriehills 10:7:54)
Navicula elegans, *amphibiceps*, *gemma-*
rosa, *punctulata*, *Stauroneis curvula*

Dead up & removed
 apparently very bad

96²

Σ.

q6². Thame; ^{in the stream} ~~exposed~~ F. Oiler 12:3.63 - ch. 54!
"odontideus" Murch.?" F. N. - Senticul. inflat.

S.

100 (Wells, Norfolk, Brackish water A. Wigham No 6).
Pleurosigma fasciola, *Tryblionella gracilis* St
~~marginata~~, *Pleurosigma* ^{thumensis} ~~marginata~~? *Nitzsch*
dubia, *Navicula cuspidata*, *turnens*, *amphibea*,
Cymatopleura solen, *Colletonia* ^{cyren} ~~marginata~~ *pusilla*

101 (Holkham Gap, Brackish water A. Wigham No 7).
Podocira montagnei, *maculata*, *Navicula didyma*,
liber, *elliptica*, *Leuneri*, *granulata* (Karr), *Trybl*
-onella marginata punctata, *acuminata*, *Pleurosigma*
angulatum, *stigosum*, *Hippoe*, *astucii*, *Luxis Gemma*, *Dorippe*
amphie, *Stauroneis salina*, *Nitzsch* *orthos. maris*, *Eupod. sculptum*!
~~actinocyclus~~ *actinocyclus undulatus*, *Campyl. fasciatus*,
Coscinodiscus minor Kütz. *Mastogl.*

102 (Felixstow, Norfolk A. Wigham No 8)
"Lurirella striatula, *Brightwellii*, *festuosa*,
Navicula orafiana, *punctata*, *turnens*, *Burrowsii*
Tryblionella acuminata

S.

103 (Harwich, Brackish water A. Wigham No 9)
Pleurosigma elongatum fasciola! *Hippocampus*!
^{acuminatus} *Tryblionella apiculata*! ^{intensum} *Nitzsch* *dubia* *St. maris*,
Lurirella striatula, *Stauroneis salina*, &
Mastoglia Smithii, *Cyclotella Kützingeriana*
 & this must be distinct - see S. 5. 187, 296, and 520-2.

104 (Horning, Norfolk. A. Wigham No 10).
Cymbella Thwaitesii! *Odontidium Tabellae*!
Cocconeis laevigata, *Lurirella bideri* *St.*?
imphora ovalis, *Pleurosigma attenuatum*, *Cyma*
triplex elliptica.

105 (Donaghadee A. Kennedy July 1854)
Mastoglia apiculata *Wd.*, *Navicula*
pelpebralis, *Stauroneis pulchella*, *Podocira maculata*,
Campylodiscus Ralfsii, *Lurirella lata*, *Eupodiscus pulchellus*,
Coscinodiscus radiatus, *actinocyclus longip. actin.*
cyclus undulatus, *Grommatophora serpentina*, *Pleuro-*
-sigma fasciola, *elongatum*, *Schizonema cruciger*.

S

106 (Drain below reservoir, Donally, Perthshire, N.H.G. 85)
Odontidium mesodon var (*Od. glaciale* Kütz.
 same as in S. 72 - *Chamaelea* few and no
 continued to the end)

107 (Dog at Donkied house, Perthshire 7:54 N.H.G. no 88)
Navicula & *homobrya*, *craspedaria*, *sericans*, *Odontidium*
mutabile, *Harrisoni* (rare), *Pinnularia stauroneiformis*,
intonsueta. (Scum) *viridis*, *major*, *Hermestidium*,
arcus, *pectoralis*, *Nitz. curvula*, *Eumetia tetradon*,
~~*nitidula*~~ *nivalis*! *Epithemia rupestris*

108 (Sides of the Lummell among Mhagna, 7:54 N.H.G. no 89)
Pinnularia borealis, *lata*, *viridis*, *major*,
hemiptera, *Eumetia tetradon*.

108² Thorne, Scotland. 7:54 N.H.G. no 83
Cymbella affinis

S

109 (Spring in Fir wood about 1500 ft. Ell. Pass of Killy-
 Krantie 7:54 N.H.G. no 94) *transfusa*!
Pocconeis Thwaitesii, *Navicula firma*, *coccineiformis*,
Surirella liseriata, *amphioxys*, *linearis*, *Pinnularia*,
viridis, *divergens* var? *Stauroneis gracilis*, *Phoenicenteron*,
~~*gracilis*~~, *Cymbella affinis*, *obtusula*, *Gomphonema clavatum*

110 (Wells, Norfolk. R. Wigham no. 2)
Pleuronizma strigosum, *Navicula Libos*,
 (Scum) *Pinnularia cyprinus*, *Nav. clavata*,
Sur? *N. cruciformis* (dark?)

111 (Corrieghills, Arman, between the cause and
 Salt marsh. 10:5:54)

Cymbella cuspidata, *amphioxys ovalis*, *Cyma*,
pleuron elliptica, *Solen*, *Odontidium mutabile*

- 112 (Cerambræ in deep F.W. pools near the sea
S. of Millport 9:8:54
Epithemia longicornu, ~~argus~~ ^{argus}, *Mastoglia*
Smithii: (partially in bud)

- 113 (Cumbrae in a ditch, S.W. of island 9:8:54) ..
Campylodiscus costatus, *Pistalis* (very rare) *Orthocentrus*
arenaria, *Ampelisca oralis* (Ampelisca - minute form
 and odour. Parasite observed before being cleaned) *Cym*
Pleur. solea, *elliptica*

- 114 (Covineghella, anan. in the salt marsh 10:8:54 -
on *Cladophora flexuosa* 1
Marasmius lanceolatus, *Achnanthes brevifolia*,
Subsepsis, *Epithemia musculus*, *Cyrtocella*
on *Desm.* ^{maritima}
~~not sp. (7. V. to be added: *Stizocera* that, understood)~~

for crude see 416

- 115 - (Ulverstone, Salthouse aug. 1854 Miss P. Woods n° 60)
Pinnularia Tabellaria, ^{major, notata} gibba S. Fragilior.
virescens! (in the ad)

- 116 (Ulswick Tarn, Ulverston, Aug 1852, Mif. & N. n° 35)
Cymbella Phoenicis, affinis, navicul. spheer.
 -phen !, cuspidata, semer. (same as in Long
 moun), inflata (very scarce), *Pinnularia nobilis* &

- 117 (Saltmarsh, Ulvestone - aug. 1854. M. & P. M. no 60)
Same as S. 115, but more bristled and the
Pinnularia letters for balsam

S.

118 (Brodict bay in the burn - Aug. 1852)
Douyphora Boeckii! signed J. Schell.
 (Same as 17, but in the more of the *Douyphora*)

119 (Mulloch Craig head, Carrick, D. Land'sborough 22:8:53)
Orthosira oridulca :

120 (Dolghelly deposit - C.T. calcined)
Lucisella notilis - for light see S. 124²
Pinn. acropora Sm (as to this only = *P. major*
 var?)

S.

121 (Long Mourne Deposit, A. Kennedy 7:53-)
 Heavier diatoms
Cyclotella minutula Kütz / *C. antiqua* Sm. in part
Stauroneis acuta, *phoenicenteron*, *gracilis* etc.

122 (Long Mourne Deposit, A. Kennedy 7:53)
 Lighter diatoms
Cyclotella minutula Kütz (as in S. 121). Navic.
 like *N. obtus* - but much smaller and very different

123 (Lumbrae, Fresh water, N. the sea, N. of Millport
 - Aug. 1854. Lighter parts of 139)
Mastoglia as Smith, *Stauroneis punctata*, [Phi.
Nemio ocellata ^{granulata} ~~granulata~~, *gibba* - all the same?

for crude see 124

S.

124 (Ditch between the two water reservoirs above Aclens
Lug. - 22:8:54)
Pinnularia viridis fr

125 (Supex 25:8:54 - Mr. Smith)
Pleurosigma macrum! and *Fasciola*
(C. M. Scarer), *Tryblionella scutellum*

126 (Lewes, Supex 25:8:54 Mr. Smith)
Ephemia Lox

S.

127 (Lewes, Supex, 25:8:54 Mr. Smith)
Ephemia turgida

128 (Prennag head atter, heavy fasts, mixed with
the very heaviest of S. 129. See Annals of Phil.
Hist. 1848 p. 94 - also Lewes) *Naricul. Semen.*
Pinnularia alpina (rare) *boresia* (rare) *lat.* (very rare)
- - p. 95, *Penn. monodon*

(accidentally mixed with this a neck tree is *Abies. acumin.* from Dieffen)

129 (Prennag head atter left brown with the clearest
of S. 128)

Pinnularia ^{acuminata (but often blunt)} ~~alpina~~ ^{alpina} (few)
Drav. Semen (very scarce), *Pinn. hem. Str.*; *dae.*
typus, *Diarrhiza*. *Hedys.* - *Polygonum*? (very rare)
Staur. acuta - *Lev. b. Ker. St.*, *notula*

This contains nearly all that is good in S. 130
+ the *Pinnul.* chiefly different from *P. viridis* by *Staur. St.*
an 001

130 (Prennag, perhaps, cleaned - Liphypate of S. 128, 129)
orthosia orichalcea chiefly

131 (Rocks, mouth of Tamas 8:5h. Sea Domes)
"Cocconeum cristata and several crested."
Phle. neith typical form "fr. Sm."
Denticul. ~~oculata~~ D. obtusa var. ~~obtusely~~

132 (Porreman 8:5h Dr Balfour - R.K.G. 106)
Himantidium majus (fid. W. Sn.) festinalis,
Lunaria 3-odon, Pinnula viridis d. a. 75.
alpinum (scarc) var. firma, confusum,
Mollisia nivalis, odontidium mesodon

5.

133 (Porreman "8:5h Dr Balfour" R.K.G. 107)
Tabellaria fenestrata, and flocculosa (var. ventricosa - scarce) odontidium mesodon, Syndera longissima: (vericium var. p. de W. L.)

134 (Glen Tilt 8:5h Dr Balfour - R.K.G. 111)
Tabellaria flocculosa var. ventricosa (abundant)
fenestrata (scarce)
all the rest.

135 (Gaulochan 8:5h "Dr Balfour" R.K.G. 112)
Cymbella sestrata (abundant), Cocconeum cym-
biformes, Denticul. ^{inflata (Rabenh.)} obtusa, Lemnium, Cocconeum
Thwaitesii, Gomphonema di. Schistomeria (abun-
dant) New. turda n. th. angustum - Syndera

— in 3.392

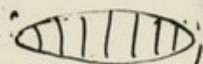
5.

136 (Pm. MacDhui - 8:54 D. Balfour. A. N. G. 113).
Pinnularia. *Lepta* (very rare) *Eunota*. *monodon*,
diodon, *triadon*, *Melosira*. *nivalis* (⊙) *Mimant*.
exilis, *Tabellaria* *flocculosa* *ventric.*, *Cypr*.
bella *aequalis*, *Achnanthes* *lanceolata*

137 (Camulochan 8:54 D. Balfour. A. N. G. n. 114)
Diatomella *Balfouriana*, *Synedr.*

138 (Dreeman 8:54 D. Balfour. A. N. G. n. 115)
Eunota *bidentula*, *triadon*, *Navicula*
serena?, *rhomboides*. *crassiremis*.

5.

139 (Dreeman 8:54 D. Balfour. A. N. G. n. 116)
Melosira *dibans* Kütz! *Odontidea* *anomala*
Sm., *Odont.* *hyemalis* (Sporangil form: )
and *mesodon*

140 (Dreeman 8:54 D. Balfour. A. N. G. n. 117)
Pinnularia *stauroneiform* (large) *alpin.*, *Lept.*,
acuminata (rare) *asteroideum*. *Stauroneis* *formosa*
Gomphonema *capitata* γ (fide W. S.) *Navicula*
rhomboides, *crassiremis*. *cocconeiform*! *Lept.*
pinxter, *linearis*, *Eunota* ^{*Melosira* *distans* (big)} *monodon*, *Lepta*,
triadon.

141 (Dreeman 8:54 D. Balfour. A. N. G. n. 120)
Navicula *cocconeiform*, *crassiremis*! *Tabellaria*
flocculosa *var* { } *Mimantidea* *bident.*, *Pin*.
-ulur., *borealis*, *Eunota*. *diodon*, *exilis*,
incisa W. S., *Melosira* *nivalis*, *Cypr*.
lunata W. S.

× true, with a snout - fide W. S.

5.

142 (Præmar 8:54 D. Balfour A.L.G. n. 121)
Melosira ^{nivalis (Horn)} ~~distans~~ orthos. spinosa! adnata
 mesodon, *Pinnularia* lat., *Himantida* bidens
 Nav. angust. tr. (sometimes resembling a Cymbella) Cymbella - like
 var. obtus., affinis

143 (Præmar 8:54 - D. Balfour - A.L.G. 125)
Tabularia fenestrata, flocculosa. Nav. chordata,
 or spinosa, *Melosira distans*
Himant bidens, *Synedr.* vadiana, adnata
 mesodon, *Eumia* tridens, *gutturaria*, *tridens*
 , nav. laevigata. Cymbella ventricosa?

144 (Glenballador - 8:54 D. Balfour A.L.G. n. 127)
Denticula obtusa

5.

145 - Lumbick newellstone, 9:54 Ship L.A. n. 111)
Pinnularia radiosa, etc.

146 (Pent. msp. newellstone, 9:54 - Ship L.A. n. 111)
Pinnularia ^{compila} ~~aerophora~~ *Hemipter*? *St. Ischi.* line.
 -aria, *Seriella* amphioxy var., *Cyclotella minutula*
Kutz (very scarce) *Stauroneis punctata* (very scarce) *gracilis*,
Staur. anceps, *crucicula*, *Navic. laevigata*,
Cymbella affinis, *Himant.* bidens (very small)

147 (Hackney, June 1854 J. T. Norman)
Fragilaria capucina, *Cocconeis* *Podoc.*,
Achnanthes exilis

> 146² / Pond near old museum in Ken Garden. J. T. Norman
 1861 - G.N. 326)

Denticula *deepium* (parasitic - Nav. *cryptocarpa*)
 found in 405² - see S. 153

S.

148 / Salthus sand, Ulverston 9:54. Mif. H. 16)
Nitzsche's diema

149 (Fellistow in Seum 10:8:54 N. Wigham)
^{Balticum and Balticum}
Pleurisma littorale, Stagesum, quadratum
^{acumination}
Coscindium minus, ^{Stagesum}
amphiceras, Navicula punctulata, curvata, senaria,
amphora affinis utraque, Orthoceras marina. (Trifol.)
^{amphipr. elegans, Nitzsche's punctulata}
marquetti, Triceras alatum. Eupod. confus., radiatus
^{also} ^(see 569 & stage 100)
Campylod. parvulus, - all very scarce

150 (Same as last, but the lighter parts)
Pleur. littorale, Stagesum, acuminate,
balticum, quadratum, &c.

S.

151 (Brancaster near Tickwell, Norfolk. I. Brightwell)
Surirella Brightwellii, ovate var, Pleuro-
sima quadratum, melosira nummuloides,
Stauroneis cruciata, Nav. brevis W. Gr

152 (Mewich N. Wigham - Heavy parts)
Campylodiscus Hodgsoni, Pleurosigma stipes,
^{decorum}
^{acuminate} fessile, Balticum, Coscin-
^{Stagesum, montagnae}
discus ex costis, Biddulphi, Lombus
^{from} ^{amphipr. elegans} "Trifolium" ^{Stagesum}
^{very scarce} ^{Navic. longicauda, concolor, Westw. var. Nitzsche's angulata}
^{actinophyl. 16-arium} ^{Triceras, Stagesum, Pleurosigma} Epi-
^{mergulum (dotted form)} ^{radiatum}
153 / Same as last - but in beds.

the light parts: -
very few

153 / Andover of Whaler "True Love of Bule" in Melville Bay
N. Lat. 74° - Bores of 421° and 428° - GN. 363
Schizoneis gracilis, Synder - Sutherland

5.

- 154 (Redesdale - A.K.G. 144)
Navicula rhomboides?
 The gutter fork is narrow - and is perhaps *Coll.*
vulgaris.

This is said by Dr. Griseb. to have been
 in tubes and bl. a *Collettonema*

- 155 (Breydon, Norfolk M. Wigham)
Surirella striatula chiefly

155² Yarmouth A. Wigham Nov 7. 1862
 Grav. water, No. 12 (the 1st). Inj. gently - Pleur. Wigham
 1 am. 3 then - gas neck, but the light
 parts separated from it

- 156 (Breydon, Norfolk A. Wigham)
Pleurosigma elongatum, *Strigilis*,
Surirella striatula, *Tryblionella margi-*
nata, &

156² Breydon. A. Wigham Nov 7. 1862
 Nitrogenous p. (the 1st) (the 2nd) (the 3rd)
 Nut. grains. Pleur. Strigilis, elongatum & Sur. striatula

5.

- 157 (Broadwaters, near Chalk, Kent. Mr J. T. Norman)
Pleurosigma intermedium - (also *P. quadrat-*
ellum, fascioli & scura)

- 158 (Canfield, I. 10:54 J. T. Norman)
Eucyonema prostratum

no upper cord
crude. (In tubes)

- 159 (Pond between Kandersteg and Schwanden, Switzerland, July 1854. Rev. C. P. Muls.)
Cymbella thurbergia, *ventricosa*, *Coccone*
quadriforma, *Epithemia ocellata*, gibber,
Navicula 

Dead up & renewed (not very good)

S.

160 (Kandersteg, Suisse? Rev^d C. P. Milu 1854)
Epithemia oculata, *Cyphella pectica*?
adventum mesodur? (*adventic. inflata*?)
Symphonema dichotomum

161 (Birdship crag, Nedesdale D.K.G. 136)
Navicula parvifera Kütz.

162 (Nedesdale D.K.G. n. 138)
amphipleura pellucida

S.

163 (Nedesdale D.K.G. n. 139)
Eumetia gracilis D.

164 (Nedesdale D.K.G. n. 141)
(*mesolepta obtusa*); *Symphonema tenellum*
lymnae. oxypetala? (*lymnae. l. tenens* Kütz et *S. longica*
var) - *Difform elongatum* var. *dentatum*

165 (30 miles below London - J. T. Norman)
Pleurosigma fasciata! (*linea & leaf*)
angulatum, *amphomelina*.

168 (Inverkip Glen, Sept 1854 A. Kennedy)
Cocconeis Thwaitesii, *Denticula tenera*,
Cypridella scabra?

S.

171 / *Christiana, Norway - Euphrat J. T. Kromer*
Melosis-nivalis, Fragilaria undata.

S

172 (Santa Fiore deposit Heavier parts C.F.)173 (Santa Fiore deposit, Lighter parts C.F.)

174 (Hull. R. Harrison - Dec 1854)
Ephemic ^{Westernmost var} ~~constricta~~, *Mastoglia Smithii*,
Synedra tabulata slender and long (both S
 longiform) - affinis (Henson and small like S. tener)

Dec 1854

S.

175 (Deposit from Holderneff R. Harrison)

176 (Redesdale 8:54 A.K.G. no 142)
Denticula tenuis, *sinuata* - *Synphonema*
diaphanum (? in *triacula* form) - *Cymula helvetica*?
 (on foot. *Cymula capillata* var) C. *scutellata*, *Cymula cincta*, *Cymula*
 * no trace seen with my g., and is therefor D. *inflata* var

177 (Redesdale 8:54 A.K.G. no 143)
Synphonema constrictum; ad *S. acumin-*
-atum (Henson) n.

reboiled
 (Grunder & artist)
~~Henson and my~~
 20 in thin away ??

S.

178 (Clay, Swansea Dock M. Okiden)
Epithemia musculus (with ~~moniliform~~ ^{moniliform} ~~thrice~~
 and another with faint ~~thrice~~ ^{sp. descensus} (by S. M. H.))
 and subd. is probably *E. mediana* of Kütz
 preserved up & again mounted

179 (Clay, Brickyard, Carmarthen M. Okiden)
Tricerasium Favus

180 (Clay, Brickyard, Carmarthen M. Okiden)
Didduephia chombus, ♀ (see S. 187)
actinocyclus sedenarius Van.

S.

181 (Haverfordwest, F. Okiden - OK. 17)
Surirella apiculata M. Sm (an var. *S. minut.*?)
 preserved up & again mounted

182 (Haverfordwest F. Okiden OK. 75)
Cocconeis cistula. *Tabellaria fenestrata*

183 (Milldam, Haverfordwest, F. Okiden ^{partly} OK. 76)
Gomphonema geminatum! *Tetracyclus*
Leontis (very scarce)

S.

- 184 (Chualar land, 7 m N. of Haverford West OK. 123 & 124)
Navicula firma var. !, *Navicula gracilis* !,
Homantiidium undulatum, *Pinnularia acrospira* -
 -ric - (Pim. *lucida* W.G. said bl. luv, but scarce)

For heavy parts see 310.

- 185 (Spring near Haverford West. OK. 39)
Navicula exasperata
Leptocarpus pink *Navicula* is in 347
 on *Coll. vulgare* ?

- 186 (Swansea Dock - OK. 76)
Amphora salina (two must boiled)
Surirella ovata, *Mytilionella*
 (Nitz. *medicis* var. W. Sm.)

S.

- 187 (Mouth of the "Pibur-wan" near Coconawetha OK. 94)
Diatoma vulgare, *Colletonema aximium* !,
Biddulphia (hyaline)

- 187² (Lettin bog, Lincobrook - G.N. 393. 1862)
Cymbella thurbergii, *Navicula*, *Phaeothoa*,
Pinn. crispum var. ?

- 188 (Ponds near Haverford West OK. n. 63)
Synedra radians (in sacs)
Surirella ovata, small, and large like *S. crumena*)
Cyclotella speculata. - (scarce)

For medium density - see S. 166

For lightest - - - see S. 189

- 189 (Ponds near Haverford West. OK. n. 11)
Cyclotella speculata, *Synedra radians*
 (small and large like *S. crumena* ?), *angusta*.
Surirella ovata, *crumena* ?

Lightest parts of S. 188 & S. 166

S.

- 190 (Mill stream, Haverfordwest OK. 55)
Synedra pulchella! *Symphonema constrictum*?
acuminatum! *Cocconeis*
limbata *arvens* (Scarcely)

- 191 (Haverfordwest OK. 4)
Epithemia granulata! *Pinnularia oblonga*,
Himantidium putidum, *Cocconeis lanceolata*,
Pleurosigma attenuatum

- 192 (Pond near Haverfordwest OK. 9)
Cocconeis Placentula, *Pinnularia* ~~gibba~~
aerophora 29? and var? (*P. polyzona* var?) *Stauroneis*
ovata *greg.*

S.

193 (Hull

D. H. Munroe)

Nitzschia acicularis, *Cymbella affinis*?

Heavy beds of S. 359

- 194 (Ditch between Carmarthen & Kidwelly OK. 91)
~~*Nitzschia elegans*, *pucilla*! (Scarcely) *Pinnularia*
baicalis (very scarce)
pusilla, *Mastogloia lanceolata*, *Stauroneis linearis*,
Selina, *Gomphonema minus* (3). *Spirulina* *crumen*,
Colletomena eximia! *Mon. men*?~~
 + see S. 225

- 195 (Haverfordwest OK. 20)
Spirulina pinnata! *angusta*! *ovata*
(eraticula *ha been yet here*) *Pinnularia viridula*!
tracites. *Cymatopleura apiculata*!
 194². Deposit from Longf. Mourm. Co. Donegal S.M.B. Long 1865
Nitzschia *fulva*, *obtusata*, *Him.* *Solier* *oh*? *fulva*
Eunot. *incisa* w/g but twice too coarse! - *Gomph.* *subtilis*
Fragilaria undata? (very scarce)

5.

196 (Churchland, 7m. N. Haverfordwest, OK. 62)
 Spongia (S.V.) ^{indica} ~~foliata~~ (Scum)
 Himantidium ^{divergens} undulatum, Mit. Ischi. cur.
 -ula! (See S. 17) Pinnularia acrothemia (gen)
 Stauron gracilis (Rus)
 Linotia tetraodon (Scum).

197 (Same as last, but lighter parts) ^{OK. 23}
 Here is also Navicula clomboides, and N. levians
 N. Th. unil.
 Spongia bicipitatus (S.V.) Him. undulatum
 areus, Solentia, Pinn. divergens, acrothemia (rare)
 Sphaera, Cyathella helveticus - - Pinn. tetraodon (Scum)

198 (Railway cutting, near Haverfordwest. OK. 6)
 Cyathella ventricosa!

5.

199 (Hill banks Ulverstone, 12:5h Mip. P. Hodger)
 Scaphomyces vulgare
~~Pinnularia inflata~~! (0) Cyathella maculata
 Pinnularia radiosa

200 (Super N. Smith per OK. n. 80)
 Rhabdoneme minutum

Dead at 2 or 3 m. (and) not
 good now)

201 (Keyland, near Haverfordwest OK. 82)
 Grammatophora ^{subulifera} marina! Schizoneura Grevil-
 lei, cruciger, Mit. Ischi. angulatus! Spongia
 affinis.

S.

202 (Haverfordwest L. Okedun OK. 15)
amphipleura pellucida.

nearly pure and whole. for burning
 on covers & dry mounting.

203 (Tidal gathering, Neyland OK 96 ~~OK 96~~)
Navicula didyme! *punctulata!* *Westii?*

204 (Super W. Smith for OK. 68)
Pleurosigma angulatum! *Surirella stric-
 tata!* ~~Surirella~~

S.

205 (Pond near Haverfordwest OK. 52)
Pinnularia nobilis, *majus*, *viridis* (= *Dactylus*)
Tellaria, *Stauroneis formosa*, *Odontidium multibab-*
(Kera), *Surirella biserialis* - *Fragilaria viridis*
 in that thread (on the surface)
~~Surirella~~

206 (Richmond, Virginia N. H. B.)
Coscinodiscus v. sp. *Orthocentrus sulcata*

Lin 366. - also 635, 636, 637

207 (Richmond, Virginia - R. Harrison & MS. 213)
 nearly same as last, but not so clean

among the very worst was some of *Centronia*
causa etc.

5.

208 (Hull Dec 1854 (R. Harrison)
Nitzschia sigma, *Melosira nummuloides*,
Tryblionella acuminata

209 (Hull - Octob. 1853 D. Redfern 1854)
Tryblionella ~~gracilis~~ ? ~~subglobosa~~, *Nitzschia*
clavicornis (small) *Cocconeis minor* (very scarce)

Pleurosigma fasciola, *angelulum* &c
 209² Brough near Hull - S. Nelson 1809 - May 1862
Oronotus (new) *varians* (tenella) - *integro*

[*Nitzschia clavicornis* - *trilobata* - *convexa*]

210 (Haverfordwest 25 Dec 1854 OK. n. 46)
Navicula elegans! *minutula* ~~Kennedyi~~ ^{spectabilis} n.g.
fusilla (then two very scarce) *Pinnularia peregrina*,
Stauroneis salina

[rather dirty and too little looked - does however
 for balsam if well soaked in Turpentine]

5.

211 (Haverfordwest 25 Dec 1854 OK. 110)
Navicula minutula! *elegans* (Hesse) *Pinnularia*
pergrina! *Stauroneis salina*!

[Lighter parts of last and cleaner, but requires
 to be well soaked in Turpentine, to get the balsam
 into the pores]

212 (Dundee D. Gregory C. 128, 129)
Navicula elliptica Kütz (N. ovalis W.S.)
^{bacillaris (Kütz. Sm.)}
N. tenuis W.S. *angustata*? *Denticula tenuis*,
obtusa, *sinuata*, *Cocconeis Thwaitesi*, *Gym-*
nelle setica

213 (near Edinburgh D. Gregory)
Pinnularia pygmaea Thwaites (W.S. - P. nana
 W.S. mol)

and of 1 *convexa*

S.

214 (Deposit from Auvergne A. K. S.)

Dried up & remounted

215 (Kieselguhr von Frangenberg, Jacquin per Robert Brown.) - Same as S. 78 but not cleaned.

216 (Laermarthen Dk. n. 38)
Pinnularia viridula Smell.

S.

217 (Schaboe Greens
Coscinodiscus sp.
Eupodiscus near *Halpsii*)

J. J. Smith, 2D Greenly,

218 (From the Naolin deposit, bed of Loooid, Dr. Fleming per Dr. Gregory)

219 (Elchies - Coarse fossils - Dr. Gregory E. 16)
Pinnularia nobilis var. *divergens*, *nudata*
Tabellaria, *Scrinella biserialis*, *nobilis*,
splendida, *lanceolata*, *Stauroneis anceps*
var. (with parallel sides)

See 157

- 5

- crude. This is for burning on stoves
and then mounted in balsam

S. lee end of Book

226 (New Loch Laven D. Gregory B. 52)
Mastoglia Smithii, very slender - *Navicula*
angustata?

227 (North base of West Lomond ^{very dirty} D. Gregory B. 57)
Diatoma elongatum (small), *Navicula rostra*
la W. G. (*Pinnularia integr.* Sm.), *Gomphonema*

228 (St. Abbs Head D. Gregory B. 59)
Epithemia gibba (very fine) *Gomphonema*
 (like *G. justiciale*) *Navicula tumida*
 (see 201) *Navicula angustata* *hue*, *Denticu-*
la ocellata Sm., *Cymbella setacea*?, *Mastoglia*
Smithii, very slender

for light parts, see 308

S. under a tumulus at Haulshell near
 Defont ^{not in mail!} for Carrickfuzen - S.D. 1850
 229 (~~under a tumulus at Haulshell near~~)
~~for Carrickfuzen~~

for another Defont, for sample, see 573

230 (Ulverstone Miss Hodgson)
Navicula Lemmeri (front view)! *minutula*!
punctulata! *didyma*; *Pleurosigma angula-*
tum *Pinnularia caprinus*! *gracilis* (Scum)
Tryblionella ^{apiculata} ~~angustata~~? *marginata*, *punctata* (Scum)
Amphibia alata! *Levinsella* *Seneca*! *ovata*, *Staur. pulchella* (see
 231) *Arctic sea* Lat. 75° 16' 2", D. Lethland
Stauroneis pulchella, *Podocis*.

S.

232 (Arctic seas, Assistance Bay, 7 fathoms)
Pleuronigma acuminatum, elongatum, fasci-
 -ciol., prolongatum &c. *Pinnularia directa*,
Coscinodiscus radiatus

233 (Arctic seas, Assistance Bay, 7 fathoms)
Pinnularia directa, *amphora ovalis*

very poor.

234 (Barwick fagus R. Kennedy 7:53)
Ahabdonema adriaticum!, *Orthostira marina*!,
^{very scarce} *Euphoronella contracta*!, *Navicula nitida*! (rare)
Helpeletia! & ^{nebulosa} *Kennedyi*, *Cocconeis diaphana*,
Pinnularia distans!, *Gamphysodes*-
eus Hodgsoni (very scarce), *Biddulphia rhombus* (very
 scarce) ()

S.

235 (bumbrae R. Kennedy)
Coscinodiscus radiatus, *cinnamomeus*, *Peridinium*
Nalae! & *asps* *Wg.*, *crassus*; *Ahabdonema adria-*
ticum!, *Navicula angulosa* ^{humeros} *Wg.*?, *Smithii* (ovalis
^{α. β. γ. δ. ε. ζ. η. θ.} *Sm.*) rare?, *Syrrhaptes* (~~small~~), *Kennedyi* (small & large)
Stauroneis pulchella β (common)!

236 (bumbrae — very light parts of last)

237 (Barwick fagus R. Kennedy 7:53)
 nearly the same as S. 234, but has *Navicula*
^{and nebulosa} *Kennedyi* large, *Euphoronella contracta*, *Cocconeis*
^{major, & pseudo} *callescens*?, *Orthostira marina*, *Ahab-*
donema adriaticum, *Grammatophora lepta-*
tina, ^{subtilissima} *marina*, *Peridinium sculptum* (very rare)
Plavos. prasinus var *angusta* (of *aeonium*?)

S.

238 (Ulverstone Miss E. Hodgson no. 51)
Navicula cryptocephala, *Pinnularia radiosa*,
Achnanthes lanceolatum

239 (Millport, Cumberland 5:54. A. Kennedy)
Achnanthes lanceolatum !!

240 (Ulverstone Miss E. Hodgson no. 61)
Synedra affinis, *Biddulphia aurita* var.
 (*Eupodiscus radiatus*, extremely scarce)

S

241 (Isle of Man Miss E. Hodgson no. 28)
Synedra Gaillonii

242 (Kynland shore of Milford Haven, F. Okeden OK. 79)
Biddulphia aurita

243 (Millstream near Haverfordwest, F. Okeden OK. 7)
Gonostia arcus, *Meridion constrictum* var!,
Surirella amphioxys (as in S. 244), *Gymbella*
ventricosa

S.

- 244 (Sheringham Harbour, F. O. Eden. OK. 11-48.49)
Pinnularia + (under construction) *Survivall*
amphioxys W. Sm. ! *Cymbella ventricosa*.

1 same as in S. 295

- 245 (Wall within the town of Haverfordwest. OK. 33)
Navicula pusilla (fide Sm.) ! *Achnanthesidium*
coarctatum ! *Orthosira mirabilis* ! (plentiful)

see S. 513

7 see S. 194

- 246 (Ulverstone, Gill banks. Mif. P. Hodgson no 21)
Meridion Zenckeri, circular &c

S.

- 247 (Wall within Haverfordwest. F. O. Eden. OK. 34)
Navicula pusilla ! *Achnanthesidium* Coars.
tatum ! *Orthosira mirabilis* (very scarce)

obtained by burning the material of S. 245

- 248 (oysters from Milford Haven, F. O. Eden. OK. 77)
Eupodiscus exilis ! *Coscinodiscus* - - -

- 249 (Barmyle 6:55 R. Hornby)
Gomphonema curvatum ! *Eunotia arcus* !
 (*Survivall exatricula* small and very scarce)

S.

250 Lightburn 3½ m. E. of Glasgow 6:55 A. Hemmings
Diatoma vulgare good and pure

251 (Dudg in Cork Harbour 12:7:55 W.S.)
Synedra (*Toxarium*) *undulata*, *Nitzschia*
speciosa, *amphipleura*. *Lignoides*

x  striae from (about 50) but seen with 1/2 & oblique lines
 in Balsam

252 (Barley Lough, Co. Cork 4:7:55 W.S.)
Gomphonema rostratum! *elongatum*! *Diatoma*
grande. *Cincta* *Diadema* and *bidens* (both
 very scarce). *Synedra ulna*?

S.

253 (Lough Avaul, near Glen Gaeiff, Co. Cork - W.S.)
Gomphonema subtile Phil. *Epithemia rupestris*,
 and *E. tetradon* and *diadema* (both scarce)
Cyclotella meniscus

254 (Castleary, among Sphaera 23:6:55)
Pinnularia gracillima W.G. *Epithemia rupestris*.
 etc.

255 (West Point, N York ^{off} Sargassum Dr. Bailey)
Synedra (*Toxarium*) *undulatum*.

S.

256 (Deposit from Willington, Connecticut, D. Bailey)

257 (Duval's creek in Lake Monroe, at Fort Enterprise, Florida, D. Bailey)
Terpsinoe musica, *Navicula*? (*Stauroneis maculata* var. Bailey)

257² (Lucerne near Lancaster C.T. March 56)
Pinnularia stauroneiformis var.??

258 (Carmyle in old Quarry 7:55)
Gomphonema constrictum, *acuminatum*,
Synedra radians, *lucerni* var.

S.

259 (Minehead, Somerset. Mus. J. Gifford 8:55)
Navicula (like *N. angustata*) &
Pleurosigma attenuatum, *Encyonema prostratum* (small) *Pinnularia radiosa*, *gracilis*, &

260 (Bed of the Tummell - D. Gevill 17) coarsest)
Gomphonema geminatum, *Tetracyclus emarginatus*!

261 (Bed of the Tummell D. Gevill 17) medium)
Tetracyclus emarginatus, *Achnanthes exilis*,
Gomphonema geminatum (few) *Cymbella truncata* W.G.?

S.

262 (Bed of the Tummell Dr. Gravel No 47. 6/8/24)
Achnanthes apilis!. *Tetracyclus emarginatus*!
Gymnella truncata Wg?!

263 (Flem Farq 1:9:55)
Oontchen *metodon*?, *Synedra* *ulna*

264 (Kieroph, III near the Lake 29:8:55)
Fragilaria capucina

For crude see 260

S.

265 (Kieroph, No V near the Lake 28:8:55)
Navicula cuspidata, *Pleurozigmella laushti*?

266 (Finnity near Loch Leven No II. Heavy 27:8:55)
Epithemia gibba var? (see S. 274) var
parallela of *Finney*

see S. 274

267 (Finnity near Loch Leven No II. Light 27:8:55)
Gymnella · *Laccosira cylindrica*
~~*Helvetia*~~

see S. 274 for *Cypris* *Relv*

S.

268 (Firmity near Laver Lough n° IV 27.8.55)
Navicula Cymbella

crude (see 258)

269 (Roe Island near Laverstone Miss P. Hodgson)
Grammatophora marina!

270 (Roe Island, near Laverstone - off Clevedon)
Dasyptera amplifera

very dirty

S.

271 (Small pond in Glen Tilt at Shooting Lodge - Nov. 53)
Epithemia Hyndmanni, *proboscidea* (Sear)

Heavily 2 density
 See 216 and 302

272 (Fell-End. Miss P. Hodgson)
Himantidium festucale var. *odontoides* meso-
Tatellaria flocculosa

may be mounted in Balsam, & well
 soaked in Turpentine

273 (Silverdale, Lancashire - off Skelton C.T.)
Pinnularia borealis, *Nitzschia amphioxys*!
Cymbella setacea var. *obtusum*, *Marstonia glauca*
Grevillei! *Epithemia gibba* var

5.

- 274 (Tinnity near Luch Laven O Heavy parts 27.8.55)
Epithemia gibba var. *Cymbella scitica*, ^{C. hyalina} ~~bas~~
~~-cenema cymbiforme~~, *Navicula* (rostrate)

see S. 266

- 275 (Hunt hill near Elchies, in a spring D. Gregory E. 14)
Pinnularia nodosa! *nobilis*, *Dactylus* (scaree) *major*
anceps & W.G., *Lurirella nobilis* (scaree) *liseriata*,
Gomphonema capitatum & Sm

medium and light parts of nest.

- ~~276 (Blackhead deposit coarse parts D. Dickie)~~
~~*Cymbella Ehrenbergii*, *Epithemia turpida* &?~~
~~*Navicula* (scaree) (D. G.)~~ ~~*Navicula* (scaree) (D. G.)~~ ~~*Pinnularia*~~
~~*varians* (W.G.) (fig. 28) rare~~

- 276 (Hunt hill near Elchies, in a spring D. Gregory E. 14)
Pinnularia nobilis! *Dactylus*! *major*, *Lurirella nobilis*,
liseriata

coarse parts and requiring the air pump.

5.

- 277 (Lincolnshire J. H. Munroe)
Navicula tenuissima var? (no stauros), *Cyche-*
tella speculata, *Tryblionella angustata*! (small)
Denticula ^{of this} *tenius*, *Cymbella helvetica*, *Gomphonema*
capitatum &?

- 278 (Birdhope, Redesdale, Northumb² D. Greville ⁶⁵/₈₆ Sept 55)
Cymbella squarrosa? (like *Nav. angustata*), *Nav.*
-cula angustata (an *Cymb.*?) *Mastogloia*, *Sm. thii*
Odontidium *Harrisoni*?, *Epithemia* v. p. *Epithemia*
argus? (or *vallata*, or *missa*) - *Denticula* n. sp.?

- 279 (Peterhead deposit, coarse parts, D. Dickie)
Cymbella Ehrenbergii, *Epithemia turpida* &
Stolus (anthrop. *nepheculos* etc) & rare
Navicula *femina* ~~femina~~ *Nav. Lachen* Sm. (rare)
Pinnularia *varians* W.G. (fig. 28) - both scarce.

S.

280 (Peterhead Deposit - Fines parts D. D. Clark)
Epithemia turgida byctell. antiqua!; *Navicula*
semen Sm. partly (= *Quin. varians* W.G.) *Odontoleum*
mutabile, *Tabellaria*, *Navicula laevissima*

281 (Kercknacullen, Co. Cork Prof. Smith)
Navicula amphioxys!

requires air-pump, or else well soaked in turp.

282 (Peat mof. Silverstone Miss. Hodgson)
Navicula amphioxys! &

S.

283 (North mountain, Nova Scotia ^{when ok. ed.} Heavy parts. OK.)
Stauroneis Baileyana! *Pinnularia nobilis* &
Nas. stabilis (amphioxys. *navicula* Ehr.)

284 (North mountain, Nova Scotia, medium density OK.)
Stauroneis Baileyana? (small), *Navicula* ~~semen~~
~~huc~~! *stabilis* R. & C. (N. *semen* Sm. partly -
amphioxys. *navicula* Ehr.)

285 (North mountain, Nova Scotia, Light parts. OK.)
Navicula mutica Kütz! (small with a false
stauron)

S.

286 (Haverfordwest. F. Okeden ~~4:2:56~~ OK. 28)
Nitzschia amphioxys! *Pinnularia staurones*.
famis! *Surirella angustata*

287 (Milddam, Haverfordwest. F. Okeden 4:2:56 - OK. 18)
 — *Surirella* O! *S. amphioxys*! *Splendi*.
da! *Cocconeis plaentula* (strice distinct)

Light parts of S. 183

288 (Bog near Gaermarketon. F. Okeden 4:2:56 - OK. 101)
Gomphonema tenellum, *Synedra fasciculata* ???

S.

289 (Haverfordwest. F. Okeden 4:2:56 - OK. 86)
Fragilaria virescens!

much liked for sake of the *S. vires*

290 (Haverfordwest. F. Okeden 4:2:56 OK. 84)
Surirella pinnata! *Panderiformis*! *Achnanthes*
lanceolatum, *Pinnularia mesolepta* (Scenes)

291 (Lüneburg Deposit. misf. E. Høegsøen)
Cyclotella minutula *Cymbella Ehrenbergi*
Orthosira arenaria, L.

Differs from 311 by the great want of *Synedra*.

5.

- 292/ near Wiverton Miss E. Hodgson)
Mastoglia lanceolata (det. Wm. (an. pub. at Dundee)
Pinnularia Cyprina, *Percepsina*, *Achnanthes* sub.
sepiis

- 293/ Exmouth Miss Bullen)
Diatoma vitreum : *Lomphora*
flabellata

crude

- 294/ Haverfordwest F. Okeden OK. 105)
Pinnularia radiosa !
 striae rather too close for it: an *Collet. neglecta*?

in S. 369

5.

- 295/ Heyland, W. Haverfordwest, within reach of the tide
 F. Okeden - OK. 106)
Pinnularia ! (near *P. radiosa*, but
 broader and more coarsely striated; same? as in S. 2114

- 296/ Baermarken bog F. Okeden OK. 108)
Stauroneis gracilis, *Gymbella affinis* (cf. *affinis*)
cf. N. 3.

- 297/ Heyland W. Haverfordwest F. Okeden. OK. 109)
Seriatella angusta, *ovata* (small), *Nitzschia*
Palea !

See 390 and 391

S.

298 (Bog new Baermarthen Fokeden OK. 114)
Navicula cocconeiformis? ^{var. *baermartheni*} *bacillum*? *rhomboides*
^{not seen} (large), *craspedinaria*? ^{var.} (with constricted and capitate ends)
Gymbella affinis - *Pinnularia* severe, *Stauroneis*
anceps var

299 (Haverford Wash F. Okeden OK. 120)
Synedra ulna! fasciculata. *Colletonema vul-*
-gare (*frustula*), *Diatoma elongatum* (small)

for crude see 353

300 (Bog new Baermarthen Fokeden OK. 112.B)
Navicula ^{affinis Sm?} forme var., *Lurirella tenera* W. G.,
Meridion constrictum, *Fragilari. viscosa*

S.

301 (Bog new Baermarthen Fokeden ^{light} OK. 112.4)
^{Stauroneis var. *geminata*}
Pinnularia ^{var. *geminata*} with them on the last

302 (Haverford Wash F. Okeden
Nitzschia linearis!

OK. 159 ^{new 159}

crude of new.

303 (Haverford Wash F. Okeden OK. 159)
Nitzschia linearis

crude, for crude

S.

304 (Haverfordwest F. Okeden.
Gomphoxenus geminatum!

OK - 7/1 part 9

305 (Haverfordwest F. Okeden
Synedra pulchella!

OK, none kept

crude of nest

306 (Haverfordwest F. Okeden
Synedra pulchella!

5th, none kept

1 gmt at last but prepared for ballam. See S. 190

OK. DD not keep any, as he had plenty

in his OK. 55 = alt S. 190

S.

307 (Jersey *M. P. Bremer*)
*Grammatophora marina**! *Synedra Gaillonii*!

* This form has fine striae, an. S. 539

308 (Victoria Tank, New Lightest parts, Feb 1856)
Stauronius ? $\oplus$ (minute), *Diodesmia*
perizina Wm. (Side View)

For heavier see 356

309 (Schabope Guano 1856) light parts)
Synedra ?

(letter broken & whole lost
 it must be the nest, for tube 309
 is here in the box)

Separated from 375 to show the *Synedra* better.
 Also put on the slide with a glass rod

S

310 (Swarthmore, Ulverston. Miss E. Hodgson)

Surirella crumena, *Cymbella maculata*,*Synedr. ulna*, *Cocconeis cistula*.310² Surirella F. Okeden OK. 1854*Cocconeis lamellata*, *Cymbella thalassio*

311 (Ulverston - Brackish water - Miss E. Hodgson)

Surirella crumena?

312 (Pier on Rose Island, N. Ulverston Miss E. Hodgson)

Campylodiscus parvulus, *Nitzschia sigma*

S.

313 (Deposit from Old man mountain, Lancashire Miss E. H.)

Surirella *Diadema* - *Himantidium* *lidius* &c.

314 (Haverford West. F. Okeden x

Cymbella *setacea*

315 (Haverford West. F. Okeden (other sibling lost))

Himantidium *setacea* &c.

same as 351 (for cude see 349)

S

316 (Haverfordwest, F. Okeden OK. 142).
Synedra tenera?

Cruce (for birds see S. 331)

317 Haverfordwest, F. Okeden OK. 146)
Nitzschia acicularis ⁺ *calceolaria* (Hid. 1878-79)
 Dried up & removed, but works

on fish. *N. acicularis* var. *erostrot* - (not same as 39022)

Cruce

318 (Haverfordwest, F. Okeden OK. 131)
Nitzschia ^{*hypomela* common var?} *clausa*, *oblongum* var. *oblongum* (H. 1878-79)
 Inyph. ^{*scutellatus* OK 1878} *scutellatus* var. *scutellatus* *Plumosa* *Leucon*, 2
 To be well soaked in turpentine to get
 out the air from Pinn. vider &

S

319 Haverfordwest, F. Okeden OK. 133)
Cymbella ventricosa very minute

found in the 319 (= OK. 135) -

320 (Weyland near Haverfordwest, F. Okeden OK. 149)
^{smaller variety. *hypomela* *hypomela*}
~~*Nitzschia acicularis*~~ ^{in *N. trachea* sign}
 The parasite is very curved on the back, and flat on
 nearly so in the lower side: it is in shape like *N. trachea*
 or *N. tenera* but much smaller - It is not on any other - on
^{except the 2 removed} Cruce (for birds see next)
 see S. 314

321 (Weyland near Haverfordwest, F. Okeden OK. 150)
 same as last, but birds

①

S.

- 322 (Haverfordwest - F. Okeden - F.O. 152)
Cymbella ventricosa F.V. - ~~small~~ minute
Cymb. Helvetica - - *Navicula*? minute

Grude (for Grude 3.323, 3.324)

- 323 (Haverfordwest - F. Okeden - F.O. 157)
Cymbella ventricosa, *helvetica*, &c.

- 324 (Neysland near Haverfordwest - F. Okeden - F.O. 140)
Fryblionella lundensis N. Sm. (thrice as
 abundant, but slightly more numerous than in Smith's
 shore)

Found with 384, 385 and 386

S.

- 325 (Neysland near Haverfordwest - F. Okeden - OK. 152, 153)
^{longer and inflated}
Denticula ~~obesa~~ and *Cymbella maculata*?
very minute

- 326 (Swarthmoor, Ulverston map E. Kodj.)
Nitzschia linearis N. S. (N. med. N. Sm. obesa)
Amphileura pellucida, *Navicula tumida*

much mixed

- 327 (Haverfordwest - F. Okeden - OK. 158)
Navicula? (very minute)

very light parts of S. 323.

S

328 (Deposit from ^{Waitapea Lake} ~~Whakapapa~~, Caithness, L. Pearl)
 bocconen Thwaitesii and var with an island
 square nodules (Nav. macul. w. S.?), Navicula platula,
 obtusa! Denticula obtusa & tenuis, Hart's pla-
^{gynell} Smithii, Epithemia oculata, ^{argus} Zehn, ^{indusidee} ~~Prædator~~ &c.
 + P (for heavier density only see S. 314) (L. O. H. S. 314)

329 (Bologan, Penzance. J. R. Alls)
 Frag. larv. virens with Himantidium
 festucale minute.

330 (Hae moor, Penzance. J. R. Alls)
 Himantidium festucale, all forms and sizes!
 pr

S.

331 (Haverfordwest. F. Okeden. OK. 142)
 Synech. tenera?

(For crude see S. 316)

332 (Well at Papsay, Co. Cork. Prof. W. S. M. R.)
 "Fragilari. capucina" fide W. S. M. - at
 postum fr. virens var.

333 (Swansea L. Okeden OK. 102)
 Nitzschia linearis var obtusa? (seems
 to be Synech. anceps of Kütz.) - also
 Nitz. amphioxys, Tryblionella ^{near} minor?
 Amphion. marina? &? Achmannthid. comitatum

see S. 221

fr. water

S.

334 (Bug near Penzance J. Ralfe)
Synon. biceps F.V. - also var? (*Eumoti-*
flexuosa Kütz. Scurer) *Himant. major* (Scurer)
 arcu. &c

nearly same as next, but not so clean
 and with more of *Syn. biceps*

335 (Bug near Penzance 17.5.56. J. Ralfe)
Synon. biceps, and var? (*Eumoti. flexuosa* Kütz)
Himant. major, arcu., undulatum.

336 (Baermarken F. Økeden ØK. 161)
Cymbella cuspidata very fine & pure -
 trace on the dorsal half only 20 in '001, on the ventral,
 about 24 or 25 - so is intermediate between *C. Maubeyi*
 and *C. cuspidata* Sm.

S.

337 (Dolghelly, Wales. J. Ralfe)
Tetracyclus lacustris - *Himant. undulata*

Grude (for boiled see next)

338 (Dolghelly - Wales J. Ralfe)
 same as last, but boiled.

339 (Steyland, off Rocks - F. Økeden - ØK. 172)
Cymbella maculata - of Sm the figure, but
 not of his slide

341 (Pewzance J. Kelp)
Himantidum nigra, *Synedra bicolor*

Burnt and washed Bkhu
F. Vices.

842 (Haverfordwest F. Okeden ok. 179)
Synedra longisema, ^{9. 10. 11. 12.} ~~toxa~~^{toxa} ~~Kinneth~~
^{o. d. l. c. p. m. s. n.} ~~gona~~^{gona} ~~Kinneth~~^{Kinneth}. Himant-arcus (key form)

S.

343 / Caermarthen. F. OKeden. OK. 24)
Nitzsche. amphioxys, 3 much smaller than
usual ("N. minutifera" F. OK.). else N. amphioxys
true

344 (Haverfordwest - Lokedu - sk. 182)
Syr. dr. minutissime

345 (Kerighorn, Fife shire (Fresh water) 8 Nov. 1873)
Syn. ar. ulna ?

S.

346 (Alfracombe - I. Ralps)
 "Amphipleur. scalum" fide I. Ralps
 but I can not see, but only a. inflex. & dist.

crude.

347 (Cumbrae 30:5:56 A.H.)
 Schizonema Smithii

(for crude see 436)

348 (Cumbrae 30:5:56 A.H.)
 Schizonema Smithii

(for crude, see 437)

S.

349 (Haverfordwest I. Okeden 27/9/91)
 Synedr. tenens? and. radian.

350 (Deposited from Old Man Maestri - Miss P. Hodgkin)
 Surirella biteri etc, etc.

coarse parts - very diff. from S. 313.

351 (Munkland Canal May 1898.)
 Diatoma vulgare pure

S.

352 (Haverfordwest salt marshes I. Okid. - OK. 176)
Nitzschia scalaris! (seen - 2 or 3 in a
 slide) *N. obtusa* (very scarce) *Navicula pusilla*
elegans, *Pinnul. peregrina*!, *Pleurosigma*
obscurum (only seen when dry) -

353 (Caermarthen I. Okid. - OK. 177)
Cymbella cuspidata a. m. OK. 161 (S. 336), but
 not to form, also *Synedra lunaria* f. and *Staur.*
amph. var. *Fragil. virescens*

354 (Caermarthen I. Okid. - OK. 178)
 Light parts of the last.

S.

355 (Haverfordwest I. Okid. - Penzance (York))
~~*Schizanthus pinnatus* (Hav. & Linn.) var.~~
~~*Navicula* ?~~ 5² and 6² - *Fragil.*
 a. m. 308. *Sentia*? *Nitzschia* - see 245
 for crude see 445

356 (Penzance I. Ralph June 1866)
 "Amphipleura inflexa" ~~at~~
~~*Pleurosigma anomala* Schab.~~
 since seen with a $\frac{1}{2}$
 (for list of pen water see S. 472)
 for crude see 466

357 (Lancaster - salt pools C.T. June 56)
Colletopora eximium in

357² Stallingborough near Great Grimsby, Lincoln
Colletopora G. N. 366²
 - 108² up & remains - very
 hard & dirty - maybe broken away

S

358 (Neyland F. O'Keefe - OK. 171)
Luxirella ~~*linearis*~~ ^{*linearis*} ~~*linearis*~~ *linearis* Pinnular
 hemiptera? - *Himantidum arum*

(bills in 2/1000 to 1/1000)

359 (Hull J. H. Munroe)
Cymbella ~~*affinis*~~ ^{*affinis*} ~~*affinis*~~ *nitidula linearis*
Synedra nodosa

see S. 193 (for heavy feet)

360 (Hull J. H. Munroe)
Amphipleura danica sp. (or *Schizoneura*
 sp.) same as in 115 and S. 41

+ also from S. Norman 58, & mixed

S.

361 (Kewenford West, Salt marsh F.O. 195)
 slightly separation from 352 in the crude that
Thurbergia obscura, *Cyclotella Kutzingii*

362 (Arran - Boddich Bay - Aug. 53)
 ... *Navicula* *Leptocarpus* (very scarce) - also *N. latifolia*
N. praeformans W. G. (very scarce)
 heavy feet of a truly *Schizoneura*

363 (Arran - Boddich Bay off Inverclyde - Aug. 53)
Homoeocladia (11) mixed with
Schizoneura *Dillwynii* (1)
 also some few like of *Chetocera* W. G. same

Light parts of last.
 called by Prof. Sm. "*Sch. implexa*?" and by me
 formerly *S. crinoides*

S

364 (Springhead near Hull - D. H. Munro)
Synedra ulna β? , meridionalis L.

365 (Springhead, near Hull D. Munro)
Synedra ^{radiant} ~~delicatissima~~, *Cyclotella*
minutula Kütz (very indistinctly marked)
 and *puccinata*

See my No 20

366 (Well near Douglas, I. of Man. Miss E. Hooton)
Fragilaria ~~variosa~~ var. *capucina* β? m. 5
Endocaulis ~~variosa~~

S.

367 (Amlwch
Schizoneura Dillwyn

(for crude see 422)

368 (Aberdeen D. Diefen
Schizoneura Dillwyn

- tribed from 420, but some as 423, as
 for crude see 420.

369 (Haverfordwest F. Okeley OK. 201
~~*Pinnularia radiosa* Collinson~~
Pinnularia radiosa var.

Since fine - surely must be *Collinsonia*

see S. 294

5

370 (Hull

Pinnularia ^{arophora} ~~gibba~~
(Surv. nitens ^{St. Louis})
Pleurostigma attenuata

D. Munroe

Nitz. curvula Sm.

371 (Gourock, on leaves of Zoster, 24:41:52)

Schizonema ~~helveticum~~ *hudsoni* ~~deux~~ *eximium*

(bivalve from dried specimen)

372 (Exmouth June 1886 Miss Cutler)

Schizonema *Dillwynii*372² Watermouth cavern, Offacomb, comb. f. 2:65*Amphipron complata* (entire frustules - *Dimerogonum*

(Dent) arcus n. sp. (J. Staurh) - Nitz. venosa - light frust.

amphipl. bismar ~~for ends see 430~~ - amphipl.

nitens (in my light)

2

5.

373 (Kewfordwest F. O'Keden - F.O. 197)

Kimantidium *festinale* large

(for ends see 460)

374 (Streamal Toward point 27 June 1856)

~~the~~ *Synedra* ~~di~~ *di* ~~am~~ *am* ~~in~~ *in* ~~meridi~~ *meridi* ~~on~~ *on* ~~circuli~~ *circuli* ~~8~~
maricula tumida ~~in~~

375 (Exmouth - Miss Cutler 1:7:56 - I. 1)

Schizonema *Smithii* - *frustula* long.also *S. molle* ? (smaller broader, and closer
strated)

(for ends see 467)

376 (Exmouth - Miss Cuth F. Jun 1856)
Schizonema Smithii radiately ribbed

sent as *S. torquatus*

(for crude see 448)

377 (Exmouth Miss Cuth F. Jun 1856)
Schizonema molle ?

sent as *S. Myathice*.

(for crude see 449)

378 (Pond at Haverfordwest F. Okeden. OK. 240)
Stauroneis dubia M.G. (Navicula decipiens
 OK.) is a species of *Cochrania*? (no stauroneis to upper & down)

379 (Pond at Haverfordwest F. Okeden 240
Stauroneis dubia M.G. - but these over
 the stauroneis - an Navicula sp. (N. decipiens?)
 379² Wally M. Normanviny Hull - boiled and cleared
 of 15.495- 3.11.12
Nav. appendiculata Krs - *Gyrfho. Normanviny* (N. 12)
 (Cymb. ar. in W.G.) - same as in S. 67

380 (Silverdale, Lancaster C.T. 18:7:56)
^{radiately ribbed}
Synedon ~~linearis~~ ? - ^{radiately ribbed} linear; fruticose
 short - ends as in *S. radiigum*, and no distinct nodal
 vacancy in the middle

381 (Well at Haverfordwest F. Okeden. OK. 232)
Himantidion majus

(for crude see 455)

381^a was a small quantity much broken by Mr
 Okeden (his OK 232). but all mixed with 381 but one like

S.

382 (S. side of brine canal between Ardaraig &
Lochgilfhead, getting washing Saylor. myochum 16:7:56)
Diatomell. Balfouriana!! Epithemia alpestris! superstus!
^{obtus - small}
ocellata, gibba, Denticula sinuata!, Cocca Thwaitesii!
Gomphonema viridis!, Cyclotella laticula var. obtus & helvetica

383 (coarse density of lath 16:7:56)
Epithemia alpestris! superstus, ocellata, gibba.

E. alpestris seems to be E. libula Ehrh.
undup & reminiscent but not good

384 (Keyland F. Okeden OK 237)
Whipidophora peradocae, Striatella
unipunctata

crude - foraging on com
not very good

S.

385 (Keyland F. Okeden OK 267)
Stauroneis salina! Navicula lemani!
Pinnularia cyprina

386 (Keyland F. Okeden OK 268)
Pleurosigma angulatum var. scandiacicum
(potius P. astuarium var. ?)

rather much build - etc

387 (Fell End C. J. July 1856)
Navicula mutica Kütz?

among oscillatoria etc in a trough

odontolepis mesodon

5.

for cards in 456

5

394/Corrieghills, Arrian - 7:56 (A. Kennedy)
Gdoutidium hyemalis

see 186

395 New Lancaster C.I. Aug 56)
Kitzia lanceolata (Hull) N. Sigms
N. dubia β var *Im* (*Tryblionella apiculata* n. sp.)

same as in 319)

395? (Pool under Capstone Hill. Dfrcm. 1864)
N. sty. inermis Guerin / an var var. *N. lanceolata*

396 (Loch Vach, Killikranke 1400 ft. E. A.K.G. 214)
Cyclotella ^{on minute var} ~~*apiculata*~~ *Navicula patula*?

Synedra tenax, *Cocconeis Swaidensis* / and var
 in the green stain, now macula? *Cyclotella*
^{1 minute plate - C. apiculata}
maculata, *Epithemia* ~~*pubescens*~~ *oref*, *turgida*

42

5

397 (Corrieghills - washed from roots of Corall. sp. A.K.G.)
^{bagily n. sp. (var. of *P. fulgens*) (see 719)}
Synedra ~~*apiculata*~~ *Stauroneis pulchella* β.
^{lepidella n. sp.}
~~*apiculata*~~ *Eupodiscus Ralfs*;
Surirella fastuosa -

398 (Hills S. of Loch Lummell ^{2000 ft. elev} - A.K.G. 247 1.
Pinnularia Stauroneiformis var., *lata* (scum)
Acinanthidium gracile (?)

399 (Seaton, S. Devon. ^{just up the shore})
Stauroneis pulchella β, *Synedra Gallione*, *Gramma*
Lophova serpentina, *marina* - *Rhulodina maculata*
 - (also but extremely rare *Campyl. parvulus*, *orthosira*
marina, *Podocis montagnei* & *maculata*. *Diuron*
Cylind. undulata

* There are two forms here: one has ^{in bulb an} *Stauroneis* that are solid,
 (about 30 μm) ^{0.01}
 by No. 3: the other much finer, and requiring the light $\frac{1}{4}$.
 but the last is not so difficult as in S. 3. which is
 and is same as in S. 539

J Ralph /.

Metaphis gracilis Turner

J. Ralfe

Sybellionella constructum, *Coccinodiscus radiatus*
variable Br.

Triceratium attenuatum (very rare)
Orthostoma murina, *Typhlonella cinctata* (very scarce), *Podocera*
maculata

D. Munnæ)

Pleur & ligne d'atténuation

Platanus, *Alnus*, *Fraxinus*, *Coccone*, *Platanus* (usual)

und spontändig kommt pl. elliptisch 2. oder 3. vor.

some marked S-402nd. among the heavy parts of the gathering.

Navicula dicapula :. *Homantidium* *peckii*
-ale? (small!)

Ba. 1.

12:8:56)

Diatoma vulgare! *Cocconeis Pediculus*! *Gom.*

-phoneme constrictum, curvatum

Melospiza subflexilis, *Epi themi*. *granulata*,

Synedra acicularis, gracilis. - 11

Fragilaria virescens.

for crude in 457

S.

406 (Pool S. of Aberdeen A.2. 14:8:56)
Melobesia subflexilis, *Lynceus aciculatus*
gracilis, *Epithemia granulata*, argus. &

same pool as S. 405

sometimes a few very long frustules (Hesperand) ^{small} ~~small~~ ^{gran.} ~~gran.~~

407 (Rock N. of Cove N. Aberdeen A.3. 14:8:56)
Denticula obtusa ^(small & oval) *Cocconeis cistula*! *Navicula*
elliptica Kütz. (ovalis Sm.)! *Cocconeis Shwartzii*

nearly same as 39. See also S. 430

408 (Spring S. of Aberdeen A.5.6. 14:8:56)
Orthosira orichalcea, *Odontidium mesodon*
mutabile ^(small) *Fragilaria virescens*? (like adm.
mutab. but twice as long), *Diatoma elongatum*
var. 5?, *Achnanthes lanceolatum*

found in S. 458

S.

409 (Cave at Cove N. Aberdeen A.6. h. 14:8:56)
Orthosira Dickiei; ~~*Odontidium mutabile*~~
Fragilaria virescens? *Himantidium*
Achnanthes microcephalum (scum)

very highly built, & require to be well soaked in alcohol

410 (Cave at Cove N. Aberdeen A.6. m. 14:8:56)
Orthosira Dickiei, ~~*Odontidium mutabile*~~ *Fragilaria*
virescens? *Himantidium*
Achnanthes microcephalum (very scum)

but must be built - heavier parts

411 (Cave at Cove N. Aberdeen A.6. l. 14:8:56)
Orthosira Dickiei ^(scum) ~~*Odontidium mutabile*~~
Fragilaria virescens? *Himantidium*
Achnanthes microcephalum ^{7. v.} ~~*Odontidium mutabile*~~ ^(small)
Navicula wappineri? and *Dicellastrum biceps*

must be built, lighter parts - but for and very small
Fragil. virescens etc.

S.

412 (Aboyne, s. side of river du 15.8.56 Abo. 1)

Naricula coccineiformis, ^{1/2} *Meloser.* ^{fragile, varieg.} *distoma*,
Surirella linearis (like *amphicorys*). ⁶ *Adiantum* ^{interrupta} *maubaulti*
Eunoti. tetradon (Scree), *Pinnularia Dactylus*, *nicholsi*,
^{amphicorys, lachata var}
P. Cymbella affinis, *Scotica*, *S. V. Zochi. curvula*,

413 (Spring behind Inn, Castletown of Braemar B.1.b. 16.8.56)

Orthotricha orchidalea, *Adiantum*
maubaulti (Scree) *Fragilaria virescens*? *Pinnularia*
interrupta β , and a long variety; *P. nobilis* (very scarce)

for crude in 459

414 (Pond behind Inn at Castletown of Braemar B.3.b. 16.8.56)

Fragilaria capucina, very endures constructed

{ *Frag. microlepta* Rob }

for crude in 260

S.

415 (Roadside on hill behind Castletown of Braemar B.4.a. 5.16.8.56)

Cymbella Scotica, ^{Helvetia} *affinis*, ^{exuberant, and} *Blountiana*
^{11.8.56} *Scotica* ^{Cymb. Helvetia} *affinis*, *Coccinella cymbelliformis* ~~18.8.56~~ *Epithema*
infestum, *Gibb. ocellata* γ , *Coccinella Thwaitesii*, *Richmelli*
Balfouriana (Scree), *M. manit. Arctus*, *odontoides* *terrestris*
most. of. Grevilleana (Scree), *Gomphonema rubrum*?
 (very difficult to mount - & requires long soaking in turpentine)

416 (Roadside from castle of Braemar, Glen Callader B.7 16.8.56)

Pinnularia nobilis, ^{major, &} many species, some of the large and
Surirella nobilis, *Stauroneis Phoenicenteron*, *Naricula form.*
Cymbella ^{cuspidata} *Linnaea* *affinis*, *Orthotricha orchidalea* (poor
Melissa *distans*)

417 (Surface of peat, N. of stream from Loch Ceandaw, Glen
Callader. K.144. 18.8.56)

Surirella bisectata, *linearis*, *Pinnularia*
major, *alpina*, *nobilis*, *viridis*, *hemiflora*, *H. p.*

Balsam very difficult to enter. - requires
 aet pump

5.

418 (Bogs S. of the stream from Loch Ceandaw, Glen Callader H. 5 h)
Surirella linearis, *Himantidium arcuatum* (very
 and *bidens* (very), ~~other species~~?
~~near to *Cocconeis* for *lanceolatus*~~ *major*, and *gracilis*
 (rare). *Pinnularia alpestris* & *lutea* (both rare) bore.
 - *distans* (very rare). *Eunotia diadema* (very rare)

419 (Lighter parts of the last - 18.8.56)
Himantidium arcuatum (small), *gracile* (scarcely)
Pinnularia borealis (very rare), *Tabellaria flocculosa*
colorata (good) & *fenestrata*

420 (Bogs S. of stream from Loch Ceandaw H. 7 18.8.56)
Surirella linearis, *Himantidium major*, *arcuatum*
gracile (rare) & *bidens* (very rare), *gracilis*
bidens (rare), *Pinn. lutea* (very rare), *Cymbella*
~~distans~~, *distans*, *Nitzschia curvula*
Navicula eripinosa

newly ~~seen~~ the same as S. 418, but with
 more of *Him. bidens*, and *Cymbella*

5.

^{Hill}
 421 (N. of stream from Loch Ceandaw, El. 3000 ft. H. 6 h. 18.8.56)
Pinnularia lutea! *Eunotia triodon*!
Melosira nivalis, *navicula rhomboides*

(among *Gyrog. ericetorum* in a small streamlet)

422 (same place as last, light parts - H. 6 h. 18.8.56)
Melosira nivalis! *Eunotia triodon*,
Navicula rhomboides!

423 (Stream from Loch Ceandaw, Glen Callader, 18.8.56 - H. 8 h)
Tabellaria fenestrata & *flocculosa*
Eunotia diadema (very rare), *distans*
~~distans~~? *Navicula* ~~distans~~ *distans* (rare)
Cocconeis Thurairia, *Melosira nivalis* (1 cm)
 and *distans*?

S.

- 424 (Stream from Loch Ceandaw, Glen Balla da, Hg. 18:8:56)
 nearly same as the last - but with more Eum-
 ti. tetraodon. amongst heavy parts - also Himant. ascer.

- ^{Here the River the diadem & so on in C.T.}
 425 (Stream from Loch Ceandaw, Hg. 10 18:8:56)
 Tabellaria fenestrata & flocculosa

crude - same place as 423.

- 426 (Springs nr. Corriemulje 3 m. N. of Castle Broom C. 1. 19:8:56)
 Fragilaria. virescens, and capricorn? (an
 Lk. var. F. viridis of adusted. merodon, Tabell-
 laria fenestrata.

S.

- 427 (Lochnagar, heaviest density G.S.H. 18:56)
 Himantidium magnum

- 428 (Lochnagar, medium density. G.S.M. 18:56)
 Eumtia tetraodon! Himant. magnum, (Himant.)
 cocconeiform, Melosira nivalis, navicula
 cocconeiformis, Gomphonema

- 429 (Lochnagar, lightest density G.S.H. 18:56)
 (in 18:56)
 Navicula cocconeiformis, Melosira nivalis & distans?
 Cymbella Laticosta & var., Gomphonema
 Pinnularia gracillima?

S.

may have ~~rather~~ ready, and
 hence D. inflata Sm.

- 430 Rock n. of Cove near Abadan 14:8:56 A.3 (ii)
 Denticula ^{big} ~~obtus~~, Cocconeis ~~Thwaitesii~~, Cym-
 bella ventricosa, Cocconeis cistula, comula?
 Achmannidium lanceolatum, odontidium muti-
 bile true (see ~~for~~ S. 4481)

Same rocks as S. 447, but at diff. place

- 431 (Feignmouth, side of mill lade. New? R. Crepsule)
 Navicula chynchocephala r

- 432 (Glen Fincastle ^{near Lf. Lock} Killickraugh - R.K.G. 246)
 Cymbella Emenbergii, cuspidata (var) affinis
 helvetica, Lenticula and var, Stauroneis punctata,
 Navicula firma var.

S.

- 433 Big near Lock Tummel - R.K.G. (ii)

Melosia - nivalis, Cymbella ceylan? Lenticula
 affinis, Helvetica, ^{gracile} Lenticula (very seen)
 Gomphonema ^{Fibula} ~~dictyon~~, Himantidium curvum.

Cidemia (var), vacuola (very var), Epithemia rufescens,
 Pinn. undulata var, Lenticula, gracile, dimorph. sili-
 acropneum. R. ^{intermedia} ~~intermedia~~

- 434 (Wattrean Depress. Caithness Mr Peck)
 Heavier parts of S. 328 - This contains
 a good deal of Nav. obtusa! if put on thickly
 also Cyclotella operculata. The Epithemia
 as seen

N.B. ^{from} Some of another gathering at same place called S. 434.

- 435 (Wattrean Depress. Caithness Mr Peck)
 Navicula obtusa (cuspidata)? N. punctata (var),
 Epithemia ^(var) ~~ocellata~~ var. Cyclotella operculata,
 antiqua ^(var) ~~ocellata~~, Melosia - arenaria

Heavier parts of S. 438, but very much elutriated
 for sake of the Nav. obtusa, which may be got 100 mi. S.W.

S. 328, then was little of *Cyclotus operculatus*, near it was rather little. From S. 328 and part of S. 434 was from the one locality. S. 434 (Kent), S. 435 (my locality), and S. 438 (Detroit) are from the other

S.

crude

The same gathering yielded the next!

Amphora hyalina (scarcely seen on Balsam) *Amphipron*
alata! *Pinnularia Johnsoni*! (scarcely) *Survivella Gemm*!
nitida, *Nitzschia* *gemm*! *Tryblionella punctata*, *mes-*
griata, *apiculata*, *acuminata* var.

By boiling the ^{hop}amphip. has become a late.

Homocladia fitiformis? *legum. f.*

Achnanthes diuina linear. ~~collaborans~~ ^{*Pymoulin*}
~~radix~~ ^{right} N. W. *linearis* var. ⁵¹⁶⁰
 as OK on letter 7.7 July 1887

no steps could be detected in the ~~even~~ gathering
for the collection in heavy parts on
S. 460 - See also 494.

5.

three effects, and therefore
D. tenu. var.
m. 251

Denticula obtusa (small), *Cymbella* ^{subsp. affinis} *aggregata* ^{uniforme} *formae* *in* *monticola*? 

What is called caeculidius, musculus in the C. section,
has not the ends curved - and is grooved, oval, angular
narrower the stomach, and the muscles pass at the ends

Dioprosia *Ralfs*! Amphipron Lepidoptera

W. G. Surinella pastioha, Stauroneis pulchella, Sepa
[Gaculus W. G. S. f. Sepa var]

Phlebotomus rigidus (my spec)
 17N
 Pupae. Ruffin, San Francisco. Staur. pulchella p. Tex.

4463 ³ ~~for the ph~~ J. J. only 2 with some Californixixton - otherwise very good

447 (Glen Farg, on rocks 15.8.54)
Cymbella ventricosa var ?? (in part L. ma-
-culata ?)

449 (Forth and Clyde Canal, A. Kennedy
Coconome ^{var. with} gibbosa Hb. 2 (C. cistula
var.?)

N.B. The Eucampi - require to be anointed dry.
Some of the others do in fields, at the slide in brush.
Caude - folioled in S. 1165

S.

451 (Teignmouth. Rev. R. Cresswell)
Synchr. Gaillon & adp. Grammat. Therman
(the fine, in m. S. 639 & 3.307)

452 / Escornett, Miss Cutler for Miss L. Hodge
^{Scutellum Var}
 Escornett ~~Scutellum~~? Lignea Gaillien, Fran
 tiff marin

453 (Caitheya, Dummett, recent G.P. Beach)
~~Naviar~~ ~~Ephemeris~~ Ephemeris.
gibba. n. amphipleura fulvacea,
Naviar gibberula ^(X. Trachylogus) Mottaglow Smith & Co.

~~with the most~~ ~~best~~ ~~the~~ ~~real~~ ~~and~~
~~line~~ ~~with~~ ~~the~~ ~~most~~ ~~of~~ ~~the~~ ~~real~~ ~~and~~

S.

454 (Carthage, Brakgeopdeford. C. O. Peck)

See S. 493 & S. 494

455 (Hull. L. Okeden OK. 332)
amphora tenera ?! *Nitzschei*. *ligm*
melosira - *nummuloides* *Fr.* - See S. 488
 not so good as in S. 382

Dead up - & remounted in S. 488

Crude

456 (Hull. L. Okeden (B. O. Peck) OK. 334)
Cocconeidiscus dubius *Ch.*

got by bringing some mud adhering to vesicles landing
 from a Rotterdam vessel.

S.

off at Skirland near G.N. 8 per
 457 (Hull. Fresh water L. Okeden - OK. 344)
Nitzschei - *dubius* ? (since dislunch)
 (Same as in S. 109, S. 388, 296 and S. 20-2.)

Crude

458 (Haverford west L. Okeden OK. 324)
Cocconeidiscus parvum

for crude See 465

459 (Neyland, L. Okeden - OK. 320)
Oimularia cyprina, *Stauroneis salina*,
amphioxys *vitrea*

Antipar. OKed; last in S. 446

seen off from 293.

462 (Keyland. Z. Okidm OK. 337)
Cymbella ventricosa? small flaccid in S. 340)
Imhoffia tonella

The Cyrtella seems the same as in
(ok. 276 :) 5320

463 (Haverford west 2-Okiden - OK. 272)
Sipsoni ^{*apicatifrons*} ~~*lancea*~~ (black full) - as full
L. apicatifrons name of S. Lewis -
 also *S. r. odianus*

465 / (Leigsmouth rev. R. Cresswell)
Biddulphia ^(Scars) *Baileyi* + orthoser mem
 cocconis ditake (very scarce)
Tricrater alternans, - *Coscinodiscus*
 centricus. *veratilis* R. & A.
Gaultheria ? fr. - *Diatoma* ~~fr.~~
 * *B. Baileyi* letter in S. 47/8

From the stomach of *Phallusia nutica*
~~adulta~~ - 16 gills
 bilobed - deep fawn color, yewell soaked for
 orthosia - see S. 450

466 (Penzance) J. Ralfs. Nov. 1856
Euprodium subtile Ralfs in Gregory
 dict. of Clyde - Synedon Baculus W.S. (= *S. fulgens*
 var).

crude

467 (Dartmouth) Rev. A. B. Griffiths
Melobesia distans?

Two sp. and very unlike both in Carb. fossils

468 (Corrygill, Arran - heavy)
Euprodium Ralfs! *Stauroneis* J. Ralfs
Narrichia color ^{didyma} *Amphion* marine.
Cocconeis disrupta W.S. - *Amphion* pr. *lepidoptera*

* *N. didyma* is much more finely striated than *S. Smithi*
 and the *N. color* more or less like *didyma*
 got by washing *Cocconeis* specimens

S. 469
 15. 7. 76
 723. 724

469 (Corrygill, Arran - Lighter)
Stauroneis J. Ralfs. *Narrichia* color?
~~*Amphion*~~ ^{marina} *Amphion* ~~*color*~~ (= *A. effusus* var?)
Stauroneis *lepidoptera*, *Amphion* *lepidoptera* W.S.
 Light parts of last, (*A. lepidoptera* better in 466)

470 (Corrygill) Lightest of last
Cocconeis *minor* Kütz / non Sm!
Amphion ^{marina} *color* - *Cocconeis* *lepidoptera* &
^{stimulans} *parvulus* (my *cerni*) - *Amphion* *color* & *lepidoptera*
 scarce!

471 (Ulverston) *Melobesia* *Smithi* (W.S.)
Amphion *color*.

5

472 (Neyland 7. OK ~~OK~~ 343)*Amphiprora niflexa*

Dead up & remounted.

Boiled, but must be broken up

for ~~end~~ ~~in~~ ~~the~~ 467 (for boiled in S. 356)473 (Cave ^{S. 1} ~~at~~ Cove, Aberdeen - ~~near~~ D. Redf.)*Orthosira spinosa*, *Dicella*, *Actina**Thalassia micropthalma*? *Tryblionella* *micran*

Dead up. - regum body in Crib of Suda

near of the cave, at its further extremity. - new same as 38

for end of *Ortho* *spin.* in 468

474 (Corrieghells - from roots of Corall. spic.)

Stauroneis pulchella Z.V. *Navicula didyma* +*Amphiprora* *leptostoma* (very scarce)Some for *leptostoma* (32 or 35) - another in only
to *correa* and *under*

almost same as S 468

5

475 (Corrieghells - from roots of Cor. sp. D. Gregory, g.d. 5)

Amphiprora ^{complexa} ~~leptostoma~~ (very rare, and easily broken), *lept.*- *leptostoma* very scarce, *Stauroneis pulchella* common.*Lupinus* *calceolus* (common)

476 (Corrieghells - from roots of Cor. sp. D. Gregory, g.d. 10)

Amphiprora ^{complexa} ~~leptostoma~~ (very rare), *leptostoma* (very rare)*Camptodiscus* *limulans* (= *parvulus* *lept.*)*Thalassia* *micropthalma* (very scarce) *leptostoma* (very rare)*leptostoma* (very rare) *leptostoma* (very rare) (= *leptostoma* *leptostoma*)*Cocconeis* *ovata* (very rare) (= *leptostoma* *leptostoma*)477 (Teignmouth - Stomach of *Phallusia austrea*)*Euphrasia* *pulchra* (some large), *correa*.*leptostoma* (very rare) *leptostoma* (very rare), *radialis*,*leptostoma* (very rare), *leptostoma* (very rare), *leptostoma* (very rare)*leptostoma* (very rare) *leptostoma* (very rare) *leptostoma* (very rare)*leptostoma* (very rare) *leptostoma* (very rare) *leptostoma* (very rare)d.2. Heaviest density - much *leptostoma*

S

478 (Seignemouth, heavy density d. 5)
 much the same as last, but with ^{white top} ~~few~~
 of *Biddulphia* *Dailleyi* - also pieces of *Milnesia*
testis - *Achnanthes* *ternatensis* (very rare) Nav
granulata (very rare)
Triangula *flexilis* here $\rightarrow$ *Myosira*

479 (Seignemouth - lighter density - d. 10)
Cocconeis *disca* *excantus*! - (also *disca* nodes)
 - *alis*, *cuneatus*, and *excantus* (*excantus*?)
Triceratium *variabile*, *Biddulphia*, *Biddulphia*
Dailleyi

480 (Seignemouth, lightest parts of last d. 20)
Strombocera *negatum* s.v. $\parallel$ *Cocconeis*
excantus : *Triceratium* *variabile*, *alternans*

S.

481 (~~Seignemouth~~ - no 56 - Prof B. Hodgson)
Tahellaria *fenestrata* on

481² *Sclerobolus* N. Hemmety

Schizomera *muscorum* Sm?

The corals become very skeletonous and amorphous
 to coral with. used for fluid tubes - some burned in
 covers as marked S. 481²

482 (Prennaye Peel - 1848 Heavy C.T.)

Ortholite *orichalcea* : (1 specimen?) - *Fragilaria*

capitata, *F. virens* - *Surv. lutea* - *Penn.*
acuminata, *nodosa*, *acrostoma* - Sm. (as *Strombocera*)
acrostoma Sm (as *Strombocera*) - *P. tahellaria* (Lup.) *P. tahellaria*
P. acrostoma 185, *Strombocera*, *Strombocera*, *Strombocera* -
 slightly different from S. 120 & S. 129. by long

Fragilaria *capitata*; also *F. virens*

483 (Same - light : C.T.)

S

484 (Premnay Peak, Nov 1854, New Zealand)

Pinnularia alpina, dactylus*Himant. major**Eumoth. tiborodon*

nearly same as 144, but differently prepared

485 (Australia (Western Australia) ^{near rocks} OR S. 255)*Epithemia gibbera*, ^{subvar.} ~~subsp.~~ *rufipennis**Scatomella Balfouriana* (rare)486 (Mud in tidal ditches, Staveley, Devon ^{near Staveley} Dec 1857)*Navicula cryptosephala*, ^{amphiosephala} *elegans*, ^{Westii} *patula*, *pulla**Nitzschia gibbata*, *Ligma*, *Tryphonella*, *granit.**Scutellum*: *marginata*, & *Pinnularia*: *capitata*
in the grey (very rare)
Am. Turicella constructa

S.

487 (Tidal stream between Staveley & Dawlish, near Devon ^{capitata} Dec. 1857)*Fraxillaria virens* (small), *melosira flexilis*.

488 (Hall -

I.O. - OK. 358

amphos. tenera:

in S. 455

near Staveley 562

crude

489 (Pichincha, near Quito, Peru - September 1859)

Navicula (same as in Long's museum)*Nitzschia amphioseph.*

dried up & removed

S.

490 (^{Baermpitten Bug}~~Haverford west~~, OK. 361. 2157)
Meridion cinctulum

491 (Haverford west. OK 362^a)
Homocladia - *pliformis*? *Gomphonema*
capitatum, *Pennula radiata* - *Achn.*
lineata?

Same as 494 ~~but~~ *richardsoni* and
 from same place as S. 460 & S. 444, but this ^{H. megel.} ^{diff.} ^{seem.}
 492 (Gare de Ligez, ^{Canterbury} Pyrenees - Prof. Smith)
Navicula pyrenaica, *Scitn.* *constrictum* in
 form, *Loecocum lanceolatum* p. 27

S.

^{Warton}
 493 (Brakegoe deposit, ^{Warton} ~~Warton~~
Navicula obtusa, *petula*,
Cymbella Ehrlichii n.

the and next, a different sample from S. 454
 coarser parts

^{Warton}
 494 (Brakegoe deposit, ^{Warton} ~~Warton~~ - Light parts)
 much the same as last, but cleaner

495 (Wall of Mr. Norman's Vineyard, Hull - ^{G.N.} ~~OK~~ 2712)
^{rare ch.} *Radama* *appendiculata* & *Pinnularia gibba*, *uni*
natura, ^{from W.S.} - *amphora*, *Norman* ^{Red} ~~and~~ with S.V.
^{capit.} *W.S.* - *Nitz.* *minutissima*

Stenodonta & *gymnophthalma*
 a new supply from J. Norman
 crude? requires the burning for balsam
 to be used for balsam

Symon letter -
 pale left eye by aid of ammonia
 forehead den 495 496

2 eggs by nest all used, and replaced by G. N. 25. ^{in hundreds of eggs}
 197 The above nearly all used; the eggs and chicks were mixed
 with G. N. 102 by V. Str. Duff's Rule, which was
 not cut - N. 12. ^{in hundreds of eggs} - as a whole tenor - but has
 Fybl. ^{in hundreds of eggs} under - for birds see nest

498 / Hull OK. 367:
amplified. construct. various forms of Lx !!
Nitzsche. bilobate, ligum or

5

499 (Dockyard at Pembroke - OK. 380)
Amphipleura zigmurella! *Pinnularia*. *Ischno-*
-soria! *Achnanthes longipes*. *Schizoneura crucigera* &
Smithii. *Nitzschia angularis*.

500 (Maryland OK. 379^a)
Schizonema helminthosum

sent as "*L. divergens*"
for crude see 502

501 (Hanging shore Ph. ^{off} ~~the~~ ^{the} ~~shore~~ ^{shore} S. E. of Shagun 28:3:57)
Succinea cistuta, and *cylindrica*

502 (Hanging Shaw ^{ph} ^{cellulose} ^{Gravel} S. 8. 1899) 28. 8. 37)
Nitz. tenuis! - dubia - Harriell amphistern
Lophionella granula / extremely scarce

503 (Hanging thaw ^{near the ground} newly same place as last)
Xitzchi - tenues and odontoides parasitic,
Tryblionell grauhi very scarce

(lightest density of the nest)

504 (Hanging shaw same place as last)
 Nit Zoë - tenues with a few pustules of
 Euplimella granita! (scars)

Heavier density of bark
for crude tar No. 503.

5.

505 - Mouth of Teign. S. Devon. Red M. Crayfish. N. small.
Navicula helpebralis? minute & found elsewhere
 near Sagittaria. Red M. Crayfish. N. small.
 (very scarce). *Nitzschia vivax*? Nodule. *Spectator*
Melosira Westii, *Pleurisigma transversa*

For crude (light) see 504

506/ Exmouth? miff Cuth for miff Hodgeson
~~Alipidipho Solmatica~~ 2000 ft. Louisiana
 valves tawny, stice distinct sharp, - There is
 a thick ray that dips, ^{also} miff Alip. edipus Kely
 crude for burning on coals

Lee S. 529

507 / From a mollusk of an oyster shell dredged ^{off Hyle}
 Bidouelle - Bailey - Diatome vexatum Rea
 (Same as in S-450 & S-465. In
 Neurozium funiculatum Norm. in Ann. n. H. XX. p. 159
 (Some Nit. tonum had been in the bucket
 when sent me.)

crude - blue roasted if for better

S

508 Neyland OK. 390?
Achnanthes parvula

only the 1st 1/3 boiled for tracing - blue more boiled
 for crude see 506

509 Neyland OK. 390?
Achnanthes parvula

calcined - for crude see 506

510 Hull
 Nitzschei.



also Nitzschia dubia. Euphrasia? (stems
 fresh. was in the water previously) (Oliv. species?)
 510² (Ulverstone Prof. R. Hoofn.)

Gymbella Helvetica (no stripe)
~~*Denticula*~~ (very small) (from D. inflata for stripe
 on point)

N.B. The Cypris is very like *Cocconeus cypriformis*

S

511 / *Cumbræ* R.H. 4:57
Dickelia pennata (mixed with *Schizone*
helminthodes?)

512 / *Cumbræ*, ^{fresh with but near the shore} R.H. 4:57
Navicula tenuis *pusilla*

513 (Wall in Haverford west 4:57. OK 394)
Achnanthes dubia *crassicauda*! or the other
nitzschia! *Navicula pusilla*! *Nitzschia*
amphioxys!

all as in S. 245, but rather more boiled
 and with more of carbon

and with more of carbon
 blue boiled in food

5

514 (Haverfordw. L.O. 2:57-
Synedra affinis? (very minute)
Mendocina circularis

For crude see 507

515 (Newland L.O. 395^h
Schizoneura implicatura

boiled for crude see 500)

516 (Rock at Newland L.O. 391^h)
^(green and inflating var 2 - bright brassy var.)
Dactynotus, *Mitella linearis*,

for crude see 505

5

517 (Gowrock. ^{in wetty pools. leather} on *Euteromphala* April 57 A.H.
Nitzschia. (an var. *Friedrich*
 an up?)

same as in 18

crude -

518 (Gowrock on *Euteromphala* April 57 A.H.
Nitzschia

same as last, but boiled for 1/2 min. in acid.

Invisible in balsam - only for dry mounting

519 (Newland L.O. - OK 400 - June 1857)
Synedra affinis, *Gaillon*, *Biddupephie*
aurita, *melosira nummuloides*

520 (Keyland, a circular hole in rock. OK. 399*)
Schizonema *frustules?*
Nitzschia Cloterium! *ligma* *x*

crude (boiled in water)
 521 (Keyland, OK. 399*)
Schizonema
Nitzschia ligma

boiled
 522 (Spring in Strath Tummel - D. Gaerle "248")
Nauicula crassineura? *Pinnulata loma*
loma (loma) *x*

* *Smittia* *conspicua* - is it only a var of *N. rhombi*?

523 (Exmouth, Muf. Butler 24 June 54)
Oodosphecia Lynghya var. *S.V.* very narrow
valon crystallina - still scarcely more than 36-38

524 (Hill behind Lamloch, anan. A.H. July 57)
Allosira orichelone! *Fragilaria virescens*
gnd - *Pinnulata* *Tubularia*, *nagel* *daily* *in* *(over)*

This was much looked in and, but little the work was
 repeated. *Bullum* - *unif* *heads* *2* *delup* *5* *leaf* - *fr* *over*
 525 (Campsie Glen - A.H. 3:8:57)
Cymbella setica (true) - *Nitzschia tenuis*
 (straight, & small), *Cocconeis* *v. sp.*, *Denticula*
v. sp., *Cocconeis Thwaitesii*

S

526/ ^{eye} ~~For Bay~~ - on ^{Callith. Bonneri on} ~~Polysiph. fistuligera~~ (I.T. Nam)
Grammatophor. ~~serpentina~~, ~~Sept 10~~ 110 m
investiens

this form of merion less than from the *S. serpentina*

527/ ~~For Bay~~ - on Call. Bonneri I.T. Nam
some on the above, caule

528/ Exmouth. Miph. Cutler - 8:57)
Grammatophor. *subtilissima* Daily?
died up - removed

this form is less than *S. merion* - about
the same as *S. macilenta*, which may be only a
narrow variety.

S.

529/ Buddleigh Latterton - May 1849. Miph. Cutler
Podosphaeria Purgensis

^{values varying}
these much finer than in S. 523. but not faint.

some bits of the algae mounted in fluid are S. 529*
^{slightly per each, thick. small. - thick. at top. Miph. Cutler? - see S. 506}

530/ Well at S. Andrews M. McDonald - 8:57)

Synedra hamata var. *radicans* &
purely fresh water

on *Vaucheria*, & *Cladophora* - for crude see 518

Form of *Frustula* as in *S. radicans* p. these marginal, about
36 or 38 in. 001 / finer than in *S. affinis*)

531/ Monkland Canal Glasgow (4: 8: 57)

^{C. I. hamata var. radicans}
Synedra ulna - to same as in S. 530, also *radicans*
var. - *Diatoma vulgare* &

on *Vaucheria*, & *Cladophora*
for crude, see 516, 517

OK. no 368.)

"*Bocconema* with ~~too~~ turned dark" = *Cymbella*
helvetica = *C. piceolum* W. Gr.?

533 (Salt marsh at Haverford ^{over a year} - ok 393)

Surirella amphioseya - food - Nitzsch's
flame! - *Scutone elongatum*, var. fusilla

534/Hull

OK. 328

Nitzschia vivax ^{vibrio PN/see +} Thauronei cruciata
gracilis, Thauronei cruciata.

*See S. 721, & 591

S.

535 (*Sidmorella* *mijsbultii*)
aeneum, Adriatic (young)
Rhabdonema adriaticum - Lignier, Gaiellou.
 • and maxima (large - as in 579 & 589)
Graemistaphon lurida me! *Podocete mombayi*
 (see F.V.)

535^{*} a few slides were gl with much of a. ad. riv. in!

536. / S. 2 mouth - from Christopher M. Bullen

Podocet. montagnii - below F.V. 100 - also
Abaddom arcuata, *adriatic* - V - a - in 535

Nearly crude - for burning on covers, & bulbs and

537 (Blaphan. ^{Yonkshin} _(= baccharis w. g.) C. J. I.)
Paricula *Sitta* *N. S.* - *Cocconem* *cistula*
Synedon *radiana*. —

This does not like burned on the cover, and
the belained - as there is ^{diligent} much ^{del} in the
water

S.

538 (Dumfries House, Ayrshire Mr. Macdonald)
Ephemeris turgida! Lorenz & Gibbs, ventricum

539 (near Ventnor, Isle of Wight J. J. Norman)
 Grammatophen ~~marine~~ ^{marine} ~~var. (three species)~~
 (as in S. 307) ~~serpentine~~ ^{serpentine} ~~(thin)~~ ^(thin) ~~Cichon~~
 longipes, Synedra ^{with 2 or 3 in each}
 but the middle 2 three about 5 or 6 in 1001, Pidothra
 nic. Zehnhafer (very scarce)

540 (Side of Excavation at Woolwich, some feet below
 the Thames high water mark; the water permeating
 through the clay, at the entrance of a new Dock.

- J. J. Norman - 29 Aug. 1857
 with Mel. Luffus S.V. and L. Bulligianus Small
 by Chittell  Var. 
 Nitzsche 0 (minute - as N. Jernale)
 and from S. Line &c.

birds
 F. Mr. J. G. N. Hunter & Ed. Mitchell Van

S

541 (same as last -
 as in last

J. J. Norman 29.8.57

finer parts, crude.

Some Pidothra from S. 21 has accidentally got mixed in this and S. 540

542 (Lewer W.S. 1853)
Pacillaria paradoxica

for burning on coals & balsa

543 (Boracisk water, Lamlash - 29 July 57)
Navicula humerosa, *Ampelisca* ~~leptodonta~~?
~~leptodonta~~ didyma - *menora marum* W.G. F.V.

heavy parts - for light in mesh -
 for crude in S23

S

544 (Mackish water, Lough Linn - N. July 1857)
N. t. 24 *lith. acicular* high with
meridional *marinus* *gus.*
shorter *leaf* (and *N. pale* var?) - *Fragil. th. 18*
small (?) *Cyclotella* *gus.* in 3.540, *navicula*
humerosa, *Fragil. long.*
 Light parts of leaf - for crude see 523

545 (among *Marchantia polym.* in stream of *Gowran*,
 A. H. - 19:57)
Himantidium gracile

546 (Mackish water, Boston, Linsellshire - D.
menon - 9:57: "A. 2."
Pleurosigma *Spencer*, *navicula* *crispata*
cephala

crude

S

547 (among moss, on *Thies* in Pulney mountains
 Penins. of E. India -
Orthosia *spuriola* ?

548 (among moss, on top of well, near Partock
 19:57)
Pinnularia *boeckii*

549 (among moss 39. from *Trees* in Peninsula of
 E. India - (Bridgford?)
Orthosia *spuriola* ?? (very cuttable from
 with close *anulus*) *Pinn. boeckii*, *Nitz*
sulphurea, *Nav. mutica* ? (Hauer. *Sem.*
thub.) *Achnanthes* *ventricosa* *thub.* from

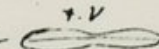
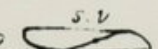
S

550 / ^{letter, D. Moore}
~~at Leland~~ at herb Harvey sub nom
 "Cymbella cymbelliformis")
 Epithemia hypnorum, Othosia arenaria
 Coccothraux cymbelliformis small var.

551 (Gourack ^{in m. l. ...}) 10:57. AM)
 Cymbella Scotica var. very juv.
 Navicula trivialis

552 (Gourack - on top of a Plane Tree. Elev. 200 ft.)
 Orthocentra ~~sp.~~ mirabilis

S

553 (Penzance rocky washing shore sand
 Oct. 1857. L. Delft)
 Amphipron ^{+v}  ^{sv}  - Pinnularia
 cypripedium var? (capitate)! Navicula retusa
 cent. irregularis Greg.

for covers - (for balsam see S. 509)

554 (Tegonmouth (Netherland) Oct 1857. R. Cypripedium
 Pinnularia peregrina and var? not 2nd
 bilobata, Achnanthes subsepta

555 (On a rock, among lichens. at Goatfield, N. Lock, Fife,
 10:57. AM.)
 Himantidium Solerian? (in the normal
 state - and in that the internal septa)

556 (S. Andrews. East Bay - 3:10:57)
Schizoneura implicatum?

for crude see 539

557 (S. Andrews, on clad. *superba* 29:9:57)
Schizoneura laciniata? *Synedra* -
 - - - (as in nest)

for crude see 540

558 (S. Andrews, Bathing place 29:9:57)
Synedra parva K3 ~~not~~ three very fine
 about 4:5 in 001. Frassum in form.

for crude see 541. This *Synedra* seems the
 same? as 66.

559 (S. Andrews Bathing place 29:9:57) -
Schizoneura maritima?

Stipes incorporated as in *S. maritima*
 found on an alga in salt water pools with the rocks
 but *Diabrotica vulgata* was mixed

560 (S. Andrews - Bathing place 29:9:57)
Synedra ^{parva K3} *jaillonii*, *superba*, - ~~not~~ (as
 in 5.558)

561 (Tents ⁽⁴⁾ *maui*, S. Andrews, among *Lynx* by ferrying. 1:10:57)
Pimularia cyprinica (examine) - *Haricula*
Westii? *Achnanthes subdeflexa*

lighter density of nest.

- heavy density of lurch

- 563 (Prof on Elm at Abercorn, W. Lothian - 10:57)
Orthosia mirabilis (grand) - narrow
 mutica? fr

- 564 (mostly on Elm at Millport, Centre 22:10:57)
orthoser. moribund, spinose, navicular fusell
mutica. *Pinnulatum brevis* (plenty). -
(little or no Hitz. amphiosys)

- 565 (Washed from sand, near Miltport, Ambra 22:10:
 amphipr. ^{var} *Rafes*, (same as in 3.553)
~~microscopical~~ *Dont* ~~microscopical~~ *microscopical* *microscopical*
Pleuroniscus *clavicornis* - *Nav. Helfferich*
brun *gr.* - *Sp. m. m. m.*
Luminesc. fraction *dis. m.* - *N. 2. T. ad. m.*
cor. m. d. *m. p. d. m. gr.* - *Nav. rectangula* *m. s.*
rotund. d. m. - *Th. Pleur. m. m.*
~~*fr. m. m. m.*~~ *fr. m. m. m.* *fr. m. m. m.*
~~*fr. m. m. m.*~~ *fr. m. m. m.* *fr. m. m. m.*
- 566 (Sidmouth on Gelid. corneum with Cullen
^{mic. corn}
Grammatophora tropica *St. (Coul., as 579)!*
Podophora *Chenopodium* *sever*

- 567 (Baen- Prof. Chauvin)
 "Frustralia anceps" - Nit Zsch.
 something marked S. 567⁶ ^{ingr and} mentioned
 on the cover

Fr. anther of *Helix* is united by him to *Synedon* *harv.* but that seems composed of two species - one a *Synedon* - the other a *Helix*.

S

568 (Penzance - Freshwater L. Ralph)
Homoecladia signata ?

569 (Berlin Depot - Kützeng - see Ehrlich. Mill
 Feb. 14)
Orthocentrus pinnatus Ehrlich (= *Gallierella* Gram.
lutea, meridiana, decussata Ehrlich) - do.

570 (Berne D. R. J. Schmidt)
Diatoma ~~gla~~ *Ehrlichii*

S.

571 (Leignemont, on wood of Harbour, New R. Crispell)
Amphipleura inflet -

crude

572 (New Zealand, from wots of Janie
Grammatophora ~~crude~~ ^{undulata} ^{angulata} ^{hamulifera} ^{from}
Cruciatidiscus - *Dactylois* ^{from} ^{Balli}
Eupleuria ocellata ^{W. C. & P. M. C.}
Abdomen - (came from - ^{from} ^{Balli} ^{of Polyzoni})

572² *Eupleuria* ^{from Polyzoni's Harveya (notable)}
 572³ *crude* - (notable)

573 (New Zealand, from Balli. callitrich) ^{from Balli. callitrich}
Eupleuria
~~*Grammatophora*~~ *ocellata* ^{W. C. - Gram.}
 - mat. *Grammatophora* ^{angulata} ^{Ehr}

for crude see 572g
 mixed in a small thing ☐ and unlike -
 little *Hemantidum*, but with nodules - an

S

574 (New Zealand - no 3879 D. Harvey)
Synedra Gaillonii B. Kütz

575 (Van D. Land no 1893 (George Town) D. Harvey)
Grammatophora macilenta Sm?

~~576 (New Zealand - no 3879 D. Harvey)~~
 576 (New Zealand - F. Water? 2194)
Melosis = *subflescia* Kütz? (vice Smith)

This has the char. of *M. varnam*, but the oper-
 -cul appearance of *M. subflescia*.
 * calained - dry: for cover (distilled water)
 * a balsam

S

577 (New Zealand F. Water? 2194)
Melosis

Collected in and

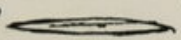
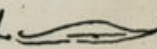
578 (New Zealand - F. Water 3832)
Synedra ulna var - *Cocconeum cistula* var.
achnauthidium lanceolatum (small?)

579 (Murray Bay, N. Shore of Lawrence, Nip. Bay 6)
Synedra affinis. - *Podopheum* - *Luigiensis*?
 (stages very delicate). *Melosis* - numerous
 (with the lateral flange of hilus) and sporangial
 state (*M. dubia* Kütz). Denticulate?
 (minute)

very slightly bilobed - requires blue balsam
 a cover or slide, before being balsamed

S

580 (Cumbriae - dredged - 10.57 - heavy)
Pleuronisma stigosum?

581 (Cumbriae - dredged - 11.57 - light)
 Cumbriae - Navicula?  - less occurs
Pleur. stigosum and an anomalous det. 
 - also, but very rarely, *Ampelisca* ^{Ralfsen} (S. 565)

582 (Mof of Elms near Sumpfen 11.57)
Pinnularia - local chiefly, *Orthosira*
spinosa, *mirabilis*, *Navicula* *truncata*? - (rare)

S

583 (Newland OK. 413)
Achnanthes longipes var. *valis acumin-*
-nata! (*A. brevipes* Kütz) *Grammatophora maci-*
lenta and *subtilifera* (only vent). *Synedra*.

(as in S. 558, and 66). *Schizom. Gravellei* Frust.
 scarcely boiled: requires to be calcined - heavy.

584 (Newland OK. 413⁴)
Grammatophora macilenta and *subtilifera*
Achnanthes longipes var. *acuta* - *Synedra*
parva. (as in S. 558) - *Schiz. Gravellei* Frust.
 much boiled - heavy - fit for bedding

585 (Newland OK. 413⁶)
Synedra parva Kütz (as in S. 558) - *Grammatophora*
macilenta and *subtilifera*. *Achnanthes longipes*
 var. *acuta*!

light parts - ready for to allan

S

586 (Haldon, near Teignmouth - A.C. 11.77)

Pinnularia hemiptera - 1

587 (^{Bartholomew} ~~Katfield~~, Lancashire 10 June 1852 Geo Smith)
Campylodiscus speciosus! (abundant)
 often 2 or 3

To be put on very thick, as it is very dirty

588 (From moor off - Tree near station for S. 225)
Himantidium bidentatum - *Navicula fusca*
schizanthidium excavatum

589 (From moor off - Tree near station for S. 225)
Himantidium bidentatum - *Navicula fusca*
schizanthidium excavatum

S.

589 (Perryance)

OK. 426

same as S. 553, but dirtier, some more
 boiled in acid, and for balsam - S.V. of
Nav. retusa are sometimes 50!

590 (Minehead, Somerset Miss J. Gifford)
Nitzschia tenuis! *Pleurosigma speciosum*!
 4.

same as 555, but boiled ~~in acid~~

591 (Minehead, Somerset Miss J. Gifford)
 same as last, but coarser, and
 with more of *Typhlonella Scutellum*?
 (perhaps *T. gracilis* var?) - Nitzschia from very
 recent

5

592 (Sands on Ulverston Mf. & Mf.)
Amphomyia

593 (Kotzebue Sound D. Harvey)
Synon affinis Podoser - Hemmides large
Crepidodina ^{franklini} ~~franklini~~
[= *Hyalozonus subtilis* (Sp.) and small - *Phabdoma*
choyeri ~~choyeri~~ ^{choyeri} ~~choyeri~~
arcuatus (Fr.)

594 (Petro-paulovski Bay, Katschichin D. Harvey)
(same as last but with the Podoser)
Phab. arcuatus var (*P. corymbosus*)

5

595 (New Zealand on T. W. edge
Epithemia v. sh

see 5. 632

596 (Chiric (Perry) Guam Mr. Kennedy)
^(Anticardinalis Paul?)
Eupodis ~~arcuatus~~ ^{arcuatus}
arcuatus

Harvest
for the Perry Guam Dec 1832 1841

597 (Chiric (Perry) Guam Mr. Kennedy)
Spatangus v. 7

L. 1841

598. a few blades of a second washing from other alga

Mentzelia

Some slides marked 599⁺ are from an inferior preparation
in slide 609

600 (Dawlish Warren Rev. R. Crispwell)
Cucumis ^{*coccineus*} *cern* ^{*retusa*} *Detor.*, *am* *Var* *pro* *Ralfs*
Narcissus ^{*retusa*} *pectinatus* (= *Pinnatus*), *Smithii*, *Lamarckii*.
Lilium (= *N. vittata* *Detor.*), *retusa*. *Stauron*
Jellicottii *L.V.* (= *Narcissus* ^{*auriculatus*} *Detor.*), *Comphor.*
Denticul. *Stauron*, *name*.

* In the Strauss is  not deferred as in the German

601 (South African Greens - C. F.
Euphorbia ^{*concolor*}
Aulacodiscus Petersii, *Camptotheca ornata*,
Tricostema confusum, *Grammatophyllum undulata*,
~~the~~
 601* same but not so good

602 (Calvados 1852 M. Detreb/Jan)
Epithemia constructa Detreb/ (non Sm.) [=]
E. Westermanni var. Sm. (non Kütz.) [Loret, gibb]

603. (Cherbourg - 1857 - Mr. A. B. B. B.)
"Cosmosidera costaricensis?" = *Euphorbia*
subtilis Gray? but still very distinct in bulb
after boiling in acid! - see Campylo. Hedera

§.

604/ Mexican Guano. (Tandus)
Euphorbia (Heterangium arabin. Licor)
variable for

This contained a large percentage of ~~Carboniferous~~ ^{Carboniferous} ~~limestones~~ ^{limestones}, sand
stone and seems to have been an outlier. The article con-
sisted of these, and a very little Permian Granite

605 (Pilling Rev. Mr. Barnister per C.J.)
Pleurasioma Fasciata, angulatus, quadratus
littoralis. Hippocampus (small var.)... In situ
genum de

all easily solv'd in $\frac{1}{2}$ if dry.

606 (Depart from Ardèche - A. Brezysan²⁵¹)
 "Melosira decussata *β* ordinata Kütz." = *Gallionella*
marcella Sh. = *Orthosira marcella*

607 (Falaise - M. DeBulifon)
Amphib. - exiles

608 (~~Fabaceae~~ Chuborg-
Luricelle crumena M. L. B. B. B.)

609 ¹ ~~Platos or Californ~~ ^{not a new bird, but light feet, horned} ~~Guano~~ ^{bird} (C. L. F. W.)
609 ² ~~Guano~~ ^{bird} (C. L. F. W.)

and ^{majority} in with 5 & 6 negroes - for cenah
his opn - Bodreph. ^{2nd floor} Luonay / Bacter wash
fungate & Enfructu, ^{kingdom of} among the ^{Memphis} light parts
O Caricure sculpture and penitance?

+ ~~1~~ *For. Amphitetra* ~~and~~ *franchetii*
L. *Biddulphi* ~~as before~~

S

- 610 Great meols, Cheshire T. Bomber Es)
Navicula (same as in 1332139)
 also nov. small. & resembling - *Hauvonen*
Nitzschia virgata n.s.

- 611 (Plantago Bay, Jamaica, Washington of Zoophytes N.Y.)
Gucconeis punctatula Grunth. n. - and *Pithella*
ornata, *Pedocypris americana*

Some F.W. *Epithemia*s not washed further taken by Dr. Grunth.

- 612 (Tasmanian Bay - Cornwall - G. Norman)
Eupodiscus pelagicus, *Tayl. canaliculatus*

From the stomach of *Pecten maximus*

This was said to contain *Spatangus* or *flabellula*
 but none has been seen by me in this

S.

- 613 (Swansea, Waterfall, Valley near OK. (722) 431)
Epithemia argus - *Navicula* ~~scutellata~~ (few)
Microgasteroides bidentatus, *Denticula* ~~scutellata~~ (few)

- 614 (Swansea - light parts of S. 613 OK. 431)
Navicula ~~scutellata~~ ^{tabida n. 6}, *Denticula* ~~scutellata~~ ^{leptus}, *Cocconeis*
Thwaitesii

- 615 (Swansea new the last OK. 722) 432
Navicula ~~scutellata~~ ^{argus}, *Epithemia* ~~scutellata~~ ^{scutellata}, *Epithemia* ~~scutellata~~ ^{scutellata}, *Gibba* n.

+ aspect of *Epithemia* good, as 6 p. 2 of char.
 but not of *Epithemia*, which has no posterior end
 and is not the same as *P. Zebra* - see S. 621
 The aspect of *Epithemia* is better

5.

616 / Swanson

OK 429

Synedr. ~~tenax~~ deformis, lunaris and distorted
var. ff

617 / Swanson

OK 429

Protophyta mexicana

618 / Swanson

OK 429

Protophyta mexicana

620 / Swanson

OK 429

Protophyta mexicana

Protophyta mexicana

621 / Swanson

OK 429

Protophyta mexicana

For the average density see 657.

412
 and maculate
 mammatiform butting some, and
 (scarcely)

same as S 559, but much less
 regularly maculate
 slightly, etc.

413
 and maculate
 mammatiform butting some, and
 (scarcely)

Swansea

414 Swansea
 Epithemia glabra (not of the species)
 Epithemia glabra, Cyclotella kützingeri

very rich

415 Swansea Bog
 Sigmodon pulchella, Odontidium Tabellariae
 O. multiloba (Smith)

very rich

416 Swansea Bog
 Sigmodon pulchella, Odontidium Tabellariae

417 Swansea Bog
 Sigmodon pulchella, Odontidium Tabellariae

rather scarce
 seen well suited in herpetic

S.

628 / Swanderland D. F. Millicott)
 Hydroids compressed. in the form of a
 tuqueton - Achroanthus ventricosus, Navicula
 pusilla.

629 / Swansea Dock. O.K. O.K. 63
 amphipod crustaceans, amphipod hydra (very scarce)
 Melosira numerous deep dividing

crust

630 / New Zealand, off Ball's Bay. C. J. F. off alga C. J. F.
 Alacodiscus (near formatus) very rare
 Biddulphia, Euplexura pulchella
 and var. (C. J. F., not S. 637) or n. sp., Coscinodiscus

Slides not all uniform as they were prepared from various
 bottles, the residue of which from 6.630

S

631 / New Zealand - off Ball's Bay. collitricha C. J. F.
 Gocconeis caelata n. sp. Euplexura collitricha,
 Grammatophora v. sp. amphitetractis (one again)
 — (rather plenty - see S. 573)

632 / New Zealand - F. Water? (off Ball's Bay C. J. F.)
 Epithemia v. sp. v. sp.
 nearly the same as S. 595, but more mixed

633 / New Zealand C. J. F.
 orthocera orichalcea, Monasterium portulacae
 lunatic? (near Monasterium portulacae) - amphitetractis
 on a Phr. (the amphitetractis, when this was found as mixed
 ought this to be on cover & label as mixed
 a little of S. 628 got mixed

S

634 (Swand. Dock 7. Okla OK 465^a)
Prunularia Johnsoni, *Schizoneura* (large
 and siliceous) - Sch² n of 1 (large anthers
 construct vas)

635 (Hfracomb
 Cornwall) (Ralf, for OK. 405)
Tetracyclus lacustris, *Himantidum* peduncul
odontidum mesodon, *Tabellaria flocculosa* and
fractata etc

crude

636 (Victoria Dock Hall G.N. 25¹⁰² + OK-367 (a small quantity)
 Amm. curvica, Nit 2. lignum (white lignum)
 Lobl. granula lignum)
 OK 367 was from Drury Coats, down from a. 497
 but was accidentally mixed with G.N. 25¹⁰² from hull from
 the Blue Mar term - where OK-367 was nearly the
 same as G.N. 25¹⁰² (S. 497) but with more of Nit 2. lignum, and of white

S

637 (New Zealand - C.T.)
aulacodiscus (as in S. 630) *Coscinodiscus*
Cocconeus - *Euplexis*
Himantidum - 2
 nearly, but not quite the same as S. 630¹⁰² the
 aulacod. here.

638 (New Zealand C.T.)
Cocconeus v. sp. 1-2
Coscinodiscus

639 (Lyxemont - A. Taylor m. 3/4)
Nav. pectinatus sub. *Barley* etc
 (more in mud bottom for S.V. of Red. part
 1 see 630 for a better supply)

S

6110 (Stomach of cystine. Hule is N)
Rhizosolenia oliviformis, Gr.

641 (New Zealand, mountains 150 m. from Christchurch P.M.)
Epithemial of
Symphonema
(must be same as 5.595).

662 (Side of Loch Tay - Perthshire. B. Norm. m 70)
Gomphonema vorticolum, geminatum

see 365254

3. 3. 1861 Back ^{West Dale}

~~651~~ 651 Bidston marsh. J.C. Aug 58
 Fragil. caprea or { ⁶⁴⁵ Fragil. with mud with some of red }
 651 Southport Sands) W. G. G. m.
 Hawson, full belly, w. w. / no Hawson /
 651 Southport Sands) T. G. G. m.

Empties

Piem. aprun.

Phittheria cuneata, Dub (non Sw). *Mastoglyria laxus*
 Wb, Nilz. on in 1860. Survivell Brightwell-ya?

Milzschin!

W.F. 39

and linear) Sur. By itself v. 1 / many on in last

651 ~~1845~~ 1846 North See last page
for whole family L.S. 77

6-2 of Ball's Hot Tank S. M. G. 21.1.50

4. 10 min. for 1st spec. on 307 & 356
but type is strongly developed for the habit of 1st spec.
b. 1. 1st spec. on 307 & 356

65 Jan 20th L Station Salt Lake City

Coccone larum, Synchr. uln

Stream at Church - ^{Stratton Falls} ~~Waltham~~ L M B
bordered. Tabula, Verrucaria, muscled, mosses, etc.

656 (Great Hunt, West N. H.)

5. *Enallagma cyathigerum* L.

658 / 1897 / 1898 / 1899 / 1900 / 1901 / 1902 / 1903 / 1904 / 1905 / 1906 / 1907 / 1908 / 1909 / 1910 / 1911 / 1912 / 1913 / 1914 / 1915 / 1916 / 1917 / 1918 / 1919 / 1920 / 1921 / 1922 / 1923 / 1924 / 1925 / 1926 / 1927 / 1928 / 1929 / 1930 / 1931 / 1932 / 1933 / 1934 / 1935 / 1936 / 1937 / 1938 / 1939 / 1940 / 1941 / 1942 / 1943 / 1944 / 1945 / 1946 / 1947 / 1948 / 1949 / 1950 / 1951 / 1952 / 1953 / 1954 / 1955 / 1956 / 1957 / 1958 / 1959 / 1960 / 1961 / 1962 / 1963 / 1964 / 1965 / 1966 / 1967 / 1968 / 1969 / 1970 / 1971 / 1972 / 1973 / 1974 / 1975 / 1976 / 1977 / 1978 / 1979 / 1980 / 1981 / 1982 / 1983 / 1984 / 1985 / 1986 / 1987 / 1988 / 1989 / 1990 / 1991 / 1992 / 1993 / 1994 / 1995 / 1996 / 1997 / 1998 / 1999 / 2000 / 2001 / 2002 / 2003 / 2004 / 2005 / 2006 / 2007 / 2008 / 2009 / 2010 / 2011 / 2012 / 2013 / 2014 / 2015 / 2016 / 2017 / 2018 / 2019 / 2020 / 2021 / 2022 / 2023 / 2024 / 2025 / 2026 / 2027 / 2028 / 2029 / 2030 / 2031 / 2032 / 2033 / 2034 / 2035 / 2036 / 2037 / 2038 / 2039 / 2040 / 2041 / 2042 / 2043 / 2044 / 2045 / 2046 / 2047 / 2048 / 2049 / 2050 / 2051 / 2052 / 2053 / 2054 / 2055 / 2056 / 2057 / 2058 / 2059 / 2060 / 2061 / 2062 / 2063 / 2064 / 2065 / 2066 / 2067 / 2068 / 2069 / 2070 / 2071 / 2072 / 2073 / 2074 / 2075 / 2076 / 2077 / 2078 / 2079 / 2080 / 2081 / 2082 / 2083 / 2084 / 2085 / 2086 / 2087 / 2088 / 2089 / 2090 / 2091 / 2092 / 2093 / 2094 / 2095 / 2096 / 2097 / 2098 / 2099 / 2100 / 2101 / 2102 / 2103 / 2104 / 2105 / 2106 / 2107 / 2108 / 2109 / 2110 / 2111 / 2112 / 2113 / 2114 / 2115 / 2116 / 2117 / 2118 / 2119 / 2120 / 2121 / 2122 / 2123 / 2124 / 2125 / 2126 / 2127 / 2128 / 2129 / 2130 / 2131 / 2132 / 2133 / 2134 / 2135 / 2136 / 2137 / 2138 / 2139 / 2140 / 2141 / 2142 / 2143 / 2144 / 2145 / 2146 / 2147 / 2148 / 2149 / 2150 / 2151 / 2152 / 2153 / 2154 / 2155 / 2156 / 2157 / 2158 / 2159 / 2160 / 2161 / 2162 / 2163 / 2164 / 2165 / 2166 / 2167 / 2168 / 2169 / 2170 / 2171 / 2172 / 2173 / 2174 / 2175 / 2176 / 2177 / 2178 / 2179 / 2180 / 2181 / 2182 / 2183 / 2184 / 2185 / 2186 / 2187 / 2188 / 2189 / 2190 / 2191 / 2192 / 2193 / 2194 / 2195 / 2196 / 2197 / 2198 / 2199 / 2200 / 2201 / 2202 / 2203 / 2204 / 2205 / 2206 / 2207 / 2208 / 2209 / 2210 / 2211 / 2212 / 2213 / 2214 / 2215 / 2216 / 2217 / 2218 / 2219 / 2220 / 2221 / 2222 / 2223 / 2224 / 2225 / 2226 / 2227 / 2228 / 2229 / 2230 / 2231 / 2232 / 2233 / 2234 / 2235 / 2236 / 2237 / 2238 / 2239 / 2240 / 2241 / 2242 / 2243 / 2244 / 2245 / 2246 / 2247 / 2248 / 2249 / 2250 / 2251 / 2252 / 2253 / 2254 / 2255 / 2256 / 2257 / 2258 / 2259 / 2260 / 2261 / 2262 / 2263 / 2264 / 2265 / 2266 / 2267 / 2268 / 2269 / 2270 / 2271 / 2272 / 2273 / 2274 / 2275 / 2276 / 2277 / 2278 / 2279 / 2280 / 2281 / 2282 / 2283 / 2284 / 2285 / 2286 / 2287 / 2288 / 2289 / 2290 / 2291 / 2292 / 2293 / 2294 / 2295 / 2296 / 2297 / 2298 / 2299 / 2300 / 2301 / 2302 / 2303 / 2304 / 2305 / 2306 / 2307 / 2308 / 2309 / 2310 / 2311 / 2312 / 2313 / 2314 / 2315 / 2316 / 2317 / 2318 / 2319 / 2320 / 2321 / 2322 / 2323 / 2324 / 2325 / 2326 / 2327 / 2328 / 2329 / 2330 / 2331 / 2332 / 2333 / 2334 / 2335 / 2336 / 2337 / 2338 / 2339 / 2340 / 2341 / 2342 / 2343 / 2344 / 2345 / 2346 / 2347 / 2348 / 2349 / 2350 / 2351 / 2352 / 2353 / 2354 / 2355 / 2356 / 2357 / 2358 / 2359 / 2360 / 2361 / 2362 / 2363 / 2364 / 2365 / 2366 / 2367 / 2368 / 2369 / 2370 / 2371 / 2372 / 2373 / 2374 / 2375 / 2376 / 2377 / 2378 / 2379 / 2380 / 2381 / 2382 / 2383 / 2384 / 2385 / 2386 / 2387 / 2388 / 2389 / 2390 / 2391 / 2392 / 2393 / 2394 / 2395 / 2396 / 2397 / 2398 / 2399 / 2400 / 2401 / 2402 / 2403 / 2404 / 2405 / 2406 / 2407 / 2408 / 2409 / 2410 / 2411 / 2412 / 2413 / 2414 / 2415 / 2416 / 2417 / 2418 / 2419 / 2420 / 2421 / 2422 / 2423 / 2424 / 2425 / 2426 / 2427 / 2428 / 2429 / 2430 / 2431 / 2432 / 2433 / 2434 / 2435 / 2436 / 2437 / 2438 / 2439 / 2440 / 2441 / 2442 / 2443 / 2444 / 2445 / 2446 / 2447 / 2448 / 2449 / 2450 / 2451 / 2452 / 2453 / 2454 / 2455 / 2456 / 2457 / 2458 / 2459 / 2460 / 2461 / 2462 / 2463 / 2464 / 2465 / 2466 / 2467 / 2468 / 2469 / 2470 / 2471 / 2472 / 2473 / 2474 / 2475 / 2476 / 2477 / 2478 / 2479 / 2480 / 2481 / 2482 / 2483 / 2484 / 2485 / 2486 / 2487 / 2488 / 2489 / 2490 / 2491 / 2492 / 2493 / 2494 / 2495 / 2496 / 2497 / 2498 / 2499 / 2500 / 2501 / 2502 / 2503 / 2504 / 2505 / 2506 / 2507 / 2508 / 2509 / 2510 / 2511 / 2512 / 2513 / 2514 / 2515 / 2516 / 2517 / 2518 / 2519 / 2520 / 2521 / 2522 / 2523 / 2524 / 2525 / 2526 / 2527 / 2528 / 2529 / 2530 / 2531 / 2532 / 2533 / 2534 / 2535 / 2536 / 2537 / 2538 / 2539 / 2540 / 2541 / 2542 / 2543 / 2544 / 2545 / 2546 / 2547 / 2548 / 2549 / 2550 / 2551 / 2552 / 2553 / 2554 / 2555 / 2556 / 2557 / 2558 / 2559 / 2560 / 2561 / 2562 / 2563 / 2564 / 2565 / 2566 / 2567 / 2568 / 2569 / 2570 / 2571 / 2572 / 2573 / 2574 / 2575 / 2576 / 2577 / 257

7 Susan A. Allen - Tuesday

1. *... ..*

§

223 (Green Park, January 1855 D. Gray C. 132)

"Achnanthes lanceolata." (n. 10)

224 (Haverfordwest F. O'Keeffe) O.K. 36

Naiade cryptoccephala var *angusta*?

225 (Haverfordwest F. O'Keden sk. 78)

Merodon circulare; *Chrysanthidium lan-*
-cescens.

crude. The soft forming on slides
and then mounted in balsam

- 228/Cantyre Pearl, ^{all}~~medium~~ density)
 . otherwise : Surfer. noble
 (both scarce) Epithemic Byrdman

- S. 659 South Fork Sand - light f. sand - H. n. trichos (H.)
hang same as per Crispwell
- S. 660 [Loren Water, Peab., comelin] Pinn. lte, vinda B
- S. 661 [Swansea dock - Ok. 436"] amphora . Pinned-grass:
Teph. apic. bristly 7-628.
- S. 662 [Vale 1 night, Swanish ok. 630) Amphor. minutiflora ?
end - for bristly den 570]
- S. 663 [Swanish
for end den 632] Schizom. ramsd. punctata
- S. 664 [Walter Price, Hull G.N. 117] N. th. tener Cyprip. fol.
small Pleur. attenuat., Staur. gracilis -
very clear
- S. 665 Hornsea Peab.-Deford n. Hull - G. N. 144
- S. 666 Allos. humilid. Cyclot. rotund., Staur. acuta / n.
Teph. Scutella & Gracilis.
- S. 666 Mull Pond cyste Bay, N York G. N.
... ..
S. 667 } Green water, Deford West 1/2 way west of sea wall
} long narrow
}
}
S. 668 }
}
}
S. 669 }
}
}
S. 670 }
}
}
- S. 671 [Greenfield River Polywell G.M. Brown] Campylodiscus
[Cochlearia p. th. hemisphaerica] Pleurost. locustae Cocca tenuis L.
- S. 672 [Bromfield Harv, Cambridge S.M. Bone] Gonophore Genes!
Cyclotella helvetica?
- S. 673. Wall at end of Great Fleet Rutland S.M. Bone) Surirella
cutis! Lychnis minutiflora!
- S. 674 [South Horsham Key, W. End G. N. Bone) a great many
fine good Coccos cuticle & lanceolate ad Pleur. ...
Centricula, aculeo, etc.
- S. 675 [Queen Elizabeth, Ryeon - m. meggy
Lychnis
... ..
... ..
- S. 676 very light of S. 668 for 2 grains new record of

[illegible]

~~S. 64~~²
 S. 66 Hb. p. 110 with
 a new list of names
 given
 3 370 (140)

Those in the
of any but certainly
Brown and my.

1000000
 5. + 1164
 12 25 2100000 310
 10 317
 320
 320
 400 357
 +80 93 383
 53 202
 156 455
 156 472
 177 481
 178 480
 181 485
 200 513
 205 520
 213 5
 214 + 6 1/6 quite gone