

www.e-rara.ch

On the periodicity of the Aurora borealis

Lovering, Joseph

[Erscheinungsort nicht ermittelbar], 1868

ETH-Bibliothek Zürich

Shelf Mark: Rar 15798

Persistent Link: <https://doi.org/10.3931/e-rara-87924>

General catalogue of Auroras.

www.e-rara.ch

Die Plattform e-rara.ch macht die in Schweizer Bibliotheken vorhandenen Drucke online verfügbar. Das Spektrum reicht von Büchern über Karten bis zu illustrierten Materialien – von den Anfängen des Buchdrucks bis ins 20. Jahrhundert.

e-rara.ch provides online access to rare books available in Swiss libraries. The holdings extend from books and maps to illustrated material – from the beginnings of printing to the 20th century.

e-rara.ch met en ligne des reproductions numériques d'imprimés conservés dans les bibliothèques de Suisse. L'éventail va des livres aux documents iconographiques en passant par les cartes – des débuts de l'imprimerie jusqu'au 20e siècle.

e-rara.ch mette a disposizione in rete le edizioni antiche conservate nelle biblioteche svizzere. La collezione comprende libri, carte geografiche e materiale illustrato che risalgono agli inizi della tipografia fino ad arrivare al XX secolo.

Nutzungsbedingungen Dieses Digitalisat kann kostenfrei heruntergeladen werden. Die Lizenzierungsart und die Nutzungsbedingungen sind individuell zu jedem Dokument in den Titelinformationen angegeben. Für weitere Informationen siehe auch [Link]

Terms of Use This digital copy can be downloaded free of charge. The type of licensing and the terms of use are indicated in the title information for each document individually. For further information please refer to the terms of use on [Link]

Conditions d'utilisation Ce document numérique peut être téléchargé gratuitement. Son statut juridique et ses conditions d'utilisation sont précisés dans sa notice détaillée. Pour de plus amples informations, voir [Link]

Condizioni di utilizzo Questo documento può essere scaricato gratuitamente. Il tipo di licenza e le condizioni di utilizzo sono indicate nella notizia bibliografica del singolo documento. Per ulteriori informazioni vedi anche [Link]

Dr. G. R. Noyes translates these verses thus :

“ Men cannot look upon the light,
When it is bright in the skies,
When the wind hath passed over them and made them clear,
And a golden brightness cometh from the sky, —
But with God is terrible majesty.”

On this passage Dr. Noyes has made these comments in a note :

“ *And a golden brightness* : literally *gold* ; — *from the sky* : literally, from the North. Hence some have supposed the northern lights, or aurora borealis, to be referred to. But it is more probable that the Northern, or upper hemisphere, stands for the whole firmament here, as in Chap. xxvi. 7. I suppose the reference is to the dazzling brightness reflected from the skies when the sun is in the meridian. The light, mentioned without any special application, seems naturally to refer to the light of the sun. This light also dazzles the eye more than that of the aurora borealis.”

GENERAL CATALOGUE OF AURORAS.

- | | |
|---|--|
| <p>B. C.
502. Obsequens,¹ Lycosthenes,² and Frobos.³
465. Livy, Obsequens, Frytschius,⁴ Frobos.
“ Lycosthenes, Chasles,⁵ Boguslawski.
463. Livy, Obsequens, and Lycosthenes.
“ Frobos, Chasles, and Boguslawski.
461. Obsequens, Lycosthenes, Frobos,⁶ and Chasles.
460. Lycosthenes, Chasles, Boguslawski.⁷
443. <i>Athens</i>. Nihusius,⁸ Frobos.
394. Pliny,⁹ Calvisius,¹⁰ Frobos.
350. Frytschius,¹¹ Frobos, Chasles, Lycosthenes.
334. <i>Egypt</i>. Lycosthenes, Frobos,¹² and Chasles.
237. <i>Thuscia</i>. Lycosthenes,¹³ Frobos, and Chasles.
223. <i>Thuscia</i>. Obsequens and Lycosthenes.
“ Frytschius, Frobos, Chasles, and Bogusl.
217. <i>Rome, Sicily, Præneste</i>. Obsequens.
“ Livy, Lycosthenes,¹⁴ and Frobos.</p> <p>¹ De Prodigis, Cap. IX.
² Prodigiorum ac Ostentorum Chronicon, p. 70.
³ Nova et antiqua Luminis atque Auroræ Borealis Spectacula.
⁴ Catalogus Prodigiorum.
⁵ Compt. Rend., XII. 499. Nouv. Mém. de l'Acad. Brux., XV. 51.
⁶ Boguslawski says they were in the years 463, 461, and 460.
⁷ Pogg. Ann. Bd. XC. Ergänzungsband IV. p. 62. Livy, III.
⁸ De Divinatione Sacra et Profana, Lib. VII. Cap. VII.
⁹ Historia Nat. Mundi, Lib. II. Cap. XXVII.
¹⁰ Opus Chronologicum.
¹¹ Pliny, Historia Nat. Mundi, Lib. II. Cap. XXVII.
¹² Vincentius, Speculum Naturale (?), Lib. V. Cap. LV.
¹³ He quotes Cassiodorus. Boguslawski gives the year 236.
¹⁴ Boguslawski gives the year 214.</p> | <p>B. C.
208. Lycosthenes,¹⁵ Chasles, and Boguslawski.
204. <i>Setia</i>. Livy and Obsequens.
“ Lycosthenes, Peucer,¹⁶ and Frobos.
203. <i>Anagnia</i>. Livy, Obsequens, Peucer, Frobos.
“ Lycosthenes, Chasles, and Boguslawski.
202. Nihusius and Frobos.
200. <i>Lucania</i>. Obsequens and Lycosthenes.¹⁷
“ Frobos, Chasles, and Boguslawski.
175. <i>Gabi</i>. Livy and Obsequens.
“ Lycosthenes and Boguslawski.
173. <i>Lanuvium</i>. Livy, Obsequens, and Frobos.
“ Lycosthenes and Boguslawski.
169. <i>Anagnia</i>. Obsequens and Lycosthenes.
“ Peucer, Frobos, and Boguslawski.
168. Seneca, Lycosthenes, and Frobos.¹⁸
167. <i>Lavinium</i>. Obsequens, Lycosthenes, and Frobos.
166. <i>Lanuvium</i>. Obsequens and Lycosthenes.
“ Frobos and Boguslawski. ?
163. <i>Capua. Formia</i>. Obsequens.
“ Lycosthenes, Frobos, and Boguslawski.¹⁹
162. <i>Anagnia</i>. Obsequens and Lycosthenes.
“ Frobos and Boguslawski.
136. <i>Præneste</i>. Obsequens, Lycosthenes, Peucer.</p> <p>¹⁵ He quotes Diodorus Siculus, VII. 161. Bibliothecæ Historiæ, Lib. XVI.
¹⁶ Commentarius de Præcipuis Divinationum Generibus, p. 345.
¹⁷ Boguslawski gives the year 197.
¹⁸ Maccab. Bk. II., Ch. 5, verses 2 and 3. Edin. New Phil. Journ., XLVII. 148.
¹⁹ Boguslawski gives the year 160.</p> |
|---|--|

136. B. C. Nihusius, Frobes, and Boguslawski.
 133. Nihusius and Frobes.
 128. Obsequens, Lycosthenes, Frobes.
 113. Obsequens, Lycosthenes, and Frobes.¹
 103. *Ameria*. Obsequens and Lycosthenes.
 " *Tudertum*. Frobes and Boguslawski.²
 94.? *Vesta*. Obsequens and Lycosthenes.
 " Frobes and Boguslawski.
 93. *Vulsinum*. Lycosthenes.
 " Frobes and Boguslawski.
 92. Obsequens and Lycosthenes.
 " Frobes and Boguslawski.
 63. Obsequens, Lycosthenes, Frobes, Boguslawski.
 17.? Obsequens, Lycosthenes, and Frobes.
 14. A. D. Seneca,³ Frobes.
 " Lycosthenes, Wolfius.⁴
 20.? Seneca, Frobes.⁵
 27.? Fincelius, Liebknecht,⁶ and Frobes.
 31.? Seneca,⁷ Frobes.
 50. Lycosthenes, Frobes.
 65. April 8. *Jerusalem*. Lycosthenes, Frobes.⁸
 72. May 21. Chasles.⁹ [Doubtful.]
 162. Lycosthenes and Chasles.
 196. Lycosthenes and Frobes.
 384. Lycosthenes and Frobes.
 394. Pilgram.¹⁰ [Probably a comet.]
 397.? Pilgram.
 400. Lycosthenes and Frytschius.
 " Frobes and Chasles.
 402. Frytschius and Frobes.
 412.? Lycosthenes and Chasles.
 450. Pilgram.
 451. Pilgram.
 454. Lycosthenes, Frytschius, and Frobes.
 " Pilgram, Chasles, and Boguslawski.
 462.? Lycosthenes and Frobes.
 480. Pilgram.
 488. *Berlin*. Pilgram.
 501. Aug. 22. *Edessa*? Frobes, Mairan,¹ Pilgram.
 541. Pilgram.
 552. Pilgram.
 555.² Lycosthenes and Boguslawski.
 556.? Lycosthenes and Boguslawski.³
 560. *Berlin*. Pilgram.
 563. Gregory,⁴ Quetelet,⁵ and Boguslawski.
 564. Frytschius, Tylkowsky,⁶ and Frobes.
 566.⁷ Pilgram.
 567.? Lycosthenes, Frobes, and Chasles.
 570. *Italy*. Frytschius, Lycosthenes.
 " Frobes, Pilgram and Chasles.
 577. Pilgram.
 580. *Paris*. Gregory. Lycosthenes.
 " Frobes, Pilgram and Perrey.⁸
 582. Pilgram and Perrey.
 583. Feb. 4. Frobes, Mairan,⁹ Pilgram, Acad. Coll.¹⁰
 584. Gregory, Frobes and Bertholon.¹¹
 585. July. Gregory, Mairan, and Pilgram.
 " Sept. x. Gregory, Mairan, and Pilgram.
 " " x. Gregory, Mairan, and Pilgram.
 " " x. Gregory, Mairan, and Pilgram.
 587. Gregory? Frytschius and Frobes.
 595. *Rome*. Tylkowsky, Liebknecht,¹² Frobes.
 602. Pilgram.
 603. Lycosthenes, Frobes, and Chasles.
 629. Pilgram.
 654. *France*. Frytschius and Frobes.
 673. Frytschius and Frobes.
 676. *Rome*. Frytschius, Lycosthenes, Frobes.
 677. Pilgram.
 752. Pilgram.
 765. Pilgram.
 775. Pilgram.

¹ Pliny, *Historia Nat. Mundi*. Lib. II. Cap. XXXIII.

² Pliny, *Historia Nat.* Lib. II. Cap. LVIII. (B. says 102.)

³ *Naturales Quaestiones*. Lib. I. Cap. 1.

⁴ *Lection. Memorab.* Cent. XIV. p. 14.

⁵ It is doubtful whether this was an aurora.

⁶ *Pharus sive de Prodigiiis Ignis Caelest.* p. 11.

⁷ Sub Tiberio Cesare cohortes in auxilium Ostiensis coloniae cucurrerunt tanquam conflagrantis. *Quaest. Nat.* I. 15. The same mistake was made at Copenhagen in 1731, and a hundred years later at Königsberg. It was again repeated at New Orleans in 1839, and in London in 1847. (See note 5, p. 20, right col.)

⁸ He quotes Josephus, *De Bello*. Lib. VII. Cap. 12.

⁹ Chasles quotes from Lycosthenes, but Boguslawski says he cannot find the passage.

¹⁰ *Untersuchungen über d. Wahrscheinliche d. Wetterkunde &c.*

¹ *Traité Physique et Historique de l'Aurore Boreale*, p. 180. Mairan places this aurora in the year 502.

² *Annals of Philosophy*, IX. 250. Matthews, p. 101.

³ He quotes Sigebertus in *Chronicon ab anno 381 ad 1113*.

⁴ *Gregorius Turonensis Historia Francorum*. Lib. IV. Cap. XXXI.

⁵ *Mém. de l'Acad. Bruxelles*, XV. 22.

⁶ *Physica Curiosa*, P. III. p. 246.

⁷ Frobes describes a *strange light* seen this year, but it was not probably an aurora.

⁸ *Compt. Rend.* XIV. p. 69.

⁹ Mairan quotes Gregoire de Tours. *Hist. de France*, Liv. VI. p. 299. From the description it appears to have been a meteor.

¹⁰ *Collection Academique*, P. Etrang. VI. 507.

¹¹ *Encyclopedique Methodique — Physique* I. 341.

¹² *Pharus sive de Prodigiiis Ignis Caelest.* p. 32.

778. Lycosthenes and Frobés.
 " Mairan, Pilgram, and Acad. Coll.
 786. Dec. Quetelet,¹ and Boguslawski.
 800. Frytschius and Frobés.
 803.? Lycosthenes, Frobés, and Chasles.
 806. Ado, Frobés, and Pilgram.
 807. Mar. 3. Bouquet, Pilgram, and Quetelet.
 808. Feb. 2. Lycosthenes, Frobés, Mairan,² and
 " " 2. Academical Collection.
 808.? Aug. 14. Academical Collection.
 827. Bouquet, Pilgram, and Quetelet.
 828. Pilgram.
 836. Pertz³ and Quetelet.
 839. Feb. Bouquet, Quetelet, and Boguslawski.
 " Mar. 30. Pertz, Quetelet, and Boguslawski.
 840. April 2. Bouquet, Pertz, and Pilgram.
 " " 2. Quetelet and Boguslawski.
 842. Mar. Bouquet, Pertz, Quetelet, Bogusl.
 " Mar. 18. Pertz, Bouquet, Quetelet, Bogusl.
 " May 6. Pertz, Bouquet, Quetelet, Bogusl.
 " x. Rome. Tylkowsky. Frobés.
 848. Dec. 2. Pertz, Bouquet, Quetelet, Bogusl.
 849. Jan. 2. Pertz, Bouquet, Quetelet, Bogusl.
 855. Oct. 17. Pilgram.
 859. Aug. Leibnitz,⁴ Frobés, Mairan, Pilgram.
 " Sept. Leibnitz, Frobés, Mairan, Pilgram.
 " Oct. Leibnitz, Frobés, Mairan,⁵ Pilgram.
 861. Mar. 10. Bouquet, Pertz, Quetelet, Bogusl.
 869. Pilgram.
 870. Bouquet,⁶ Quetelet, Pilgram, Boguslawski.
 871. Aug. 14.⁷ Lycosthenes, Frytschius, Frobés.
 " " 14. Mairan, Chasles, Boguslawski.
 917. Bouquet, Quetelet, and Boguslawski.
 918. Feb. 7. Bouquet, Duchesne,⁸ Quetelet, Bogusl.
 919. Feb. 7. Pertz, Quetelet, and Boguslawski.
 927. March. Quetelet⁹ and Boguslawski.
 930. Feb. 19. *France*. Lycosthenes, Mairan, Frobés.

¹ He quotes Bouquet. *Recueil des Historiens des Gaules*, III. 139 et V. 72.

² Mairan thinks it uncertain whether this appearance was in 808 or 809. *Traité*, p. 190.

³ Quetelet quotes his *Monumenta Germaniæ Historiæ*, II. 226.

⁴ *Miscellanea Berolinensia ad Incrementum Scient.* I. 137.

⁵ Mairan quotes the *Annals of St. Bertin* for the Luminous Phenomena of this year. Boguslawski ranks them as star-showers.

⁶ Pendant plusieurs nuits le ciel est rouge comme du sang : &c.

⁷ This is the date to which Mairan reduces IV. Idus Aug.

⁸ *Historiæ Francorum Scriptores*. III. 474.

⁹ He quotes Reiffenberg. *Mém. de l'Acad. Brux.* VII. 63.

930. Feb. 19. Acad. Coll. Chasles, Boguslawski.
 937. Feb. 14. Bouquet, Duchesne, Pertz, Quetelet.
 940.? Dec. Bouquet, Quetelet and Boguslawski.
 956. Sept. 7. Frobés,¹ Mairan and Acad. Coll.
 970. Lycosthenes, Pilgram, and Boguslawski.²
 978. Oct. 28. Frytschius, Frobés, Mairan,³ and P.
 979. Nov. 2. Lycosthenes, Wolffius, and Frobés.
 Zahn, Mairan,⁴ Acad. Coll. and Quetelet.
 992. Oct. 21. Pilgram.
 " Dec. Calvisius and Mairan.
 993. Jan. 6. Short⁵ and Mairan.
 " Dec. 26.⁶ Leibnitz, Frobés, Mairan, Pilgram.
 998. Dec. 19. Lycosthenes, Frobés, Mairan, Acad.
 1014. Nov. 2. Frytschius, Frobés, Mairan, Acad.
 " Dec. 29. Boué,⁷ and Acad. Coll.
 1039. April 12. Lycosthenes, Frobés, Mairan.
 " Pilgram, Acad. Coll. and Chasles.⁸
 1041. Frytschius and Frobés.
 1093. Jan. 13. Pilgram.
 1095. Feb. 24. Godin,⁹ Mairan, and Pilgram.
 1096. Mar. 9. Wolffius, Frobés,¹⁰ and Mairan.
 " " 9. Pilgram and Acad. Coll.
 1098. Sept. 29. Ingram¹¹ and Pilgram?
 " Oct. 3. Lycosthenes, Frobés, Mairan, Acad.
 1099. Mar. 2. Lycosthenes, Frobés, Mairan, Acad.
 1104. Frytschius, Lycosthenes, Frobés.
 1105. Dec. 29. Short, Mairan, and Acad. Coll.
 1106. Feb. 19.¹² *Italy*. Lycosthenes, Frobés, Mairan.
 " " 19. Pilgram, Acad. Coll. and Quetelet.
 1114. Frytschius and Frobés. (Doubtful.)
 1115. April 24. Lycosthenes, Frobés, Mairan, Acad.
 1116.¹³ Lycosthenes, Frobés, Pilgram, and Chasles.
 1117. Feb. 22.¹⁴ *Liege*. Lycosthenes and Frobés.

¹ Baluzius. *Chronic. Floriar.* p. 305.

² This is the appearance which Frobés assigns to the year 971.

³ Mairan (p. 191.), quotes *Le Chronique Hirsaugiense* de l'Abbe Trithème. The date here given is probably in *old style*.

⁴ Mairan quotes the *Chronique de Liechtenaw*. (Urspergensis.) The original date is V. Kal. Nov.

⁵ A General Chronological History of the Air, Weather, etc. II. 178.

⁶ Probably *Old Style*.

⁷ *Sitzungsberichte der Kaiserl. Akad. Wien.* XXII. 13.

⁸ Boguslawski is probably correct in not regarding this as an aurora.

⁹ *Mém. de l'Acad. Paris*, 1723, p. 296. The date is probably in *old style*.

¹⁰ In *Chronico Urspergens.* (Liechtenaw,) pp. 240 et 245.

¹¹ The Saxon Chronicle. pp. 317-8.

¹² This was a star-shower and not an aurora.

¹³ We may doubt with Boguslawski whether this was an aurora.

¹⁴ In *Chronico Urspergens.* (Liechtenaw,) p. 274.

1117. Feb. 22. Mairan, Pilgram, and Acad. Coll.
 " Nov. x. Short.
 " Dec. x. Short.
 " " 16. Ingram. [Saxon Chronicle. p. 338.]
 1117. Dec. 26. *Palestine*. Lycosthenes and Frobes.¹
 " Mairan, Acad. Coll. Chasles, Boguslawski.
 1118. Jan. 13. Pilgram.
 " Dec. 19. Lycosthenes, Mairan,² and Boué.
 1120. *Leodium*. Lycosthenes, Frytschius, Frobes.
 1122. Dec. 7. Ingram.
 1132. Jan. 11. Ingram.
 1150. Pilgram.
 1157. Lycosthenes, Frobes, and Pilgram.
 " Chasles and Boguslawski.
 1180. Pilgram.
 1188. Dec. 20. *Canterbury*.³ Gervasius.
 1192. Pilgram.
 1193. Jan. Short.
 " Feb. Short.
 " Nov. Short.
 1200. Aug. 19. Baluzius,⁴ Frobes, Mairan, Acad.
 1203. April 1. Pilgram, Pfaff,⁵ Boguslawski.
 1204. Pilgram.
 1251. Frobes.⁶
 1262. Pilgram.
 1269. Dec. 13. Lycosthenes, Cromerus,⁷ Frobes.
 " " 13. Mairan, Acad. Coll. Boguslawski.
 1280. Frytschius and Frobes.
 1307. Mar. 6. Lycosthenes, Frobes, and Mairan.
 " " 6. Acad. Coll. Chasles, Boguslawski.
 1309. ? Lycosthenes, Chasles, and Bogusl.
 1325. May 30. *Florence*.⁸ Frobes, Mairan, Acad.
 1351. Dec. Lycosthenes, Frobes,⁹ and Pilgram.
 or 2. " Chasles and Boguslawski.
 1352. Oct. 30. Franciscus, Frobes, Mairan, Acad.
 1353. Aug. 19. Franciscus, Frobes, and Mairan.
 " " 19. Pilgram and Acad. Coll.
 1354. Mar. 9. Lycosthenes, Franciscus Frobes.

¹ Compt. Rend. VII. 709.² Mairan quotes this example from Lycosthenes, but it is probably the same as the aurora of Dec. 26, 1117. *Traité &c.*, p. 192.³ Splendor magnus visus est in Cantuariâ nocte mediâ XIII. Kal. Jan. Twysden's Decem. Scriptorum. I. 1538.⁴ Miscellan. Chronicon Cremonense. Lib. II. 307.⁵ Württemberg Jahrbuch für Vaterland. Geschichte. 1850. I. 80.⁶ Mairan does not rank this among the auroras.⁷ De Rebus Gestis Polon. Lib. IX. This is the same aurora as Boué ascribes to Dec. 6.⁸ Franciscus. Der Wunderreiche Ueberzug unsrer Nieder-Welt &c.⁹ See *Traité de l'Aurore Boreale* par Mairan, p. 183.

1554. Mar. 9. Mairan and Acad. Coll.
 1361. Dec. 12. Pilgram.
 1375. Frytschius, Lycosthenes, and Frobes.
 " Chasles and Boguslawski.
 1399. Pilgram.
 1437. Mar. 16. Pilgram.
 1446. Feb. 5. *Lenzburg*, &c. Lycosthenes, Frobes.¹
 " " 5. Mairan, Acad. Coll. and Boguslawski.
 1461. July 23. Mairan² and Pilgram.
 1465. Nov. 18. Mairan and Pilgram.
 1499. May 30. *Lucerne, Switz.*, Lycosthenes.
 " " 30. Frobes, Mairan, and Acad. Coll.
 1514. Jan. 22.³ Lycosthenes, Frobes, Mairan, Acad.
 1518. Jan. 3. *Saxony*. Lycosthenes.
 " " 3. Frobes, Mairan, and Acad. Coll.
 1518. x. Cromerus and Frobes.
 1520. Sept. 13. *Vienna and Erfurt*. Lycosthenes.⁴
 " Frobes, Mairan, Pilgram, Acad. Coll. Bogusl.
 " Dec. 2. Frobes, Mairan, and Acad. Coll.⁵
 1527.⁶ Aug. 11. Boué.
 " Oct. 20. *Westrich*. Lycosthenes, Frobes.
 " " 20. Mairan, Pilgram,⁷ and Acad. Coll.
 " Dec. 11. Boué.
 1529. x. *Ulyxibona*. [*Lisbon?*] Nihusius, Frobes.
 " Jan. 18. *Germany*. Lycosthenes, Meurerus.
 " Frobes, Mairan, Acad. Coll. Boguslawski.
 1531. *Lisbon, Portugal*. Lycosthenes.
 " Frobes and Boguslawski.
 1532. *Innsbruck*. Lycosthenes, Frobes,⁸ Pilgram.
 1534. June 12. *Schleswig, Holstein*. Lycosthenes.
 " Finceleus, Frobes,⁹ Mairan, and Acad. Coll.
 1535. May 26. *Lausitz*. Lycosthenes, Frobes.
 " " 26. Mairan, Acad. Coll. Boguslawski.
 " x. *Weimar*. Lycosthenes, Nihusius, Frobes.

¹ On this phenomenon Frobes remarks: "Dubium equidem, nisi fallor, propter ipsius narrationis conditionem, videtur, debeatne pro *Aurora Boreali*, an pro *Tempestate quidam sonora et fulgurante* haberi, quorum hic mentio sit, nocturna cæli spectacula."² This date, probably in *old style*, is from the *Chronique de Louis XI.*, p. 12.³ This was not probably an aurora.⁴ Weidler. *Commentat. de Aurora Boreali*, p. 64.⁵ Urstisius *Annal. Bas. Lib. VII. C. 9.* and Wagner. *Historia Nat. Helvetiæ Curiosa.*, p. 363.⁶ Ejusmodi visa (acies in cælo dimicantes) scribit Melancthon in Germania ab anno 1524 ad 1548 sæpissime spectata. Tylkowsky. *Physica Curiosa. P. III.*, p. 176.⁷ In Pilgram and the Acad. Coll. the date is Oct. 11.⁸ Fincelius. *De Miraculis. Jonston. Thaummatographia Natur. Class. III. Cap. 12.*⁹ Teubner. *De Armorum Militumque Simulacris, &c.*

1536. Feb. 16. *Spain*. Fincelius, Lycosthenes.
 " " 16. Frobés, Mairan, and Acad. Coll.
 1537. Feb. 10. *Italy*. Fincelius, Lycosthenes, &c.
 " " 10. Frobés, Mairan and Acad. Coll.
 1538. *Germany*. Lycosthenes, Frobés,¹ Pilgram.
 1541. Jan. 3. *Germany*. Lycosthenes, &c.
 " " 3. Frobés, Mairan, and Acad. Coll.
 1542. *Wurtemberg*. Lycosthenes, Wolffius.
 " Frobés and Boguslawski.²
 1543. May 13. *Pfortzheim*. Lycosthenes, Frobés.
 " " 13. Mairan, Acad. Coll. Boguslawski.³
 1545. Feb. x. *Saxony*. Lycosthenes, Boguslawski.
 " April 7. *Poland*. Lycosthenes, Franciscus, &c.
 " " 7. Frobés, Mairan, and Acad. Coll.
 1546. Feb. 19. *Meissen*. Lycosthenes, Frobés.
 " " 19. Mairan, Acad. Coll. Boguslawski.
 " *Hungary*. Fincelius, Franciscus, Liebknecht.
 1547. July 31. *Helvetia*. Lycosthenes, Fincelius.
 " " 31. Frobés, Mairan, and Acad. Coll.
 " Oct. 10. *Saxony*. Lycosthenes, Fincelius.
 " " 10. Frobés, Mairan, and Acad. Coll.
 1548. Nov. 15. *Saxony*. Decimator,⁴ Milichius.⁵
 " " 15. Frobés, Mairan, and Acad. Coll.
 1549. April. *Padua*. Toaldo.⁶
 " Sept. 30. Kirch, Mairan, and Acad. Coll.
 1551. Feb. 6. *Lisbon*, Lycosthenes, Frobés.
 " " 6. Mairan, Acad. Coll. Boguslawski.
 " Sept. 11. Kirch, Mairan, and Acad. Coll.
 " Oct. 1. *Wittemberg*. Eberus,⁷ Schmidt.
 " Frobés, Fincelius, Mairan, and Acad. Coll.
 1554. Feb. 10. *Chalons*. Lycosthenes, Frytschius.
 " " 10. Frobés, Mairan, and Acad. Coll.
 " Aug. 2. *Bohemia*. Frytschius, Lycosthenes.
 " " 2. Mairan, Pilgram, and Boguslawski.
 " Aug. 14. *Stolpen*. Lycosthenes, Fincelius, B.
 " Aug. 21. Kirch, Mairan, and Acad. Coll.
 1555. Mar. 22. *Thuringen*. Lycosthenes, Frobés.
 " " 22. Mairan, Acad. Coll. Boguslawski.
 " Sept. 2. Kirch, Mairan, and Acad. Coll.
 1556. Jan. 20. *Bavaria*. Lycosthenes, Frobés.
 " " 20. Mairan, Acad. Coll. Boguslawski.
 " Sept. 14. *Cüstrin*. Fincelius and Lycosth.
 " " 14. Mairan, Pilgram, Acad. Coll. B.
1557. Mar. 26. *Voigtland*. Lehmann.
 " " 26. Frobés, Mairan, and Acad. Coll.
 " Dec. 4. *Italy*. Franciscus.
 " " 4. Frobés, Mairan, and Acad. Coll.
 1560. Feb. 11. *London*. Halley,¹ Pilgram.
 " *Bohemia and Saxony*. Thompson,² Boguslawski.
 " April 19. Kirch, Mairan, and Acad. Coll.
 1561. Jan. 6. *Switzerland*. Maraldi,³ Pilgram.
 " *Germany*. Acronius, Wagner, Frobés,⁴ A. Coll.
 " Jan. 6.⁵ Kirch, Mairan, and Acad. Coll.
 " " 7. *Zurich, Switzertand*. Wolf.⁶
 " Mar. 8. *Eisleben*. Frobés, Mairan, A. Coll.
 " " 13. Kirch, Mairan, and Acad. Coll.
 1562. *Germany*. Frytschius, Frobés.⁷
 1563. Jan. 23. *Zurich*. Wolf.
 " Feb. 4. *Zurich*. Wolf.
 1564. Feb. 27. Gemma.⁸ Kirch, Mairan, Pilgram.
 " Sept. 9. Kirch, Mairan, and Acad. Coll.
 " Oct. 16. *England*. Camden, Stow,⁹ Thomp.
 " " 16. Gemma, Frobés, Mairan, Acad. Coll.
 " Nov. 6. Kirch, Mairan, and Acad. Coll.
 " " 7. *Zurich*. Wolf.
 1565. Dec. 5. Olai,¹⁰ Celsius,¹¹ Mairan, Acad. Coll.
 " " 5. *Germany*. Garcaeus,¹² Frobés.
 1567. Feb. 16. Kirch, Mairan, and Acad. Coll.
 " April 26. Kirch, Mairan, and Acad. Coll.
 1568. April 4. *Franconia. Lausitz*. Rivander.
 " " 4. Frobés, Mairan, and Acad. Coll.
 " April 11. *Franconia. Lausitz*. Rivander.
 " " 11. Frobés, Mairan, and Acad. Coll.
 " Oct. 4. Gemma, Mairan, and Pilgram.
 1569. Jan. 4. *Franconia. Lausitz*. Rivander.
 " " 4. Frobés, Mairan, and Acad. Coll.
 " Mar. 20. *Zurich*. Wolf.
 1571. Mar. 12. Kirch, Mairan, and Acad. Coll.
 " " 13. Kirch, Mairan, and Acad. Coll.
 " " 14. Schmidt, Lehmann, and Frobés.

¹ Phil. Trans. No. 347. Vol. XXIX., p. 417.

² Annals of Philosophy, IV. 427.

³ Mém. de l'Acad. 1721, p. 242.

⁴ Mairan gives this erroneously as Jan. 6, 1560.

⁵ Mense Decembri late per Germaniam ante solis ortum ignis fulsit adeo, ut plurimi ex oppidis et villis auxilio vicinis suis undique occurrerent, quod eorum domos conflagrare arbitrentur. Boguslawski. Pogg. Ann. Ergänzungsband IV. nach Band XC.

⁶ Vierteljahr. Zurich, I. 196.

⁷ Rivander. In Chron. Dierum Festorum II. 5.

⁸ De Prodigiousa Specie Utraque Cometae, &c., p. 42.

⁹ A General Chronicle of England, p. 658.

¹⁰ Calend. ad annos 1588 et 1589.

¹¹ Präfat. Observationum de Lumine Boreali.

¹² Meteorologia.

¹ Maiolus. Dierum Canicularium, Colloq., I. 32.

² Cardan. De Dæmon.

³ Schmidt. In Chron. Cygn., II. 337. Lehmann. In Chron. Misn., p. 399.

⁴ Epit. Meteor., p. 27.

⁵ Commentar. in Plinium. p. 209.

⁶ Rozier. Journ. de Phys., &c., XXIV. 7-8.

⁷ Calendario Histor., &c. Multi crederent ardere vicinum pagum Teucheln.

1571. Mar. 14. Kirch, Mairan,¹ and Acad. Coll.
 " " 30. Pilgram.
 1572. Jan. 22. Kirch, Mairan, and Acad. Coll.
 " Jan. 27. *Zurich*. Wolf.
 " Mar. 11. Kirch and Mairan.
 " " 12. Kirch, Mairan, and Acad. Coll.
 " " 13. Kirch, Mairan, Pilgram, Acad. Coll.
 " " 14. Kirch, Mairan, and Acad. Coll.
 " April 26. *Constantinople*. Frobes, M'n., A. C.
 1573. Jan. 1. *Befort*. Berk, Frobes, and Mairan.²
 " Feb. 6. Gemma, Mairan, and Pilgram.
 " " 16. *Zurich?* Wolf.
 " " 23. *Zurich?* Wolf.
 " April 9. *France*. Scheuchzer.
 " " 9. Frobes, Mairan, and Acad. Coll.
 " " 21. Kirch, Mairan, and Acad. Coll.
 " Nov. 28. *Liefland, Russia*. Frobes, M'n., A.
 1574. Jan. x. Gemma, Mairan, and Pilgram.
 " Aug. 30. *Zurich*. Wolf.
 " Nov. 24. *England*. Camden,³ Stow.
 " " 24. Frobes, Mairan, and Acad. Coll.
 " " 25. *England*. Camden, Stow,⁴ Kirch.
 " " 25. Frobes, Mairan, and Acad. Coll.
 " Dec. 28. *Zurich*. Wolf.
 1575. Feb. 23. *Brabant*. Gemma, Frobes, Mairan.
 " " 23. Pilgram, Acad. Coll. Thompson.
 " Oct. 8. *Zurich*. Wolf. Gemma.
 " " 8. Gemma, Frobes, and Thompson.
 " " 8. Kirch, Mairan,⁵ and Acad. Coll.
 1576. Jan. 1. *Zurich*. Wolf.
 " " 2. *Zurich*. Wolf.
 " Feb. 27. *Zurich*. Wolf.
 " June 4. *Zurich*. Wolf.
 " Dec. 4. *Zurich*. Wolf.
 " " 15. *Zurich*. Wolf.
 " " 16. *Zurich*. Wolf.
 " " 17. *Zurich*. Wolf.
 " " 18. *Zurich*. Wolf.
 1577. Dec. 28. Kirch, Mairan, Moestlin,⁶ Acad. Coll.
 1580. Mar. 16. *Baknang, Wurtemberg*. Moestlin, F's.
 " " 16. Mairan, Pilgram, and Acad. Coll.
 " April 16. *Wurtemberg*. Moestlin, Frobes, M'n.
 " " 16. Halley, Pilgram, and Acad. Coll.
 " " 19. *Wurtemberg*. Moestlin, Frobes, M'n.
 " " 19. Halley, Pilgram, and Acad. Coll.
 1580. Sept. 5. Boué.
 " " 20. *Wurtemberg*. Moestlin, Frobes, M'n.
 " " 20. Halley, Kirch, Pilgram, Acad. Coll.
 " Oct. 1. *Wurtemberg*. Moestlin, Frobes, M'n.
 " " 1. Halley, Pilgram, and Acad. Coll.
 " " 11. Kirch and Mairan.
 " Dec. 20. *Zurich*. Wolf.
 " " 26. Halley, Mairan, Moestlin, Pilgram.
 1581. Jan. 5. *Wurtemberg*. Moestlin, Frobes, M'n.
 " " 5. Halley, Pilgram, and Acad. Coll.
 " " 17. *Germany*. Frobes, Kirch, Mairan.
 " Feb. 26. *Wurtemberg*. Moestlin, Frobes, M'n.
 " " 26. Halley, Pilgram, and Acad. Coll.
 " April 12. Kirch, Mairan, and Acad. Coll.
 " " 14. *Brabant*. Frobes, Mairan, Acad. C.
 " " 16. *Zurich*. Wolf, Kirch, Mairan, Acad.
 " Sept. 5. Kirch, Mairan, and Acad. Coll.
 " Oct. 24. *Zurich*. Wolf.
 " Nov. 18. Kirch, Mairan, and Acad. Coll.
 " " 24. Kirch, Mairan, and Acad. Coll.
 1582. Mar. 16. *Zurich*. Wolf. *Meissen*. Lehmann.
 " " 16. Frobes, Kirch, Mairan, Acad. Coll.
 " " 17. Kirch, Mairan, and Acad. Coll.
 " " 18. *Prussia*. Hennenberger.¹
 " " 18. Frobes, Kirch, Mairan, Acad. Coll.
 " April 10. *Zurich*. Wolf, Kirch, Mairan, Acad.
 " " 11. Kirch and Mairan.
 " Nov. 7. *Zurich*. Wolf.
 1583. Mar. 23. Kirch, Mairan and Acad. Coll.
 " " 30. *Zurich*. Wolf.
 " April 12. *Zurich*. Wolf, Kirch, Mairan, A. C.
 " Sept. 12. Kirch, Mairan and Acad. Coll.
 " Oct. 12. *Zurich*. Wolf.
 1584. Feb. 29. Kirch, Mairan, and Acad. Coll.
 1585. Dec. 5. Kirch, Mairan, and Acad. Coll.
 " " 22. Kirch, Mairan, and Acad. Coll.
 1586. Feb. 13. *Brandenberg*. Frobes.²
 " " 13. Kirch, Mairan, and Acad. Coll.
 1588. Jan. 5. *Upsal*. Celsius, Frobes, M'n., A. C.
 " Feb. 14. Hondorff, Frobes, Mairan, A. C.
 " " 15. Hondorff, Frobes, Mairan, A. C.
 " " 16. Hondorff, Frobes, Mairan, A. C.
 " Dec. 16. Kirch, Mairan, and Acad. Coll.
 1589. Jan. 12. Kirch, Mairan, and Acad. Coll.
 1590. Mar. 8. *Berne*. Wolf.
 " " 9. *Zurich*. Wolf.
 " April 12. Kirch, Mairan, and Acad. Coll.
 1591. Mar. 30. Kirch, Mairan, and Acad. Coll.

¹ This is given erroneously by Mairan as March 15.² Scheuchzer. *Biblioth. Scrip. Hist. Nat.* p. 75.³ *Rerum Anglicarum et Hybernicae Annales*, p. 263.⁴ A General Chronicle of England, p. 678.⁵ Mairan quotes this aurora from Frobes, as upon Sept. 28.⁶ *Consideratio et Observatio cometae aetherei*, &c.¹ Erklärung der Land-Tafel von Preussen.² Hondorffi *Calendarium Sanctorum*, &c., p. 102.

1592.	Mar.	29.	Frobes, Mairan, and Acad. Coll.	1623.	Jan.	17.	Kirch, Mairan, and Acad. Coll.
1593.	Oct.	24.	Kirch, Mairan, and Acad. Coll.	"	Feb.	18.	Kirch, Mairan, and Acad. Coll.
"	"	25.	Kirch, Mairan, and Acad. Coll.	"	May	13.	<i>Joachim, Bohemia.</i> Frobes, M., A. C.
"	"	26.	Kirch, Mairan, and Acad. Coll.	"	"	17.	Lehmann. Frobes, Mairan, and
"	"	27.	Kirch, Mairan, and Acad. Coll.	"	Nov.	17.	<i>Germany.</i> Kepler. ¹ [Acad. Coll.]
"	"	28.	Kirch, Mairan, and Acad. Coll.	"	Dec.	11.	Kirch, Mairan, and Acad. Coll.
"	"	29.	Kirch, Mairan, and Acad. Coll.	1624.	April	7.	<i>Joachim.</i> Lehmann, F., M., A. C.
"	"	30.	Kirch, Mairan, and Acad. Coll.	"	May	12.	<i>Anhalt.</i> Frobes, Mairan, Acad. Coll.
1596.	April	26.	Kirch, Mairan, and Acad. Coll.	"	June	7.	<i>Holland.</i> Franciscus.
1599.	Aug.	17.	Schmidt, Lehmann, F., M., A. C.	"	"	7.	Frobes, ² Mairan, and Acad. Coll.
1600.	Dec.	28.	Schmidt, Frobes, Mairan, and Acad.	1625.	Sept.	7.	Mairan, Short, and Acad. Coll.
1602.	June	20.	<i>Zurich.</i> Wagner, ¹ Frobes, Mairan.	"	"	17.	Kirch, Mairan, and Acad. Coll.
1603.	Sept.	17.	<i>Zurich.</i> Wagner, Frobes, Mairan,	"	"	30.	Mairan, Short, and Acad. Coll.
"	Nov.	6.	<i>Zurich.</i> Wolf. [Acad. Coll.]	"	Oct.	10.	Kirch, Mairan, and Acad. Coll.
1605.?	Nov.	17.	<i>Mayence.</i> Serrarius. ² Schmidt, F.	"	Nov.	3.	Kirch, Mairan, and Acad. Coll.
"	"	17.	<i>Paris.</i> ³ Mairan, Pilgram, and Acad.	1626.	Feb.	5.	Kirch, Mairan, and Acad. Coll.
"	Dec.	20.	<i>Mayence.</i> Serrarius. Pilgram.	"	May	28.	Kirch, Mairan, and Acad. Coll.
1606.	Sept.	13. ⁴	Frobes, Mairan, and Acad. Coll.	"	June	26.	Mairan, Short, and Acad. Coll.
"	"	15. ⁴	Frobes, ⁵ Mairan, and Acad. Coll.	"	Aug.	8.	Kirch, Mairan, and Acad. Coll.
1607.	Nov.	28.	Serrarius, ⁶ Frobes, Mairan, Acad.	"	Sept.	17.	Kirch, Mairan, and Acad. Coll.
1608.	Nov.	27.	<i>Kauffbeuren, Suabia.</i> Bernegger.	"	"	24.	Kirch, Mairan, and Acad. Coll.
"	"	27.	Frobes, Mairan, ⁷ and Acad. Coll.	1627.	Jan.	17.	<i>Joachim, Bohemia.</i> Lehmann.
1609.	Mar.	x.	<i>Lewwarden.</i> Nihusius. Frobes.	"	"	17.	Frobes, Mairan, and Acad. Coll.
"	"	11.	Academy's Collection.	"	"	21.	<i>Joachim.</i> Lehmann.
"	"	26.	Kirch, Mairan, and Acad. Coll.	"	"	21.	Frobes, Mairan, and Acad. Coll.
1612.	Aug.	6.	Kirch, Mairan, and Acad. Coll.	1628.	Jan.	x.	Kirch, Mairan, and Acad. Coll.
1614.	July	5.	<i>Basle.</i> Wagner, F's., M. and A. C.	"	April	27.	Pfaff. Boguslawski. ⁸ Boué.
1615.	Oct.	26.	<i>Paris.</i> La Motte le Vayer, Mairan,	"	"	30.	Pfaff. Boguslawski. Boué.
1621.	Feb.	3.	Acad. Coll. [and Pilgram.	"	Dec.	20.	Mairan, Short, and Acad. Coll.
"	Mar.	3.	Kirch and Mairan.	"	"	26.	Mairan, Short, and Acad. Coll.
"	Sept.	12.	<i>Zurich.</i> Wolf. <i>Neuchatel.</i> ⁸ Pilgram.	"	"	28.	Mairan, Short, and Acad. Coll.
"	"	12.	Liebknecht, Frobes, Kirch, Mairan,	"	"	30.	Kirch, Mairan, and Acad. Coll.
"	Sept.	22.	<i>France.</i> Gassendi. ⁹ [Thompson, A. C.]	1629.	Jan.	5.	Kirch, Mairan, and Acad. Coll.
"	"	22.	Frobes, Mairan, ¹⁰ and Acad. Coll.	"	"	11.	Kirch and Mairan.
"	Oct.	13.	<i>Zurich.</i> ? Wolf.	"	Mar.	x.?	<i>Meissen.</i> Jonston. ⁴ Frobes.
1622.	Jan.	24.	Kirch, Mairan, and Acad. Coll.	"	June	x.	<i>Zurich.</i> Wagner. Frobes.
"	June	10.	<i>Zurich.</i> Wolf.	"	Aug.	21.	Kirch, Mairan, and Acad. Coll.
1623.	Jan.	12.	Kirch, Mairan, and Acad. Coll.	"	Sept.	19.	Kirch, Mairan, and Acad. Coll.
"	"	16.	Kirch, Mairan, and Acad. Coll.	"	"	20.	Kirch, Mairan, and Acad. Coll.
				"	"	21.	Kirch, Mairan, and Acad. Coll.
				"	Oct.	1.	Mairan, Short, and Acad. Coll.
				"	"	2.	Kirch, Mairan, and Acad. Coll.
				"	"	16.	Mairan, Short, and Acad. Coll.
				"	"	26.	Kirch, Mairan, and Acad. Coll.
				"	"	29.	Mairan, Short, and Acad. Coll.
				"	"	30.	Kirch, Mairan, and Acad. Coll.

¹ E Suizeri Chron. Helvet., p. 125.

² Epistolæ ad John Kepler, &c., p. 350.

³ Journal du Regne de Henry IV. de P. de l'Etoile, II. 88.

⁴ Mairan takes both these dates from Frobes *unchanged*.

⁵ Frobes quotes, "Le Mercure François, &c., p. 82.

⁶ Acta Erudit. Leipsic, 1719, p. 8.

⁷ Mairan and Pilgram assign this aurora to Nov., 1607. *Traité* &c. p. 201.

⁸ Bull. de l'Acad. Brux. V., 283.

⁹ Oeuvres, II. 108.

¹⁰ Mairan places this aurora on Sept. 21. Frobes intimates that this and the preceding record refer to the same aurora.

¹ Thompson's Meteorology, p. 350.

² Baudartius, *Historia Eccles. et Polit. Lib. XVI.*

³ Württemberg Jahrbuch für 1850. I.

⁴ *Thaumatographia Naturalis*, &c.

1630. Feb. 3. *Joachim*. Lehmann.
 " " 3. Frobes, Mairan, and Acad. Coll.
 " " 4. *Spitzbergen*. Boué, Mairan, Acad.
 " " 4. *Tubingen*. Schickard, Frobes, Kirch.
 " June 18. Pfaff, Boguslawski, Boué.
 " " 19. Pfaff, Boguslawski, Boué. [bow.
 1732. Nov. 12.¹ *Paris*. Godin. *Copenhagen*. Horre-
 1633. May 28. Lehmann, Frobes, M., and A. C.
 " June 23. Lehmann, Frobes, M., and A. C.
 " Dec. 30. *Spitzbergen*. Zorgdrager.²
 " " 30. Frobes and Mairan. Acad. Coll.
 1634. Jan. 3. *Spitzbergen*. Zorgdrager.
 " " 3. Frobes, Mairan, and Acad. Coll.
 " Feb. 1. *Spitzbergen*. Zorgdrager.
 " " 1. Frobes, Mairan, and Acad. Coll.
 " " 11. *Wolckenstein*. Lehmann. Frobes. M.
 1637. Aug. 20. *Meissen and Bohemia*. Lehmann.
 " " 20. Frobes, Mairan, and Acad. Coll.
 1638. Jan. 6. *Meissen and Bohemia*. Lehmann.
 " " 6. Frobes, Mairan, and Acad. Coll.
 1640. Jan. 27. Lehmann, Frobes, Mairan, and
 1643. Nov. 8. Boguslawski.³ Boué. [Acad. Coll.
 " " x. *Saxony*. Franciscus, Lehmann, F.
 1644. Mar. x. *Annaberg, Saxony*. Lehmann, F.
 1645. April 27. *Dunkelspield*. Franciscus.
 " " 27. Frobes, Mairan, and Acad. Coll.
 1646. Nov. x. *Silesia*. Franciscus.
 " " x. Frobes, Mairan, and Acad. Coll.
 1650.? Jan. 17. *Basle*. Wagner.
 " " 17. Frobes, Mairan, and Acad. Coll.
 1654. Mar. 5. *Leipsic*. Franciscus.
 " " 5. Frobes,⁴ Mairan, and Acad. Coll.
 1655. July 9. *Poland*. Tylkowsky.
 " " 9. Frobes, Mairan, and Acad. Coll.
 1757. Jan. 13. Kirch, Mairan, and Acad. Coll.
 " April 13. *Meissen*. Lehmann.
 " " 13. Frobes, Mairan, and Acad. Coll.
 1660. Dec. x. *Hungary*. Lehmann. Frobes.
 1661. Jan. 30. *Glarus and Vadisvilla*. Wagner.⁵
 " " 30. Frobes, Mairan, and Acad. Coll.
 " April 16. *Prussia*. Schulzius. Franciscus.
 " " 16. Frobes, Mairan, and Acad. Coll.
 1662. Dec. 15. *Scheibenberg*. Lehmann.
 " " 15. Frobes, Mairan, and Acad. Coll.
 1663. Nov. 9. *Scheibenberg*. Lehmann.
1663. Nov. 9. Frobes, Mairan, and Acad. Coll.
 1664. April 18. *Scheibenberg*. Lehmann.
 " " 18. Frobes, Mairan, and Acad. Coll.
 1665. April 18. *Baltic Sea*. Scheffer. Franciscus.
 " " 18. Frobes, Mairan, and Acad. Coll.
 " Aug. 23. *Upsal*. Celsius. Frobes, Mairan,¹
 1666. Jan. 31. *Scheibenberg*. Lehmann. [A. Coll.
 " " 31. Frobes, Mairan, and Acad. Coll.
 1671. Nov. 29. *Bischofszell, Switz*. Wagner.
 " " 29. Frobes, Mairan, and Acad. Coll.
 1672. Jan. x. *Cracow*. Cromerus.
 " " x. Frobes, Mairan,² and Acad. Coll.
 1676? Feb. 3. *Zurich*. Frobes, Mairan, Acad. C.
 " Mar. 2.? *Zurich*. Frobes, Mairan, Acad. Coll.
 1677. Nov. 18. *Rostock*. Franciscus.
 " " 18. Frobes, Mairan, and Acad. Coll.
 " Dec. 12. *Annaberg, Saxony*. Lehmann.
 " " 12. Frobes, Mairan, and Acad. Coll.
 1680. Sept. 30. *Chemnitz*. Lehmann.
 " " 30. Frobes, Mairan and Acad. Coll.
 1682. Nov. 7. *Dantzic*. Hevelius.³
 " " 7. Frobes, Mairan, and Acad. Coll.
 " Dec. 15. *Meissen*.? Waldschmidt.⁴ Lehmann.
 " " 15. Frobes, Mairan, and Acad. Coll.
 1683. Jan. x. Frobes, Mairan, and Acad. Coll.
 " Aug. 22. *Germany*. Weigelius,⁵ Lehmann.
 " " 22. Frobes, Mairan, and Acad. Coll.
 1684. Mar. 28. *Meissen*. Lehmann.⁶
 " " 28. Frobes, Mairan, and Acad. Coll.
 " Nov. 23. *Meissen*. Lehmann.
 " " 23. Frobes, Mairan, and Acad. Coll.
 1685. April 26.? Lehmann, Frobes, Mairan, A. C.
 1686. Feb. 2. *Mittelheim*. Moeren.⁷ Frobes.
 " " 2. Mairan, Pilgram, and Acad. Coll.
 " June 1. Mairan, Short, and Acad. Coll.
 " July 19. Mairan, Short, and Acad. Coll.
 " Oct. 29. *Meissen*. Vulpius. Guettner.⁸
 " " 29. Frobes, Mairan, and Acad. Coll.
 1687.? ⁹ *Denmark*. Horrebow. Pilgram, Mairan.

¹ Encyc. Method. I. 453.² De Piscatu Groenland, Leipsic, 1723, p. 320.³ Schles. Chron., Nov. 12, 1841.⁴ Limner. De Nundin. Lips. Relat.⁵ This was probably a meteor.¹ Acta Lit. Sueciae. II. 50.² Mairan understands Frobes as meaning Jan. 1673.³ Acta Erudit. Leipsic, 1682, p. 391 et 1685, p. 141.⁴ Diss. Meteor. Ignei in Aere nuper conspecti, &c.⁵ Von der Wirkung des Gemüths, &c.⁶ This and the supposed aurora of Nov. 23 were probably meteors.⁷ Miscell. Curiosa. 1686. VII. 215. ?⁸ Acta Erudita et Curiosa. XX. 716.⁹ Cassini states that the aurora appeared at the end of June and continued till July 10. Encyc. Method. — Physique, I. 352. Also Traité &c. par Mairan, pp. 35 et 203.

1690.	Oct.	Short and Mairan.	1699.	June 26.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	Nov.	Short and Mairan.	"	July 23.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	Dec.	Short and Mairan.	"	July 26.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
1692.	April 12.	Frobes, Mairan, and Acad. Coll.	"	Aug. 14.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	May 22.	Lehmann, Frobes, ¹ Mairan, Acad.	"	" 19.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	Sept. 14.	<i>Breslau.</i> Grebner. ² Frobes.	"	" 21.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
1693.	Nov. 10.	Lehmann and Frobes.	"	" 22.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	" 10.	Mairan and Acad. Coll.	"	" 24.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	Nov. 22.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 26.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
1694.	Mar. 31.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 27.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	April 4.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	Sept. 16.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
1665.	Oct. 5.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 17.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	" 12.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 18.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	" 31.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 19.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	Nov. 20.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 21.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
1696.	May 12.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 22.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	Sept. 26.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 24.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	Nov. 6.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	Oct. 9.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	" 18.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 18.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
1697.	Aug. 18.	<i>Meissen and Holstein.</i> Lehmann.	"	" 21.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	" 18.	Frobes, Mairan, and Acad. Coll.	"	" 22.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
1698.	Feb. 24.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 24.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	" 26.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	Nov. 10.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	May 18.	Frobes, Mairan, and Acad. Coll.	"	" 15.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	Sept. 30.	<i>Rossa.</i> ³ Lehmann, Mairan, Frobes,	"	" 18.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	Nov. 15.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 21.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	" 27.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 23.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	Dec. 7.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 24.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	" 23.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	Dec. 14.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	" 28.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 15.	<i>Breslau.</i>	Grebner, Frobes, Mairan,
"	Jan. 3.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 17.	<i>Breslau.</i>	Grebner, Frobes, Mairan, ¹
"	Feb. 17.	<i>Breslau.</i> Grebner, Frobes, Mairan,	1701.		<i>Valencia, Spain.</i>	Rico. ²
1699.	Feb. 23.	<i>Breslau.</i> Grebner, Frobes, Mairan,	1702.	May 29.	<i>Abo, Finland.</i>	Jechonius. ³
"	" 25.	<i>Breslau.</i> Grebner, Frobes, Mairan,	"	" 29.	Frobes and Mairan.	
"	April 17.	<i>Breslau.</i> Grebner, Frobes, Mairan,	1704.		Pilgram.	
"	" 20.	<i>Breslau.</i> Grebner, Frobes, Mairan,				
"	" 21.	<i>Breslau.</i> Grebner, Frobes, Mairan,				
"	" 28.	<i>Breslau.</i> Grebner, Frobes, Mairan,				
"	June 18.	<i>Breslau.</i> Grebner, Frobes, Mairan,				

¹ Mairan places this by mistake on March 22. *Traite &c.*, p. 471.

² In *Diario Meteorol. Wratislav.* p. 7, &c. In regard to the numerous observations of supposed auroras recorded by Grebner, between 1692 and 1700, Frobes remarks: "Dubium est, fateor, noctemne insigniter serenam (quæ siderea vocari passim hic solet) an luminis borealis spectaculum aliquod noctis sublustris vocabulo auctor significaverit. Sed nolui tamen interim quamquam dubias observationes hasce prorsus omittere: ne scilicet curatius hoc quicquid rei est, explorandi ansam mihi atque aliis denegasse videar," p. 62. Acad. Coll. is omitted for want of room on Grebner's dates, and on Sept. 30.

³ Near *Freiburg.*

¹ Between 1700 and 1751, the *Collection Academique* appears to be merely a transcript from Mairan's catalogue of auroras, with occasionally an accidental error, mostly omissions. The auroras of Nov. x. 1709, and March x. 1711, are given as Nov. 11 and March 11. The auroras of April 11, 1716, April 10 and 11, 1717, of Oct. 11, 1718, of Feb. 11, 1719, of Feb. 11 and April 11, 1720, of Feb. 11, 1721, of Jan. 17, 1724, are all omitted. The auroras of May 1 and 3, 1728, are given as the aurora of May 13. An aurora on May 26, 1737, is interpolated, and the auroras of Nov. 26 and 30 of that year are omitted. The auroras which belong to March and April, 1741, are repeated for 1742, and the actual auroras of March, 1742, are omitted. Since the date of Mairan's catalogue, auroras are given for Feb. 4, 1759, at *Berlin* and *Freybourg*, and for Feb. 8, 1759, at *Paris*.

² *Mem. de l'Acad. Cienc. Madrid.* III. 77.

³ In dem Unvorgreiflichen Bedencken über das Zu Abau in Finland — am Himmel wahrgenommene Wunder-und Feuer-Zeichen.

1704.
Dec. 28. Frobés and Mairan.
1706.
Sept. or Oct. ——— Barret.¹
1707.
Feb. 1. *Copenhagen*. Roemer. Mairan.²
" 2. *Copenhagen*. Roemer. Boué.
" 12. Frobés and Mairan.
Mar. 1. *Copenhagen*. Roemer.³ Mairan.
" 6. *Berlin*. Kirch.⁴ Schomberg. Seidelius.⁵
" 17. Frobés and Mairan.
" 18. Frobés and Mairan.
" 20. Frobés and Mairan.
" 31. *Upminster*. Derham. *Ireland*. Neve.⁶
Aug. 16. Frobés and Mairan.
" 18. Frobés and Mairan.
Oct. 21. *Berlin*. Kirch. Mairan.
" 27. Frobés and Mairan.
" 29. *Berlin*. Kirch. Mairan.
Nov. 24. Frobés and Mairan.
" 27. *Berlin*. Kirch. *Ireland*. Neve.⁷
" 27. Mairan and Thompson.

1708.
Aug. 20. *London*. Halley.⁸ Mairan.
" 21. *London*. Halley.⁹
Sept. 15. *North Sea*, 66° *Lat*. Mairan.¹⁰
" 22. Frobés and Mairan.

1709.
Oct. 18. Frobés and Mairan.
Nov. x. Frobés and Mairan.
Dec. 19. Frobés and Mairan.

1710.
Sept. 17. *Paris*, *Vienna*, and *Pekin*.¹¹
Nov. 26. *Giessen*. Liebknecht. Mairan.¹²
" 26. *Leipsic*. Pilgram.
Dec. 7. Frobés and Mairan.

1711.
Mar. x. *Giessen*. Pilgram. Frobés and Mairan.

1714.
Oct. 15. Frobés and Mairan.

¹ Phil. Trans., XXVI. 310.

² Miscell. Berolin., I. 127-131.

⁴ Ibid., 132.

⁶ Phil. Trans., XXVI. 310.

⁸ Phil. Trans., XXIX. 419.

¹⁰ Bruyn's Voyages, V. 299.

¹¹ Boué quotes Frobés.

¹² Acta Erud., 1711.

³ Ibid., 131.

⁵ Ibid., 129.

⁷ Ibid.

⁹ Ibid.

1716.
Mar. 15. ——— Pilgram.
" 17. *Berlin*. Kirch. *London*. Halley.¹
" 17. *Cambridge, Eng*. Cotes.²
" 17. *Sweden*. Celsius. Frobés.
" 17. *Brest and Rouen*. Mairan.
April 11. *Berlin*. Kirch. *Paris*. Maraldi. Mairan.
" 11. Frobés, Pilgram, and Phil. Trans.
" 12. *Berlin*. Kirch. *Paris*. Maraldi.
" 12. Frobés, Mairan, Pilgram, and Phil. Trans.
" 13. *Paris*. Maraldi.³
" 13. Frobés, Mairan, Pilgram, and Phil. Trans.
" 20. *Giessen*. Liebknecht.⁴
May 1. Frobés and Mairan.
" 2. Frobés and Mairan.
" 3. Frobés and Mairan.
" 4. Frobés and Mairan.
" 5. Frobés and Mairan.
Dec. 15. *Paris*. Maraldi.⁵ Frobés.
" 15. Mairan, Pilgram, and Reuss.
" 16. *Paris*. Maraldi.
" 16. Frobés, Mairan, and Pilgram.⁶

1717.
Jan. 6. *Paris*. Maraldi. Mairan and Pilgram.
" 9. *Paris*. Maraldi. Mairan and Pilgram.
" 10. *Paris*. Maraldi. Mairan and Pilgram.
" 11. *Paris*. Maraldi. Mairan and Pilgram.
Feb. 2. *Berlin*. Kirch. Mairan.
" 16. *Kent*. Barrell. Short.⁷
April 6. Frobés and Mairan.
" 9. Frobés and Mairan.
" 10. *Berlin*. Kirch. *London*. Folkes.
" 10. *Kent*. Barrell.⁸
" 10. Celsius, Frobés, Mairan, and Short.
" 11. Frobés and Mairan.
Aug. 10. Celsius and Mairan.
" 21. Frobés and Mairan.
" 31. *Berlin*. Kirch. Mairan.
Sept. 8. *Berlin*. Kirch. Mairan.
" 11. Celsius and Mairan.
" 20. ——— Pilgram.
Oct. 1. *Upsal*. Burman. Frobés and Mairan.⁹

¹ Phil. Trans., XXIX. 406, 407.

² Phil. Trans., XXX. 66.

³ Mairan, p. 206.

⁴ Acad. Nat. Curios., 1719, 153.

⁵ Mémoires de l'Acad., 1717.

⁷ Phil. Trans., XXX. 584.

⁹ Acta Lit. Sueciæ, II. 566; also Phil. Trans., XXXIII. 175.

⁶ Ibid.

⁸ Ibid.

1718.

- Feb. 5. Frobes and Mairan.
 " 14. *Sweden*. Celsius. Frobes and Mairan.
 Mar. 4. *Berlin*. Kirch. Maraldi and Pilgram.
 " 4. *Sweden*. Celsius. Frobes and Mairan.
 " 15. Frobes and Mairan.
 " 18. *Sweden*. Celsius. Frobes and Mairan.
 " 19. *Berlin*. Kirch. Mairan.
 " 21. Frobes and Mairan.
 " 22. Frobes and Mairan.
 April 2. Frobes and Mairan.
 May 1. *Berlin*. Kirch. Mairan.
 " 11. Frobes and Mairan.
 June 8. Frobes and Mairan.
 Aug. 28. *Sweden*. Celsius. Frobes and Mairan.
 Sept. 16. *Lynn*. Folkes.¹
 " 16. *Sweden*. Celsius. Frobes.
 " 16. Mairan, Maraldi, Pilgram, and Short.
 " 17. *Lynn*. Folkes. Mairan² and Phil. Trans.
 " 22. *Lynn*. Folkes.
 " 22. Mairan, Pilgram, and Phil. Trans.
 " 24. *Lynn*. Folkes.
 " 24. Mairan, Pilgram, and Phil. Trans.
 Oct. 11. *Sweden*. Celsius. Frobes and Mairan.
 " 22. *Lynn*. Folkes.
 " 22. Mairan, Pilgram, and Phil. Trans.
 " 23. *Paris*. De la Hire.³
 " 27. *Sweden*. Celsius. Frobes and Mairan.
 Nov. 2. Frobes and Mairan.
 " 23. Mairan⁴ and Pilgram.
 Dec. 16. Phil. Trans. Mairan.
 " 17. Frobes and Mairan.
 " 18. *Sweden*. Celsius. Frobes and Mairan.
 " 20. Phil. Trans. Mairan.
 " 30. *Sweden*. Celsius. Frobes and Mairan.
 " 30. Pilgram and Phil. Trans.
 " 31. Frobes and Mairan.

1719.

- Feb. 11. *Berlin*. Kirch. Mairan.
 " 22. Mairan and Pilgram.⁵
 " 23. Frobes and Mairan.
 Mar. 5. Frobes and Mairan.
 " 6. Frobes and Mairan.
 " 23. *Lynn*. Folkes. Pilgram.

¹ Phil. Trans., XXXII. 300.² *Traité*, &c., p. 206.³ *Mémoires de l'Acad.*, 1718, p. 286.⁴ *Mémoires de l'Acad.*⁵ *Ibid.*

- Mar. 23. Mairan and Phil. Trans.
 " 25. Mairan and Pilgram.¹
 " 30. *Paris*. Maraldi.²
 " 30. Frobes, Mairan, and Phil. Trans.³
 April 7. *Lynn*. Folkes. Pilgram and Phil. Trans.⁴
 " 9. Frobes and Mairan.
 " 10. Frobes and Mairan.
 " 18. Frobes and Mairan.⁵
 Sept. 22. Mairan and Short.
 " 24. Mairan and Short.
 " 25. Frobes and Mairan.
 Oct. 16. *Berlin*. Kirch. Celsius and Mairan.
 " 22. Short and Mairan.
 " 23. *Halle*. Thibes. Boué.⁶
 " 27. Frobes and Mairan.
 " 30. Frobes and Mairan.
 Nov. x. Frobes and Mairan.
 " 3. *Reichstatt*. Rost. Boué.
 " 6. *Lynn*. Folkes. *Devonshire*. Maunder.⁷
 " 6. Pilgram and Short.
 " 13. *Berlin*. Kirch. Celsius and Mairan.
 " 14. Frobes and Mairan.
 " 17. Frobes and Mairan.
 " 20. *Lynn*. Folkes.
 " 20. Celsius, Pilgram, and Phil. Trans.
 " 21. *Dublin, Ireland*.⁸ ——— Short. Mairan.
 " 21. *New England*.⁹ ———
 " 21. *London*. Halley.¹⁰ Pilgram.
 " 22. Frobes and Mairan.
 " 24. Frobes and Mairan.
 Dec. 1. Frobes and Mairan.
 " 5. *Dublin*. Mairan. Pilgram and Phil. Trans.
 " 7. ——— Short. Mairan.
 " 22. *Streatham*. Hearne.¹¹
 " 22. *New England*.¹² *Salem*. Felt.
 " 23. *Streatham*. Hearne.
 " 30. ——— Short. Mairan.

1720.

- Jan. 1. *Sweden*. Celsius. Frobes and Mairan.
 " 2. *Berlin*. Kirch. Mairan.

¹ *Mémoires de l'Acad.*² Boué refers to Montauban, with a query, for March 29.³ *Mémoires de l'Acad.*, 1719. ⁴ *Ibid.*⁵ Boué quotes Bertholon for April 17.⁶ *Breslau Coll.*, 1719, II. 581.⁷ *Phil. Trans.*, XXX. 1101.⁸ *Ibid.*, p. 1104.⁹ *Mass. Coll.*, II. 17.¹⁰ *Phil. Trans.*, XXX. 1099.¹¹ *Ibid.*, p. 1107.¹² *Mass. Coll.*, II. 17-20.

- Jan. 23? Phil. Trans., Mairan, and Short.¹
 " 28. Mairan, Pilgram, and Phil. Trans.
 Feb. 6. Frobes, Mairan, Maraldi, and Pilgram.
 " 10. Frobes, Mairan, Maraldi, and Pilgram.
 " 11. *Lynn.* Folkes. Celsius, Frobes, and Mairan.
 " 11. Maraldi, Pilgram, and Phil. Trans.
 " 15. *Berlin.* Kirch. Celsius and Mairan.
 " 22. Frobes and Mairan.
 " 26. Frobes and Mairan.
 Mar. 9. Frobes, Mairan, Maraldi, and Pilgram.
 " 23. ——— Short. Mairan.
 April 7. ——— Short.² Mairan.
 Aug. 15. *Paris.* Mairan and Pilgram.
 Sept. 10. *Paris and London.*
 " 10. Frobes, Mairan, and Pilgram.
 " 28. *Lynn.* Folkes. *Paris and London.*
 " 28. Mairan, Pilgram, and Phil. Trans.
 Oct. 27. Celsius and Mairan.³
 Nov. 6. ——— Short. Mairan.
 " 7. *Berlin.* Kirch. Frobes and Mairan.
 " 20. ——— Short. Mairan.
 " 25. *Berlin.* Kirch. Mairan.
 " 28. *Salem.* Felt.⁴
 " 29. *Paris.* Maraldi.⁵
 " 29. Celsius, Frobes, Mairan, and Pilgram.
 Dec. 2. Frobes and Mairan.
 " 3. Phil. Trans. Mairan.
 " 5. *Salem.* Felt. Phil. Trans.
 " 6. Celsius, Frobes, and Mairan.
 " 10. Frobes and Mairan.
 " 28. Frobes and Mairan.
 " 28. Maraldi and Pilgram.

1721.

- Jan. 17. *Lynn.* Folkes. Mairan.
 " 17. Pilgram and Phil. Trans.
 " 22. Mairan, Pilgram, and Phil. Trans.
 " 23. *Berlin.* Kirch. *Lynn.* Folkes.
 " 23. Mairan and Phil. Trans.
 Feb. 11. ——— Short. Mairan.
 " 17. *Berlin.* Kirch. *Dublin.*⁶ ———
 " 17. ——— Liebknecht.⁷
 " 17. Celsius, Frobes, Mairan, and Pilgram.

¹ See Mairan, p. 525.² Boué refers to Auroras on March 11 and April 11.³ Boué quotes Celsius for October 22.⁴ Hist. of Salem, II. 137.⁵ Mémoires de l'Acad., 1721, p. 2.⁶ Phil. Trans., XXXI. 180.⁷ Acta Erud., 1721, p. 157.

- Feb. 22. ——— Pilgram.
 " 23. Frobes and Mairan.
 " 28. Frobes and Mairan.
 Mar. 1. *Berlin.* Kirch. Celsius.
 " 1. Liebknecht,¹ Mairan, and Pilgram.
 " 12. Frobes and Mairan.
 " 29. Frobes and Mairan.
 Sept. 12. Celsius and Mairan.
 " 16. Liebknecht² and Pilgram.
 " 22. Celsius, Mairan, and Phil. Trans.
 " 28. *Lynn.* Folkes. Short.
 Oct. 3. Frobes and Mairan.
 " 21. Celsius, Mairan, and Pilgram.
 " 23. Frobes and Mairan.
 " 24. Frobes and Mairan.
 " 31. Frobes and Mairan.
 Nov. 1. Frobes and Mairan.
 " 2. Mairan and Phil. Trans.
 " 29. *Paris.* Maraldi, Boué.

1722.

- Jan. 7. Mairan and Pilgram.
 " 8. Mairan and Pilgram.
 " 9. Mairan and Pilgram.
 " 12. Mairan and Pilgram.
 " 17. Mairan and Short.
 " 22. Frobes and Mairan.
 " 23. Frobes, Mairan, and Short.
 " 25. Frobes and Mairan.
 Feb. 12. Celsius and Mairan.
 " 13. Celsius and Mairan.
 " 16. Celsius and Mairan.
 " 20. Mairan and Pilgram.
 " 23. Frobes and Mairan.
 " 24. Frobes and Mairan.
 " 27. Frobes and Mairan.
 Mar. 1? Celsius and Mairan.³
 " 17. Frobes and Mairan.
 " 18. Frobes and Mairan.
 " 25? Mairan.
 " 27. Frobes and Mairan.
 April 5. Frobes and Mairan.
 May 23. Frobes and Mairan.
 June 4. Frobes and Mairan.

¹ Acta Erud., 1721, p. 157.² Pharus, p. 66.³ Mairan gives the aurora of March 1 in Celsius's catalogue, but not in his own general catalogue, p. 494; he gives the aurora of March 25 in his general catalogue, but in none of the special catalogues.

- Sept. 5. Mairan and Pilgram.
 " 6. Celsius, Mairan, and Pilgram.
 " 7. Celsius and Mairan.
 " 10. Mairan and Pilgram.
 " 12. ——— Mairan.
 " 16. *Lynn.* Folkes.¹ Frobés, Mairan, and Pilgram.
 " 17. *Berlin.* Kirch. Frobés and Mairan.
 " 18. *Berlin.* Kirch. Frobés and Mairan.
 " 22. Mairan and Short.
 Oct. 3. *Berlin.* Kirch.
 " 3. Celsius, Mairan, and Pilgram.
 " 7. *Berlin.* Kirch, Mairan.
 " 8. Celsius and Mairan.
 " 9. Celsius and Mairan.
 " 10. Celsius and Mairan.
 " 14. *Lynn.* Folkes. Celsius.
 " 14. Frobés, Mairan, and Pilgram.
 " 15. Celsius, Mairan, Pilgram, and Phil. Trans.
 " 19. Frobés and Mairan.
 " 20. Frobés and Mairan.
 " 21. Frobés and Mairan.
 " 25. Frobés and Mairan.
 " 26. Frobés and Mairan.
 Nov. 3. Celsius and Mairan.
 " 9. Mairan and Pilgram.
 " 10. *Upsal.* Burman.²
 " 10. Celsius, Frobés, and Mairan.
 " 14. Frobés and Mairan.
 " 22. Frobés and Mairan.
 " 23. Frobés and Mairan.
 " 24. Frobés and Mairan.
 Dec. 3. Frobés and Mairan.
 " 4. Celsius and Mairan.
 " 12. Frobés and Mairan.
 " 15. Frobés and Mairan.
 " 31. *Italy.*³ Manfredi. Frobés and Mairan.
- 1723.
- Jan. 1. *Lynn.* Folkes. Celsius and Mairan.
 " 3. *Paris.* Mairan. Celsius and Pilgram.
 " 6. Frobés and Mairan.
 " 12. Frobés and Mairan.
 " 14. Frobés and Mairan.
- Jan. 24. *Upsal.* Burman.
 " 24. Celsius, Frobés, and Mairan.
 Feb. 4. *Upsal.* Burman. Celsius.
 " 4. Frobés, Mairan, and Pilgram.
 Mar. 2. *Lynn.* Rastrick.¹
 " 2. Mairan, Pilgram, and Short.
 " 3. *Berlin.* Kirch. *Upsal.* Burman.
 " 3. Celsius, Frobés, and Mairan.
 " 4. *Upsal.* Burman.
 " 4. Celsius, Frobés, and Mairan.
 " 7. *Upsal.* Burman.
 " 7. Celsius, Frobés, and Mairan.
 " 10. Frobés and Mairan.
 " 21. Frobés and Mairan.
 " 24. *Upsal.* Burman.
 " 24. Celsius, Frobés, and Mairan.
 " 25. Mairan and Pilgram.
 " 26. *Lynn.* Rastrick. Mairan and Short.
 April 2. *Upsal.* Burman.
 " 2. Celsius, Frobés, and Mairan.
 " 4. *Upsal.* Burman.
 " 4. Celsius, Frobés, and Mairan.
 " 9. *Upsal.* Burman.
 " 9. Celsius, Frobés, and Mairan.
 " 15. *Upsal.* Burman.
 " 24. *Berlin.* Kirch. Mairan and Pilgram.
 Aug. 31. *Lynn.* Rastrick.
 " 31. Short, Mairan, and Pilgram.
 Sept. 1. Celsius and Mairan.
 " 7. Frobés and Mairan.
 " 12. Frobés and Mairan.
 " 17. Celsius and Mairan.
 " 28. Frobés and Mairan.
 Oct. 31. *Lynn.* Rastrick.
 " 31. *Upsal.* Burman. *Sweden.* Celsius.
 " 31. Frobés, Mairan, Pilgram, and Short.
 Nov. 1. *Upsal.* Burman.
 " 1. Celsius, Frobés, and Mairan.
 " 2. Celsius and Mairan.
 " 5. ——— Pilgram.
 " 12. Frobés and Mairan.
 Dec. 2. Mairan and Pilgram.
 " 18. Frobés and Mairan.

1724.

- Jan. 17. Celsius, Frobés, and Mairan.
 " 22-3. *Upsal.* Burman.²
 " 29. Celsius, Frobés, and Mairan.

¹ Phil. Trans., XXXIV. 255.

² Acta Lit. Sueciæ, II. 13.

¹ Phil. Trans., XXXII.

² Acta Lit. Sueciæ, I. 393.

³ Mairan says (p. 208) it was the first observed in that country. Comm. Acad. Bonon., I. p. 297. This corrects the statement of Musschenbroek, quoted in my former Memoir. Mem. Amer. Acad., IX. 103. The aurora of March 17, 1727, was the first observed by an astronomer.

- Jan. 30. Frobes and Mairan.
 Feb. 4. Frobes and Mairan.
 " 11. *Sweden.* Celsius. Frobes and Mairan.
 Mar. 24. Celsius, Frobes, and Mairan.
 " 25. *Upsal.* Burman. Frobes and Mairan.
 " x. Mairan and Pilgram.
 April 14. *Upsal.* Burman. Celsius, Frobes, and Mairan.
 May 4. Celsius, Frobes, and Mairan.
 " 22. Celsius, Frobes, and Mairan.
 Aug. 4. Frobes and Mairan.
 " 12. Frobes and Mairan.
 " 17. Celsius, Frobes, and Mairan.
 " 24. Frobes and Mairan.
 " 31. Frobes and Mairan.
 Sept. 9. Frobes and Mairan.
 " 22. Frobes and Mairan.
 " 23. Frobes and Mairan.
 Oct. 16. *Upsal.* Burman. Frobes and Mairan.
 " x. Mairan and Pilgram.
 Nov. 8. *Upsal.* Burman. Celsius, Frobes, and Mairan.
 " 9. *Sweden.* Celsius. Mairan.
 " 16. *Upsal.* Burman. Frobes and Mairan.
 Dec. 6. *Upsal.* Burman. Frobes and Mairan.
 " 7. *Upsal.* Burman. Frobes and Mairan.
 " 8. *Upsal.* Burman. Frobes and Mairan.
 " 25. Frobes and Mairan.

1725.

- Jan. 7. *Sweden.* Celsius, Frobes, and Mairan.
 " 8. Celsius, Frobes, and Mairan.
 " 9. Celsius, Frobes, Mairan, and Pilgram.
 " 12. Celsius, Frobes, and Mairan.
 " 13. Celsius, Frobes, and Mairan.
 Feb. 6. Frobes and Mairan.
 " 9. *Sweden.* Celsius. Frobes and Mairan.
 " 11. Frobes and Mairan.
 " 12. *Berlin.* Kirch. Mairan.
 " 15. *Upsal.* Burman.¹ Frobes and Mairan.
 Mar. 16. *Berlin.* Kirch. Mairan.
 April 2. *Upsal.* Burman. Frobes and Mairan.
 " 17. *Upsal.* Burman. Frobes and Mairan.
 " 24. *Berlin.* Kirch. Mairan.
 May 2. Celsius and Mairan.
 Sept. 6. *Upsal.* Burman.²
 " 9. *Upsal.* Burman.
 " 11. *Upsal.* Burman.
 " 16. Mairan and Short.
 " 19. *Upsal.* Burman. Frobes and Mairan.

¹ Acta Lit. Sueciæ, II. 141.² Ibid., III.

- Oct. 5. *Berlin.* Kirch. *Ireland.* Dobbs.¹
 " 5. *Sweden.* Celsius. Frobes.
 " 5. *Upsal.* Burman. Mairan and Pilgram.
 " 6. *Ireland.* Dobbs.
 " 6. Celsius, Mairan, and Pilgram.
 " 7. *Ireland.* Dobbs. *Berlin.* Kirch.
 " 7. *Lynn.* Rastrick. *Upsal.* Burman. Celsius.
 " 7. Frobes, Mairan, and Pilgram.
 " 8. Celsius, Frobes, and Mairan.
 " 9. Celsius, Frobes, and Mairan.
 " 14. Mairan and Short.
 " 15. Mairan and Short.
 Nov. 26. *Upsal.* Burman. Celsius, Frobes, and Mairan.
 Dec. 5. Celsius, Frobes, and Mairan.
 " 6. Celsius, Frobes, and Mairan.
 " 7. Celsius, Frobes, and Mairan.
 " 8. Celsius, Frobes, and Mairan.
 " 21. *Sweden.* Celsius. Frobes and Mairan.

1726.

- Jan. 3. Mairan and Short.
 " 19. *Sweden.* Celsius. Frobes and Mairan.
 Feb. 7. Celsius, Frobes, and Mairan.
 Mar. 2. *Upsal.* Burman.² Frobes and Mairan.
 " 6. Mairan and Phil. Trans.
 " 10. Frobes, Mairan, and Phil. Trans.
 " 10. *Upsal.* Burman.
 " 14. *Upsal.* Burman. Frobes, Mairan, Phil. Trans.
 " 24. Celsius, Frobes, and Mairan.
 " 25. Mairan and Phil. Trans.
 " 26. Frobes, Mairan, and Phil. Trans.
 " 26. *Upsal.* Burman.
 " 27. *St. Petersburg.* Kraft.³ The Delisles.
 " 27. *Upsal.* Burman. Celsius and Frobes.
 " 27. Mairan and Phil. Trans.
 " 28. Mairan and Phil. Trans.
 April 2. Phil. Trans. and Mairan.
 " 23. Phil. Trans. and Mairan.
 Sept. 5. Celsius, Frobes, and Mairan.
 " 26. *Near Paris.* Mairan. Pilgram.
 " 28. Celsius, Frobes, and Mairan.
 Oct. 10. ——— Short.
 " 14. *Lynn.* Rastrick.⁴
 " 14. *Upsal.* Burman. Frobes, Mairan, and Short.
 " 15. *Lynn.* Rastrick. Short.
 " 17. Frobes, Mairan, and Phil. Trans.

¹ Phil. Trans., XXXIV. 128.² Acta Lit. Sueciæ, II. 257.³ Comm. Petrop., IX.⁴ Phil. Trans., XXXIV. 255.

- Oct. 17. *Upsal.* Burman.
 " 19. *St. Petersburg.* Kraft. The Delisles, Mairan.
 " 19. *Berlin.* Kirch. *Lynn.* Rastrick.
 " 19. *Petworth.* Langwith.¹ ——— Mairan.²
 " 19. *Upsal.* Burman. Celsius and Frobes.
 " 19. Short and Thompson.
 " 20. Frobes and Mairan.
 " 21. Frobes, Mairan, and Phil. Trans.
 " 23. Mairan and Phil. Trans.
 " 24. Mairan and Phil. Trans.
 " 26. Celsius, Mairan, and Phil. Trans.
- Nov. 2. Mairan and Phil. Trans.
 " 4. ——— Mairan. Phil. Trans.
 " 4. *Sweden.* Celsius. Frobes and Pilgram.
 " 6. *Lynn.* Rastrick.
 " 6. Mairan, Pilgram, and Short.
 " 13. Mairan and Phil. Trans.
 " 18. ——— Beccari.³
 " 18. Frobes, Mairan, and Phil. Trans.
 " 18. *Upsal.* Burman.
 " 19. ——— Pilgram. *West.* Godin.
 " 19. Mairan and Phil. Trans.
- Dec. 1. Frobes and Mairan.
 " 7. Mairan and Short.
 " 10. *Sweden.* Celsius. Frobes and Mairan.
 " 16. *Montpellier.* Plantade.⁴
 " 16. Frobes, Mairan, and Phil. Trans.
 " 16. *Upsal.* Burman.
 " 17. Frobes, Mairan, and Phil. Trans.
 " 17. *Upsal.* Burman.
 " 18. Celsius, Mairan, and Phil. Trans.
 " 19. Mairan and Phil. Trans.
 " 20. Mairan and Phil. Trans.
 " 21. *Sweden.* Celsius. Frobes.
 " 21. Mairan and Phil. Trans.
 " 22. *Sweden.* Celsius. Frobes and Mairan.
 " 23. Mairan and Phil. Trans.
 " 25. Mairan and Phil. Trans.
 " 26. Mairan and Phil. Trans.
 " 27. Mairan and Phil. Trans.
- 1727.
- Jan. 1. *Sweden.* Celsius. Frobes and Mairan.
 " 2. Mairan and Phil. Trans.
- Jan. 13. Celsius, Frobes, and Mairan.
 " 15. ——— Langwith.¹
 " 15. Frobes, Mairan, and Pilgram.
 " 16. ——— Langwith.
 " 16. Celsius, Frobes, Mairan, and Pilgram.
 " 17. Celsius, Frobes, Mairan, and Pilgram.
 " 27. *Sweden.* Celsius. Frobes and Mairan.
- Feb. 13. *Italy.* Beccari. *Utrecht.* Musschenbroek.
 " 18. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 20. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 21. *St. Petersburg.* Kraft. The Delisles.
 " 21. *Sweden.* Celsius, Frobes, and Mairan.
 " 22. *St. Petersburg.* Kraft. The Delisles.
 " 22. Celsius, Frobes, and Mairan.
 " 27. *Sweden.* Celsius, Frobes, and Mairan.
- Mar. 9. *Sweden.* Celsius, Frobes, and Mairan.
 " 11. *Italy.* Beccari.
 " 11. *Sweden.* Celsius. Frobes and Mairan.
 " 12. Celsius, Frobes, and Mairan.
 " 13. *St. Petersburg.* Kraft. *Berlin.* Kirch.
 " 13. *Petworth.* Langwith.
 " 13. Celsius, Frobes, Mairan, and Pilgram.
 " 13. *Upsal.* Burman.²
 " 14. *Bologna.* Zanotti. *Lynn.* Rastrick.
 " 14. *Berlin.* Kirch. *Petworth.* Langwith.
 " 14. Celsius, Frobes, Mairan, and Short.
 " 14. *Upsal.* Burman.
 " 15. Frobes and Mairan.
 " 16. *Bologna.* Zanotti. *Lynn.* Rastrick. Short.
 " 16. Celsius, Frobes, Mairan, and Pilgram.
 " 16. *Upsal.* Burman.
 " 17. *Bologna.* Zanotti. Mairan.
 " 17. Celsius, Frobes, Mairan, and Pilgram.
 " 18. *Bologna.* Zanotti and Beccari. Mairan.
 " 19. *Bologna.* Zanotti and Beccari. Mairan.
 " 19. Frobes and Mairan.
 " 20. *Bologna.* Zanotti. Mairan.
 " 24. *St. Petersburg.* Kraft. The Delisles.
 " 24. ——— Mairan. Celsius and Frobes.
 " 24. *Upsal.* Burman.
 " 28. Celsius, Frobes, and Mairan.
 " 29. *Italy.* Beccari. Mairan.
- April 8. Celsius, Frobes, and Mairan.
 " 10. *Upsal.* Burman. Celsius, Frobes, and Mairan.
 " 14. Frobes and Mairan.
 " 18. *Berlin.* Kirch.

¹ Phil. Trans., 1726, p. 132.

² Mr. Herrick probably means this aurora when he refers to the aurora of August 19, 1726, as having excited Mairan to his great undertaking. Amer. Journ., XXIX. 388.

³ Comm. Bonon., I. 288.

⁴ Encyc. Method., I. 370.

¹ Phil. Trans., XXXV. 304.

² Acta Lit. Sueciæ, II. 493.

- April 18. Celsius, Frobés, and Mairan.
 May 13. *Bologna*. Zanotti. Mairan.
 Aug. 1. Celsius, Frobés, and Mairan.
 " 6. Celsius, Frobés, and Mairan.
 " 22. *Upsal*. Burman. Celsius, Frobés, and Mairan.
 " 24. Celsius, Frobés, and Mairan.
 " 31. Celsius, Frobés, and Mairan.
 Sept. 3. *Cola (Russia)*. Croyere.¹
 " 7. Celsius, Frobés, and Mairan.
 " 14. Celsius, Frobés, and Mairan.
 " 15. *Cola*. Croyere.
 " 18. *Cola*. Croyere. *St. Petersburg*. Kraft.
 " 18. The Delisles, Celsius, Frobés, and Mairan.
 " 22. *St. Petersburg*. Kraft. The Delisles.
 " 22. Frobés and Mairan.
 " 23. Celsius, Frobés, and Mairan.
 " 29. *Cola*. Croyere.
 " 30. Celsius, Frobés, and Mairan.
 Oct. 2. Celsius, Frobés, and Mairan.
 " 4. *Cola*. Croyere.
 " 5. Celsius, Frobés, and Mairan.
 " 6. Celsius, Frobés, and Mairan.
 " 9. *Cola*. Croyere.
 " 13. Frobés and Mairan.
 " 14. *St. Petersburg*. Kraft. The Delisles.
 " 14. *Upsal*. Burman. Celsius, Frobés, and Mairan.
 " 15. *Cola*. Croyere. *St. Petersburg*. Kraft.
 " 15. The Delisles, Celsius, Frobés, and Mairan.
 " 17. *Italy*. Beccari. Frobés and Mairan.
 " 18. *Italy*. Beccari. Mairan.
 " 19. *Berlin*. Kirch. *Cola*. Croyere.
 " 19. Celsius, Frobés, Mairan, and Pilgram.
 " 20. *Upsal*. Burman. Celsius, Frobés, and Mairan.
 " 21. Celsius, Frobés, Mairan, and Pilgram.
 " 21. *Upsal*. Burman.
 " 27. *Cola*. Croyere.
 " 29. *Cola*. Croyere.
 Nov. 1. *Cola*. Croyere.
 " 3. *Cola*. Croyere. Celsius and Mairan.
 " 4. Frobés and Mairan.
 " 6. Frobés and Mairan.
 " 7. *Cola*. Croyere.
 " 13. *Cola*. Croyere.
 " 16. *Cola*. Croyere.
 " 19. *Cola*. Croyere.
 " 20. *Upsal*. Burman. Celsius, Frobés, and Mairan.
 " 22. *Cola*. Croyere.
 " 23. Celsius and Mairan.
 Nov. 24. Celsius and Mairan.
 " 25. *Between Cola and Kilduin*. Croyere.
 " 25. Celsius and Mairan.
 " 27. *Between Cola and Kilduin*. Croyere.
 " 29. *Between Cola and Kilduin*. Croyere.
 Dec. 2. *Kilduin*. Croyere.
 " 6. *Kilduin*. Croyere.
 " 6. Celsius, Frobés, and Mairan.
 " 9. *Kilduin*. Croyere.
 " 11. *Between Kilduin and Cola*. Croyere.
 " 11. Celsius, Frobés, and Mairan.
 " 15. *Between Kilduin and Cola*. Croyere.
 " 16. Celsius, Frobés, and Mairan.
 " 17. *Sweden*. Celsius. Frobés and Mairan.
 " 19. *Sweden*. Celsius. Frobés and Mairan.
 " 20. *St. Petersburg*. Kraft. The Delisles, Mairan.
 " 23. *Cola*. Croyere.
 " 26. *Cola*. Croyere.
 " 31. *Cola*. Croyere.
- 1728.
- Jan. 1. *Sweden*. Celsius, Frobés, and Mairan.
 " 3. *Italy*. Beccari. Mairan.
 " 12. *Salem*. Felt.¹
 " 20. Frobés and Mairan.
 " 29. *St. Petersburg*. Kraft. The Delisles, Mairan.
 " 30. *Sweden*. Celsius. Mairan.
 Feb. 7. *Utrecht*. Musschenbroek.² Mairan, Pilgram.
 " 8. *Sweden*. Celsius. Frobés and Mairan.
 " 9. *Sweden*. Celsius. Frobés, Mairan, Pilgram.
 " 10. *Sweden*. Celsius. Frobés and Mairan.
 " 11. *Utrecht*. Musschenbroek.
 " 11. *Sweden*. Celsius. Frobés, Mairan, Pilgram.
 " 12. *St. Petersburg*. Kraft. The Delisles.
 " 12. *Sweden*. Celsius. Frobés and Mairan.
 " 13. *Utrecht*. Musschenbroek.
 " 13. *St. Petersburg*. Kraft. The Delisles.
 " 13. *Berlin*. Kirch. Pilgram.
 " 13. *Sweden*. Celsius. Frobés and Mairan.
 " 14. *Sweden*. Celsius. Frobés and Mairan.
 " 26. Celsius, Frobés, and Mairan.
 " 29. Celsius, Frobés, and Mairan.
 Mar. 2. *St. Petersburg*. Kraft. The Delisles.
 " 2. ——— Mairan and Pilgram.
 " 3. *St. Petersburg*. Kraft. The Delisles, Mairan.
 " 4. *St. Petersburg*. Kraft. The Delisles, Mairan.
 " 8. *St. Petersburg*. Kraft. The Delisles, Mairan.

¹ Delisle, Mem. pour servir à l'Histoire de l'Astronomie.¹ Hist. of Salem, II.² Tab. Met., 1728.

- Mar. 8. *Plymouth, Eng.* Huxham.¹ Short.
 " 9. *St. Petersburg.* Kraft. The Delisles, Mairan.
 " 10. *St. Petersburg.* Kraft. The Delisles.
 " 10. *Sweden.* Celsius. Frobes and Mairan.
 " 14. *Sweden.* Celsius. Frobes and Mairan.
 " 20. *Utrecht.* Musschenbroek. Mairan.
 " 20. Celsius, Frobes, and Pilgram.
 " 26. Frobes and Mairan.
 " 27. *St. Petersburg.* Kraft. The Delisles.
 " 27. Frobes and Mairan.
 " 28. *Sweden.* Celsius, Frobes, and Mairan.
 " 28. *Upsal.* Burman.²
 " 29. Frobes and Mairan.
 " 30. *Utrecht.* Musschenbroek.
 " 30. Mairan and Pilgram.
 " 31. *Bologna.* Zanotti. Mairan.
 " 31. Mairan and Phil. Trans.
- April 2. *St. Petersburg.* Kraft. The Delisles. Short.
 " 2. *Berlin.* Kirch. *Utrecht.* Musschenbroek.
 " 2. *Plymouth.* Huxham. *Italy.* Zanotti.
 " 2. Celsius, Frobes, Mairan, and Pilgram.
 " 3. *St. Petersburg.* Kraft. The Delisles.
 " 3. *Plymouth.* Huxham. Short.
 " 3. *Sweden.* Celsius. Frobes and Mairan.
 " 4. Frobes, Mairan, and Phil. Trans.
 " 7. *Sweden.* Celsius. Frobes and Mairan.
 " 9. *Utrecht.* Musschenbroek.
 " 9. *Italy.* Beccari. Mairan and Pilgram.
 " 12. *Utrecht.* Musschenbroek.
 " 12. Mairan and Pilgram.
 " 15. Mairan and Phil. Trans.
- May 1. *St. Petersburg.* Kraft. The Delisles, Mairan.
 " 3. *Berlin.* Kirch. Mairan.
 " 30. *Italy.* Beccari. Mairan.
- June 7. Frobes and Mairan.
 " 25. *Berlin.* Kirch. Celsius and Frobes.
 " 25. ——— Mairan. Pilgram.
- July 1. Mairan and Phil. Trans.
 " 3. ——— Mairan. Pilgram.
 " 13. *Italy.* Beccari. *Berlin.* Kirch.
 " 13. *Plymouth.* Huxham. Phil. Trans.
 " 13. ——— Mairan. Pilgram.
 " 15. *Plymouth.* Huxham.
 " 16? ——— Pilgram.
- Aug. 2. *Plymouth.* Huxham. ——— Mairan.
 " 2. Phil. Trans. and Pilgram.
 " 25. *St. Petersburg.* Kraft. The Delisles, Mairan.
- Aug. 27. *Kilduin.* Croyere.
 " 28. *Plymouth.* Huxham.
 " 28. *Sweden.* Celsius. Frobes and Mairan.
 " 29. *Plymouth.* Huxham. Short and Mairan.
 " 29. *Upsal.* Burman. Celsius, Frobes, and Pilgram.
 " 30. *Berlin.* Kirch. Mairan.
 " 30. *Sweden.* Celsius. Frobes.
 " 31. *Utrecht.* Musschenbroek.
 " 31. *Upsal.* Burman. Celsius.
 " 31. Frobes, Mairan, and Pilgram.
- Sept. 1. *Kilduin.* Croyere.
 " 5. *Upsal.* Burman. Frobes and Mairan.
 " 6. Mairan and Phil. Trans.
 " 7. *Sweden.* Celsius. Frobes and Mairan.
 " 13. *Upsal.* Burman. Frobes and Mairan.
 " 15. ——— Pilgram.
 " 21. *Cola.* Croyere.
 " 26. *St. Petersburg.* Kraft. The Delisles.
 " 26. *Italy.* Beccari. *Berlin.* Kirch. Mairan.
 " 27. *St. Petersburg.* Maier.¹ Mairan.
 " 27. Frobes and Pilgram.
 " 28. *St. Petersburg.* Kraft. The Delisles.
 " 29. *Sweden.* Celsius. Frobes.
 " 29. Mairan and Phil. Trans.
 " 30. *Utrecht.* Musschenbroek.
 " 30. *Sweden.* Celsius. Frobes.
 " 30. Mairan, Pilgram, and Phil. Trans.
- Oct. 2. *Italy.* Beccari. *Berlin.* Kirch. Mairan.
 " 2. *Zurich.* Scheuchzer.² Mairan.
 " 2. *Sweden.* Celsius. Frobes.
 " 2. Phil. Trans. and Pilgram.
 " 3. *Cola.* Croyere.
 " 4. Frobes and Mairan.
 " 5. Mairan and Phil. Trans.
 " 6. *Cola.* Croyere.
 " 7. *St. Petersburg.* Kraft. The Delisles.
 " 7. *Utrecht.* Musschenbroek.
 " 7. ——— Mairan. Frobes and Pilgram.
 " 8. *St. Petersburg.* Kraft. The Delisles.
 " 11. *St. Petersburg.* Kraft. The Delisles.
 " 11. *Sweden.* Celsius. Frobes and Mairan.
 " 12. *Plymouth.* Huxham.
 " 12. *Utrecht.* Musschenbroek.
 " 12. ——— Mairan. *Upsal.* Burman. Celsius.
 " 12. Frobes, Short, and Pilgram.
 " 13. *Salem.* Felt.
 " 14. Celsius and Mairan.

¹ Amer. Journ., XXXIII. 298.² Acta Lit. Sueciæ, II. 513.¹ Comm. Petrop., IV. 121.² Acta Acad. Nat. Curios., II. 51, Appendix.

- Oct. 17. Celsius and Mairan.
 " 18. *Cola*. Croyere. Mairan and Phil. Trans.
 " 19. *Cola*. Croyere. Mairan and Phil. Trans.
 " 24. *Redbridge*. Derham.¹ Mairan.
 " 24. *Sweden*. Celsius. Frobes and Pilgram.
 " 25. *St. Petersburg*. Kraft. The Delisles.
 " 25. *Plymouth*. Huxham. Short.
 " 25. ——— Mairan. Pilgram.
 " 26. *Plymouth*. Huxham.
 " 26. *Cola*. Croyere. Phil. Trans. and Mairan.
 " 27. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 29. *Utrecht*. Musschenbroek.
 " 29. *Cola*. Croyere. Mairan.
 " 29. Pilgram and Phil. Trans.
 " 30. *St. Petersburg*. Kraft. The Delisles.
 " 30. *Italy*. Beccari.
 " 30. *Utrecht*. Musschenbroek.
 " 30. Mairan, Pilgram, and Phil. Trans.
 " 31. *Cola*. Croyere.
- Nov. 2. *St. Petersburg*. Kraft. The Delisles.
 " 2. *Plymouth*. Huxham. *Utrecht*. Musschenbroek.
 " 2. Celsius, Frobes, and Mairan.
 " 2. Pilgram and Phil. Trans.
 " 3. Mairan and Phil. Trans.
 " 4. ——— Mairan. Pilgram.
 " 5. *Upsal*. Burman. Celsius.
 " 5. Frobes and Mairan.
 " 7. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 8. Celsius, Frobes, and Mairan.
 " 12. *Berlin*. Kirch. Mairan.
 " 13. *Berlin*. Kirch. Mairan.
 " 15. *Cola*. Croyere.
 " 16. *Cola*. Croyere.
 " 22. *Cola*. Croyere.
 " 22. *Sweden*. Celsius. Frobes and Mairan.
 " 23. *Utrecht*. Musschenbroek. ——— Mairan.
 " 23. *Sweden*. Celsius.² Frobes.
 " 23. Pilgram and Phil. Trans.
 " 27. *Cola*. Croyere.
 " 29. *Cola*. Croyere.
- Dec. 2. *Italy*. Beccari. Mairan.
 " 3. *St. Petersburg*. Kraft. The Delisles.
 " 3. *Plymouth*. Huxham. Mairan and Short.
 " 4. Frobes and Mairan.
 " 7. *Cola*. Croyere.
 " 10. *Cola*. Croyere.
- Dec. 14. Frobes and Mairan.
 " 15. *Cola*. Croyere.
 " 27. *Cola*. Croyere.
 " 31. *Sweden*. Celsius. Frobes and Mairan.
- 1729.
- Jan. 14. *Sweden*. Celsius. Frobes and Mairan.
 " 15. *Cola*. Croyere.
 " 17. *Plymouth*. Huxham. Short.
 " 17. Celsius, Frobes, and Mairan.
 " 17. Pilgram and Phil. Trans.
 " 18. Celsius and Mairan.
 " 19. Between *Cola* and *Kilduin*. Croyere.
 " 20. Frobes and Mairan.
 " 24. Frobes and Mairan.
 " 25. *Plymouth*. Huxham.
 " 28. *Kilduin*. Croyere.
- Feb. 2. *Sweden*. Celsius. Frobes and Mairan.
 " 3. *Kilduin*. Croyere.
 " 3. *Sweden*. Celsius. Frobes and Mairan.
 " 7. Between *Kilduin* and *Cola*. Croyere.
 " 11. Celsius and Mairan.
 " 16. Celsius, Frobes, and Mairan.
 " 17. *Cola*. Croyere. Frobes and Mairan.
 " 23. *Cola*. Croyere.
 " 25. *Sweden*. Celsius. Frobes and Mairan.
 " 27. *Sweden*. Celsius. Frobes and Mairan.
 " 28. *Sweden*. Celsius. Frobes and Mairan.
- Mar. 2. Celsius, Frobes, and Mairan.
 " 15. *Sweden*. Celsius. Frobes and Mairan.
 " 16. *Sweden*. Celsius. Frobes and Mairan.
 " 25. *Sweden*. Celsius. Frobes and Mairan.
 " 27. Celsius, Frobes, and Mairan.
 " 28. *Sweden*. Celsius. Frobes and Mairan.
 " 30. *Sweden*. Celsius. Frobes and Mairan.
- Apr. 6. *Sweden*. Celsius. Frobes and Mairan.
 " 19. Frobes and Mairan.
 " 22. *Plymouth*. Huxham. Mairan and Short.
 " 24. *Sweden*. Celsius. Frobes and Mairan.
 " 27. *Sweden*. Celsius. Frobes and Mairan.
 " 28. *Sweden*. Celsius. Frobes and Mairan.
 " 30. Frobes and Mairan.
- May 1. Celsius, Frobes, and Mairan.
 " 2. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 2. *Plymouth*. Huxham. *Sweden*. Celsius. Frobes.
 " 17. *Plymouth*. Huxham. Mairan and Short.
 " 22. Celsius, Frobes, and Mairan.
 " 26. Celsius and Mairan.
 " 27. Celsius and Mairan.
 " 29. *St. Petersburg*. Kraft. Frobes.

¹ Phil. Trans., XXXVI. 137.

² Boué quotes Celsius for October 11 and 24; but Mairan does not mention these days.

- May. 29. *Paris?* Mairan. Pilgram.
 " 31. Frobes and Mairan.
 June 15. *Paris?* Mairan. Frobes.
 " 26. *Paris?* Mairan. Frobes.
 July 7. *Berlin.* Kirch. Mairan.
 Aug. 29. *St. Petersburg.* The Delisles. Mairan.
 Sept. 10. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 12. *Sweden.* Celsius. Frobes and Mairan.
 " 15. *Oustiong.* Croyere. *Sweden.* Celsius.¹
 " 15. *Paris.* Mairan. Frobes.
 " 20. Frobes, Mairan, and Pilgram.
 " 21. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 22. *St. Petersburg.* Kraft. The Delisles.
 " 22. *Paris.* Mairan. Pilgram.
 " 22. *Sweden.* Celsius. Frobes.
 " 23. *Plymouth.* Huxham. Mairan and Short.
 " 26. *Berlin.* Kirch. Mairan.
 Oct. 2. *Sweden.* Celsius. Mairan.
 " 11. Frobes and Mairan.
 " 13. *Berlin.* Kirch. *Sweden.* Celsius.
 " 13. *Paris.* Mairan. Frobes and Pilgram.
 " 17. Frobes and Mairan.
 " 21. Phil. Trans. Mairan.
 " 22. *Berlin.* Kirch. Mairan.
 " 22. *Sweden.* Celsius. Frobes.
 " 24. *Sweden.* Celsius. Frobes and Mairan.
 " 25. *Plymouth.* Huxham. Short.
 " 25. *Paris.* Cassini. Mairan.²
 Nov. 16. *St. Petersburg.* Kraft. The Delisles.
 " 16. *Plymouth.* Huxham. Phil. Trans.
 " 16. *Berlin.* Kirch. *Paris.* Mairan. Pilgram.
 " 16. *Sweden.* Celsius. Frobes and Short.
 " 17. *Sweden.* Celsius. Frobes and Mairan.
 " 18. *Sweden.* Celsius. Frobes and Mairan.
 " 19. *Sweden.* Celsius. Frobes and Mairan.
 " 20. *Sweden.* Celsius. Frobes and Mairan.
 " 30. *Sweden.* Celsius. Frobes and Mairan.
 Dec. 17. *Berlin.* Kirch. Frobes and Mairan.
 " 22. *Sweden.* Celsius. Frobes and Mairan.
 " 27. *Sweden.* Celsius. Frobes and Mairan.
 " 30. *Sweden.* Celsius. Frobes and Mairan.
- 1730.
- Jan. 8. *Wittemberg.* Weidler. Mairan.
 " 8. *Sweden.* Celsius. Frobes.
 " 9. Mairan, Pilgram, and Phil. Trans.
 " 16. *St. Petersburg.* Kraft. The Delisles.
- Jan. 16. *Sweden.* Celsius. Frobes and Mairan.
 " 17. *Sweden.* Celsius. Frobes and Mairan.
 " 26. *Sweden.* Celsius. Frobes and Mairan.
 Feb. 3. *Sweden.* Celsius. Frobes and Mairan.
 " 4. *Paris.* Mairan. Pilgram.
 " 7. Frobes and Mairan.
 " 9. *Sweden.* Celsius. Frobes and Mairan.
 " 10. *Sweden.* Celsius. Frobes and Mairan.
 " 15. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 15. *Geneva.* Cramer.¹ *Italy.* Beccari.
 " 15. *Sweden.* Celsius.² Frobes and Pilgram.
 " 16. *Berlin.* Kirch. Mairan.
 " 16. *Betw'n Schleussell'g & St. Petersb'g.* Croyere.
 " 16. *Sweden.* Celsius. Frobes.
 " 18. Frobes and Mairan.
 " 27. *Sweden.* Celsius. Frobes and Mairan.
 Mar. 2. *Berlin.* Kirch. Mairan.
 " 2. *Sweden.* Celsius. Frobes.
 " 3. *Italy.* Beccari. Mairan.
 " 6. *St. Petersburg.* Kraft. The Delisles.
 " 6. *Plymouth.* Huxham. *Abo.* Spöring.³
 " 6. *Paris.* Bouillet.⁴ *Italy.* Beccari.
 " 6. Celsius, Frobes, Mairan, and Pilgram.
 " 6. Short and Phil. Trans.
 " 9. *Sweden.* Celsius. Frobes and Mairan.
 " 10. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 11. *Bologna.* Zanotti.⁵ Mairan.
 " 13. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 13. *Bologna.* Zanotti and Beccari.
 " 15. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 15. *Abo.* Spöring. Celsius and Frobes.
 " 16. *St. Petersburg.* Kraft. The Delisles.
 " 16. Mairan and Thompson.
 " 17. Frobes and Mairan.
 " 18. *St. Petersburg.* Kraft. The Delisles.
 " 18. *Bologna.* Zanotti. Frobes and Mairan.
 " 20. *Plymouth.* Huxham. Mairan and Short.
 " 21. *Bologna.* Zanotti. Mairan.
 " 22. *Sweden.* Celsius. Frobes.
 " 22. *Abo.* Spöring. Mairan.
 " 28. Boué and Mairan.⁶
 Apr. 2. Phil. Trans. Mairan.
 " 7. *St. Petersburg.* Kraft. The Delisles. Mairan.

¹ Acta Lit. Sueciæ, II. 611.² Mém. de l'Acad. 1729, p. 321.¹ Phil. Trans. XXXVI. 279.² Acta Lit. Sueciæ, III. A. 106.³ Acta Lit. Sueciæ, III. A. 109.⁴ Mém. de l'Acad. 1730.⁵ Comm. Bonon. II. Pt. III. 489.⁶ Not in any special catalogue.

- Apr. 9. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 12. *Plymouth.* Huxham. *Berlin.* Kirch.
 " 12. *Paris.* Mairan. Frobés, Pilgram, and Short.
 " 13. Frobés and Mairan.
 " 14. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 14. *Abo.* Spöring. Celsius and Frobés.
 " 15. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 15. *Italy.* Beccari. *Paris.* Mairan. Pilgram.
 " 19. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 20. Frobés and Mairan.
 " 22. *St. Petersburg.* Kraft. The Delisles. Mairan.
 May 2. *Abo.* Spöring. Celsius, Frobés, and Mairan.
 " 5. Celsius, Frobés, and Mairan.
 " 9. *Sweden.* Celsius. Frobés and Mairan.
 " 29. *Berlin.* Kirch. Mairan.
 " 29. *St. Petersburg.* Kraft. The Delisles.
 June 21. *Paris.* Mairan. Frobés and Pilgram.
 " 21. *Bologna.* Zanotti and Beccari.
 July 5. *Wittenberg.* Weidler. Frobés and Mairan.
 " 6. Frobés and Mairan.
 " 17. Frobés and Mairan.
 " 19. Frobés and Mairan.
 " 31. *Sweden.* Celsius. Frobés and Mairan.
 Aug. 15. *Abo.* Spöring. Celsius, Frobés, and Mairan.
 " 19. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 23. *St. Petersburg.* Kraft. The Delisles.
 " 23. *Sweden.* Celsius. Frobés and Mairan.
 " 24. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 24. *Abo.* Spöring. Celsius and Frobés.
 " 29. *Sweden.* Celsius. Frobés and Mairan.
 " 29. *Abo.* Spöring.
 " 30. *Sweden.* Celsius. Frobés and Mairan.
 Sept. 2. *Abo.* Spöring. Celsius, Frobés, and Mairan.
 " 3. *Sweden.* Celsius. Frobés and Mairan.
 " 4. *Sweden.* Celsius. Frobés and Mairan.
 " 4. *Abo.* Spöring.
 " 5. *Sweden.* Celsius. Frobés and Mairan.
 " 6. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 6. *Sweden.* Celsius. Frobés and Thompson.
 " 7. *Sweden.* Celsius. Frobés and Mairan.
 " 8. *St. Petersburg.* Kraft. The Delisles.
 " 8. *Plymouth.* Huxham. Short.
 " 8. *Sweden.* Celsius. Frobés and Mairan.
 " 9. *Sweden.* Celsius. Frobés and Mairan.
 " 10. *Sweden.* Celsius. Frobés.
 " 10. Mairan and Phil. Trans.
 " 11. *Italy.* Beccari. Mairan.
 " 11. *Sweden.* Celsius. Frobés.
 " 13. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 17. *St. Petersburg.* Kraft. The Delisles.
 Sept. 17. *Sweden.* Celsius. Frobés and Mairan.
 " 20. *Sweden.* Celsius. Frobés and Mairan.
 " 21. *Sweden.* Celsius. Frobés and Mairan.
 " 27. *Paris.* Mairan. Pilgram.
 " 27. *Sweden.* Celsius. Frobés.
 " 28. *Sweden.* Celsius. Frobés and Mairan.
 " 30. *Berlin.* Kirch. Mairan.
 " 30. *Sweden.* Celsius. Frobés.
 Oct. 3. *Sweden.* Celsius. Frobés and Mairan.
 " 4. *St. Petersburg.* Kraft. The Delisles. Pilgram.
 " 4. *Sweden.* Celsius. Frobés and Mairan.
 " 5. *Huxham.* Plymouth. *Sweden.* Celsius.
 " 5. Frobés, Mairan, Short, and Pilgram.
 " 6. *Huxham.* Plymouth. Short.
 " 6. *Sweden.* Celsius. Frobés and Mairan.
 " 7. *Plymouth.* Huxham. *Wittenberg.* Weidler.
 " 7. *Paris.* Mairan. *Abo.* Spöring.
 " 7. *Sweden.* Celsius. Frobés and Pilgram.
 " 8. *Berlin.* Kirch. *Abo.* Spöring.
 " 8. *Sweden.* Celsius. Frobés and Mairan.
 " 9. *St. Petersburg.* Kraft. The Delisles. Pilgram.
 " 9. *Wittenberg.* Weidler. *Paris.* Mairan.
 " 9. *Abo.* Spöring. Celsius and Frobés.
 " 9. *Berlin.* Kirch.
 " 10. *Paris.* Mairan. *Abo.* Spöring. Frobés.
 " 11. *St. Petersburg.* Kraft. The Delisles.
 " 11. *Sweden.* Celsius. Frobés and Mairan.
 " 12. *Sweden.* Celsius. Frobés and Mairan.
 " 12. *Abo.* Spöring. Pilgram.
 " 14. Boué.
 " 16. *Sweden.* Celsius. Frobés and Mairan.
 " 17. *St. Petersburg.* Kraft. The Delisles.
 " 17. *Sweden.* Celsius. Frobés and Mairan.
 " 20. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 23. Mairan and Pilgram.
 " 20. *Berlin.* Kirch. Celsius and Frobés.
 " 21. Frobés and Mairan.
 " 22. *St. Petersburg.* Kraft. Frobés and Mairan.
 " 23. *St. Petersburg.* Kraft. The Delisles. Pilgram.
 " 23. Mairan and Pilgram.
 " 26. Frobés and Mairan.
 Nov. 2. *Paris.* Mairan. *Berlin.* Kirch.
 " 2. *St. Petersburg.* Kraft. The Delisles.
 " 2. *Cambridge, Mass.* Winthrop and Greenwood.¹
 " 2. *Salem.* Felt. *Philadelphia.* Kahn.²
 " 2. *Annapolis, Maryland.* Lewis.
 " 2. *Sweden.* Celsius. Frobés and Thompson.
 " 3. *Berlin.* Kirch. Mairan.

¹ Phil. Trans., XXXVII., 55.² Svenska Vetensk. Acad. Handl. XIII. 145.

- Nov. 3. *Sweden*. Celsius. Frobés and Pilgram.
 " 4. *Sweden*. Celsius. Frobés and Mairan.
 " 4. *Abo*. Spöring. Pilgram.
 " 5. *St. Petersburg*. Kraft. The Delisles.
 " 5. *Berlin*. Kirch. Phil. Trans.
 " 5. *Sweden*. Celsius. Frobés and Mairan.
 " 6. Phil. Trans. and Mairan.
 " 7. *St. Petersburg*. Kraft.
 " 7. The Delisles. Frobés and Mairan.
 " 8. *Sweden*. Celsius. Frobés and Mairan.
 " 9. *Sweden*. Celsius. Frobés and Mairan.
 " 10. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 12. Celsius, Frobés, and Mairan.
 " 14. *Abo*. Spöring. Celsius, Frobés, and Mairan.
 " 17. *Sweden*. Celsius. Frobés and Mairan.
 " 18. *Sweden*. Celsius. Frobés and Mairan.
 " 19. Frobés and Mairan.
 " 21. *Abo*. Spöring. Celsius, Frobés, and Mairan.
 " 22. *Sweden*. Celsius. Frobés and Mairan.
 " 25. Boué quotes from Celsius.
 " 28. Frobés and Mairan.
 " 30. *Sweden*. Celsius. Frobés, and Mairan.
 " x. *Italy*. Beccari. Mairan.
- Dec. 2. *Abo*. Spöring. Celsius, Frobés, and Mairan.
 " 8. Frobés and Mairan.
 " 9. *Abo*. Spöring. Frobés and Mairan.
 " 14.¹ *St. Petersburg*. Kraft. The Delisles.
 " 14. Celsius and Mairan.
 " 17. *Abo*. Spöring. Celsius, Frobés, and Mairan.
 " 23. Frobés and Mairan.
 " 25. *Abo*. Spöring. Celsius, Frobés, and Mairan?
 " 26. Frobés and Mairan.
 " 28. Frobés and Mairan.
- 1731.
- Jan. 2. *St. Petersburg*. Kraft. The Delisles.
 " 2. *Berlin*. Kirch. Mairan.
 " 2. *Sweden*. Celsius. Frobés.
 " 10. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 26. *Sweden*. Celsius. Frobés and Mairan.
- Feb. 4. *Sweden*. Celsius.² Frobés and Mairan.
 " 10. *Bologna*. Zanotti and Beccari.
 " 10. *Sweden*. Celsius. Frobés and Mairan.
 " 28. *Sweden*. Celsius. Frobés and Mairan.
- Mar. 1. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 2. *Plymouth*. Huxham. Short.
 " 2. *St. Petersburg*. Kraft. The Delisles.
 " 2. *Sweden*. Celsius. Frobés and Mairan.
- Mar. 4. *Sweden*. Celsius. Frobés and Mairan.
 " 7. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 7. *Sweden*. Celsius. Frobés and Phil. Trans.
 " 8. *St. Petersburg*. The Delisles. Mairan.
 " 9. *St. Petersburg?* Kraft.
 " 9. *Sweden*. Celsius. Frobés and Mairan.
 " 14. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 14. *Sweden*. Celsius. Frobés and Phil. Trans.
- Apr. 3. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 24. Boué.
 " 27. Mairan and Short.
- May 7. *Plymouth*. Huxham.
 " 14. Phil. Trans. and Mairan.
- Aug. 21. *Sweden*. Celsius. Frobés and Mairan.
 " 24. *Sweden*. Celsius. Frobés and Mairan.
 " 27. *Plymouth*. Huxham. Short.
 " 27. *Sweden*. Celsius. Frobés and Mairan.
 " 28. *Wittemberg*. Weidler. Mairan.
 " 29. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 30. *Sweden*. Celsius. Frobés and Mairan.
 " 31. *Sweden*. Celsius. Frobés and Mairan.
 " 31. *Wittemberg*. Weidler.
- Sept. 1. *Sweden*. Celsius. Frobés and Mairan.
 " 13. *Plymouth*. Huxham.
 " 20. *Sweden*. Celsius. Frobés and Mairan.
 " 24. *Plymouth*. Huxham. Short and Mairan.
 " 26. *St. Petersburg*. Kraft. The Delisles.
 " 26. *Berlin*. Kirch. Mairan.
 " 26. *Sweden*. Celsius. Frobés and Pilgram.
 " 27. *Paris?* Mairan. Celsius and Pilgram.
 " 28. *Wittemberg*. Weidler.
 " 28. *Paris?* Mairan. Pilgram.
 " 29. *Paris?* Mairan. Pilgram.
 " 30. *Paris?* Mairan. Pilgram.
 " 30. *Sweden*. Celsius. Frobés.
- Oct. x. Phil. Trans. and Mairan.
 " x. Phil. Trans. and Mairan.
 " 2. *St. Petersburg*. Kraft. The Delisles.
 " 2. *Wittemberg*. Weidler. Mairan.
 " 2. *Philadelphia*. Breintnal. Kahn and Pilgram.
 " 3. *St. Petersburg*. Kraft. The Delisles.
 " 3. *Berlin*. Kirch. Pilgram and Phil. Trans.
 " 3. *Sweden*. Celsius. Frobés and Mairan.
 " 4. *St. Petersburg*. Kraft. The Delisles.
 " 4. *Berlin*. Kirch. *Wittemberg*. Weidler.
 " 4. *Sweden*. Celsius. Frobés and Mairan.
 " 4. Pilgram and Phil. Trans.
 " 5. Pilgram.
 " 7. *St. Petersburg*. Kraft. The Delisles.
 " 7. *Berlin*. Kirch. *Wittemberg*. Weidler.

¹ Or 4. See Traite, &c., par Mairan, p. 495.

² Acta Lit. Sueciæ, III. B. 44.

- Oct. 7. *Sweden*. Celsius. Frobés and Mairan.
 " 7. Pilgram and Phil. Trans.
 " 8. *Plymouth*. Huxham. *Wittemberg*. Weidler.
 " 8. *St. Petersburg*. Kraft. The Delisles.
 " 8. *Italy*. Beccari. *Berlin*. Kirch.
 " 8. *Sweden*. Celsius. Frobés.
 " 8. Mairan, Pilgram, and Phil. Trans.
 " 10. *Wittemberg*. Weidler. Mairan and Phil. Trans.
 " 16. *Sweden*. Celsius. Frobés and Mairan.
 " 23. *Wittemberg*. Weidler. *Berlin*. Kirch.
 " 23. *Sweden*. Celsius. Frobés and Mairan.
 " 23. Pilgram and Phil. Trans.
 " 25. Mairan¹ and Pilgram.
 " 28. *Paris*. Mairan. Pilgram.
 " 29. Frobés and Mairan.
- Nov. 2. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 4. *Sweden*. Celsius. Frobés and Mairan.
 " 6. Phil. Trans and Mairan.
 " 11. Celsius, Frobés, and Mairan.
 " 17. *Sweden*. Celsius. Frobés and Mairan.
 " 18. *Sweden*. Celsius. Frobés and Mairan.
 " 27. *Sweden*. Celsius. Frobés and Mairan.
 " 29. *Sweden*. Celsius. Frobés and Mairan.
 " 30. Phil. Trans. and Mairan.
- Dec. 1. *Sweden*. Celsius. Frobés and Mairan.
 " 4. *Sweden*. Celsius. Frobés and Mairan.
 " 5. ———. Mairan. Pilgram.
 " 6. *Sweden*. Celsius. Frobés and Mairan.
 " 7. *Sweden*. Celsius. Frobés and Mairan.
 " 18. ———. Mairan. Pilgram.
 " 20. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 21. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 27. *Sweden*. Celsius. Frobés and Mairan.
 " 30. *Plymouth*. Huxham. Short.
 " 30. *Sweden*. Celsius. Frobés and Mairan.
 " 31. *Sweden*. Celsius.
- 1732.
- Jan. 1. *Sweden*. Celsius. Frobés and Mairan.
 " 3. *Sweden*. Celsius. Frobés and Mairan.
 " 4. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 5. *Sweden*. Celsius.²
 " 6. *Sweden*. Celsius.
 " 16. *Sweden*. Celsius. Mairan.³
 " 17. *Sweden*. Celsius. Frobés and Mairan.
 " 18. *Sweden*. Celsius. Frobés and Mairan.
 " 26. *Wittemberg*. Weidler. Mairan.
- Jan. 26. *Sweden*. Celsius. Frobés and Mairan.
 " 27. *Sweden*. Celsius. Frobés and Mairan.
 " 28. *Sweden*. Celsius. Frobés.
 " 28. *Paris*. Mairan.¹
 " 29. *Plymouth*. Huxham. Short.
 " 29. *St. Petersburg*. Kraft. The Delisles.
 " 29. *Sweden*. Celsius. Frobés and Mairan.
 " 30. *St. Petersburg*. Kraft. The Delisles.
 " 30. *Sweden*. Celsius. Frobés and Mairan.
- Feb. 2. *Sweden*. Celsius. Frobés and Mairan.
 " 7. *Wittemberg*. Weidler. Mairan.
 " 12. *Sweden*. Celsius. Frobés and Mairan.
 " 17. *St. Petersburg*. Kraft. The Delisles.
 " 17. *Sweden*. Celsius. Frobés and Mairan.
 " 18. *Plymouth*. Huxham. Short.
 " 18. *Sweden*. Celsius. Frobés and Mairan.
 " 19. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 20. Frobés and Mairan.
 " 21. Frobés and Mairan.
 " 22. *St. Petersburg*. The Delisles. Mairan.
 " 24. *Berlin*. Kirch. Mairan.
 " 24. *Sweden*. Celsius. Frobés.
 " 26. *Italy*. Beccari. Mairan.
 " 27. *Sweden*. Celsius. Frobés and Mairan.
 " 28. *St. Petersburg*. The Delisles. Mairan.
 " 29. *St. Petersburg*. The Delisles.
 " 29. *Berlin*. Kirch. Phil. Trans.
 " 29. *Wittemberg*. Weidler. Mairan.
- Mar. 1. Frobés and Mairan.
 " 2. *Sweden*. Celsius. Frobés and Mairan.
 " 3. *St. Petersburg*. The Delisles. Mairan.
 " 12. *St. Petersburg*. The Delisles. Mairan.
 " 13. *St. Petersburg*. The Delisles. Mairan.
 " 14. Frobés and Mairan.
 " 15. *Sweden*. Celsius. Frobés and Mairan.
 " 18. Frobés and Mairan.
 " 21. *St. Petersburg*. Kraft. The Delisles.
 " 21. *Berlin*. Kirch. Phil. Trans.
 " 21. *Sweden*. Celsius. Frobés and Mairan.
 " 22. *St. Petersburg*. Kraft. The Delisles.
 " 22. *Sweden*. Celsius. Frobés and Mairan.
 " 23. *Sweden*. Celsius. Frobés.
 " 23. *Paris*. Mairan.
 " 24. *St. Petersburg*. The Delisles.
 " 24. *Italy*. Beccari. Mairan.
 " 24. *Sweden*. Celsius. Frobés.
 " 25. *St. Petersburg*. The Delisles.
 " 25. *Sweden*. Celsius. Frobés and Mairan.

¹ Mém. de l'Acad. 1731, p. 385.² Acta Lit. Sueciæ, III. B. 44.³ Compare pp. 492 and 544, of *Traité par Mairan*.¹ Mém. de l'Acad. 1733, p. 478.

- Mar. 26. *Paris?* Mairan. Frobés.
 " 27. *Sweden.* Celsius. Frobés and Mairan.
 " 28. *St. Petersburg.* The Delisles.
 " 28. *Berlin.* Kirch. *Paris?* Mairan.
 " 28. *Sweden.* Celsius. Frobés.
 " 29. *St. Petersburg.* The Delisles.
 " 29. *Sweden.* Celsius. Frobés and Mairan.
 " 31. *St. Petersburg.* The Delisles.
 " 31. *Sweden.* Celsius. Frobés and Mairan.
 Apr. 1. *St. Petersburg.* The Delisles. Celsius. Mairan.
 " 2. *Sweden.* Celsius. Frobés and Mairan.
 " 3. *St. Petersburg.* The Delisles. *Paris.* Mairan.
 " 4. *St. Petersburg.* The Delisles. Mairan.
 " 16. *Paris.* Mairan.
 " 17. *Paris.* Mairan. *Sweden.* Celsius. Frobés.
 " 18. *Sweden.* Celsius. *Paris.* Mairan. Frobés.
 " 19. *Sweden.* Celsius. Frobés and Mairan.
 " 20. *Sweden.* Celsius. Frobés and Mairan.
 " 22. *Sweden.* Celsius. Frobés and Mairan.
 " 24. *Berlin.* Kirch. Mairan and Phil. Trans.
 " 25. *Paris.* Mairan.
 " 26. *Paris.* Mairan.
 " 27. *Paris.* Mairan.
 May 14. *Paris.* Mairan.
 " 20. *Paris.* Mairan.
 " 23. *Paris.* Mairan.
 June 25. Frobés and Mairan.
 " 26. *Paris.* Mairan. Frobés.
 July 12. *Paris.* Mairan.
 " 21. *Italy.* Beccari. Mairan.
 " 27. *St. Petersburg.* The Delisles. Mairan.
 Aug. 19. *Meudon.* Mairan.
 " 22. *Witttemberg.* Weidler. *Berlin.* Kirch.
 " 22. *Sweden.* Celsius. Phil. Trans.
 " 22. *Paris.* Mairan. Frobés.
 " 23. Celsius, Frobés, and Mairan.
 " 27. *St. Petersburg.* Kraft.
 " 30. *Paris.* Du Fay. Mairan.
 Sept. 1. *St. Petersburg.* The Delisles.
 " 1. *Paris.* Buache. Mairan and Thompson.
 " 5. *Paris.* Mairan.
 " 10. *Berlin.* Kirch. *Breuillepont.* Mairan.
 " 10. Frobés and Phil. Trans.
 " 11. *Breuillepont.* Mairan.
 " 18. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 18. *Italy.* Veratti.¹
 " 19. *St. Petersburg.* The Delisles.
 " 19. *Breuillepont.* Mairan. Frobés.
 " 20. *St. Petersburg.* The Delisles.
 Sept. 20. *Breuillepont.* Mairan. Frobés.
 " 21. *St. Petersburg.* Kraft. *Breuillepont.* Mairan.
 " 23. Frobés and Mairan.
 " 24. Frobés and Mairan.
 " 25. Frobés and Mairan.
 " 26. *St. Petersburg.* The Delisles.
 " 26. *Paris.* Mairan. Frobés.
 " 27. *St. Petersburg.* The Delisles.
 " 27. *Berlin.* Kirch. Mairan.
 " 28. *St. Petersburg.* The Delisles. Mairan.
 Oct. 1. *Paris.* Mairan.
 " 2. *Paris.* Mairan.
 " 3. *Paris.* Mairan.
 " 5. *St. Petersburg.* The Delisles.
 " 5. *Berlin.* Kirch. *Paris.* Mairan
 " 5. *Sweden.* Celsius. Frobés.
 " 6. *Paris.* Mairan.
 " 7. *St. Petersburg.* The Delisles. Mairan.
 " 12. *St. Petersburg.* The Delisles. Mairan.
 " 14. *Paris.* Mairan.
 " 15. *Paris.* Mairan. Frobés.
 " 16. *Paris.* Mairan.
 " 17. *Paris.* Mairan.
 " 18. *St. Petersburg.* The Delisles. *Paris.* Mairan
 " 19. *St. Petersburg.* The Delisles. Mairan.
 " 20. *Paris.* Mairan.
 " 22. *Berlin.* Kirch. *Paris.* Mairan.
 " 22. *Sweden.* Celsius. Frobés.
 " 23. *Witttemberg.* Weidler. *Paris.* Mairan.
 " 23. *Berlin.* Kirch. Phil. Trans.
 " 23. *Sweden.* Celsius. Frobés.
 " 24. *Paris.* Mairan.
 " 25. *St. Petersburg.* The Delisles. *Paris.* Mairan,
 " 26. *St. Petersburg.* The Delisles. *Paris?* Mairan.
 " 29. *St. Petersburg.* The Delisles. Mairan.
 Nov. 1. *St. Petersburg.* The Delisles. Mairan.
 " 4. *St. Petersburg.* The Delisles. *Paris.* Mairan.
 " 5. *Paris.* Mairan.
 " 9. *St. Petersburg.* Kraft. The Delisles.
 " 9. *Paris.* Mairan.
 " 11. *Sweden.* Celsius. Mairan.
 " 12. *St. Petersburg.* The Delisles.
 " 12. *Berlin.* Kirch. Frobés and Thompson.
 " 12. *Copenhagen.* Horrebow. Mairan.
 " 13. *St. Petersburg.* The Delisles. Frobés. Mairan.
 " 14. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 15. *St. Petersburg.* The Delisles. Mairan.
 " 19. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 20. *Italy.* Beccari. Frobés and Mairan.
 " 21. *St. Petersburg.* The Delisles. Mairan.

¹ Comm. Bonon. II. Pt. III. 493.

- Nov. 22. *St. Petersburg.* The Delisles. Mairan.
 " 24. *St. Petersburg.* The Delisles. Mairan.
 Dec. 7. *Sweden.* Celsius. Frobés and Mairan.
 " 10. *St. Petersburg.* The Delisles. *Paris.* Mairan.
 " 12. *Sweden.* Celsius. Frobés and Mairan.
 " 13. *St. Petersburg.* The Delisles. Mairan.
 " 16. *Sweden.* Celsius. Frobés and Mairan.
 " 18. *Sweden.* Celsius. Frobés and Mairan.
 " 19. *St. Petersburg.* The Delisles. Mairan.

1733.

- Jan. 12. Celsius and Mairan.
 " 17. Celsius and Mairan.
 " 19. *Paris.* Mairan.
 Feb. 13. *Plymouth.* Huxham. Mairan and Short.
 " 14. *Paris.* Mairan.
 " 16. *Paris.* Mairan.
 Mar. 2. *Berlin.* Kirch. Celsius and Mairan.
 " 3. *Berlin.* Kirch. Celsius and Mairan.
 " 5. Celsius and Mairan.
 " 17. Celsius and Mairan.
 " 22. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 25. *St. Petersburg.* Kraft. The Delisles. Mairan.
 Apr. 1. *Plymouth.* Huxham.
 " 1. Celsius, Mairan, and Short.
 " 2. *Paris.* Mairan.
 " 13. Frobés and Mairan.
 " 18. *Berlin.* Kirch. *Paris.* Mairan. Celsius.
 May 6. *Paris.* Mairan.
 " 9. *Paris.* Mairan.
 " 14. Phil. Trans. and Mairan.
 " 16. *Wittemberg.* Weidler. Phil. Trans.
 " 16. *Paris.* Mairan.
 " 20. *Paris.* Mairan.
 July 7. *Italy.* Beccari. *Wittemberg.* Weidler.
 " 7. *Berlin.* Kirch. *Paris.* Mairan.
 " 7. Celsius. Frobés and Phil. Trans.
 " 8. *Plymouth.* Huxham. Mairan and Short.
 " 21. *Plymouth.* Huxham. Short.
 " 21. *Paris.* Grandjean. Mairan.
 Aug. 6. *Copenhagen.* Plelo.
 " 7. *Paris.* Mairan.
 " 14. *Paris.* Mairan.
 " 17. *Berlin.* Kirch. *Paris.* Mairan.
 " 29. *Paris.* Mairan.
 Sept. 6. *Paris.* Mairan.
 " 19. *Plymouth.* Huxham. Mairan and Short.
 " 27. *Breuillepont.* Mairan.
 " 2. *Breuillepont.* Mairan.

- Oct. 3. *Berlin.* Kirch. *Breuillepont.* Mairan.
 " 4. *Breuillepont.* Mairan.
 " 6. *St. Petersburg.* Kraft. The Delisles. Mairan.
 " 7. *Breuillepont.* Mairan.
 " 8. *Breuillepont.* Mairan.
 " 9. *Breuillepont.* Mairan.
 " 10. *Plymouth.* Huxham. *Berlin.* Kirch.
 " 10. *Breuillepont.* Mairan. Short.
 Nov. 7. *Plymouth.* Huxham. *Wittemberg.* Weidler.
 " 7. *Berlin.* Kirch. *Paris.* Mairan.
 " 7. Short and Phil. Trans.
 " 11. *St. Petersburg.* Kraft. Mairan.
 " 12. *St. Petersburg.* Kraft. The Delisles.
 " 12. *Paris.* Mairan.
 " 27. *Plymouth.* Huxham.
 " 29. *Plymouth.* Huxham.
 Dec. 8. *Plymouth.* Huxham. Short.
 " 8. *Berlin.* Kirch. Mairan.
 " 10. *Plymouth.* Huxham.
 " 22. *Berlin.* Kirch. Mairan.
 " 23. *Utrecht.* Musschenbroek. Pilgram.
 " 30. *Paris.* Mairan.
 " 31. *St. Petersburg.* Kraft. The Delisles. Mairan.

1734.

- Jan. 8. *Berlin.* Kirch. *Paris.* Mairan.
 " 23. *Lincopiæ.* Sparschuch.¹
 " 24. *Lincopiæ.* Sparschuch.
 " 25. *Lincopiæ.* Sparschuch.
 " 28. *Lincopiæ.* Sparschuch.
 Feb. 2. *Wittemberg.* Weidler. Mairan.
 " 3. *Berlin.* Kirch. *Lincopiæ.* Sparschuch.
 " 3. *Utrecht.* Musschenbroek.²
 " 3. *Paris.* Mairan.³ Phil. Trans.
 " 4. *Lincopiæ.* Sparschuch.
 " 14. *Lincopiæ.* Sparschuch.
 " 22. *Paris.* Mairan and Godin.⁴
 " 22. *Lincopiæ.* Sparschuch.
 " 23. *St. Petersburg.* Kraft. The Delisles.
 " 23. Mairan and Thompson?
 " 24. *Lincopiæ.* Sparschuch.
 " 26. *Paris.* Mairan.
 " 27. *Lincopiæ.* Sparschuch.
 Mar. 1. *Berlin.* Kirch. Mairan.
 " 5. *Lincopiæ.* Sparschuch.
 " 8. *St. Petersburg.* Kraft. The Delisles.

¹ Acta Lit. Sueciae, IV. 185.² Mém. de l'Acad., 1734. p. 579.³ Ibid. p. 567.⁴ Mém. de l'Acad., 1734. p. 569.

- Mar. 8. *Paris*. Mairan.
 " 10. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 17. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 22. *St. Petersburg*. Kraft. The Delisles.
 " 22. *Utrecht*. Musschenbroek. Mairan.
 " 25. Mairan and Short.
 " 26. Mairan and Short.
 " 30. Mairan and Phil. Trans.
 " 31. *Paris*. Mairan.
 Apl. 5. *Paris*. Mairan.
 " 7. *Utrecht*. Musschenbroek. *Paris*. Mairan.
 " 8. *Wittemberg*. Weidler.
 " 8. *Utrecht*. Musschenbroek. *Paris*. Mairan.
 " 8. *Berlin*. Kirch.
 " 9. *Utrecht*. Musschenbroek.
 " 9. Phil. Trans. and Mairan.
 " 10. *Bologna*. Zanotti. Mairan.
 May 1. *Utrecht*. Musschenbroek.
 " 4. *Utrecht*. Musschenbroek.
 " 5. *Utrecht*. Musschenbroek.
 " 6. *Utrecht*. Musschenbroek.
 " 24. *Utrecht*. Musschenbroek. *Paris*. Maraldi.
 " 25. *Plymouth*. Huxham. *Utrecht*. Musschenbroek.
 " 26. *Plymouth*. Huxham. *Utrecht*. Musschenbroek.
 " 27. *Utrecht*. Musschenbroek.
 " 28. *Utrecht*. Musschenbroek.
 " 29. *Utrecht*. Musschenbroek.
 " 30. *Utrecht*. Musschenbroek.
 " 31. *Utrecht*. Musschenbroek.
 June 24. *Utrecht*. Musschenbroek.
 July 2. *Paris*. Mairan.
 " 5. *Utrecht*. Musschenbroek.
 " 7. *Utrecht*. Musschenbroek.
 " 8. *Utrecht*. Musschenbroek.
 Aug. 6. *Utrecht*. Musschenbroek.
 " 7. *Utrecht*. Musschenbroek.
 " 20. *Wittemberg*. Weidler.
 " 20. Mairan and Phil. Trans.
 " 23. *Paris*. Mairan.
 " 31. *Paris*. Mairan.
 Sept. 1. *St. Petersburg*. The Delisles. Mairan.
 " 2. *St. Petersburg*. The Delisles. Mairan.
 " 3. *St. Petersburg*. The Delisles. Mairan.
 " 8. *St. Petersburg*. The Delisles. Mairan.
 " 9. *Plymouth*. Huxham.
 " 18. *St. Petersburg*. The Delisles. Mairan.
 " 19. *Berlin*. Kirch. Mairan.
 " 19. *Lincopie*. Sparschuch.
 " 19. *Paris*. Mairan. Frobés.
 Sept. 20. *Plymouth*. Huxham. Short.
 " 20. *Nointel*. Mairan.
 " 21. *Utrecht*. Musschenbroek.
 " 23. *St. Petersburg*. The Delisles.
 " 23. *Nointel*. Mairan.
 " 24. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 25. *Utrecht*. Musschenbroek.
 " 27. *Utrecht*. Musschenbroek. *Nointel*. Mairan.
 " 28. *Nointel*. Mairan.
 " 29. *St. Petersburg*. The Delisles.
 " 29. *Utrecht*. Musschenbroek. *Paris*. Mairan.
 " 30. *St. Petersburg*. Kraft. The Delisles. Mairan.
 Oct. 1. *St. Petersburg*. The Delisles. Mairan.
 " 1. *Utrecht*. Musschenbroek.
 " 2. *St. Petersburg*. Kraft. The Delisles.
 " 2. *Utrecht*. Musschenbroek. Mairan.
 " 4. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 5. *Utrecht*. Musschenbroek.
 " 6. *St. Petersburg*. The Delisles.
 " 6. *Utrecht*. Musschenbroek. Mairan.
 " 14. *St. Petersburg*. Kraft. The Delisles.
 " 14. *Utrecht*. Musschenbroek. Mairan.
 " 15. *St. Petersburg*. Kraft.
 " 16. *St. Petersburg*. The Delisles. Mairan.
 " 17. *St. Petersburg*. The Delisles. Mairan.
 " 19. *Paris*. Mairan.
 " 20. *St. Petersburg*. The Delisles. Mairan.
 " 21. *Paris*. Mairan.
 " 23. *Paris*. Mairan.
 " 25. *Paris*. Mairan.
 " 26. *Paris*. Mairan.
 " 27. *Paris*. Mairan.
 " 28. *Paris*. Mairan.
 " 29. *Paris*. Mairan.
 " 30. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 31. *St. Petersburg*. Kraft. The Delisles. Mairan.
 Nov. 14. *Paris*. Mairan.
 " 15. *Paris*. Mairan.
 " 19. *Paris*. Mairan.
 " 22. *Paris*. Mairan.
 " 26. *St. Petersburg*. The Delisles. Mairan.
 Dec. 17. *Paris*. Mairan.
 " 19. *Utrecht*. Musschenbroek.
 " 25. *Utrecht*. Musschenbroek.
 " 25. *Between Havre and Paris*. Bouguer.
 1735.
 Jan. 21. *Lincopie*. Sparschuch.
 " 25. *Berlin*. Kirch. Mairan.

- Jan. 26. *Wittemberg*. Weidler. *Berlin*. Kirch.
 " 26. *Lincopiæ*. Sparschuch.
 Feb. 4. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 13. *St. Petersburg*. The Delisles. Mairan.
 " 21. *Italy*. Beccari. Mairan.
 " 22. *Italy*. Beccari. Mairan.
 " 22. *Wittemberg*. Weidler. Thompson.
 " 24. *St. Petersburg*. The Delisles. Mairan.
 Mar. 4. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 13. Frobes and Mairan.
 " 15. Frobes and Mairan.
 " 20. Frobes and Mairan.
 " 22. Frobes and Mairan.¹
 " 23. *Wittemberg*. Weidler. *Berlin*. Kirch. Mairan.
 " 24. *Wittemberg*. Weidler. *Berlin*. Kirch.
 " 24. Frobes, Mairan, and Phil. Trans.
 " 25. *Italy*. Beccari.
 " 25. *Wittemberg*. Weidler. Mairan.
 " 26. *St. Petersburg*. The Delisles. Mairan.
 Apr. 16. *St. Petersburg*. The Delisles. Mairan.
 " 17. *St. Petersburg*. The Delisles. Mairan.
 " 18. *St. Petersburg*. The Delisles. Mairan.
 " 18. *Wittemberg*. Weidler. *Lincopiæ*. Sparschuch.
 " 19. *St. Petersburg*. The Delisles. Mairan.
 " 20. Boué.
 " 21. *St. Petersburg*. The Delisles. Mairan.
 " 22. Frobes and Mairan.
 " 23. *Wittemberg*. Weidler. *Berlin*. Kirch. Mairan.
 " 25. Boué quotes from the Delisles.
 Aug. 20. *Plymouth*. Huxham.
 " 22. *St. Petersburg*. The Delisles. Mairan.
 " 23. *St. Petersburg*. The Delisles. Mairan.
 " 27. *St. Petersburg*. The Delisles. Mairan.
 " 31. *Plymouth*. Huxham. Short.
 " 31. *St. Petersburg*. The Delisles. Mairan.
 Sept. 1. *St. Petersburg*. The Delisles. Mairan.
 " 10. *St. Petersburg*. The Delisles. Mairan.
 " 15. *St. Petersburg*. The Delisles. Mairan.
 " 16. *St. Petersburg*. The Delisles. Mairan.
 " 17. *St. Petersburg*. The Delisles. Mairan.
 " 18. *St. Petersburg*. The Delisles. Mairan.
 " 23. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 24. *St. Petersburg*. The Delisles. Mairan.
 " 24. *Near London*. Celsius. Phil. Trans.
 " 25. *St. Petersburg*. The Delisles. Mairan.
 Oct. 3. *Plymouth*. Huxham.
 " 11. *St. Petersburg*. Kraft. The Delisles. Mairan.
 Oct. 14. *Plymouth*. Huxham. Mairan and Short.
 " 15. *Bloomsburg*. Celsius.
 " 15. Mairan, Short, and Phil. Trans.
 " 22. *London*. Celsius. Mairan and Phil. Trans.
 " 23. *St. Petersburg*. The Delisles. Mairan. Short.
 " 24. *St. Petersburg*. The Delisles. Mairan.
 Nov. 12. *Lincopiæ*. Sparschuch.
 " 13. *Lincopiæ*. Sparschuch.
 " 14. *Wittemberg*. Weidler. Mairan.
 " 14. *St. Petersburg*. Kraft. The Delisles.
 " 15. *Lincopiæ*. Sparschuch.
 " 18. *Wittemberg*. Weidler. Frobes and Mairan.
 Dec. 8. Frobes and Mairan.
 " 10. *St. Petersburg*. The Delisles. Mairan.
 " 13. Frobes and Mairan.
 " 15. Frobes and Mairan.
 " 18. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 20. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 22. *Peterborough*. Neve.¹
 " 22. *Edinburg*. Short. Mairan and Phil. Trans.

1736.²

- Jan. 7. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 22. Celsius. Mairan and Phil. Trans.
 Feb. 6. *Plymouth*. Huxham.
 " 7. *Plymouth*. Huxham.
 " 13. *St. Petersburg*. The Delisles. Mairan.
 " 16. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 17. *Plymouth*. Huxham. *Lincopiæ*. Sparschuch.³
 " 17. *St. Petersburg*. Kraft. The Delisles.
 " 17. Frobes, Mairan, and Phil. Trans.
 " 18. *Plymouth*. Huxham.
 " 20. *Lincopiæ*. Sparschuch.
 " 20. *Cambridge, Eng.* Celsius.
 " 27. Mairan and Phil. Trans.
 " 28. *St. Petersburg*. The Delisles. Mairan.
 Mar. 1. *Plymouth*. Huxham.
 " 15. *Italy*. Beccari. Mairan.
 " 30. *St. Petersburg*. The Delisles. Mairan.
 " 30. *Lincopiæ*. Sparschuch.
 Apr. 3. Mairan.⁴
 " 5. *St. Petersburg*. Kraft. The Delisles.

¹ Phil. Trans. XL. 53.² At Utrecht, 62 auroras were observed in this year. Dates not given. See letter of Musschenbroek to Du Fay. *Mém. de l'Acad.* 1736, p. 504.³ *Acta Lit. Sueciæ*, IV. 249.⁴ See his general catalogue, p. 545 of *Traité &c.* Boué ascribes the observation incorrectly to the Delisles.

- Apr. 5. *Wittemberg*. Weidler. Mairan.
 " 14. *St. Petersburg*. The Delisles.
 " 14. *Lincopie*. Sparschuch. *London*. Celsius.
 " 14. Mairan and Phil. Trans.
 May 4. *Italy*. Beccari. Mairan.
 July 7. *Italy*. Beccari. Mairan.
 " 8. *Italy*. Beccari. Mairan.
 Aug. 13. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 15. *St. Petersburg*. The Delisles. Mairan.
 " 20. *St. Petersburg*. The Delisles. Mairan.
 " 25. *Plymouth*. Huxham.
 " 29. *Plymouth*. Huxham.
 Sept. 3. *Wittemberg*. Weidler. Mairan.
 " 4. *Wittemberg*. Weidler. Mairan.
 " 4. *Lincopie*. Sparschuch.
 " 5. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 5. *Plymouth*. Huxham. Phil. Trans.
 " 9. *Plymouth*. Huxham.
 " 13. *St. Petersburg*. The Delisles. Mairan.
 " 17. *Upsal*. Wallerius.¹
 " 24. *Upsal*. Wallerius.
 " 25. *Upsal*. Wallerius. Phil. Trans.
 " 25. *Italy*. Beccari. Mairan and Short.
 " 26. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 27. *Upsal*. Wallerius.
 " 29. *Lincopie*. Sparschuch.
 " 29-30. *Upsal*. Wallerius.
 " 30. *Italy*. Beccari. Mairan.
 Oct. 1. *Upsal*. Wallerius. *Mt. Kittis*. Celsius.²
 " 2. *Mt. Kittis*. Celsius.
 " 3. *Mt. Kittis*. Celsius. *Upsal*. Wallerius.
 " 4. *Mt. Kittis*. Celsius.
 " 5. *Upsal*. Wallerius.
 " 6. *Mt. Kittis*. Celsius.
 " 7-8. *Upsal*. Wallerius.
 " 7. *Mt. Kittis*. Celsius. Mairan.
 " 7. *Lincopie*. Sparschuch.
 " 7. *Plymouth*. Huxham. Short.
 " 8. *Plymouth*. Huxham. Short.
 " 8. *Mt. Kittis*. Celsius. Mairan.
 " 10. *Wittemberg*. Weidler. Mairan.
 " 20. *Upsal*. Wallerius.
 " 22. Frobes and Mairan.
 " 24. *Upsal*. Wallerius.
 " 25. *Lincopie*. Sparschuch. *Tremblay*. Du Fay.³
 " 26. *Wittemberg*. Weidler. Frobes and Mairan.
 Oct. 26. *Lincopie*. Sparschuch.
 " 27. *Wittemberg*. Weidler.
 " 27. Frobes, Mairan, and Phil. Trans.
 " 28. *Upsal*. Wallerius. *Mt. Kittis*. Celsius.
 " 28. Frobes, Mairan, and Phil. Trans.
 " 29. *Mt. Kittis*. Celsius.
 " 29. Frobes, Mairan, and Phil. Trans.
 " 30. Frobes and Mairan.
 Nov. 7. *Plymouth*. Huxham. Mairan and Short.
 " 8. Mairan and Short.
 " 9. Mairan and Short.
 " 17. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 18. *Plymouth*. Huxham. Mairan and Short.
 " 19. *St. Petersburg*. The Delisles. Mairan.
 " 19. *Plymouth*. Huxham. Short.
 " 24. *Plymouth*. Huxham. *Lincopie*. Sparschuch.
 " 24. *Edinburg*. Short.¹ Frobes and Mairan.
 " 25. *Lincopie*. Sparschuch.
 " x. Mairan.
 Dec. 1. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 3. *Upsal*. Wallerius. *Mt. Kittis*. Celsius.
 " 10. *Mt. Kittis*. Celsius.
 " 12. *Tornea*. Celsius.
 " 18. *Öfwer-Tornea*. Maupertius.²
 " 18. *Upsal*. Wallerius.
 " 19. *Tornea*. Celsius.
 " 22. *Tornea*. Celsius. Thompson.
 " 22. *Paris*. De Fouchy. Boué.
 " 23. *Tornea*. Celsius.
 " 24. *Tornea*. Celsius.
 " 25. *Tornea*. Celsius.
 " 31. *Tornea*. Celsius.
- 1737.
- Jan. 1. *Italy*. Beccari. *Tornea*. Celsius. Mairan.
 " 2. *Tornea*. Celsius.
 " 3. *St. Petersburg*. The Delisles. Mairan.
 " 3. *Tornea*. Celsius.
 " 5. *Tornea*. Celsius.
 " 6. *Tornea*. Celsius.
 " 8. *Tornea*. Celsius.
 " 9. *Tornea*. Celsius. Mairan. Phil. Trans.
 " 9. *Salem*. Holyoke.³
 " 9. *Philadelphia*. Breintnal.⁴ Kahn.
 " 12. *Tornea*. Celsius.
 " 13. *Upsal*. Wallerius. *Tornea*. Celsius.

¹ Acta Lit. Sueciæ, IV. 220.² Acta Lit. Sueciæ, IV. 254.³ Mém. de l'Acad. 1736, p. 505.¹ Phil. Trans. XLI. Pt. I. 368.² Oeuvres, III. 157.³ Felt's Salem, II. 137.⁴ Phil. Trans., XLI. Pt. I. 359.

- Jan. 15. *Tornea*. Celsius.
 " 19. *Tornea*. Celsius.
 " 20. *Upsal*. Wallerius. *Lincopie*. Sparschuch.¹
 " 21. *Tornea*. Celsius.
 " 22. *Upsal*. Wallerius. *Tornea*. Celsius.
 " 24. *Italy*. Beccari. Mairan.
 " 29. *Upsal*. Wallerius. *Tornea*. Celsius.
 " 30. *Lincopie*. Sparschuch.
 " 31. *Lincopie*. Sparschuch. *Tornea*. Celsius.
 Feb. 1. *Lincopie*. Sparschuch.
 " 2. *Tornea*. Celsius.
 " 3. *Tornea*. Celsius.
 " 5. *Tornea*. Celsius.
 " 22. *Kiemi*. Celsius.
 " 23. *Kiemi*. Celsius.
 " 27. *Tornea*. Celsius.
 " 28. *Upsal*. Wallerius.
 Mar. 2. *Tornea*. Celsius.
 " 3. *Tornea*. Celsius.
 " 6. *Tornea*. Celsius.
 " 18. *Plymouth*. Huxham. Mairan and Short.
 " 21. Mairan, Short, and Phil. Trans.
 " 28. *St. Petersburg*. Kraft. The Delisles. Mairan.²
 " 28. *Wittemberg*. Weidler. Mairan.
 " 29. *Plymouth*. Huxham. Short.
 " 29. *Wittemberg*. Weidler. Mairan.
 Apr. 3. *Mt. Kittis*. Celsius.
 " 4. *Mt. Kittis*. Celsius.
 " 6. *Mt. Kittis*. Celsius.
 " 7. *Mt. Kittis*. Celsius.
 " 7. *Wittemberg*. Weidler. Mairan.
 " 10. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 11. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 22. *Tornea*. Celsius.
 " 24. *St. Petersburg*. Kraft. The Delisles. Mairan.
 June 3. *Italy*. Beccari. Mairan.
 " 30. *Italy*. Beccari. Mairan.
 Aug. 20. *Plymouth*. Huxham. Phil. Trans.
 " 20. *Wittemberg*. Weidler. Mairan and Short.
 " 21. *Italy*. Beccari. *Plymouth*. Huxham. Short.
 " 21. *Wittemberg*. Weidler.
 " 21. Mairan and Phil. Trans.
 " 22. *Plymouth*. Huxham. Mairan and Short.
 " 22. *Philadelphia, &c.* Kahn.³ Phil. Trans.
 " 23. *Plymouth*. Huxham. *Wittemberg*. Weidler.
 " 23. *St. Petersburg*. Kraft. The Delisles.
 " 23. Mairan, Short, and Phil. Trans.
 Aug. 24. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 25. *Italy*. Beccari. Mairan.
 " 25. *St. Petersburg*. Kraft. The Delisles.
 Sept. 4. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 14. Mairan and Phil. Trans.
 " 18. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 22. *Lincopie*. Sparschuch. Frobés and Mairan.
 " 24. *Lincopie*. Sparschuch.
 " 27. Mairan, Short, and Phil. Trans.
 " 28. *Lincopie*. Sparschuch. Mairan.
 " 28. Phil. Trans. and Short.
 " 30. Mairan, Short, and Phil. Trans.
 Oct. 1. Mairan, Short, and Phil. Trans.
 " 2. Mairan and Phil. Trans.
 " 23. *St. Petersburg*. Kraft. The Delisles. Mairan.
 " 24. Mairan and Phil. Trans.
 " 25. Mairan and Phil. Trans.
 " 26. Mairan.⁴ Boué.
 Nov. 6. *Lincopie*. Sparschuch.
 " 11. *Lincopie*. Sparschuch.
 " 12. *Lincopie*. Sparschuch. *Plymouth*. Huxham.
 " 18. *Plymouth*. Huxham.
 " 26. *Wittemberg*. Weidler. Mairan.
 " 30. Mairan and Phil. Trans.
 Dec. 12. *Lincopie*. Sparschuch.
 " 16. *Bologna*. Zanotti and Beccari.¹
 " 16. *Plymouth*. Huxham. *Wittemberg*. Weidler.
 " 16. Frobés, Mairan, Thompson, and Phil. Trans.
 " 19. *Montpelier*. Plantade. *Siberia*. Gmelin.²
 " 20. Mairan and Phil. Trans.
 " 21. *Italy*. Beccari. Mairan.
 " 22. *Italy*. Beccari. Mairan.
 " 28. *Italy*. Beccari. Frobés and Mairan.

1738.

- Jan. 25. *Plymouth*. Huxham.
 Feb. 12. *St. Petersburg*. Kraft.³
 " 16. *Italy*. Beccari. Mairan.
 " 19. Mairan and Short.
 Mar. 8. *Lincopie*. Sparschuch. Mairan.⁴
 " 18. Mairan, Short, and Phil. Trans.
 " 19. Mairan.⁴
 " 21. *Lincopie*. Sparschuch.
 Apr. 10. Mairan, Short, and Phil. Trans.
 " 16. *Plymouth*. Huxham.
 July 11. *Italy*. Beccari. Mairan.

¹ Comm. Bonon. II. Pt. I. 476.² Comm. Petrop. XI. 252. ³ Ibid. XI. 244.⁴ Mairan gives an aurora on these dates in his general catalogue (*Traité*, p. 545), but not in any special one.¹ Acta Lit. Suecicæ, IV. 437.² Comm. Petrop. IX. 359.³ Penn. Gazette.

- Aug. 13. *Italy*. Beccari. Mairan.
 " 19. *St. Petersburg*. Kraft.
 Sept. 4. *St. Petersburg*. Kraft.
 " 19. *St. Petersburg*. Kraft.
 Oct. 12. *St. Petersburg*. Kraft.
 " 27. *Lincopie*. Sparschuch.
 " 28. *Lincopie*. Sparschuch.
 Nov. 1. *Plymouth*. Huxham.
 " 4. *Plymouth*. Huxham. *Lincopie*. Sparschuch.
 " 5. *Plymouth*. Huxham.
 " 7. *Plymouth*. Huxham.
 " 14. *Lincopie*. Sparschuch.
 Dec. 2. *St. Petersburg*. Kraft.
 " 4. *Lincopie*. Sparschuch.
 " 4. *Wittemberg*. Weidler. Mairan.
 " 6. *St. Petersburg*. Kraft.
 " 7. *Lincopie*. Sparschuch.
 " 9. *Lincopie*. Sparschuch.
 " 10. *Lincopie*. Sparschuch.
 " 15. *Lincopie*. Sparschuch.
 " 17. *Lincopie*. Sparschuch.
 " 19. *Lincopie*. Sparschuch.
 " 27. *Lincopie*. Sparschuch.
- 1739.
- Jan. 2. *Lincopie*. Sparschuch.
 " 4. *Lincopie*. Sparschuch.
 " 8. Mairan and Short.
 " 27. Frobes and Mairan.
 " 30. *Upsal*. Celsius.¹
 " 30. *St. Petersburg*. Kraft.²
 Feb. x. Frobes and Mairan.
 " 1. *St. Petersburg*. Kraft.
 " 9. *Upsal*. Celsius.
 " 15. Mairan, Short, and Phil. Trans.
 " 17. Frobes and Mairan.
 " 27. *Upsal*. Celsius. *St. Petersburg*. Kraft.
 " 27. *Wittemberg*. Weidler. Frobes and Mairan.
 Mar. 5. *Upsal*. Celsius.
 " 6. *Upsal*. Celsius. Mairan and Phil. Trans.
 " 6. *Plymouth*. Huxham. Short.
 " 7. Mairan and Phil. Trans.
 " 8. *St. Petersburg*. Kraft.
 " 10. *Bologna*. Zanotti and Beccari.
 " 10. Frobes and Mairan.
 " 11. *St. Petersburg*. Kraft.
 " 12. *Plymouth*. Huxham. *Upsal*. Celsius.
- Mar. 12. *St. Petersburg*. Kraft. Mairan.
 " 12. Frobes, Short, and Phil. Trans.
 " 13. *St. Petersburg*. Kraft. *Siberia*. Gmelin.¹
 " 14. *Upsal*. Celsius. *St. Petersburg*. Kraft.
 " 15. *St. Petersburg*. Kraft.
 " 22. Frobes and Mairan.
 " 26. *Plymouth*. Huxham.
 " 27. *Upsal*. Celsius.
 " 29. *Bologna*. Zanotti and Beccari. Oliva.²
 " 29. *Chelsea*. Martyn. Phil. Trans.
 " 29. *Padua*.³ Poleni. Frobes and Mairan.
 " 29. *St. Petersburg*. Kraft. *Siberia*. Gmelin.
 " 30. *Upsal*. Celsius. *Siberia*. Gmelin.
 Apr. 1. *Upsal*. Celsius.
 " 4. *Upsal*. Celsius.
 " 5. *Upsal*. Celsius.
 " 9. *Philadelphia*. Breintnal. Kahn.
 " 10. *Plymouth*. Huxham. *Siberia*. Gmelin.
 " 10. *Wittemberg*. Weidler. Mairan.
 " 10. *St. Petersburg*. Kraft.
 " 20. *Upsal*. Celsius.
 " 28. *Upsal*. Celsius.
 " 29. *Upsal*. Celsius.
 May 1. *Plymouth*. Huxham. *St. Petersburg*. Kraft.
 " 2. *Upsal*. Celsius.
 " 4. *Upsal*. Celsius.
 June 2. *Bologna*. Zanotti. Matteucci and Mairan.
 " 2. *Philadelphia*. Breintnal. Kahn.
 Aug. 2. *Upsal*. Celsius.
 " 10. *Upsal*. Celsius.
 " 12. *Upsal*. Celsius.
 " 21. *Upsal*. Celsius.
 " 28. *St. Petersburg*. Kraft.
 " 30. *Upsal*. Celsius.
 " 31. *St. Petersburg*. Kraft.
 Sept. 5. *Upsal*. Celsius.
 " 6. *Upsal*. Celsius. *St. Petersburg*. Kraft.
 " 7. *Upsal*. Celsius.
 " 8. *Upsal*. Celsius.
 " 9. *St. Petersburg*. Kraft.
 " 23. *Plymouth*. Huxham. *Cambridge*. Winthrop.⁵
 " 23. *Philadelphia*. Breintnal. Kahn.
 " 23. *St. Petersburg*. Kraft.
 " 24. *Plymouth*. Huxham.
 " 24. Mairan, Short, and Phil. Trans.

¹ Mém. Etrang. Paris, IV. 137. Svenska Vetensk. Acad. I. 256.

² Comm. Petrop. XI. 255.

¹ N. Comm. Petrop. VI. 458.

² Comm. Bonon. II. Pt. I. 479.

³ Comm. Petrop. VIII. 440.

⁴ Comm. Bonon. II. Pt. III. 496.

⁵ Amer. Journ., XL. 206.

- Sept. 25. Mairan, Short, and Phil. Trans.
 " 26. *Upsal.* Celsius.
 " 26. Mairan, Short, and Phil. Trans.
 " 27. *Upsal.* Celsius. *St. Petersburg.* Kraft.
 " 28. *Upsal.* Celsius. *St. Petersburg.* Kraft.
 " 28. *Wittemberg.* Weidler. Mairan.
 " 29. Mairan, Short, and Phil. Trans.
 " 30. *Upsal.* Celsius. Mairan and Phil. Trans.
 Oct. 1. *Upsal.* Celsius.
 " 3. *Upsal.* Celsius.
 " 24. *Upsal.* Celsius.¹
 " 25. *Upsal.* Celsius.
 " 29. *Upsal.* Celsius. Mairan and Short.
 " 30. *Upsal.* Celsius. Mairan and Short.
 " 31. *Upsal.* Celsius. *Wittemberg.* Weidler. Mairan.
 Nov. 1. *Upsal.* Celsius.
 " 2. *Upsal.* Celsius. Mairan and Phil. Trans.
 " 4. *Upsal.* Celsius.
 " 5. *Upsal.* Celsius.
 " 11. *Upsal.* Celsius.
 " 16. *Italy.* Beccari. Mairan.
 " 23. *Upsal.* Celsius.
 " 27. *Upsal.* Celsius.
 Dec. 6. Mairan, Short, and Phil. Trans.
 " 13. Mairan and Phil. Trans.
 " 14. *Upsal.* Celsius.

1740.

- Jan. 2. *St. Petersburg.* Kraft.
 " 3. *St. Petersburg.* Kraft.
 " 4. *Upsal.* Celsius.
 " 23. *St. Petersburg.* Kraft.
 " 25. *Upsal.* Celsius.²
 " 27. *Rome.* Didacus de Revillas.³ Boué.
 " 27. Mairan and Phil. Trans.
 " 30. *Upsal.* Celsius.
 Feb. 1. *Upsal.* Celsius.
 " 23. *Upsal.* Celsius.
 " 24. *Upsal.* Celsius.⁴
 " 27. *Upsal.* Celsius. *St. Petersburg.* Kraft.
 " 28. *Upsal.* Celsius.
 Mar. 1. *St. Petersburg.* Kraft.

¹ This and the nine following observations of Celsius are not given in the Svenska Vetensk. Acad., but are contained in the Mém. Etrang. Paris, IV. 137.

² Svenska Vetensk. Acad. II. 67, and Acta Soc. Upsal. 1740, p. 38, &c.

³ This appears to have been the *Aurora Australis*. Phil. Trans. XLI. 744.

⁴ This and the observations of March 9 and 10, and of Aug. 29, are not given in the Acta Soc. Upsal.

- Mar. 4. *Upsal.* Celsius.
 " 9. *Upsal.* Celsius.
 " 10. *Upsal.* Celsius.
 " 11. *Upsal.* Celsius.
 " 19. *Upsal.* Celsius.
 " 23. *Upsal.* Celsius. *Plymouth.* Huxham.
 " 23. *St. Petersburg.* Kraft.
 " 24. *Upsal.* Celsius. *Plymouth.* Huxham.
 " 24. *St. Petersburg.* Kraft.
 " 25. *Plymouth.* Huxham. *St. Petersburg.* Kraft.
 " 26. *Upsal.* Celsius.
 May 22. *Upsal.* Celsius.
 June 7. *Plymouth.* Huxham.
 July 10. *Upsal.* Celsius.
 Aug. 17. *Upsal.* Celsius.
 " 21. *Upsal.* Celsius.
 " 29. *Upsal.* Celsius.
 Sept. 12. *Upsal.* Celsius.
 " 15. *Upsal.* Celsius.
 " 22. *St. Petersburg.* Kraft.
 " 25. *Upsal.* Celsius. *St. Petersburg.* Kraft.
 " 26. *Upsal.* Celsius. *St. Petersburg.* Kraft.
 Oct. 16. *Upsal.* Celsius.
 " 17. Mairan, Short, and Phil. Trans.
 " 20. *Upsal.* Celsius.
 " 23. *Upsal.* Celsius.
 " 24. *Upsal.* Celsius. *St. Petersburg.* Kraft.
 " 27. *Upsal.* Celsius.
 " 31. *Upsal.* Celsius.
 Nov. 3. *Upsal.* Celsius. Thompson.
 " 11. *Upsal.* Celsius.
 " 16. *Upsal.* Celsius. *St. Petersburg.* Kraft.
 " 18. *St. Petersburg.* Kraft.
 Dec. 7. *Upsal.* Celsius.
 " 18. *Upsal.* Celsius.
 " 20. *Upsal.* Celsius.

1741.

- Jan. 12. *Italy.* Beccari. Mairan.¹
 " 14. *Upsal.* Celsius and Hiorter.
 " 19. *Upsal.* Celsius and Hiorter.
 " 20. *Upsal.* Celsius and Hiorter.
 " 21. *Upsal.* Celsius and Hiorter.
 " 21. *St. Petersburg.* Kraft.
 " 21. *Cambridge.* Winthrop.
 " 23. *Upsal.* Celsius and Hiorter.

¹ In Mairan's special catalogue it stands, Jan. 13. *Traité &c.* p. 507.

² Svenska Vetensk. Acad. III. 14, and Acta Soc. Upsal. 1750, p. 100.

- Jan. 23. *Wittenberg*. Weidler. Mairan.
 " 24. *Upsal*. Celsius and Hiorter.
 " 26. *St. Petersburg*. Kraft.
 " 27. *St. Petersburg*. Kraft.
 Feb. 2. *Upsal*. Celsius and Hiorter.
 " 5. *Upsal*. Celsius and Hiorter.
 " 7. *Upsal*. Celsius and Hiorter.
 " 8. *Upsal*. Celsius and Hiorter.
 " 9. *Upsal*. Celsius and Hiorter.
 " 14. *St. Petersburg*. Kraft.
 " 15. *St. Petersburg*. Kraft.
 " 16. *Wittenberg*. Weidler. Mairan.
 " 16. *St. Petersburg*. Kraft.
 " 17. *Upsal*. Celsius and Hiorter.¹
 " 25. *Upsal*. Celsius and Hiorter.
 Mar. 2. *Upsal*. Celsius and Hiorter.
 " 5. *Upsal*. Celsius and Hiorter.
 " 6. *St. Petersburg*. Kraft.
 " 7. *Upsal*. Celsius and Hiorter.
 " 11. *Upsal*. Celsius and Hiorter.²
 " 11. Mairan and Phil. Trans.
 " 12. *Upsal*. Celsius and Hiorter.
 " 12. *St. Petersburg*. Kraft.
 " 13. *Upsal*. Celsius and Hiorter.
 " 16. *Plymouth*. Huxham. Mairan and Phil. Trans.
 " 16. *Cambridge*. Winthrop.
 " 17. Mairan and Phil. Trans.
 " 19. *Upsal*. Celsius and Hiorter.
 " 20. *Plymouth*. Huxham. Mairan and Phil. Trans.
 " 26. *Upsal*. Celsius and Hiorter.
 " 30. *Upsal*. Celsius and Hiorter.
 Apr. 1. *Plymouth*. Huxham.
 " 4. *Upsal*. Celsius and Hiorter.
 " 6. *Upsal*. Celsius and Hiorter. Mairan. Short.
 " 6. *Philadelphia*. Breintnal. Kahn.
 " 6. *Cambridge*. Winthrop. *St. Petersburg*. Kraft.
 " 9. *Upsal*. Celsius and Hiorter.
 " 10. *Upsal*. Celsius and Hiorter.
 " 12. *St. Petersburg*. Kraft.
 " 13. *Upsal*. Celsius and Hiorter.
 " 15. *Upsal*. Celsius and Hiorter.
 " 16. *Upsal*. Celsius and Hiorter.
 " 16. *St. Petersburg*. Kraft.
 " 17. Mairan and Short.
 " 18. *St. Petersburg*. Kraft.
 July 10. *Plymouth*. Huxham.
 " 23. *Plymouth*. Huxham.
- July 23. *Upsal*. Celsius and Hiorter.
 Aug. 8. *Upsal*. Celsius and Hiorter.
 " 9. *Upsal*. Celsius and Hiorter.
 " 10. *Upsal*. Celsius and Hiorter.
 " 10. Mairan and Short.
 " 13. *Upsal*. Celsius and Hiorter.
 " 13. *Wittenberg*. Weidler. Mairan and Short.
 " 14. *Upsal*. Celsius and Hiorter.
 " 19. *Upsal*. Celsius and Hiorter.
 " 20. *Upsal*. Celsius and Hiorter.
 " 21. *Upsal*. Celsius and Hiorter.
 " 22. *Upsal*. Celsius and Hiorter.
 " 23. *Upsal*. Celsius and Hiorter.¹
 " 27. *Upsal*. Celsius and Hiorter.²
 Sept. 4. *Upsal*. Celsius and Hiorter.
 " 5. *Upsal*. Celsius and Hiorter.
 " 6. *Upsal*. Celsius and Hiorter.
 " 7. *Upsal*. Celsius and Hiorter.
 " 8. *Upsal*. Celsius and Hiorter.
 " 9. *Upsal*. Celsius and Hiorter.
 " 9. *St. Petersburg*. Kraft.
 " 10. *Upsal*. Celsius and Hiorter.
 " 10. *St. Petersburg*. Kraft.
 " 11. *Upsal*. Celsius and Hiorter.³
 " 15. *Upsal*. Celsius and Hiorter.
 " 15. *St. Petersburg*. Kraft.
 " 18. *St. Petersburg*. Kraft.
 " 19. *St. Petersburg*. Kraft.
 Oct. 1. Mairan and Short.
 " 2. *Upsal*. Celsius and Hiorter.
 " 2. *Plymouth*. Huxham. Mairan and Short.
 " 3. *Upsal*. Celsius and Hiorter.
 " 3. Mairan and Short.
 " 4. *Upsal*. Celsius and Hiorter.
 " 5. *Upsal*. Celsius and Hiorter.⁴
 " 6. *Cambridge*. Winthrop.
 " 7. *Cambridge*. Winthrop.
 " 7. *Upsal*. Celsius and Hiorter.⁵
 " 8. *Upsal*. Celsius and Hiorter.
 " 8. *Italy*. Beccari. Mairan.
 " 8. *Plymouth*. Huxham. *Cambridge*. Winthrop.
 " 8. *Göttingen*. Hollmann.⁶
 " 9. *Upsal*. Celsius and Hiorter.
 " 9. *Italy*. Beccari. *St. Petersburg*. Kraft.

¹ Not in Svenska Vetensk. Acad.² Not in Acta Soc. Upsal.¹ Not in Svenska Vetensk. Acad.² Not in Acta Soc. Upsal.³ Not in Acta Soc. Upsal.⁴ Not in Svenska Vetensk. Acad.⁵ Not in Acta Soc. Upsal.⁶ Comm. Gott. III. 7.

- Oct. 9. Mairan, Short, and Phil. Trans.
 " 9. *Göttingen*. Hollmann.
 " 10. *Upsal*. Celsius and Hiorter.
 " 10. *St. Petersburg*. Kraft. Mairan and Short.
 " 11. *Upsal*. Celsius and Hiorter.
 " 12. *Upsal*. Celsius and Hiorter.
 " 12. *St. Petersburg*. Kraft. Mairan and Short.
 " 13. *Upsal*. Celsius and Hiorter.¹
 " 14. *Upsal*. Celsius and Hiorter.
 " 14. Mairan and Short.
 " 15. *Upsal*. Celsius and Hiorter.
 " 15. Mairan and Short.
 " 16. *Upsal*. Celsius and Hiorter.
 " 17. *Upsal*. Celsius and Hiorter.
 " 19. *Upsal*. Celsius and Hiorter.
 " 28. *St. Petersburg*. Kraft.
 Nov. 2. *Wittemberg*. Weidler.² Mairan.
 " 4. *Upsal*. Celsius and Hiorter.
 " 6. *Upsal*. Celsius and Hiorter.
 " 9. *Wittemberg*. Weidler. Mairan.
 " 11. *Upsal*. Celsius and Hiorter.
 " 11. Mairan and Short.
 " 12. *St. Petersburg*. Kraft.
 " 12. *Upsal*. Celsius and Hiorter.³
 " 14. *Upsal*. Celsius and Hiorter.
 " 14. *St. Petersburg*. Kraft.
 " 17. *Upsal*. Celsius and Hiorter.
 " 29. *Upsal*. Celsius and Hiorter.
 Dec. 1. *Upsal*. Celsius and Hiorter.
 " 2. *Upsal*. Celsius and Hiorter.⁴
 " 3. *Upsal*. Celsius and Hiorter.¹
 " 4. *St. Petersburg*. Kraft.
 " 4. *Upsal*. Celsius and Hiorter.
 " 7. *Upsal*. Celsius and Hiorter.
 " 8. *St. Petersburg*. Kraft.
 " 8. *Upsal*. Celsius and Hiorter.
 " 12. *Upsal*. Celsius and Hiorter.
 " 17. *Upsal*. Celsius and Hiorter.
 " 18. *Upsal*. Celsius and Hiorter.
 " 21. *St. Petersburg*. Kraft.
 " 21. *Upsal*. Celsius and Hiorter.⁵
 1742.
 Jan. 2. Mairan and Short.
 Jan. 3. *St. Petersburg*. Kraft.
 " 9. *Upsal*. Celsius.¹
 Feb. 2. *Upsal*. Celsius.²
 " 4. *Upsal*. Celsius.
 " 9. *Upsal*. Celsius.
 " 10. *Upsal*. Celsius.
 " 11. *Upsal*. Celsius.
 " 15. *Upsal*. Celsius.
 " 25. *Wittemberg*. Weidler. Mairan.
 " 26. *Upsal*. Celsius.
 Mar. 1. *St. Petersburg*. Kraft.³
 " 3. *Wittemberg*. Weidler. Mairan.
 " 3. *Plymouth*. Huxham. *Siberia*. Gmelin.⁴
 " 8. *Upsal*. Celsius.
 " 9. *Upsal*. Celsius.
 " 12. *Upsal*. Celsius. *St. Petersburg*. Kraft.
 " 13. *St. Petersburg*. Kraft.
 " 16. *Upsal*. Celsius. *Plymouth*. Huxham.
 " 17. *Plymouth*. Huxham.
 " 19. *Upsal*. Celsius.
 " 25. *Upsal*. Celsius.
 " 25. *St. Petersburg*. Kraft.
 " 26. *Plymouth*. Huxham.
 " 26. *Wittemberg*. Weidler. Mairan.
 " 26. *St. Petersburg*. Kraft.
 " 27. *Upsal*. Celsius. *Plymouth*. Huxham.⁵
 " 27. *Wittemberg*. Weidler. Mairan.
 " 27. *St. Petersburg*. Kraft.
 Apr. 2. *Siberia*. Gmelin.
 " 4. *Plymouth*. Huxham.
 " 4. *St. Petersburg*. Kraft.
 " 9. *St. Petersburg*. Kraft.
 " 10. *St. Petersburg*. Kraft.
 " 12. *St. Petersburg*. Kraft.
 " 13. *St. Petersburg*. Kraft.
 " 16. *St. Petersburg*. Kraft.
 " 22. *Cambridge*. Winthrop.⁵ *St. Petersburg*. Kraft.
 " 23. *Upsal*. Celsius.
 " 23. *St. Petersburg*. Kraft. *Siberia*. Gmelin.
 " 27. *Upsal*. Celsius.
 May 23. *Wittemberg*. Weidler. Mairan.
 Aug. 10. *Upsal*. Celsius.
 " 12. *Upsal*. Celsius.
 " 13. *Upsal*. Celsius.
 " 26. *Upsal*. Celsius. *St. Petersburg*. Kraft.

¹ Neither this nor the next is in Acta Soc. Upsal.² Mairan gives this and that of Nov. 9 in Weidler's special catalogue, but not in his own general catalogue. Compare pages 503 and 545 of his *Traité* &c.³ Not in Svenska Vetensk. Acad.⁴ Not in Svenska Vetensk. Acad.⁵ Not in Svenska Vetensk. Acad.¹ Not in Acta Soc. Upsal.² Svenska Vetensk. Acad. IV. 54.³ Comm. Petrop. XIV. 241.⁴ N. Comm. Petrop. XI. 323.⁵ Amer. Jour., XL. 204.

- Aug. 26. *Wittemberg.* Weidler. Mairan.
 " 27. *St. Petersburg.* Braun.
 " 28. *Upsal.* Celsius.
 " 30. *Upsal.* Celsius. *St. Petersburg.* Kraft.
 " 30. *Wittemberg.* Weidler. Mairan.
 " 31. *Upsal.* Celsius.
 Sept. 6. *Upsal.* Celsius.
 " 7. *Upsal.* Celsius.
 " 7. *Wittemberg.* Weidler. Mairan.
 " 10. *Wittemberg.* Weidler. Mairan.
 " 19. *Upsal.* Celsius.
 " 23. *Upsal.* Celsius.
 " 25. *Upsal.* Celsius.
 " 26. *Upsal.* Celsius. *St. Petersburg.* Kraft.
 " 27. *Upsal.* Celsius. *St. Petersburg.* Kraft.
 " 28. *Upsal.* Celsius.
 " 29. *St. Petersburg.* Kraft.
 Oct. 1. *Upsal.* Celsius.
 " 3. *Upsal.* Celsius.
 " 4. *Upsal.* Celsius.
 " 8. *St. Petersburg.* Kraft. *Gottingen.* Hollmann.
 " 22. Mairan and Short.
 " 23. *Upsal.* Celsius.
 " 23. *Cambridge.* Winthrop. Mairan and Short.
 " 25. *Upsal.* Celsius.
 " 26. *Upsal.* Celsius. *St. Petersburg.* Kraft.
 " 27. *Upsal.* Celsius. *St. Petersburg.* Kraft.
 " 28. *Upsal.* Celsius.
 " 29. *Upsal.* Celsius. *St. Petersburg.* Kraft.
 " 31. *Upsal.* Celsius.
 Nov. 18. *Upsal.* Celsius.
 " 19. *Upsal.* Celsius.
 " 24. *St. Petersburg.* Kraft.
 " 26. *St. Petersburg.* Kraft.
 Dec. 16. *St. Petersburg.* Kraft.
 " 17. *Upsal.* Celsius.
 " 19. *Upsal.* Celsius.
 " 22. *Wittemberg.* Weidler.
 " 22. Mairan and Phil. Trans.
 " 24. *St. Petersburg.* Kraft.
 " 26. *Wittemberg.* Weidler. Mairan.
 " 29. *Cambridge.* Winthrop. Lovering.¹
 " 30. *Cambridge.* Winthrop. Lovering.
- 1743.
- Jan. 2. *Upsal.* Celsius.
 " 3. *St. Petersburg.* Kraft.
 " 4. *St. Petersburg.* Kraft.
- Jan. 23. *Upsal.* Celsius.
 " 23. *Cambridge.* Winthrop. Lovering.
 " 23. *Plymouth.* Huxham.
 " 30. *Wittemberg.* Weidler. Mairan.
 Feb. 14. *Upsal.* Celsius.
 " 18. *Upsal.* Celsius.
 " 20. *Upsal.* Celsius.
 " 26. *Upsal.* Celsius.
 " 27. *Upsal.* Celsius.
 Mar. 1. *Upsal.* Celsius.
 " 15. *Upsal.* Celsius.
 " 16. *Wittemberg.* Weidler. Mairan.
 " 17. *Upsal.* Celsius.
 " 19. *Upsal.* Celsius. *Plymouth.* Huxham.
 " 19. *Wittemberg.* Weidler. Mairan.
 " 20. *Wittemberg.* Weidler. Mairan.
 " 20. *St. Petersburg.* Kraft.²
 " 21. *St. Petersburg.* Kraft.
 " 24. *Upsal.* Celsius.
 " 24. *Italy.* Beccari. Mairan.
 " 25. *Upsal.* Celsius.
 " 26. *Wittemberg.* Weidler. Mairan.
 " 28. *Upsal.* Celsius.
 " 28. *Wittemberg.* Weidler. Mairan.
 Apr. 3. *Upsal.* Celsius.
 " 8. *Upsal.* Celsius.
 " 12. *Upsal.* Celsius. *Plymouth.* Huxham.
 " 12. *St. Petersburg.* Kraft.
 " 13. *Upsal.* Celsius.
 " 14. *Upsal.* Celsius.
 " 20. *St. Petersburg.* Kraft.
 " 21. *Upsal.* Celsius.
 " 28. *St. Petersburg.* Kraft.
 May 14. *Upsal.* Celsius.
 July 9. *Plymouth.* Huxham.
 Aug. 19. *Upsal.* Celsius.
 " 22. *Upsal.* Celsius.
 " 24. *Upsal.* Celsius.
 " 26. *Upsal.* Celsius.
 " 29. *Upsal.* Celsius.
 Sept. 1. *St. Petersburg.* Kraft.
 " 11. *Upsal.* Celsius.
 " 18. *Upsal.* Celsius.
 " 19. *Upsal.* Celsius.
 " 19. *Wittemberg.* Weidler. Mairan.
 " 22. *Upsal.* Celsius.
 " 26. *Upsal.* Celsius.

¹ Mem. Amer. Acad. IX. 112.² Svenska Vetensk. Acad. V. 145.² Comm. Petrop. XIV. 248.

- | | | | | | |
|-----------|--------------------------------|--------------------------------|-----------|--------------------|----------------------------------|
| Sept. 28. | <i>Upsal.</i> | Celsius. | Dec. 25. | <i>Plymouth.</i> | Huxham. |
| Oct. 1. | <i>Upsal.</i> | Celsius. | " 28. | <i>Upsal.</i> | Celsius. |
| " 4. | <i>Upsal.</i> | Celsius. | " 31. | <i>Upsal.</i> | Celsius. |
| " 7. | <i>Upsal.</i> | Celsius. | | | |
| " 8. | <i>Upsal.</i> | Celsius. | | | 1745. |
| " 8. | <i>Wittemberg.</i> | Weidler. Mairan. | Jan. 1. | <i>Upsal.</i> | Celsius. |
| " 10. | <i>Upsal.</i> | Celsius. | " 4. | <i>Plymouth.</i> | Huxham. |
| " 20. | <i>Upsal.</i> | Celsius. | " 21. | <i>Wittemberg.</i> | Weidler. Mairan. |
| " 25. | <i>Upsal.</i> | Celsius. | " 27. | <i>Upsal.</i> | Celsius. ¹ |
| " 26. | <i>Upsal.</i> | Celsius. | " 28. | <i>Upsal.</i> | Celsius. |
| Nov. 5. | <i>Cambridge.</i> | Winthop. Lovering. | " 29. | <i>Stuttgart.</i> | Du Vernoi. ² |
| " 7. | <i>Upsal.</i> | Celsius. | Feb. 3. | <i>Upsal.</i> | Celsius. |
| " 13. | <i>St. Petersburg.</i> | Kraft. | " 19. | <i>Upsal.</i> | Celsius. |
| " 17. | <i>Upsal.</i> | Celsius. | " 20. | <i>Plymouth.</i> | Huxham. |
| " 19. | <i>Upsal.</i> | Celsius. | " 21. | <i>Upsal.</i> | Celsius. |
| " 21. | <i>Upsal.</i> | Celsius. | " 23. | <i>Upsal.</i> | Celsius. |
| Dec. 14. | <i>Upsal.</i> | Celsius. | " 24. | <i>Upsal.</i> | Celsius. |
| " 17. | <i>Upsal.</i> | Celsius. | " 26. | <i>Upsal.</i> | Celsius. |
| " 18. | <i>Upsal.</i> | Celsius. | " 27. | <i>Upsal.</i> | Celsius. |
| | | | June 13. | <i>Tubingen.</i> | Kraft. |
| | | 1744. | Sept. 14. | <i>Upsal.</i> | Celsius. |
| Jan. 11. | <i>Upsal.</i> | Celsius. | " 18. | <i>Upsal.</i> | Celsius. |
| Feb. 9. | <i>Upsal.</i> | Celsius. ¹ | Oct. 7. | <i>Upsal.</i> | Celsius. |
| " 17. | <i>Upsal.</i> | Celsius. | " 9. | <i>Italy.</i> | Beccari. Mairan. |
| Mar. 5. | <i>Upsal.</i> | Celsius. | " 17. | <i>Italy.</i> | Beccari. Mairan. |
| " 6. | <i>Upsal.</i> | Celsius. | Nov. 28. | <i>Upsal.</i> | Celsius. |
| " 14. | <i>Upsal.</i> | Celsius. | " 29. | <i>Upsal.</i> | Celsius. |
| Apr. 2. | <i>Wittemberg.</i> | Weidler. Mairan. | Dec. 14. | <i>Upsal.</i> | Celsius. |
| " 2. | <i>Plymouth.</i> | Huxham. | " 15. | <i>Upsal.</i> | Celsius. |
| " 30. | <i>Upsal.</i> | Celsius. | " 16. | <i>Upsal.</i> | Celsius. |
| June 7. | <i>London.</i> | Mairan and Phil. Trans. | " 17. | <i>Upsal.</i> | Celsius. |
| " 13. | <i>Upsal.</i> | Celsius. | " 18. | <i>Upsal.</i> | Celsius. |
| " 20. | <i>South America. At Cusco</i> | 12° S. Lat. Boué. ² | | | 1746. |
| " 27. | <i>Upsal.</i> | Celsius. | Jan. 9. | <i>Tubingen.</i> | Kraft. |
| Sept. 8. | <i>Upsal.</i> | Celsius. | " 10. | <i>Upsal.</i> | Celsius. |
| " 10. | <i>Upsal.</i> | Celsius. | " 11. | <i>Upsal.</i> | Celsius. |
| Oct. 1. | <i>Upsal.</i> | Celsius. | " 12. | <i>Upsal.</i> | Celsius. ³ |
| " 3. | <i>Italy.</i> | Beccari. Mairan. | " 14. | <i>Upsal.</i> | Celsius. |
| Nov. 10. | <i>Upsal.</i> | Celsius. | " 20. | <i>Upsal.</i> | Celsius. |
| Dec. x. | | Mairan and Phil. Trans. | " 29. | <i>Stuttgart.</i> | Du Vernoi. |
| " x. | | Mairan and Phil. Trans. | Feb. 10. | <i>Upsal.</i> | Celsius. |
| " x. | | Mairan and Phil. Trans. | " 11. | <i>Upsal.</i> | Celsius. <i>Tubingen?</i> Kraft. |
| " x. | | Mairan and Phil. Trans. | " 12. | <i>Upsal.</i> | Celsius. |
| " x. | | Mairan and Phil. Trans. | " 13. | <i>Upsal.</i> | Celsius. |
| " 6. | <i>Tubingen.</i> | Kraft. ³ | " 14. | <i>Upsal.</i> | Celsius. |

¹ Svenska Vetensk. Acad. VI. 18.² Mém. de l'Acad. 1747. p 17.³ N. Comm. Petrop. I. 144.¹ Svenska Vetensk. Acad. VII. 72.² N. Comm. Petrop. I. 144.³ Svenska Vetensk. Acad. VIII. 155.

- Feb. 15. *Tubingen?* Kraft.
 " 16. *Upsal.* Celsius.
 " 20. *Plymouth.* Huxham.
 " 21. *Upsal.* Celsius.
 " 22. *Upsal.* Celsius.
 " 24. *Upsal.* Celsius.
 " 26. *Upsal.* Celsius.
 Mar. 5. *Philadelphia.* Breintnal and Kalm.
 " 9. *Upsal.* Celsius.
 " 10. *Upsal.* Celsius. *Plymouth.* Huxham.
 " 12. *Cambridge.* Winthrop. Lovering.
 " 12. *Upsal.* Celsius. *Canada.* Gauthier. Kalm.
 " 13. *Cambridge.* Winthrop. Lovering.
 " 14. *Upsal.* Celsius.
 " 20. *Upsal.* Celsius.
 " 25. *Plymouth.* Huxham.
 " 29. *Cambridge.* Winthrop. Lovering.
 Apr. 12. *Upsal.* Celsius.
 June 12. *Cambridge.* Winthrop. Lovering.¹
 " 12. *Quebec.* Gauthier. Kalm.
 " 15. *Cambridge.* Winthrop. Lovering.²
 July 4. *Cambridge.* Winthrop. Lovering.
 Aug. 4. *Upsal.* Celsius.
 Sept. 15. *Upsal.* Celsius.
 " 18. *Upsal.* Celsius.
 " 21. *Upsal.* Celsius.
 " 23. *Upsal.* Celsius.
 " 25. *Upsal.* Celsius.
 " 26. *Upsal.* Celsius.
 Oct. 12. *Upsal.* Celsius.
 " 15. *Upsal.* Celsius.
 " 16. *Upsal.* Celsius.
 " 17. *Upsal.* Celsius.
 " 18. *Upsal.* Celsius. *Plymouth.* Huxham.
 " 19. *Upsal.* Celsius.
 " 20. *Upsal.* Celsius.
 " 21. *Upsal.* Celsius.
 " 23. *Upsal.* Celsius.
 " 25. *Upsal.* Celsius.
 " 26. *Upsal.* Celsius.
 " 27. *Upsal.* Celsius.
 " 28. *Upsal.* Celsius.
 " 31. *Upsal.* Celsius.
 Nov. 2. *Tubingen.* Kraft.
 " 3. *Tubingen.* Kraft.
 " 4. *Tubingen.* Kraft.
 Nov. 5. *Steinebrunn.* Bischoff.¹
 " 8. *Tubingen.* Kraft.
 " 14. *Upsal.* Celsius.
 " 15. *Upsal.* Celsius.
 " 16. *Upsal.* Celsius.
 " 17. *Wittemberg.* Weidler. Mairan.
 " 21. *Tubingen.* Kraft.
 Dec. 1. *Tubingen.* Kraft.
 " 14. *Cambridge.* Winthrop. Lovering
 " 14. *Upsal.* Celsius.
 " 15. *Upsal.* Celsius.
 " 18. *Upsal.* Celsius. *Tubingen.* Kraft.
 " 27. *Upsal.* Celsius.
 " 29. *Tubingen.* Kraft.
 1747.
 Jan. 3. *Upsal.* Celsius.
 " 4. *Upsal.* Celsius. *Tubingen.* Kraft.
 " 6. *Wittemberg.* Weidler. Mairan.
 " 8. *Plymouth.* Huxham.
 " 9. *Cambridge.* Winthrop. Lovering.
 " 9. *Upsal.* Celsius.
 " 10. *Upsal.* Celsius.
 " 13. *Upsal.* Celsius.² *Plymouth.* Huxham.
 " 18. *Upsal.* Celsius.
 Feb. 2. *Tubingen.* Kraft.³
 " 6. *Cambridge.* Winthrop. Lovering.
 " 7. *Cambridge.* Winthrop. Lovering.
 " 9. *Upsal.* Celsius.
 " 24. *Tubingen.* Kraft.
 Mar. 3. *Upsal.* Celsius.
 " 6. *Upsal.* Celsius.
 " 7. *Upsal.* Celsius.
 " 10. *Upsal.* Celsius.
 " 16. *Upsal.* Celsius.
 " 19. Mairan and Phil. Trans.
 " 20. *Upsal.* Celsius.
 " 21. *Upsal.* Celsius.
 " 28. *Upsal.* Celsius.
 Apr. 2. *Upsal.* Celsius. *Plymouth.* Huxham.
 " 3. *Upsal.* Celsius.
 " 6. *Tubingen.* Kraft.
 " 11. *Upsal.* Celsius.
 " 19. *Tubingen.* Kraft.
 May 29. *Cambridge.* Winthrop. Lovering.
 July 5. *Cambridge.* Winthrop. Lovering.

¹ Mém. de l'Acad., 1747, p. 473.

² Force quotes from "Voyage to Hudson's Bay," II. 11, to the effect that auroras were seen, in Lat. 58° and Long. 49°, in June, &c., 1746.

¹ N. Comm. Petrop. I. 149.

² Svenska Vetensk. Acad. XI. 276.

³ N. Comm. Petrop. III. 390.

- Aug. 29. *Cambridge*.¹ Winthrop. Lovering.
 " 30. *Cambridge*. Winthrop. Lovering.
 " 31. *Italy*. Beccari. Mairan.
 Sept. 3. *Tubingen*. Kraft.
 " 5. *Cambridge*. Winthrop. Lovering.
 " 10. *Wittemberg*. Weidler. Mairan.
 " 27. *Cambridge*. Winthrop. Lovering.
 " 27. *Italy*. Beccari. Mairan.
 Oct. 2. *Gottingen*. Hollmann.²
 " 9. *Gottingen*. Hollmann.
 Nov. 3. *Tubingen*. Kraft.
 Dec. 2. *Plymouth*. Huxham.
 " 3. *Wittemberg*. Weidler. Mairan.
 " 4. *Steinebrunn*. Bischoff.³
 " 5. *Steinebrunn*. Bischoff.
 " 8. *Steinebrunn*. Bischoff.
 " 13. *Steinebrunn*. Bischoff.
 " 17. *Upsal*. Celsius. *Plymouth*. Huxham.
 " 18. *Upsal*. Celsius.
 " 24. *Italy*. Beccari. Mairan.
 " 26. *Cambridge*. Winthrop. Lovering.
- 1748.
- Jan. 1. *Steinebrunn*. Bischoff.
 " 3. *Steinebrunn*. Bischoff.
 " 6. *Steinebrunn*. Bischoff.
 " 8. *Upsal*. Celsius.
 " 9. *Steinebrunn*. Bischoff.
 " 11. *Steinebrunn*. Bischoff.
 " 13. *Steinebrunn*. Bischoff.
 " 31. *Upsal*. Ferner.⁴
 Feb. 2. *Plymouth*. Huxham.
 " 3. *Cambridge*. Winthrop. Lovering.
 " 5. *Steinebrunn*. Bischoff.
 " 8. *Steinebrunn*. Bischoff.
 " 16. *Upsal*. Ferner.
 " 18. *Upsal*. Ferner.
 " 19. *Upsal*. Ferner.
 " 22. *Upsal*. Ferner.
 " 27. *Wittemberg*. Weidler. Mairan.
 Mar. 6. *Stuttgart*. Volzius.⁵
 " 9. *Upsal*. Ferner.
 " 12. *Steinebrunn*. Bischoff.
 " 18. *Upsal*. Ferner.
 " 19. *Upsal*. Ferner.
- Mar. 20. *Upsal*. Ferner.
 " 21. *Upsal*. Ferner.
 " 27. *Upsal*. Ferner.
 " 28. *Upsal*. Ferner.
 " 29. *Upsal*. Ferner.
 Apr. 7. *Cambridge*. Winthrop. Lovering.
 " 8. *Stuttgart*. Volzius.
 " 9. *Stuttgart*. Volzius.
 " 12. *Tubingen*. Kraft.
 May 1. *Steinebrunn*. Bischoff.
 " 8. *Stuttgart*. Volzius.
 June 3. *Gottingen*. Hollmann.
 " 14. *Tubingen*. Kraft.
 Aug. 14. *Upsal*. Ferner.
 " 19. *Upsal*. Ferner.
 " 20. *Upsal*. Ferner.
 " 26. *Upsal*. Ferner.
 " 29. *Gottingen*. Hollmann.
 " 30. *Cambridge*. Winthrop. Lovering.
 Sept. 6. *Gottingen*. Hollmann.
 " 8. *Plymouth*. Huxham.
 " 11. *Upsal*. Ferner.
 " 17. *Upsal*. Ferner.
 " 18. *Upsal*. Ferner.
 " 19. *Upsal*. Ferner.
 " 21. *Upsal*. Ferner.
 " 22. *Upsal*. Ferner.
 " 23. *Upsal*. Ferner.
 Oct. 8. *Steinebrunn*. Bischoff.
 " 11. *Upsal*. Ferner.¹
 " 22. *Italy*. Beccari. Mairan.
 " 29. *Steinebrunn*. Bischoff.
 Nov. 1. *Cambridge*. Winthrop. Lovering.
 " 28. *Steinebrunn*. Bischoff.²
 Dec. 15. *Cambridge*. Winthrop. Lovering.
 " 15. *Upsal*. Ferner. *Plymouth*. Huxham.
 " 16. *Upsal*. Ferner.
 " 17. *Upsal*. Ferner.
 " 18. *Upsal*. Ferner.
 " 20. *Cambridge*. Winthrop. Lovering.
 " 20. *Near Philadelphia*. Kalm.
 " 21. *Upsal*. Ferner.
 " 23. *Upsal*. Ferner.
 " 24. *Wittemberg*. Weidler. Mairan.
 " 27. *Stuttgart*. Volzius.

1749.

- Jan. 4. *Stuttgart*. Volzius.

¹ Celsius says auroras were seen at Upsal often in August, and several times in Sept. Oct. and November.

² Comm. Gott. III. 43, &c. Also IV. 18, &c.

³ N. Comm. Petrop. III. 391.

⁴ Svenska Vetensk. Acad. XIII. 101.

⁵ N. Comm. Petrop. III. 391.

¹ Auroras were seen at Upsal on two other days in October.

² Auroras were seen at Upsal six times in November.

- Jan. 31. *Stuttgart.* Volzius.
 Feb. 1. *Stuttgart.* Volzius.
 " 9. *Upsal.* Ferner.
 " 10. *Upsal.* Ferner.
 " 11. *Upsal.* Ferner.
 " 13. *Stuttgart.* Volzius.
 " 15. *Near Philadelphia.* Kalm.
 " 16. *Cambridge.* Winthrop. Lovering.
 " 23. *Upsal.* Ferner.¹
 " 27. *Stuttgart.* Volzius.
 Mar. 9. *Cambridge.* Winthrop. Lovering.
 " 9. *Upsal.* Ferner.
 " 10. *Upsal.* Ferner.
 " 11. *Upsal.* Ferner. Wargentín.²
 " 12. *Upsal.* Ferner.
 " 13. *Upsal.* Ferner.
 " 18. *Upsal.* Ferner.
 " 20. *Upsal.* Ferner.
 " 21. *Upsal.* Ferner. *Stuttgart.* Volzius.
 " 21. *Steinebrunn.* Bischoff.
 " 22. *Upsal.* Ferner.
 " 23. *Upsal.* Ferner.
 " 28. *Stuttgart.* Volzius.
 " 29. *Stuttgart.* Volzius.
 Apr. 1. *Stuttgart.* Volzius.
 " 3. *Stuttgart.* Volzius.
 " 5. *Upsal.* Ferner.
 " 5. *Cambridge.* Winthrop. Lovering.
 " 7. *Upsal.* Ferner.
 " 10. *Göttingen.* Hollmann.
 " 11. *Stuttgart.* Volzius.
 " 12. *Göttingen.* Hollmann.
 " 13. *Upsal.* Wargentín.
 " 18. *Upsal.* Ferner. *Stuttgart.* Volzius.
 " 18. *Cambridge.* Winthrop. Lovering.
 " 20. *Stuttgart.* Volzius.
 " 25. *Stuttgart.* Volzius.
 " 27. *Stuttgart.* Volzius.
 May 10. *Göttingen.* Hollmann.
 " 11. *Cambridge.* Winthrop. Lovering.
 " 14? *Stuttgart.* Volzius.
 June 7. *Cambridge.* Winthrop. Lovering.
 July 21. *Canada.* Kalm.
 Aug. 16. *Upsal.* Ferner.
 Sept. 4. *Upsal.* Ferner.
 " 5. *Upsal.* Ferner.
 " 7. *Upsal.* Ferner.
- Sept. 13. *Cambridge.* Winthrop. Lovering.
 " 17. *Italy.* Beccari. Mairan.
 " 22. *Italy.* Beccari. Mairan.
 " 22. *Leipsic.* Heinsio.¹ *Göttingen.* Hollmann.
 Oct. 3. *Tübingen.* Kraft. *Steinebrunn.* Bischoff.
 " 8. *Upsal.* Ferner. *Italy.* Beccari. Mairan.
 " 10. *Upsal.* Ferner.
 " 11. *Upsal.* Ferner.
 " 18. *Cambridge.* Winthrop. Lovering.
 " 18. *Upsal.* Ferner.
 " 27. *Upsal.* Ferner.
 Nov. 6. *Cambridge.* Winthrop. Lovering.
 " 6. *Upsal.* Ferner.
 " 9. *Cambridge.* Winthrop. Lovering.
 " 28. *Upsal.* Ferner.
 Dec. 7. *Upsal.* Ferner.
 " 12. *Upsal.* Ferner.
 " 17. *Upsal.* Ferner.
- 1750.
- Jan. 1. *Upsal.* Ferner.
 " 5. *Upsal.* Ferner.
 " 5. *Cambridge.* Winthrop. Lovering.
 " 6. *Cambridge.* Winthrop. Lovering.
 " 6. *Wittemberg.* Weidler. Mairan.
 " 23. *Tooting.* Miles. Baker.² Reuss.
 Feb. 3. *Leipsic.* Heinsio. *Upsal.* Ferner.³
 " 3. *Italy.* Beccari. Mairan.
 " 3. *Wittemberg.* Weidler. Thompson.
 " 3. *Chelsea.* Martyn.⁴ *Paris.* Fouchi.⁵
 " 4. *Cambridge.* Winthrop. Lovering.
 " 4. *Wittemberg.* Weidler. Mairan.
 " 4. *Göttingen.* Hollman.
 " 7. *Italy.* Beccari. Mairan.
 " 9. *Upsal.* Ferner.
 " 10. *Upsal.* Ferner. *Göttingen.* Hollmann.
 " 14. *Tübingen.* Kraft.⁶ *Steinebrunn.* Bischoff.
 " 26. *Upsal.* Ferner. *Plymouth.* Huxham.
 " 26. Mairan, Reuss, and Phil. Trans.
 " 27. *Upsal.* Ferner. Thompson.
 " 27. *Cambridge.* Winthrop. Lovering.
 " 27. *Wittemberg.* Weidler. Mairan. Reuss.

¹ Svenska Vetensk. Acad. XIII. 215.² Acad. Coil. Etrang. Dijon. XI. 191. Svenska Vetensk. Acad. XI. 57.³ N. Comm. Petrop. IV. 477.⁴ Phil. Trans. XLVI. 346 & 399, where it is accidentally put down for Jan. 23, 1751, though the communication bears an earlier date.⁵ Svenska Vetensk. Acad. XIV. 255.⁶ Phil. Trans. XLVI. 319.⁷ Encyc. Method. I. 353.⁸ N. Comm. Petrop. V. 403.

- Feb. 27. *Philadelphia*. Kalm. *Chelsea*. Martyn.¹
 " 27. *Plymouth*. Huxham. *The Hague*. Gabry.²
 Mar. 4. *Cambridge*. Winthrop. Lovering.
 " 4. *Upsal*. Ferner. *Göttingen*. Hollmann.
 " 7. *Upsal*. Ferner.
 " 9. *Upsal*. Ferner.
 " 11. *Cambridge*. Winthrop. Lovering.
 " 11. *Upsal*. Ferner.
 " 12. *Upsal*. Ferner.
 " 14. *Upsal*. Ferner.
 " 15. *Steinebrunn*. Bischoff.
 Apr. 3. *Italy*. Beccari. Mairan.³
 " 8. *Cambridge*. Winthrop. Lovering.
 " 8. *Upsal*. Ferner.
 " 9. *Cambridge*. Winthrop. Lovering.
 " 9. *Upsal*. Ferner.
 " 14. *Cambridge*. Winthrop. Lovering.
 " 14. *Philadelphia*. Kahn.
 " 30. *Cambridge*. Winthrop. Lovering.
 " 30. *Philadelphia*. Kalm.
 " 30. *Stockholm*. Ekeberg.⁴ *South Carolina, U. S.*⁵
 May 1. *Cambridge*. Winthrop. Lovering.
 " 2. *Wittemberg*. Weidler. Mairan.
 " 12. *Tubingen*. Kraft. *Steinebrunn*. Bischoff.
 July 26. *Cambridge*. Winthrop. Lovering.
 " 26. *Leipsic*. Heinsio.
 " 28. *Cambridge*. Winthrop. Lovering.
 Aug. 10. *Upsal*. Ferner.
 " 16. *Upsal*. Ferner.
 " 17. *Upsal*. Ferner.
 " 24. *Upsal*. Ferner. *Göttingen*. Hollmann.
 " 24. *Wittemberg*. Weidler. Mairan.
 " 26. *Cambridge*. Winthrop. Lovering.
 " 26. *Bologna*. Zanotti and Beccari. Mairan.
 " 26. Reyger. Boué.⁶ Reuss.
 " 27. *Italy*. Beccari. Mairan.
 " 29. *Upsal*. Ferner.
 Sept. 4. *Cambridge*. Winthrop. Lovering.
 " 6. *Tubingen*. Kraft.
 " 22. *Upsal*. Ferner. *Leipsic*. Heinsio.
 " 23. *Upsal*. Ferner.
 Oct. 12. *Upsal*. Ferner.
 " 20. *Upsal*. Ferner.
 Nov. 2. *Cambridge*. Winthrop. Lovering.
 " 4. *Cambridge*. Winthrop. Lovering.
 " 5. *Upsal*. Ferner. *Göttingen*. Hollmann.
- Nov. 6. *Upsal*. Ferner.
 " 20. *Tubingen*. Kraft.
 Dec. 14. *Italy*. Beccari. Mairan.
 " 19. *Göttingen*. Hollmann.
 " 28. *Göttingen*. Hollmann.
 " 31. *Upsal*. Ferner.
- 1751.
- Jan. 8. *Steinebrunn*. Bischoff.
 " 11. *Tubingen*. Kraft.
 Feb. 11. *Göttingen*. Hollmann.
 " 12. *Cambridge*. Winthrop. Lovering.
 " 19. *Wittemberg*. Weidler. Mairan.
 " 19. *Cambridge*. Winthrop. Lovering.
 " 22. *Steinebrunn*. Bischoff.¹
 " 24. *Cambridge*. Winthrop. Lovering.
 Mar. 17. *Upsal*. Ferner.²
 Apr. 2. *Cambridge*. Winthrop. Lovering.
 " 2. *Upsal*. Ferner.
 June 10. *Tubingen*. Kraft.
 " 27. *Cambridge*. Winthrop. Lovering.
 Aug. 19. *Italy*. Beccari. Mairan.
 Sept. 14. *Tubingen*. Kraft.
 " 22. *Upsal*. Ferner.
 " 26. *Upsal*. Ferner.
 " 27. *Upsal*. Ferner.
 " 30. *Tubingen*. Kraft.
 Oct. 22. *Upsal*. Ferner.
 " 23. *Upsal*. Ferner. Thompson.³
 " 27. *Upsal*. Ferner.
 " 28. *Upsal*. Ferner.
 " 30. *Upsal*. Ferner.
 Nov. 2. *Upsal*. Ferner.
 " 3. *Upsal*. Ferner. *Steinebrunn*. Bischoff.
 " 6. *Upsal*. Ferner.
 " 8. *Upsal*. Ferner.
 Dec. 2. *Upsal*. Ferner.
 " 8. *Upsal*. Ferner.
 " 9. *Upsal*. Ferner.
 " 10. *Upsal*. Ferner.
 " 11. *Upsal*. Ferner. *Tubingen*. Kraft.
 " 13. *Upsal*. Ferner.
 " 19. *Upsal*. Ferner.
 " 25. *Upsal*. Ferner.
- 1752.
- Jan. 9. *Upsal*. Ferner.

¹ Phil. Trans. XLVI. 345.² Phil. Trans. XLVII. 39.³ In his general catalogue, it is April 13. *Traité* &c. p. 546.⁴ Acad. Coll. Etrang. Dijon. XI. 191. ⁵ *Gent. Mag.* XX. 428.⁶ *Nat. Gesell. Danzig. Abh.* III. 258.¹ *N. Comm. Petrop.* V. 405.² *Svenska Vetensk. Acad.* XV. 175.³ *Annals of Phil.* 1814. IV. 427.

Jan. 13.	<i>Upsal.</i>	Ferner. ¹	Oct. 24.	<i>Stuttgart.</i>	Volzius.
" 15.	<i>Upsal.</i>	Ferner.	Nov. 2.	<i>Upsal.</i>	Ferner.
" 16.	<i>Upsal.</i>	Ferner.	" 3.	<i>Upsal.</i>	Ferner.
" 19.	<i>Cambridge.</i>	Winthrop. Lovering.	" 10.	<i>Upsal.</i>	Ferner.
" 19.	<i>Upsal.</i>	Ferner.	" 11.	<i>Upsal.</i>	Ferner.
" 20.	<i>Upsal.</i>	Ferner.	" 28.	<i>Tubingen.</i>	Kraft.
" 21.	<i>Upsal.</i>	Ferner.	Dec. 4.	<i>Upsal.</i>	Ferner.
" 22.	<i>Upsal.</i>	Ferner.	" 5.	<i>Upsal.</i>	Ferner.
" 29.	<i>Steinebrunn.</i>	Bischoff.	" 6.	<i>Upsal.</i>	Ferner.
Feb. 10.	<i>Upsal.</i>	Ferner.	" 7.	<i>Upsal.</i>	Ferner.
" 12.	<i>Upsal.</i>	Ferner.	" 25.	<i>Tubingen.</i>	Kraft.
" 16.	<i>Upsal.</i>	Ferner.			
" 17.	<i>Upsal.</i>	Ferner.			1753.
" 18.	<i>Upsal.</i>	Ferner.	Feb. 23.	<i>Upsal.</i>	Ferner. ¹
Mar. 4.	<i>Upsal.</i>	Ferner.	" 26.	<i>Upsal.</i>	Ferner.
" 7.	<i>Upsal.</i>	Ferner.	" 28.	<i>Upsal.</i>	Ferner.
" 8.	<i>Upsal.</i>	Ferner. <i>Tubingen.</i> Kraft.	Mar. 1.	<i>Upsal.</i>	Ferner. ²
" 8.	<i>Göttingen.</i>	Hollmann.	" 2.	<i>Upsal.</i>	Ferner.
" 10.	<i>Upsal.</i>	Ferner.	" 3.	<i>Upsal.</i>	Ferner.
" 11.	<i>Upsal.</i>	Ferner. <i>Tubingen.</i> Kraft.	" 4.	<i>Upsal.</i>	Ferner.
" 12.	<i>Upsal.</i>	Ferner.	" 7.	<i>Upsal.</i>	Ferner.
" 13.	<i>Upsal.</i>	Ferner.	" 8.	<i>Upsal.</i>	Ferner.
" 16.	<i>Upsal.</i>	Ferner.	" 9.	<i>Upsal.</i>	Ferner.
" 17.	<i>Upsal.</i>	Ferner. <i>Tubingen.</i> Kraft.	" 11.	<i>Upsal.</i>	Ferner.
" 18.	<i>Upsal.</i>	Ferner.	" 12.	<i>Upsal.</i>	Ferner.
" 27.	<i>Upsal.</i>	Ferner.	" 25.	<i>Upsal.</i>	Ferner.
May 17.	<i>Steinebrunn.</i>	Bischoff.	Apr. 2.	<i>Upsal.</i>	Ferner.
" 24.	<i>Tubingen.</i>	Kraft.	" 3.	<i>Upsal.</i>	Ferner.
" 28.	<i>Stuttgart.</i>	Volzius. ²	" 10.	<i>Upsal.</i>	Ferner.
July 27.	<i>Tubingen.</i>	Kraft.	" 11.	<i>Upsal.</i>	Ferner.
Aug. 1.	<i>Tubingen.</i>	Kraft.	" 12.	<i>Upsal.</i>	Ferner.
" 11.	<i>Tubingen.</i>	Kraft.	" 14.	<i>Upsal.</i>	Ferner.
" 12.	<i>Tubingen.</i>	Kraft.	" 20.	<i>Upsal.</i>	Ferner. <i>Göttingen.</i> Hollmann.
" 13.	<i>Tubingen.</i>	Kraft.	" 30.	<i>Upsal.</i>	Ferner.
" 15.	<i>Stuttgart.</i>	Volzius. <i>Steinebrunn.</i> Bischoff.	" 30.	<i>Cambridge.</i>	Winthrop. Lovering.
Sept. 3.	<i>Tubingen.</i>	Kraft.	Aug. 17.	<i>Upsal.</i>	Ferner.
" 8.	<i>Upsal.</i>	Ferner.	" 23.	<i>Upsal.</i>	Ferner.
" 27.	<i>Upsal.</i>	Ferner.	Sept. 1.	<i>Upsal.</i>	Ferner.
Oct. 2.	<i>Upsal.</i>	Ferner.	" 2.	<i>Upsal.</i>	Ferner.
" 3.	<i>Upsal.</i>	Ferner. <i>Göttingen.</i> Hollman.	" 3.	<i>Göttingen.</i>	Hollmann.
" 5.	<i>Upsal.</i>	Ferner.	" 12.	<i>Upsal.</i>	Ferner.
" 6.	<i>Göttingen.</i>	Hollmann.	" 29.	<i>Upsal.</i>	Ferner.
" 7.	<i>Upsal.</i>	Ferner. <i>Göttingen.</i> Hollmann.	" 30.	<i>Upsal.</i>	Ferner.
" 12.	<i>Upsal.</i>	Ferner.	Nov. 25.	<i>Upsal.</i>	Ferner.
" 12.	<i>Cambridge.</i>	Winthrop. Lovering.			
" 13.	<i>Göttingen.</i>	Hollmann.			
" 14.	<i>Upsal.</i>	Ferner.			

¹ Svenska Vetensk. Acad. XVI. 290.

² N. Comm. Petrop. V. 410.

¹ Svenska Vetensk. Acad. XVI. 290.

² The Gregorian Calendar was adopted in Sweden in 1753, the 17th of February being followed by the 1st of March. Therefore the dates commencing with March 1st are published here as given by Ferner. All the previous dates were reduced from OLD STYLE to new style.

Dec. 15. *Upsal.* Ferner.
 " 16. *Upsal.* Ferner.
 " 18. *Upsal.* Ferner.
 " 27. *Upsal.* Ferner.
 " 28. *Upsal.* Ferner.

1754.¹

Jan. 12. *Upsal.* Ferner.²
 Feb. 8. *Upsal.* Ferner.
 " 24. *Upsal.* Ferner.
 Mar. 17. *Upsal.* Ferner.
 " 18. *Upsal.* Ferner.
 " 20. *Upsal.* Ferner.
 " 25. *Upsal.* Ferner.
 " 26. *Upsal.* Ferner.
 Apr. 9. *Upsal.* Ferner.
 " 10. *Upsal.* Ferner.
 Sept. 23. *Upsal.* Ferner.
 Oct. 9. *Upsal.* Ferner.
 " 16. *Upsal.* Ferner.
 " 27. *The Hague.* Gabry.³ Reuss and Boué.
 Nov. 15. *Upsal.* Ferner.
 " 16. *Upsal.* Ferner.
 " 17. *Upsal.* Ferner.
 Dec. 31. *Upsal.* Ferner.

1755.

Jan. 30. *At Sea, near Norway.* Ekeberg.⁴ Reuss.
 Feb. 3. *Upsal.* Ferner.⁵
 " 5. *Upsal.* Ferner.
 " 8. *St. Petersburg.* Braun.⁶
 Sept. 9. *Upsal.* Ferner.
 Oct. 5. *Upsal.* Ferner.
 " 24. *Upsal.* Ferner.
 " 30. *Upsal.* Ferner.
 Nov. 1. *Upsal.* Ferner.
 " 28. *Upsal.* Ferner.
 Dec. 31. *Upsal.* Ferner.⁷

1756.⁸

Feb. 18. *Upsal.* Ferner.⁹
 " 19. *Upsal.* Ferner.

¹ An aurora was seen at *Constantinople* in 1754. *Phil. Trans.* XLIX. 119.

² *Svenska Vetensk. Acad.* XVI. 290.

³ *Mém. de l'Acad. Sav. Etrang.* III. 581.

⁴ *Svenska Vetensk. Acad.* XVIII. 61.

⁵ *Svenska Vetensk. Acad.* XVIII. 208.

⁶ *N. Comm. Petrop.* VII. 405.

⁷ *Aurora Australis.*

⁸ Once in *Upsal* in January.

⁹ *Svenska Vetensk. Acad.* XIX. 231.

Mar. 28. *Upsal.* Ferner.
 Apr. 2. *Upsal.* Ferner.
 " 11. *Upsal.* Ferner.
 Sept. 1. *Upsal.* Ferner.
 " 14. *Upsal.* Ferner.
 " 15. *Upsal.* Ferner.
 " 22. *St. Petersburg.* Braun.
 " 28. *Upsal.* Ferner.
 " 29. *Upsal.* Ferner.
 " 30. *Upsal.* Ferner.
 Oct. 20. *Upsal.* Ferner.
 " 25. *Upsal.* Ferner.
 " 26. *Upsal.* Ferner.

1757.

Jan. 5. *St. Petersburg.* Braun.
 Mar. 31. *Rouen.*¹ Bouin. Boué. Reuss.
 Aug. 13. *Cambridge.* Winthrop. Lovering.
 Sept. 7. *Cambridge.* Winthrop. Lovering.
 " 13. *Cambridge.* Winthrop. Lovering.
 " 14. *Cambridge.* Winthrop. Lovering.
 " 16. *The Hague.* Gabry. Boué.² Reuss.
 Nov. 12. *Cambridge.* Winthrop. Lovering.
 " 12. *Philadelphia.* Bartram.³ Reuss.
 " 13. *Cambridge.* Winthrop. Lovering.
 " 13. *London.* Franklin.

1758.

Jan. 8. *Cambridge.* Winthrop. Lovering.
 Mar. 12. *Cambridge.* Winthrop. Lovering.
 " 26. *St. Petersburg.* Braun.⁴
 " 31. *Cambridge.* Winthrop. Lovering.
 Apr. 1. *Cambridge.* Winthrop. Lovering.
 May 19. *Spitzbergen.* Martin.⁵
 June 2. *Spitzbergen.* Martin.
 " 26. *Spitzbergen.* Martin.
 " 27. *Spitzbergen.* Martin.
 " 28. *Spitzbergen.* Martin.

1759.

Feb. 3. *Upsal.* Bergman.⁶
 " 4. *Upsal.* Bergman. Thompson.
 " 4. *Hernosand.* Gisler. Boué.
 " 15. *Upsal.* Bergman. Thompson.
 " 15. *Hernosand.* Gisler. Boué.

¹ *Mém. de l'Acad. Sav. Etrang.* IV. 242.

² *Mém. de l'Acad. Sav. Etrang.* IV. 597.

³ *Phil. Trans.* LII. 474.

⁴ *N. Comm. Petrop.* IX. 418.

⁵ *Svenska Vetensk. Acad.* XIX. 315.

⁶ *Nova Acta Sci. Upsal.* I. 418 and *Phil. Trans.* LII. 479.]

Feb. 18.	<i>Upsal.</i>	Bergman.	Dec. 9.	<i>Upsal.</i>	Bergman.
" 19.	<i>Upsal.</i>	Bergman.	" 10.	<i>Upsal.</i>	Bergman.
" 20.	<i>Upsal.</i>	Bergman. Rouen. Bouin. ¹ Reuss.	" 11.	<i>Upsal.</i>	Bergman. St. Petersburg. Braun.
Mar. 8.	<i>Cambridge.</i>	Winthrop. Lovering.	" 12.	<i>Upsal.</i>	Bergman.
" 17.	<i>Upsal.</i>	Bergman.	" 13.	<i>Upsal.</i>	Bergman.
" 18.	<i>Upsal.</i>	Bergman. St. Petersburg. Braun. ²	" 14.	<i>Upsal.</i>	Bergman. St. Petersburg. Braun.
" 22.	<i>Upsal.</i>	Bergman.	" 15.	<i>Upsal.</i>	Bergman.
" 28.	<i>Upsal.</i>	Bergman.	" 16.	<i>Upsal.</i>	Bergman.
Apr. 5.	<i>Upsal.</i>	Bergman.	" 17.	<i>Upsal.</i>	Bergman.
" 16.	<i>Upsal or Stockholm.</i>	Bergman.	" 19.	<i>Upsal.</i>	Bergman.
" 22.	<i>St. Petersburg.</i>	Braun.	" 21.	<i>Upsal.</i>	Bergman.
Aug. 16.	<i>Upsal.</i>	Bergman.	" 25.	<i>Upsal.</i>	Bergman. St. Petersburg. Braun.
" 26.	<i>Upsal.</i>	Bergman.			
" 27.	<i>Upsal.</i>	Bergman.		1760.	
" 28.	<i>Upsal.</i>	Bergman.	Jan. 10.	<i>Upsal.</i>	Bergman.
" 29.	<i>Upsal.</i>	Bergman. ³	" 12.	<i>Upsal.</i>	Bergman.
Sept. 9.	<i>Cambridge.</i>	Winthrop. Lovering.	" 13.	<i>Upsal.</i>	Bergman.
" 10.	<i>Upsal.</i>	Bergman.	" 17.	<i>Stockholm.</i>	Bergman. St. Petersburg. Braun.
" 11.	<i>Upsal.</i>	Bergman.	" 18.	<i>Stockholm.</i>	Bergman.
" 11.	<i>Cambridge.</i>	Winthrop. Lovering.	" 23.	<i>Stockholm.</i>	Bergman.
" 12.	<i>Upsal.</i>	Bergman.	Feb. 8.	<i>Stockholm.</i>	Bergman.
" 15.	<i>Upsal.</i>	Bergman.	" 11.	<i>Stockholm.</i>	Bergman.
" 16.	<i>Upsal.</i>	Bergman. Rouen. Bouin. Reuss. ⁴	" 12.	<i>Stockholm.</i>	Bergman.
" 16.	<i>North Germany.</i>	Hartmann. Boué. ⁵	" 14.	<i>Upsal.</i>	Bergman.
" 18.	<i>Cambridge.</i>	Winthrop. Lovering.	" 18.	<i>Upsal.</i>	Bergman.
" 19.	<i>Upsal.</i>	Bergman.	" 19.	<i>Upsal.</i>	Bergman.
" 20.	<i>Upsal.</i>	Bergman.	" 20.	<i>Upsal.</i>	Bergman.
" 21.	<i>Upsal.</i>	Bergman.	" 21.	<i>Upsal.</i>	Bergman.
" 22.	<i>Upsal.</i>	Bergman.	" 22.	<i>Upsal.</i>	Bergman.
" 23.	<i>Upsal.</i>	Bergman.	Mar. 5.	<i>Upsal.</i>	Bergman.
" 24.	<i>Upsal.</i>	Bergman.	" 6.	<i>Upsal.</i>	Bergman.
Oct. 13.	<i>Upsal.</i>	Bergman.	" 12.	<i>Upsal.</i>	Bergman.
" 15.	<i>Upsal.</i>	Bergman. ⁶	" 14.	<i>Cambridge.</i>	Winthrop. Lovering.
" 31.	<i>St. Petersburg.</i>	Braun.	" 16.	<i>Upsal.</i>	Bergman.
" 31.	<i>Cambridge.</i>	Winthrop. Lovering.	" 28.	<i>Upsal.</i>	Bergman.
Nov. 5.	<i>Upsal.</i>	Bergman.	Apr. 2.	<i>St. Petersburg.</i>	Braun.
" 9.	<i>Upsal.</i>	Bergman.	" 3.	<i>Upsal.</i>	Bergman.
" 15.	<i>Upsal.</i>	Bergman.	" 6.	<i>Upsal?</i>	Bergman.
" 16.	<i>Upsal.</i>	Bergman.	" 8.	<i>St. Petersburg.</i>	Braun. <i>Upsal?</i> Bergman.
" 20.	<i>Upsal.</i>	Bergman.	" 9.	<i>St. Petersburg.</i>	Braun.
" 21.	<i>Upsal.</i>	Bergman.	" 10.	<i>Upsal.</i>	Bergman.
" 22.	<i>Upsal.</i>	Bergman.	" 11.	<i>Upsal.</i>	Bergman.
" 27.	<i>Upsal.</i>	Bergman.	" 12.	<i>St. Petersburg.</i>	Braun.
" 28.	<i>Upsal.</i>	Bergman. ⁷	" 14.	<i>Upsal.</i>	Bergman.
			" 16.	<i>Upsal?</i>	Bergman.
			" 18.	<i>St. Petersburg.</i>	Braun.
			" 23.	<i>St. Petersburg.</i>	Braun.
			May 3.	<i>Cambridge.</i>	Winthrop. Lovering.
			July 20.	<i>Between Upsal and Arbogam.</i>	Bergman.
			Aug. 14.	<i>St. Petersburg.</i>	Braun.

¹ Mém. de l'Acad. Sav. Etrang. V. 103.

² N. Comm. Petrop. X. 367.

³ This is in Phil. Trans. but not in Nova Acta Sci. Upsal.

⁴ Mém. de l'Acad. Sav. Etrang. VI. 253.

⁵ Hamb. Mag. XXIV. 157.

⁶ This is in Phil. Trans. but not in Nova Acta Sci. Upsal.

⁷ This is in Nova Acta Sci. Upsal, but not in Phil. Trans.

- Aug. 20. *Upsal*. Bergman.
 " 21. *Upsal*. Bergman.
 " 22. *Upsal*. Bergman.
 " 23. *St. Petersburg*. Braun.
 Sept. 10. *Cambridge*. Winthrop. Lovering.
 Oct. 2. *Upsal*. Bergman.
 " 4. *Cambridge*. Winthrop. Lovering.
 " 4. *Upsal*. Bergman.
 " 7. *Upsal?* Bergman.
 " 8. *Upsal*. Bergman.
 " 9. *Upsal*. Bergman.
 " 16. *Upsal*. Bergman.
 " 25. *Cambridge*. Winthrop. Lovering.
 " 30. *Upsal*. Bergman.
 " 31. *Upsal*. Bergman.
 Nov. 1. *St. Petersburg*. Braun.
 " 1. *Hernosand*. Gisler. Boué.
 " 1. *Upsal*. Bergman. Thompson.
 " 2? *Upsal*. Bergman.
 " 6. *Upsal*. Bergman. Thompson.
 " 6. *Hernosand*. Gisler. Boué.
 " 8. *Upsal*. Bergman. Thompson.
 " 8. *Hernosand*. Gisler. Boué.
 " 12. *Cambridge*. Winthrop. Lovering.
 " 15? *Upsal*. Bergman.
 " 23. *Upsal*. Bergman.
 " 25. *Upsal*. Bergman.
 Dec. 1. *Upsal*. Bergman.
 " 5. *Upsal*. Bergman.
 " 25. *Upsal*. Bergman.
 " 28. *Upsal*. Bergman.
- 1761.
- Jan. 9. *Upsal*. Bergman.
 " 10? *Upsal*. Bergman.
 " 11. *Upsal*. Bergman.
 " 12? *Upsal*. Bergman.
 " 17. *Upsal*. Bergman.
 " 25. *Upsal*. Bergman. Thompson.
 " 25. *Hernosand*. Gisler. Boué.
 " 27. *Upsal*. Bergman.
 " 29. *Upsal*. Bergman.
 " 30. *Upsal*. Bergman.
 Feb. 3. *Upsal*. Bergman.
 " 13. *Upsal*. Bergman.
 " 14. *Upsal*. Bergman.
 " 21. *Upsal*. Bergman.
 " 21. *Hernosand*. Gisler. Boué.
 " 21. *Vienna*. Hell. Boué. Thompson.
 " 22. *Upsal*. Bergman.
- Feb. 23? *Upsal*. Bergman.
 " 24. *Upsal*. Bergman.
 " 25? *Upsal*. Bergman.
 " 26. *Upsal*. Bergman. *St. Petersburg*. Braun.¹
 " 27. *Hernosand*. Gisler. Boué. Thompson.
 " 27. *Upsal*. Bergman. *St. Petersburg*. Braun.
 " 28. *Hungary*. Weiss. Reuss.²
 " 28. *Upsal*. Bergman. *St. Petersburg*. Braun.
 Mar. 1. *Upsal*. Bergman.
 " 5. *Upsal*. Bergman.
 " 10. *Cambridge*. Winthrop. Lovering.
 " 11. *Cambridge*. Winthrop. Lovering.
 " 15. *Upsal*. Bergman.
 " 26. *Upsal*. Bergman.
 Apr. 3. *Upsal*. Bergman.
 " 4. *Upsal*. Bergman.
 " 5. *Upsal*. Bergman.
 " 6. *Upsal*. Bergman.
 " 7. *Upsal*. Bergman.
 " 8. *Upsal*. Bergman.
 " 12. *Upsal*. Bergman.
 " 13. *Upsal*. Bergman.
 May 2. *Upsal*. Bergman.
 Aug. 1. *Greenland*. Crantz.³ Force.
 " 11. *Marienstadt*. Bergman.
 " 21. *Greenland*. Crantz. Force.
 " 27. *Marienstadt*. Bergman.
 " 29. *St. Petersburg*. Braun.
 " 30. *Marienstadt*. Bergman.
 Sept. 9. *St. Petersburg*. Braun.
 " 10. *St. Petersburg*. Braun.
 " 24. *Marienstadt*. Bergman.
 " 25. *Hernosand*. Gisler. Boué.
 " 25. *St. Petersburg*. Braun.
 " 25. *Marienstadt*. Bergman.
 " 25. *Hernosand*. Gisler. Boué and Thompson.
 " 26. *Cambridge*. Winthrop. Lovering.
 " 26. *Marienstadt*. Bergman.
 " 26. *St. Petersburg*. Braun.
 " 27. *Marienstadt*. Bergman.
 " 28. *Marienstadt*. Bergman.
 Oct. 22. *Marienstadt*. Bergman.
 " 22. *St. Petersburg*. Braun.
 " 23. *Marienstadt*. Bergman.
 " 31. *St. Petersburg*. Braun.
 Nov. 6. *Cambridge*. Winthrop. Lovering.

¹ N. Comm. Petrop. XI. 320.² Mém. de l'Acad. 1761, p. 25.³ Hist. of Greenland. Also, Record of Auroral Phenomena, by P. Force. Smith. Contrib. VIII. 22, I. 48.

Nov. 17. *Upsal.* Bergman.
 " 19. *Cambridge.* Winthrop. Lovering.
 " 19. *Upsal.* Bergman.
 " 29. *Upsal.* Bergman.
 " 30. *Upsal.* Bergman.
 Dec. 13. *Upsal.* Bergman.
 " 21. *St. Petersburg.* Braun.

1762.

Jan. 1. *St. Petersburg.* Braun.
 " 23. *St. Petersburg.* Braun.
 Feb. 4. *Cambridge.* Winthrop. Lovering.
 " 28. *Tyrnau.* Weiss. Boué.¹
 Mar. 14. *St. Petersburg.* Braun.
 " 15. *St. Petersburg.* Braun. *Upsal.*² Bergman.
 " 16. *St. Petersburg.* Braun.
 Apr. 10. *St. Petersburg.* Braun.
 " 11. *St. Petersburg.* Braun.
 " 18. *St. Petersburg.* Braun.
 " 27. *St. Petersburg.* Braun.
 May 2. *St. Petersburg.* Braun.
 " 21. *Cambridge.* Winthrop. Lovering.
 " 21. *Paris.* Messier. Reuss and Boué.³
 " 22. *Paris.* Messier. Reuss and Boué.
 Aug. 10. *Cambridge.* Winthrop. Lovering.
 " 11. *Cambridge.* Winthrop. Lovering.
 " 12. *St. Petersburg.* Braun.
 " 13. *Cambridge.* Winthrop. Lovering.
 " 13. *St. Petersburg.* Braun.
 " 31. *St. Petersburg.* Braun.
 Sept. 15. *Cambridge.* Winthrop. Lovering.
 " 15. *St. Petersburg.* Braun.
 " 16. *St. Petersburg.* Braun.
 " 25. *St. Petersburg.* Braun.
 Oct. 14. *St. Petersburg.* Braun.
 " 19. *St. Petersburg.* Braun.
 Nov. 8. *Upsal.* Bergman.
 " 16. *St. Petersburg.* Braun. *Upsal.* Bergman.
 " 19. *St. Petersburg.* Braun.
 " 22. *Upsal.* Bergman.
 " 23. *St. Petersburg.* Braun. *Upsal.* Bergman.
 Dec. 6. *Upsal.* Bergman.
 " 7. *Upsal.* Bergman.
 " 13. *Upsal.* Bergman.
 " 15. *Upsal.* Bergman. *St. Petersburg.* Braun.
 " 17. *St. Petersburg.* Braun.

¹ Mém. de l'Acad. 1761, p. 25.² No observations were made at Upsal this year in January or February.³ Mém. de l'Acad. Sav. Etrang. VI. 110.

Dec. 18. *Cambridge.* Winthrop. Lovering.
 " 18. *Upsal.* Bergman.
 " 19. *St. Petersburg.* Braun.
 " 20. *Upsal.* Bergman.
 " 21. *Upsal.* Bergman.
 " 25. *St. Petersburg.* Braun.

1763.

Mar. 16. *Francker.* Van Swinden.¹
 Apr. 16. *St. Petersburg.* Braun.²
 " 17. *St. Petersburg.* Braun.
 " 21. *St. Petersburg.* Braun.
 " 24. *Cambridge.* Winthrop. Lovering.
 May 1. *St. Petersburg.* Braun.
 " 2. *Cambridge.* Winthrop. Lovering.
 July 31. *Cambridge.* Winthrop. Lovering.
 Aug. 4. *Cambridge.* Winthrop. Lovering.
 " 21. *St. Petersburg.* Braun.
 Sept. 14. *Cambridge.* Winthrop. Lovering.
 Oct. 17. *St. Petersburg.* Braun.
 " 17. *Upsal.* Mallet. Reuss and Boué.³
 " 24. *Upsal.* Bergman. Boué and Thompson.
 Nov. 11. *Cambridge.* Winthrop. Lovering.
 " 11. *Newport, R. I.* Stiles. Loomis.⁴
 " 27. *St. Petersburg.* Braun.

1764.

Jan. 8. *St. Petersburg.* Braun.
 " 23. *Newport, R. I.* Stiles. Loomis.
 Feb. 10. *St. Petersburg.* Braun.
 " 16. *Cambridge.* Winthrop. Lovering.
 " 21. *Upsal.* Bergman. Boué.
 " 22. *St. Petersburg.* Braun. Thompson.
 " 26. *St. Petersburg.* Braun.
 " 28. *St. Petersburg.* Braun.
 Mar. 4. *St. Petersburg.* Braun.
 " 5. *Cambridge.* Winthrop. Lovering.
 " 5. *Newport, R. I.* Stiles. Loomis.
 " 5. *St. Petersburg.* Braun.
 Apr. 1. *St. Petersburg.* Braun.
 " 23. *Oxford.* Swinton.⁵
 May 16. *Cambridge.* Winthrop. Lovering.
 June 3. *Cambridge.* Winthrop. Lovering.
 " 18. *Cambridge.* Winthrop. Lovering.
 " 18. *Newport, R. I.* Stiles. Loomis.

¹ Kamtz. Met. III. 467.² N. Comm. Petrop. XI. 391.³ Svenska Vetensk. Acad. XXV. 62.⁴ Trans. Conn. Acad. Sci. I. 155.⁵ Phil. Trans. LIV. 332.

June 19. *Cambridge.* Winthrop. Lovering.
 July 27. *Cambridge.* Winthrop. Lovering.
 Aug. 19. *St. Petersburg.* Braun.
 " 25. *Cambridge.* Winthrop. Lovering.
 Sept. 6. *St. Petersburg.* Braun.
 Oct. 20. *Cambridge.* Winthrop. Lovering.
 " 28. *Cambridge.* Winthrop. Lovering.
 " 28. *Newport, R. I.* Stiles. Loomis.
 " 29. *Cambridge.* Winthrop. Lovering.
 Nov. 25. *St. Petersburg.* Braun.
 Dec. 29. *St. Petersburg.* Braun.

1765.

Jan. 22. *St. Petersburg.* Braun.¹
 Feb. 19. *Cambridge.* Winthrop. Lovering.
 " 23. *St. Petersburg.* Braun.
 Mar. 13. *St. Petersburg.* Braun.
 " 14. *St. Petersburg.* Braun.
 " 21. *St. Petersburg.* Braun.
 " 23. *St. Petersburg.* Braun.
 Apr. 29. *St. Petersburg.* Braun.
 July 21. *Cambridge.* Winthrop. Lovering.
 " 22. *Cambridge.* Winthrop. Lovering.
 Aug. 17. *Cambridge.* Winthrop. Lovering.
 " 19. *Cambridge.* Winthrop. Lovering.
 " 21. *Cambridge.* Winthrop. Lovering.
 Sept. 20. *St. Petersburg.* Braun.
 Oct. 12. *Cambridge.* Winthrop. Lovering.
 Nov. x. Thompson.²
 Dec. 13. *Christiania.* Hansteen.³

1766.

Oct. 12. *Oxford.* Swinton.⁴

1767.

Feb. 1. *St. Petersburg.* Braun.
 " 2. *St. Petersburg.* Braun.
 Apr. 10. *St. Petersburg.* Braun.
 " 29. *St. Petersburg.* Braun.
 May 16. *Newport, R. I.* Stiles. Loomis.
 July 18. *Cambridge.* Winthrop. Lovering.
 " 28. *Cambridge.* Winthrop. Lovering.
 Aug. 18. *Cambridge.* Winthrop. Lovering.
 Dec. 13. *Lucca.* Serantoni. Boué.

1768.

Jan. 10. *St. Petersburg.* Braun.

¹ N. Comm. Petrop. XIV. 589.² Thompson's Meteorology, p. 350.³ Gilbert. Ann. LXVII. 48.⁴ Phil. Trans. LVII. 108.

Jan. 18. *St. Petersburg.* Braun.
 Feb. 18. *Cambridge.* Winthrop. Lovering.
 " 19. *St. Petersburg.* Braun.
 July 20. *Cambridge.* Winthrop. Lovering.
 " 20. *Newport, R. I.* Stiles. Loomis.
 Aug. 6. *Cambridge.* Winthrop. Lovering.
 " 6. *Paris.* Messier. Reuss.¹ *Salem.* Felt.
 " 6. *Newport, R. I.* Stiles. Loomis.
 " 7. *Newport, R. I.* Stiles. Loomis.
 Sept. 14. *Cambridge.* Winthrop. Lovering.
 Oct. 2. *Cambridge.* Winthrop. Lovering.
 " 26. *Iakutsk.* Islenieff.²
 " 28. ——— Pilgram.
 Nov. 5. *Iakutsk.* Islenieff.
 " 14. *Iakutsk.* Islenieff.
 Dec. 5. *Cambridge.* Winthrop. Lovering.
 " 5. *Newport, R. I.* Stiles. Loomis.
 " 5. *Berlin.* Beguelin.³ *Paris.* Messier. Reuss.⁴
 " 5. *Gottingen.*⁵ Boué.
 " 6. *Normandy.* Turgot.⁶
 " 26. *Iakutsk.* Islenieff.

1769.

Jan. 5. *Cambridge.* Winthrop. Lovering.
 " 5. *Lancaster, Penn.*⁷
 " 5. *Newport, R. I.* Stiles. Loomis.
 " 5. *Montmorenci, France.* Cotte.⁸
 Feb. 26. *Oxford.* Swinton.⁹ Reuss.
 " 27. *Cambridge.* Winthrop. Lovering.
 " 27. *Newport, R. I.* Stiles. Loomis.
 Mar. 1. *Iakutsk.* Islenieff.
 Apr. 20. *Newport, R. I.* Stiles. Loomis.
 June 9. *Cambridge.* Winthrop. Lovering.
 " 28. *Cambridge.* Winthrop. Lovering.
 " 29. *Cambridge.* Winthrop. Lovering.
 July 2. *Cambridge.* Winthrop. Lovering.
 " 7. *Cambridge.* Winthrop. Lovering.
 " 7. *Newport, R. I.* Stiles. Loomis.
 " 8. *Cambridge.* Winthrop. Lovering.
 " 8. *Newport, R. I.* Stiles. Loomis.
 " 19. *Salem.* Holyoke. Felt.¹⁰

¹ Phil. Trans. LIX. 86.² N. Acta Petrop. X. 505.³ Mém. de l'Acad. Berlin, 1769, p. 144.⁴ Phil. Trans. LIX. 367.⁵ Hannov. Mag. 1768, p. 1654.⁶ Mém. de l'Acad. 1768, p. 33.⁷ Trans. Amer. Phil. Soc. I. 404.⁸ Traité &c. par Cotte, p. 601.⁹ Phil. Trans. LIX. 367.¹⁰ Amer. Jour. Sci. XIV. 101.

- Aug. 5. *Cambridge*. Winthrop. Lovering.
 Sept. 9. *Oxford*. Swinton.¹ Reuss.
 " 23. *St. Petersburg*. Euler.²
 " 26. *Cambridge*. Winthrop. Lovering. Pilgram.
 Oct. 7. *Cambridge*. Winthrop. Lovering.
 " 7. *Newport, R. I.* Stiles. Loomis.
 " 8. *St. Petersburg*. Euler.
 " 23. *Cambridge*. Winthrop. Lovering.
 " 23. *Newport, R. I.* Stiles. Loomis.
 " 24. *Berlin*. Beguelin. *Rheims*. Lavoisier. Reuss.³
 " 24. *Newport, R. I.* Stiles. Loomis.
 " 24. *St. Petersburg*. Euler. Pilgram.
 " 24. *Havre*. Dicquemare.⁴
 " 25. *Cambridge*. Winthrop. Lovering.
 " 25. *Newport, R. I.* Stiles. Loomis.
 " 25. *Havre*. Dicquemare.
 " 26. *Cambridge*. Winthrop. Lovering.
 " 26. *St. Petersburg*. Euler. *Havre*. Dicquemare.
 " 27. *Havre*. Dicquemare.
 " 27. *Cambridge*. Winthrop. Lovering.
 " 27. *St. Petersburg*. Euler.
 " x. *Beziere*. Bertholon.⁵
 " x. *Beziere*. Bertholon.
 Nov. 1. *St. Petersburg*. Euler.
 " 3. *Berlin*. Beguelin.
 " 17. *St. Petersburg*. Euler.
 " 23. *St. Petersburg*. Euler.
 Dec. 2. *St. Petersburg*. Euler.
 " 4. *St. Petersburg*. Euler.
 " 6. *Cambridge*. Winthrop. Lovering.
- 1770.
- Jan. 17. *Cambridge*. Winthrop. Lovering.
 " 17. *Newport, R. I.* Stiles. Loomis.
 " 17. *Berlin*. Beguelin.⁶
 " 18. *Cambridge*. Winthrop. Lovering.
 " 18. *Berlin*. Beguelin. *Christiania*. Hansteen.⁷
 " 18. *Newport, R. I.* Stiles. Loomis.
 " 18. *Jena*. Zeissing.⁸ *Beziere*. Bertholon.
 " 18. *Cadiz, Rome, Vienna, &c.* Pilgram.
 " 18. *Spain*. Nifo. Rico.⁹
- Feb. 1. *Berlin*. Beguelin.
 " 12. *Berlin*. Beguelin.
 " 13. *St. Petersburg*. Euler.¹
 " 15. *Berlin*. Beguelin.
 " 18. *Berlin*. Beguelin.
 " 25. *St. Petersburg*. Euler. *Berlin*. Beguelin.
 " 27. *St. Petersburg*. Euler.
 " 28. *Cambridge*. Winthrop. Lovering.
 " 28. *Newport, R. I.* Stiles. Loomis.
 " 28. *St. Petersburg*. Euler.
 Mar. 2. *St. Petersburg*. Euler.
 " 14. *Berlin*. Beguelin.
 " 18. *Berlin*. Beguelin.
 " 23. *Cambridge*. Winthrop. Lovering.
 " 23. *Newport, R. I.* Stiles. Loomis.
 " 23. *St. Petersburg*. Euler. *Berlin*. Beguelin.
 " 26. *Berlin*. Beguelin.
 " 27. *St. Petersburg*. Euler. *Berlin*. Beguelin.
 " 29. *Jena*. Zeissing.
 Apr. 12. *St. Petersburg*. Euler.
 " 13. *St. Petersburg*. Euler. *Berlin*. Beguelin.
 " 14. *Berlin*. Beguelin.
 " 15. *St. Petersburg*. Euler.
 " 17. *Berlin*. Beguelin.
 " 19. *Cambridge*. Winthrop. Lovering.
 " 19. *Berlin*. Beguelin.
 " 20. *Berlin*. Beguelin.
 May 16. *Cambridge*. Winthrop. Lovering.
 " 27. *Berlin*. Beguelin.
 July 14. *Cambridge*. Winthrop. Lovering.
 " 16. *Cambridge*. Winthrop. Lovering.
 " 27. *Cambridge*. Winthrop. Lovering.
 " 31. *Cambridge*. Winthrop. Lovering.
 Aug. 1. *Lübeck*. Behn. Boué.²
 " 8. *Jena*. Zeissing.
 " 10. *Jena*. Zeissing.
 " 27. *Cambridge*. Winthrop. Lovering.
 " 31. *Cambridge*. Winthrop. Lovering.
 " 31. *Jena*. Zeissing. *Beziere*. Bertholon.
 " 31. *Göttingen*. Boué.³
 Sept. 9. *Cambridge*. Winthrop. Lovering.
 " 9. *Berlin*. Beguelin.
 " 16. *Cambridge*. Winthrop. Lovering.
 " 17. *Montmorenci*. Cotte.
 " 17. *Pekin*. Amiot.⁴ *Lübeck*. Behn. Boué.
 Oct. 26. *St. Petersburg*. Euler.
- ¹ Phil. Trans. LIX. 369.
² N. Comm. Petrop. XIV. 636.
³ Journ. de Phys. IX. 279. Mém. de l'Acad. 1769, p. 22.
 Also Mém. de l'Acad. Berlin, 1769, p. 163.
⁴ Journ. de Phys. IX. 279.
⁵ Encyc. Method. I. 365.
⁶ Mém. de l'Acad. Berlin, 1770, p. 93.
⁷ Gilbert. Ann. LXVII. 48.
⁸ Gilbert. Ann. XV. 208.
⁹ Mem. Acad. Cienc. Madrid, III. 77.
- ¹ N. Comm. Petrop. XV. 682.
² Sitz. Bericht. Wien. XLV. 442.
³ Hannov. Mag. 1770, p. 1217.
⁴ Kamtz. Lehrbuch der Met. III. 465.

- Nov. 8. *Lübeck*. Behn. Boué.¹
 " 24. *St. Petersburg*. Euler.
 " 26. *Lübeck*. Behn. *St. Petersburg*. Euler.
 Dec. 17. *Jena*. Zeissing.
 " 24. *Jena*. Zeissing.

1771.

- Jan. 6. *Berlin*. Beguelin.
 " 15. *Berlin*. Beguelin.
 " 18. *Berlin*. Beguelin.
 " 20. *Berlin*. Beguelin.
 " 26. *St. Petersburg*. Euler.²
 Feb. 7. *St. Petersburg*. Euler.
 " 8. *St. Petersburg*. Euler.
 " 9. *Berlin*. Beguelin.
 " 10. *Berlin*. Beguelin.
 " 15. *Berlin*. Beguelin.
 " 19. *Cambridge*. Winthrop. Lovering.
 " 19. *Berlin*. Beguelin. *St. Petersburg*. Euler.
 " 19. *Montmorenci*. Paris. *Franeker*. Cotte.³
 " 20. *Montmorenci*. Cotte.
 Mar. 2. *St. Petersburg*. Euler.
 " 13. *St. Petersburg*. Euler. *Berlin*. Beguelin.
 " 13. *Montmorenci*. *Franeker*. Cotte.
 " 14. *St. Petersburg*. Euler.
 " 15. *St. Petersburg*. Euler.
 " 16. *St. Petersburg*. Euler.
 " 17. *Cambridge*. Winthrop. Lovering.
 " 17. *St. Petersburg*. Euler.
 " 18. *Cambridge*. Winthrop. Lovering.
 " 23. *St. Petersburg*. Euler.
 " 30. *Paris*. Boué.
 Apr. 2. *St. Petersburg*. Euler.
 " 4. *Berlin*. Beguelin.
 " 5. *Berlin*. Beguelin. *Montmorenci*. Cotte.
 " 15. *Berlin*. Beguelin. *Montmorenci*. Cotte.
 May 2. *Berlin*. Beguelin.
 " 3. *Berlin*. Beguelin.
 " 6? *Berlin*. Beguelin.
 " 7. *Berlin*. Beguelin.
 " 8. *Berlin*. Beguelin.
 " 12. *St. Petersburg*. Euler.
 " 12. *Franeker*. Cotte. *Jena*. Zeissing.
 " 13. *St. Petersburg*. Euler. *Franeker*. Cotte.
 June 2. *Cambridge*. Winthrop. Lovering.
 " 2. *Lübeck*. Behn. Boué.

¹ In the Chateau de Saintes en Hainaut, three auroras were observed in 1770. *Mém. de l'Acad. Brux.* I. 554.

² *N. Comm. Petrop.* XVI. 695.

³ *Mém. de Met.* I.

- June 12. *Cambridge*. Winthrop. Lovering.
 July 2. *St. Petersburg*. Euler.
 " 12. *Berlin*. Beguelin.
 Aug. 3. *Berlin*. Beguelin.
 " 12. *St. Petersburg*. Euler.
 " 16. *Cambridge*. Winthrop. Lovering.
 " 17. *Cambridge*. Winthrop. Lovering.
 " 30. *Franeker*. Cotte.
 Sept. 6. *St. Petersburg*. Euler.
 " 11. *St. Petersburg*. Euler.
 " 13. *Cambridge*. Winthrop. Lovering.
 " 17. *Cambridge*. Winthrop. Lovering.
 " 20. *St. Petersburg*. Euler.
 " 29. *St. Petersburg*. Euler.
 Oct. 4. *Cambridge*. Winthrop. Lovering.
 " 4. *Franeker*. Cotte.
 " 5. *Berlin*. Beguelin.
 " 6. *St. Petersburg*. Euler. *Berlin*. Beguelin.
 " 8. *St. Petersburg*. Euler.
 " 9. *Berlin*. Beguelin. *Franeker*. Cotte.
 " 18. *Cambridge*. Winthrop. Lovering.
 " 28. *St. Petersburg*. Euler.
 " 31. *St. Petersburg*. Euler.
 Nov. 1. *Cambridge*. Winthrop. Lovering.
 " 1. *Franeker*. Cotte.
 " 2. *St. Petersburg*. Euler.
 " 4. *St. Petersburg*. Euler.
 " 5. *Cambridge*. Winthrop. Lovering.
 " 12. *Cambridge*. Winthrop. Lovering.
 " 12. *Berlin*. Beguelin.
 " 14. *Franeker*. Cotte.
 " 18. *Berlin*. Beguelin.
 Dec. 5. *Cambridge*. Winthrop. Lovering.
 " 4. *Franeker*. Cotte.
 " 31. *St. Petersburg*. Euler.

1772.

- Jan. 1. *Berlin*. Beguelin.
 " 3. *Berlin*. Beguelin.
 " 6. *Bradford, Mass.* Williams.¹
 " 6. *St. Petersburg*. Euler.
 " 7. *St. Petersburg*. Euler.
 " 17. *St. Petersburg*. Euler.²
 Feb. 6. *Bradford, Mass.* Williams.
 " 6. *Berlin*. Beguelin. *Franeker*. Cotte.
 " 11. *St. Petersburg*. Euler.
 " 18. *Marseilles*. Cotte.
 " 21. *St. Petersburg*. Euler.

¹ *Amer. Phil. Soc.* II. 118.

² *N. Comm. Petrop.* XVII. 717.

- Feb. 27. *Cambridge*. Winthrop. Lovering.
 " 27. *Bradford, Mass.* Williams.
 Mar. 2. *Franeker*. Cotte.
 " 3. *Franeker*. Cotte.
 " 5. *Berlin*. Beguelin.
 " 6. *Montmorenci*. Cotte.
 " 10. *St. Petersburg*. Euler.
 " 11. *St. Petersburg*. Euler.
 " 13. *St. Petersburg*. Euler.
 " 16. *St. Petersburg*. Euler.
 " 17. *St. Petersburg*. Euler.
 " 19. *St. Petersburg*. Euler.
 " 21. *St. Petersburg*. Euler.
 " 22. *Berlin*. Beguelin.
 " 28. *Berlin*. Beguelin. *Franeker*. Cotte.
 " 30. *Berlin*. Beguelin.
 Apr. 3. *Berlin*. Beguelin. *Franeker*. Cotte.
 " 4. *St. Petersburg*. Euler.
 " 12. *Cambridge*. Winthrop. Lovering.
 " 12. *Bradford, Mass.* Williams.
 " 14. *St. Petersburg*. Euler.
 " 15. *St. Petersburg*. Euler.
 " 20. *Berlin*. Beguelin.
 " 22. *St. Petersburg*. Euler.
 " 25. *Berlin*. Beguelin.
 " 29. *Franeker*. Cotte.
 June 14. *Marseilles*. Cotte.
 " 21. *Franeker*. Cotte.
 July 5. *Cambridge*. Winthrop. Lovering.
 " 5. *Bradford, Mass.* Williams.
 " 7. *Cambridge*. Winthrop. Lovering.
 " 8. *Cambridge*. Winthrop. Lovering.
 " 8. *Bradford, Mass.* Williams.
 " 8. *Newport, R. I.* Stiles. Loomis.
 " 25. *Cambridge*. Winthrop. Lovering.
 " 25. *Bradford, Mass.* Williams.
 " 25. *Newport, R. I.* Stiles. Loomis.
 Aug. 31. *Berlin*. Beguelin. *Montmorenci*. Cotte.
 Sept. 4. *Stockholm*. Wilke.¹
 " 20. *Berlin*. Beguelin.
 " 25. *Franeker*. Cotte.
 " 27. *Franeker*. Cotte. *Stockholm*. Wilke.
 Oct. 2. *Cambridge*. Winthrop. Lovering.
 " 2. *Bradford, Mass.* Williams.
 " 2. *Montmorenci*. *Brussels*. *Franeker*. Cotte.
 " 5. *St. Petersburg*. Euler. *Marseilles*. Cotte.
 " 6. *Brussels*. Cotte. *St. Petersburg*. Euler.
 " 14. *Marseilles*. Cotte.
 Oct. 16. *Franeker*. Cotte.
 " 20. *Franeker*. Cotte.
 " 23. *Marseilles*. Cotte.
 " 27. *Montmorenci and Marseilles*. Cotte.
 " 27. *Jena*. Zeissing.
 " 27. *Piedmont*. Berando. Pilgram.¹
 " 29. *Franeker*. Cotte.
 " 30. *Franeker*. Cotte.
 Nov. 7. *St. Petersburg*. Euler.
 " 24. *Berlin*. Beguelin.
 " 26. *St. Petersburg*. Euler.
 " 27. *Berlin*. Beguelin.
 Dec. 2. *St. Petersburg*. Euler.
 " 14. *Bradford, Mass.* Williams.
 " 18. *Berlin*. Beguelin.
 " 29. *St. Petersburg*. Euler.
- 1773.
- Jan. 4. *St. Petersburg*. Euler.
 " 17. *Cambridge*. Winthrop. Lovering.
 " 17. *Newport, R. I.* Stiles. Loomis.
 " 17. *Berlin*. Beguelin.
 " 18. *Berlin*. Beguelin. *Franeker*. Cotte.
 " 18. *Newport, R. I.* Stiles. Loomis.
 " 19. *Cambridge*. Winthrop. Lovering.
 " 19. *Newport, R. I.* Stiles. Loomis.
 " 19. *Berlin*. Beguelin.
 " 21. *Berlin*. Beguelin.
 " 26. *St. Petersburg*. Euler.
 " 27. *St. Petersburg*. Euler.
 " 28. *St. Petersburg*. Euler.
 " 29. *St. Petersburg*. Euler.
 Feb. 7. *St. Petersburg*. Euler.
 " 8. *St. Petersburg*. Euler.
 " 10. *St. Petersburg*. Euler.
 " 12. *St. Petersburg*. Euler.
 " 17. *South Latitude?*
 " 18. *Franeker*. Van Swinden.
 " 18. *Berlin*. Beguelin.²
 " 20. *Franeker*. Van Swinden.
 " 20. *Berlin*. Beguelin.
 " 21. *Franeker*. Van Swinden.
 " 21. *Berlin*. Beguelin.
 " 22. *Berlin*. Beguelin.
 Mar. 4. *St. Petersburg*. Euler.
 " 12. *Franeker*. Cotte. *Berlin*. Beguelin.
 " 13. *Franeker*. Cotte.

¹ Gilbert. Ann. XXIX. 420.¹ Encyc. Method. I. 348. Journ. de Sav. 1773, p. 188.² Kamtz. Lehrbuch der Met. III. 465.

- Mar. 14. *Berlin.* Beguelin.
 " 15. *Cambridge.* Winthrop. Lovering.
 " 16. *Franeker.* Van Swinden.
 " 21. *Berlin.* Beguelin.
 " 23. *Cambridge.* Winthrop. Lovering.
 " 23. *St. Petersburg.* Euler. *Franeker.* Cotte.
 " 24. *St. Petersburg.* Euler.
 " 26. *Berlin.* Beguelin. *Lübeck.* Behn. Boué.
 " 26. *Montmorenci and Franeker.* Cotte.
 " 27. *St. Petersburg.* Euler.
 April 1. *St. Petersburg.* Euler.
 " 17. *Franeker.* Cotte.
 " 20. *Brussels.* Cotte.
 " 23. *St. Petersburg.* Euler.
 " 27. *Franeker.* Cotte.
 " 29. *St. Petersburg.* Euler.
 May 4. *St. Petersburg.* Euler.
 " 5. *St. Petersburg.* Euler.
 " 8. *St. Petersburg.* Euler.
 " 11. *Marseilles.* Cotte.
 " 13. *Berlin.* Beguelin.
 " 17. *Berlin.* Beguelin.
 " 18. *Berlin.* Beguelin.
 " 19. *Cambridge.* Winthrop. Lovering.
 " 19. *Berlin.* Beguelin.
 " 23. *Lübeck.* Behn. Boué.
 " 24. *Marseilles.* Cotte.
 " 26. *Marseilles.* Cotte.
 June 6. *Cambridge.* Winthrop. Lovering.
 " 6. *Newport, R. I.* Stiles. Loomis.
 " 10. *Cambridge.* Winthrop. Lovering.
 " 13. *Cambridge.* Winthrop. Lovering.
 " 14. *Cambridge.* Winthrop. Lovering.
 " 17. *Cambridge.* Winthrop. Lovering.
 " 24. *Cambridge.* Winthrop. Lovering.
 " 24. *Franeker.* Cotte.
 July 12. *Cambridge.* Winthrop. Lovering.
 " 17. *Cambridge.* Winthrop. Lovering.
 " 17. *Newport, R. I.* Stiles. Loomis.
 " 17. *Bradford, Mass.* Williams.¹ *Spain.* Rico.
 " 17. *Franeker.* Cotte. Reuss.² *Paris.* Wallot.
 " 18. *Cambridge.* Winthrop. Lovering.
 " 25. *Cambridge.* Winthrop. Lovering.
 " 25. *Franeker.* Cotte.
 Aug. 15. *Cambridge.* Winthrop. Lovering.
 " 15. *Breslau.* Reuss.³
 " 16. *Breslau.* Reuss.
- Aug. 25. *Cambridge.* Winthrop. Lovering.
 " 26. *St. Petersburg.* Euler.
 Sept. 1. *Marseilles.* Cotte.
 " 11. *Montmorenci and Franeker.* Cotte.
 " 12. *Franeker.* Cotte.
 " 15. *Berlin.* Beguelin.
 " 17. *Paris.* Cotte. *Pekin.* Amyot. Boué.
 " 21. *St. Petersburg.* Euler.
 " 22. *Marseilles.* Cotte.
 " 24. *Marseilles.* Cotte.
 " 27. *Franeker.* Cotte.
 Oct. 7. *Franeker.* Cotte.
 " 8. *St. Petersburg.* Euler.
 " 12. *Franeker.* Cotte.
 " 16. *Stockholm.* Wilke.
 " 19. *Franeker and Brussels.* Cotte.
 " 20. *St. Petersburg.* Euler.
 " 20. *Montmorenci, Franeker, and Brussels.* Cotte.
 " 21. *Franeker.* Cotte.
 " 27. *Franeker.* Cotte.
 " 28. *Franeker.* Cotte.
 " 29. *Marseilles.* Cotte.
 " 31. *St. Petersburg.* Euler.
 Nov. 1. *St. Petersburg.* Euler.
 " 7. *Berlin.* Beguelin.
 " 8. *Berlin.* Beguelin.
 " 15. *Berlin.* Beguelin.
 " 17. *Franeker.* Cotte.
 " 25. *St. Petersburg.* Euler.
 " 26. *St. Petersburg.* Euler.
 " 27. *St. Petersburg.* Euler.
 " 28. *St. Petersburg.* Euler.
 " 29. *St. Petersburg.* Euler.
 Dec. 13. *Franeker.* Cotte.
 " 14. *St. Petersburg.* Euler.
 " 15. *Franeker and Marseilles.* Cotte.
 " 25. *St. Petersburg.* Euler.
- 1774.
- Jan. 9. *Newport, R. I.* Stiles. Loomis.
 " 10. *Franeker.* Cotte.
 " 11. *Franeker.* Cotte.
 " 21. *St. Petersburg.* Euler.¹
 " 22. *St. Petersburg.* Euler.
 Feb. 14. *St. Petersburg.* Euler.
 " 28. *Cambridge.* Winthrop. Lovering.
 Mar. 2. *Franeker.* Cotte. *Berlin.* Beguelin.
 " 3. *Newport, R. I.* Stiles. Loomis.
 " 3. *Franeker, Montmorenci, and Brussels.* Cotte.

¹ Amer. Phil. Trans. II. 136.² Mém. de l'Acad. 1773, p. 6.³ Repert. Comment. IV. 131.¹ N. Comm. Petrop. XIX. 653.

- Mar. 3. *Berlin*. Beguelin.
 " 13. *Cambridge*. Winthrop. Lovering.
 " 13. *Newport, R. I.* Stiles. Loomis.
 " 13. *Franeker*. Cotte. *Berlin*. Beguelin.
 " 14. *Franeker, Montmorenci and Brussels*. Cotte.
 " 15. *Newport, R. I.* Stiles. Loomis.
 " 15. *Franeker and Montmorenci*. Cotte.
 " 17. *Berlin*. Beguelin. *Franeker*. Cotte.
 " 18. *Franeker*. Cotte.
 " 20. *St. Petersburg*. Euler. *Franeker*. Cotte.
 " 25. *St. Petersburg*. Euler. *Stockholm*. Wilke.
 " 26. *Franeker*. Cotte.
 " 27. *St. Petersburg*. Euler.
 " 30. *Berlin*. Beguelin.
 " 31. *Berlin*. Beguelin. *Franeker*. Cotte.
 " 31. *St. Petersburg*. Euler.
 April 1. *Berlin*. Beguelin. *St. Petersburg*. Euler.
 " 3. *Cambridge*. Winthrop. Lovering.
 " 4. *Berlin*. Beguelin. *Franeker*. Cotte.
 " 6. *Berlin*. Beguelin.
 " 7. *St. Petersburg*. Euler. *Berlin*. Beguelin.
 " 10. *St. Petersburg*. Euler.
 " 11. *St. Petersburg*. Euler.
 " 12. *St. Petersburg*. Euler.
 " 13. *St. Petersburg*. Euler.
 " 14. *St. Petersburg*. Euler.
 " 15. *St. Petersburg*. Euler.
 " 16. *St. Petersburg*. Euler.
 " 18. *St. Petersburg*. Euler.
 " 23. *Brussels*. Cotte.
 " 24. *St. Petersburg*. Euler.
 May 1. *Marseilles*. Cotte.
 " 2. *Marseilles*. Cotte.
 " 3. *Franeker and Brussels*. Cotte.
 " 4. *St. Petersburg*. Euler.
 " 5. *Franeker and Marseilles*. Cotte.
 " 9. *Stockholm*. Wilke.
 " 10. *Franeker*. Cotte.
 " 12. *St. Petersburg*. Euler.
 " 13. *St. Petersburg*. Euler.
 " 14. *Cologne*. Bildersael. Pilgram.
 " 16. *Brussels*. Cotte.
 " 18. *St. Petersburg*. Euler.
 " 23. *Franeker*. Cotte.
 " 30. *Franeker*. Cotte.
 June 4. *Cambridge*. Winthrop. Lovering.
 " 6. *Lübeck*. Behn. Boué.
 " 7. *Lübeck*. Behn. Boué.
 " 12. *Lübeck*. Behn. Boué.
 June 13. *Marseilles*. Cotte.
 " 15. *Lübeck*. Behn. Boué.
 July 9. *Cambridge*. Winthrop. Lovering.
 " 10. *Marseilles*. Cotte.
 " 12. *Cambridge*. Winthrop. Lovering.
 " 13. *Cambridge*. Winthrop. Lovering.
 " 13. *Franeker*. Van Swinden.
 " 24. *Franeker*. Van Swinden. Cotte.¹
 " 25. *Franeker*. Van Swinden. Cotte.
 " 28. *Cambridge*. Winthrop. Lovering.
 " 29. *Cambridge*. Winthrop. Lovering.
 Aug. 2. *Franeker*. Cotte.
 " 3. *Franeker*. Cotte.
 " 14. *Cambridge*. Winthrop. Lovering.
 " 21. *Franeker*. Cotte. *Lübeck*. Behn. Boué.
 " 22. *Franeker and Marseilles*.
 " 23. *St. Petersburg*. Euler.
 " 24. *Marseilles*. Cotte. *St. Petersburg*. Euler.
 " 26. *Cambridge*. Winthrop. Lovering.
 " 27. *Marseilles*. Cotte.
 " 28. *Marseilles*. Cotte.
 " 29. *Franeker*. Cotte.
 Sept. 1. *Cambridge*. Winthrop. Lovering.
 " 1. *St. Petersburg*. Euler.
 " 3. *Franeker*. Cotte.
 " 9. *St. Petersburg*. Euler.
 " 10. *Cambridge*. Winthrop. Lovering.
 " 19. *Franeker*. Cotte.
 " 21. *St. Petersburg*. Euler.
 " 22. *St. Petersburg*. Euler.
 " 24. *St. Petersburg*. Euler.
 " 25. *Marseilles*. Cotte.
 " 26. *Marseilles*. Cotte.
 " 29. *St. Petersburg*. Euler.
 " 30. *Marseilles*. Cotte.
 Oct. 1. *Berlin*. Beguelin.
 " 5. *St. Petersburg*. Euler.
 " 6. *St. Petersburg*. Euler.
 " 8. *St. Petersburg*. Euler.
 " 8. *Newport, R. I.* Stiles. Loomis.
 " 11. *St. Petersburg*. Euler.
 " 12. *Berlin*. Beguelin.
 " 13. *St. Petersburg*. Euler.
 " 19. *St. Petersburg*. Euler.
 " 21. *Franeker*. Cotte.
 " 25. *St. Petersburg*. Euler.
 " 28. *Franeker*. Cotte.
 " 29. *St. Petersburg*. Euler. *Franeker*. Cotte.

¹ Mém. de l'Acad. Sav. Etrang. Paris. VIII. 394.

- Oct. 20. *St. Petersburg.* Euler.¹
 " 28. *St. Petersburg.* Euler.
 Nov. 3. *Cambridge.* Winthrop. Lovering.
 " 3. *Franeker.* Cotte. *St. Petersburg.* Euler.
 " 5. *Cambridge.* Winthrop. Lovering.
 " 5. *Franeker.* Cotte. *St. Petersburg.* Euler.
 " 7. *St. Petersburg.* Euler.
 " 11. *Franeker.* Cotte.
 " 24. *St. Petersburg.* Euler.
 " 26. *St. Petersburg.* Euler.
 Dec. 1. *Franeker.* Cotte. *St. Petersburg.* Euler.
 " 1. *Newport, R. I.* Stiles. Loomis.
 " 4. *Marseilles.* Cotte.
 " 26. *St. Petersburg.* Euler.
 " 28. *St. Petersburg.* Euler.
- 1775.
- Jan. 1. *St. Petersburg.* Euler.²
 " 6. *Franeker.* Cotte.
 " 20. *Montmorenci and Franeker.* Cotte.
 " 21. *Montmorenci and Franeker.* Cotte.
 " 21. *St. Petersburg.* Euler.
 " 22. *St. Petersburg.* Euler.
 " 23. *Franeker.* Cotte. *St. Petersburg.* Euler.
 " 24. *Franeker.* Cotte.
 " 25. *Franeker.* Cotte. *St. Petersburg.* Euler.
 " 26. *St. Petersburg.* Euler.
 " 27. *St. Petersburg.* Euler.
 " 28. *Montmorenci and Franeker.* Cotte.
 " 29. *Cambridge.* Winthrop. Lovering.
 " 29. *Newport, R. I.* Stiles. Loomis.
 " 29. *St. Petersburg.* Euler.
 " 30. *Franeker.* Cotte.
 Feb. 1. *Brussels.* Cotte.
 " 2. *Cambridge.* Winthrop. Lovering.
 " 4. *Brussels.* Cotte.
 " 19. *Franeker.* Cotte. *St. Petersburg.* Euler.
 " 20. *Bordeaux.* Cotte. *St. Petersburg.* Euler.
 " 21. *Cambridge.* Winthrop. Lovering.
 " 21. *Franeker.* Cotte. *St. Petersburg.* Euler.
 " 23. *St. Petersburg.* Euler.
 " 28. *Franeker.* Cotte.
 Mar. 19. *Franeker.* Cotte.
 " 20. *Franeker.* Cotte.
- Mar. 21. *Franeker.* Cotte.
 " 22. *St. Petersburg.* Euler.
 " 24. *St. Petersburg.* Euler.
 " 25. *Cambridge.* Winthrop. Lovering.
 " 26. *Franeker.* Cotte.
 " 27. *Franeker.* Cotte.
 " 28. *Franeker.* Cotte.
 " 29. *Franeker.* Cotte.
 " 30. *Franeker.* Cotte. *St. Petersburg.* Euler.
 Apr. 1. *St. Petersburg.* Euler.
 " 2. *St. Petersburg.* Euler.
 " 4. *Franeker.* Cotte.
 " 13. *Franeker.* Cotte.
 " 15. *Franeker.* Cotte.
 " 17. *Franeker.* Cotte.
 " 18. *Franeker.* Cotte.
 " 19. *Franeker.* Cotte.
 " 20. *Franeker.* Cotte.
 " 23. *St. Petersburg.* Euler.
 May 2. *Franeker.* Cotte.
 " 15. *Franeker.* Cotte.
 " 20. *Franeker.* Cotte.
 July 18. *Cambridge.* Winthrop. Lovering.
 " 20. *Franeker.* Cotte.
 " 21. *Franeker.* Cotte.
 Aug. 24. *St. Petersburg.* Euler.
 " 27. *St. Petersburg.* Euler.
 Sept. 15. *Franeker.* Cotte.
 " 16. *Franeker.* Cotte.
 " 17. *Montmorenci and Franeker.* Cotte.
 " 19. *Vire, Normandy.* Cotte.
 " 22. *Franeker.* Cotte.
 " 23. *Franeker.* Cotte.
 " 24. *St. Petersburg.* Euler.
 " 27. *Franeker.* Cotte. *St. Petersburg.* Euler.
 Oct. 13. *St. Petersburg.* Euler.
 " 18. *Brussels.* Cotte.
 " 21. *Vienna.* Pilgram.
 Nov. 23. *Franeker.* Cotte.
 Dec. 15. *Franeker.* Cotte. *Berlin.* Beguelin.
- 1776.
- Jan. 18. *Berlin.* Beguelin.
 " 18. *St. Petersburg.* Euler.¹
 " 20. *Franeker.* Cotte.
 " 21. *Franeker.* Cotte. *Berlin.* Beguelin.
 Feb. 11. *Franeker.* Cotte.

¹ All the *St. Petersburg* observations from Jan. 17, 1772 to the bottom of page 64 should be corrected by subtracting 11 days from their respective dates: the error having originated in reducing to new style dates already corrected.

² *N. Comm. Petrop.* XX. 643.

¹ *Acta Sci. Acad. Petrop.* 1777, Pt. 1, p. 384.

- Mar. 9. *St. Petersburg.* Euler.
 " 13. *Montmorenci.* Cotte.
 " 23. *Franeker.* Cotte.
 " 28. *Montmorenci.* Cotte.
 " 28. *St. Petersburg.* Euler.
 Apr. 8. *Montmorenci, Franeker, and Brussels.* Cotte.
 " 10. *Brussels.* Cotte.
 " 18. *Cambridge.* Winthrop. Lovering.
 " 19. *Franeker.* Cotte.
 May 3. *Brussels.* Cotte.
 " 21. *Franeker.* Cotte.
 " 23. *Brussels.* Cotte.
 " 25. *Brussels.* Cotte.
 June 6. *Brussels.* Cotte.
 " 7. *Brussels.* Cotte.
 July 7. *Franeker.* Cotte.
 Aug. 14. *Montmorenci and Franeker.* Cotte.
 Sept. 3. *St. Petersburg.* Euler.
 " 4. *Cambridge.* Winthrop. Lovering.
 " 4. *Franeker.* Cotte.
 " 5. *Cambridge.* Winthrop. Lovering.
 " 5. *Franeker and Montmorenci.* Cotte.
 " 5. *Berlin.* Beguelin. *St. Petersburg.* Euler.
 " 6. *Franeker.* Cotte.
 " 8. *St. Petersburg.* Euler.
 " 9. *St. Petersburg.* Euler.
 " 12. *Franeker.* Cotte.
 " 16. *Cambridge.* Winthrop. Lovering.
 " 16. *Montmorenci, Brussels, and Franeker.* Cotte.
 " 16. *St. Petersburg.* Euler. *Bordeaux.* Cotte.
 " 19. *St. Petersburg.* Euler.
 " 22. *Montmorenci and Brussels.* Cotte.
 " 23. *Franeker.* Cotte. *St. Petersburg.* Euler.
 " 24. *Franeker.* Cotte.
 " 25. *Brussels.* Cotte.
 Oct. 3. *Franeker.* Cotte.
 " 6. *St. Petersburg.* Euler.
 " 7. *St. Petersburg.* Euler.
 " 27. *Franeker.* Cotte.
 Nov. 16. *Franeker.* Cotte. *Berlin.* Beguelin.
 Dec. 16. *Franeker.* Cotte.
- 1777.
- Jan. 13. *Montmorenci.* Cotte.
 " 28. *Cambridge.* Winthrop. Lovering.
 " 28. *Dighton, Mass.* Stiles. Loomis.
 " 28. *Franeker and Holland.* Cotte.
 " 28. *St. Petersburg.* Euler.¹
- Jan. 30. *Holland.* Cotte.
 Feb. 5. *Montmorenci and Franeker.* Cotte.
 " 5. *St. Petersburg.* Euler.
 " 6. *St. Petersburg.* Euler.
 " 6. *Holland.* Cotte.
 " 7. *Montmorenci and Holland.* Cotte.
 " 10. *St. Petersburg.* Euler.
 " 17. *Holland.* Cotte.
 " 26. *Berlin.* Beguelin. *Jena.* Zeissing.
 " 26. *Paris.* Detienne and Pingré. Reuss.¹
 " 26. *Montmorenci and Franeker.* Cotte.
 " 26. *Amsterdam.* Cotte.
 " 27. *Montmorenci.* Cotte.
 Mar. 1. *Berlin.* Beguelin. *St. Petersburg.* Euler.
 " 5. *Dighton, Mass.* Stiles. Loomis.
 " 5. *Montmorenci.* Cotte.
 " 5. *St. Petersburg.* Euler.
 " 6. *Franeker, Brussels, and Holland.* Cotte.
 " 9. *St. Petersburg.* Euler.
 " 10. *Franeker.* Van Swinden. Cotte.
 " 10. *St. Petersburg.* Euler.
 " 11. *Franeker.* Van Swinden. Cotte.
 " 12. *Franeker and Amsterdam.* Cotte.
 " 12. *St. Petersburg.* Euler.
 " 14. *St. Petersburg.* Euler.
 " 22. *Franeker.* Van Swinden. *Amsterdam.* Cotte.
 " 28. *St. Petersburg.* Euler.
 " 28. *Berlin.* Beguelin.
 " 29. *Cambridge.* Winthrop. Lovering.
 " 29. *Franeker and Holland.* Cotte.
 " 29. *Berlin.* Beguelin.
 " 31. *Holland.* Cotte.
 Apr. 1. *Brussels.* Cotte. *St. Petersburg.* Euler.
 " 4. *Berlin.* Beguelin. *Franeker.* Van Swinden.
 " 4. *Holland and Brussels.* Cotte.
 " 4. *St. Petersburg.* Euler.
 " 5. *Berlin.* Beguelin. *Franeker.* Van Swinden.
 " 5. *St. Petersburg.* Euler.
 " 5. *Holland and Brussels.* Cotte.
 " 6. *Cambridge.* Winthrop. Lovering.
 " 6. *Montmorenci.* Cotte. *St. Petersburg.* Euler.
 " 7. *Franeker.* Van Swinden.
 " 7. *Holland and Brussels.* Cotte.
 " 8. *Franeker.* Van Swinden.
 " 8. *St. Petersburg.* Euler.
 " 8. *Holland and Brussels.* Cotte.
 " 9. *Franeker.* Van Swinden. *Berlin.* Beguelin.
 Feb. 19. *Franeker.* Cotte.

¹ Acta Sci. Acad. Petrop. 1777, Pt. 2, p. 395.¹ Journ. de Phys. IX. 272 and 275.

- Apr. 9. *Holland and Brussels.* Cotte.
 " 9. *St. Petersburg.* Euler.
 " 11. *Cambridge.* Winthrop. Lovering.
 " 12. *St. Petersburg.* Euler.
 May 4. *Holland.* Cotte.
 " 5. *Franeker, Holland, Amsterdam, &c.* Cotte.
 " 13. *Spain.* Larrea. Rico.
 " 21. *Lewarden.* Cotte.
 " 30. *Franeker.* Van Swinden. Cotte.
 " 31. *Franeker.* Van Swinden. Cotte.
 June 28. *Cambridge.* Winthrop. Lovering.
 " 28. *Franeker.* Cotte.
 July 27. *Cambridge.* Winthrop. Lovering.
 " 27. *Portsmouth, N. H.* Stiles. Loomis.
 Aug. 6. *Franeker.* Cotte.
 " 17. *Berlin.* Beguelin.
 " 24. *Franeker and Breda.* Cotte.
 " 26. *Montmorenci and Holland.* Cotte.
 " 27. *Franeker, Montmorenci, and Holland.* Cotte.
 " 30. *St. Petersburg.* Euler.
 Sept. 5. *St. Petersburg.* Euler.
 " 6. *St. Petersburg.* Euler.
 " 7. *Cambridge.* Winthrop. Lovering.
 " 7. *Paris.* Detienne. Boué.¹
 " 7. *Franeker and Montmorenci.* Cotte.
 " 15. *St. Petersburg.* Euler.
 " 24. *Cambridge.* Winthrop. Lovering.
 " 24. *Portsmouth, N. H.* Stiles. Loomis.
 " 24. *Berlin.* Beguelin. *St. Petersburg.* Euler.
 " 24. *Franeker, Montmorenci, and Holland.* Cotte.
 " 26. *Perpignan.* Cotte.
 " 28. *Franeker.* Cotte.
 " 30. *St. Petersburg.* Euler.
 Oct. 3. *Geneva.* Deluc.²
 " 8. *Cambridge.* Winthrop. Lovering.
 " 8. *Franeker.* Van Swinden. Cotte.
 " 10. *Franeker.* Van Swinden. Cotte.
 " 13. *Spain.* Larrea. Rico.
 " 22. *Franeker and Holland.* Cotte.
 " 24. *Montmorenci.* Cotte.
 " 24. *Franeker.* Van Swinden.
 " 25. *Franeker.* Van Swinden. Cotte.
 Nov. 3. *Cambridge.* Winthrop. Lovering.
 " 3. *Berlin.* Beguelin. *Jena.* Zeissing.
 " 3. *Franeker, Montmorenci, and Austria.* Cotte.
 " 3. *Vienna.* Pilgram. *Paris.* Messier. Reuss.³
 " 3. *Berlin.* Beguelin. *Jena.* Zeissing.
 Nov. 3. *Vienna.* Pilgram.
 " 6. *Holland.* Cotte.
 " 7. *Franeker and Holland.* Cotte.
 " 9. *Holland.* Cotte.
 " 21. *Franeker and Holland.* Cotte.
 " 23. *Holland.* Cotte.
 " 27. *Cambridge.* Winthrop. Lovering.
 " 27. *Portsmouth, N. H.* Stiles. Loomis.
 " 27. *Jena.* Zeissing. *St. Petersburg.* Euler. Reuss.¹
 " 27. *Franeker, Montmorenci, Holland, &c.* Cotte.
 " 27. *Virginia.* Madison.²
 " 28. *Cambridge.* Winthrop. Lovering.
 Dec. 1. *Holland.* Cotte.
 " 2. *Cambridge.* Winthrop. Lovering.
 " 2. *Portsmouth, N. H.* Stiles. Loomis.
 " 2. *Holland.* Cotte.
 " 3. *Berlin.* Beguelin. *Jena.* Zeissing.
 " 3. *Franeker, Montmorenci, &c.* Cotte.
 " 3. *Vienna.* Pilgram. *Beziars.* Bertholon.
 " 3. *Berlin.* Schulze. Reuss.³ *Vienna.* Pilgram.
 " 3. *Gurzelen.* Sprüngli. Wolf.⁴
 " 4. *Berlin.* Beguelin.
 " 6. *Vienna.* Pilgram.
 " 6. *Franeker, Montmorenci, and Holland.* Cotte.
 " 17. *Holland.* Cotte.
 " 18. *Franeker and Holland.* Cotte.
 " 21. *Cambridge.* Winthrop. Lovering.
 " 27. *Mannheim.* Pilgram.
 " 30. *St. Petersburg.* Euler.
 " 31. *Chinon.* Cotte.

1778.

- Jan. 18. *Cambridge.* Winthrop. Lovering.
 " 18. *Franeker.* Van Swinden.⁵
 " 18. *Copenhagen.* Cotte. *St. Petersburg.* Euler.⁶
 " 19. *Portsmouth, N. H.* Stiles. Loomis.
 " 19. *Holland.* Cotte. *St. Petersburg.* Euler.
 " 20. *Franeker.* Van Swinden. *Holland.* Cotte.
 " 20. *St. Petersburg.* Euler.
 " 21. *Franeker.* Van Swinden.
 " 21. *Montmorenci and Holland.* Cotte.
 " 21. *St. Petersburg.* Euler.

¹ Acta Sci. Acad. Petrop. 1777, Hist. Pt. II. p. 71.² Amer. Phil. Trans. II. 123.³ Mém. de l'Acad. Berlin. 1777, p. 106.⁴ Mitt. Naturforsch. Gesell. Bern. 1855, p. 43.⁵ Mém. de l'Acad. Brux. III. 449.⁶ Acta Sci. Acad. Petrop. 1778, Pt. II. p. 358.¹ Journ. de Phys. X. 231-3.² Bull. de l'Acad. Brux. 1842. Pt. 2. p. 6.³ Mém. de l'Acad. 1770, p. 440.

- Jan. 25. *Vienna*. Pilgram.
 " 26. *Franeker*. Van Swinden. *Holland*. Cotte.
 " 27. *Holland*. Cotte.
 Feb. 1. *St. Petersburg*. Euler.
 " 15. *Cambridge*. Winthrop. Lovering.
 " 16. *Chinon*. Cotte.
 " 17. *Cambridge*. Winthrop. Lovering.
 " 17. *Portsmouth, N. H.* Stiles. Loomis.
 " 17. *Chinon*. Cotte. *St. Petersburg*. Euler.
 " 18. *St. Petersburg*. Euler.
 " 25. *Jena*. Zeissing. *Havre*. Diquemare.¹
 " 25. *Montmorenci, &c.* Cotte.
 " 25. *Vienna*. Pilgram. *Franeker*. Van Swinden.
 " 25. *St. Petersburg*. Euler.
 " 26. *Holland, &c.* Cotte.
 " 28. *St. Malo*. Cotte.
 Mar. 10. *Perpignan*. Cotte.
 " 15. *Gurzelen*. Sprüngli. Wolf.
 " 16. *St. Petersburg*. Euler.
 " 17. *Cambridge*. Winthrop. Lovering.
 " 17. *Beziars*. Bertholon. *Havre*. Diquemare.²
 " 17. *Franeker and Holland*. Van Swinden.
 " 17. *Montmorenci*. Cotte. *St. Petersburg*. Euler.
 " 18. *Montmorenci*. Cotte. *St. Petersburg*. Euler.
 " 19. *Holland*. Cotte.
 " 22. *Cambridge*. Winthrop. Lovering.
 " 22. *Berlin*. Beguelin.
 " 22. *Franeker*. Van Swinden.
 " 22. *Holland*. Cotte. *St. Petersburg*. Euler.
 " 24. *Cambridge*. Winthrop. Lovering.
 " 25. *Berlin*. Beguelin.
 " 26. *Franeker*. Van Swinden.
 " 26. *St. Petersburg*. Euler.
 " 26. *Montmorenci and Holland, &c.* Cotte.
 " 27. *Franeker*. Van Swinden.
 " 27. *Holland*. Cotte.
 " 31. *Berlin*. Beguelin.³
 Apr. 10. *St. Petersburg*. Euler.
 " 10. *Copenhagen*. Cotte.
 " 14. *Jena*. Zeissing.
 " 15. *St. Petersburg*. Euler.
 " 17. *Berlin*. Beguelin.
 " 19. *Berlin*. Beguelin.
 " 20. *Cambridge*. Winthrop. Lovering.
 Apr. 21. *Breda and Holland*. Cotte.
 " 21. *St. Petersburg*. Euler.
 " 23. *Cambridge*. Winthrop. Lovering.
 " 23. *Provence*. Cotte. *St. Petersburg*. Euler.
 " 25. *Isle d'Oleron*. Cotte.
 " 26. *Cambridge*. Winthrop. Lovering.
 " 26. *Berlin*. Beguelin.
 May 13. *Cambridge*. Winthrop. Lovering.
 " 14. *Franeker*. Van Swinden.
 " 14. *Holland*. Cotte.
 June 10. *Franeker*. Van Swinden. Cotte.
 " 11. *Franeker*. Van Swinden. Cotte.
 " 14. *Cambridge*. Winthrop. Lovering.
 " 26. *Havre*. Diquemare.
 " 28. *Cambridge*. Winthrop. Lovering.
 " 28. *Sinigaglia*. De Toschi de Fagnaro.¹
 " 28. *Franeker*. Van Swinden. Reuss.
 " 28. *Montmorenci and Cadiz, &c.* Cotte.
 " 28. *Spain*. Rico.
 July 3. *Perpignan*. Cotte.
 " 7. *Cambridge*. Winthrop. Lovering.
 " 15. *Franeker*. Van Swinden. Cotte.
 " 31. *Cambridge*. Winthrop. Lovering.
 Aug. 12. *Franeker*. Van Swinden.
 " 22. *Franeker and Holland*. Cotte.
 " 28. *Breda*. Cotte. *Berlin*. Beguelin.
 " 28. *St. Petersburg*. Euler.
 Sept. 1. *St. Petersburg*. Euler.
 " 3. *St. Petersburg*. Euler.
 " 11. *Spain*. Rico.
 " 12. *St. Petersburg*. Euler.
 " 15. *St. Petersburg*. Euler.
 " 15. *Franeker*. Van Swinden.
 " 17. *Franeker*. Van Swinden.
 " 17. *Montmorenci*. Cotte. *St. Petersburg*. Euler.
 " 18. *Copenhagen and Holland*. Cotte.
 " 18. *Berlin*. Beguelin.
 " 19. *Viviers*. Cotte.
 " 20. *Mur-de-Barez*. Cotte.
 " 21. *Franeker*. Van Swinden.
 " 21. *Montmorenci, Holland, &c.* Cotte.
 " 21. *Jena*. Zeissing. *St. Petersburg*. Euler.
 " 22. *Cambridge*. Winthrop. Lovering.
 " 22. *New Haven*. Stiles. Loomis.
 " 22. *Montmorenci, Bordeaux, &c.* Cotte.
 " 22. *Lowain*. Chevalier.² *St. Petersburg*. Euler.
 " 22. *Jena*. Zeissing. *Bildersael*. Pilgram.

¹ Journ. de Phys. XI. 269.

² Journ. de Phys. XI. 420.

³ Diquemare saw auroras at Havre on the last days of March and on the first ten days of April, 1778. Encyc. Method I. 347.

¹ Journ. de Phys. X. 232. Mém. de l'Acad. Berlin, 1779. p. 14.

² Mém. de l'Acad. Brux. III. p. xxvi.

- Sept. 23. *Copenhagen and Dijon.* Cotte.
 " 24. *Cambridge.* Winthrop. Lovering.
 " 24. *New Haven.* Stiles. Loomis.
 " 24. *Dijon, &c.* Cotte.
 " 25. *New Haven.* Stiles. Loomis.
 " 27. *Holland.* Cotte.
 " 30. *St. Petersburg.* Euler.
 " 30. *Berlin.* Beguelin.
 Oct. 9. *Holland.* Cotte.
 " 14. *Franeker.* Van Swinden. *Berlin.* Beguelin.
 " 14. *Montmorenci, Holland, &c.* Cotte.
 " 14. *Lowain.* Chevalier.
 " 15. *Holland.* Cotte.
 " 19. *Holland.* Cotte.
 " 23. *Franeker.* Van Swinden. Cotte.
 " 25. *Spain.* Rico.¹
 " 26. *Holland.* Cotte.
 " 27. *Holland.* Cotte.
 Nov. 20. *St. Petersburg.* Euler.
 " 24. *Holland.* Cotte.
 Dec. 3. ——— Bertholon.²
 " 6. *St. Petersburg.* Euler.
 " 7. *Holland.* Cotte.
 " 8. *Franeker.* Van Swinden. Cotte.
 " 10. *St. Petersburg.* Euler.
 " 13. *Jena.* Zeissing. *St. Petersburg.* Euler.
 " 14. *Troies.* Cotte.
 " 15. *Holland.* Cotte.
 " 17. *Franeker.* Van Swinden.³ Cotte.
 " 17. *St. Petersburg.* Euler.
 " 26. *Montmorenci.* Cotte.

1779.

- Jan. 6. *Brussels.* Durondeau.⁴
 " 9. *Franeker.* Cotte.
 " 10. *Holland and Brussels.* Cotte.
 " 12. *Holland.* Cotte.
 Jan. 13. *Franeker.* Cotte.
 " 14. *Saint Saturnin.* Cotte.
 " 19. *St. Petersburg.* Euler.⁵
 Feb. 4. *Franeker.* Cotte.

¹ Mem. Acad. Cienc. Madrid. III. 77.² Journ. de Phys. XI. 269. and XII. 359.³ Van Swinden suspected auroras on Apr. 27, May 19, 26, and 28, June 12 and 14, Sept. 12 and 18, and Oct. 13 and 17, of this same year. There were twenty-three auroras at Brussels in this year. Mém. de l'Acad. Brux. III. Table.⁴ Mém. de l'Acad. Brux. III. Appendix.⁵ Acta. Sci. Acad. Petrop. 1779, Pt. II. p. 414.

- Feb. 6. *Franeker and Holland.* Cotte.
 " 7. *St. Petersburg.* Euler.
 " 9. *Holland, &c.* Cotte. *Brussels.* Durondeau.
 " 9. *Spain.* Rico.¹
 " 10. *Cambridge.* Winthrop. Lovering.
 " 10. *Bordeaux.* Cotte. *Spain.* Rico.
 " 10. *Berlin.* Beguelin. *Jena.* Zeissing.
 " 10. *St. Petersburg.* Euler.
 " 11. *Cambridge.* Winthrop. Lovering.
 " 11. *Montmorenci, Holland, &c.* Cotte.
 " 11. *St. Petersburg.* Euler.
 " 11. *Gurzelen.* Sprüngli. Wolf.
 " 12. *Franeker, Holland, &c.* Cotte.
 " 12. *St. Petersburg.* Euler.
 " 13. *Cambridge.* Winthrop. Lovering.
 " 13. *Berlin.* Beguelin. *Beziere.* Bertholon.
 " 13. *Holland, &c.* Cotte. *St. Petersburg.* Euler.
 " 13. *Gurzelen.* Sprüngli. Wolf.
 " 13. *Jena.* Zeissing. *Vienna.* Pilgram.
 " 14. *Marseilles, &c.* Cotte. *Jena.* Zeissing.
 " 15. *Montmorenci.* Cotte. *St. Petersburg.* Euler.
 " 15. *Jena.* Zeissing. *Spain.* Rico.
 " 15. *Franeker and Copenhagen.* Cotte.
 " 15. *Berlin.* Beguelin. *Beziere.* Bertholon.
 " 16. *Berlin.* Beguelin.
 " 18. *Nanci.* Cotte.
 " 19. *Dieppe.* Cotte.
 " 25. *St. Petersburg.* Euler.
 Mar. 2. *Franeker.* Cotte.
 " 5. *St. Petersburg.* Euler.
 " 13. *St. Petersburg.* Euler.
 " 14. *St. Petersburg.* Euler.
 " 14. *Nanci, &c.* Cotte. *Vienna.* Pilgram.
 " 14. *Spain.* Rico.² *Gurzelen.* Sprüngli. Wolf.
 " 15. *St. Petersburg.* Euler.
 " 24. *Franeker and Brussels.* Cotte.
 " 25. *Montmorenci.* Cotte.
 " 25. *Franeker, Holland, &c.* Cotte.
 " 25. *St. Petersburg.* Euler.
 " 25. *Jena.* Zeissing. *Brussels.* Durondeau.
 " 30. *Copenhagen and Montmorenci.* Cotte.
 " 31. *Copenhagen.* Cotte.
 Apr. 2. *Nanci.* Cotte.
 " 4. *Franeker.* Cotte.
 " 5. *Cambridge.* Winthrop. Lovering.
 " 7. *Montmorenci.* Cotte.
 " 8. *Brussels.* Cotte. *St. Petersburg.* Euler.

¹ Mem. Acad. Cienc. Madrid. III. 77.² Mem. Acad. Cienc. Madrid. III. 77.

- Apr. 9. *Franeker and Brussels.* Cotte.
 " 9. *St. Petersburg.* Euler.
 " 10. *Nanci.* Cotte. *Berlin.* Beguelin.
 " 11. *Les Essarts.* Cotte.
 " 13. *Viviers.* Cotte. *St. Petersburg.* Euler.
 " 14. *St. Petersburg.* Euler.
 " 17. *St. Petersburg.* Euler.
 " 18. *Franeker.* Cotte. *Brussels.* Durondeau.
 " 20. *Franeker and Holland.* Cotte.
 " 20. *Copenhagen and Rome, &c.* Cotte.
 " 20. *St. Petersburg.* Euler.
 " 21. *Brussels.* Durondeau. *Beziars.* Bertholon.
 " 22. *Nanci.* Cotte.
 " 28. *Brussels.* Cotte.
 May 2. *Brussels.* Cotte.
 " 4. *Berlin.* Beguelin.
 " 6. *Berlin.* Beguelin.
 " 7. *Berlin.* Beguelin.
 " 8. *Berlin.* Beguelin.
 " 10. *Berlin.* Beguelin. *St. Petersburg.* Euler.
 " 11. *Montmorenci.* Cotte. *Berlin.* Beguelin.
 " 12. *Berlin.* Beguelin.
 " 13. *Berlin.* Beguelin.
 " 15. *Berlin.* Beguelin.
 " 17. *Berlin.* Beguelin.
 " 20. *Brussels.* Cotte.
 " 22. *Copenhagen.* Cotte.
 " 24. *Montmorenci.* Cotte. *Brussels.* Durondeau.
 " 24. *Franeker, Holland, &c.* Cotte.
 " 25. *Brussels.* Durondeau.
 June 3. *Brussels.* Cotte.
 " 5. *Brussels.* Cotte.
 " 14. *Isle d'Oleron.* Cotte.
 " 15. *Isle d'Oleron.* Cotte.
 " 20. *Montmorenci.* Cotte.
 " 24. *Isle d'Oleron.* Cotte.
 July 9. *Brussels.* Durondeau. *Bordeaux.* Cotte.
 " 15. *Brussels.* Durondeau. *Bordeaux.* Cotte.
 " 17. *Brussels.* Cotte.
 " 20. *Bordeaux.* Cotte.
 Aug. 3. *Franeker and Nanci.* Cotte.
 " 4. *Leyden.* Cotte.
 " 8. *St. Petersburg.* Euler.
 " 14. *Rouen.* Cotte.
 " 17. *Franeker.* Cotte.
 " 20. *Brussels and Copenhagen.* Cotte.
 " 26. *Copenhagen.* Cotte.
 " 28. *Franeker.* Cotte.
 " 29. *Franeker, Holland, &c.* Cotte.
 " 29. *Montmorenci.* Cotte.
 Aug. 30. *Nanci.* Cotte.
 Sept. 2. *Copenhagen.* Cotte. *St. Petersburg.* Euler.
 " 4. *St. Petersburg.* Euler.
 " 8. *Holland.* Cotte.
 " 10. *Franeker and Copenhagen.* Cotte.
 " 11. *Holland.* Cotte.
 " 14. *St. Petersburg.* Euler.
 " 14. *Copenhagen.* Cotte.
 " 15. *St. Petersburg.* Euler.
 " 17. *Brussels.* Cotte.
 " 18. *Berlin.* Beguelin. *Jena.* Zeissing.
 " 18. *Montmorenci.* Cotte.
 " 18. *Gurzelen.* Sprüngli. Wolf.
 " 18. *Berlin.* Beguelin. *Marseilles, &c.* Cotte.
 " 18. *Jena.* Zeissing.¹ *Beziars.* Bertholon.
 " 19. *Mezin.* Cotte. *Jena.* Zeissing.
 " 22. *Strasbourg.* Cotte. *St. Petersburg.* Euler.
 " 24. *St. Petersburg.* Euler.
 " 28. *Franeker and Copenhagen.* Cotte.
 " 28. *St. Petersburg.* Euler.
 " 29. *Nanci.* Cotte. *St. Petersburg.* Euler.
 Oct. 3. *Montmorenci and Holland.* Cotte.
 " 3. *St. Petersburg.* Euler.
 " 4. *Franeker.* Cotte.
 " 9. *Copenhagen.* Cotte.
 " 12. *Brussels.* Durondeau.
 " 14. *St. Petersburg.* Euler.
 " 14. *Montmorenci.* Cotte.
 " 14. *Franeker and Holland, &c.* Cotte.
 " 15. *Brussels.* Durondeau.
 " 17. *Franeker and Copenhagen.* Cotte.
 " 17. *Brussels.* Durondeau. *St. Petersburg.* Euler.
 " 19. *Perpignan.* Cotte.
 " 22. *Holland.* Cotte.
 " 28. *St. Petersburg.* Euler.
 Nov. 3. *St. Petersburg.* Euler.
 " 7? *Saint Saturnin.* Cotte.
 " 8. *Isle d'Oleron.* Cotte.
 " 9. *Franeker, Holland, &c.* Cotte.
 " 9. *Montmorenci.* Cotte. *Spain.* Rico.²
 " 9. *Brussels.* Durondeau. *Vienna.* Pilgram.
 " 9. *Berlin.* Beguelin. *Beziars.* Bertholon.
 " 12. *Lucon.* Cotte.
 " 12. *Holland, &c.* Cotte. *Brussels.* Durondeau.
 " 13. *Montmorenci and Livourne.* Cotte.
 " 14. *Berlin.* Beguelin.
 " 15. *Holland.* Cotte.

¹ The aurora was observed four times at Jena in October.

² Mem. Acad. Cienc. Madrid. III. 77.

- Nov. 18. *Nanci.* Cotte.
 " 25. *St. Petersburg.* Euler.
 " 27. *Gurzelen.* Sprüngli. Wolf.
 Dec. 3. *St. Petersburg.* Euler.
 " 5. *Brussels.* Durondeau. *Vienna.* Pilgram.
 " 5. *Montmorenci.* Cotte.
 " 5. *Franeker and Holland.* Cotte.
 " 6. *Montmorenci.* Cotte.
 " 6. *Franeker and Holland.* Cotte.
 " 6. *Brussels.* Durondeau.
 " 8. *Franeker.* Cotte.
 " 9. *Jena.* Zeissing. *St. Petersburg.* Euler.
 " 10. *Brussels.* Durondeau.

1780.

- Feb. 5. *St. Petersburg.* Schröter and Euler.¹
 " 11. *Franeker and Holland.* Cotte.
 " 15. *St. Petersburg.* Schröter and Euler.
 " 22. *Montmorenci.* Cotte.
 " 29. *St. Petersburg.* Schröter and Euler.
 " 29. *All over Europe.* Cotte. *Spain.* Rico.²
 " 29. *Jena.* Zeissing. *Beziars.* Bertholon.
 " 29. *Turin.*³ *Morozzo.* *Vienna.* Pilgram.
 " 29. *Padua.* Toaldo. Reuss.⁴
 " 29. *Gurzelen.* Sprüngli. Wolf.
 " 29. *Geneva.* Deluc.⁵ *Berne.* Studer.
 " 29. *Turin.* *Morozzo.*⁶ Boué.
 Mar. 1. *Perpignan.* Cotte.
 " 2. *Pleskow.* De Brekling.⁷ Reuss. Boué.
 " 2. *New Haven.* Stiles. Loomis.
 " 2. *St. Petersburg.* Schröter, and Euler.
 " 29. *Montmorenci.* Cotte.
 " 30. *New Haven.* Stiles. Loomis.
 " 30. *Chinon.* Cotte.
 " 31. *Chinon.* Cotte.
 Apr. 4. *Berlin.* Beguelin.
 " 6. *Jena.* Zeissing.
 " 13. *St. Petersburg.* Schröter and Euler.
 May 8. ——— D'Orbessan. Reuss and Boué.⁸
 June 15. *Montmorenci.* Cotte.
 " 23. *New Haven.* Stiles. Loomis.

¹ Acta Sci. Acad. Petrop. 1780, p. 396.² Mem. Acad. Cienc. Madrid. III. 77.³ Mém. de l'Acad. Toulouse. II. 20.⁴ Saggi Acad. di Padua. I. 78.⁵ Mitt. Naturforsch. Gesell. Bern. 1855, p. 44.⁶ Mém. de l'Acad. Turin. II. 328.⁷ Acta Sci. Acad. Petrop. 1780, p. 15.⁸ Mém. de l'Acad. Toulouse. II. 26.

- June 24. *New Haven.* Stiles. Loomis.
 July 9. *New Haven.* Stiles. Loomis.
 " 11. *New Haven.* Stiles. Loomis.
 " 27. *New Haven.* Stiles. Loomis.
 " 28. *New Haven.* Stiles. Loomis.
 " 28. *Geneva?* Deluc.¹ *Frankfort.* Pilgram.
 " 28. *Germany.* Boeckman.² *Spain.* Rico.
 " 28. *Jena.* Zeissing. Reuss and Cotte.
 " 28. *Italy.* Volta.³ *Bildersael.* Pilgram.
 " 28. *Gurzelen.* Sprüngli. Wolf. *Berne.* Studer.
 " 29. *New Haven.* Stiles. Loomis.
 " 29. *Europe.* Cotte.
 Aug. 2. *New Haven.* Stiles. Loomis.
 " 27. *St. Petersburg.* Schröter and Euler.
 Sept. 2. *St. Petersburg.* Schröter and Euler.
 " 3. *St. Petersburg.* Schröter and Euler.
 " 4. *St. Petersburg.* Schröter and Euler.
 " 7. *St. Petersburg.* Schröter and Euler.
 " 10. *St. Petersburg.* Schröter and Euler.
 " 11. *St. Petersburg.* Schröter and Euler.
 " 21. *New Haven.* Stiles. Loomis.
 " 22. *Franeker and Montmorenci.* Cotte.
 " 22. *St. Petersburg.* Schröter and Euler.
 " 27. *Franeker and Montmorenci.* Cotte.
 Oct. 4. *St. Petersburg.* Schröter and Euler.
 " 6. *Jena.* Zeissing.
 " 10. *Barbadoes.* Blane. Boué.⁴
 " 24. *St. Petersburg.* Schröter and Euler.
 " 28. *St. Petersburg.* Schröter and Euler.
 " 30. *New Haven.* Stiles. Loomis.
 " 30. *Francker, Geneva, &c.* Cotte.
 Nov. x. *New Haven.* Stiles. Loomis.
 " 4. *Berlin.* Cotte.
 " 14. *Jena.* Zeissing.
 " 19. *New Haven.* Stiles. Loomis.
 " 20. *New Haven.* Stiles. Loomis.
 " 20. *St. Petersburg.* Schröter and Euler.
 " 21. *Francker.* Cotte.
 " 22. *New Haven.* Stiles. Loomis.
 " 23. *New Haven.* Stiles. Loomis.
 " 23. *St. Petersburg.* Schröter and Euler.
 " 25. *New Haven.* Stiles. Loomis.
 " 25. *Gurzelen.* Sprüngli. Wolf. *Berne.* Studer.
 " 25. *Francker, La Rochelle, &c.* Cotte.
 " 16. *St. Petersburg.* Euler.

¹ Bull. de l'Acad. Brux. IX. Pt. II. 6.² Mém. de l'Acad. Berlin. 1780, p. 17.³ Phil. Trans. LXXII. Pt. I. p. xv.⁴ Roy. Soc. Edin. I. 34.

- Nov. 25. *Vienna*. Pilgram. *Geneva*. Deluc.¹
 " 26. *La Rochelle*. Cotte.
 " 26. *New Haven*. Stiles. Loomis.
 " 27. *New Haven*. Stiles. Loomis.
 " 28. *New Haven*. Stiles. Loomis.
 " 29. *New Haven*. Stiles. Loomis.
 Dec. 15. *New Haven*. Stiles. Loomis.
 " 19. *New Haven*. Stiles. Loomis.
 " 19. *Berlin*. Beguelin.
 " 19. *St. Petersburg*. Schröter and Euler.
 " 25. *St. Petersburg*. Schröter and Euler.
 " 27. *New Haven*. Stiles. Loomis.
 " 30. *Trieste*. Pilgram.
 " 31. *Trieste*. Pilgram.
- 1781.
- Jan. 1. *Trieste*. Pilgram.
 " 17. *Ipswich, Mass.* Cutler.²
 " 17. *New Haven*. Stiles. Loomis.
 " 17. *St. Petersburg*. Euler.³
 " 21. *New Haven*. Stiles. Loomis.
 " 21. *Abbatias S. Zenonis*.⁴
 " 22. *St. Petersburg*. Euler.
 " 23. *St. Petersburg*. Euler.
 " 25. *Ipswich*. Cutler.
 " 28. *Mannheim*. Hemmer. Pilgram.
 " 29. *New Haven*. Stiles. Loomis.
 " 30. *Ipswich*. Cutler.
 " 30. *Munich*. Huebpauer. *Padua*. Toaldo.
 " 30. *Ratisbon*. Heinrich. *Vienna*. Pilgram.
 " 30. *Sagan*. Preuss. *Beziere*. Bertholon.
 " 30. *Montmorenci*. Cotte.⁵
 " 31. *Ipswich*. Cutler.
 " 31. *Peissenberg*. Fischer and Schlögel.
 Feb. 2. *Mannheim*. Hemmer.
 " 5. *Montmorenci*. Cotte.
 " 15. *Ipswich, Mass.* Cutler.
 " 15. *New Haven*. Stiles. Loomis.
 " 15. *Beziere*. Bertholon. *Berlin*. Beguelin.
 " 15. *Mannheim*. Hemmer.
 " 15. *Ratisbon*. Heinrich.
 " 15. *Padua*. Toaldo. *Montmorenci*. Cotte.
 " 16. *Mannheim*. Hemmer. Pilgram.
 Feb. 21. *St. Petersburg*. Euler.
 Mar. 14. *St. Petersburg*. Euler.
- Mar. 14. *Mannheim*. Hemmer. *Wurtemberg*. Pilgram.
 " 14. *Montmorenci*. Cotte.
 " 16. *New Haven*. Stiles. Loomis.
 " 16. *St. Petersburg*. Euler.
 " 19. *Berlin*. Beguelin. *Mannheim*. Pilgram.
 " 20. *Mannheim*. Hemmer.
 " 20. *Erfurt*. Planer. Pilgram.
 " 22. *St. Petersburg*. Euler.
 " 23. *Padua*. Toaldo.
 " 27. *Cambridge*. Gannett.¹
 " 27. *Cambridge*. Wigglesworth.¹ Lovering.
 " 27. *Ipswich*. Cutler. *Dover, N. H.* Belknap.²
 " 27. *New Haven*. Stiles. Loomis.
 " 27. Watermeyer, Jahn.
 " 27. *Mannheim*. Hemmer. Pilgram and Reuss.
 " 27. *Erfurt*. Planer. *Ratisbon*. Heinrich.
 " 27. *London*. Cavallo.³ *Montmorenci*. Cotte.
 " 27. *Franeker*. Van Swinden. Boué.
 " 28. *New Haven*. Stiles. Loomis.
 " 28. *Berlin*. Beguelin. Pilgram.
 " 28. *Mannheim*. Hemmer. Bertholon.⁴
 " 28. *St. Petersburg*. Euler.
 " 28. *Montmorenci*. Cotte.
 " 29. *Ipswich*. Cutler. *St. Petersburg*. Euler.
 " 29. *Berlin*. Beguelin. *Mannheim*. Hemmer.
 " 29. *Erfurt*. Planer. *Sagan*. Preuss. Pilgram.
 " 29. *Montmorenci*. Cotte.
 " 31. *St. Petersburg*. Euler.
 Apr. 4. *Mannheim*. Hemmer.
 " 13. *New Haven*. Stiles. Loomis.
 " 13. *St. Petersburg*. Euler.
 " 14. *New Haven*. Stiles. Loomis.
 " 14. *Mannheim*. Hemmer.
 " 15. *New Haven*. Stiles. Loomis.
 " 15. *Erfurt*. Planer. *Mannheim*. Pilgram.
 " 15. *Montmorenci*. Cotte.
 " 16. *St. Petersburg*. Euler.
 " 17. *New Haven*. Stiles. Loomis.
 " 17. *St. Petersburg*. Euler.
 " 19. *St. Petersburg*. Euler.
 " 21. *Mannheim*. Hemmer.
 " 24. *Mannheim*. Hemmer. Pilgram.
 " 25. *St. Petersburg*. Euler.
 " 26. *St. Petersburg*. Euler.
 " 28. *St. Petersburg*. Euler.
 May 4. *Ratisbon*. Heinrich.

¹ L'Institut. X. 341.² Mem. Amer. Acad. I. 337.³ Acta Sci. Acad. Petrop. 1781. Pt. II. 409.⁴ Observer unknown. Ephem. Soc. Met. Palat. I. 404.⁵ Journ. des Savans. 1782, p. 163.¹ Mem. Amer. Acad. II. 136. Also N. S. IX. 115.² Amer. Phil. Trans. II. 196.³ Phil. Trans. LXXI. 329.⁴ Encyc. Method. I. 362.

- May 11. *East Hartford, Conn.* Stiles. Loomis.
 " 11. *Berlin.* Beguelin.
 " 14. *Berlin.* Beguelin.
 " 16. *Berlin.* Beguelin.
 " 17. *Brimfield, Mass.* Stiles. Loomis.
 " 17. *Berlin.* Beguelin.
 " 18. *Berlin.* Beguelin.
 June 7. *New Haven.* Stiles. Loomis.
 " 8. *Ratisbon.* Heinrich.
 " 8. *Mannheim.* Pilgram. *Jena.* Zeissing.
 " 9. *New Haven.* Stiles. Loomis.
 " 9. *Mannheim.* Hemmer. Pilgram.
 " 19. *Mannheim.* Hemmer. Pilgram.
 " 20. *Ipswich.* Cutler. *New Haven.* Stiles. Loomis.
 " 28. *Ratisbon.* Heinrich.
 " 29. *Ratisbon.* Heinrich.
 July 8. *Mannheim?* Hemmer. Pilgram.
 " 9. *New Haven.* Stiles. Loomis.
 " 22. *Montmorenci.* Cotte.
 Aug. 6. *Ipswich.* Cutler.
 " 8. *Cambridge.* Gannett.¹
 " 8. *New Haven.* Stiles. Loomis.
 " 12. *St. Petersburg.* Euler.
 " 14. *Ipswich.* Cutler.
 " 16. *Würzburg.* Egel.
 " 17. *New Haven.* Stiles. Loomis.
 " 20. *Ipswich.* Cutler. *New Haven.* Stiles. Loomis.
 " 21. *Ipswich.* Cutler. *Montmorenci.* Cotte.
 " 21. *Mannheim.* Hemmer. Pilgram.
 " 22. *Cambridge.* Gannett. *Ipswich.* Cutler.
 " 23. *Cambridge.* Gannett.
 " 23. *Sagan.* Preus.
 " 25. *Montmorenci.* Cotte.
 " 26. *Mannheim.* Hemmer. Pilgram.
 Sept. 3. *Mannheim.* Hemmer. Pilgram.
 " 7. *Würzburg.* Egel.
 " 8. *Montmorenci.* Cotte.
 " 9. *Würzburg.* Egel.
 " 18. *Cambridge.* Gannett. *Ipswich.* Cutler.
 " 18. *New Haven.* Stiles. Loomis.
 " 18. *Berlin.* Beguelin. *St. Petersburg.* Euler.
 " 18. *Peissenberg.* Fischer and Schlögel.
 " 19. *Cambridge.* Gannett.
 " 19. *Berlin.* Beguelin. *Sagan.* Preus.
 " 22. *Prague.* Strnad.
 " 23. *Erfurt.* Planer. *Jena.* Zeissing.
 " 23. *Paris.* Bertholon.² *St. Petersburg.* Euler.
 Sept. 23. *Montmorenci.* Cotte.
 " 24. *Erfurt.* Planer. *Jena.* Zeissing. Pilgram.
 " 24. *Mannheim.* Hemmer. *Berlin.* Beguelin.
 " 24. *St. Petersburg.* Euler. *Montmorenci.* Cotte.
 " 25. *Cambridge.* Gannett. *Ipswich.* Cutler.
 " 25. *New Haven.* Stiles. Loomis.
 " 25. *Slough.* Herschel.¹ *Montmorenci.* Cotte.
 " 25. *Mount St. Andex, Bavaria.* Kettel.
 " 25. *St. Petersburg.* Euler.
 " 26. *St. Petersburg.* Euler.
 Oct. 3. *St. Petersburg.* Euler.
 " 4. *Mannheim.* Hemmer. Pilgram.
 " 8. *Ipswich.* Cutler.
 " 14. *Prague.* Strnad.
 " 15. *Cambridge.* Gannett. *Ipswich.* Cutler.
 " 15. *New Haven.* Stiles. Loomis.
 " 15. *Ratisbon.* Heinrich. *Sagan.* Preus.
 " 15. *Peissenberg.* Fischer and Schlögel.
 " 15. *Padua.* Toaldo.
 " 15. *Erfurt.* Planer. *Mannheim.* Hemmer.
 " 16. *Erfurt.* Planer. *Prague.* Strnad.
 " 16. *Sagan.* Preus. *St. Petersburg.* Euler.
 " 19. *Cambridge.* Gannett. *Ipswich.* Cutler.
 " 19. *Mannheim.* Hemmer. *Sagan.* Preus. Pilgram.
 " 19. *Berlin.* Beguelin. *Munich.* Huebpauer.
 " 21. *Sagan.* Preus.
 Nov. 8. *Sagan?* Preus.
 " 13. *Cambridge.* Gannett. *Sagan?* Preus.
 " 14. *Cambridge.* Gannett.
 " 15. *Cambridge.* Gannett. *Erfurt.* Planer.
 " 15. *St. Petersburg.* Euler.
 " 16. *Ipswich.* Cutler.
 " 18. *Sagan?* Preus.
 " 19. *Cambridge.* Gannett. *Ipswich.* Cutler.
 " 19. *New Haven.* Stiles. Loomis.
 " 19. *Mannheim.* Hemmer. Pilgram.
 Dec. 9. *St. Petersburg.* Euler.
 " 10. *Prague.* Strnad.
 " 11. *Ipswich.* Cutler. *Jena.* Zeissing.
 " 11. *New Haven.* Stiles. Loomis.
 " 11. *Mannheim.* Hemmer. *Berlin.* Beguelin.
 " 11. *Sagan.* Preus. *Padua.* Toaldo. Pilgram.
 " 12. *Berlin.* Beguelin. *Würzburg.* Egel.
 " 16. *Erfurt.* Planer. *St. Petersburg.* Euler.
 " 19. *Erfurt.* Planer.
 " 22. *Erfurt.* Planer.
 " 30. *St. Petersburg.* Euler.

¹ Mem. Amer. Acad. I. 327.² Encyc. Method. I. 362.¹ Nicholson's Journal. VI. 13.

1782.

- Jan. 2. *Ipswich*. Cutler.
 " 4. *Prague*. Strnad.
 " 5. *Mannheim*. Koenig.
 " 8. *Berlin*. Beguelin.
 " 9. *Mannheim*. Hemmer. Koenig. *Sagan*. Preus.
 " 10. *Mannheim*. Hemmer, &c.
 " 10. *St. Petersburg*. Euler.¹
 " 12. *Mannheim*. Hemmer.
 Feb. 3. *St. Petersburg*. Euler.
 " 3. *Berlin*. Beguelin. *Erfurt*. Planer.
 " 6. *Ipswich*. Cutler.
 " 15. *Tigurina Aedes, Bavaria*. Gothard.
 " 16. *Prague*. Strnad. *Tigurina Aedes*. Gothard.
 " 17. *Tigurina Aedes*. Gothard.
 " 18. *St. Petersburg*. Euler.
 " 25. *Prague*. Strnad. *Bologna*. Matteucci.
 " 25. *Beziere*. Bertholon.²
 Mar. 7. *Copenhagen*. Bugge?
 " 9. *Cambridge*. Gannett. *Ipswich*. Cutler.
 " 9. *Mannheim*. Koenig. *Sagan*. Preus.
 " 10. *New Haven*. Stiles. Loomis.
 " 10. *Berlin*. Beguelin. *Prague*. Strnad.
 " 10. *Copenhagen*. Bugge? *Sagan*. Preus.
 " 14. *Copenhagen*. Bugge.
 " 15. *Mannheim*. Hemmer, &c. *Berlin*. Beguelin.
 " 15. *Montmorenci*. Cotte.³
 " 15. *Copenhagen*. Bugge. *Sagan*. Preus.
 " 17. *Berlin*. Beguelin. *Copenhagen*. Bugge.
 " 17. *St. Petersburg*. Euler.
 " 19. *St. Petersburg*. Euler.
 " 29. *St. Petersburg*. Euler.
 " 30. *St. Petersburg*. Euler.
 " 31. *Ratisbon*. Heinrich.
 Apr. 1. *New Haven*. Stiles. Loomis.
 " 2. *Cambridge*. Gannett. *Ipswich*. Cutler.
 " 4. *Cambridge*. Gannett. *Ipswich*. Cutler.
 " 6. *St. Petersburg*. Euler.
 " 7. *St. Petersburg*. Euler.
 " 13. *New Haven*. Stiles. Loomis.
 " 14. *Cambridge*. Gannett. *Ipswich*. Cutler.
 " 27. *Copenhagen*. Bugge. *Montmorenci*. Cotte.
 May 4. *New Haven*. Stiles. Loomis.
 " 4. *St. Petersburg*. Euler.
 " 5. *Ipswich*. Cutler. *St. Petersburg*. Euler.
 " 5. *Mannheim*. Hemmer. *Copenhagen*. Bugge.
 May 6. *Ipswich*. Cutler. *New Haven*. Stiles. Loomis.
 " 7. *Padua*. Toaldo and Chiminello.
 " 7. *Montmorenci*. Cotte.
 " 9. *Cambridge*. Gannett. *Ipswich*. Cutler.
 " 9. *Mannheim*. Hemmer and Koenig.
 " 16. *Vienna*. Pilgram.
 " 17. *St. Petersburg*. Euler.
 " 18. *Vienna*. Pilgram.
 " 20. *Berlin*. Beguelin.
 " 22. *Cambridge*. Gannett. *Ipswich*. Cutler.
 " 23. *Berne*. Studer.
 " 24. *New Haven*. Stiles. Loomis.
 June 1. *New Haven*. Stiles. Loomis.
 " 4. *Padua*. Toaldo and Chiminello.
 " 5. *Ipswich*. Cutler. *Mannheim*. Koenig.
 " 6. *Ipswich*. Cutler. *New Haven*. Stiles. Loomis.
 " 13. *Mannheim*. Hemmer, &c.
 July.¹ 9. *Cambridge*. Gannett. *Ipswich*. Cutler.
 " 10. *Cambridge*. Gannett.
 " 20. *Ipswich*. Cutler. *New Haven*. Stiles. Loomis.
 " 20. *Mannheim*. Hemmer and Koenig.
 " 31. *Padua*. Toaldo and Chiminello.
 Aug. 4. *St. Petersburg*. Euler.
 " 5. *New Haven*. Stiles. Loomis.
 " 12. *New Haven*. Stiles. Loomis.
 " 22. *St. Petersburg*. Euler.
 " 26. *Cambridge*. Gannett. *Ipswich*. Cutler.
 " 26. *New Haven*. Stiles. Loomis.
 " 27. *New Haven*. Stiles. Loomis.
 " 28. *Ipswich*. Cutler. *New Haven*. Stiles. Loomis.
 " 30. *Slough*. Herschel.²
 Sept. 2. *The Hague*. Van Swinden.
 " 2. *Brussels*. Durondeau?³
 " 2. *St. Petersburg*. Euler.
 " 3. *St. Petersburg*. Euler.
 " 5. *Ipswich*. Cutler.
 " 6. *Ipswich*. Cutler. *St. Petersburg*. Euler.
 " 6. *Sagan*. Preus. *The Hague*. Van Swinden.
 " 9. *New Haven*. Stiles. Loomis.
 " 10. *Mannheim*. Hemmer. *St. Petersburg*. Euler.
 " 12. *Cambridge*. Wigglesworth. Lovering.
 " 12. *Ipswich*. Cutler.
 " 12. *The Hague*. Van Swinden. *Padua*. Toaldo.
 " 12. *Mannheim*. Hemmer, &c. *Berlin*. Beguelin.
 " 12. *St. Petersburg*. Euler.
 " 13. *Cambridge*. Wigglesworth. Lovering.

¹ Acta Sci. Acad. Petrop., 1782. Pt. II., p. 371.² Encyc. Method. I. 367.³ Journ. des Savans, 1782-3.¹ One aurora was seen at Berlin this month, but the day is not given by Beguelin.² Nicholson's Journal, VI. 13.³ Mém. de l'Acad. Brux. IV. 607.

Sept. 13.	<i>Cambridge.</i> Gannett. <i>Ipswich.</i> Cutler.	1783.	
" 13.	<i>New Haven.</i> Stiles. Loomis.	Jan. 9.	<i>Dijon.</i> Maret.
" 13.	<i>Mannheim.</i> Hemmer, &c. <i>Ratisbon.</i> Heinrich.	" 13.	<i>Mannheim.</i> Hemmer.
" 13.	<i>The Hague.</i> Van Swinden. <i>Prague.</i> Strnad. ¹	" 26.	<i>Cambridge.</i> Gannett. <i>Ipswich.</i> Cutler.
" 13.	<i>St. Petersburg.</i> Euler.	" 26.	<i>New Haven.</i> Stiles. Loomis.
" 14.	<i>Cambridge.</i> Gannett.	" 30.	<i>Erfurt.</i> Planer.
" 15.	<i>Ipswich.</i> Cutler. <i>Brussels.</i> Mann.	" 31.	<i>Cambridge.</i> Wigglesworth. Lovering.
" 22.	<i>Cambridge.</i> Gannett. <i>Ipswich.</i> Cutler.	Feb. 1.	<i>New Haven.</i> Stiles. Loomis.
" 22.	<i>St. Petersburg.</i> Euler.	" 2.	<i>Cambridge.</i> Wigglesworth. Lovering.
" 29.	<i>Cambridge.</i> Gannett.	" 2.	<i>Cambridge.</i> Gannett. <i>Ipswich.</i> Cutler.
" 30.	<i>Cambridge.</i> Wigglesworth. Lovering.	" 12.	<i>Tigurina Aedes.</i> Gothard.
" 30.	<i>Cambridge.</i> Gannett. <i>Ipswich.</i> Cutler.	" 21.	<i>Cambridge.</i> Gannett.
" 30.	<i>New Haven.</i> Stiles. Loomis.	" 27.	<i>Cambridge.</i> Wigglesworth. Lovering.
" 30.	<i>Mannheim.</i> Hemmer, &c.	" 27.	<i>Cambridge.</i> Gannett. <i>Ipswich.</i> Cutler.
" 30.	<i>St. Petersburg.</i> Euler. <i>Montmorenci.</i> Cotte.	" 27.	<i>New Haven.</i> Stiles. Loomis.
" 30.	<i>Brussels.</i> Durondeau?	" 27.	<i>St. Petersburg.</i> Euler. ¹
Oct. ¹ 1.	<i>New Haven.</i> Stiles. Loomis.	" 28.	<i>Lübeck.</i> Behn. <i>St. Petersburg.</i> Euler.
" 1.	<i>Berlin.</i> Beguelin. <i>Erfurt.</i> Planer.	Mar. 1.	<i>St. Petersburg.</i> Euler.
" 1.	<i>Copenhagen.</i> Bugge. <i>St. Petersburg.</i> Euler.	" 2.	<i>Cambridge.</i> Wigglesworth. Lovering.
" 1.	<i>Montmorenci.</i> Cotte. <i>Sagan.</i> Preus.	" 2.	<i>Cambridge.</i> Gannett. <i>Ipswich.</i> Cutler.
" 2.	<i>Cambridge.</i> Wigglesworth. Lovering.	" 4.	<i>Cambridge.</i> Wigglesworth. Lovering.
" 2.	<i>Cambridge.</i> Gannett.	" 4.	<i>Stockholm.</i> Nicander. <i>Erfurt.</i> Planer.
" 3.	<i>Cambridge.</i> Wigglesworth. Lovering.	" 4.	<i>Lübeck.</i> Behn. <i>Sagan.</i> Preus.
" 3.	<i>Montmorenci.</i> Cotte. <i>Sagan.</i> Preus.	" 4.	<i>Copenhagen.</i> Bugge.
" 5.	<i>St. Petersburg.</i> Euler.	" 9.	<i>Cambridge.</i> Gannett.
" 8.	<i>Copenhagen.</i> Bugge. <i>Peissenberg.</i> Schwaiger.	" 16.	<i>Berlin.</i> Beguelin.
" 8.	<i>Mannheim.</i> Hemmer, &c. <i>Berlin.</i> Beguelin.	" 18.	<i>Padua.</i> Toaldo and Chiminello.
" 8.	<i>Rochelle.</i> Seignette. <i>Buda.</i> Weiss.	" 20.	<i>Jena.</i> Zeissing.
" 8.	<i>St. Petersburg.</i> Euler.	" 21.	<i>Sagan.</i> Preus. Hey.
" 9.	<i>Cambridge.</i> Gannett.	" 22.	<i>Prague.</i> Strnad.
" 9.	<i>New Haven.</i> Stiles. Loomis.	" 24.	<i>New Haven.</i> Stiles. Loomis. <i>Padua.</i> Toaldo.
" 9.	<i>Montmorenci.</i> Cotte.	" 25.	<i>Sagan.</i> Preus.
" 9.	<i>Middleburg.</i> Van de Perre.	" 26.	<i>Cambridge.</i> Wigglesworth. Lovering.
" 9.	<i>Berlin.</i> Beguelin. <i>Ratisbon.</i> Heinrich.	" 26.	<i>Ipswich.</i> Cutler. <i>Dover, N. H.</i> Belknap. ²
" 10.	<i>Cambridge.</i> Wigglesworth. Lovering.	" 26.	<i>Slough.</i> Herschel. Hey. <i>St. Petersburg.</i> Euler.
" 10.	<i>Cambridge.</i> Gannett.	" 27.	<i>Cambridge.</i> Gannett.
" 11.	<i>St. Petersburg.</i> Euler.	" 27.	<i>New Haven.</i> Stiles. Loomis.
" 14.	<i>St. Petersburg.</i> Euler.	" 27.	<i>St. Petersburg.</i> Euler.
" 17.	<i>Berlin.</i> Beguelin.	" 29.	<i>Cambridge.</i> Wigglesworth. Lovering.
" 26.	<i>Cambridge.</i> Gannett.	" 29.	<i>Cambridge.</i> Gannett. <i>Ipswich.</i> Cutler.
Nov. 19.	<i>Copenhagen.</i> Bugge.	" 29.	<i>New Haven.</i> Stiles. Loomis.
" 20.	<i>St. Petersburg.</i> Euler.	" 29.	<i>Mannheim.</i> Koenig. <i>Sagan.</i> Preus.
" 26.	<i>Cambridge.</i> Wigglesworth. Lovering.	" 29.	<i>The Hague.</i> Van Swinden. <i>Laon.</i> Cotte. ³
" 26.	<i>Ipswich.</i> Cutler. <i>New Haven.</i> Stiles. Loomis.	" 30.	<i>Cambridge.</i> Wigglesworth. Lovering.
" 26.	<i>St. Petersburg.</i> Euler.	" 30.	<i>Cambridge.</i> Gannett.
Dec. 29.	<i>Copenhagen.</i> Bugge.	" 30.	<i>Mannheim.</i> Hemmer, &c. <i>Gurzelen.</i> Sprüngli.
" 31.	<i>Sagan.</i> Preus.	" 30.	<i>Erfurt.</i> Planer. <i>St. Petersburg.</i> Euler.

¹ Auroras were frequent in Ipswich in the first part of this month. Two occurred in Brussels: but the dates are not given in the *Mém. de l'Acad. Brux.* iv.

¹ Acta Sci. Acad. Petrop. 1783, Pt. II. p. 417.

² Trans. Phil. Soc. Phil. II. 196.

³ Journ. des Savans. 1784, p. 307.

- Mar. 30. *Rochelle*. Seignette. *Sagan*. Preus.
 " 30. *Dusseldorp*. Phennings. *Berlin*. Beguelin.
 " 31. *Rochelle*. Seignette.
 Apr. 2. *Cambridge*. Wigglesworth. Lovering.
 " 2. *New Haven*. Stiles. Loomis.
 " 2. *Mannheim*. Koenig.
 " 3. *Cambridge*. Gannett. *Sagan*. Preus.
 " 7. *Cambridge*. Wigglesworth. Lovering.
 " 7. *Cambridge*. Gannett. *Ipswich*. Cutler.
 " 7. *New Haven*. Stiles. Loomis.
 " 7. *St. Petersburg*. Euler. *Padua*. Toaldo.
 " 7. *Mannheim*. Koenig.
 " 7. *Middleburg*. Van de Perre.
 " 9. *Berlin*. Beguelin. *Brussels*. Chevalier.¹
 " 11. *Cambridge*. Gannett.
 " 12. *Ipswich*. Cutler. *Jena*. Zeissing.
 " 12. *Berlin*. Beguelin. *Prague*. Strnad. Hey.
 " 12. *Copenhagen*. Bugge. *St. Petersburg*. Euler.
 " 14. *Erfurt*. Planer.
 " 18. *Berlin*. Beguelin.
 " 21. *Sagan*. Preus.
 " 22. *Mannheim*. Koenig.
 " 24. *New Haven*. Stiles. Loomis.
 " 25. *Brussels*. Chevalier. *Sagan*. Preus.
 " 26. *Ipswich*. Cutler. *Brussels*. Chevalier.
 " 26. *Middleburg*. Van de Perre. *Laon*. Cotte.
 " 26. *Mannheim*. Hemmer, &c. Hey.²
 " 26. *Copenhagen*. Bugge. *St. Petersburg*. Euler.
 " 26. *Sagan*. Preus. *Erfurt*. Planer.
 " 27. *Cambridge*. Wigglesworth. Lovering.
 " 27. *Cambridge*. Gannett. *Ipswich*. Cutler.
 " 27. *New Haven*. Stiles. Loomis.
 " 27. *Paris*. Bertholon. Boué.
 " 27. *Berlin*. Beguelin. *Brussels*. Chevalier.
 " 27. *Mannheim*. Hemmer. *Sagan*. Preus.
 " 27. *Copenhagen*. Bugge. *Padua*. Toaldo.
 " 27. *Prague*. Strnad. *Rochelle*. Seignette.
 " 27. *Stockholm*. Nicander. *Dijon*. Maret.
 " 27. *Ratisbon*. Heinrich. *Göttingen*. Gatterer.
 " 27. *Dusseldorp*. Phennings. *Erfurt*. Planer.
 " 27. *Middleburg*. Van de Perre. *Laon*. Cotte.
 " 27. *St. Petersburg*. Euler.
 " 28. *Prague*. Strnad. *Middleburg*. Van de Perre.
 " 29. *Mannheim*. Hemmer, &c.
 " 29. *Berlin*. Beguelin. *St. Petersburg*. Euler.
 " 29. *Erfurt*. Planer. *Copenhagen*. Bugge.
 " 29. *Prague*. Strnad. *Sagan*. Preus.
 " 29. *Ratisbon*. Heinrich. *Jena*. Zeissing.
 Apr. 29. *Paris*. Bertholon. Boué.
 " 29. *Middleburg*. Van de Perre.
 " 29. *Göttingen*. Gatterer. *Laon*. Cotte.
 " 30. *Mannheim*. Hemmer. *St. Petersburg*. Euler.
 May 1. *Sagan*. Preus. *Jena*. Zeissing.
 " 1. *St. Petersburg*. Euler.
 " 2. *Cambridge*. Wigglesworth. Lovering.
 " 2. *Ipswich*. Cutler. *New Haven*. Stiles. Loomis.
 " 2. *Moscow*. Engel.
 " 3. *Prague*. Strnad. *Sagan*. Preus.
 " 3. *Berlin*. Beguelin.
 " 4. *Mannheim*. Hemmer.
 " 5. *Mannheim*. Hemmer. *Prague*. Strnad.
 " 5. *St. Petersburg*. Euler.
 " 12. *Copenhagen*. Bugge. *Laon*. Cotte.
 " 12. *Mannheim*. Koenig. *Stockholm*. Nicander.
 " 12. *St. Petersburg*. Euler.
 " 12. *Brussels*. Chevalier.
 " 13. *Cambridge*. Wigglesworth. Lovering.
 " 13. *Ipswich*. Cutler.
 " 16. *Mannheim*. Hemmer. *Laon*. Cotte.
 " 17. *Brussels*. Chevalier.
 " 21. *Berlin*. Beguelin. *Copenhagen*. Bugge.
 " 22. *Laon*. Cotte.
 " 29. *Cambridge*. Wigglesworth. Lovering.
 " 29. *Cambridge*. Gannett.
 " 29. *Mannheim*. Koenig. *Ratisbon*. Heinrich.
 June 1. *New Haven*. Stiles. Loomis. *Padua*. Toaldo.
 " 3. *Erfurt*. Planer.
 " 13. *Ipswich*. Cutler.
 " 29. *Ipswich*. Cutler.
 July 2. *Ratisbon*? Heinrich.
 " 28. *New Haven*. Stiles. Loomis.
 " 30. *Mannheim*. Koenig.
 Aug. 1. *Cambridge*. Gannett.
 " 1. *New Haven*. Stiles. Loomis.
 " 1. *Mannheim*. Hemmer. *Prague*. Strnad.
 " 1. *Copenhagen*. Bugge. *Ratisbon*. Heinrich.
 " 2. *Ratisbon*. Heinrich.
 " 8. *Prague*. Strnad.
 " 9. *Ratisbon*. Heinrich.
 " 16. *Cambridge*. Gannett. *Ipswich*. Cutler.
 " 19. *Cambridge*. Gannett. *Ipswich*. Cutler.
 " 24. *Stockholm*. Nicander.
 Sept. 15. *Laon*. Cotte.
 " 25. *Copenhagen*. Bugge. *Stockholm*. Nicander.
 " 25. *Middleburg*. Van de Perre. *Prague*. Strnad.
 " 26. *Copenhagen*. Bugge. *Stockholm*. Nicander.
 " 26. *Middleburg*. Van de Perre.
 " 26. *St. Petersburg*. Euler.

¹ Mém. de l'Acad. Brux. V. 432.² Phil. Trans. LXXX. 32

- Oct. 22. *Middleburg*. Van de Perre. *Sagan*. Preus.
 " 22. *Erfurt*. Planer. *Peissenberg*. Schwaiger.
 " 22. *Berlin*. Beguelin. *Buda*. Weiss.
 " 22. *St. Petersburg*. Euler. *Laon*. Cotte.
 " 23. *Laon*. Cotte.
 " 24. *Rochelle*. Seignette.
 " 26. *Dijon*. Maret. *Berlin*.¹ Beguelin.
 " 27. *Berlin*. Beguelin.
 " 29. *Prague*. Strnad. *Laon*. Cotte.
 " 30. *Copenhagen*. Bugge.
 " 31. *Laon*. Cotte.
 Nov. 3. *Mannheim*. Koenig.
 " 11. *Mount St. Alex.* Bavaria. Kettel.
 " 13. *Mannheim*. Koenig.
 " 14. *Laon*. Cotte.
 " 15. *Dijon*. Maret.
 " 26. *Jena*. Zeissing.
 Dec. 4. *Mannheim*. Koenig.
 " 17. *Berlin*. Beguelin.
 " 18. *Prague*. Strnad.
- 1784.
- Jan. 10. *Prague*. Strnad.
 " 11. *Padua*. Toaldo and Chiminello.
 " 20. *Rochelle*. Seignette.
 " 21. *Rochelle*. Seignette.
 " 28. *Spydberg, Norway*. Wilse.
 " 29. *Stockholm*. Nicander.
 Feb. 22. *Copenhagen*. Bugge.
 " 23. ——— Cavendish. Thompson.²
 " 24. *Stockholm*. Nicander.
 Mar. 5. *Mannheim*. Koenig.
 " 12. *Ratisbon?* Heinrich.
 " 13. *Mannheim?* Hemmer.
 " 14. *Mannheim*. Hemmer.
 " 15. *Sagan*. Preus.
 " 18. *Sagan*. Preus.
 " 19. *Spydberg*. Wilse.
 " 20. *Spydberg*. Wilse.
 " 29. *St. Petersburg*. Euler.³
 " 30. *Spydberg*. Wilse.
 Apr. 8. *St. Petersburg*. Euler.
 " 8. *Spydberg*. Wiles.
 " 9. *Ratisbon?* Heinrich. *Spydberg*. Wilse.
 " 15. *Berlin*. Beguelin.⁴
 " 16. *Berlin*. Beguelin.
- Apr. 18. *Berlin*. Beguelin.
 " 21. *Padua*. Toaldo and Chiminello.
 " 24. *Spydberg*. Wilse.
 May 5. *Spydberg*. Wilse.
 " 6. *Peissenberg*. Schwaiger.
 " 9. *Laon*. Cotte.¹
 " 17. *Erfurt*. Planer. *Jena*. Zeissing.
 " 17. *Laon*. Cotte.
 June 11. *Cambridge*. Wigglesworth. Lovering.
 " 16. *Rochelle*. Seignette.
 " 17. *Rochelle*. Seignette.
 " 21. *Ratisbon*. Heinrich.
 " 30. *St. Veran*. Roberjot.²
 July 1. *St. Veran*. Roberjot.
 " 3. *Delphi?* Van Swinden.
 " 24. *Berlin*. Beguelin.
 " 25. *Mannheim*. Hemmer. *Laon*. Cotte.
 " 25. *Copenhagen*. Bugge. *Padua*. Toaldo.
 " 26. *Mannheim*. Hemmer.
 Aug. 4. *Prague*. Strnad.
 " 5. *Berlin*. Beguelin.
 " 12. *Stockholm*. Nicander.
 " 12. *St. Petersburg*. Euler.
 " 15. *Berlin*. Beguelin.
 " 21. *Stockholm*. Nicander.
 " 21. *St. Petersburg*. Euler.
 " 30. *St. Petersburg*. Euler.
 Sept. 5. *Stockholm*. Nicander.
 " 6. *Sagan*. Preus.
 " 8. *Mannheim*. Koenig.
 " 11. *Sagan*. Preus.
 " 12. *Sagan*. Preus.
 " 15. *Cambridge*. Wigglesworth. Lovering.
 " 15. *Jena*. Zeissing. *Mannheim*. Koenig.
 " 15. *Copenhagen*. Bugge. *Prague*. Strnad.
 " 15. *Middleburg*. Van de Perre. *Sagan*. Preus.
 " 15. *Stockholm*. Nicander. *Spydberg*. Wilse.
 " 15. *Delphi?* Van Swinden. *Laon*. Cotte.
 Oct. 4. *Rochelle*. Seignette.
 " 6. *Spydberg*. Wilse. *Stockholm*. Nicander.
 " 7. *Spydberg*. Wilse.
 " 11. *Spydberg*. Wilse.
 " 13. *Spydberg*. Wilse.
 " 14. *Spydberg*. Wilse.
 Nov. 13. *Cuba*. Poey.
 " 15. *Cambridge*. Wigglesworth. Lovering.
 " 15. *New Haven*. Stiles. Loomis.

¹ Aurora Australis.² Phil. Trans. LXXX. 101.³ Acta Sci. Acad. Petrop. 1767. Pt. II. p. 303.⁴ Not in the Berlin Memoirs, but in Ephem. Soc. Met. Palat.¹ Journ. des Savans, 1785, p. 243.² Journ. de Phys. XXIV. 399.

- Nov. 15. *Jena*. Zeissing. *Prague*. Strnad.
 " 15. *Ratisbon*. Heinrich. *Sagan*. Preus.
 " 15. *Dusseldorp*. Phennings. *Dijon*. Maret.
 " 15. *Peissenberg*. Schwaiger. *Erfurt*. Planer.
 " 15. *Munich*. Huebpauer. *Würzburg*. Egel.
 " 15. *Mannheim*. Hemmer, &c. *Padua*. Toaldo.
 " 15. *Mount St. Andex, Bavaria*. Kettel.
 " 19. *Spydberg*. Wilse. *Berlin*. Beguelin.
 " 15. *Laon*. Cotte.
 Dec. 6. *St. Petersburg*. Euler.
 " 11. *Cambridge*. Wigglesworth. Lovering.
 " 11. *Spydberg*. Wilse.
 " 12. *Spydberg*. Wilse.
 " 20. *Spydberg*. Wilse.
 " 29. *St. Petersburg*. Euler.
 " 31. *Sagan*. Preus.
- 1785.
- Jan. 1. *Spydberg*. Wilse. *Stockholm*. Nicander.
 " 17. *Berlin*. Beguelin.¹
 " 26. *Tigurina Aedes*. Gothard.
 " 28. *Tigurina Aedes*. Gothard.
 " 29. *St. Petersburg*. Euler.²
 Feb. 3. *Tigurina Aedes*. Gothard.
 " 7. *Cambridge*. Williams.
 " 16. *Mannheim*. Hemmer.
 " 17. *Mannheim*. Hemmer.
 " 22. *Mannheim*. Hemmer.
 " 23. *Cambridge*. Williams.
 " 28. *Stockholm*. Nicander.
 Mar. 4. *Spydberg*. Wilse.
 " 5. *Spydberg*. Wilse.
 " 6. *St. Petersburg*. Euler. *Sagan*? Preus.
 " 6. *Stockholm*. Nicander. *Spydberg*. Wilse.
 " 19. *St. Petersburg*. Euler.
 " 22. *Paris*. Cassini.³
 Apr. 3. *Brussels*. Mann.⁴
 " 4. *Stockholm*. Nicander.
 " 7. *St. Petersburg*. Euler.
 " 12. *Cambridge*. Williams. *Mannheim*. Hemmer.
 " 18. *Stockholm*. Nicander.
 " 26. *St. Petersburg*. Euler.
 " 27. *Mannheim*? Hemmer.
 " 29. *Berlin*. Beguelin.⁵ *Rochelle*. Seignette.
- Apr. 30. *Stockholm*. Nicander.
 May 1. *Cambridge*. Williams. *Brussels*. Mann.
 " 9. *Cambridge*. Wigglesworth. Lovering.
 " 9. *New Haven*. Stiles. Loomis.
 " 15. *Brussels*. Mann.
 " 23. *Spydberg*. Wilse. *Paris*. Cassini.
 June 5. *New Haven*. Stiles. Loomis.
 " 14. *Cambridge*. Williams.
 " 28. *Mannheim*. Koenig and Hemmer.¹
 July 3. *New Haven*. Stiles. Loomis.
 " 4. *Brussels*. Mann.
 " 17. *Cambridge*. Williams. *Brussels*. Mann.
 " 24. *Mannheim*. Hemmer.
 " 24. *Copenhagen*. Bugge.
 " 24. *St. Petersburg*. Euler.²
 Aug. 3. *Brussels*. Mann.
 " 9. *New Haven*. Stiles. Loomis. *Padua*. Toaldo.
 " 9. *Berlin*. Beguelin. *St. Petersburg*. Euler.
 " 11. *Brussels*. Mann.
 " 30. *Mannheim*. Hemmer.
 " 31. *Middleburg*. Van de Perre.
 Sept. 1. *Stockholm*. Nicander.
 " 3. *Stockholm*. Nicander.
 " 8. *Cambridge*. Wigglesworth. Lovering.
 " 8. *Cambridge*. Williams.
 " 8. *New Haven*. Stiles. Loomis.
 " 8. *Spydberg*. Wilse. *St. Petersburg*. Euler.
 " 9. *Spydberg*. Wilse. *Stockholm*. Nicander.
 " 11. *St. Petersburg*. Euler.
 " 12. *St. Petersburg*. Euler.
 " 13. *Brussels*. Mann.
 " 14. *St. Petersburg*. Euler.
 " 23. *Mannheim*. Hemmer.
 " 28. *Stockholm*. Nicander.
 " 29. *Spydberg*. Wilse. *Stockholm*. Nicander.
 Oct. 3. *Stockholm*. Nicander.
 " 4. *Sagan*. Preus. *Stockholm*. Nicander.
 " 4. *St. Petersburg*. Euler.
 " 5. *Mannheim*. Koenig. *Jena*. Zeissing.
 " 5. *Moscow*. Stritter. *Stockholm*. Nicander.
 " 5. *St. Petersburg*. Euler.
 " 6. *Cambridge*. Wigglesworth. Lovering.
 " 5. *Cambridge*. Williams.
 " 6. *Middleburg*. Van de Perre.
 " 8. *Cambridge*. Williams.
 " 9. *Stockholm*. Nicander.
 " 9. *St. Petersburg*. Euler.

¹ Ephem. Soc. Met. Palat.² Acta Sci. Acad. Petrop. 1785. Pt. II. p. 322.³ Mém. de l'Acad. 1784.⁴ Mém. de l'Acad. Brux. V. 438.⁵ Ephem. Soc. Met. Palat.¹ Aurora Borealis et Australis.² Ephem. Soc. Met. Palat.

- Oct. 22. *Rochelle*. Seignette.
 " 27. *Spydberg*. Wilse.
 Nov. 2. *St. Petersburg*. Euler. *Laon*. Cotte.¹
 " 2. *Berlin*. Beguelin. *Erfurt*. Planer.
 " 2. *Sagan*. Preus. *Brussels*. Mann.
 " 5. *Mannheim*. Koenig. *Brussels*. Mann.
 " 6. *Sagan*? Preus. *Laon*. Cotte.
 " 28. *Stockholm*. Nicander.
 " 29. *Cambridge*. Wigglesworth. Lovering.
 " 29. *New Haven*. Stiles. Loomis.
 " 29. *Mannheim*. Koenig. *Stockholm*. Nicander.
 " 29. *Berlin*. Beguelin. *Sagan*? Preus.
 " 30. *Cambridge*. Wigglesworth. Lovering.
 Dec. 6. *Stockholm*. Nicander.
 " 13. *Mannheim*. Hemmer.
 " 19. *Cambridge*. Wigglesworth. Lovering.
 " 19. *Berlin*. Beguelin.
 " 25. *Spydberg*. Wilse.
 " 26. *Spydberg*. Wilse.
 " 28. *Spydberg*. Wilse.
 " 29. *Stockholm*. Nicander.
 " 30. *Copenhagen*. Bugge.

1786.

- Jan. 4. *Prague*. Strnad. *Sagan*? Preus.
 " 14. *Mannheim*. Hemmer.
 " 18. *Brussels*. Mann.
 " 29. ——— Lowenorn.²
 " 30. *Tigurina Aedes*. Gothard.
 Feb. 3. *St. Petersburg*. Euler.³
 " 3. *Stockholm*. Nicander. *Spydberg*. Wilse.
 " 16. *Cambridge*. Williams.
 " 16. *Salem*. Holyoke. Lovering.
 " 16. *Stockholm*. Nicander.
 " 17. *Berlin*. Beguelin. *Sagan*? Preus.
 " 17. *Spydberg*. Wilse.
 " 20. *Berlin*. Beguelin.
 " 21. *Stockholm*. Nicander.
 " 27. *St. Petersburg*. Euler.
 " 28. *Cambridge*. Wigglesworth. Lovering.
 " 28. *Cambridge*. Williams.
 " 28. *Salem*. Holyoke. Lovering. *Spydberg*. Wilse.
 " 28. *New Haven*. Stiles. Loomis.
 " 28. *Berlin*. Beguelin. *Copenhagen*. Bugge.
 " 28. *St. Petersburg*. Euler. *Brussels*. Mann.⁴
 " 1. *St. Petersburg*. Euler.

¹ Journ. des Savans, 1786, p. 112.² Thompson's Met. p. 349.³ Acta Soc. Acad. Petrop. 1786. Pt. II. p. 321.⁴ Mém. de l'Acad. Brux. V. 445.

- Mar. 2. *St. Petersburg*. Euler.
 " 2. *Stockholm*. Nicander. *Spydberg*. Wilse.
 " 3. *St. Petersburg*. Euler.
 " 3. *Stockholm*. Nicander. *Spydberg*. Wilse.
 " 4. *St. Petersburg*. Euler.
 " 4. *Stockholm*. Nicander.
 " 11. *St. Petersburg*. Euler.
 " 13. *Cambridge*. Wigglesworth. Lovering.
 " 13. *Cambridge*. Williams.
 " 13. *New Haven*. Stiles. Loomis.
 " 16. *St. Petersburg*. Euler.
 " 17. *Stockholm*. Nicander.
 " 18. *St. Petersburg*. Euler.
 " 18. *Stockholm*. Nicander. *Spydberg*. Wilse.
 " 19. *Cambridge*. Wigglesworth. Lovering.
 " 19. *Cambridge*. Williams.
 " 19. *Salem*. Holyoke. Lovering.
 " 19. *New Haven*. Stiles. Loomis.
 " 19. *Moscow*. Stritter. *Paris*. Cassini.¹
 " 19. *St. Petersburg*. Euler. *Prague*. Strnad.
 " 19. *Stockholm*. Nicander. *Spydberg*. Wilse.
 " 20. *New Haven*. Stiles. Loomis.
 " 20. *Erfurt*. Planer. *Moscow*. Stritter.
 " 20. *St. Petersburg*. Euler. *Berlin*. Beguelin.
 " 21. *Salem*. Holyoke. Lovering.
 " 21. *New Haven*. Stiles. Loomis. *Sagan*? Preus.
 " 22. *Cambridge*. Wigglesworth. Lovering.
 " 22. *Cambridge*. Williams.
 " 22. *New Haven*. Stiles. Loomis. *Sutz*. Sprüngli.
 " 22. *Brussels*. Mann. *Ratisbon*. Heinrich.
 " 22. *Marseilles*. St. Jacques. *Padua*. Toaldo.
 " 22. *Peissenberg*. Schwaiger. *Berne*. Studer.
 " 22. *Prague*. Strnad. *Sagan*? Preus.
 " 23. *New Haven*. Stiles. Loomis.
 " 23. *Mount St. Amand*. Kettel. *Buda*. Bruna.
 " 23. *Munich*. Huebpauer. *Sagan*? Preus.
 " 23. *Rome*. Calandrelli. *Stockholm*. Nicander.
 " 25. *Cambridge*. Wigglesworth. Lovering.
 " 35. *Salem*. Holyoke. Lovering.
 " 25. *Berlin*. Beguelin. *Mannheim*. Hemmer.
 " 25. *Marseilles*. St. Jacques.
 " 27. *Cambridge*. Wigglesworth. Lovering.
 " 27. *Cambridge*. Williams.
 " 27. *Salem*. Holyoke. Lovering.
 " 27. *New Haven*. Stiles. Loomis.
 " 28. *Mannheim*. Hemmer.
 " 29. *St. Petersburg*. Euler. *Moscow*. Stritter.
 " 29. *Marseilles*. St. Jacques. *Sagan*? Preus.

¹ Mém. de l'Acad. 1786.

- Mar. 29. *Spydberg*. Wilse. *Berne*. Studer.
 " 30. *Cambridge*. Wigglesworth. Lovering.
 " 30. *Cambridge*. Williams.
 " 30. *Salem*. Holyoke. Lovering.
 " 30. *St. Petersburg*. Euler. *Spydberg*. Wilse.
 " 30. *Stockholm*. Nicander.
 " 31. *Cambridge*. Wigglesworth. Lovering.
 " 31. *Cambridge*. Williams.
 " 31. *Salem*. Holyoke. Lovering.
 " 31. *Stockholm*. Nicander. *Sagan*. Preus.
 " 31. *St. Petersburg*. Euler.
- Apr. 1. *Stockholm*. Nicander.
 " 1. *St. Petersburg*. Euler.
 " 2. *Cambridge*. Williams.
 " 2. *Salem*. Holyoke. Lovering.
 " 2. *St. Petersburg*. Euler.
 " 2. *Stockholm*. Nicander.
 " 2. *Berlin*. Beguelin. *Sagan*? Preus.
 " 2. *Copenhagen*. Bugge.
 " 3. *Brussels*. Mann.
 " 6. *Cambridge*. Williams.
 " 6. *Salem*. Holyoke. Lovering.
 " 7. *Stockholm*. Nicander.
 " 11. *Cambridge*. Williams.
 " 11. *Salem*. Holyoke. Lovering.
 " 11. *New Haven*. Stiles. Loomis.
 " 11. *Stockholm*. Nicander.
 " 12. *St. Petersburg*. Euler.
 " 15. *Stockholm*. Nicander.
 " 18. *St. Petersburg*. Euler. *Jena*. Zeissing.
 " 18. *Berlin*. Beguelin. *Delphi*. Van Swinden.
 " 18. *Ratisbon*. Heinrich. *Sagan*. Preus.
 " 18. *Brussels*. Mann. *Stockholm*. Nicander.
 " 18. *Erfurt*. Planer. *Padua*. Toaldo.
 " 18. *Copenhagen*. Bugge.
 " 19. *Sagan*? Preus.
 " 20. *Mannheim*. Hemmer. *Sagan*? Preus.
 " 20. *Sagan*. Preus. *Brussels*. Mann.
 " 21. *Stockholm*. Nicander.
 " 21. *St. Petersburg*. Euler. *Sagan*. Preus.
 " 22. *St. Petersburg*. Euler. *Copenhagen*. Bugge.
 " 22. *Sagan*. Preus. *Ratisbon*. Heinrich.
 " 22. *Stockholm*. Nicander. *Mannheim*. Hemmer.
 " 22. *Berlin*. Beguelin. *Würzburg*. Egel.
 " 22. *Spydberg*. Wilse.
 " 23. *Stockholm*. Nicander. *Brussels*. Mann.
 " 23. *Mannheim*. Hemmer. *Sagan*? Preus.
 " 24. *Berlin*. Beguelin. *Sagan*. Preus.
 " 24. *Stockholm*. Nicander.
 " 25. *Berlin*. Beguelin. *Sagan*? Preus.
- Apr. 26. *Cambridge*. Wigglesworth. Lovering.
 " 26. *Cambridge*. Williams.
 " 26. *New Haven*. Stiles. Loomis.
 " 26. *Stockholm*. Nicander.
 " 26. *St. Petersburg*. Euler. *Berlin*. Beguelin.
 " 26. *Prague*. Strnad. *Sagan*? Preus.
 " 27. *Cambridge*. Williams. *Sagan*? Preus.
 " 27. *St. Petersburg*. Euler.
 " 27. *Stockholm*. Nicander.
 " 28. *Cambridge*. Wigglesworth. Lovering.
 " 28. *Cambridge*. Williams.
 " 28. *Salem*. Holyoke. Lovering.
 " 29. *Cambridge*. Wigglesworth. Lovering.
 " 29. *Cambridge*. Williams.
 " 29. *Salem*. Holyoke. Lovering.
 " 29. *Delphi*. Van Swinden. *Sagan*. Preus.
 " 29. *Brussels*. Mann. *Prague*. Strnad.
 " 29. *Stockholm*. Nicander. *Ratisbon*. Heinrich.
 " 30. *Stockholm*. Nicander. *Delphi*. Van Swinden.
- May 1. *New Haven*. Stiles. Loomis.
 " 1. *Berlin*. Beguelin. *Kendal*. Dalton.²
 " 1. *Paris*. Cassini. *Brussels*. Mann.
 " 2. *Copenhagen*. Bugge. *Delphi*. Van Swinden.
 " 2. *St. Petersburg*. Euler.
 " 2. *Stockholm*. Nicander.
 " 2. *Berlin*. Beguelin. *Brussels*. Mann.
 " 3. *Berlin*. Beguelin. *Brussels*. Mann.
 " 4. *Berlin*. Beguelin.
 " 5. *Brussels*. Mann.
 " 8. *Berlin*. Beguelin.
 " 11. *Kendal*. Dalton. *Berlin*. Beguelin.
 " 12. *Brussels*. Mann.
 " 14. *Berlin*. Beguelin. *Paris*. Cassini.
 " 15. *Berlin*. Beguelin.
 " 15. *Prague*. Strnad. *Brussels*. Mann.
 " 16. *Brussels*. Mann.
 " 17. *Brussels*. Mann.
 " 18. *Berlin*. Beguelin. *Brussels*. Mann.
 " 19. *New Haven*. Stiles. Loomis.
 " 19. *Brussels*. Mann.
 " 20. *Brussels*. Mann.
 " 22. *New Haven*. Stiles. Loomis.
 " 22. *Berlin*. Beguelin. *Kendal*. Dalton.
 " 22. *Rome*. Calandrelli. *Brussels*. Mann.
 " 23. *Salem*. Holyoke. Lovering.
 " 24. *Berlin*. Beguelin. *Padua*. Toaldo.
 " 30. *Sagan*. Preus.
 " 31. *Cambridge*. Wigglesworth. Lovering.

¹ Meter. Observ. and Essays, p. 54.

- May 30. *Montmorenci*. Cotte.
 " 31. *Cambridge*. Williams.
 " 31. *Salem*. Holyoke. Lovering.
 " 31. *Paris*. Cassini. *Berlin*. Beguelin.¹
 " 31. *Montmorenci*. Cotte.
 " 31. *Delphi*. Van Swinden.
 June 1. *Salem*. Holyoke. Lovering.
 " 1. *Delphi*. Van Swinden.
 " 4. *Montmorenci*. Cotte.
 " 5. *Mannheim?* Hemmer.
 " 19. *Salem*. Holyoke. Lovering.
 " 19. *New Haven*. Stiles. Loomis.
 " 28. *Delphi*. Van Swinden.
 " 30. *Cambridge*. Wigglesworth. Lovering.
 " 30. *Cambridge*. Williams.
 " 30. *Salem*. Holyoke. Lovering.
 " 30. *New Haven*. Stiles. Loomis. *Brussels*. Mann.
 July 1. *Cambridge*. Wigglesworth. Lovering.
 " 1. *Cambridge*. Williams.
 " 1. *Salem*. Holyoke. Lovering.
 " 1. *New Haven*. Stiles. Loomis.
 " 2. *Cambridge*. Wigglesworth. Lovering.
 " 2. *Cambridge*. Williams.
 " 2. *Salem*. Holyoke. Lovering.
 " 2. *New Haven*. Stiles. Loomis.
 " 5. *Cambridge*. Wigglesworth. Lovering.
 " 5. *Cambridge*. Williams.
 " 5. *Salem*. Holyoke. Lovering. *Paris*. Cassini.
 " 15. *Cambridge*. Wigglesworth. Lovering.
 " 15. *Cambridge*. Williams.
 " 15. *Salem*. Holyoke. Lovering.
 " 15. *Kendal*. Dalton. *Copenhagen*. Bugge.
 " 16. *Cambridge*. Williams.
 " 17. *Salem*. Holyoke. Lovering.
 " 18. *Berlin*. Beguelin.
 " 19. *Cambridge*. Wigglesworth. Lovering.
 " 19. *Cambridge*. Williams.
 " 20. *Salem*. Holyoke. Lovering. *Brussels*. Mann.
 " 22. *Brussels*. Mann.
 " 24. *Berlin*. Beguelin. *Brussels*. Mann.
 " 25. *Montmorenci*. Cotte.
 " 27. *Cambridge*. Wigglesworth. Lovering.
 " 27. *Cambridge*. Williams.
 " 27. *Salem*. Holyoke. Lovering.
 " 29. *Prague*. Strnad.
 Aug. 2. *Brussels*. Mann.
 " 3. *Salem*. Holyoke. Lovering. *Brussels*. Mann.
 Aug. 11. *Kendal*. Dalton.
 " 16. *Brussels*. Mann.
 " 17. *Kendal*. Dalton.
 " 18. *New Haven*. Stiles. Loomis.
 " 18. *Montmorenci*. Cotte.
 " 18. *Brussels*. Mann. *St. Petersburg*. Euler.
 " 19. *Brussels*. Mann.
 " 21. *Mannheim*. Hemmer. *Brussels*. Mann.
 " 22. *Cambridge*. Wigglesworth. Lovering.
 " 22. *Cambridge*. Williams.
 " 22. *Salem*. Holyoke. Lovering.
 " 22. *New Haven*. Stiles. Loomis.
 " 22. *St. Petersburg*. Euler. *Mannheim*. Hemmer.
 " 24. *New Haven*. Stiles. Loomis.
 " 25. *Cambridge*. Wigglesworth. Lovering.
 " 25. *Cambridge*. Williams.
 " 25. *Salem*. Holyoke. Loomis.
 " 25. *St. Petersburg*. Euler.
 " 25. *Stockholm*. Nicander.
 " 31. *Salem*. Holyoke. Lovering.
 " 31. *Stockholm*. Nicander.
 Sept. 2. *St. Petersburg*. Euler.¹
 " 3. *Salem*. Holyoke. Lovering.
 " 3. *Mannheim*. Hemmer.
 " 5. *Mannheim*. Hemmer.
 " 8. *Kendal*. Dalton. *St. Petersburg*. Euler.
 " 14. *St. Petersburg*. Euler.
 " 17. *St. Petersburg*. Euler.
 " 19. *Mannheim*. Hemmer. *Berlin*. Beguelin.
 " 19. *Stockholm*. Nicander. *Paris*. Cassini.
 " 18. *Kendal*. Dalton. *Delphi*. Van Swinden.
 " 18. *Montmorenci*. Cotte.
 " 20. *Kendal*. Dalton. *Sagan?* Preus.
 " 20. *Stockholm*. Nicander.
 " 21. *Kendal*. Dalton.
 " 22. *Stockholm*. Nicander.
 " 23. *Stockholm*. Nicander.
 " 24. *Stockholm*. Nicander.
 " 26. *Kendal*. Dalton.
 " 28. *Cambridge*. Wigglesworth. Lovering.
 " 28. *Cambridge*. Williams.
 " 28. *Salem*. Holyoke. Lovering.
 " 29. *Cambridge*. Wigglesworth. Lovering.
 " 29. *Cambridge*. Williams.
 " 29. *Salem*. Holyoke. Lovering. *Kendal*. Dalton.
 " 29. *Copenhagen*. Bugge.
 " 30. *Stockholm*. Nicander. *Spydberg*. Wilse.
 Oct. 1. *St. Petersburg*. Euler. *Spydberg*. Wilse.

¹ This and the aurora of May 24th are not mentioned in the Berlin Memoirs; but in the Ephem. Soc. Met. Palat.

¹ Ephem. Soc. Met. Pal.

- Oct. 2. *Rome*. Calandrelli. *St. Petersburg*. Euler.
 " 2. *Spydberg*. Wilse.
 " 3. *Spydberg*. Wilse.
 " 10. *Mannheim*. Hemmer.
 " 12. *Sagan*. Preus.
 " 13. *Cambridge*. Wigglesworth. Lovering.
 " 13. *Cambridge*. Williams.
 " 13. *Salem*. Holyoke. Lovering.
 " 13. *Kendal*. Dalton. *Paris*. Cassini.
 " 13. *Delphi*. Van Swinden. *Padua*. Toaldo.
 " 13. *Mannheim*. Hemmer. *Erfurt*. Planer.
 " 13. *Sagan?* Preus. *Stockholm*. Nicander.
 " 13. *St. Petersburg*. Euler.
 " 13. *Copenhagen*. Bugge. *Montmorenci*. Cotte.
 " 14. *Mannheim*. Hemmer. *Padua*. Toaldo.
 " 16. *New Haven*. Stiles. Loomis.
 " 16. *Mannheim*. Hemmer.
 " 17. *Cambridge*. Wigglesworth. Lovering.
 " 17. *Cambridge*. Williams.
 " 17. *Salem*. Holyoke. Lovering.
 " 17. *Spydberg*. Wilse.
 " 17. *New Haven*. Stiles. Loomis.
 " 17. *Mannheim*. Hemmer. *Stockholm*. Nicander.
 " 17. *Brussels*. Mann. *Montmorenci*. Cotte.
 " 17. *Middleburg*. Van de Perre.
 " 17. *Delphi*. Van Swinden. *Sagan*. Preus.
 " 18. *Brussels*. Mann. *Spydberg*. Wilse.
 " 19. *Spydberg*. Wilse.
 " 20. *St. Petersburg*. Euler. *Spydberg*. Wilse.
 " 21. *Gothaab, Greenland*. Ginge.¹
 " 22. *Sagan?* Preus.
 " 23. *Sagan?* Preus. *Gothaab*. Ginge.
 " 23. *Stockholm*. Nicander.
 " 25. *Cambridge*. Wigglesworth. Lovering.
 " 25. *Cambridge*. Williams.
 " 25. *Salem*. Holyoke. Lovering. *Padua*. Toaldo.
 " 25. *Kendal*. Dalton. *Jena*. Zeissing.
 " 25. *Berlin*. Beguelin. *St. Petersburg*. Euler.
 " 25. *Prague*. Strnad. *Stockholm*. Nicander.
 " 26. *Stockholm*. Nicander. *Spydberg*. Wilse.
 " 27. *Salem*. Holyoke. Lovering.
 " 27. *Spydberg*. Wilse. *Gothaab*. Ginge.
 " 28. *Sagan*. Preus. *Gothaab*. Ginge.
 " 28. *Spydberg*. Wilse.
 Nov. 8. *Paris*. Cassini.
 " 10. *Gothaab*. Ginge.
 " 11. *Stockholm*. Nicander.
 " 12. *Mannheim*. Hemmer. *Stockholm*. Nicander.
- Nov. 12. *St. Petersburg*. Euler.
 " 13. *New Haven*. Stiles. Loomis.
 " 13. *Spydberg*. Wilse.
 " 14. *Kendal*. Dalton. *Gothaab*. Ginge.
 " 14. *Copenhagen*. Bugge. *Spydberg*. Wilse.
 " 15. *Salem*. Holyoke. Lovering.
 " 15. *New Haven*. Stiles. Loomis. *Gothaab*. Ginge.
 " 16. *Cambridge*. Wigglesworth. Lovering.
 " 16. *Cambridge*. Williams.
 " 16. *St. Petersburg*. Euler. *Gothaab*. Ginge.
 " 16. *Stockholm*. Nicander. *Spydberg*. Wilse.
 " 17. *Gothaab*. Ginge. *Spydberg*. Wilse.
 " 18. *Salem*. Holyoke. Lovering.
 " 18. *Gothaab*. Ginge. *Spydberg*. Wilse.
 " 19. *Gothaab*. Ginge.
 " 20. *Mannheim*. Hemmer. *Gothaab*. Ginge.
 " 20. *St. Petersburg*. Euler.
 " 21. *Cambridge*. Wigglesworth. Lovering.
 " 21. *Cambridge*. Williams.
 " 21. *Salem*. Holyoke. Lovering. *Gothaab*. Ginge.
 " 22. *Gothaab*. Ginge.
 " 28. *Gothaab*. Ginge.
 " 29. *Gothaab*. Ginge.
 Dec.¹ 3. *Mannheim*. Hemmer.
 " 5. *Salem*. Holyoke. Lovering. *Brussels*. Mann.
 " 7. *Gothaab*. Ginge.
 " 8. *Gothaab*. Ginge.
 " 10. *Gothaab*. Ginge.
 " 11. *Gothaab*. Ginge.
 " 12. *Gothaab*. Ginge.²
 " 13. *Gothaab*. Ginge. *St. Petersburg*. Euler.
 " 14. *Gothaab*. Ginge.
 " 15. *Salem*. Holyoke. Lovering.
 " 15. *Gothaab*. Ginge. *St. Petersburg*. Euler.
 " 18. *Brussels*. Mann.
 " 20. *Middleburg*. Van de Perre.
 " 22. *Stockholm*. Nicander.
 " 24. *Stockholm*. Nicander. *Gothaab*. Ginge.
 " 25. *Stockholm*. Nicander.
 " 25. *Gothaab*. Ginge. *Kendal*. Dalton.
 " 26. *Gothaab*. Ginge.
 " 31. *Stockholm*. Nicander.

1787.

- Jan. 2. *Stockholm*. Nicander.
 " 7. *Stockholm*. Nicander. *Mannheim*. Hemmer.

¹ There were thirty auroras seen in Greenland in November and December, and sixteen in the following January. Ephem. Soc. Met. Palat. VII.

² Schweigg. Jahr. XVI. 289. Edin. Phil. Journ. XII. 84.

¹ Ephem. Soc. Met. Palat. VII.

- Jan. 7. *Edsberg. Norway. Wilse.*
 " 8. *Edsberg. Wilse. Stockholm. Nicander.*
 " 9. *Rochelle. Seignette. Stockholm. Nicander.*
 " 10. *Edsberg. Wilse. Gothaab. Ginge.*
 " 11. *Edsberg. Wilse. Gothaab. Ginge.*
 " 11. *Stockholm. Nicander.*
 " 12. *Kendal. Dalton. Gothaab. Ginge.*
 " 13. *Gothaab. Ginge. Stockholm. Nicander.*
 " 14. *Gothaab. Ginge. Stockholm. Nicander.*
 " 15. *Gothaab. Ginge.*
 " 16. *Salem. Holyoke. Lovering. Gothaab. Ginge.*
 " 17. *Cambridge. Wigglesworth. Lovering.*
 " 17. *Cambridge. Williams.*
 " 18. *Gothaab. Ginge.*
 " 19. *Gothaab. Ginge.*
 " 20. *Gothaab. Ginge.*
 " 21. *Gothaab. Ginge. Sagan. Preus.*
 " 21. *Mannheim. Hemmer.*
 " 22. *Edsberg. Wilse. Mannheim. Hemmer.*
 " 22. *Sagan. Preus. Bologna. Matteucci.*
 " 22. *Prague. Strnad. Erfurt. Planer.*
 " 22. *Montmorenci. Cotte.*
 " 22. *Göttingen. Gatterer. Stockholm. Nicander.*
 " 22. *Montmorenci. Cotte.*
 " 23. *Gothaab. Ginge.*
 " 24. *Kendal. Dalton. Stockholm. Nicander.*
 " 25. *Kendal. Dalton. Paris. Cassini.¹*
 " 25. *Copenhagen. Bugge. Stockholm. Nicander.*
 " 27. *Gothaab. Ginge. Prague. Strnad.*
 " 27. *Edsberg. Wilse.*
 " 28. *Gothaab. Ginge.*
 " 29. *Mannheim. Hemmer.*
 Feb. 3. *St. Petersburg. Euler.²*
 " 3. *Stockholm. Nicander.*
 " 4. *St. Petersburg. Euler.*
 " 6. *Salem. Holyoke. Lovering.*
 " 8. *Edsberg. Wilse.*
 " 9. *Salem. Holyoke. Lovering.*
 " 9. *Stockholm. Nicander.*
 " 12. *Cambridge. Williams. Gothaab. Ginge.*
 " 14. *Gothaab. Ginge. Ratisbon. Heinrich.*
 " 15. *Cambridge. Wigglesworth. Lovering.*
 " 15. *Cambridge. Williams.*
 " 15. *Salem. Holyoke. Lovering.*
 " 15. *Paris. Cassini. Stockholm. Nicander.*
 " 15. *Padua. Toaldo. Bologna. Matteucci.*
 " 16. *Gothaab. Ginge. Würzburg. Egel.*
 " 17. *Würzburg. Egel. Stockholm. Nicander.*
 Feb. 18. *Gothaab. Ginge. Sagan. Preus.*
 " 19. *Gothaab. Ginge.*
 " 20. *Salem. Holyoke. Lovering.*
 " 20. *Edsberg. Wilse. Copenhagen. Bugge.*
 " 21. *Edsberg. Wilse. Copenhagen. Bugge.*
 " 21. *Stockholm. Nicander.*
 " 22. *Salem. Holyoke. Lovering. Kendal. Dalton.*
 " 22. *Edsberg. Wilse. Göttingen. Gatterer.*
 " 24. *Stockholm. Nicander.*
 " 25. *Berlin. Beguelin. Mannheim. Hemmer.*
 " 25. *Prague. Strnad.*
 " 27. *Prague. Strnad.*
 Mar. 6. *Mannheim. Hemmer. Stockholm. Nicander.*
 " 7. *St. Petersburg. Euler. Stockholm. Nicander.*
 " 10. *Moscow. Stritter. Gothaab. Ginge.*
 " 12. *Stockholm. Nicander.*
 " 13. *Ronneburg. Dietmann. Boué.¹*
 " 14. *Gothaab. Ginge.*
 " 16. *Edsberg. Wilse. Mannheim. Hemmer.*
 " 16. *Sagan. Preus.*
 " 17. *Mannheim. Hemmer. Gothaab. Ginge.*
 " 18. *Edsberg. Wilse. Paris. Cassini.*
 " 18. *St. Petersburg. Euler.*
 " 18. *Stockholm. Nicander.*
 " 18. *Mannheim. Hemmer. Gothaab. Ginge.*
 " 18. *Sagan. Preus. Munich. Huebpauer.*
 " 18. *Buda. Bruna. Copenhagen. Bugge.*
 " 19. *Gothaab. Ginge. Peissenberg. Schwaiger.*
 " 20. *Cambridge. Wigglesworth. Lovering.*
 " 20. *Cambridge. Williams.*
 " 20. *Salem. Holyoke. Lovering.*
 " 20. *New Haven. Stiles. Loomis.*
 " 20. *Brussels. Mann.² Paris. Cassini.*
 " 20. *Gothaab. Ginge.*
 " 21. *Cambridge. Wigglesworth. Lovering.*
 " 21. *Cambridge. Williams.*
 " 21. *New Haven. Stiles. Loomis.*
 " 21. *Edsberg. Wilse. Paris. Cassini.*
 " 21. *Mannheim. Hemmer. Brussels. Mann.*
 " 21. *Kendal. Dalton. Geneva. Senebier.*
 " 21. *Erfurt. Planer. Ratisbon. Heinrich.*
 " 21. *Stockholm. Nicander. Göttingen. Gatterer.*
 " 21. *St. Petersburg. Euler. Copenhagen. Bugge.*
 " 21. *Peissenberg. Schwaiger. Berne. Studer.*
 " 21. *Rochelle. Seignette. Sutz. Sprüngli.*

¹ Sitz. Bericht. Wien. XLV. 445.

² The observations at Brussels for 1787 do not appear to have been published in full either in the *Mém. de l'Acad. Brux.*, or the *Ephem. Soc. Met. Palat.* There were thirty-three in all. *Mém. de l'Acad. Brux.* V. 457.

¹ *Mém. de l'Acad.* 1787. p. 19.

² *Nova Acta Soc. Acad. Petrop.* V. 96 et 320.

- Mar. 21. *Munich*. Huebpauer. *Sagan*. Preus.
 " 22. *Edsberg*. Wilse. *Ratisbon*. Heinrich.
 " 23. *Cambridge*. Williams.
 " 23. *Salem*. Holyoke. Lovering.
 " 23. *New Haven*. Stiles. Loomis.
 " 23. *Stockholm*. Nicander.
 " 24. *Stockholm*. Nicander.
 " 24. *Kendal*. Dalton. *Mannheim*. Hemmer.
 " 24. *Edsberg*. Wilse. *Copenhagen*. Bugge.
 " 25. *Montmorenci*. Cotte.
 " 26. *Mannheim*. Hemmer. *Stockholm*. Nicander.
 " 31. *Gothaab*. Ginge. *Rochelle*. Seignette.
 " 31. *Munich*. Huebpauer. *Sagan*. Preus.
- Apr. 2. *Cambridge*. Williams.
 " 2. *Jena*. Zeissing. *Göttingen*. Gatterer.
 " 2. *Copenhagen*. Bugge. *Erfurt*. Planer.
 " 2. *Edsberg*. Wilse. *Mannheim*. Hemmer.
 " 2. *Ratisbon*. Heinrich. *Sagan*. Preus.
 " 3. *Gothaab*. Ginge.
 " 4. *Stockholm*. Nicander.
 " 6. *Sagan*. Preus.
 " 7. *Gothaab*. Ginge. *Stockholm*. Nicander.
 " 8. *Stockholm*. Nicander.
 " 12. *Sagan*. Preus.
 " 14. *Cambridge*. Wigglesworth. Lovering.
 " 14. *Cambridge*. Williams.
 " 14. *Salem*. Holyoke. Lovering.
 " 14. *Stockholm*. Nicander.
 " 14. *St. Petersburg*. Euler.
 " 15. *Stockholm*. Nicander.
 " 16. *Sagan*. Preus.
 " 17. *Mannheim*. Hemmer. *Stockholm*. Nicander.
 " 18. *Cambridge*. Wigglesworth. Lovering.
 " 18. *Cambridge*. Williams.
 " 18. *Salem*. Holyoke. Lovering.
 " 18. *Stockholm*. Nicander. *Padua*. Toaldo.
 " 19. *Cambridge*. Williams.
 " 19. *Salem*. Holyoke. Lovering.
 " 19. *Edsberg*. Wilse. *Stockholm*. Nicander.
 " 19. *St. Petersburg*. Euler.
 " 19. *Rochelle*. Seignette. *Montmorenci*. Cotte.
 " 19. *Erfurt*. Planer. *Kendal*. Dalton.
 " 19. *Padua*. Toaldo. *Sagan*. Preus.
 " 19. *Mannheim*. Hemmer. *Göttingen*. Gatterer.
 " 20. *Kendal*. Dalton. *Mannheim*. Hemmer.
 " 20. *Stockholm*. Nicander.
 " 20. *St. Petersburg*. Euler.
 " 20. *Copenhagen*. Bugge. *Rochelle*. Seignette.
 " 21. *Copenhagen*. Bugge.
 " 22. *Rochelle*. Seignette.
- Apr. 23. *Mannheim*. Hemmer.
 " 26. *Kendal*. Dalton. *Jena*. Zeissing.
- May¹ 4. *Göttingen*. Gatterer.
 " 10. *Rochelle*. Seignette.
 " 11. *Ratisbon*? Heinrich.
 " 12. *Kendal*. Dalton. *Bologna*. Matteucci.
 " 13. *Prague*. Strnad. *Padua*. Toaldo.
 " 13. *Montmorenci*. Cotte. *Berne*. Studer.
 " 13. *Rome*. Calandrelli. *Buda*. Bruna.
 " 13. *Ratisbon*. Heinrich. *Sagan*. Preus.
 " 13. *Göttingen*. Gatterer. *Munich*. Huebpauer.
 " 13. *Stockholm*. Nicander. *Rochelle*. Seignette.
 " 13. *Paris*. Cassini. *Jena*. Zeissing.
 " 13. *Marseilles*. Silvabella. *Bologna*. Matteucci.
 " 14. *Göttingen*. Gatterer. *Prague*. Strnad.
 " 14. *Rochelle*. Seignette.
 " 14. *Paris*. Cassini. *Padua*. Toaldo.
 " 15. *Cambridge*. Wigglesworth. Lovering.
 " 15. *Cambridge*. Williams.
 " 15. *Rochelle*. Seignette.
 " 16. *Cambridge*. Wigglesworth. Lovering.
 " 16. *Cambridge*. Williams.
 " 16. *Salem*. Holyoke. Lovering.
 " 16. *Paris*. Cassini. *Kendal*. Dalton.
 " 17. *Cambridge*. Williams. *Kendal*. Dalton.
 " 17. *Salem*. Holyoke. Lovering.
 " 17. *Rochelle*. Seignette.
 " 17. *Stockholm*. Nicander. *Rome*. Calandrelli.
 " 18. *Paris*. Cassini. *Kendal*. Dalton.
 " 19. *New Haven*. Stiles. Loomis.
 " 19. *Paris*. Cassini. *Erfurt*. Planer.
 " 21. *Mannheim*. Hemmer.
 " 25. *Montmorenci*. Cotte.
 " 29. *Rochelle*. Seignette.
- June 2. *New Haven*. Stiles. Loomis.
 " 5. *Rochelle*. Seignette.
 " 6. *Prague*. Strnad.
 " 7. *Kendal*. Dalton. *Rochelle*. Seignette.
 " 8. *Cambridge*. Williams. *Paris*. Cassini.
 " 8. *Salem*. Holyoke. Lovering.
 " 9. *Cambridge*. Wigglesworth. Lovering.
 " 9. *Cambridge*. Williams.
 " 9. *Salem*. Holyoke. Lovering.
 " 9. *New Haven*. Stiles. Loomis.
 " 10. *Cambridge*. Wigglesworth. Lovering.
 " 10. *Cambridge*. Williams.
 " 10. *Montmorenci*. Cotte.

¹ An aurora was seen in Spain one day in this month. Mem. Acad. Cienc. Madrid. III. 77.

- June 14. *Cambridge*. Wigglesworth. Lovering.
 " 15. *Cambridge*. Williams.
 " 16. *New Haven*. Stiles. Loomis.
 " 18. *New Haven*. Stiles. Loomis.
 " 19. *Cambridge*. Williams.
 " 24. *Mannheim*. Hemmer. *Rome*. Calandrelli.
 July 1. *New Haven*. Stiles. Loomis.
 " 4. *Salem*. Holyoke. Lovering.
 " 4. *New Haven*. Stiles. Loomis.
 " 11. *Erfurt*. Planer.
 " 13. *Cambridge*. Wigglesworth. Lovering.
 " 13. *Cambridge*. Williams.
 " 13. *Salem*. Holyoke. Lovering.
 " 13. *New Haven*. Stiles. Loomis.
 " 13. *Bologna*. Matteucci. *Mannheim*. Hemmer.
 " 13. *Padua*. Toaldo. *Rome*. Calandrelli.
 " 13. *Buda*. Bruna. *Sagan*. Preus.
 " 13. *Rochelle*. Seignette. *Erfurt*. Planer.
 " 13. *Marseilles*. Silvabella. *Spain*. Rico.
 " 13. *Berne*. Studer. *Paris*. Cassini.
 " 13. *Berlin*. Beguelin and Achard.
 " 13. *Montmorenci*. Cotte.
 " 14. *Cambridge*. Wigglesworth. Lovering.
 " 14. *Cambridge*. Williams.
 " 14. *Salem*. Holyoke. Lovering.
 " 14. *New Haven*. Stiles. Loomis.
 " 14. *Bologna*. Matteucci. *Padua*. Toaldo.
 " 16. *Bologna*. Matteucci.
 " 18. *Salem*. Holyoke. Lovering.
 " 20. *Mannheim*. Hemmer.
 " 22. *Mannheim*. Hemmer. *Sagan*. Preus.
 " 23. *Salem*. Holyoke. Lovering.
 " 30. *Berlin*. Beguelin and Achard.
 Aug. 1. *Cambridge*. Wigglesworth. Lovering.
 " 1. *Cambridge*. Williams.
 " 1. *Salem*. Holyoke. Lovering.
 " 7. *Ratisbon*. Heinrich. *Jena*. Zeissing.
 " 7. *Paris*. Cassini. *Kendal*. Dalton.
 " 7. *Göttingen*. Gatterer. *Berlin*. Achard.
 " 7. *Erfurt*. Planer. *Mount St. Gothard*, *Milan*.
 " 10. *Cambridge*. Wigglesworth. Lovering.
 " 10. *Cambridge*. Williams.
 " 10. *Salem*. Holyoke. Lovering.
 " 10. *Stockholm*. Nicander. *Paris*. Cassini.
 " 13. *Salem*. Holyoke. Lovering.
 " 19. *Cambridge*. Wigglesworth. Lovering.
 " 19. *Cambridge*. Williams.
 " 19. *Salem*. Holyoke. Lovering.
 " 19. *Kendal*. Dalton. *Mannheim*. Hemmer.
 " 21. *Cambridge*. Williams.
 Aug. 21. *Edsberg*. Wilse. *Paris*. Cassini.
 " 25. *Mannheim*. Hemmer.
 " 30. *Mannheim*. Hemmer.
 Sept. 6. *Cambridge*. Wigglesworth. Lovering.
 " 6. *Cambridge*. Williams.
 " 6. *Salem*. Holyoke. Lovering.
 " 6. *New Haven*. Stiles. Loomis. *Sagan*. Preus.
 " 6. *Bologna*. Matteucci. *Göttingen*. Gatterer.
 " 6. *Edsberg*. Wilse. *Paris*. Cassini.
 " 7. *Edsberg*. Wilse. *Paris*. Cassini.
 " 7. *Mannheim*. Hemmer. *Jena*. Zeissing.
 " 7. *Stockholm*. Nicander.
 " 8. *Mannheim*. Hemmer.
 " 9. *Edsberg*. Wilse. *Stockholm*. Nicander.
 " 10. *Sagan*. Preus.
 " 18. *Cambridge*. Wigglesworth. Lovering.
 " 18. *Cambridge*. Williams.
 " 18. *Salem*. Holyoke. Lovering.
 " 19. *Kendal*. Dalton.
 " 23. *Mannheim*. Hemmer. *Stockholm*. Nicander.
 " 26. *Prague*. Strnad.
 " 28. *Mannheim*. Hemmer.
 " 29. *Edsberg*. Wilse. *Moscow*. Stritter.
 " 30. *Edsberg*. Wilse. *Mannheim*. Hemmer.
 " 30. *Stockholm*. Nicander.
 Oct. 1. *Edsberg*. Wilse. *Sagan*. Preus.
 " 2. *Edsberg*. Wilse.
 " 3. *Moscow*. Stritter.
 " 4. *Cambridge*. Wigglesworth. Lovering.
 " 4. *Cambridge*. Williams. *Sagan*. Preus.
 " 4. *Kendal*. Dalton. *Jena*. Zeissing.
 " 5. *Cambridge*. Wigglesworth. Lovering.
 " 5. *Cambridge*. Williams.
 " 5. *Salem*. Holyoke. Lovering. *Jena*. Zeissing.
 " 5. *Göttingen*. Gatterer. *Sagan*. Preus.
 " 5. *Mannheim*. Hemmer. *Ratisbon*. Heinrich.
 " 5. *Bavaria*. Kettel. *Prague*. Strnad.
 " 5. *Erfurt*. Planer. *Edsberg*. Wilse.
 " 5. *Bologna*. Matteucci. *Rome*. Calandrelli.
 " 5. *Munich*. Huebpauer. *Würzburg*. Egel.
 " 6. *Moscow*. Stritter. *Montmorenci*. Cotte.
 " 6. *Geneva*. Senebier. Deluc.¹
 " 6. *Würzburg*. Egel. *Marseilles*. Silvabella.
 " 6. *St. Petersburg*. Euler. *Sagan*. Preus.
 " 6. *Paris*. Cassini. *Erfurt*. Planer.
 " 6. *Peissenberg*. Schwaiger. *Berne*. Studer.
 " 6. *Tigurina*. Aedes. Magold.
 " 6. *Bologna*. Matteucci. *Rome*. Calandrelli.
 " 6. *Kendal*. Dalton. *Göttingen*. Gatterer.
 " 6. *Padua*. Toaldo. *Munich*. Huebpauer.

- Oct. 6. *Ratisbon*. Heinrich. *Jena*. Zeissing.
 " 6. *Mannheim*. Hemmer. *Buda*. Bruna.
 " 6. *Mount St. Aendx, Bavaria*. Kettel.
 " 7. *Salem*. Holyoke. Lovering.
 " 7. *Kendal*. Dalton. *Padua*. Toaldo.
 " 7. *Ratisbon*. Heinrich. *Stockholm*. Nicander.
 " 9. *Edsberg*. Wilse.
 " 10. *Würzburg*. Egel. *Ratisbon*. Heinrich.
 " 10. *Tigurina Aedes, Bavaria*. Magold.
 " 10. *Buda*. Bruna. *Berne*. Studer.
 " 10. *Sagan*. Preus. *Munich*. Huebpauer.
 " 10. *Peissenberg*. Schwaiger.
 " 12. *Cambridge*. Williams. *Stockholm*. Nicander.
 " 13. *Cambridge*. Wigglesworth. Lovering.
 " 13. *Salem*. Holyoke. Lovering.
 " 13. *Berlin*. Beguelin and Achard.
 " 13. *Sagan*. Preus. *Copenhagen*. Bugge.
 " 13. *Prague*. Strnad. *Paris*. Cassini.
 " 13. *Sutz*. Sprüngli. *Berne*. Studer.
 " 13. *Geneva*. Senebier. Deluc.
 " 13. *Göttingen*. Gatterer. *Erfurt*. Planer.
 " 13. *Buda*. Bruna. *Rochelle*. Seignette.
 " 13. *Stockholm*. Nicander. *Padua*. Toaldo.
 " 14. *Berlin*. Beguelin and Achard.
 " 16. *Rochelle*. Seignette. *Stockholm*. Nicander.
 " 17. *Kendal*. Dalton. *Sagan*. Preus.
 " 17. *Berlin*. Beguelin and Achard.
 " 17. *Geneva*. Senebier. Deluc.
 " 17. *Prague*. Strnad. *Berne*. Studer.
 " 17. *Rochelle*. Seignette. *Marseilles*. Silvabella.
 " 19. *Kendal*. Dalton.
 " 20. *Berlin*. Beguelin and Achard.
 " 21. *Paris*. Cassini.
 " 24. *Jena*. Zeissing. *Ratisbon*. Heinrich.
 " 24. *Buda*. Bruna. *Sagan*. Preus.
 " 31. *Cambridge*. Wigglesworth. Lovering.
 " 31. *Cambridge*. Williams.
 " 31. *New Haven*. Stiles. Loomis. *Berne*. Studer.
 " 31. *Mannheim*. Hemmer. *St. Petersburg*. Euler.
 " 31. *Ratisbon*. Heinrich. *Rochelle*. Seignette.
 " 31. *Munich*. Huebpauer. *Sagan*. Preus.
 " 31. *Bavaria*. Kettel. *Stockholm*. Nicander.
 " 31. *Würzburg*. Egel. *Erfurt*. Planer.
 " 31. *Prague*. Strnad. *Buda*. Bruna.
 " 31. *Geneva*. Deluc. *Jena*. Zeissing.
 " 31. *Tigurina Aedes, Bavaria*. Magold.
- Nov. 2. *Sagan*. Preus.
 " 3. *Cambridge*. Wigglesworth. Lovering.
- Nov. 3. *Cambridge*. Williams.
 " 3. *Salem*. Holyoke. Lovering.
 " 3. *Stockholm*. Nicander.
 " 3. *Prague*. Strnad. *Sagan*. Preus.
 " 4. *Cambridge*. Wigglesworth. Lovering.
 " 4. *Cambridge*. Williams.
 " 4. *Salem*. Holyoke. Lovering.
 " 4. *Kendal*. Dalton. *Göttingen*. Gatterer.
 " 4. *Stockholm*. Nicander.
 " 4. *Berlin*. Beguelin and Achard.
 " 7. *Sagan*. Preus. *Stockholm*. Nicander.
 " 8. *Paris*. Cassini. *Erfurt*. Planer.
 " 8. *Ratisbon*. Heinrich. *Stockholm*. Nicander.
 " 8. *Kendal*. Dalton. *Brussels*. Mann.
 " 8. *Munich*. Huebpauer. *Mannheim*. Hemmer.
 " 8. *Geneva*. Senebier. *Sagan*. Preus.
 " 8. *Rome*. Calandrelli. *Sutz*. Sprüngli.
 " 8. *Peissenberg*. Schwaiger. *Berne*. Studer.
 " 9. *Prague*. Strnad. *Buda*. Bruna.
 " 9. *Brussels*. Mann. *Mannheim*. Hemmer.
 " 9. *Bavaria*. Kettel. *Munich*. Huebpauer.
 " 9. *Peissenberg*. Schwaiger. *Sagan*. Preus.
 " 9. *Tigurina Aedes, Bavaria*. Magold.
 " 10. *Mannheim*. Hemmer.
 " 12. *Würzburg*. Egel.
 " 13. *Mannheim*. Hemmer.
 " 20. *Würzburg*. Egel.
 " 21. *Montmorenci*. Cotte.
 " 24. *Cambridge*. Wigglesworth. Lovering.
 " 24. *Cambridge*. Williams.
 " 26. *Berlin*. Beguelin and Achard. *Berne*. Studer.
 " 26. *Mannheim*. Hemmer. *Sutz*. Sprüngli.
 " 26. *Paris*. Cassini. *Erfurt*. Planer.
 " 26. *Rochelle*. Seignette. *Stockholm*. Nicander.
 " 26. *Ratisbon*. Heinrich. *Montmorenci*. Cotte.
 " 26. *Rome*. Calandrelli. *Sagan*. Preus.
 " 28. *Kendal*. Dalton.
 " 29. *Kendal*. Dalton.
 " 29. *Berlin*. Beguelin and Achard.
 " 30. *Kendal*. Dalton. *Stockholm*. Nicander.
- Dec. 1. *Cambridge*. Wigglesworth. Lovering.
 " 1. *Cambridge*. Williams.
 " 2. *Stockholm*. Nicander.
 " 3. *Stockholm*. Nicander.
 " 6. *Rochelle*. Seignette.
 " 7. *Stockholm*. Nicander.
 " 8. *Salem*. Holyoke. Lovering.
 " 9. *Cambridge*. Wigglesworth. Lovering.
 " 9. *Cambridge*. Williams.
 " 9. *Salem*. Holyoke. Lovering.

¹ L'Institut. X. 341.

- Dec. 9. *New Haven*. Stiles. Loomis.
 " 9. *Paris*. Cassini. *Stockholm*. Nicander.
 " 10. *Mannheim*. Hemmer. *Sagan*. Preus.
 " 13. *Stockholm*. Nicander.
 " 15. *Sagan*. Preus.
 " 16. *Berne*. Studer.
 " 18. *Stockholm*. Nicander.

1788.

- Jan. 3. *Sagan*. Preus.
 " 4. *Mannheim*. Hemmer.
 " 5. *Sagan?* Preus.
 " 8. *Sagan?* Preus.
 " 9. *Mannheim*. Hemmer. *Kendal*. Dalton.
 " 10. *Salem*. Holyoke. Lovering. *Kendal*. Dalton.
 " 11. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 12. *Stockholm*. Nicander.
 " 13. *Kendal*. Dalton. Nicander.
 " 14. *Sagan?* Preus. *Stockholm*. Nicander.
 " 14. *Cambridge*. Wigglesworth. Lovering.
 " 14. *Salem*. Holyoke. Lovering. *Kendal*. Dalton.
 " 15. *Kendal*. Dalton.
 " 17. *Stockholm*. Nicander.
 Feb. 2. *Sagan*. Preus.
 " 4. *Berlin*. Beguelin and Achard.
 " 4. *Kendal*. Dalton. *Sagan?* Preus.
 " 5. *Cambridge*. Wigglesworth. Lovering.
 " 5. *Salem*. Holyoke. Lovering.
 " 5. *New Haven*. Stiles. Loomis.
 " 6. *Keswick*. Dalton. *St. Petersburg*. Euler.¹
 " 7. *Keswick*. Dalton.
 " 8. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 9. *Sagan*. Preus.
 " 11. *New Haven*. Stiles. Loomis.
 " 11. *Middleburg*. Van de Perre.
 " 11. *Stockholm*. Nicander. *Ratisbon*. Heinrich.
 " 11. *Mannheim*. Hemmer. *Brussels*. Mann.
 " 11. *Tigurina Aedes*. Magold. *Spain*. Rico.²
 " 11. *Sagan*. Preus. *Rochelle*. Seignette.
 " 11. *Munich*. Huebpauer. *Padua*. Toaldo.
 " 11. *Erfurt*. Planer. *Copenhagen*. Bugge.
 " 11. *Jena*. Zeissing. *Geneva*. Deluc.
 " 11. *Buda*. Bruna. *Berlin*. Beguelin and Achard.
 " 11. *Montmorenci*. Cotte.
 " 12. *Sagan*. Preus. *Keswick*. Dalton.
 " 15. *Rome*. Calandrelli. *Spain*. Rico.
 " 15. *Buda*. Bruna. *Erfurt*. Planer.

¹ Nova Acta Sci. Acad. Petrop. VI. 338.² Mem. Acad. Cienc. Madrid. III. 77.

- Feb. 15. *Jena*. Zeissing. *Stockholm*. Nicander.
 " 22. *Mannheim*. Hemmer.
 Mar. 3. *Spain*. Rico.
 " 4. *Stockholm*. Nicander.
 " 5. *Stockholm*. Nicander.
 " 6. *Stockholm*. Nicander.
 " 7. *Sagan*. Preus. *Kendal*. Dalton.
 " 7. *Rome*. Calandrelli.
 " 8. *Sagan?* Preus. *Kendal*. Dalton.
 " 14. *Mannheim*. Hemmer. *Stockholm*. Nicander.
 " 22. *Mannheim*. Hemmer.
 " 26. *Stockholm*. Nicander.
 " 27. *Cambridge*. Wigglesworth. Lovering.
 " 27. *Stockholm*. Nicander. *Brussels*. Mann.
 " 28. *Cambridge*. Wigglesworth. Lovering.
 " 28. *Mannheim*. Hemmer. *Paris*. Cassini.²
 " 28. *Kendal*. Dalton. *St. Petersburg*. Euler.
 " 30. *Stockholm*. Nicander.
 Apr. 1. *Cambridge*. Wigglesworth. Lovering.
 " 1. *Sagan?* Preus. *Stockholm*. Nicander.
 " 1. *Paris*. Cassini. *Montmorenci*. Cotte.
 " 1. *Kendal*. Dalton. *Sagan*. Preus.
 " 2. *Geneva*. Deluc. *Montmorenci*. Cotte.
 " 3. *Sagan?* Preus. *Kendal*. Dalton.
 " 4. *Brussels*. Mann.
 " 6. *Sagan*. Preus. *Stockholm*. Nicander.
 " 6. *Copenhagen*. Bugge. *Jena*. Zeissing.
 " 7. *Kendal*. Dalton.
 " 8. *Stockholm*. Nicander.
 " 9. *Stockholm*. Nicander.
 " 10. *Ratisbon?* Heinrich.
 " 14. *Kendal*. Dalton.
 " 21. *Mannheim?* Hemmer.
 " 24. *Sagan*. Preus.
 " 26. *Sagan*. Preus.
 " 27. *Sagan*. Preus. *Kendal*. Dalton.
 " 27. *Stockholm*. Nicander. *Montmorenci*. Cotte.
 " 28. *Kendal*. Dalton. *Brussels*. Mann.
 " 29. *Cambridge*. Wigglesworth. Lovering.
 " 29. *New Haven*. Stiles. Loomis.
 " 29. *Kendal*. Dalton. *Paris*. Cassini.
 " 29. *Stockholm*. Nicander. *Ratisbon*. Heinrich.
 " 30. *Paris*. Cassini. *Kendal*. Dalton.
 May 1. *Kendal*. Dalton.
 " 2. *Salem*. Holyoke. Lovering.
 " 2. *Stockholm*. Nicander. *Paris*. Cassini.
 " 3. *Brussels*. Mann.
 " 4. *New Haven*. Stiles. Loomis. *Kendal*. Dalton.
 " 5. *Jena*. Zeissing.

¹ Mém. de l'Acad. 1788. p. 72.

- May 6. *Moscow*. Stritter.
 " 7. *Brussels*. Mann.
 " 10. *Brussels*. Mann. *Kendal*. Dalton.
 " 11. *Kendal*. Dalton.
 " 24. *Kendal*. Dalton. *Geneva*. Deluc.
 " 24. *Padua*. Toaldo. *Paris*. Cassini.
 " 24. *Mannheim*. Hemmer. *Dublin*. Usher.
 " 24. *Montmorenci*. Cotte.
 " 25. *Cambridge*. Wigglesworth. Lovering.
 " 25. *Salem*. Holyoke. Lovering.
 " 25. *New Haven*. Stiles. Loomis.
 " 25. *Mannheim*. Hemmer. *Paris*. Cassini.
 " 25. *Kendal*. Dalton. *Brussels*. Mann.
 " 25. *Dublin, Ireland*. Usher.¹
 " 26. *Ratisbon*. Heinrich. *Brussels*. Mann.
 " 27. *Kendal*. Dalton.
 " 28. *New Haven*. Stiles. Loomis.
 " 29. *Cambridge*. Wigglesworth. Lovering.
 " 30. *Salem*. Holyoke. Lovering. *Kendal*. Dalton.
 " 31. *Cambridge*. Wigglesworth. Lovering.
 " 31. *Salem*. Holyoke. Lovering. *Jena*. Zeissing.
- June² 3. *Kendal*. Dalton.
 " 4. *Padua*. Toaldo and Chiminello.
 " 5. *Brussels*. Mann.
 " 9. *Brussels*. Mann.
 " 25. *Brussels*. Mann. *Jena*. Zeissing.
 " 27. *Brussels*. Mann.
 " 28. *Brussels*. Mann.
- July 1. *Brussels*. Mann.
 " 2. *Salem*. Holyoke. Lovering.
 " 2. *Mannheim*. Hemmer.
 " 3. *Paris*. Cassini.
 " 5. *Jena*. Zeissing.
 " 14. *Mannheim*. Hemmer.
 " 15. *Mt. St. Gothard*. P. L. of Milan.
 " 25. *Cambridge*. Wigglesworth. Lovering.
 " 25. *Salem*. Holyoke. Lovering.
 " 30. *Cambridge*. Wigglesworth. Lovering.
 " 30. *Salem*. Holyoke. Lovering.
 " 30. *New Haven*. Stiles. Loomis.
 " 30. *Kendal*. Dalton. *Berne*. Studer.
 " 30. *Ratisbon*. Heinrich. *Paris*. Cassini.
 " 31. *Cambridge*. Wigglesworth. Lovering.
 " 31. *Salem*. Holyoke. Lovering.
 " 31. *Sagan?* Preus. *Jena*. Zeissing.
- Aug. 1. *Cambridge*. Wigglesworth. Lovering.
 " 1. *Salem*. Holyoke. Lovering.
- Aug. 1. *New Haven*. Stiles. Loomis.
 " 1. *Kendal*. Dalton. *Rochelle*. Seignette.
 " 2. *New Haven*. Stiles. Loomis. *Kendal*. Dalton.
 " 3. *Kendal*. Dalton.
 " 11. *Mannheim*. Hemmer.
 " 16. *Stockholm*. Nicander.
 " 19. *Kendal*. Dalton. *Jena*. Zeissing.
 " 19. *Sagan*. Preus. *Stockholm*. Nicander.
 " 20. *Rome*. Calandrelli.
 " 22. *Spain*. Rico.
 " 23. *Cambridge*. Wigglesworth. Lovering.
 " 23. *Salem*. Holyoke. Lovering.
 " 23. *New Haven*. Stiles. Loomis.
 " 23. *Mannheim*. Hemmer. *Rome*. Calandrelli.
 " 23. *Paris*. Cassini. *Kendal*. Dalton.
 " 23. *Montmorenci*. Cotte.
 " 24. *Mannheim*. Hemmer.
 " 26. *Cambridge*. Wigglesworth. Lovering.
 " 26. *Salem*. Holyoke. Lovering.
 " 26. *New Haven*. Stiles. Loomis.
 " 27. *Cambridge*. Wigglesworth. Lovering.
 " 27. *Salem*. Holyoke. Lovering. *Jena*. Zeissing.
 " 27. *New Haven*. Stiles. Loomis.
 " 28. *Cambridge*. Wigglesworth. Lovering.
 " 28. *Salem*. Holyoke. Lovering.
 " 28. *New Haven*. Stiles. Loomis.
 " 28. *Moscow*. Stritter. *Jena*. Zeissing.
 " 28. *Sagan?* Preus. *Stockholm*. Nicander.
 " 29. *New Haven*. Stiles. Loomis.
 " 29. *Würzburg*. Egel. *Spain*. Rico.
 " 29. *Sagan?* Preus. *Mannheim*. Hemmer.
 " 29. *Kendal*. Dalton. *Jena*. Zeissing.
 " 31. *New Haven*. Stiles. Loomis. *Sagan?* Preus.
- Sept. 1. *Sagan*. Preus. *Stockholm*. Nicander.
 " 1. *Brussels*. Mann.
 " 2. *Cambridge*. Wigglesworth. Lovering.
 " 2. *Salem*. Holyoke. Lovering.
 " 2. *New Haven*. Stiles. Loomis.
 " 2. *Kendal*. Dalton. *Geneva*. Deluc.
 " 3. *Cambridge*. Wigglesworth. Lovering.
 " 3. *Salem*. Holyoke. Lovering.
 " 3. *New Haven*. Stiles. Loomis.
 " 3. *Erfurt*. Planer. *Stockholm*. Nicander.
 " 3. *Jena*. Zeissing. *St. Petersburg*. Euler.
 " 4. *Cambridge*. Wigglesworth. Lovering.
 " 4. *Salem*. Holyoke. Lovering.
 " 4. *New Haven*. Stiles. Loomis.
 " 4. *Paris*. Cassini.
 " 4. *Jena*. Zeissing. *St. Petersburg*. Euler.
 " 4. *Mannheim*. Hemmer. *Sagan*. Preus.

¹ Mem. Irish Acad. II. 189.

² An aurora was seen in Spain one day of this month. Mem. Acad. Cienc. Madrid. III. 77.

- Sept. 4. *Ratisbon*. Heinrich. *Brussels*. Mann.
 " 5. *Salem*. Holyoke. Lovering.
 " 5. *New Haven*. Stiles. Loomis. *Berne*. Studer.
 " 5. *Mannheim*. Hemmer. *Padua*. Toaldo.
 " 5. *Munich*. Huebpauer. *Sagan*. Preus.
 " 5. *Erfurt*. Planer. *Würzburg*. Egel.
 " 5. *Ratisbon*. Heinrich. *St. Petersburg*. Euler.
 " 5. *Figurina Aedes*. Magold. *Jena*. Zeissing.
 " 5. *Rome*. Calandrelli. *Sutz*. Sprüngli.
 " 6. *Erfurt*. Planer. *Würzburg*. Egel.
 " 6. *St. Petersburg*. Euler.
 " 6. *Kendal*. Dalton. *Sagan*. Preus.
 " 7. *Würzburg*. Egel.
 " 8. *Stockholm*. Nicander.
 " 10. *Cambridge*. Wigglesworth. Lovering.
 " 10. *Kendal*. Dalton. *Jena*. Zeissing.
 " 10. *Stockholm*. Nicander.
 " 12. *Mannheim*. Hemmer.
 " 18. *Stockholm*. Nicander.
 " 20. *Munich*. Huebpauer.
 " 24. *Cambridge*. Wigglesworth. Lovering.
 " 24. *Spain*. Rico. *Jena*. Zeissing.
 " 24. *Figurina Aedes*. Magold.
 " 24. *Stockholm*. Nicander. *Sagan*. Preus.
 " 24. *Mannheim*. Hemmer. *Erfurt*. Planer.
 " 25. *Cambridge*. Wigglesworth. Lovering.
 " 25. *Salem*. Holyoke. Lovering.
 " 25. *Stockholm*. Nicander.
 " 26. *Cambridge*. Wigglesworth. Lovering.
 " 26. *Salem*. Holyoke. Lovering.
 " 26. *Stockholm*. Nicander. *Moscow*. Stritter.
 " 26. *St. Petersburg*. Euler.
 " 27. *Sagan*. Preus. *St. Petersburg*. Euler.
 " 28. *Salem*. Holyoke. Lovering.
 " 29. *Sagan?* Preus. *Stockholm*. Nicander.
 Oct. 1. *Stockholm*. Nicander.
 " 2. *Stockholm*. Nicander.
 " 3. *Stockholm*. Nicander.
 " 4. *Cambridge*. Wigglesworth. Lovering.
 " 4. *Stockholm*. Nicander.
 " 5. *Cambridge*. Wigglesworth. Lovering.
 " 5. *Salem*. Holyoke. Lovering.
 " 6. *Salem*. Holyoke. Lovering.
 " 9. *Stockholm*. Nicander.
 " 11. *Stockholm*. Nicander.
 " 12. *Mannheim*. Hemmer.
 " 12. *Paris*. Cassini. *Kendal*. Dalton.
 " 18. *Sagan?* Preus.
 " 21. *Kendal*. Dalton. *Spain*. Rico.
 " 21. *Marseilles*. St. Jacques. *Geneva*. Senebier.
 Oct. 21. *St. Petersburg*. Euler.
 " 22. *Cambridge*. Wigglesworth. Lovering.
 " 22. *Salem*. Holyoke. Lovering. *Spain*. Rico.
 " 22. *St. Petersburg*. Euler.¹ *Jena*. Zeissing.
 " 22. *Moscow*. Stritter. *Rochelle*. Seignette.
 " 22. *Geneva*. Senebier. Deluc.
 " 22. *Marseilles*. St. Jacques. *Beziers*. Bertholon.
 " 22. *Padua*. Toaldo. *Rome*. Calandrelli.
 " 22. *Mannheim*. Hemmer. *Buda*. Bruna.
 " 22. *Sagan*. Preus. *Erfurt*. Planer.
 " 24. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 25. *Sagan*. Preus. *Stockholm*. Nicander.
 " 26. *Geneva*. Senebier.
 " 27. *Sagan*. Preus. *Keswick*. Dalton.
 " 27. *Stockholm*. Nicander.
 " 28. *Sagan?* Preus. *Stockholm*. Nicander.
 " 29. *Sagan*. Preus.
 " 30. *Cambridge*. Wigglesworth. Lovering.
 " 30. *Salem*. Holyoke. Lovering.
 " 30. *Sagan*. Preus. *Kendal*. Dalton.
 " 31. *Paris*. Cassini. *Kendal*. Dalton.
 " 31. *Stockholm*. Nicander. *Laon*. Cotte.
 Nov. 1. *Geneva*. Senebier. *Kendal*. Dalton.
 " 2. *Erfurt*. Planer. *Sagan*. Preus.
 " 3. *Sagan?* Preus.
 " 4. *Stockholm*. Nicander.
 " 7. *Stockholm*. Nicander.
 " 18. *Sagan*. Preus.
 " 19. *Kendal*. Dalton.
 " 21. *Stockholm*. Nicander.
 " 22. *Stockholm*. Nicander.
 " 23. *Mannheim*. Hemmer. *Sagan*. Preus.
 " 26. *Sagan?* Preus.
 " 27. *Kendal*. Dalton.
 " 28. *Kendal*. Dalton.
 " 30. *Stockholm*. Nicander. *Kendal*. Dalton.
 Dec. 8. *Mannheim*. Hemmer.
 " 15. *Mannheim*. Hemmer.
 " 16. *Mannheim*. Hemmer.
 " 20. *Peissenberg*. Schwaiger.
 " 21. *Kendal*. Dalton.
 " 22. *Stockholm*. Nicander.
 " 23. *Sagan*. Preus. *Brussels*. Mann.
 " 23. *Paris*. Cassini. *Ratisbon*. Heinrich.
 " 23. *Berne*. Studer.
 " 24. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 25. *Stockholm*. Nicander.
 " 26. *Stockholm*. Nicander.
 " 30. *Mannheim*. Hemmer.

¹ Aurora Australis.

1789.

- Jan. 11. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 13. *Stockholm*. Nicander.
 " 19. *Sagan*. Preus.
 " 21. *Mannheim*. Hemmer.
 " 24. *Sagan?* Preus.
 " 29. *Sagan*. Preus. *Stockholm*. Nicander.
 " 30. *Sagan*. Preus.
- Feb. 2. *Mannheim*. Hemmer. *Stockholm*. Nicander.
 " 6. *St. Petersburg*. Euler.
 " 15. *Cambridge*. Wigglesworth. Lovering.
 " 15. *New Haven*. Stiles. Loomis. *Berne*. Studer.
 " 15. *Stockholm*. Nicander. *Keswick*. Dalton.
 " 16. *Salem*. Holyoke. Lovering.
 " 17. *Stockholm*. Nicander.
 " 23. *Sagan*. Preus. *Kendal*. Dalton.
 " 23. *Stockholm*. Nicander.
 " 26. *Cambridge*. Wigglesworth. Lovering.
 " 26. *Salem*. Holyoke. Lovering.
 " 26. *Mannheim*. Hemmer. *Kendal*. Dalton.
 " 28. *Stockholm*. Nicander. *Kendal*. Dalton.
- Mar. 2. *Stockholm*. Nicander.
 " 3. *Stockholm*. Nicander. *Moscow*. Stritter.
 " 4. *Stockholm*. Nicander. *Moscow*. Stritter.
 " 14. *Cambridge*. Wigglesworth. Lovering.
 " 14. *Salem*. Holyoke. Lovering.
 " 14. *Kendal*. Dalton. *Spain*. Rico.
 " 14. *Brussels*. Mann. *Paris*. Cassini.¹
 " 16. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 17. *Stockholm*. Nicander.
 " 20. *Mannheim*. Hemmer.
 " 22. *Sagan?* Preus.
 " 26. *Cambridge*. Wigglesworth. Lovering.
 " 26. *Salem*. Holyoke. Lovering.
 " 27. *Cambridge*. Wigglesworth. Lovering.
 " 27. *Salem*. Holyoke. Lovering.
 " 27. *New Haven*. Stiles. Loomis.
 " 27. *Geneva*. Senebier. Deluc. *Berne*. Studer.
 " 27. *Brussels*. Mann. *Paris*. Cassini.
 " 27. *Stockholm*. Nicander. *Ratisbon*. Heinrich.
 " 27. *Marseilles*. St. Jacques. *Buda*. Bruna.
 " 27. *Mannheim*. Hemmer. *Rome*. Calandrelli.
 " 27. *Jena*. Zeissing. *St. Petersburg*. Euler.²
 " 27. *Montmorenci*. Cotte. *Sutz*. Sprüngli.
 " 28. *Ratisbon*. Heinrich. *Brussels*. Mann.
 " 28. *Sagan*. Preus. *Rochelle*. Seignette.
 " 28. *Sutz*. Sprüngli. *Berne*. Studer.
- Mar. 28. *Mannheim*. Hemmer. *St. Petersburg*. Euler.
 " 29. *Salem*. Holyoke. Lovering.
 " 29. *Kendal*. Dalton.
 " 29. *Brussels*. Mann. *Berlin*. Achard.
 " 29. *Sagan*. Preus. *Marseilles*. St. Jacques.
 " 30. *Berlin*. Achard. *Sagan*. Preus.
 " 30. *Brussels*. Mann. *Kendal*. Dalton.
 " 31. *New Haven*. Stiles. Loomis. *Sagan?* Preus.
- Apr. 1. *Stockholm*. Nicander. *Brussels*. Mann.
 " 2. *St. Petersburg*. Euler.
 " 9. *Moscow*. Stritter.
 " 11. *Stockholm*. Nicander.
 " 12. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 13. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 15. *Stockholm*. Nicander.
 " 17. *Cambridge*. Wigglesworth. Lovering.
 " 17. *Stockholm*. Nicander. *Brussels*. Mann.
 " 18. *Stockholm*. Nicander.
 " 20. *Sagan?* Preus. *Stockholm*. Nicander.
 " 26. *Cambridge*. Wigglesworth. Lovering.
 " 26. *Salem*. Holyoke. Lovering.
 " 26. *New Haven*. Stiles. Loomis.
 " 26. *Stockholm*. Nicander. *Laon*. Cotte.
 " 27. *Cambridge*. Wigglesworth. Lovering.
 " 27. *Salem*. Holyoke. Lovering. *Sagan?* Preus.
 " 29. *Mannheim*. Hemmer. *Sagan?* Preus.
 " 30. *Kendal*. Dalton.
- May 15. *Brussels*. Mann.
 " 16. *Brussels*. Mann.
 " 17. *Mannheim*. Hemmer.
 " 20. *Salem*. Holyoke. Lovering.
 " 21. *Cambridge*. Wigglesworth. Lovering.
 " 21. *Salem*. Holyoke. Lovering.
 " 21. *New Haven*. Stiles. Loomis.
 " 22. *Cambridge*. Wigglesworth. Lovering.
 " 22. *Salem*. Holyoke. Lovering.
 " 22. *New Haven*. Stiles. Loomis.
 " 23. *Cambridge*. Wigglesworth. Lovering.
 " 23. *Salem*. Holyoke. Lovering.
 " 23. *New Haven*. Stiles. Loomis.
 " 23. *Ratisbon*. Heinrich. *Paris*. Cassini.
 " 24. *Cambridge*. Wigglesworth. Lovering.
 " 24. *Salem*. Holyoke. Lovering.
 " 24. *Rome*. Calandrelli.
 " 28. *Cambridge*. Wigglesworth. Lovering.
 " 28. *Salem*. Holyoke. Lovering.
 " 28. *New Haven*. Stiles. Loomis.
 " 28. *Brussels*. Mann.
 " 29. *Brussels*. Mann.
 " 31. *New Haven*. Stiles. Loomis. *Sagan*. Preus.

¹ Mém. de l'Acad. 1789.² Nova. Acta. Sci. Acad. Petrop. VII. 407.

- June 2. *Paris.* Cassini.
 " 12. *New Haven.* Stiles. Loomis.
 " 12. *Kendal.* Dalton. *Paris.* Cassini.
 " 13. *Ratisbon.* Heinrich.
 " 15. *Salem.* Holyoke. Lovering.
 " 15. *New Haven.* Stiles. Loomis.
 " 16. *New Haven.* Stiles. Loomis.
 " 16. *Ratisbon.* Heinrich.
 " 17. *Salem.* Holyoke. Lovering.
 " 18. *New Haven.* Stiles. Loomis.
 " 19. *Salem.* Holyoke. Lovering.
 " 19. *Ratisbon.* Heinrich.
 " 20. *Salem.* Holyoke. Lovering.
 " 23. *Salem.* Holyoke. Lovering.
 " 29. *Salem.* Holyoke. Lovering.
 " 30. *Brussels.* Mann.
 July 10. *New Haven.* Stiles. Loomis.
 " 11. *Salem.* Holyoke. Lovering.
 " 14. *New Haven.* Stiles. Loomis.
 " 15. *Brussels.* Mann.
 " 17. *New Haven.* Stiles. Loomis.
 " 18. *Brussels.* Mann.
 " 19. *Brussels.* Mann.
 " 20. *Salem.* Holyoke. Lovering.
 " 20. *Brussels.* Mann.
 " 23. *Brussels.* Mann.
 " 24. *Paris.* Cassini.
 " 25. *Cambridge.* Wigglesworth. Lovering.
 " 26. *Salem.* Holyoke. Lovering.
 " 26. *New Haven.* Stiles. Loomis.
 " 27. *Cambridge.* Wigglesworth. Lovering.
 " 28. *Salem.* Holyoke. Lovering.
 " 28. *New Haven.* Stiles. Loomis. *Laon.* Cotte.
 " 29. *Salem.* Holyoke. Lovering.
 " 29. *Brussels.* Mann.
 Aug. 13. *Keswick.* Dalton.
 " 14. *Stockholm.* Nicander.
 " 14. *Sagan.* Preus. *Kendal.* Dalton.
 " 15. *Paris.* Cassini. *Kendal.* Dalton.
 " 16. *Kendal.* Dalton.
 " 17. *Kendal.* Dalton. *Stockholm.* Nicander.
 " 18. *Cambridge.* Wigglesworth. Lovering.
 " 18. *Salem.* Holyoke. Lovering.
 " 18. *Kendal.* Dalton.
 " 19. *Kendal.* Dalton. *St. Petersburg.* Euler.
 " 19. *Peissenberg.* Schwaiger. *Sagan.* Preus.
 " 19. *Berne.* Studer.
 " 20. *Kendal.* Dalton.
 " 21. *Stockholm.* Nicander. *St. Petersburg.* Euler.
 " 22. *Stockholm.* Nicander.
 Aug. 24. *Cambridge.* Wigglesworth. Lovering.
 " 24. *Salem.* Holyoke. Lovering.
 " 24. *Stockholm.* Nicander. *Paris.* Cassini.
 " 24. *St. Petersburg.* Euler.
 " 25. *Sagan?* Preus. *Ratisbon.* Heinrich.
 " 25. *Stockholm.* Nicander.
 " 25. *Paris.* Cassini. *Kendal.* Dalton.
 " 26. *Stockholm.* Nicander.
 " 28. *Stockholm.* Nicander.
 " 29. *Stockholm.* Nicander.
 Sept. 9. *Salem.* Holyoke. Lovering.
 " 10. *Stockholm.* Nicander.
 " 12. *Stockholm.* Nicander.
 " 13. *Stockholm.* Nicander.
 " 14. *Stockholm.* Nicander. *Kendal.* Dalton.
 " 15. *Kendal.* Dalton.
 " 16. *St. Petersburg.* Euler.
 " 17. *Brussels.* Mann.
 " 20. *Stockholm.* Nicander.
 " 20. *Kendal.* Dalton. *Sagan.* Preus.
 " 21. *Salem.* Holyoke. Lovering.
 " 21. *Brussels.* Mann.
 " 22. *Salem.* Holyoke. Lovering.
 " 23. *Kendal.* Dalton.
 " 24. *Sagan.* Preus.
 " 25. *Sutz.* Sprüngli. *Berne.* Studer.
 " 26. *Kendal.* Dalton. *Falaise.* Hervieu.¹
 " 26. *Rochelle.* Seignette. *Laon.* Cotte.
 " 26. *Mannheim.* Hemmer.
 " 26. *Peissenberg.* Schwaiger. *Berne.* Studer.
 " 26. *Brussels.* Mann. *Paris.* Cassini.
 " 27.² *Stockholm.* Nicander. *Sagan?* Preus.
 " x. *Falaise.* Hervieu. Boué.
 Oct. 11.³ *St. Petersburg.* Euler.
 " 12. *Stockholm.* Nicander.
 " 13. *Stockholm.* Nicander.
 " 16. *Salem.* Holyoke. Lovering.
 " 18. *Kendal.* Dalton. *St. Petersburg.* Euler.
 " 19. *Cambridge.* Wigglesworth. Lovering.
 " 19. *Salem.* Holyoke. Lovering.
 " 19. *New Haven.* Stiles. Loomis.
 " 19. *Kendal.* Dalton. *St. Petersburg.* Euler.
 " 19. *Marseilles.* St. Jacques. *Moscow.* Stritter.
 " 20. *Kendal.* Dalton. *St. Petersburg.* Euler.
 " 20. *Jena.* Zeissing. *Moscow.* Stritter.
 " 20. *Brussels.* Mann. *Paris.* Cassini.

¹ Encyc. Method. I. 368.² Journ. de Phys. XXXVI. 440.³ An aurora was seen in Spain on one day of this month.

Oct. 20.	<i>Peissenberg.</i> Schwaiger. <i>Sagan.</i> Preus.	Dec. 23.	<i>Stockholm.</i> Nicander.
" 21.	<i>Salem.</i> Holyoke. Lovering.	" 24.	<i>New Haven.</i> Stiles. Loomis. <i>Paris.</i> Cassini.
" 21.	<i>Brussels.</i> Mann.	" 26.	<i>Stockholm.</i> Nicander.
" 23.	<i>Cambridge.</i> Wigglesworth. Lovering.	" 27.	<i>Stockholm.</i> Nicander.
" 23.	<i>Salem.</i> Holyoke. Lovering.		1790.
" 23.	<i>Kendal.</i> Dalton.		
" 23.	<i>Stockholm.</i> Nicander. <i>Moscow.</i> Stritter.	Jan. 2.	<i>Stockholm.</i> Nicander.
" 24.	<i>St. Petersburg.</i> Euler.	" 9.	<i>Sagan.</i> Preus.
" 25.	<i>Kendal.</i> Dalton.	" 10.	<i>Sagan.</i> Preus.
" 27.	<i>Kendal.</i> Dalton.	" 14.	<i>Stockholm.</i> Nicander. <i>Kendal.</i> Dalton.
" 31.	<i>Stockholm.</i> Nicander. <i>Kendal.</i> Dalton.	" 15.	<i>Stockholm.</i> Nicander.
Nov. 4.	<i>Kendal.</i> Dalton.	" 18.	<i>Mannheim.</i> Hemmer. <i>Sagan.</i> Preus.
" 6.	<i>Peissenberg.</i> Schwaiger.	" 19.	<i>Stockholm.</i> Nicander.
" 9.	<i>Stockholm.</i> Nicander.	" 26.	<i>Stockholm.</i> Nicander.
" 10.	<i>Kendal.</i> Dalton.	" 28.	<i>Laon.</i> Cotte.
" 11.	<i>Stockholm.</i> Nicander.	" 29.	<i>Mannheim.</i> Hemmer. <i>Sagan.</i> Preus.
" 14.	<i>Cambridge.</i> Wigglesworth. Lovering.	" 29.	<i>Jena.</i> Zeissing. <i>Prague.</i> Strnad.
" 14.	<i>Salem.</i> Holyoke. Lovering.	Feb. 1.	<i>Sagan.</i> Preus.
" 14.	<i>Hingham, Mass.</i> Ware.	" 3.	<i>Kendal.</i> Dalton.
" 14.	<i>Stockholm.</i> Nicander. <i>St. Petersburg.</i> Euler.	" 8.	<i>Stockholm.</i> Nicander.
" 14.	<i>Kendal.</i> Dalton. <i>Cuba.</i> Poey.	" 9.	<i>Stockholm.</i> Nicander. <i>Kendal.</i> Dalton.
" 15.	<i>Beziere.</i> Betholon. ¹ <i>Sagan.</i> Preus.	" 10.	<i>Stockholm.</i> Nicander.
" 15.	<i>Rome.</i> Calandrelli. <i>Stockholm.</i> Nicander.	" 11.	<i>Salem.</i> Holyoke. Lovering.
" 17.	<i>Stockholm.</i> Nicander.	" 11.	<i>Stockholm.</i> Nicander.
" 18.	<i>Brussels.</i> Mann.	" 12.	<i>Sagan.</i> Preus. <i>Stockholm.</i> Nicander.
" 19.	<i>Sagan.</i> Preus. <i>Kendal.</i> Dalton.	" 12.	<i>Salem.</i> Holyoke. Lovering.
" 20.	<i>Sagan.</i> Preus.	" 13.	<i>Sagan.</i> Preus. <i>Stockholm.</i> Nicander.
" 21.	<i>St. Petersburg.</i> Euler.	" 14.	<i>Mannheim.</i> Hemmer. <i>Stockholm.</i> Nicander.
" 21.	<i>Stockholm.</i> Nicander. <i>Kendal.</i> Dalton.	" 15.	<i>Sagan.</i> Preus.
" 22.	<i>Stockholm.</i> Nicander.	" 18.	<i>Stockholm.</i> Nicander. <i>Brussels.</i> Mann.
" 22.	<i>Sagan.</i> Preus. <i>Kendal.</i> Dalton.	" 27.	<i>Stockholm.</i> Nicander.
" 24.	<i>Kendal.</i> Dalton.	Mar. 3.	<i>Mannheim.</i> Hemmer.
" 25.	<i>Stockholm.</i> Nicander. <i>Kendal.</i> Dalton.	" 7.	<i>Stockholm.</i> Nicander.
" 26.	<i>Stockholm.</i> Nicander. <i>Kendal.</i> Dalton.	" 8.	<i>Peissenberg.</i> Schwaiger.
" 27.	<i>Stockholm.</i> Nicander. <i>Kendal.</i> Dalton.	" 8.	<i>Stockholm.</i> Nicander. <i>Brussels.</i> Mann.
" 30.	<i>St. Petersburg.</i> Euler.	" 10.	<i>Stockholm.</i> Nicander. <i>Kendal.</i> Dalton.
" x.	<i>Montmorenci.</i> Cotte.	" 11.	<i>Stockholm.</i> Nicander. <i>Sagan.</i> Preus.
Dec. 10.	<i>Sagan.</i> Preus.	" 14.	<i>Stockholm.</i> Nicander.
" 13.	<i>Salem.</i> Holyoke. Lovering.	" 15.	<i>Stockholm.</i> Nicander.
" 14.	<i>Salem.</i> Holyoke. Lovering.	" 16.	<i>Kendal.</i> Dalton. <i>Sagan.</i> Preus.
" 14.	<i>Sagan?</i> Preus. <i>Kendal.</i> Dalton.	" 16.	<i>Stockholm.</i> Nicander. <i>Ratisbon.</i> Heinrich.
" 15.	<i>Sagan?</i> Preus.	" 17.	<i>Sagan.</i> Preus. <i>Kendal.</i> Dalton.
" 16.	<i>Sagan?</i> Preus.	" 17.	<i>Stockholm.</i> Nicander.
" 18.	<i>Cambridge.</i> Wigglesworth. Lovering.	" 18.	<i>Mannheim.</i> Hemmer. <i>Kendal.</i> Dalton.
" 19.	<i>Sagan?</i> Preus.	" 18.	<i>Stockholm.</i> Nicander.
" 20.	<i>Peissenberg.</i> Schwaiger.	" 19.	<i>Stockholm.</i> Nicander. <i>Kendal.</i> Dalton.
" 21.	<i>Stockholm.</i> Nicander.	" 20.	<i>Stockholm.</i> Nicander. <i>Kendal.</i> Dalton.
" 22.	<i>Mannheim.</i> Hemmer. <i>Sagan?</i> Preus.	" 23.	<i>Stockholm.</i> Nicander.
		" 24.	<i>Stockholm.</i> Nicander.

¹ Encyc. Method. I. 368.

- Apr. 2. *Mannheim*. Hemmer. *Stockholm*. Nicander.
 " 3. *Mannheim*. Hemmer. *Kendal*. Dalton.
 " 4. *Mannheim*. Hemmer. *Kendal*. Dalton.
 " 4. *Stockholm*. Nicander.
 " 5. *Kendal*. Dalton.
 " 6. *Mannheim*. Hemmer. *Kendal*. Dalton.
 " 7. *Kendal*. Dalton.
 " 8. *Mannheim*. Hemmer.
 " 9. *Sagan*. Preus. *Kendal*. Dalton.
 " 9. *Stockholm*. Nicander.
 " 10. *Stockholm*. Nicander.
 " 11. *Mannheim*. Hemmer.
 " 16. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 17. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 25. *Stockholm*. Nicander.
 " 27. *Stockholm*. Nicander.
 " 30. *Stockholm*. Nicander. *Brussels*. Mann.
- May 1. *Stockholm*. Nicander.
 " 1. *St. Petersburg*. Euler.¹
 " 2. *Stockholm*. Nicander.
 " 3. *Stockholm*. Nicander.
 " 6. *Stockholm*. Nicander.
 " 10. *Stockholm*. Nicander.
 " 11. *Stockholm*. Nicander.
 " 12. *Kendal*. Dalton.
 " 14. *Kendal*. Dalton.
 " 16. *Salem*. Holyoke. Lovering.
 " 16. *Sagan*. Preus. *Peissenberg*. Schwaiger.
 " 16. *Kendal*. Dalton. *Prague*. Strnad.
 " 17. *Salem*. Holyoke. Lovering.
 " 18. *Kendal*. Dalton.
 " 24. *Brussels*. Mann.
 " 30. *Prague*. Strnad.
- June 3. *Salem*. Holyoke. Lovering. *Brussels*. Mann.
 " 5. *Brussels*. Mann.
 " 8. *Brussels*. Mann.
 " 22. *Peissenberg*. Schwaiger.
 " 25. *Mannheim*. Hemmer.
 " 30. *Salem*. Holyoke. Lovering.
- July 1. *Salem*. Holyoke. Lovering.
 " 3. *Salem*. Holyoke. Lovering.
 " 3. *New Haven*. Stiles. Loomis.
 " 13. *Jena*. Zeissing.
 " 16. *New Haven*. Stiles. Loomis.
 " 16. *Prague*. Strnad. *Sutz*. Sprüngli.
- Aug. 3. *Mannheim*. Hemmer.
 " 16. *Salem*. Holyoke. Lovering.
 " 19. *Berne*. Studer.
- Sept. 6. *New Haven*. Stiles. Loomis.
 " 6. *Stockholm*. Nicander.
 " 7. *Brussels*. Mann. *Kendal*. Dalton.
 " 9. *Sagan*. Preus.
 " 13. *Stockholm*. Nicander.
 " 16. *St. Petersburg*. Euler.
 " 19. *St. Petersburg*. Euler.¹
 " 24. *Sagan*. Preus.
 " 30. *Mannheim*. Hemmer. *Sagan*. Preus.
 " 30. *Brussels*. Mann. *St. Petersburg*. Euler.
 " 30. *Stockholm*. Nicander.
- Oct. 1. *Mannheim*. Hemmer. *Stockholm*. Nicander.
 " 3. *Stockholm*. Nicander.
 " 4. *Sagan*. Preus. *St. Petersburg*. Euler.
 " 7. *Pyschminsk, Siberia*. Hermann.²
 " 9. *Mannheim*. Hemmer. *Kendal*. Dalton.
 " 12. *Stockholm*. Nicander.
 " 14. *Mannheim*. Hemmer.
 " 17. *Stockholm*. Nicander.
 " 18. *Keswick*. Dalton.
 " 30. *Stockholm*. Nicander.
 " 31. *Salem*. Holyoke. Lovering. *Kendal*. Dalton.
- Nov. 1. *Stockholm*. Nicander.
 " 4. *Sagan*. Preus.
 " 5. *Sagan*. Preus.
 " 6. *Sagan*. Preus.
 " 7. *Kendal*. Dalton.
 " 8. *Sagan*. Preus. *Kendal*. Dalton.
 " 9. *Mannheim*. Hemmer.
 " 9. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 10. *Salem*. Holyoke. Lovering.
 " 10. *Kendal*. Dalton.
 " 11. *Stockholm*. Nicander.
 " 12. *Sagan*. Preus. *Kendal*. Dalton.
 " 16. *Kendal*. Dalton.
 " 17. *Pyschminsk, Siberia*. Hermann.
 " 26. *Sagan*. Preus.
 " 27. *Kendal*. Dalton.
 " 28. *Stockholm*. Nicander.
 " 29. *Pyschminsk*. Hermann. *Kendal*. Dalton.
 " 29. *Stockholm*. Nicander.
 " 30. *Kendal*. Dalton.
- Dec. 9. *Stockholm*. Nicander.
 " 10. *Stockholm*. Nicander.
 " 12. *Stockholm*. Nicander.
 " 25. *Kendal*. Dalton.
 " 26. *Stockholm*. Nicander.
 " 26. *Pyschminsk*. Hermann.

¹ Nova Acta. Sci. Acad. Petrop. VIII.¹ Ephem. Soc. Met. Palat. 1790.² Ephem. Soc. Met. Palat. 1790.

- Dec. 28. *Kendal*. Dalton.
 " 30. *Sagan*. Preus.
- 1791.
- Jan. 1. *Stockholm*. Nicander.
 " 6. *Salem*. Holyoke. Lovering.
 " 6. *Kendal*. Dalton.
 " 6. *Pyschminsk, Siberia*. Hermann.
 " 6. *Brussels*. Mann.
 " 6. *Sagan*. Preus. *Stockholm*. Nicander.
 " 7. *Sagan*. Preus. *Stockholm*. Nicander.
 " 9. *Sagan*. Preus.
 " 12. *Salem*. Holyoke. Lovering.
 " 12. *Pyschminsk, Siberia*. Hermann.
 " 13. *Pyschminsk, Siberia*. Hermann.
 " 20. *Mannheim*. Hemmer.
 " 25. *Mannheim*. Hemmer.
 " 28. *Sagan*. Preus.
 " 29. *Sagan*. Preus.
- Feb. 21. *Ratisbon*. Heinrich.
 " 24. *Sagan*. Preus.
 " 25. *Kendal*. Dalton.
 " 27. *Sagan*. Preus.
- Mar. 2. *Sagan*. Preus.
 " 3. *Kendal*. Dalton.
 " 5. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 7. *Kendal*. Dalton.
 " 20. *Mannheim*. Hemmer.
 " 22. *Salem*. Holyoke. Lovering.
 " 26. *Salem*. Holyoke. Lovering.
 " 26. *Kendal*. Dalton.
 " 29. *Kendal*. Dalton.
 " 31. *Stockholm*. Nicander.
- Apr. 1. *Salem*. Holyoke. Lovering.
 " 1. *Stockholm*. Nicander.
 " 3. *Kendal*. Dalton.
 " 4. *Stockholm*. Nicander. *Uhleaborg*. Julin.¹
 " 5. *Salem*. Holyoke. Lovering.
 " 13. *Mannheim*. Hemmer.
 " 18. *Sagan*. Preus.
 " 20. *Kendal*. Dalton.
 " 23. *Kendal*. Dalton.
 " 25. *Kendal*. Dalton.
- May 5. *Padua*. Toaldo and Chiminello.
 " 12. *Kendal*. Dalton.
 " 20. *Kendal*. Dalton.
 " 23. *Brussels*. Mann.
 " 26. *Mannheim*. Hemmer. *Brussels*. Mann.
- June 10. *Kendal*. Dalton.
 " 19. *Sagan*. Preus.
 " 26. *Brussels*. Mann.
- July 7. *Mannheim*. Hemmer.
 " 20. *Brussels*. Mann.
 " 22. *Salem*. Holyoke. Lovering.
 " 22. *New Haven*. Stiles. Loomis.
 " 23. *Salem*. Holyoke. Lovering.
 " 24. *Salem*. Holyoke. Lovering.
 " 28. *Salem*. Holyoke. Lovering.
- Aug. 15. *Stockholm*. Nicander.
 " 18. *Mannheim*. Hemmer.
 " 20. *Mannheim*. Hemmer.
- Sept. 5. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 8. *Kendal*. Dalton.
 " 11. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 13. *Kendal*. Dalton.
 " 15. *Mannheim*. Hemmer.
 " 17. *Pyschminsk, Siberia*. Hermann.
 " 19. *Stockholm*. Nicander.
 " 22. *Stockholm*. Nicander.
 " 24. *Stockholm*. Nicander.
 " 27. *Kendal*. Dalton.
 " 28. *Stockholm*. Nicander.
 " 28. *Brussels*. Mann. *Kendal*. Dalton.
 " 30. *Stockholm*. Nicander.
- Oct. 1. *Stockholm*. Nicander.
 " 2. *Munich*. Imhof.
 " 6. *Sagan*. Preus.
 " 15. *Kendal*. Dalton.
 " 19. *Kendal*. Dalton.
 " 20. *Kendal*. Dalton.
 " 21. *Brussels*. Mann.
 " 22. *Brussels*. Mann. *Kendal*. Dalton.
 " 23. *Sagan*. Preus. *Kendal*. Dalton.
 " 28. *Prague*. Strnad.
 " 29. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 31. *Kendal*. Dalton.
- Nov. 3. *Kendal*. Dalton.
 " 4. *Kendal*. Dalton.
 " 5. *Kendal*. Dalton.
 " 8. *Mannheim*. Hemmer.
 " 11. *Kendal*. Dalton.
 " 14. *Kendal*. Dalton.
 " 16. *Sagan*. Preus.
 " 17. *Kendal*. Dalton.
 " 18. *Brussels*. Mann. *Kendal*. Dalton.
 " 19. *Sagan*. Preus. *Stockholm*. Nicander.
 " 19. *Montreal*.¹

¹ Svenska Vetensk. Acad. XIV. 76. Voigt's Mag. fur. Phys. XI. 3. p. 109.

¹ Mem. Amer. Acad. II. 114.

- Dec. 13. *Kendal*. Dalton.
 " 17. *Stockholm*. Nicander.
 " 19. *Kendal*. Dalton.
 " 23. *Brussels*. Mann.
 " 26. *New Haven*. Stiles. Loomis.
 " 26. *Brussels*. Mann. *Kendal*. Dalton.
 " 27. *Salem*. Holyoke. Lovering.
 " 27. *New Haven*. Stiles. Loomis. *Sagan*. Preus.
 " 28. *Brussels*. Mann.
 " 29. *Brussels*. Mann.

1792.

- Jan. 9. *Kendal*. Dalton.
 " 16. *Sagan*. Preus.
 " 17. *Kendal*. Dalton.
 " 18. *Sagan*. Preus. *Kendal*. Dalton.
 " 24. *Montreal*.¹
 " 25. *Sagan*. Preus.
 " 30. *Brussels*. Mann.
 Feb. 5. *Stockholm*. Nicander.
 " 9. *Kendal*. Dalton.
 " 14. *Stockholm*. Nicander.
 " 16. *Stockholm*. Nicander.
 " 17. *Stockholm*. Nicander. *Kendal*. Dalton.
 " 24. *Stockholm*. Nicander.
 " 26. *Stockholm*. Nicander.
 " 28. *Stockholm*. Nicander.
 Mar. 2. *Kendal*. Dalton.
 " 5. *Mount St. Andex, Bavaria*. Hochholzer.
 " 12. *Stockholm*. Nicander.
 " 15. *Kendal*. Dalton.
 " 16. *Sagan*. Preus.
 " 19. *Sagan*. Preus.
 " 20. *Stockholm*. Nicander.
 " 25. *Sagan*. Preus.
 " 27. *Mannheim*. Hemmer.
 " 30. *Stockholm*. Nicander.
 " 31. *Mannheim*. Hemmer.
 Apr. 10. *Kendal*. Dalton. *Isserstädt*. Zeissing.
 " 10. *Sagan*. Preus. *Stockholm*. Nicander.
 " 10. *Montmorenci*. Cotte.²
 " 11. *Sagan*. Preus. *Stockholm*. Nicander.
 " 11. *Kendal*. Dalton.
 " 12. *Sagan*. Preus.
 " 13. *Mannheim*. Hemmer.
 " 14. *Sagan*. Preus.
 " 16. *Mannheim*. Hemmer. *Kendal*. Dalton.
 " 17. *Stockholm*. Nicander.

¹ Mém. Amer. Acad. II. 115.² Journ. de Phys. XL. 450.

- May 4. *Stockholm*. Nicander.
 " 6. *Kendal*. Dalton.
 " 7. *Stockholm*. Nicander.
 " 8. *Brussels*. Mann.
 " 9. *Sagan*. Preus.
 " 14. *Sagan*. Preus.
 " 15. *Mannheim*. Hemmer.
 " 20. *Brussels*. Mann.
 " 22. *Montmorenci*. Cotte.
 " 27. *Brussels*. Mann.
 June 2. *Sagan*. Preus.
 " 30. *Kendal*. Dalton.
 July 7. *Salem*. Holyoke. Lovering.
 " 11. *Salem*. Holyoke. Lovering.
 " 18. *Salem*. Holyoke. Lovering.
 " 19. *Brussels*. Mann.
 Aug. 2. *Mount St. Andex, Bavaria*. Hochholzer.
 " 4. *Kendal*. Dalton.
 " 17. *Mount St. Andex, Bavaria*. Hochholzer.
 " 23. *Kendal*. Dalton.
 " 27. *St. Petersburg*. Euler.¹
 Sept. 1. *Mannheim*. Hemmer.
 " 6. *Mannheim*. Hemmer.
 " 14. *Mannheim*. Hemmer.
 " 22. *Kendal*. Dalton.
 " 28. *Mannheim*. Hemmer.
 Oct. 2. *Stockholm*. Nicander.
 " 12. *Kendal*. Dalton.
 " 13. *Salem*. Holyoke. Lovering.
 " 13. *New Haven*. Stiles. Loomis. *Kendal*. Dalton.
 " 13. *New Haven*. Stiles. Loomis. *Sagan*. Preus.
 " 13. *Isserstädt*. Zeissing. *St. Petersburg*. Euler.
 " 13. *Marseilles*. St. Jacques. *Brussels*. Mann.
 " 14. *Salem*. Holyoke. Lovering.
 " 14. *Sagan*. Preus. *Kendal*. Dalton.
 " 15. *Sagan*. Preus.
 " 16. *Sagan*. Preus.
 " 17. *Sagan*. Preus.
 " 18. *Sagan*. Preus. *Kendal*. Dalton.
 " 19. *Stockholm*. Nicander.
 " 23. *Kendal*. Dalton.
 " 31. *Kendal*. Dalton.
 Nov. 7. *Stockholm*. Nicander.
 " 13. *Sagan*. Preus.
 " 14. *Sagan*. Preus.
 " 17. *Stockholm*. Nicander.
 " 29. *Kendal*. Dalton.
 Dec. 2. *Moscow*. Stritter.²

¹ Nova Acta. Sci. Acad. Petrop. X. 505.² Nova Acta. Sci. Acad. Petrop. X. 505.

- Dec. 7. *Keswick*. Dalton.
 " 12. *Padua*. Toaldo and Chiminello.
 " 13. *Moscow*. Stritter.
 " 15. *Salem*. Holyoke. Lovering.
 " 30. *Sagan*. Preus.
 1793.
 Jan. 11. *Kendal*. Dalton.
 " 12. *Salem*. Holyoke. Lovering. *Kendal*. Dalton.
 " 13. *Salem*. Holyoke. Lovering. *Kendal*. Dalton.
 " 14. *New Haven*. Stiles. Loomis.
 " 14. *Pyschminsk, Mt. Oural, Siberia*. Hermann.¹
 Feb. 8. *Kendal*. Dalton.
 " 12. *Kendal*. Dalton.
 " 15. *Kendal*. Dalton. Thompson.
 Mar. 5. *Kendal*. Dalton.
 " 6. *Kendal*. Dalton.
 " 13. *Cambridge*. Wigglesworth. Lovering.
 " 13. *Salem*. Holyoke. Lovering. *Kendal*. Dalton.
 " 30. *Kendal*. Dalton.
 Apr. 5. *Kendal*. Dalton.
 " 9. *Kendal*. Dalton.
 " 14. *Kendal*. Dalton.
 June 9. *Montmorenci*. Cotte.²
 Aug. 6. *Salem*. Holyoke. Lovering.
 " 26. *Montmorenci*. Cotte.
 " 28. *Salem*. Holyoke. Lovering.
 " 28. *St. Petersburg*. Euler.³
 Sept. 2. *Salem*. Holyoke. Lovering.
 " 2. *New Haven*. Stiles. Loomis.
 " 4. *Cambridge*. Wigglesworth. Lovering.
 Oct. 20. *St. Petersburg*. Euler.
 Nov. 8. *Isserstädt*. Zeissing.
 1794.
 Jan. 7. *G. Britain or Ireland*. Dalton.⁴
 " 22. *G. Britain or Ireland*. Dalton.
 Mar. 8. *G. Britain or Ireland*. Dalton.
 " 29. *G. Britain or Ireland*. Dalton.
 Apr. 2. *St. Petersburg*. Euler.⁵
 " 3. *St. Petersburg*. Euler.
 " 30. *Salem*. Holyoke. Lovering.
 " 30. *Montmorenci*. Cotte.⁶
 Nov. 11. *New Haven*. Stiles. Loomis.
 Dec. 8. *G. Britain or Ireland*. Dalton.
- Dec. 19. *G. Britain or Ireland*. Dalton.
 1795.
 Mar. 11. *St. Petersburg*. Euler.¹
 May 24. *Salem*. Holyoke. Lovering.
 Sept. 8. *G. Britain or Ireland*. Dalton.
 " 14. *G. Britain or Ireland*. Dalton.
 Oct. 3. *St. Petersburg*. Euler.
 " 14. *Salem*. Holyoke. Lovering.
 " 18. *G. Britain or Ireland*. Dalton.
 1796.²
 Feb. 6. *St. Petersburg*. Euler.
 Apr. 6. *Isserstädt*. Zeissing.
 1797.
 Jan. 22. *G. Britain or Ireland*. Dalton.
 Feb. 1. *G. Britain or Ireland*. Dalton.
 " 10. *St. Petersburg*. Euler.³
 " 18. *G. Britain or Ireland*. Dalton.
 " 27. *G. Britain or Ireland*. Dalton.
 " 28. *G. Britain or Ireland*. Dalton.
 Mar. 1. *G. Britain or Ireland*. Dalton.
 " 2. *G. Britain or Ireland*. Dalton.
 " 10. *G. Britain or Ireland*. Dalton.
 Apr. 24. *G. Britain or Ireland*. Dalton.
 Nov. 18. *G. Britain or Ireland*. Dalton.
 " 21. *G. Britain or Ireland*. Dalton.
 " 22. *G. Britain or Ireland*. Dalton.
 " 23. *G. Britain or Ireland*. Dalton.
 1798.
 Jan. 15. *Montmorenci*. Cotte.
 Feb. 10. *Abo, Finland*. Hällström.⁴
 1799.
 Jan. 22. *St. Petersburg*. Euler.⁵
 Feb. 10. *Scotland*. Graham. Boué.⁶
 " 25. *Eckwarden*. Brandes.⁷
 July 23. *Paris*. Bouvard.⁸
 Sept. 3. *G. Britain or Ireland*. Dalton.
 " 3. *Paris*. Bouvard.

¹ Nova Acta Sci. Acad. Petrop. XI. 562.² Journ. de Phys. XLIII. 46, &c.³ Nova Acta Sci. Acad. Petrop. XI. 562.⁴ Met. Observ. and Essays, p. 218.⁵ Nova Acta Sci. Acad. Petrop. XII. 524.⁶ Journ. de Phys. XLIV. 297.¹ Nova Acta Sci. Acad. Petrop. XIII. 582.² None in England or the United States of America this year.³ Nova Acta Sci. Acad. Petrop. XIV. 795.⁴ Gilbert Annal. XVIII. 74.⁵ Nova Acta Sci. Acad. Petrop. XV. 563.⁶ Trans. Roy. Soc. Edinb. V. 25.⁷ Gilbert Annal. XXIV. 363.⁸ Journ. de Phys.

- Oct. 25. *G. Britain or Ireland.* Dalton.
1800.
- Nov. 2. *G. Britain or Ireland.* Dalton.
" 7. *G. Britain or Ireland.* Dalton.
- Dec. 10. *G. Britain or Ireland.* Dalton.
- 1801.
- Jan. 4. *G. Britain or Ireland.* Dalton.
" 25. *G. Britain or Ireland.* Dalton.
- Feb. 22. *G. Britain or Ireland.* Dalton.
- Oct. 6. *G. Britain or Ireland.* Dalton.
" 11. *Abo.* Hällström.¹ Muncke² and Quetelet.³
" 12. *Abo.* Hällström. Muncke and Quetelet.
" 15. *Abo.* Hällström. Boué.
- Dec. 5. *Edinburgh.* Brewster.⁴ Muncke and Quetelet.
- 1802.
- Jan. 2. *Sweden.* Hällström. Muncke and Quetelet.
Feb. 3. *G. Britain or Ireland.* Dalton.
Mar. 6. *Sweden.* Hällström. Muncke and Quetelet.
" 29. *G. Britain or Ireland.* Dalton.
" 29. *Sweden.* Hällström. Muncke and Quetelet.
" x. *St. Petersburg.* Euler.⁵
- Apr. 10. *Sweden.* Hällström. Boué.
" 16. *Sweden.* Hällström. Muncke and Quetelet.
" 29. *Sweden.* Hällström. Muncke and Quetelet.
- June 16. *Salem.* Holyoke. Lovering.
July 1. *New Haven.* Dwight. Loomis.
- Sept. 19. *Schaageragt. Lat. 57.° Long. 8.°* Horner.
" 19. Muncke and Quetelet.
" 27. *G. Britain or Ireland.* Dalton.
- Dec. 13. *G. Britain or Ireland.* Dalton.
- 1803.
- Jan. 13. *New Haven.* Dwight. Loomis.
Mar. 19. *Salem.* Holyoke. Lovering.
" 19. *Paris.* Bouvard.
" 19. *New Haven.* Leffingwell. Loomis.
- Apr. 12. *G. Britain or Ireland.* Dalton.
" 13. *G. Britain or Ireland.* Dalton.
- Aug. 23. *Salem.* Holyoke. Lovering.
- Sept. 11. *G. Britain or Ireland.* Dalton.

¹ Gilbert. Ann. XVIII. 75.² Gehler. Physikal. Wörterbuch. VII. 138³ Nouveaux Mém. de l'Acad. Brux. XII. 61.⁴ Edin. Journ. Sci. V. 74.⁵ Mém. de l'Acad. St. Petersb. III. 346.

- Sept. 17. *Salem.* Holyoke. Lovering.
" 17. *G. Britain or Ireland.* Dalton.
" 19. *Salem.* Holyoke. Lovering.
" 19. *New Haven.* Leffingwell. Loomis.
- Oct. 12. *G. Britain or Ireland.* Dalton.
- Dec. 3. *G. Britain or Ireland.* Dalton.

1804.

- Feb. 2. *G. Britain or Ireland.* Dalton.
- Mar. 29. *Paris.* Bouvard.
- Apr. 1. *Salem.* Holyoke. Lovering.
" 1. *New Haven.* Day. Loomis.
" 1. *G. Britain or Ireland.* Dalton.
" 4. *G. Britain or Ireland.* Dalton.
- May 2. *Salem.* Holyoke. Lovering.
" 2. *New Haven.* Day. Loomis.
" 2. *G. Britain or Ireland.* Dalton.
" 12. *Salem.* Holyoke. Lovering.
- Sept. 7. *St. Petersburg.* Inochodzow.¹
- Oct. 12. *Schnepfenthal.*² Ausfeld.
" 22. Muncke and Quetelet.
" 22. *St. Petersburg.* Inochodzow.
" 22. *Paris.* Bouvard.
" 22. *Berlin.* Wrede. Halle. Gilbert.³
" 22. *Leipsic.* Mollweide. London.⁴
" 22. *Paris.* Lamark. Quetelet.
" 22. *Dorpat.* Parrot.⁵
" 22. *Petersburg, Königsberg, Brügge, &c.* Muncke.
- Nov. 5. *Salem.* Holyoke. Lovering.
" 22. *G. Britain or Ireland.* Dalton.
" 25. *G. Britain or Ireland.* Dalton.

1805.

- Jan. 1. *St. Petersburg.* Inochodzow.
" 1. *Carlisle.* Pitt. Muncke.
" 1. *G. Britain or Ireland.* Dalton. Quetelet.
" 4. *Salem.* Holyoke. Lovering.
- Feb. 23. *G. Britain or Ireland.* Dalton.
" 23. *Manchester.* Muncke and Quetelet.⁶
- Mar. 26. *Carlisle.* Pitt. Quetelet.⁷
- Apr. 30. *G. Britain or Ireland.* Dalton.
- May 27. ——— Muncke.⁸ Quetelet.

¹ Mém. de l'Acad. St. Petersb. III. 436.² Gilbert. Ann. XIX. 108.³ Gilbert. Ann. XVIII. 252. XIX. 106.⁴ Phil. Trans. 1805, Pt. I. Meteor. Journ. p. 21.⁵ Edin. New Phil. Journ. I. 157.⁶ Nicholson's Journ. &c. X. 303.⁷ Gilbert. Ann. XIX. 219.⁸ Gehler. Physikal. Wörterbuch, VII. 138.

- May 28. ——— Muncke. Quetelet.
 Aug. 29. *Milnegraden*. Muncke. Quetelet.¹
 Sept. 15. *Salem*. Holyoke. Lovering.
 " 15. *New Haven*. Day. Loomis.
 " 21. ——— Muncke. Quetelet.
 " 22. ——— Muncke. Quetelet.
 " 24. *New Haven*. Day. Loomis.
 " 24. *St. Petersburg*. Inochodzow.² *Paris*. Bouvard.
 " 24. *G. Britain or Ireland*. Dalton.
 Oct. 13. ——— Muncke. Quetelet.
 " 20. ——— Muncke. Quetelet.
 " 22. ——— Muncke. Quetelet.
 Nov. 16. ——— Muncke. Quetelet.
 " 18. *Salem*. Holyoke. Lovering.
 " 18. ——— Muncke. Quetelet.
 " 19. ——— Muncke. Quetelet.
 " 20. ——— Muncke. Quetelet.
 " 25. ——— Muncke. Quetelet.
 " 26. ——— Muncke. Quetelet.
 Dec. 26. ——— Muncke. Quetelet.

1806.

- Jan. 11. *New Haven*. Day. Loomis.
 Feb. 7. *G. Britain or Ireland*. Dalton.
 Mar. 16. *New Haven*. Day. Loomis.
 Apr. 13. *Salem*. Holyoke. Lovering.
 Aug. 9. *St. Petersburg*. Inochodzow.
 Sept. 10. *G. Britain or Ireland*. Dalton.
 Oct. 2. *Eckwarden*. Brandes.³
 " 5. *Salem*. Holyoke. Lovering.
 Nov. 2. *G. Britain or Ireland*. Dalton.
 " 2. *Eckwarden*. Brandes. Muncke and Quetelet.
 Dec. 22. *Halle*. Gilbert. Muncke.
 " 22. *Paris*. Quetelet.⁴

1807.

- Jan. 13. *Halle*. Gilbert. Muncke and Quetelet.⁵
 Mar. 26. *Border of Norway and Sweden*. Hausmann.⁶
 " 26. Muncke and Quetelet.
 Apr. 11. *New Haven*. Day. Loomis.
 " 15. *Lat. 66° N. Long. 6° W.* Scoresby.⁷
 May 8. *New Haven*. Day. Loomis.

¹ Ferussac. Bull. Univ. IX.² Mém. de l'Acad. St. Petersb. IV. 490.³ Gilbert. Ann. XXIV. 363.⁴ Gilbert. Ann. XXIV. 363. XXIX. 428.⁵ Gilbert. Ann. XXIV. 365.⁶ Reise Durch. Skandin. V. 259.⁷ Arctic Regions. I. 417.

1808.

- Mar. 8. *G. Britain or Ireland*. Dalton.
 July 23. *St. Petersburg*. Petrow.¹
 " 31. *Road from Leipsic to Halle*. Gilbert.²

1809.

- Jan. 31. *Salem*. Holyoke. Lovering.
 Mar. 19. *Lat. 59° N. Long. 1° W.* Scoresby.
 June 13. *Salem*. Holyoke. Lovering.

1810.

- Apr. 4. *Lat. 71° N. Long. 3° E.* Scoresby.

1811.

- Mar. 28. *Lat. 67° N. Long. 2° E.* Scoresby.
 " 29. *Lat. 67° N. Long. 3° E.* Scoresby.
 " 30. *Lat. 68° N. Long. 4° E.* Scoresby.
 " 31. *Lat. 67° N. Long. 4° E.* Scoresby.

1814.

- Jan. 31. *Salem*. Holyoke. Lovering.
 Apr. 7. *Tottenham*. Howard. Muncke and Quetelet.
 " 14. *G. Britain or Ireland*. Dalton.
 " 17.⁴ *Salem*. Holyoke. Lovering.
 " 17. *New Haven*. Day. Loomis.
 " 17. *Cincinnati*.⁵ Drake.
 Sept. 10.⁶ *G. Britain or Ireland*. Dalton.
 " 11. *Salem*. Holyoke. Lovering.
 " 11. *New Haven*. Day. Loomis.
 " 11. *Cincinnati*. Drake.
 " 11. *G. Britain or Ireland*. Dalton.
 " 11. *Glasgow*. Dobbie.⁷
 Oct. 22. *Berne*. Studer.⁸

¹ Mém. de l'Acad. St. Petersb. VI. 682.² Gilbert. Ann. XXX. 243. Doubtful whether this was an aurora.³ Gilbert. Ann. LI. 72.⁴ In Gilbert. Ann. LI. 72, an aurora is mentioned as occurring on April 11th or 17th.⁵ Drake's Picture of Cincinnati. pp. 245-6.⁶ The aurora was constantly observed at York Factory from Aug. 31st to Sept. 28th. Smith. Contrib. VIII. Record of Auroral Phenom. &c. Force. p. 9. Chappel remarks: "During our stay in Hudson's Bay from Aug. 31st to Sept. 28th, 1814, and upon our voyage home from thence, our nights were constantly illuminated by brilliant auroras." p. 136.⁷ Phil. Mag. LVI. 175.⁸ Mitth. Naturforsch. Gesellsch. Bern. 1855. p. 45.

1815.¹

- Apr. 5. *Lat. 69° N. Long. 2°*. Scoresby.
 " 6. *Lat. 70° N. Long. 3°*. Scoresby.
 " 7. *Lat. 70° N. Long. 4°*. Scoresby.

1816.

- Sept. 15. *G. Britain or Ireland*. Dalton.
 " 24. *Glasgow*. Dobbie.²
 " 26. *Salem*. Holyoke. Lovering.
 Oct. 7. *Christiania*. Hansteen.³
 " 7. Muncke, Quetelet, and Biot.⁴

1817.

- Feb. 6. *Paris*. Muncke. Quetelet.⁵
 " 8. *Leipsic*. Mollweide.⁶ ——— Schubler.⁷
 " 8. *G. Britain or Ireland*. Dalton.
 " 8. *Sunderland*. Pensey.⁸ *Gosport*. Burney.
 " 8. *London, Leeds, and Derby*.⁹
 " 8. *Berne*. Watt. Studer.¹⁰
 " 8. *Christiania*. Hansteen. Biot. *Germany*.¹¹
 " 8. *Paris*. Muncke and Quetelet.
 " 9. *Königsberg*. Muncke and Quetelet.
 " 9. *Leipsic*. Mollweide.¹²
 " 11. *Stockholm*. Muncke and Quetelet.
 " 18. *Hamm*. Gronau. Muncke and Quetelet.¹³
 " 20. *Walthamstow*.¹⁴
 Mar. 4. *Carlsruhe*. Studer.
 " 5. *Gordon Castle*. Hoy. *Glasgow*.¹⁵
 " 15. *Stockholm*.¹⁶
 " 16. *Stockholm*.¹⁷
 " 29. *Atlantic Ocean*. O'Reilly.¹⁸
 " 30. *Atlantic Ocean*. O'Reilly.

¹ Henderson says of Iceland in the winter of 1814-15, "that the aurora was seen almost every clear night in winter. p. 577.

² Phil. Mag. LVI. 175.

³ Schweigg. Journ. XVI. 196. Edin. Phil. Journ. XII. 88.

⁴ Journ. de Phys. XCIII. 15.

⁵ Ann. Chem. et Phys. VI. 443.

⁶ Gilbert. Ann. LV. 248.

⁷ Journ. de Phys. LXXXV. 29. Schweigg. Journ. XIX. 1.

⁸ Annals of Phil. IX. 250 and XI. 168.

⁹ Phil. Mag. XLIX. 223.

¹⁰ Bib. Univ. IV. 158.

¹¹ Phil. Mag. XLIX. 236. Edin. Phil. Journ. XII. 88.

¹² Gilbert. Ann. LV. 248.

¹³ Berlin Gesellsch Naturforsch. 1820, p. 128.

¹⁴ Phil. Mag. XLIX. 237.

¹⁵ Phil. Mag. LI. 422.

¹⁶ Amer. Journ. Sci. XVI.

¹⁷ Amer. Journ. Sci. XVI.

¹⁸ Voyage to Davis's Straits, &c. p. 29.

- Apr. 5. *Zetland*. Scoresby.
 " 8. *Near Davis's Straits*. O'Reilly.
 " 8. *Lat. 65° N. Long. 1° E.* Scoresby.
 " 16. *Near Davis's Straits*. O'Reilly.
 " 22. *Lat. 62° N. Long. ½° W.* Scoresby.
 " 23. *Lat. 62° N. Long. 2° E.* Scoresby.
 Aug. 27. *Unst, Shetland*. Biot, Muncke, and Quetelet.¹
 Sept. 6. *Unst*. Biot.²
 " 19. *Glasgow*. Dupin. Muncke and Quetelet.³
 " 19. *Gosport*. Burney.⁴
 Oct. 17. *Gosport*. Burney.⁵

1818.

- Feb. 5. *Gordon Castle*. Hoy.⁶
 May 20. *Lat. 77° N. Long. 1°*. Scoresby.
 " 23. *Williamstown, Mass.* Dewey.⁷
 " 28. *Williamstown, Mass.* Dewey.
 June 6. *Williamstown, Mass.* Dewey.
 " 6. *New Haven*. Day. Loomis.
 " 7. *Williamstown, Mass.* Dewey.
 " 8. *Williamstown, Mass.* Dewey.
 " 9. *Williamstown, Mass.* Dewey.
 " 10. *Williamstown, Mass.* Dewey.
 Sept. 20. *New Haven*. Day. Loomis.
 " 23. *At sea, Lat. 66° N. Long. 59° W.* Robertson.⁸
 " 24. *Williamstown, Mass.* Dewey.
 " 25. *Williamstown, Mass.* Dewey.
 " 26. *Boston*. Hale. Lovering.⁹
 " 26. *New Haven*. Day. Loomis.
 " 26. *At sea, Lat. 65° N. Long. 61° W.* Robertson.
 " 27. *Salem*. Holyoke. Lovering.
 " 28. *At sea, Lat. 65° N. Long. 63° W.* Robertson.
 " 29. *At sea, Lat. 65° N. Long. 63° W.* Robertson.
 Oct. 1. *At sea, Lat. 62° N. Long. 63° W.* Robertson.
 " 6. *Williamstown, Mass.* Dewey.
 " 6. *At sea, Lat. 60° N. Long. 56° W.* Robertson.
 " 7. *Williamstown, Mass.* Dewey.
 " 8. *Lat. 59° N. Long. 50° W.* Robertson.
 " 17. *Lat. 61° N. Long. 25° W.* Robertson.
 " 26. *G. Britain or Ireland*. Dalton.
 " 31. *G. Britain or Ireland*. Dalton.

¹ Journ. de Phys. XCIII. 15.

² Journ. de Savans. 1820.

³ Phil. Mag. LI. 47. Bib. Univ. VII. 68.

⁴ Annals of Phil. XI. 168.

⁵ Annals of Phil. XIV. 395.

⁶ Phil. Mag. LI. 422.

⁷ Mem. Amer. Acad. IV. 391.

⁸ Ross's Voyage of Discovery, &c. Appendix, p. 120.

⁹ Mem. Amer. Acad. IX. 119.

- Oct. 31. Muncke, Arago, and Quetelet.¹
 " 31. *Near Sunderland.* Rennie.²

1819.³

- Feb. 1. *Paris?* Arago.
 " 19. *Boston.* Hale. Lovering.
 " 19. *Salem.* Holyoke. Lovering.
 " 19. *New Haven.* Day. Loomis. *Aberdeenshire.*⁴
 Mar. 25. *Boston.* Hale. Lovering.
 " 25. *Salem.* Holyoke. Lovering.
 " 26. *Salem.* Holyoke. Lovering.
 Aug. 4. *At sea, Lat. 59° N. Long. 59° W.* Franklin.⁵
 Sept. 20.⁶ *At sea, Lat. 74° N. Long. 111° W.* Parry.⁷
 " 24. *Upper Portage, Lat. 55° N. L'g. 94°.* Franklin.
 Oct. 3. *Zurich.* Gilbert.⁸
 " 6. ——— Gilbert.⁹
 " 7. *Flensburg, Sweden.* Boué.¹⁰
 " 8. *Lake Winnepeg.* Franklin.
 " 12. *Boston.* Hale. Lovering.
 " 12. *New Haven.* Day. Loomis.
 " 12. *G. Britain or Ireland.* Dalton.
 " 13. *Cedar Lake, Lat. 53° N. L'g. 100°.* Franklin.
 " 13. *Winter Harbor.* Parry.
 " 15. *Suffolk.* Forster.
 " 15. *Barton Mills.* Muncke, Arago, and Quetelet.¹¹
 " 17. *Gosport.* Burney. *Scotland.* Forster.¹²
 " 17. *G. Britain or Ireland.* Dalton.
 " 17. *Near Diss.* Muncke, Arago, and Quetelet.¹³
 " 20. *Winter Harbor.* Parry. Arago.
 " 27. *Winter Harbor.* Fisher. Parry.
 " 31. *Gosport.* Burney.¹⁴
 Nov. 9. *Winter Harbor.* Parry.

¹ Oeuvres de Arago. IV. 607. Annals of Phil. XIII. 71.² Ann. Chem. et Phys. X. 123..³ Auroras were seen at Williamstown, by Dewey, on fourteen evenings during this year, six of which were in October.⁴ Quart. Journ. Sci. VII. 188.⁵ Narrative of a Journey, &c. p. 12.⁶ Hood states that the number of auroras visible at Cumberland House in Lat. 54° N. and Long. 102° W. was, in September, 1819, two; in October, three; in November, three; in December, five; in January, 1820, five; in February, seven; in March, sixteen; in April, fifteen; and in May, eleven.⁷ Parry's Journal of a voyage, p. 93.⁸ Gilbert. Ann. LXVI. 422.⁹ Gilbert. Ann. LXVI. 423.¹⁰ Quart. Journ. Sci. IX. 210.¹¹ Phil. Mag. LIV. 390.¹² Annals of Phil. XIV. 395.¹³ Phil. Mag. LIV. 390.¹⁴ Ann. Phil. XIII. 444.

- Nov. 12. *Winter Harbor.* Parry. Arago.
 " 13. *Boston.* Hale. Lovering.
 " 13. *Salem.* Holyoke. Lovering.
 " 13. *New Haven.* Day. Loomis.
 " 13. *Winter Harbor.* Parry. Arago.
 " 14. *Salem.* Holyoke. Lovering.
 " 15. *Cumberland House.* Franklin.
 " 15. *Winter Harbor.* Parry. Arago.
 " 16. *Winter Harbor.* Parry. Arago.
 " 17. *Winter Harbor.* Parry. Arago.¹
 " 18. *Winter Harbor.* Parry. Arago.
 " 23. *Cumberland House.* Franklin.
 " 26. *Cumberland House.* Franklin.
 " 26. *Winter Harbor.* Parry. Arago.
 " 28. *Cumberland House.* Franklin.
 Dec. 6. *Cumberland House.* Franklin.
 " 8. *Cumberland House.* Franklin.
 " 9. *Cumberland House.* Franklin.
 " 12. *Cumberland House.* Franklin.
 " 14. *Winter Harbor.* Parry.
 " 14. Muncke, Arago, and Quetelet.
 " 14. *G. Britain or Ireland.* Dalton.
 " 17. *Winter Harbor.* Parry. Arago and Quetelet.
 " 19. *Winter Harbor.* Parry. Arago and Quetelet.
 " 20. *Winter Harbor.* Parry. Arago and Quetelet.

1820.

- Jan. 5. ——— Arago.²
 " 8. *Winter Harbor.* Parry. Arago.
 " 11. *Winter Harbor.* Parry. Arago.
 " 14. *G. Britain or Ireland.* Dalton.
 " 14. Arago, Muncke, and Quetelet.
 " 14. *Cumberland House.* Franklin.
 " 15. *Winter Harbor.* Parry.³
 " 19. *Cumberland House.* Franklin.
 " 20. *Cumberland House.* Franklin.
 " 27. *Cumberland House.* Franklin.
 Feb. 2. *Cumberland House.* Franklin.
 " 3. *Winter Harbor.* Parry. Arago.
 " 8. *Cumberland House.* Franklin.
 " 8. *Winter Harbor.* Parry. Arago.
 " 9. *Paris?* Arago.
 " 10. *Cumberland House.* Franklin.
 " 10. *Winter Harbor.* Parry. Arago.
 " 11. *G. Britain or Ireland.* Dalton. Arago.
 " 12. *Cumberland House.* Franklin.
 " 19. *Cumberland House.* Franklin. Arago.

¹ Fisher's Journal of a voyage, &c. p. 156.² Probably a mistake for Jan. 15.³ Edin. Phil. Journ. V. 204.

- Feb. 29. *Winter Harbor.* Parry.
 " 29. *Cumberland House.* Parry.
 Mar. 4. *Cumberland House.* Franklin.
 " 4. *Fort Isle la Croise.* Franklin.
 " 4. *Winter Harbor.* Parry.
 " 5. *Cumberland House.* Franklin.
 " 6. *Cumberland House.* Franklin.
 " 7. *Cumberland House.* Franklin.
 " 8. *Winter Harbor.* Parry. Arago.
 " 8. *Cumberland House.* Franklin.
 " 9. *Cumberland House.* Franklin.
 " 10. *Cumberland House.* Franklin.
 " 11. *Cumberland House.* Franklin.
 " 12. *Cumberland House.* Franklin.
 " 14. *Cumberland House.* Franklin.
 " 15. *Cumberland House.* Franklin.
 " 16. *Cumberland House.* Franklin.
 " 17. *Cumberland House.* Franklin.
 " 18. *Cumberland House.* Franklin.
 " 19. *Cumberland House.* Franklin.
 Apr. 2.¹ *Cumberland House.* Richardson.
 " 3. *Boston.* Hale. Lovering.
 " 3. *Salem.* Holyoke. Lovering.
 " 3. *Cambridge, N. Y.* Joslin.
 " 3. *Fort Chippewyan.* Franklin. Arago.
 " 3. *East Greenland.* Scoresby.²
 " 3. *Muncke and Quetelet.*
 " 6. *Cumberland House.* Richardson.
 " 7. *Cumberland House.* Richardson.
 " 10. *Cumberland House.* Richardson.
 " 12. *Cumberland House.* Richardson.
 " 14. *Cumberland House.* Richardson.
 " 15. *Cumberland House.* Richardson.
 " 16. *Cumberland House.* Richardson.
 " 17. *Fort Chippewyan.* Franklin.
 " 19. *Fort Chippewyan.* Franklin.
 " 19. *Cumberland House.* Franklin.
 " 20. *Cumberland House.* Franklin.
 " 27. *Cumberland House.* Franklin.
 " 29. *Cumberland House.* Franklin.
 " 30. *Cumberland House.* Franklin.
 May 1. *New Haven.* Day. Loomis.
 " 1. *Cumberland House.* Franklin.
 " 2. *Cumberland House.* Franklin.
 " 2. *Fort Chippewyan.* Franklin.
 " 3. *Cumberland House.* Franklin.
- May 5. *Cumberland House.* Franklin.
 " 12. *Cumberland House.* Franklin.
 " 18. *Cumberland House.* Franklin.
 " 23. *Cumberland House.* Franklin.
 " 28. *Cumberland House.* Franklin.
 June 16. *Fort Chippewyan.* Franklin.
 Aug. 14. *Hunter's Portage.* Franklin.
 " 18. *Near Fort Enterprize.* Franklin.
 Sept. 12. *At sea, Lat. 68° N. Long. 66° W.* Parry.
 " 13. *At sea, Lat. 68° N. Long. 60° W.* Fisher.³
 " 17. *Akur Eyri in Iceland.* Thienemann.²
 Oct. 2. *At sea, Lat. 57° N. Long. 49° W.* Parry.
 " 3.³ *At sea, L. 57° N. Lg. 45° W.* Parry. Arago.⁴
 " 12. *Akur Eyri.* Thienemann.
 " 13. *At sea, L. 60° N. Lg. 25° W.* Parry. Arago.
 " 27. *Akur Eyri.* Thienemann.
 " 31. *Akur Eyri.* Thienemann.
 Nov. 6. *Akur Eyri.* Thienemann.
 " 9. *Akur Eyri.* Thienemann.
 " 11. *Akur Eyri.* Thienemann.
 " 13. *Fort Enterprize.* Richardson.
 " 14. *Akur Eyri.* Thienemann.
 " 24. *Fort Enterprize.* Richardson.
 " 24. *Akur Eyri.* Thienemann.
 " 26. *Fort Enterprize.* Richardson.
 " 26. *Akur Eyri.* Thienemann.
 " x. *St. Petersburg.* Muncke.⁵
 Dec. 1. *Fort Enterprize.* Richardson
 " 2. *Akur Eyri.* Thienemann.
 " 3. *Akur Eyri.* Thienemann.
 " 4. *Akur Eyri.* Thienemann.
 " 4. *Fort Enterprize.* Richardson.
 " 4. *England.* Forster.⁶ Arago.
 " 5. *Fort Enterprize.* Richardson.
 " 5. *Akur Eyri.* Thienemann.
 " 6. *Fort Enterprize.* Richardson.
 " 7. *Fort Enterprize.* Richardson.
 " 8. *Fort Enterprize.* Richardson.
 " 9. *Fort Enterprize.* Richardson.

¹ Edin. Phil. Journ. V. 204.² Gilbert. Ann. LXXV. 64.³ Von Wrangel remarks, Nov. 20, 1820, of Nijnei Kolymsk, Lat. 69° N. and Long. 161° E: "the beauty of the varied forms of the aurora, seen on the deep azure of the clear northern sky, was a source of unwearied enjoyment to us almost every evening." Narrative of an Expedition, &c. p. 83. Force, p. 80.⁴ Parry states that during his passage across the Atlantic, in October, 1820, the aurora occurred almost every night. Journ. of a Voyage, p. 306. Force, p. 7.⁵ Ann. Chem. et Phys. XV. 424.⁶ Recherches about Atmosph. Phenom. 219.¹ The corruscations of the aurora were very brilliant at Fort Chippewyan, Lat. 59° N. Long. 111° W., almost every evening of the first week of April. Franklin, I. 143.² Journ. of a Voyage, &c. p. 31.

Dec. 10.	<i>Fort Enterprize.</i>	Richardson.
" 11.	<i>Fort Enterprize.</i>	Richardson.
" 11.	<i>Akur Eyri.</i>	Thienemann.
" 12.	<i>Fort Enterprize.</i>	Richardson.
" 13.	<i>Fort Enterprize.</i>	Richardson.
" 14.	<i>Fort Enterprize.</i>	Richardson.
" 17.	<i>Fort Enterprize.</i>	Richardson.
" 18.	<i>Fort Enterprize.</i>	Richardson.
" 19.	<i>Fort Enterprize.</i>	Richardson.
" 20.	<i>Fort Enterprize.</i>	Richardson.
" 21.	<i>Fort Enterprize.</i>	Richardson.
" 22.	<i>Fort Enterprize.</i>	Richardson.
" 23.	<i>Fort Enterprize.</i>	Richardson.
" 23.	<i>Akur Eyri.</i>	Thienemann.
" 25.	<i>Fort Enterprize.</i>	Richardson.
" 26.	<i>Fort Enterprize.</i>	Richardson.
" 26.	<i>Akur Eyri.</i>	Thienemann.
" 27.	<i>Fort Enterprize.</i>	Richardson.
" 27.	<i>Akur Eyri.</i>	Thienemann.
" 28.	<i>Fort Enterprize.</i>	Richardson.
" 29.	<i>Akur Eyri.</i>	Thienemann.
" 29.	<i>Fort Enterprize.</i>	Richardson.
" 30.	<i>Akur Eyri.</i>	Thienemann.
" 30.	<i>Fort Enterprize.</i>	Richardson.
" 31.	<i>Fort Enterprize.</i>	Richardson.

1821.

Jan. 10.	<i>Fort Enterprize.</i>	Hood. ¹
" 11.	<i>Fort Enterprize.</i>	Hood.
" 12.	<i>Fort Enterprize.</i>	Franklin.
" 14.	<i>Fort Enterprize.</i>	Franklin.
" 16.	<i>Fort Enterprize.</i>	Franklin.
" 20.	<i>Fort Enterprize.</i>	Franklin.
" 21.	<i>Fort Enterprize.</i>	Franklin.
" 22.	<i>Fort Enterprize.</i>	Franklin.
" 23.	<i>Fort Enterprize.</i>	Franklin.
" 24.	<i>Fort Enterprize.</i>	Franklin.
" 25.	<i>Fort Enterprize.</i>	Franklin.
" 27.	<i>Fort Enterprize.</i>	Franklin.
" 28.	<i>Fort Enterprize.</i>	Franklin.
" 29.	<i>Fort Enterprize.</i>	Franklin.
" 30.	<i>Fort Enterprize.</i>	Franklin.
" 31.	<i>Fort Enterprize.</i>	Franklin.
Feb. 1.	<i>Fort Enterprize.</i>	Franklin.
" 2.	<i>Fort Enterprize.</i>	Franklin.

¹ Hood states that the number of auroras visible at Fort Enterprize, in Lat. 64° N. and Long. 113° W., were, in August, 1820, ten; in September, six; in October, seven; in November, eight; in December, twenty; in January, 1821, seventeen; in February, twenty-two; in March, twenty-five; in April, eighteen; and in May, nine. Franklin, I. 580.

Feb. 3.	<i>Fort Enterprize.</i>	Franklin.
" 4.	<i>Fort Enterprize.</i>	Franklin.
" 5.	<i>Fort Enterprize.</i>	Franklin.
" 6.	<i>Fort Enterprize.</i>	Franklin.
" 7.	<i>Fort Enterprize.</i>	Franklin.
" 8.	<i>Fort Enterprize.</i>	Franklin.
" 9.	<i>Fort Enterprize.</i>	Franklin.
" 10.	<i>Fort Enterprize.</i>	Franklin.
" 11.	<i>Fort Enterprize.</i>	Franklin.
" 12.	<i>Fort Enterprize.</i>	Franklin.
" 13.	<i>Fort Enterprize.</i>	Franklin.
" 14.	<i>Fort Enterprize.</i>	Franklin.
" 15.	<i>Fort Enterprize.</i>	Franklin.
" 18.	<i>Fort Enterprize.</i>	Franklin.
" 19.	<i>Fort Enterprize.</i>	Franklin.
" 20.	<i>Fort Enterprize.</i>	Franklin.
" 22.	<i>Fort Enterprize.</i>	Franklin.
" 23.	<i>Fort Enterprize.</i>	Franklin.
" 24.	<i>Fort Enterprize.</i>	Franklin.
" 26.	<i>Fort Enterprize.</i>	Franklin.
" 27.	<i>Fort Enterprize.</i>	Franklin.
Mar. 1.	<i>Fort Enterprize.</i>	Franklin.
" 1.	<i>Ice. Lt. 69° N. Lg. 168° E.</i>	Von Wrangel. ¹
" 1.	<i>Nijnei Kolymsk.</i> ²	Cochrane.
" 2.	<i>Ice.</i>	Von Wrangel. Force.
" 3.	<i>Fort Enterprize.</i>	Franklin.
" 4.	<i>Fort Enterprize.</i>	Franklin.
" 5.	<i>Fort Enterprize.</i>	Franklin.
" 8.	<i>Fort Enterprize.</i>	Franklin.
" 9.	<i>Fort Enterprize.</i>	Franklin.
" 11.	<i>Fort Enterprize.</i>	Franklin.
" 12.	<i>Fort Enterprize.</i>	Franklin.
" 13.	<i>Fort Enterprize.</i>	Franklin.
" 14.	<i>Fort Enterprize.</i>	Franklin.
" 15.	<i>Fort Enterprize.</i>	Franklin.
" 16.	<i>Fort Enterprize.</i>	Franklin.
" 19.	<i>Fort Enterprize.</i>	Franklin.
" 20.	<i>Fort Enterprize.</i>	Franklin.
" 21.	<i>Fort Enterprize.</i>	Franklin.
" 22.	<i>Fort Enterprize.</i>	Franklin.
" 23.	<i>Fort Enterprize.</i>	Franklin.
" 24.	<i>Fort Enterprize.</i>	Franklin.
" 25.	<i>Fort Enterprize.</i>	Franklin.
" 25.	<i>Gosport.</i> ³	Burney.
" 26.	<i>Fort Enterprize.</i>	Franklin.
" 28.	<i>Fort Enterprize.</i>	Franklin.
" 29.	<i>Fort Enterprize.</i>	Franklin.

¹ Narrative of an Expedition, &c. Force, p. 101.

² Narrative of a Pedestrian Journey, &c.

³ Phil. Mag. and Annals, I. 317.

Mar. 30.	<i>Fort Enterprize.</i>	Franklin.		
Apr. 1.	<i>Fort Enterprize.</i>	Franklin.		
" 5.	<i>Fort Enterprize.</i>	Franklin.		
" 6.	<i>Fort Enterprize.</i>	Franklin.		
" 7.	<i>Fort Enterprize.</i>	Franklin.		
" 8.	<i>Fort Enterprize.</i>	Franklin.		
" 11.	<i>Fort Enterprize.</i>	Franklin.		
" 14.	<i>Fort Enterprize.</i>	Franklin.		
" 15.	<i>Fort Enterprize.</i>	Franklin.		
" 18.	<i>Fort Enterprize.</i>	Franklin.		
" 19.	<i>Fort Enterprize.</i>	Franklin.		
" 20.	<i>Fort Enterprize.</i>	Franklin.		
" 21.	<i>Fort Enterprize.</i>	Franklin.		
" 23.	<i>Fort Enterprize.</i>	Franklin.		
" 27.	<i>Fort Enterprize.</i>	Franklin.		
" 29.	<i>Fort Enterprize.</i>	Franklin.		
" 30.	<i>Fort Enterprize.</i>	Franklin.		
May 1.	<i>Fort Enterprize.</i>	Franklin.		
" 3.	<i>Fort Enterprize.</i>	Franklin.		
" 5.	<i>Fort Enterprize.</i>	Franklin.		
" 6.	<i>Fort Enterprize.</i>	Franklin.		
" 10.	<i>Fort Enterprize.</i>	Franklin.		
" 11.	<i>Fort Enterprize.</i>	Franklin.		
" 12?	<i>Fort Enterprize.</i>	Franklin.		
" 13.	<i>Fort Enterprize.</i>	Franklin.		
Aug. 15.	<i>Southampton Island.</i>	Parry. ¹	Arago.	
" 23.	<i>Belleville, Invernesshire.</i>	Brewster. ²		
" 29.	<i>Duckett's Cove.</i>	Parry.		
Nov. 15.	<i>Winter Island.</i>	Parry.		
" 17.	<i>Winter Island.</i>	Parry.		
" 23.	<i>Winter Island.</i>	Parry.		
" 26.	<i>G. Britain or Ireland.</i>	Dalton.		
" 26.	<i>Winter Island.</i>	Parry. ³		
" 27.	<i>Winter Island.</i>	Parry.		
" 28.	<i>Winter Island.</i>	Parry.		
Dec. 1.	<i>Winter Island.</i>	Parry.		
" 2.	<i>Winter Island.</i>	Parry.		
" 3.	<i>Winter Island.</i>	Parry.		
" 4.	<i>Winter Island.</i>	Parry.		
" 12.	<i>G. Britain or Ireland.</i>	Dalton.		
" 14.	<i>Winter Island.</i>	Parry.		
" 20.	<i>Winter Island.</i>	Parry.		
" 22.	<i>Winter Island.</i>	Parry.		
" 23.	<i>Winter Island.</i>	Parry.		
" 24.	<i>Winter Island.</i>	Parry.		
" 27.	<i>Winter Island.</i>	Parry.		
" 28.	<i>Winter Island.</i>	Parry.		
Dec. 29.	<i>Winter Island.</i>	Lyon.	Arago.	
" 31.	<i>Winter Island.</i>	Parry.		
			1822. ¹	
Jan. 9.	<i>Winter Island.</i>	Parry.		
" 12.	<i>Winter Island.</i>	Parry.		
" 13.	<i>Winter Island.</i>	Parry.		
" 15.	<i>Winter Island.</i>	Parry.		
" 18.	<i>Winter Island.</i>	Parry.		
Feb. 13.	<i>From Ferres to Nairn, Scotl.</i>	Mackenzie. ²		
" 13.	Muncke, Arago, and Quetelet.			
" 19.	<i>Winter Island.</i>	Parry.		
Apr. 15.	<i>Lat. 64° N. Long. 6° W.</i>	Scoresby.	Arago.	
" 16.	<i>Winter Island.</i>	Parry.		
" 17.	<i>Lat. 66° N. Long. 4° W.</i>	Scoresby.		
July 13.	<i>Paris?</i>	Arago.		
Oct. 22.	<i>Boston.</i>	Hale.	Lovering.	
Nov. 7.	<i>Igloolik.</i>	Parry. ³		
" 15.	<i>Igloolik.</i>	Parry.		
" 16.	<i>Igloolik.</i>	Parry.		
" 21.	<i>Igloolik.</i>	Parry.		
Dec. 13.	<i>Igloolik.</i>	Parry. ⁴		
			1823.	
Jan. 19.	<i>Igloolik.</i>	Parry.		
Feb. 5.	<i>Igloolik.</i>	Parry. ⁵		
Mar. 21.	<i>Ice. Lat. 70° N. Long. 174° E.</i>	Von Wrangel.		
Apr. 8.	<i>Igloolik.</i>	Parry.		
Aug. 31.	<i>Hudson's Bay.</i>	Lyon.		
			1824.	
Jan. 21.	<i>Leith.</i>	Coldstream.	Arago.	
July 29.	<i>Hudson's Bay.</i>	Lyon. ⁶	Arago.	

¹ In 1822, the aurora was frequently observed by Franklin, at Moose-Deer Island, Lat. 61° N. and Long. 114° W., but it was not brilliant. Franklin. Narrative of a Journey, &c. p. 553.

² Edin. Journ. Sci. VI. 380.

³ Journ. of a Second Voyage, &c. p. 381.

⁴ Parry says: "Another peculiarity, observed in this winter, was the rare occurrence of the Aurora Borealis, and the extraordinary poorness of its display, whenever it did make its appearance." pp. 381 and 420. Von Wrangel also states, that auroras were rare and less brilliant than usual during the winter of 1822-23, in Lat. 70° N. and Long. 174° E. p. 318. Force, p. 87.

⁵ During the dark season, I mean the time that we did not at all see the sun, it was remarked with astonishment that the aurora was very rarely seen, in fact only once or twice, and then so faintly as scarcely to call our attention. Igloolik. Lat. 69° N. Long. 82° W. March, 1823. Lyon's Private Journal, p. 306. Force, p. 83.

⁶ Private Journal, &c.

¹ Journ. of a Second Voyage, &c. p. 39.

² Edin. Phil. Journ. VI. 175. Gilbert. Ann. LXXV. 68.

³ Journ. of a Second Voyage, Appendix. p. 266.

- Aug. 10. *St. Petersburg.* Wisniewsky. Kupffer.¹
 " 11. *Hudson's Bay.* Lyon.² Arago.
 Sept. 5. *Hudson's Bay.* Lyon.
 " 9. *Edinburgh.* Brewster.³
 " 9. *Rowe's Welcome.* Lyon. Arago.
 " 29. *Hudson's Bay.* Lyon. Arago.
 " 29. *St. Petersburg.* Wisniewsky. Kupffer.
 Nov. 16. *Konigsburg.* Sommer.⁴
 " 17. *Port Bowen.* Parry. Arago.
 " 25. *Port Bowen.* Parry. Arago.
 " 26. *Port Bowen.* Parry. Arago.
 " 27. *Port Bowen.* Parry. Arago.
 Dec. 1. *Port Bowen.* Parry. Arago.
 " 16. *Port Bowen.* Parry. Arago.
 " 20. *Port Bowen.* Parry. Arago.
 " 21. *Port Bowen.* Parry.⁵ Arago.
 " 22. *Port Bowen.* Parry. Arago.
 " 23. *Port Bowen.* Parry. Arago.
 " 24. *Port Bowen.* Parry. Arago.
 " 26. *Port Bowen.* Parry. Fisher.⁶
- 1825.
- Jan. 7. *Port Bowen.* Parry.⁷ Arago.
 " 11. *Port Bowen.* Parry. Arago.
 " 12. *Port Bowen.* Parry. Arago.
 " 15. *Port Bowen.* Parry. Arago.
 " 16. *Port Bowen.* Parry. Arago.
 " 17. *Port Bowen.* Parry. Arago.
 " 18. *Port Bowen.* Parry. Arago.
 " 20. *Port Bowen.* Parry. Arago.
 " 27. *Port Bowen.* Parry. Arago.
 " 28. *Port Bowen.* Parry. Arago.
 Feb. 11. *Port Bowen.* Parry. Arago.
 " 14. *Port Bowen.* Parry.⁸ Arago.
 " 15. *Port Bowen.* Parry. Arago.
 " 16. *Port Bowen.* Parry. Arago.
 " 17. *Port Bowen.* Parry. Arago.
- Feb. 19. *Leith.* Coldstream. Quetelet.¹
 " 22. *Port Bowen.* Parry. Arago.
 " 23. *Port Bowen.* Parry. Arago.
 " 24. *Port Bowen.* Parry. Arago.
 Mar. 9. *Port Bowen.* Parry. Arago.
 " 12. *Port Bowen.* Parry. Arago.
 " 13. *Port Bowen.* Parry. Arago.
 " 14. *Port Bowen.* Parry. Arago.
 " 19. *G. Britain or Ireland.* Dalton. Arago.
 " 19. *Leith.* Coldstream, &c.² Muncke. Quetelet.
 " 19. *Edinburgh.* Brewster.³
 Apr. 14. *Boston.* Hale. Lovering.
 " 25. *Christiania.* Hansteen. *Hardanger.* Herzberg⁴
 Aug. 10. *Christiania.* Halmboe.
 " 17. *Leith.* Coldstream.⁵
 " 17. Muncke, Arago, and Quetelet.
 " 21. *Christiania.* Hansteen.
 " 22. *Christiania.* Hansteen.
 " 25. *Christiania.* Muncke. Quetelet.
 " 26. *Christiania.* Hansteen. Arago.
 Sept. 10. *Christiania.* Hansteen.
 " 10. *Leith.* Muncke, Arago, Quetelet, and Boué.
 " 11. *St. Petersburg.* Wisniewsky. Kupffer.
 " 11. *Leith.* Coldstream.
 " 15. *Davis's Strait.* Parry. Arago.
 " 20. *Davis's Strait.* Parry. Arago.
 " 24. *At sea. Lat. 58° N. Long. 44° W.* Parry. Arago.
 Oct. 5. *At sea.* Parry.⁶ Arago.
 " 7. *Paris.* Arago. Muncke and Quetelet.⁷
 " 26. *Fort Franklin.* Franklin.⁸
 " 27. *Fort Franklin.* Franklin.
 Nov. 2. *Fort Franklin.* Franklin.
 " 3. *Norway.* Hansteen. Muncke.
 " 3. *Leith.* Coldstream.
 " 3. Arago, Muncke, and Quetelet.
 " 4. *Norway.* Muncke, Arago, and Quetelet.
 " 4. *Leith.* Muncke. *Bergen.* Bohr.⁹
 " 22. *Leith.* Coldstream. *Alford.* Farquharson.¹⁰
 " 22. Arago, Muncke, and Quetelet.

¹ Mém. de l'Acad. St. Petersb. IV.

² Off Winter Island, Lat. 66° N. Long. 83° W. Aug. 31, 1823.

It was remarkable that we should have seen the aurora so seldom and faintly at Igloodik, and that now again we should, on returning to Winter Island, find it as brilliant as we had been accustomed to see it at the same place two years before. Lyon's Private Journal, p. 455.

³ Edin. Journ. Sci. 1825, p. 55.

⁴ Kastn. Archiv. V. 373.

⁵ Journal of a Third Voyage, &c. p. 60.

⁶ Phil. Trans. 1826. Pt. IV. p. 215.

⁷ Fifteen auroras were observed at Port Bowen in January; thirteen in February; and five in March.

⁸ Phil. Trans. 1826. Pt. IV. p. 133.

¹ Ferussac. Bull. Univ. XI. 202.

² Edin. Journ. Sci. V. 190.

³ Edin. Journ. Sci. III. 181.

⁴ Annals of Phil. II. 335.

⁵ Edin. Journ. Sci. IX. 86.

⁶ Parry says: "In running down Davis's Strait, as well as in crossing the Atlantic, we saw on this passage as well as in all former autumnal ones, a good deal of the Aurora Borealis."

⁷ Ann. Chem. et Phys. XXX. 424.

⁸ Narrative of a Second Expedition. p. 66.

⁹ Annals of Phil. II. 335.

¹⁰ Phil. Trans. 1829, p. 103.

- Nov. 23. *Aberdeenshire*. Farquharson. Arago.¹
 Dec. 7. *Boston*. Hale. Lovering.
 " 7. *Fort Franklin*. Franklin.
 " 8. *Fort Franklin*. Franklin.

1826.

- Jan. 4. *Fort Franklin*. Franklin.
 " 5. *Königsberg*. Muncke.²
 " 5. *Leith*. Coldstream, &c. Arago. Quetelet.³
 " 8. *Fort Franklin*. Franklin.
 " 16. *Leith*. Coldstream and Foggo.⁴
 " 16. Muncke, Arago, and Quetelet.
 " 17. *Leith*. Hough.
 " 21. *G. Britain or Ireland*. Dalton. Quetelet.
 " 21. *Edinburgh*. Coldstream.⁵ Quetelet.
 " 29. *Fort Franklin*. Franklin.
 Feb. 3. *Fort Franklin*. Franklin.
 " 8. *Fort Franklin*. Franklin.
 " 9. *Fort Franklin*. Franklin.
 " 10. *Fort Franklin*. Franklin.
 " 11. *Fort Franklin*. Franklin.
 " 11. *Leith*. Coldstream and Foggo. Arago.
 " 19. *Fort Franklin*. Franklin.
 Mar. 2. *Fort Franklin*. Franklin.
 " 7. *Fort Franklin*. Franklin.
 " 8. *Fort Franklin*. Franklin.
 " 9. *Fort Franklin*. Franklin.
 " 10. *Fort Franklin*. Franklin.
 " 11. *Fort Franklin*. Franklin.
 " 13. *Fort Franklin*. Franklin.
 " 14. *Fort Franklin*. Franklin.
 " 15. *Fort Franklin*. Franklin.
 " 26. *Fort Franklin*. Franklin.
 " 28. *Fort Franklin*. Franklin.
 " 29. *G. Britain or Ireland*. Manchester. Dalton.
 " 29. *Edinburgh*.⁶ Coldstream. Dublin.
 " 29. *Fort Franklin*. Franklin.
 " 29. Muncke, Arago, and Quetelet.
 Apr. 3. *Fort Franklin*. Franklin.
 " 6. *Fort Franklin*. Franklin.
 " 13. *Fort Franklin*. Franklin.
 " 23. *Fort Franklin*. Franklin.

¹ Phil. Trans. 1829, p. 106.² Gilbert. Ann. LXXXVI. 560.³ Edin. Journ. Sci. V. 190.⁴ Edin. Journ. Sci. V. 190.⁵ Edin. Journ. Sci. IX. 129.⁶ Phil. Mag. IV. 419, and V. 154. Edin. Journ. Sci. V. 190.
Phil. Trans. 1838, Pt. I. p. 293.

- Apr. 29. *Carlisle and Roxburghshire*. Muncke.¹
 " 29. Arago and Quetelet.
 Aug. 25. *Behring's Sea*. Beechey.
 " 29. ——— Quetelet and Boué.
 Sept. 9. *Canonmills*. Quetelet.²
 " 10. *Near Edinburgh*.³
 " 22. *Behring's Sea*. Beechey.⁴ Force.
 " 25. *Behring's Sea*. Beechey. Force.
 Oct. 1. *New York State*. Hough.⁵
 " 2. *New York*. Hough.
 " 2. *Fort Franklin*. Franklin.
 " 13. *Fort Franklin*. Franklin.
 " 19. *Fort Franklin*. Franklin.
 " 30. *Fort Franklin*. Franklin.
 Nov. 1. *Fort Franklin*. Franklin.
 " 4. *Fort Franklin*. Franklin.
 " 10. *Fort Franklin*. Franklin.
 " 16. *Fort Franklin*. Franklin.
 " 19. *Fort Franklin*. Franklin.
 " 20. *Fort Franklin*. Franklin.
 " 22. *Fort Franklin*. Franklin.
 " 24. *Fort Franklin*. Franklin.
 Dec. 4. *Fort Franklin*. Franklin.
 " 19. *Fort Franklin*. Franklin.
 " 22. *Fort Franklin*. Franklin.
 " 26. *Fort Franklin*. Franklin.

1827.

- Jan. 3. *Fort Franklin*. Franklin.
 " 9. *Kendal*. Marshall.⁶
 " 9. Muncke, Arago, and Quetelet.
 " 16. *G. Britain or Ireland*. Dalton.
 " 16. *Edinburgh*. Blackadder. Muncke. Quetelet.
 " 18. *New Haven*. Herrick. Loomis.
 " 18. *G. Britain or Ireland*. Dalton. Arago.
 " 18. *Gosport*. Burney. Muncke and Quetelet.
 " 19. *New York*. Hough.
 " 21. *Edinburgh*. Hough.
 " 30. ——— Arago.
 " 31. *Fort Franklin*. Franklin.

¹ Quart. Journ. Sci. 1827, p. 229. Ann. Chem. et Phys. XXXIII. 421.² Ferussac. Bull. Univ. XI. 33.³ Edin. Journ. Sci. IX. 129.⁴ Narrative of a Voyage, &c. I. p. 329.⁵ All the auroras of Hough are to be understood as for the State of New York, unless otherwise specified. See "Results of a series of Meteor. Observ. &c. in the State of New York, &c., compiled by Franklin B. Hough."⁶ Edin. Journ. Sci. VI. 377.⁷ Edin. New Phil. Journ. III. 342.

- Feb. 3. *Fort Franklin.* Franklin.
 " 4. *Fort Franklin.* Franklin.
 " 6. *Fort Franklin.* Franklin.
 " 7. *Fort Franklin.* Franklin.
 " 13. *Gosport.* Burney.¹
 " 17. *G. Britain or Ireland.* Dalton.²
 " 17. *St. Petersburg.* Wisniewsky. Kupffer.
 " 17. Arago, Muncke, and Quetelet.
 " 23. *Fort Franklin.* Franklin.
 " 25. *Fort Franklin.* Franklin.
 Mar. 9. ——— Baumhauer.
 " 29. *Edinburgh.* Hough.
 Apr. 6. *New York.* Hough.
 " 16. *New York.* Hough.
 Aug. 25. *Behring's Sea.* Beechey. Force.
 " 25. *Paris.* Boué³ and Hough.
 " 26. *Copenhagen.* Dau. Boué.
 " 27. *New York.* Hough.
 " 27. *New Haven.* Herrick. Loomis.
 " 27. *Perth, Scotland.* Muncke.⁴
 " 27. Arago and Quetelet.
 " 28. *New York.* Gale and Hough.⁵
 " 28. *New Haven.* Loomis.⁶
 " 28. *Wilmington, Delaware.* Gibbon.⁷
 " 28. *Schenectady, N. Y.* Joslin. *Canada.*⁸
 " 28. *Roxburghshire, Scotland.* Muncke.⁹
 " 28. Arago and Quetelet.
 " 29. *New York.* Gale and Hough.
 " 29. *Schenectady, N. Y.* Joslin.
 " 29. *G. Britain or Ireland.* Dalton.
 " 29. *Milnegraden.* Arago, Muncke, and Quetelet.¹⁰
 " 30. *New York.* Gale.
 " 31. *New York.* Hough. Arago.
 Sept. 8. *Boston.* Hale. Lovering.
 " 8. *New York.* Hough.
 " 8. *New Haven.* Herrick. Loomis.
 " 8. *Wilmington.* Gibbon.
 " 8. *Augusta, Maine.* Bowdoin.¹¹
 " 8. *Berlin.* Humboldt. *Finland, Sweden, &c.*¹²
 Sept. 8. *Denmark.* Arago, Muncke, and Quetelet.
 " 9. *New Haven.* Herrick. Loomis.
 " 9. *New York.* Hough. *Schenectady.* Joslin.
 " 9. *Canandaigua, N. Y.* Hayes.¹
 " 9. *Wilmington.* Gibbon.
 " 9. *G. Britain or Ireland.* Dalton. Arago.
 " 9. *Canonmills and Roslin.* Muncke.²
 " 9. *Alford.* Farquharson. Quetelet.³
 " 25. *Boston.* Hale. Lovering.
 " 25. *New York.* Hough. *Wilmington.* Gibbon.
 " 25. *New Haven.* Herrick. Loomis.
 " 25. *G. Britain or Ireland.* Dalton.⁴
 " 25. *London.* Kendall.⁵ *Gosport.* Burney.
 " 25. *Paris and Havre.* Arago. Quetelet.
 " 25. *St. Petersburg.* Wisniewsky. Kupffer.
 " 25. *Fussen (Insel), Sweden, &c.* Muncke.⁶
 " 25. *Copenhagen.* Dau.⁷
 " 26. *Boreham.* Forster. *Gosport.* Burney.⁸
 " 26. *Leipsic.* Poggendorf. *Stettin.*⁹ Quetelet.
 " 26. *Fussen and Kasan.* Kupffer.¹⁰
 " 27. *Fussen.* Quetelet. *Canandaigua, N. Y.?* Hayes.¹¹
 " 28. *Paris. Fussen.* Quetelet.
 " 28. *Finmark.* Keilhau. Muncke.¹²
 " 28. *Chamisso Island.* Beechey.¹³
 Oct. 1. *Finmark.* Keilhau. Quetelet and Muncke.
 " 6. *G. Britain or Ireland.* Dalton. *Manchester.*
 " 6. *Roxburghshire.* Arago. Muncke. Quetelet.
 " 16. *New York.* Hough.
 " 16. *Finmark.* Keilhau. Quetelet and Muncke.
 " 17. *Gosport.* Burney. Muncke.
 " 17. Arago and Quetelet.
 " 18. *Finmark.* Keilhau. Muncke.
 " 18. *Roxburghshire.* Muncke. Quetelet.¹⁴
 " 19. *Roxburghshire.* Muncke. Quetelet.
 " 30. *Finmark.* Keilhau. Quetelet and Muncke.
 Nov. 9. *New York.* Hough.

¹ Phil. Mag. and Annals. I. 239 and 317.² Phil. Mag. and Annals. I.³ Not in Arago's Catalogue, though Boué quotes him.⁴ Edin. Journ. Sci. VII. 377. Ferussac. Bull. Univ. XII. 70.⁵ Amer. Journ. Sci. XV.⁶ Amer. Journ. Sci. XIV. 91.⁷ Amer. Journ. Sci. XXXIII. 299.⁸ Amer. Journ. Sci. XIV. and Reports of Regents, &c. 1836, p. 196.⁹ Edin. Journ. Sci. VII. 77. Ferussac. Bull. Univ. XII. 70.¹⁰ Edin. New Journ. Sci. III. 379.¹¹ Amer. Journ. Sci. XVIII. 72.¹² Pogg. Ann. X. 511. Ferussac. Bull. Univ. IX. 191.¹ Amer. Journ. Sci. XIV.² Quart. Journ. Sci. 1827, p. 489. Edin. New Journ. Sci. III. 378, and XVII. 138.³ Phil. Trans. 1829, p. 103.⁴ Annals of Phil. II. 395.⁵ Quart. Journ. Sci. 1827, p. 385.⁶ Kastn. Archiv. XIV.⁷ Ferussac. Bull. Univ. XI. 295.⁸ Phil. Mag. III. 75.⁹ Ferussac. Bib. Univ. IX. 191. Pogg. Ann. X. 512.¹⁰ Kastn. Archiv. XIII. 166.¹¹ Amer. Journ. Sci. XIV.¹² Pogg. Ann. XIV. 621.¹³ A Narrative of a Voyage, p. 560.¹⁴ Ferussac. Bull. Univ. XII. 70. Edin. Jour. Sci. XV. 171.

- Nov. 9. *New Haven*. Herrick. Loomis.
 " 9. *Wilmington*. Gibbon.
 " 11. *Finmark*. Keilhau. Quetelet and Muncke.
 " 13. *Finmark*. Keilhau. Quetelet and Muncke.
 " 18. *Wilmington*. Gibbon. *Gosport*. Burney.
 " 18. *G. Britain or Ireland*. Dalton.
 " 18. *Roxburghshire*. Arago and Quetelet.¹
 " 19. *G. Britain or Ireland*. Dalton.
 " 19. *Finmark*. Keilhau. *Roxburghshire*. Muncke.
 " 19. Arago and Quetelet.
 " 22. *Finmark*. Keilhau. Quetelet and Muncke.
 Dec. 1. *Finmark*. Keilhau. Quetelet and Muncke.
 " 7. *Finmark*. Keilhau. Quetelet and Muncke.
 " 8. *Denmark*. Dalton.
 " 9. *Finmark*. Keilhau. Quetelet and Muncke.
 " 10. *Finmark*. Keilhau. Quetelet and Muncke.
 " 13. *Finmark*. Keilhau. Quetelet and Muncke.
 " 17. *New York*. Hough.
 " 21. *Finmark*. Keilhau. Quetelet and Muncke.
 " 24. *Finmark*. Keilhau. Quetelet and Muncke.
 " 27. *Kendal*. Marshall. Muncke. Quetelet.²
 " 27. *Crumpsall*. Blackwall.³
 " 29. *Finmark*. Keilhau. Quetelet and Muncke.
 " 31. *Finmark*. Keilhau. Quetelet and Muncke.

1828.

- Jan. 1. *Finmark*. Keilhau. Quetelet and Muncke.
 " 3. *Finmark*. Keilhau. Quetelet and Muncke.
 " 4. *Finmark*. Keilhau. Quetelet and Muncke.
 " 16. *New Haven*. Olmsted. Loomis.
 " 18. *New York*. Hough.
 " 18. *Wilmington*. Gibbon. Arago.
 " 19. *New York*. Hough. Arago.
 " 19. *New Haven*. Herrick. Loomis.
 " 20. *New York*. Hough. Arago.
 Feb. 3. *New York*. Hough. Arago.
 " 12. *New Haven*. Herrick. Loomis.
 " 17. *New York*. Hough.
 " 19. ——— Arago.
 Apr. 11. *New York*. Hough. Arago.
 " 12. *New York*. Hough. Arago.
 June 2. *G. Britain or Ireland*. Dalton.
 " 5. ——— Quetelet.
 July 5. *New York*. Hough.
 " 5. *Mont Morillon*. Arago. Muncke.⁴

¹ Edin. Journ. Sci. VIII. 171.² Edin. Journ. Sci. IX. 102. Phil. Trans. 1828, p. 301.³ Mem. Lit. and Phil. Soc. Manchest. V. 82.⁴ Ann. Chem. et Phys. XXXIX. 415.

- Aug. 14. *New York*. Hough. Arago.
 " 14. *New Haven*. Herrick. Loomis.
 " 16. *New York*. Hough. Arago.
 Sept. 8. *G. Britain or Ireland*. Dalton.
 " 8. *New York*. Hough. Arago.
 " 12. *New York*. Hough. Arago.
 " 15. *G. Britain or Ireland*. Dalton. Arago.
 " 15. *Islay and Edinburgh*. Quetelet and Muncke.¹
 " 25. *Gosport*.² Burney.
 " 26. *New York*. Hough. Arago.
 " 26. *New Haven*. Herrick. Loomis.
 " 26. *Wilmington*. Gibbon.
 " 27. *New York*. Hough.
 " 27. *Wilmington*. Gibbon. Arago.
 " 28. *Finmark*. Keilhau.³
 " 29. *New York*. Hough.
 " 29. *G. Britain or Ireland*. Dalton.
 " 29. *Cornwall*. Gilbert. *Alford*. Farquharson.⁴
 " 29. *Netherlands*. Arago, Quetelet, and Muncke.⁵
 " 29. *Near Stevenage*. Kater.⁶ *Lynn Regis*. Utting.
 " 29. *Plymouth*. Harvey.⁷ *Gosport*. Burney.
 " 30. *New York*. Hough.
 " 30. *Plymouth*. Burney. Arago.
 Oct. 1. *Finmark*. Keilhau.
 " 3. *New York*. Hough. Arago.
 " 8. *New York*. Hough. Arago.
 " 9. *G. Britain or Ireland*. Dalton.
 " 11. *New York*. Hough. Arago.
 " 15. *G. Britain or Ireland*. Dalton.
 " 15. *Perth, Scotland*. Muncke and Quetelet.⁸
 " 16. *Finmark*. Keilhau.
 " 18. *Finmark*. Keilhau.
 " 19. *Finmark*. Keilhau.
 " 26. *Christian's Sound*. Graah.⁹ Force.
 " 29. *G. Britain or Ireland*. Dalton.
 " 29. *Perth*. Muncke, Arago, and Quetelet.
 " 30. *Finmark*. Keilhau.
 Nov. 8. *New York*. Hough. Arago.
 " 11. *Finmark*. Keilhau.
 " 11. *Tobolsk*. Erman.¹⁰ Muncke.
 " 11. Arago and Quetelet.

¹ Edin. Journ. Sci. X. 177.² Phil. Mag. IV. 392.³ Pogg. Ann. XIV. 621.⁴ Phil. Trans. 1829, p. 103, and 1839, p. 267.⁵ Ann. Chem. et Phys. XXXIX. 418. Smyth's Cel. Cyc. I. 166.⁶ Phil. Mag. IV. 337.⁷ Edin. Journ. Sci. X. 146.⁸ Edin. Journ. Sci. X. 179.⁹ Narrative of an Expedition, &c. p. 48.¹⁰ Pogg. Ann. XXII. 550.

- Nov. 13. *Finmark.* Keilhau.
 " 19. *Finmark.* Keilhau.
 " 22. *Finmark.* Keilhau.
 Dec. 1. *New York.* Hough.
 " 1. *Sharon, Conn.* Smith. Loomis.
 " 1. *St. Petersburg.* Wisniewsky. Kupffer.
 " 1. *G. Britain or Ireland.* Dalton.¹
 " 1. *Manchester.* Blackwall. *London.*²
 " 1. *Finmark.* Keilhau.
 " 1. *Russia.* Erman.³ Muncke.
 " 1. Arago and Quetelet.
 " 7. *Finmark.* Keilhau.
 " 9. *Finmark.* Keilhau.
 " 10. *Finmark.* Keilhau.
 " 13. *Finmark.* Keilhau.
 " 21. *Finmark.* Keilhau.
 " 22. *G. Britain or Ireland.* Dalton.
 " 24. *Finmark.* Keilhau.
 " 26. *G. Britain or Ireland.* Dalton.
 " 26. *Manchester.* Blackwall. *Gosport.* Burney.
 " 26. Muncke, Arago, and Quetelet.
 " 28. *G. Britain or Ireland.* Dalton.
 " 28. Arago and Quetelet.
 " 29. *Finmark.* Keilhau.
 " 31. *Finmark.* Keilhau.
- 1829.⁴
- Jan. 1. *Finmark.* Keilhau.
 " 2. *Kendal.* Marshall. Muncke.
 " 2. Arago and Quetelet.
 " 3. *Finmark.* Keilhau.
 " 4. *Finmark.* Keilhau.
 " 27. *New York.* Hough. Arago.
 " 28. *Wilmington.* Gibbon.
 " 30. *New York.* Hough. Arago.
 " 31. *New York.* Hough. Arago.
 Feb. 11. *Berlin.* Humboldt. Muncke.
 " 11. Arago and Quetelet.
 Mar. 4. *G. Britain or Ireland.* Dalton.
 " 6. *G. Britain or Ireland.* Dalton.
 " 18. *Wilmington.* Gibbon.
 " 21. *Christian's Sound.* Graah.
- Mar. 22. *G. Britain or Ireland.* Dalton.
 " 23. *England.* Maclear. Muncke.
 " 23. Arago and Quetelet.
 " 27. *Greenland.* Graah.
 Apr. 4. *New York.* Hough.
 " 4. *Dieppe.* Arago, Muncke, and Quetelet.¹
 " 5. *New York.* Hough. Arago.
 " 8. *New York.* Hough. Arago.
 " 12. *Greenland.* Graah.
 May 2. *Paris.* Arago.
 " 4. *G. Britain or Ireland.* Dalton.
 " 29. *New York.* Hough. Arago.
 " 31. *New York.* Hough. Arago.
 June 1. *New York.* Hough. Arago.
 " 2. *New York.* Hough. Arago.
 " 7. *New York.* Hough. Arago.
 " 14. *New York.* Hough. Arago.
 " 17. *G. Britain or Ireland.* Dalton.
 " 21. *New York.* Hough. Arago.
 " 25. *Kendal.* Marshall.
 " 25. Muncke and Quetelet.
 July 25. *G. Britain or Ireland.* Dalton.
 " 25. Arago and Muncke.
 Aug. 23. *Greenland.* Graah.
 " 25. *New York.* Hough. Arago.
 " 26. *New York.* Hough. Arago.
 " 29. *Berwickshire, England.* Hough.
 Sept. 13. *New York.* Feuchtwanger.²
 " 18. *New York.* Hough. Arago.
 " 19. *G. Britain or Ireland.* Dalton.
 " 19. *New York.* Feuchtwanger.
 " 19. Muncke, Arago, and Quetelet.
 " 21. *G. Britain or Ireland.* Dalton.
 " 21. *Alford.* Farquharson.
 " 21. Muncke, Arago, and Quetelet.
 " 22. *Aberdeenshire.* Muncke.
 " 22. Muncke, Arago, and Quetelet.
 " 26. *New York.* Hough. Arago.
 Oct. 1.³ *Aberdeenshire.* Farquharson.
 " 1. Arago, Muncke, and Quetelet.
 " 3. *G. Britain or Ireland.* Dalton.
 " 3. Muncke, Arago, and Quetelet.
 " 6. *Kendal.* Muncke and Quetelet.
 " 11. *G. Britain or Ireland.* Dalton.

¹ Quart. Journ. Sci. 1828, p. 449.

² Phil. Mag. V. 77 and 153.

³ Travels in Siberia, I. 351.

⁴ Southern Greenland, Winter of 1828-9. "The northern lights (Aurora Borealis), a remarkable and beautiful phenomenon of which the inhabitants of the greater part of Europe can form no adequate conception, are in Greenland and Iceland a thing of every-day occurrence, &c." Graah's Narrative of an Expedition &c. p. 52. Force's record of Auroral Phenomena, p. 50.

¹ Compt. Rend. XLII. 357.

² Amer. Journ. Sci. XVIII. 393.

³ Graah was at Nukarbik, in Lat. 63° N. and Long. 41° W. from October 1, 1829 to April 5, 1830; but he does not mention a single appearance of the aurora. Force's Record of Auroral Phenomena, p. 54.

- Oct. 11. *Aberdeenshire*. Muncke and Quetelet.
 " 11. *Alford*. Farquharson.
 " 15. *Perth*.¹
 " 17. *G. Britain or Ireland*. Dalton.
 " 17. Muncke, Arago, and Quetelet.
 " 18. *Felix Harbor*. Ross.²
 " 21. *New York*. Hough.
 " 21. *Felix Harbor*. Ross. Arago.
 " 24. *New York*. Hough. Arago.
 " 25. *G. Britain or Ireland*. Dalton.
 " 25. *Alford*. Farquharson.
 " 25. Muncke, Arago, and Quetelet.
 " 27. *New York*. Hough. Arago.
 " 29. *Perth*.³
 " 30. ——— Arago?
 " 31. *Felix Harbor*. Ross.
- Nov. 1. *Felix Harbor*. Ross.
 " 9. *New York*. Hough. Arago.
 " 17. *G. Britain or Ireland*. Dalton.
 " 17. *Alford*. Farquharson.
 " 17. Muncke, Arago, and Quetelet.
 " 18. *G. Britain or Ireland*. Dalton.
 " 18. *Alford*. Farquharson.
 " 18. Muncke, Arago, and Quetelet.
 " 19. *New York*. Hough.
 " 19. *G. Britain or Ireland*. Dalton.
 " 19. *Alford*. Farquharson.
 " 19. Muncke, Arago, and Quetelet.
 " 21. *Felix Harbor*. Ross.
 " 24. *Felix Harbor*. Ross.
 " 25. *Felix Harbor*. Ross.
- Dec. 2. *Felix Harbor*. Ross.
 " 9. *Felix Harbor*. Ross.
 " 14. *G. Britain or Ireland*. Dalton.
 " 14. *Alford*. Farquharson.⁴ *Gosport*. Burney.
 " 14. Muncke, Arago, and Quetelet.
 " 18. *Felix Harbor*. Ross.
 " 19. *New York*. Hough. *Wilmington*. Gibbon.
 " 19. *New Haven*. Herrick. Loomis.
 " 19. *Felix Harbor*. Ross. Arago.
 " 19. *Tullynessle*. Paull.
 " 19. *Alford*. Farquharson.
 " 19. *G. Britain or Ireland*. Dalton. Dove.⁵
 " 20. *New Haven*. Herrick. Loomis.
 " 20. *G. Britain or Ireland*. Dalton.
- Dec. 20. *Felix Harbor*. Ross.
 " 20. *Alford*. Farquharson.¹
 " 20. Muncke, Arago, and Quetelet.
 " 24. *Felix Harbor*. Ross.
 " 25. *Felix Harbor*. Ross.
 " 28. *New York*. Hough. Arago.
 " 30. *Felix Harbor*. Ross.
- 1830.
- Jan. 6. *Felix Harbor*. Ross.
 " 24. *New York*. Hough.
 " 25. *G. Britain or Ireland*. Dalton.
 " 25. *Alford*. Farquharson.
 " 25. Muncke, Arago, and Quetelet.
 " 27. *New York*. Hough.
 " 28. *G. Britain or Ireland*. Dalton.
 " 28. *Alford*. Farquharson.
 " 28. Muncke and Quetelet.
- Feb. 16. *New York*. Hough.
 " 18. *New York*. Hough.
 " 19. *New York*. Hough. *Kendal*. Marshall.
 " 19. Arago, Muncke, and Quetelet.
 " 23. *New York*. Hough.
 " 24. *St. Petersburg*. Wisniewsky. Kupffer.²
- Mar. 15. *New York*. Hough.
 " 16. *New York*. Hough.
 " 18. *G. Britain or Ireland*. Dalton.
 " 18. *St. Petersburg*. Wisniewsky. Kupffer.
 " 18. Arago, Muncke, and Quetelet.
 " 24. *G. Britain or Ireland*. Dalton. Arago.
 " 24. *Alford*. Farquharson.
 " 28. *New York*. Hough.
 " 31. *New York*. Hough.
- Apr. 15. *Sharon*. Smith. Loomis.
 " 19. *New York*. Hough.
 " 19. *G. Britain or Ireland*. Dalton.
 " 19. *Gosport*. Burney. *Bedford*. White.³
 " 19. Arago, Muncke, and Quetelet.
 " 20. *New York*. Hough.
 " 21. *New York*. Hough.
 " 24. *G. Britain or Ireland*. Dalton. Arago.
 " 25. *New York*. Hough.
 " 28. *New York*. Hough.
- May 2. *New York*. Hough.
 " 4. *New York*. Hough.

¹ Edin. Journ. Sci. X. 117.² Narrative of a Second Voyage, &c. p. 204.³ Edin. Journ. X. 117.⁴ Phil. Trans. 1330, p. 99. Phil. Mag. VII.⁵ Pogg. Ann. XX. 333.¹ Phil. Trans. 1830, p. 104.² Mém. de l'Acad. St. Petersb. N. S. II. et IV.³ Phil. Mag. VII. 464.

- May 5. *St. Petersburg.* Kupffer. Muncke.¹
 " 5. Arago and Quetelet.
 " 5. *St. Petersburg.* Kupffer.²
 " 6. *Wilmington.* Gibbon.
 " 9. *New York.* Hough.
 " 10. *New York.* Hough.
 " 11. *New York.* Hough.
 " 13. *New York.* Hough.
 " 14. *New York.* Hough. *Wilmington.* Gibbon.
 " 15. *New York.* Hough. *Wilmington.* Gibbon.
 " 19. *New York.* Hough.
 " 22. *New York.* Hough.
 June 9. *New York.* Hough.
 " 10. *Boston.* Hale. Lovering.
 " 10. *Wilmington.* Gibbon.
 " 11. *Boston.* Hale. Lovering.
 " 11. *New York.* Hough. *Wilmington.* Gibbon.
 " 16. *New York.* Hough.
 " 17. *New York.* Hough.
 " 18. *New York.* Hough.
 " 29. *New York.* Hough.
 July 7. *New York.* Hough.
 " 14. *New York.* Hough. *Wilmington.* Gibbon.
 " 14. *Fayetteville, Vermont.* Hough.
 " 15. *New York.* Hough.
 " 21. *New York.* Hough.
 " 28. *New York.* Hough.
 Aug. 8. *New York.* Hough.
 " 10. *New York.* Hough.
 " 11. *New York.* Hough.
 " 12. *New York.* Hough.
 " 13. *New York.* Hough.
 " 15. *Wilmington.* Gibbon.
 " 19. *New York.* Hough.
 " 20. *Wilmington.* Gibbon. *Gosport.* Burney.³
 " 20. *G. Britain or Ireland.* Dalton.
 " 20. Arago, Muncke, and Quetelet.
 " 21. *New York.* Hough.
 " 25. *New York.* Hough.
 " 26. *New York.* Hough.
 " 28. *New York.* Hough.
 " 29. *New York.* Hough.
 Sept. 5. *New York.* Hough.
 " 7. *New York.* Hough.
 " 7. *G. Britain or Ireland.* Dalton.
 " 7. *Bedford.* White. *Gosport.* Burney.
 Sept. 7. Arago, Muncke, and Quetelet.
 " 8. *G. Britain or Ireland.* Dalton. Quetelet.
 " 8. *Bedford.* White. *Gosport.* Burney.¹
 " 9. *New York.* Hough.
 " 10. *New York.* Hough.
 " 10. *G. Britain or Ireland.* Dalton. Arago.
 " 11. *New York.* Hough.
 " 12. *G. Britain or Ireland.* Dalton. Arago.
 " 12. *Wilmington.* Gibbon.
 " 13. *G. Britain or Ireland.* Dalton.
 " 13. *St. Petersburg.* Kupffer.
 " 13. Arago, Muncke, and Quetelet.
 " 15. *New York.* Hough. *Wilmington.* Gibbon.
 " 16. *New York.* Hough. *Wilmington.* Gibbon.
 " 17. *New York.* Hough. *Wilmington.* Gibbon.
 " 17. *Bedford.* White. *Gosport.* Burney.
 " 17. *G. Britain or Ireland.* Dalton. Muncke.
 " 17. *St. Petersburg.* Wisniewsky. Kupffer. Arago.
 " 18. *St. Petersburg.* Wisniewsky. Kupffer.
 " 19. *G. Britain or Ireland.* Dalton.
 " 19. *St. Petersburg.* Wisniewsky. Kupffer. Arago.
 " 20. *G. Britain or Ireland.* Dalton. Arago.
 " 21. *G. Britain or Ireland.* Dalton. Arago.
 " 23. *St. Petersburg.* Kupffer.
 " 24. *Scotland.* Arago.
 " 25. *G. Britain or Ireland.* Dalton. Arago.
 Oct. 5. *New York.* Hough.
 " 5. *G. Britain or Ireland.* Dalton.
 " 5. Arago, Muncke, and Quetelet.
 " 5. *Bedford.* White. *Gosport.* Burney.
 " 5. *Kendal.* Hough.
 " 6. *New York.* Hough.
 " 6. *At Sea.* Lat. 44°. Long. 52°. Acosta. Arago.
 " 7. *New York.* Hough.
 " 8. *New York.* Hough.
 " 9. *New York.* Hough. *Wilmington.* Gibbon.
 " 9. *Cambridge, England.* Hough.
 " 10. *New York.* Hough.
 " 11. *New York.* Hough.
 " 13. *New York.* Hough.
 " 14. *New York.* Hough.
 " 15. *New York.* Hough.
 " 15. *Shetland Islands.* Hough.²
 " 16. *New York.* Hough.
 " 16. *G. Britain or Ireland.* Dalton.
 " 16. Arago, Muncke, and Quetelet.

¹ Mém. de l'Acad. St. Petersb. N. S. I.² Pogg. Ann. XVIII. 611.³ Phil. Mag. Second Series, VIII. 316.¹ Phil. Mag. IX. 393.² Results of a series of Meter. Observ. &c., in the State of New York, &c., p. 474.

- Oct. 16. *Bedford*. White. *Gosport*. Burney.¹
 " 17. *New York*. Hough.
 " 17. *G. Britain or Ireland*. Dalton. Arago.
 " 17. *Bedford*. White. *Gosport*. Burney. Quetelet.
 " 18. *St. Petersburg*. Wisniewsky. Kupffer.
 " 22. *G. Britain or Ireland*. Dalton.
 " 22. *St. Petersburg*.² Wisniewsky. Kupffer.
 " 27. *New York*. Hough.
 " 28. *New York*. Hough.
 Nov. 1. *G. Britain or Ireland*. Dalton.
 " 1. Arago, Muncke, and Quetelet.
 " 1. *Bedford*. White. *Gosport*. Burney.
 " 1. *Boston, England*.
 " 3. *G. Britain or Ireland*. Dalton.
 " 4. *G. Britain or Ireland*. Dalton.
 " 4. *Bedford*. White. *Gosport*. Burney.
 " 4. Arago, Muncke, and Quetelet.
 " 7. *G. Britain or Ireland*. Dalton.
 " 7. *Bedford*. White. *Gosport*. Burney.³
 " 7. Arago, Muncke, and Quetelet.
 " 9. *New York*. Hough.
 " 10. *G. Britain or Ireland*. Dalton.
 " 14. *Sheriff's Bay*. Ross.
 " 19. *New York*. Hough.
 " 20. *New Haven*. Olmsted. Loomis.
 " 20. *New York*. Hough.
 " 21. *New York*. Hough.
 Dec. 1.⁴
 " 6. *New York*. Hough.
 " 7. *New York*. Hough.
 " 7. *Christiania*. Hansteen. Muncke.
 " 7. *Marburg*. Von Mons. *Warsaw*.⁵
 " 7. Arago, Muncke, and Quetelet.
 " 8. *St. Petersburg*. Wisniewsky. Kupffer.
 " 10. *New York*. Hough.
 " 11. *Boston*. Hale. Lovering.
 " 11. *Newbery, Vt.* Johnson.⁶ *New York*. Hough.
 " 11. *Sharon, Conn.* Smith. Loomis.
 " 11. *Wilmington*. Gibbon.
 " 11. *G. Britain or Ireland*. Dalton. Arago.
 " 11. *Bedford*. White. *Gosport*. Burney.
 " 11. Arago, Muncke, and Quetelet.
 " 12. *New York*. Hough. *Wilmington*. Gibbon.
 Dec. 12. *Sharon, Conn.* Smith. Loomis.
 " 12. *G. Britain or Ireland*. Dalton.
 " 12. *Bedford*. White. *Gosport*. Burney.
 " 12. Arago, Muncke, and Quetelet.
 " 13. *G. Britain or Ireland*. Dalton.
 " 13. *Bedford*. White. *Gosport*. Burney. Quetelet.
 " 14. *G. Britain or Ireland*. Dalton.
 " 14. *Gosport*. Burney. *Bedford*. White.
 " 14. *Warsaw*. Kastner. Quetelet.
 " 15. *St. Petersburg*. Wisniewsky. Kupffer.
 " 16. *Sheriff's Bay*. Ross.
 " 22. *G. Britain or Ireland*. Dalton.
 " 25. *G. Britain or Ireland*. Dalton.
 " 25. Arago, Muncke, and Quetelet.
 " 25. *Gosport*. Burney. *Kendal*. Hough.
 " 30. *Kendal*. Hough.

1831.

- Jan. 5.¹ *G. Britain or Ireland*. Dalton.
 " 6. *New York*. Hough. *Wilmington*. Gibbon.
 " 6. *G. Britain or Ireland*. Dalton.
 " 6. *Gosport*. Burney.
 " 7. *New York*. Hough. *Wilmington*. Gibbon.
 " 7. *Bedford*. White. *Gosport*. Burney. *Brussels*.²
 " 7. *G. Britain or Ireland*. Dalton.³
 " 7. *Geneva*. Wartman. *Paris*. Arago.⁴
 " 7. *Spain*. Eyero. Rico. *Woolwich*. Sturgeon.⁵
 " 7. *Utrecht*. Moll. *Krankfurt*. Kastner. Quetelet.⁶
 " 8. *G. Britain or Ireland*. Dalton.
 " 8. *Gosport*. Burney. Quetelet.
 " 8. *Woolwich*. Sturgeon. *Bedford*. White.
 " 10. *G. Britain or Ireland*. Dalton.
 " 10. *Gosport*. Burney.
 " 11. *G. Britain or Ireland*. Dalton. Quetelet.
 " 11. *Gosport*. Burney. *Bedford*. White.
 " 14. *New York*. Hough.
 " 14. *At Sea*. Quetelet.⁷
 " 15. *At Sea*. Quetelet.
 " 16. *At Sea*. Quetelet.
 " 21. *G. Britain or Ireland*. Dalton.
 Feb. 6. *New York*. Hough. *Wilmington*. Gibbon.

¹ Ross remarks that he had scarcely noticed an aurora during the whole winter. Force's Record, &c. p. 86.

² Ferussac. Bull. Univ. XVI. 148.

³ Phil. Mag. IX. 233.

⁴ Bib. Univ. XLVI.

⁵ Phil. Mag. IX. 127.

⁶ Ferussac. Bull. Univ. XVI. 89. Schweigg. Jahr. LXI. and Kastn. Archiv. XXI.

⁷ Compt. Rend. II. 329.

¹ Phil. Mag. VIII. 465.

² The observations at St. Petersburg from 1824 to 1834 were made by Wisniewsky and published by Kupffer.

³ Phil. Mag. IX. 79.

⁴ Kastn. Archiv. XX. 376.

⁵ Kastn. Archiv. XX. 375-6.

⁶ Reports of Regents of New York, &c.

- Feb. 6. *Sharon*. Smith. Loomis.
 " 7. *New York*. Hough.
 " 7. *Sheriff's Harbor*. Ross.
 " 8. *Sheriff's Harbor*. Ross.
 " 11. *G. Britain or Ireland*. Dalton.
 " 14. *New York*. Hough.
 " 14. *G. Britain or Ireland*. Dalton.
 " 17. *G. Britain or Ireland*. Dalton.
- Mar. 1. *New York*. Hough.
 " 1. *Sheriff's Harbor*. Ross.
 " 2. *New York*. Hough.
 " 2. *Sheriff's Harbor*. Ross.
 " 3. *New York*. Hough.
 " 5. *New York*. Hough.
 " 6. *New York*. Hough.
 " 6. *G. Britain or Ireland*. Dalton.
 " 7. *New York*. Hough. *Gosport*. Burney.¹
 " 7. *G. Britain or Ireland*. Dalton.
 " 8. *New York*. Hough. *Wilmington*. Gibbon.
 " 8. *Gosport*. Burney.
 " 8. *G. Britain or Ireland*. Dalton.
 " 8. *St. Petersburg*. Wisniewsky. Kupffer.²
 " 9. *New York*. Hough.
 " 9. *Fayetteville, Vermont*. Hough.
 " 9. *Buchholz*. Pastorff. Arago.
 " 9. *Sheriff's Harbor*. Ross.
 " 10. *New York*. Hough.
 " 11. *New York*. Hough.
 " 11. *G. Britain or Ireland*. Dalton.
 " 11. *Gosport*. Burney. *St. Petersburg*. Kupffer.³
 " 12. *New York*. Hough.
 " 12. *G. Britain or Ireland*. Dalton.
 " 12. *St. Petersburg*. Wisniewsky. Kupffer.
 " 13. *New York*. Hough.
 " 15. *G. Britain or Ireland*. Dalton.
 " 16. *New York*. Hough.
 " 18. *New York*. Hough.
 " 20. *New York*. Hough.
 " 24. *St. Petersburg*. Wisniewsky. Kupffer.
- Apr. 1. *New York*. Hough.
 " 2. *New York*. Hough.
 " 3. *G. Britain or Ireland*. Dalton.
 " 12. *Paris?* Arago.
 " 18. *New York*. Hough.
 " 19. *New York*. Hough.
 " 19. *Sharon, Conn.* Smith. Loomis.
- Apr. 19. *G. Britain or Ireland*. Dalton.
 " 19. *Gosport*. Burney. *London*. *Portsmouth*.
 " 19. *St. Petersburg*. Wisniewsky. Kupffer.
 " 19. *Berlin*. Kastner. Arago.¹
 " 20. *New York*. Hough. *Wilmington*. Gibbon.
 " 20. *G. Britain or Ireland*. Dalton.
 " 20. *Gosport*. Burney. *Kitzingen*. Kastner.²
 " 23. *G. Britain or Ireland*. Dalton.
 " 30. *New York*. Hough.
- May 7. *New York*. Hough.
 " 8. *Wilmington*. Gibbon.
 " 15. *New York*. Hough.
 " 30. *G. Britain or Ireland*. Dalton.
 " 30. *Gosport*. Burney.
- June 1. *New York*. Hough.
 " 2. *New York*. Hough.
 " 10. *New York*. Hough. *Wilmington*. Gibbon.
 " 11. *New York*. Hough.
 " 16. *New York*. Hough.
 " 17. *New York*. Hough.
 " 21. *New York*. Hough.
- July 1. *New York*. Hough.
 " 2. *New York*. Hough.
 " 3. *New York*. Hough.
 " 4. *New York*. Hough. *Wilmington*. Gibbon.
 " 5. *New York*. Hough. *Wilmington*. Gibbon.
 " 6. *New York*. Hough.
 " 8. *New York*. Hough.
 " 9. *New York*. Hough.
 " 10. *New York*. Hough. *Wilmington*. Gibbon.
 " 12. *New York*. Hough.
 " 30. *Gosport*. Burney.
 " 31. *New York*. Hough. *Wilmington*. Gibbon.
- Aug. 3. *Italy*. Fea. Boué.
 " 4. *Italy*. Fea. Boué.
 " 5. *Italy*. Fea. Boué.
 " 6. *New York*. Hough.
 " 19. *Albany, N. Y.* Henry.³
- Sept. 9. *New York*. Hough.
 " 12. *G. Britain or Ireland*. Dalton.
 " 12. *Gosport*. White.
 " 13. *St. Petersburg*. Wisniewsky. Kupffer.
- Oct. 23. *New York*. Hough.
 " 24. *New York*. Hough.
 " 29. *New York*. Hough. *Wilmington*. Gibbon.

¹ Phil. Mag. IX.² Mém. de l'Acad. St. Petersb. IV.³ Mém. de l'Acad. St. Petersb. III.¹ Kastn. Archiv. XXI. 85.² Kastn. Archiv. XXI. 85.³ Phil. Mag. X. 78.⁴ Amer. Journ. Sci. XXII. 143 and 155.

- Nov. 29. *G. Britain or Ireland.* Dalton.
 " 29. *Gosport.* Burney.¹
 Dec. 9. *New York.* Hough. Arago.
 " 22. *Paris?* Arago.

1832.

- Jan. 8. *Victoria Harbor.* Ross.
 " 22. *New York.* Hough. *Wilmington.* Gibbon.
 " 27. *G. Britain or Ireland.* Dalton.
 Feb. 2. *Giengen.* Binder.²
 Mar. 26. *New York.* Hough.
 " 27. *New York.* Hough. *Wilmington.* Gibbon.
 Apr. 10. *New York.* Hough.
 " 19. *New York.* Hough.
 " 21. *New York.* Hough.
 " 24. *New York.* Hough.
 " 28. *New York.* Hough.
 May 12. *New York.* Hough.
 " 29. *New York.* Hough.
 " 31. *New York.* Hough.
 June 1. *New York.* Hough.
 " 2. *New York.* Hough.
 " 20. *New York.* Hough.
 " 27. *Sharon, Conn.* Smith. Loomis.
 Aug. 12. *New York.* Hough.
 " 22. *New York.* Hough. *Wilmington.* Gibbon.
 " 23. *New York.* Hough. *Wilmington.* Gibbon.
 " 23. *Sharon, Conn.* Smith. Loomis.
 " 24. *New York.* Hough.
 Sept. 1. *New York.* Hough.
 " 16. *New York.* Hough.
 " 17. *England.* Hough.
 " 23. *G. Britain or Ireland.* Dalton.
 " 23. *Gosport.* Burney. *Smedley.* Potter.³
 " 30. *New York.* Hough. *Wilmington.* Gibbon.
 Oct. 7. *New York.* Hough.
 " 12. *England.* Hough.
 " 30. *New York.* Hough.
 " 31. *Nova Zembla.* Hough.
 Nov. 1. *G. Britain or Ireland.* Dalton.
 " 4. *G. Britain or Ireland.* Dalton.
 " 13. *St. Petersburg.* Wisniewsky. Kupffer.⁴
 " 14. *Wilmington.* Gibbon.
 " 15. *New York.* Hough.
 " 27. *Providence, R. I.* Caswell.⁵

- Dec. 21. *G. Britain or Ireland.* Dalton.
 " 21. *Newcastle-on-Tyne.* Potter.¹ *Gosport.* Burney.

1833.

- Jan. 2. *Wilmington.* Gibbon.
 " 19. *New York.* Hough.
 Feb. 11. *G. Britain or Ireland.* Dalton.
 " 18. *G. Britain or Ireland.* Dalton.
 " 19. *G. Britain or Ireland.* Dalton.²
 Mar. 13. *Cambridge, England.* Airy.³
 " 13. *G. Britain or Ireland.* Dalton.
 " 13. *Nova Zembla.* Hough.
 " 13. *St. Petersburg.* Wisniewsky. Kupffer.
 " 17. *New York.* Hough.
 " 21. *Wilmington.* Gibbon. Quetelet.
 " 21. *G. Britain or Ireland.* Dalton.
 " 21. *Edinburgh.* Forbes. *Ireland.* Robinson,⁴ &c.
 " 23. *New York.* Hough.
 Apr. 23. *New York.* Hough.
 " 24. *New York.* Hough.
 " 26. *New York.* Hough.
 May 7. *New York.* Hough.
 " 16. *New York.* Hough.
 " 17. *New York.* Hough. *Wilmington.* Gibbon.
 " 17. *New Haven.* Loomis.
 " 18. *New York.* Hough.
 June 14. *New York.* Hough.
 " 17. *Wilmington.* Gibbon.
 " 29. *New York.* Hough.
 July 10. *New York.* Hough. *Wilmington.* Gibbon.
 " 10. *New Haven.* Loomis.
 " 12. *New York.* Hough.
 " 13. *New York.* Hough.
 Aug. 1. *New York.* Hough.
 " 6. *New York.* Hough.
 " 6. *G. Britain or Ireland.* Dalton.
 " 15. *New York.* Hough.
 " 21. *St. Petersburg.* Wisniewsky. Kupffer.
 Sept. 1. *New York.* Hough.
 " 1. *G. Britain or Ireland.* Dalton.
 " 2. *New York.* Hough.
 " 5. *New York.* Hough.
 " 6. *New York.* Hough. *Nova Zembla.* Hough.
 " 7. *New York.* Hough.

¹ Phil. Mag. II. Third Series, 233.² March, 1833. No Aurora Borealis had been seen; and, indeed, we had scarcely noticed one the whole winter. Ross's Narrative of a Second Voyage, &c. p. 694. Force, p. 90.³ Phil. Mag. Third Series, II. 315.⁴ Proc. Brit. Assoc. II. 401.¹ Phil. Mag. X. 471.² Kastn. Archiv. XXIII. 319.³ Phil. Mag. Third Series, II. 233 and 315.⁴ Mém. de l'Acad. St. Petersb. III. Bull. Sci. I. pp. 7-11-14.⁵ Meteor. Observ. at Prov. in Smith. Contrib. XII.

Sept. 10.	<i>New York.</i>	Hough.	Dec. 10.	<i>Fort Reliance.</i>	Back and King.
" 12.	<i>G. Britain or Ireland.</i>	Dalton.	" 11.	<i>Fort Reliance.</i>	Back and King.
" 13.	<i>New York.</i>	Hough.	" 12.	<i>Fort Reliance.</i>	Back and King.
" 15.	<i>G. Britain or Ireland.</i>	Dalton.	" 15.	<i>Wilmington.</i>	Gibbon.
" 17.	<i>Cambridge.</i>	Airy. <i>York.</i>	" 15.	<i>Fort Reliance.</i>	Back and King.
" 17.	<i>G. Britain or Ireland.</i>	Dalton.	" 16.	<i>Fort Reliance.</i>	Back and King.
" 17.	<i>Brussels.</i>	Quetelet. ²	" 17.	<i>Fort Reliance.</i>	Back and King.
" 17.	<i>St. Petersburg.</i>	Wisniewsky. Kupffer.	" 19.	<i>Fort Reliance.</i>	Back and King.
" 18.	<i>G. Britain or Ireland.</i>	Dalton.	" 20.	<i>Fort Reliance.</i>	Back and King.
" 22.	<i>New York.</i>	Hough.	" 22.	<i>Fort Reliance.</i>	Back and King.
" 23.	<i>New York.</i>	Hough.	" 25.	<i>Fort Reliance.</i>	Back and King.
" 25.	<i>New York.</i>	Hough.	" 29.	<i>New York.</i>	Hough.
Oct. 4.	<i>New York.</i>	Hough.	" 29.	<i>Fort Reliance.</i>	Back and King.
" 5.	<i>New York.</i>	Hough.	" 29.	<i>Alford.</i>	Farquharson. ¹
" 12.	<i>Cambridge.</i>	Airy. <i>Armagh.</i>	" 30.	<i>New York.</i>	Hough.
" 12.	<i>G. Britain or Ireland.</i>	Dalton. Quetelet.	" 30.	<i>Fort Reliance.</i>	Back and King.
" 12.	<i>St. Petersburg.</i>	Wisniewsky. Kupffer.	" 31.	<i>Fort Reliance.</i>	Back and King.
" 13.	<i>New York.</i>	Hough. <i>Wilmington.</i>			
" 14.	<i>New York.</i>	Hough.			1834.
" 16.	<i>New York.</i>	Hough.	Jan. 1.	<i>Fort Reliance.</i>	Back and King.
" 27.	<i>Great Slave Lake.</i>	Hough.	" 2.	<i>Fort Reliance.</i>	Back and King.
" 28.	<i>Great Slave Lake.</i>	Hough.	" 3.	<i>Fort Reliance.</i>	Back and King.
Nov. 2.	<i>Fort Reliance.</i>	Back and King. ⁴	" 4.	<i>Fort Reliance.</i>	Back and King.
" 3.	<i>New York.</i>	Hough. <i>Fort Reliance.</i>	" 5.	<i>G. Britain or Ireland.</i>	Dalton.
" 6.	<i>Fort Reliance.</i>	Back and King.	" 5.	<i>Fort Reliance.</i>	Back and King.
" 7.	<i>Fort Reliance.</i>	Back and King.	" 6.	<i>Fort Reliance.</i>	Back and King.
" 8.	<i>Fort Reliance.</i>	Back and King.	" 7.	<i>New York.</i>	Hough.
" 10.	<i>Fort Reliance.</i>	Back and King.	" 7.	<i>Fort Reliance.</i>	Back and King.
" 11.	<i>Fort Reliance.</i>	Back and King.	" 8.	<i>Fort Reliance.</i>	Back and King.
" 12.	<i>Fort Reliance.</i>	Back and King.	" 9.	<i>Fort Reliance.</i>	Back and King.
" 12.	<i>Brussels.</i>	Quetelet.	" 10.	<i>New York.</i>	Hough.
" 13.	<i>New Haven.</i>	Loomis. ⁵	" 10.	<i>Fort Reliance.</i>	Back and King.
" 13.	<i>Fort Reliance.</i>	Back and King.	" 11.	<i>Fort Reliance.</i>	Back and King.
" 14.	<i>Fort Reliance.</i>	Back and King.	" 12.	<i>Fort Reliance.</i>	Back and King.
" 18.	<i>Fort Reliance.</i>	Back and King.	" 13.	<i>Fort Reliance.</i>	Back and King.
" 19.	<i>Fort Reliance.</i>	Back and King.	" 14.	<i>Fort Reliance.</i>	Back and King.
" 20.	<i>Fort Reliance.</i>	Back and King.	" 15.	<i>Fort Reliance.</i>	Back and King.
" 21.	<i>Fort Reliance.</i>	Back and King.	" 15.	<i>Brussels.</i>	Quetelet.
" 23.	<i>Fort Reliance.</i>	Back and King.	" 16.	<i>Fort Reliance.</i>	Back and King.
" x.	<i>Cuba.</i>	Poey. ⁶	" 17.	<i>Fort Reliance.</i>	Back and King.
Dec. 3.	<i>Fort Reliance.</i>	Back and King.	" 18.	<i>Fort Reliance.</i>	Back and King.
" 6.	<i>Fort Reliance.</i>	Back and King.	" 19.	<i>Fort Reliance.</i>	Back and King.
" 7.	<i>Fort Reliance.</i>	Back and King.	" 20.	<i>Fort Reliance.</i>	Back and King.
			" 21.	<i>Fort Reliance.</i>	Back and King.
			" 22.	<i>Fort Reliance.</i>	Back and King.
			" 23.	<i>Fort Reliance.</i>	Back and King.
			" 27.	<i>Fort Reliance.</i>	Back and King.
			" 28.	<i>New York.</i>	Hough.

¹ Proc. Brit. Assoc. II. 486. Chart. Edin. New Phil. Journ. XVI. 36.

² Annal. de l'Observ. XI. 42.

³ Proc. Brit. Assoc. II. 486.

⁴ Narrative of the Arctic Land Expedition, and Hough's Cat.

⁵ Amer. Journ. Sci. XXV. 384.

⁶ Amer. Journ. Sci. N. S. XXVIII. 404.

¹ Phil. Trans. 1839, p. 267.

- Jan. 28. *Fort Reliance.* Back and King.
 " 29. *Fort Reliance.* Back and King.
 " 30. *Fort Reliance.* Back and King.
 " 31. *Fort Reliance.* Back and King.
 Feb. 1. *Fort Reliance.* Back and King.
 " 4. *Fort Reliance.* Back and King.
 " 6. *Fort Reliance.* Back and King.
 " 7. *New York.* Hough.
 " 7. *Fort Reliance.* Back and King.
 " 8. *New York.* Hough.
 " 8. *Fort Reliance.* Back and King.
 " 9. *Fort Reliance.* Back and King.
 " 10. *Fort Reliance.* Back and King.
 " 11. *Fort Reliance.* Back and King.
 " 13. *Fort Reliance.* Back and King.
 " 14. *Fort Reliance.* Back and King.
 " 15. *Fort Reliance.* Back and King.
 " 16. *Fort Reliance.* Back and King.
 " 20. *G. Britain or Ireland.* Dalton.
 " 26. *Fort Reliance.* Back and King.
 " 28. *Fort Reliance.* Back and King.
 Mar. 2. *New York.* Hough.
 " 3. *New York.* Hough.
 " 3. *Fort Reliance.* Back and King.
 " 4. *New York.* Hough.
 " 5. *New York.* Hough. *Newberry.* Johnson.
 " 5. *Fort Reliance.* Back and King.
 " 6. *New York.* Hough.
 " 7. *New York.* Hough.
 " 8. *New York.* Hough.
 " 8. *Fort Reliance.* Back and King.
 " 9. *New York.* Hough.
 " 9. *Fort Reliance.* Back and King.
 " 10. *New York.* Hough.
 " 11. *Fort Reliance.* Back and King.
 " 12. *Fort Reliance.* Back and King.
 " 14. *Fort Reliance.* Back and King.
 " 18. *Fort Reliance.* Back and King.
 " 19. *Fort Reliance.* Back and King.
 " 20. *Fort Reliance.* Back and King.
 " 21. *Fort Reliance.* Back and King.
 " 26. *Fort Reliance.* Back and King.
 " 27. *Fort Reliance.* Back and King.
 " 28. *Fort Reliance.* Back and King.
 " 29. *Fort Reliance.* Back and King.
 " 30. *Fort Reliance.* Back and King.
 " 31. *Fort Reliance.* Back and King.
 Apr. 1. *Fort Reliance.* Back and King.
 " 2. *Fort Reliance.* Back and King.
 " 3. *Fort Reliance.* Back and King.
 Apr. 4. *Fort Reliance.* Back and King.
 " 5. *New York.* Hough.
 " 5. *Fort Reliance.* Back and King.
 " 6. *Fort Reliance.* Back and King.
 " 8. *Fort Reliance.* Back and King.
 " 9. *Fort Reliance.* Back and King.
 " 10. *Fort Reliance.* Back and King.
 " 11. *Fort Reliance.* Back and King.
 " 13. *New York.* Hough.
 " 14. *Fort Reliance.* Back and King.
 " 15. *Fort Reliance.* Back and King.
 " 16. *Fort Reliance.* Back and King.
 " 17. *Fort Reliance.* Back and King.
 " 18. *Fort Reliance.* Back and King.
 " 19. *Fort Reliance.* Back and King.
 " 24. *Fort Reliance.* Back and King.
 " 25. *Fort Reliance.* Back and King.
 " 26. *Fort Reliance.* Back and King.
 " 27. *Fort Reliance.* Back and King.
 " 29. *Fort Reliance.* Back and King.
 " 30. *Fort Reliance.* Back and King.
 May 1. *Fort Reliance.* Back and King.
 " 3. *New York.* Hough.
 June 28. *Brussels.* Quetelet.
 July 27. *New York.* Hough.
 " 28. *New York.* Hough.
 Aug. 11. *New York.* Hough.
 " 12. *United States.* Quetelet.¹
 " 31. *New York.* Hough.
 Sept. 2. *New York.* Hough.
 " 6. *Nova Zembla.* Hough.
 " 30. *St. Petersburg.* Wisniewsky. Kupffer.
 Oct. 1. *New York.* Hough.
 " 3. *New York.* Hough.
 " 4. *New York.* Hough.
 " 5. *New York.* Hough.
 " 6. *New York.* Hough.
 " 8. *New York.* Hough.
 " 22. *Fort Reliance.* Back and King.
 " 23. *New York.* Hough.
 " 26. *Fort Reliance.* Back and King.
 " 27. *Fort Reliance.* Back and King.
 " 29. *New York.* Hough.
 Nov. 2. *New York.* Hough.
 " 2. *New Haven.* Loomis.
 " 3. *New York.* Hough.
 " 3. *Manchester.* Dalton. *Moseley.* James, &c.²
 " 3. *St. Petersburg.* Wisniewsky. Kupffer.

¹ Monatl. Corr. X.² Mem. Lit. and Phil. Soc. Manchest. VI. 617.

- Nov. 3. *Fort Reliance*. Back and King.
 " 5. *New Haven*. Loomis.
 " 6. *New Haven*. Loomis.
 " 6. *Fort Reliance*. Back and King.
 " 7. *Fort Reliance*. Back and King.
 " 10. *Fort Reliance*. Back and King.
 " 11. *Fort Reliance*. Back and King.
 " 12. *Fort Reliance*. Back and King.
 " 13. *Fort Reliance*. Back and King.
 " 19. *Fort Reliance*. Back and King.
 " 19. *Nova Zembla*. Pakhtoussoff. Kupffer.¹
 " 20. *Fort Reliance*. Back and King.
 " 20. *Nova Zembla*. Pakhtoussoff. Kupffer.
 " 21. *Fort Reliance*. Back and King.
 " 22. *Nova Zembla*. Pakhtoussoff. Kupffer.
 " 23. *Fort Reliance*. Back and King.
 " 23. *Nova Zembla*. Pakhtoussoff. Kupffer.
 " 25. *Fort Reliance*. Back and King.
 " 25. *Nova Zembla*. Pakhtoussoff. Kupffer.
 " 27. *Fort Reliance*. Back and King.
 " 28. *New Haven*. Loomis.
 " 28. *Fort Reliance*. Back and King.
 " 29. *Nova Zembla*. Pakhtoussoff. Kupffer.
 " 30. *Nova Zembla*. Pakhtoussoff. Kupffer.
 Dec. 1. *Fort Reliance*. Back and King.
 " 2. *Fort Reliance*. Back and King.
 " 2. *Nova Zembla*. Pakhtoussoff. Kupffer.
 " 3. *New York*. Hough.
 " 3. *Fort Reliance*. Back and King.
 " 4. *New York*. Hough. *New Haven*. Loomis.
 " 4. *Fort Reliance*. Back and King.
 " 5. *Fort Reliance*. Back and King.
 " 6. *New Haven*. Loomis.
 " 6. *Nova Zembla*. Pakhtoussoff. Kupffer.
 " 6. *Fort Reliance*. Back and King.
 " 7. *Fort Reliance*. Back and King.
 " 8. *Fort Reliance*. Back and King.
 " 9. *Fort Reliance*. Back and King.
 " 9. *Nova Zembla*. Pakhtoussoff. Kupffer.
 " 10. *Fort Reliance*. Back and King.
 " 12. *Fort Reliance*. Back and King.
 " 14. *Fort Reliance*. Back and King.
 " 15. *Fort Reliance*. Back and King.
 " 16. *Fort Reliance*. Back and King.
 " 18. *Fort Reliance*. Back and King.
 " 19. *Fort Reliance*. Back and King.
 " 20. *New York*. Hough.
 " 20. *Fort Reliance*. Back and King.
 " 21. *New York*. Hough. *New Haven*. Loomis.
 Dec. 21. *Fort Reliance*. Back and King.
 " 22. *New York*. Hough. *New Haven*. Loomis.
 " 22. *Woolwich*. Sturgeon.¹
 " 22. *Fort Reliance*. Back and King.
 " 23. *New York*. Hough. *New Haven*. Loomis.
 " 23. *Fort Reliance*. Back and King.
 " 24. *Fort Reliance*. Back and King.
 " 25. *Fort Reliance*. Back and King.
 " 26. *Fort Reliance*. Back and King.
 " 27. *Fort Reliance*. Back and King.
 " 28. *Fort Reliance*. Back and King.
 " 29. *Fort Reliance*. Back and King.
 " 30. *Fort Reliance*. Back and King.
 " 31. *Fort Reliance*. Back and King.
- 1835.
- Jan. 1. *Fort Reliance*. Back and King.
 " 2. *Fort Reliance*. Back and King.
 " 3. *Fort Reliance*. Back and King.
 " 4. *New York*. Hough.
 " 4. *Fort Reliance*. Back and King.
 " 5. *New York*. Hough.
 " 6. *Fort Reliance*. Back and King.
 " 10. *Fort Reliance*. Back and King.
 " 14. *Fort Reliance*. Back and King.
 " 15. *Fort Reliance*. Back and King.
 " 16. *Fort Reliance*. Back and King.
 " 18. *New York*. Hough.
 " 18. *Fort Reliance*. Back and King.
 " 23. *Fort Reliance*. Back and King.
 " 24. *Fort Reliance*. Back and King.
 " 24. *Nova Zembla*. Pakhtoussoff. Kupffer.
 " 25. *Fort Reliance*. Back and King.
 " 26. *Fort Reliance*. Back and King.
 " 27. *Fort Reliance*. Back and King.
 " 28. *Fort Reliance*. Back and King.
 " 29. *New York*. Hough.
 " 29. *New Haven*. Loomis. *Providence*. Caswell.
 " 29. *Hanover, New Hampshire*. Hough.
 " 29. *Fort Reliance*. Back and King.
 " 30. *Fort Reliance*. Back and King.
 " 31. *New York*. Hough.
 " 31. *Fort Reliance*. Back and King.
 Feb. 1. *Fort Reliance*. Back and King.
 " 1. *Nova Zembla*. Pakhtoussoff. Kupffer.
 " 2. *Fort Reliance*. Back and King.
 " 2. *Nova Zembla*. Pakhtoussoff. Kupffer.
 " 3. *Fort Reliance*. Back and King.

¹ Annuaire Magnet. et Meter. de Russie.¹ Phil. Mag. VI. Third Series, 230.

- Feb. 3. *Nova Zembla.* Pakhtoussoff. Kupffer.
 " 4. *Fort Reliance.* Back and King.
 " 4. *Nova Zembla.* Pakhtoussoff. Kupffer.
 " 5. *Nova Zembla.* Pakhtoussoff. Kupffer.
 " 6. *Fort Reliance.* Back and King.
 " 7. *England.* Hough. Arago.
 " 7. *Prussia.* Feldt.¹
 " 8. *Fort Reliance.* Back and King.
 " 14. *Fort Reliance.* Back and King.
 " 24. *Fort Reliance.* Back and King.
 " 25. *New York.* Hough.
 " 25. *Fort Reliance.* Back and King.
 " 26. *New York.* Hough.
 " 26. *Fort Reliance.* Back and King.
 " 27. *New York.* Hough.
 " 27. *Fort Reliance.* Back and King.
 " 28. *Fort Reliance.* Back and King.
 Mar. 1. *New York.* Hough.
 " 2. *Fort Reliance.* Back and King.
 " 3. *Fort Reliance.* Back and King.
 " 4. *Fort Reliance.* Back and King.
 " 5. *Fort Reliance.* Back and King.
 " 6. *Fort Reliance.* Back and King.
 " 14. *Fort Reliance.* Back and King.
 " 15. *Fort Reliance.* Back and King.
 " 16. *Fort Reliance.* Back and King.
 " 17. *Fort Reliance.* Back and King.
 " 18. *Fort Reliance.* Back and King.
 " 30. *New York.* Hough.
 Apr. 17. *New York.* Hough.
 June 21. *New York.* Hough.
 " 28. *New York.* Hough.
 July 29. *New York.* Hough.
 Aug. 19. *New York.* Hough.
 " 22. *New York.* Hough.
 Sept. 4. *New York.* Hough. *New Haven.* Loomis.
 " 4. *Philadelphia.* Hough.
 " 7. *New York.* Hough.
 " 9. *New York.* Hough.
 " 22. *New York.* Hough.
 " 23. *New York.* Hough.
 " 24. *New York.* Hough.
 " 26. *New York.* Hough.
 Oct. 18. *Forli, Roman States.* Hough.
 " 27. *New York.* Hough.
 Nov. 17. *Boston.* Hale. Lovering.
 " 17. *Newberry.* Johnson. *New York.* Hough.
 Nov. 17. *New Haven.* Loomis.¹ *Providence.* Caswell.
 " 17. *Ashurst.* Snow. *Dunse.* Stevenson.²
 " 17. *Prussia.* Arago.³
 " 18. *Boston.* Hale. Lovering.
 " 18. *Providence, R. I.* Caswell.
 " 18. *New York.* Hough. *New Haven.* Loomis.
 " 18. *Edinburgh.* Galbraith.⁴ *Dunse.* Stevenson.
 " 18. *Woolwich.* Sturgeon. *Armagh.* Robinson.⁵
 " 18. *Brussels.* Quetelet. *France.* Arago.
 " 19. *New York.* Hough. Quetelet.
 " 26. *New York.* Hough.
 Dec. 10. *New York.* Hough. Quetelet.
 " 10. *New Haven.* Loomis.⁶
 " 11. *Canada.* Bonnycastle.⁷
 " 21. *New Haven.* Loomis.
- 1836.
- Feb. 11. *New York.* Hough.
 " 17. *Newberry.* Johnson.
 " 22. *New York.* Hough. *Newberry.* Johnson.
 Mar. 17. *New York.* Hough.
 Apr. 8. *New York.* Hough.
 " 11. *New York.* Hough.
 " 12. *New York.* Hough.
 " 18. *United States.* Bache.⁸
 " 18. *At Sea.* Quetelet.⁹
 " 19. *New York.* Hough. Quetelet.
 " 20. *New York.* Hough.
 " 21. *New York.* Hough. *Maryland.*
 " 22. *Boston.* Hale. Lovering.
 " 22. *Newberry.* Johnson. *Providence.* Caswell.
 " 22. *New Haven.* Loomis.¹⁰
 " 22. *High Burns near Sunderland.* Ettrick.¹¹
 " 22. *Lat. 46°. Long. 44°.* Duhamel. Arago.
 " 23. *New York.* Hough.
 " 24. *New York.* Hough.
 May 7. *New York.* Hough.
 " 8. *Providence.* Caswell.

¹ Pogg. Ann. XXXV. 378.² Amer. Journ. Sci. XXIX. 388.³ Phil. Mag. Third Series, VI. 21.⁴ Phil. Mag. Third Series, XIX. 579.⁵ Edin. New Phil. Journ. XX. 205.⁶ Phil. Mag. VIII. Third Series, 134, &c. Nov. 16, printed by mistake. See p. 236. Proc. Brit. Assoc. V. 32. Phil. Trans. 1836, p. 31.⁷ Amer. Journ. Sci. XXXII. 217.⁸ Amer. Journ. Sci. XXX. 132.⁹ Bull. de l'Acad. Brux. IV.¹⁰ Compt. Rend. III. 519.¹¹ Amer. Journ. Sci. XXXI. 85.¹² Phil. Mag. Third Series, IX. 74.

May 8.	<i>New York.</i>	Hough.	<i>New Haven.</i>	Loomis. ¹	Sept. 15.	<i>New York.</i>	Hough.
" 8.	<i>Canada.</i>	Bonnycastle.			" 20.	<i>New York.</i>	Hough.
" 13.	<i>New York.</i>	Hough.			" 29.	<i>Dublin, Ireland.</i>	Mallet. ¹
" 19.	<i>New York.</i>	Hough.	Quetelet.		Oct. 10.	<i>New York.</i>	Hough.
" 20.	—	Bache. ²			" 11.	<i>Dublin and Leominster.</i>	Gilks. ²
June 1.	<i>New York.</i>	Hough.			" 15.	<i>New York.</i>	Hough.
" 4.	<i>New York.</i>	Hough.			" 18.	<i>St. Petersburg.</i>	Parrot. Kupffer. ³
" 5.	<i>New York.</i>	Hough.			" 18.	<i>Brussels.</i>	Quetelet. <i>Berlin.</i> ⁴ <i>Dorpat.</i> Struve.
" 7.	<i>New York.</i>	Hough.			" 18.	<i>France and Italy.</i>	Arago. <i>Spain.</i> Rico.
" 8.	<i>New York.</i>	Hough.			" 20.	<i>New York.</i>	Hough.
" 9.	<i>New York.</i>	Hough.			" 22.	<i>At Sea. Lat. 40° N. Long. 39° E.</i>	Darondeau. ⁵
" 10.	<i>New York.</i>	Hough.			" 23.	<i>New York.</i>	Hough.
" 11.	<i>New York.</i>	Hough.			Nov. 1.	<i>New York.</i>	Hough.
" 12.	<i>New York.</i>	Hough.			" 2.	<i>New York.</i>	Hough.
" 13.	<i>New York.</i>	Hough.			" 4.	<i>New York.</i>	Hough.
July 3.	<i>New York.</i>	Hough.	<i>Providence.</i>	Caswell.	" 5.	<i>Ouessant.</i>	Darondeau.
" 6.	<i>New York.</i>	Hough.			" 8.	<i>New York.</i>	Hough.
" 10.	<i>New York.</i>	Hough.			" 9.	<i>New York.</i>	Hough.
" 12.	<i>New York.</i>	Hough.			" 13.	<i>New York.</i>	Hough.
" 16.	<i>New York.</i>	Hough.			" 15.	<i>Brest.</i> ⁶	
" 19.	<i>New York.</i>	Hough.			" 17.	—	Bache. ⁷
" 23.	<i>New York.</i>	Hough.			Dec. 8.	<i>New York.</i>	Hough.
" 27.	<i>New York.</i>	Hough.					
" 30.	<i>New York.</i>	Hough.	<i>Providence.</i>	Caswell.			
" 31.	<i>New York.</i>	Hough.					
" 31.	<i>New Haven.</i>	Olmsted.	Loomis.				
Aug. 1.	<i>New York.</i>	Hough.					
" 2.	<i>New York.</i>	Hough.	<i>Providence.</i>	Caswell.			
" 2.	<i>New Haven.</i>	Olmsted.	Loomis.				
" 4.	<i>New York.</i>	Hough.					
" 10.	<i>Ryde, Isle of Wight.</i> ³		M. F.				
" 11.	<i>New York.</i>	Hough.					
" 11.	<i>G. Britain.</i>	Traill. ⁴					
" 12.	<i>Newberry.</i>	Johnson.	<i>New Haven.</i>	Loomis. ⁵			
" 13.	<i>New York.</i>	Hough.	<i>Port Henry.</i>	Redfield. ⁶			
" 14.	<i>New York.</i>	Hough.					
" 15.	<i>New York.</i>	Hough.					
" 16.	<i>New York.</i>	Hough.					
" 17.	<i>New York.</i>	Hough.					
" 19.	<i>New York.</i>	Hough.					
" 21.	<i>Providence.</i>	Caswell.					
" 30.	<i>Newberry.</i>	Johnson.					
Sept. 13.	<i>New York.</i>	Hough.					

1837.

Jan. 2.	<i>New Haven.</i>	Herrick.	Loomis.
" 14.	<i>New York.</i>	Hough.	
" 23.	<i>Methye River. Lat. 56° Long. 106°</i>	Simpson.	
" 24.	<i>New York.</i>	Hough.	Quetelet.
" 25.	<i>New York.</i>	Hough.	<i>Providence.</i> Caswell.
" 25.	<i>New Haven.</i>	Loomis. ⁸	
" 25.	<i>Near Bermuda. L. 22° N. Lg. 57. W.</i>	Emmett. ⁹	
" 25.	<i>Newberry.</i>	Johnson.	
" 26.	<i>New York.</i>	Hough.	
" 26.	<i>Newberry.</i>	Johnson.	
Feb. 17.	<i>New York.</i>	Hough.	
" 18.	<i>New Haven.</i>	Loomis. ¹⁰	
" 18.	<i>Brussels.</i>	Quetelet.	<i>Gottingen.</i>
" 18.	<i>France.</i>	Darlu.	Arago.

¹ Phil. Mag. Third Series, X. 75 &c.² Phil. Mag. Third Series, X. 76-7.³ Mém. de l'Acad. St. Petersb. III. 469.⁴ Pogg. Ann. XXIX. 201. Edin. New Phil. Journ. XXIV. 222.⁵ Compt. Rend. V. 847.⁶ Compt. Rend. V. 847.⁷ Bull. de l'Acad. Brux. IV. 72.⁸ Amer. Journ. Sci. XXXII. 177.⁹ Amer. Journ. Sci. XII. 42. Phil. Mag. Third Series, XII. 42.¹⁰ Amer. Journ. Sci. XXXII. 396.¹ Amer. Journ. Sci. XXXII. 224.² Bull. de l'Acad. Brux. IV. 72.³ Phil. Mag. Third Series, IX. 230.⁴ Proc. Brit. Assoc. V. 32.⁵ Amer. Journ. Sci. XXXII. 220.⁶ Amer. Journ. Sci. XXXIII. 302.

- Feb. 18. *Ashhurst*. Snow. *Dublin*. Lloyd.¹
 " 18. *Makerstoun*. Brisbane. *Forli*. Matteucci.²
 " 18. *Sidmouth*. Heineken. *Belfast*. Stevelly.³
 " 18. *Catharinebourg*. Kupffer.
 " 25. *New York*. Hough.
 Mar. 1.⁴ *New York*. Hough.
 " 3. *New York*. Hough. *Edinburgh*. Necker.⁵
 " 9. *New York*. Hough.
 " 10. *New York*. Hough.
 " 29. *New York*. Hough.
 " 29. *New Haven*. Herrick. Newton and Loomis.⁶
 " 30. *New York*. Hough.
 Apr. 5. *New York*. Hough.
 " 6. *New York*. Hough.
 " 6. *New Haven*. Herrick. Newton and Loomis.
 " 6. *Newberry*. Johnson.
 " 6. *France*. Morren. *Germany*. Quetelet.
 " 6. *Christiania*. Hansteen.⁷ Arago.
 " 7. *Christiania*. Hansteen.
 " 8. *Christiania*. Hansteen.
 " 10. *New York*. Hough.
 " 21. *New York*. Hough. *Newberry*. Johnson.
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 25. *New York*. Hough.
 " 27. *New York*. Hough.
 May 6. *New Haven*. Herrick. Newton and Loomis.
 " 19. *England*. Christie.⁸
 " 27. *New York*. Hough.
 " 30. *New York*. Hough.
 " 31. *New York*. Hough.
 June 1. *New York*. Hough.
 " 2. *New York*. Hough.
 " 2. *New Haven*. Herrick. Newton and Loomis.
 " 3. *New York*. Hough.
 " 24. *Vermont*. Hough.
 " 24. *England*. Christie.⁹
 July 1. *Boston*. Hale. Lovering.
 " 1. *New York*. Hough. *Providence*. Caswell.
- July 1. *New Haven*. Herrick. Newton and Loomis.
 " 1. *Virginia, N. Carolina, and Georgia*. Hough.
 " 1. *England*. Christie.¹
 " 2. *New Haven*. Herrick. Newton and Loomis.
 " 2. *New York*. Hough. *England*. Christie.
 " 3. *New Haven*. Herrick. Newton and Loomis.
 " 7. *England*. Christie.
 " 25. *New York*. Hough.
 " 29. *New Haven*. Herrick. Newton and Loomis.
 " 29. *Burlington*. Hough. *Providence*. Caswell.
 " 31. *New York*. Hough.
 Aug. 3. *New Haven*. Herrick. Newton and Loomis.
 " 17. *New York*. Hough.
 " 25. *New York*. Hough. *Newberry*. Johnson.
 " 25. *New Haven*. Herrick. Newton and Loomis.
 " 25. *England*. Christie.² *Christiania*. Hansteen.
 " 26. *New York*. Hough.
 " 27. *New Haven*. Herrick. Newton and Loomis.
 " 27. *Christiania*. Hansteen.
 " 28. *New York*. Hough.
 " 28. *New Haven*. Herrick. Newton and Loomis.
 " 28. *Christiania*. Hansteen.
 " 29. *New York*. Hough.
 " 31. *Christiania*. Hansteen.
 Sept. 3. *Yakoutsk*. Kupffer.
 " 3. *Christiania*. Hansteen.
 " 6. *New York*. Hough.
 " 6. *Christiania*. Hansteen.
 " 7. *New York*. Hough.
 " 8. *Christiania*. Hansteen.
 " 9. *Christiania*. Hansteen.
 " 11. *Yakoutsk*. Kupffer.
 " 18. *New York*. Hough. *Yakoutsk*. Hough.
 " 20. *New Haven*. Herrick. Newton and Loomis.
 " 20. *New York*. Hough.
 " 20. *Christiania*. Hansteen.
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 21. *New York*. Hough. *Providence*. Caswell.
 " 21. *Christiania*. Hansteen.
 " 22. *New Haven?* Herrick. Newton and Loomis.
 " 22. *Brussels*. Quetelet.
 " 23. *New Haven*. Herrick. Newton and Loomis.
 " 23. *New York*. Hough.
 " 23. *Christiania*. Hansteen.
 " 23. *Hamburg*. Robert. Arago and Quetelet.
 " 24. *New Haven*. Herrick. Newton and Loomis.
 " 24. *New York*. Hough. *Providence*. Caswell.

¹ Phil. Mag. Third Series, XII. 98.² Phil. Mag. Third Series, X. 494.³ Athenæum, 1837, p. 42.⁴ An aurora was seen in Spain in the spring of 1837. Mém. de l'Acad. Cienc. Madrid. III. 77.⁵ Ann. Chem. et Phys. Third Series, I. 271.⁶ From Herrick's Auroral Register, published in the Trans. Conn. Acad. I. 9.⁷ Nouv. Mém. de l'Acad. Brux. XX. 103. Bull. de l'Acad. Brux. XXI. Pt. I. 282 &c.⁸ Proc. Brit. Assoc. VI. 29.⁹ Amer. Journ. Sci. XXXIV. 19. Proc. Brit. Assoc. VI. 29.¹ Proc. Brit. Assoc. VI. 29.² Proc. Brit. Assoc. VI. 29.

- Sept. 27. *Christiania*. Hansteen.
 " 28. *Christiania*. Hansteen.
 " 29. *Southampton, Long Island*. Herrick. N. and L.
 " 30. *New York*. Hough.
 Oct. 5. *Christiania*. Hansteen.
 " 5. *Kaafjord, Finmark*. Thomas.¹
 " 6. *New Haven*. Herrick. Newton and Loomis.
 " 6. *New York*. Hough.
 " 6. *St. Petersburg*. Kupffer. *Huggate*. Rankin.²
 " 6. *Kaafjord*. Thomas.
 " 8. *Kaafjord*. Thomas.
 " 18. *New Haven*. Herrick. Newton and Loomis.
 " 18. *Paris*. Mandl. *Dunse*. Stevenson.
 " 18. *St. Petersburg and Zlalooste*. Kupffer.
 " 18. *Stockholm*. Hough. *Yakoutsk*. Kupffer.
 " 18. *Arago and Quetelet*.
 " 19. *Christiania*. Hansteen.
 " 19. *Kaafjord*. Thomas.
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 21. *Kaafjord*. Thomas.
 " 22. *New Haven*. Herrick. Newton and Loomis.
 " 22. *New York*. Hough. *Providence*. Caswell.
 " 23. *Christiania*. Hansteen.
 " 25. *Christiania*. Hansteen.
 " 26. *Kaafjord*. Thomas.
 " 30. *Kaafjord*. Thomas.
 Nov. 1. *New Haven*. Herrick. Newton and Loomis.
 " 1. *Kaafjord*. Thomas.
 " 4. *New York*. Hough.
 " 5. *Norfolk, Conn.* Herrick. Newton and Loomis.
 " 5. *New York*. Hough.
 " 5. *Kaafjord*. Thomas.
 " 12. *New Haven*. Herrick. Newton and Loomis.
 " 12. *New York*. Hough. *Ashurst*. Snow.
 " 12. *Brussels*. Quetelet. *Dunse*. Stevenson.
 " 12. *France and Italy*. Arago.
 " 13. *New York*. Hough.
 " 14. *New Haven*.³ Herrick. Newton and Loomis.
 " 14. *New York*. Hough.
 " 14. *South Carolina and Georgia*. Hough.
 " 14. *G. Britain*. Hough. *Yakoutsk*. Kupffer.
 " 14. *Christiania*. Hansteen. *Kaafjord*. Thomas.
 " 15. *Yakoutsk*. Kupffer. *Kaafjord*. Thomas.
 " 15. *Christiania*. Hansteen.
 " 17. *New Haven*. Herrick. Newton and Loomis.
 " 18. *New Haven*. Herrick. Newton and Loomis.
 Nov. 18. *Yakoutsk*. Kupffer. *Kaafjord*. Thomas.
 " 19. *Kaafjord*. Thomas.
 " 20. *Kaafjord*. Thomas.
 " 21. *Kaafjord*. Thomas.
 " 23. *Kaafjord*. Thomas.
 " 24. *Kaafjord*. Thomas.
 " 26. *Kaafjord*. Thomas.
 " 30. *New Haven*. Herrick. Newton and Loomis.
 " 30. *Kaafjord*. Thomas.
 Dec. 1. *Boston*. Hale. Lovering.
 " 1. *New Haven*. Herrick. Newton and Loomis.
 " 1. *New York*. Hough. *Providence*. Caswell.
 " 2. *Catharinebourg*.¹ Kupffer.
 " 2. *Christiania*. Hansteen.
 " 2. *Kaafjord*. Thomas. Quetelet.
 " 3. *Kaafjord*. Thomas.
 " 4. *Boston*. Hale. Lovering.
 " 5. *New Haven*. Herrick. Newton and Loomis.
 " 11. *Kaafjord*. Thomas.
 " 12. *Copenhagen*. Hough.
 " 19. *Christiania*. Hansteen.
 " 19. *Yakoutsk*. Kupffer.
 " 28. *New Haven*. Herrick. Newton and Loomis.
 " 30. *New Haven*. Herrick. Newton and Loomis.
 1838.
 Jan. 3. *Kaafjord*. Thomas.
 " 4. *Kaafjord*. Thomas.
 " 5. *New Haven*. Herrick. Newton and Loomis.
 " 5. *New York*. Hough. *Kaafjord*. Thomas.
 " 9. *Kaafjord*. Thomas.
 " 11. *Kaafjord*. Thomas.
 " 13. *Kaafjord*. Thomas.
 " 15. *New Haven*. Herrick. Newton and Loomis.
 " 15. *New York*. Hough. *Kaafjord*. Thomas.
 " 16. *New Haven*. Herrick. Newton and Loomis.
 " 16. *St. Petersburg and Yakoutsk*.¹ Kupffer.
 " 16. *Catharinebourg*. Kupffer.
 " 16. *Kaafjord*. Thomas. *Zlalooste*.¹ Kupffer.
 " 17. *Yakoutsk*. Kupffer. *Kaafjord*. Thomas.
 " 18. *Kaafjord*. Thomas.
 " 19. *New York*. Hough. *Kaafjord*. Thomas.
 " 20. *Kaafjord*. Thomas.
 " 21. *Kaafjord*. Thomas.
 " 22. *Kaafjord*. Thomas.
 " 24. *New Haven*. Herrick. Newton and Loomis.
 " 24. *New York*. Hough.
 " 25. *New York*. Hough.

¹ Observ. Magnet. Comm. Nord.² Proc. Brit. Assoc. XV. 15.³ Amer. Journ. Sci. XXXIV. 267.¹ Annuaire Magnet. et Meter. de Russie.

- Jan. 25. *Yakoutsk.* Kupffer.
 " 28. *New Haven.* Herrick. Newton and Loomis.
 " 28. *St. Petersburg² and Yakoutsk.¹* Kupffer.
 " 29. *Kaafjord.* Thomas.
 " 30. *Kaafjord.* Thomas.
 " 31. *Kaafjord.* Thomas.
- Feb. 3. *New Haven.* Herrick. Newton and Loomis.
 " 4. *Providence, R. I.* Caswell.
 " 4. *Catharinebourg.* Kupffer.
 " 4. *Zlatoouste.* Kupffer.²
 " 10. *Kaafjord.* Thomas.
 " 11. *Kaafjord.* Thomas.
 " 15. *Kaafjord.* Thomas.
 " 16. *Catharinebourg.* Kupffer.
 " 16. *Christiania.* Hansteen. *Kaafjord.* Thomas.
 " 17. *Christiania.* Hansteen. *Kaafjord.* Thomas.
 " 18. *New Haven.* Herrick. Newton and Loomis.
 " 18. *England.* Hough. *Dublin.* Lloyd.³
 " 20. *New York.* Hough.
 " 21. *Boston.* Hale. Lovering.
 " 21. *Newberry.* Johnson. *New York.* Hough.
 " 21. *New Haven.* Herrick. Newton and Loomis.
 " 21. *Christiania.* Hansteen.
 " 21. *Catharinebourg.* Kupffer.
 " 21. *Barnaoul.* Kupffer.² *Kaafjord.* Thomas.
 " 22. *New Haven.* Herrick. Newton and Loomis.
 " 22. *New York.* Hough. *Yakoutsk.* Kupffer.
 " 22. *Christiania.* Hansteen.
 " 23. *New York.* Hough. *Yakoutsk.* Kupffer.
 " 23. *Christiania.* Hansteen.
 " 23. *Catharinebourg.* Kupffer.
 " 26. *New Haven.* Herrick. Newton and Loomis.
- Mar. 12. *Kaafjord.* Thomas.
 " 13. *Kaafjord.* Thomas.
 " 15. *New Haven.* Herrick. Newton and Loomis.
 " 16. *Christiania.* Hansteen.
 " 19. *New Haven.* Herrick. Newton and Loomis.
 " 19. *Christiania.* Hansteen.
 " 21. *Kaafjord.* Thomas.
 " 22. *Kaafjord.* Thomas.
 " 23. *Yakoutsk.* Kupffer. *Kaafjord.* Thomas.
 " 24. *Kaafjord.* Thomas.
 " 26. *Yakoutsk.* Kupffer. *Christiania.* Hansteen.
 " 30. *Yakoutsk.* Kupffer. *Kaafjord.* Thomas.
 " 30. *Catharinebourg.* Kupffer.
 " 31. *Yakoutsk.* Kupffer.
- Apr. 12. *New Haven.* Herrick. Newton and Loomis.
- Apr. 12. *New York.* Hough. *Newberry.* Johnson.
 " 12. *Christiania.* Hansteen.
 " 13. *Christiania.* Hansteen.
 " 15. *New York.* Hough.
 " 17. *Christiania.* Hansteen.
 " 19. *Christiania.* Hansteen.
 " 29. *New Haven.* Herrick. Newton and Loomis.
 " 29. *New York.* Hough. *Brussels.* Quetelet.¹
 " 29. *Catharinebourg.* Kupffer.
 " 30. *New Haven.* Herrick. Newton and Loomis.
 " 30. *New York.* Hough. *Newberry.* Johnson.
 " 30. *Providence, R. I.* Caswell.
- May 1. *Newberry.* Johnson.
 " 2. *New York.* Hough.
 " 13. *Providence, R. I.* Caswell.
 " 14. *New Haven.* Herrick. Newton and Loomis.
- June 25. *New Haven.* Herrick. Newton and Loomis.
 " 25. *New York.* Hough.
 " 26. *New Haven.* Herrick. Newton and Loomis.
 " 26. *New York.* Hough. *Providence.* Caswell.
 " 26. *Macao, East Indies.* Hough.
 " 27. *New York.* Hough.
- July 13. *New Haven.* Herrick. Newton and Loomis.
 " 14. *New York.* Hough.
 " 15. *Boston.* Hale. Lovering.
 " 15. *New Haven.* Herrick. Newton and Loomis.
 " 15. *New York.* Hough.
 " 27. *New Haven.* Herrick. Newton and Loomis.
 " 27. *New York.* Hough.
 " 29. *New Haven.* Herrick. Newton and Loomis.
 " 29. *New York.* Hough.
- Aug. 13. *New York.* Hough.
 " 22. *New Haven.* Herrick. Newton and Loomis.
 " 22. *New York.* Hough. *Providence.* Caswell.
 " 23. *New Haven.* Herrick. Newton and Loomis.
 " 23. *Christiania.* Hansteen. *Yakoutsk.* Kupffer.
 " 23. *Catharinebourg.* Kupffer.
 " 28. *New Haven.* Herrick. Newton and Loomis.
 " 28. *New York.* Hough.
- Sept. 5. *New Haven.* Herrick. Newton and Loomis.
 " 7. *New York.* Hough.
 " 7. *New Haven.* Herrick. Newton and Loomis.
 " 10. *New Haven.* Herrick. Newton and Loomis.
 " 12. *New York.* Hough. *Christiania.* Hansteen.
 " 12. *Catharinebourg.* Kupffer.
 " 12. *Bossekop, Finland.* Lottin, &c.²
 " 13. *Boston.* Hale. Lovering.
 " 13. *New Haven.* Herrick. Newton and Loomis.

¹ Annuaire Magnet. et Meteor. de Russie, 1839, p. 423.² Annuaire Magnet. et Meteor. de Russie, 1838, p. 26, 174 et 221.³ Phil. Mag. Third Series, XII. 98.¹ Bull. de l'Acad. Brux. V. 284.² Observ. Magnet. Comm. Nord.

- Sept. 13. *New York*. Hough. *Paris*. Bouvard.¹
 " 13. *Bossekop*. Lottin. *Ashurst*. Snow.
 " 14. *New Haven*. Herrick. Newton and Loomis.
 " 14. *Richmond, Kentucky*. Herrick. N. and L.
 " 14. *Newberry*. Johnson. *Providence*. Caswell.
 " 14. *New York*. Hough.
 " 15. *New Haven*. Herrick. Newton and Loomis.
 " 15. *Newberry*. Johnson. *New York*. Hough.
 " 15. *Washington, D. C.* Gilliss.²
 " 15. *Christiania*. Hansteen. *Paris*. Bouvard.
 " 15. *Kaafjord*. Thomas. *Bossekop*. Lottin.
 " 16. *Boston*. Hale. Lovering.
 " 16. *New Haven*. Herrick. Newton and Loomis.
 " 16. *New York*. Hough. *Washington*. Gilliss.
 " 16. *Christiania*. Hansteen. *Newberry*. Johnson.
 " 16. *Kaafjord*. Thomas. *Bossekop*. Lottin.
 " 17. *New Haven*. Herrick. Newton and Loomis.
 " 17. *New York*. Hough. *Washington*. Gilliss.
 " 17. *Kaafjord*. Thomas. *Bossekop*. Lottin.
 " 18. *New York*. Hough. *Bossekop*. Lottin.
 " 18. *Catharinebourg*. Kupffer.
 " 19. *New York*. Hough. *Bossekop*. Lottin.
 " 20. *Providence, R. I.* Caswell.
 " 20. *New York*. Hough. *Bossekop*. Lottin.
 " 21. *Catharinebourg*. Kupffer.
 " 21. *Bossekop*. Lottin.
 " 23. *Bossekop*. Lottin.
 " 24. *Christiania*. Hansteen.
 " 24. *Kaafjord*. Thomas. *Bossekop*. Lottin.
 " 26. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 28. *Kaafjord*. Thomas. *Bossekop*. Lottin.
 " 29. *Bossekop*. Lottin.
 " 30. *Kaafjord*. Thomas. *Bossekop*. Lottin.
 Oct. 1. *Bossekop*. Lottin.
 " 7. *Christiania*. Hansteen.
 " 11. *Barnaoul*. Kupffer. *Bossekop*. Lottin.
 " 12. *Bossekop*. Lottin.
 " 13. *Christiania*. Hansteen.
 " 14. *Bossekop*. Lottin.
 " 15. *Bossekop*. Lottin.
 " 16. *New Haven*. Herrick. Newton and Loomis.
 " 16. *New York*. Hough. *Providence*. Caswell.
 " 16. *Bossekop*. Lottin.
 " 17. *Catharinebourg*. Kupffer.
 " 17. *Zlatoust*. Kupffer. *Bossekop*. Lottin.
 " 18. *Bossekop*. Lottin.
 " 20. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 20. *Bossekop*. Lottin.
 Oct. 22. *Bossekop*. Lottin.
 " 23. *Bossekop*. Lottin.
 " 24. *Bossekop*. Lottin.
 " 25. *Bossekop*. Lottin.
 " 27. *Bossekop*. Lottin.
 " 28. *Bossekop*. Lottin.
 " 30. *Bossekop*. Lottin.
 " 31. *Bossekop*. Lottin.
 Nov. 1. *Bossekop*. Lottin.
 " 2. *Bossekop*. Lottin.
 " 5. *Bossekop*. Lottin.
 " 8. *Bossekop*. Lottin.
 " 9. *New York*. Hough.
 " 10. *Bossekop*. Lottin.
 " 11. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 12. *Boston*. Hale. Lovering.
 " 12. *New Haven*. Herrick. Newton and Loomis.
 " 12. *Providence, R. I.* Caswell.
 " 12. *Gerhardt*. Eutin. Quetelet.¹
 " 12. *Bossekop*. Lottin. *Slough*. Herschel.
 " 13. *New Haven*. Herrick. Newton and Loomis.
 " 13. *Kingussie, Scotland*. Rutherford.²
 " 13. *Bossekop*. Lottin. *Paris*. Bouvard.
 " 14. *Boston*. Hale. Lovering. *New York*. Hough.
 " 14. *New Haven*. Herrick. Newton and Loomis.
 " 14. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 15. *Bossekop*. Lottin.
 " 17. *Kingussie*. Rutherford.
 " 17. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 18. *Bossekop*. Lottin.
 " 19. *Bossekop*. Lottin.
 " 21. *Bossekop*. Lottin.
 " 22. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 24. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 25. *Boston*. Hale. Lovering. *Bossekop*. Lottin.
 " 25. *New Haven*. Herrick. Newton and Loomis.
 " 25. *New York*. Hough. *Washington*. Gilliss.
 " 26. *New York*. Hough. *Bossekop*. Lottin.
 " 27. *Bossekop*. Lottin.
 " 30. *Bossekop*. Lottin.
 Dec. 2. *Bossekop*. Lottin.
 " 3. *Bossekop*. Lottin.
 " 4. *Bossekop*. Lottin.
 " 5. *Bossekop*. Lottin.
 " 7. *Bossekop*. Lottin.
 " 8. *Bossekop*. Lottin.
 " 9. *Bossekop*. Lottin.
 " 10. *Bossekop*. Lottin.

¹ *Connaiss. de Tems.* 1842, p. 392.² *Magnet. and Meteor. Observ.* Washington, p. 352.¹ *Pogg. Ann.* XLVI. 662.² *Proc. Brit. Assoc.* VIII. 29.

- Dec. 11. *Bossekop*. Lottin.
 " 12. *Bossekop*. Lottin.
 " 13. *New Haven*. Herrick. Newton and Loomis.
 " 13. *New York*. Hough. *Newberry*. Johnson.
 " 13. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 14. *New York*. Hough. *Newberry*. Johnson.
 " 14. *Kingussie*. Rutherford.
 " 14. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 15. *New York*. Hough. *Bossekop*. Lottin.
 " 16. *Bossekop*. Lottin.
 " 17. *Bossekop*. Lottin.
 " 19. *Bossekop*. Lottin.
 " 20. *Bossekop*. Lottin. *Alford*. Farquharson.¹
 " 21. *Bossekop*. Lottin.
 " 22. *Bossekop*. Lottin.
 " 23. *Bossekop*. Lottin.
 " 24. *Bossekop*. Lottin.
 " 25. *Bossekop*. Lottin.
 " 27. *Bossekop*. Lottin.
 " 28. *Bossekop*. Lottin.
 " 30. *Bossekop*. Lottin.

1839.

- Jan. 1. *Bossekop*. Lottin.
 " 2. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 3. *Bossekop*. Lottin.
 " 5. *New York*. Hough.
 " 6. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 7. *Bossekop*. Lottin.
 " 9. *Bossekop*. *Jupvig*, *Finmark*. Lottin &c.²
 " 10. *New Haven*. Herrick. Newton and Loomis.
 " 10. *New York*. Hough. *Providence*. Caswell.
 " 10. *Jupvig*. Lottin, &c. Quetelet.
 " 11. *New York*. Hough.
 " 11. *Bossekop and Jupvig*. Lottin.
 " 12. *Bossekop and Jupvig*. Lottin.
 " 13. *New York*. Hough.
 " 13. *Bossekop and Jupvig?* Lottin.
 " 14. *Boston*. Hale. Lovering.
 " 14. *New Haven*. Herrick. Newton and Loomis.
 " 14. *New York*. Hough. *Newberry*. Johnson.
 " 14. *Providence, R. I.* Caswell.
 " 14. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 15. *Edinburgh*. Necker.
 " 15. *Bogoslowski*. Kupffer.³ *Bossekop*. Lottin.
 " 16. *New Haven*. Herrick. Newton and Loomis.
 " 16. *New York*. Hough.

¹ Phil. Trans. 1839, p. 277.² Observ. Magnet. Comm. Nord.³ Annuaire Magnet. et Meteor. de Russie, 1839, p. 283.

- Jan. 25. *Christiania*. Hansteen. *Edinburgh*. Necker.
 " 16. *Bossekop and Jupvig*. Lottin.
 " 17. *Bossekop and Jupvig*. Lottin.
 " 18. *New York*. Hough. *England*. Hough.
 " 18. *Bossekop and Jupvig*. Lottin.
 " 19. *Boston*. Hale. Lovering.
 " 19. *New Haven*. Herrick. Newton and Loomis.
 " 19. *New York*. Hough. *Providence*. Caswell.
 " 19. *Washington, D. C.* Gilliss.
 " 19. *Brussels*. Quetelet. *Ashurst*. Snow.
 " 19. *Christiania*. Hansteen. *Edinburgh*. Necker.¹
 " 19. *Bossekop and Jupvig*. Lottin.
 " 20. *Christiania*. Hansteen.
 " 20. *Bossekop and Jupvig*. Lottin.
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 21. *New York*. Hough.
 " 21. *Bossekop and Jupvig*. Lottin.
 " 22. *Bossekop*. Lottin.
 " 23. *Bossekop*. Lottin.
 " 24. *Bossekop*. Lottin.
 " 29. *Bossekop*. Lottin.
 Feb. 1. *Bossekop*. Lottin.
 " 2. *Bossekop*. Lottin.
 " 3. *Bossekop*. Lottin.
 " 4. *New Haven*. Herrick. Newton and Loomis.
 " 4. *New York*. Hough. *Bossekop*. Lottin.
 " 5. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 6. *Bossekop*. Lottin.
 " 7. *Bossekop*. Lottin.
 " 9. *New York*. Hough. *Bossekop*. Lottin.
 " 10. *Bossekop*. Lottin.
 " 11. *Bossekop*. Lottin. *Edinburgh*. Necker.
 " 12. *Bossekop*. Lottin.
 " 13. *Bossekop*. Lottin.
 " 16. *Bossekop*. Lottin.
 " 17. *Bossekop*. Lottin. *Edinburgh*. Necker.
 " 18. *New Haven*. Herrick. Newton and Loomis.
 " 18. *Christiania*. Hansteen. *Edinburgh*. Necker.
 " 18. *Bossekop*. Lottin.
 " 19. *New York*. Hough.
 " 19. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 20. *Bossekop*. Lottin.
 " 21. *Eutin, Holstein*. Roth. Schmidt.²
 " 21. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 22. *Barnaoul*. Kupffer.³ *Bossekop*. Lottin.
 " 23. *Bossekop*. Lottin.

¹ Ann. Chem. et Phys. Third Series, I. 270.² Grunert. Arch. Math. und Phys. XXVI. 74.³ Annuaire Magnet. et Meteor. de Russie, 1839, p. 170.

- Feb. 24. *Bossekop*. Lottin.
 " 26. *Bossekop*. Lottin.
 " 27. *Bossekop*. Lottin.
 " 28. *Bossekop*. Lottin.
 Mar. 1. *Bossekop*. Lottin.
 " 2. *Bossekop*. Lottin.
 " 3. *Bossekop*. Lottin.
 " 4. *Bossekop*. Lottin.
 " 5. *New York*. Hough. *Providence*. Caswell.
 " 5. *Fort Confidence*.¹ Simpson.
 " 5. *Bossekop*. Lottin.
 " 6. *Bossekop*. Lottin. *Portobello*. Necker.
 " 7. *Bossekop*. Lottin.
 " 8. *Bossekop*. Lottin.
 " 9. *Bossekop*. Lottin.
 " 10. *New Haven*. Herrick. Newton and Loomis.
 " 10. *New York*. Hough. *Bossekop*. Lottin.
 " 11. *Bossekop*. Lottin.
 " 15. *New Haven*. Herrick. Newton and Loomis.
 " 15. *New York*. Hough. *Newberry*. Johnson.
 " 15. *Bossekop*. Lottin.
 " 16. *New York*. Hough.
 " 16. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 17. *Bossekop*. Lottin.
 " 18. *Christiania*. Hansteen. *Bossekop*. Lottin.
 " 18. *Portobello*. Necker.
 " 19. *New York*. Hough. *Bossekop*. Lottin.
 " 20. *Bossekop*. Lottin.
 " 21. *Bossekop*. Lottin.
 " 22. *Washington, D. C.* Gilliss.
 " 23. *Bossekop*. Lottin.
 " 24. *New York*. Hough. *Bossekop*. Lottin.
 " 25. *Bossekop*. Lottin. *Portobello*. Necker.
 " 26. *Bossekop*. Lottin.
 " 27. *Bossekop*. Lottin.
 " 31. *Christiania*. Hansteen. *Bossekop*. Lottin.
 Apr. 1. *Bossekop*. Lottin.
 " 2. *Bossekop*. Lottin.
 " 3. *New York*. Hough. *Bossekop*. Lottin.
 " 5. *Bossekop*. Lottin.
 " 6. *Bossekop*. Lottin.
 " 7. *New York*. Hough. *Bossekop*. Lottin.
 " 8. *New Haven*. Herrick. Newton and Loomis.
 " 8. *New York*. Hough. *Bossekop*. Lottin.
 " 8. *Christiania*. Hansteen.
 " 9. *Christiania*. Hansteen.
 Apr. 11. *Portobello*. Necker.
 " 12. *Christiania*. Hansteen.
 " 13. *New York*. Hough. *Bossekop*. Lottin.
 " 13. *Christiania*. Hansteen.
 " 14. *Christiania*. Hansteen.
 " 15. *New York*. Hough.
 " 16. *Newberry*. Johnson. *Bossekop*. Lottin.
 " 17. *Bossekop*. Lottin.
 " 18. *Bossekop*. Lottin.
 " 20. *New York*. Hough.
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 21. *Newberry*. Johnson.
 " 22. *New York*. Hough.
 " 28. *Newberry*. Johnson.
 May 4. *New York*. Hough.
 " 5. *New Haven*. Herrick. Newton and Loomis.
 " 5. *New York*. Hough. *Christiania*. Hansteen.
 " 5. *Brussels*. Quetelet. Arago.
 " 7. *France and Italy*. Arago.
 " 7. *Saint Brice*. Lalanne.
 " 9. *New Haven*. Herrick. Newton and Loomis.
 " 10. *New York*. Hough. *Providence*. Caswell.
 " 10. *New Haven*. Herrick. Newton and Loomis.
 " 11. *New York*. Hough. *Boston*.
 " 11. *Worcester*.¹ Herrick. Newton and Loomis.
 " 12. *New York*. Hough.
 " 14. *New York*. Hough.
 " 14. *New Haven*. Herrick. Newton and Loomis.
 " 15. *New Haven*. Herrick. Newton and Loomis.
 " 15. *Providence, R. I.* Caswell.
 " 16. *New York*. Hough.
 " 17. *New York*. Hough.
 " 31. *New Haven*. Herrick. Newton and Loomis.
 June 6. *New Haven*. Herrick. Newton and Loomis.
 " 7. *New York*. Hough. *Washington*. Gilliss.
 " 7. *New Haven*. Herrick. Newton and Loomis.
 " 12. *New York*. Hough.
 July 3. *New Haven*. Herrick. Newton and Loomis.
 " 3. *New York*. Hough.
 " 4. *New York*. Hough.
 " 30. *New Haven*. Herrick. Newton and Loomis.
 Aug. 10. *New Haven*. Herrick. Newton and Loomis.
 " 10. *New York*. Hough.
 " 20. *New Haven*. Herrick. Newton and Loomis.
 " 20. *New York*. Hough.
 " 21. *Scandinavia*. Lottin, &c.²
 " 21. *Mt. Ord of Caithness, Scotl.* Necker.
 " 22. *New York*. Hough.

¹ Simpson says of the aurora at Fort Confidence, Lat. 67° N. Long. 119° E.: "Every clear night, when not eclipsed by the moon, it was to be seen; but was *brightest* and most active in the mornings some time before daylight." Narrative of the Discov. in N. C. Amer. p. 330.

¹ Med. and Surg. Journ. Boston. XX. 291.

² Observ. Magnet, Comm. Nord.

- Aug. 23. *Scandinavia*. Lottin.
 " 27. *Scandinavia*. Lottin.
 " 28. *New York*. Hough. *Newberry?* Hough.
 " 28. *New Haven*. Herrick. Newton and Loomis.
 " 28. *Washington, D. C.* Gilliss.
 " 29. *New York*. Hough.
 " 30. *Scandinavia*. Lottin.
 " 31. *New Haven*. Herrick. Newton and Loomis.
 " 31. *New York*. Hough.
 Sept. 1. *Dorchester*. Bond. Lovering.
 " 1. *New Haven*. Herrick. Newton and Loomis.
 " 3. *Boston*. Hale. Lovering.
 " 3. *Dorchester*. Bond. Lovering.
 " 3. *Providence*. Caswell. *Newberry*. Johnson.
 " 3. *Washington*. Gilliss. *New York*. Hough.
 " 3. *New Haven*. Herrick. Newton and Loomis.
 " 3. *New Orleans and Nashville*. Hough.
 " 3. *New London*. Sturgeon. *Paris*. Bouvard.¹
 " 3. *Brussels*. Quetelet. Arago. *Piedmont*.
 " 3. *Sky*. Necker. *Ashurst*. Snow.
 " 3. *Dunse*. Stevenson. *Scandinavia*. Lottin.
 " 4. *Providence, R. I.* Caswell.
 " 4. *New York*. Hough. *Newberry*. Johnson.
 " 4. *Sky*. Necker. *Dunse*. Stevenson.
 " 4. *Scandinavia*. Lottin. *Paris*. Bouvard.
 " 6. *New York*. Hough.
 " 7. *Scandinavia*. Lottin.
 " 8. *Bogoslawski*. Kupffer.
 " 10. *Christiania*. Hansteen. *Scandinavia*. Lottin.
 " 13. *Lapland*. Bravais. Hough and Boué.
 " 14. *New Haven*. Herrick. Newton and Loomis.
 " 14. *Providence*. Caswell. *Newberry*. Johnson.
 " 14. *New York*. Hough. *Washington*. Gilliss.
 " 15. *New Haven*. Herrick. Newton and Loomis.
 " 15. *Scandinavia*. Lottin.
 " 17. *Scandinavia*. Lottin.
 " 18. *Scandinavia*. Lottin.
 " 19. *Scandinavia*. Lottin.
 " 19. *New Haven*. Herrick. Newton and Loomis.
 " 20. *Scandinavia*. Lottin.
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 21. *Scandinavia*. Lottin. *Sky*. Necker.
 " 23. *Scandinavia*. Lottin.
 " 24. *Scandinavia*. Lottin. *Sky*. Necker.
 " 28. *Dorchester*. Bond. Lovering.
 " 28. *New Haven*. Herrick. Newton and Loomis.
 " 28. *New York*. Hough.
 Oct. 1. *New York*. Hough. *Kaafjord*. Thomas.
 " 2. *Kaafjord*. Thomas.
 Oct. 4. *New York*. Hough. *Kaafjord*. Thomas.
 " 5. *Scandinavia*. Lottin. *Kaafjord*. Thomas.
 " 6. *Kaafjord*. Thomas.
 " 7. *Kaafjord*. Thomas.
 " 8. *New Haven*. Herrick. Newton and Loomis.
 " 8. *Christiania*. Hansteen.
 " 8. *Scandinavia*. Lottin. *Kaafjord*. Thomas.
 " 9. *Kaafjord*. Thomas.
 " 10. *New Haven*. Herrick. Newton and Loomis.
 " 10. *New York*. Hough.
 " 10. *Scandinavia*. Lottin. *Kaafjord*. Thomas.
 " 11. *New Haven*. Herrick. Newton and Loomis.
 " 11. *Kaafjord*. Thomas.
 " 12. *Christiania*. Hansteen. *Sky*. Necker.
 " 12. *Scandinavia*. Lottin. *Kaafjord*. Thomas.
 " 13. *Kaafjord*. Thomas. *Scandinavia*. Lottin.
 " 13. *Christiania*. Hansteen. *Sky*. Necker.
 " 14. *New York*. Hough. *Kaafjord*. Thomas.
 " 15. *Scandinavia*. Lottin. *Kaafjord*. Thomas.
 " 16. *Kaafjord*. Thomas.
 " 17. *Kaafjord*. Thomas.
 " 18. *Kaafjord*. Thomas. *Scandinavia*. Lottin.
 " 20. *Kaafjord*. Thomas.
 " 22. *New Haven*. Herrick. Newton and Loomis.
 " 22. *New York*. Hough.
 " 22. *Brussels*. Quetelet. *France*. Arago.
 " 22. *Rome*. Matteucci. *Eutin*. Roth. Schmidt.
 " 22. *Kaafjord*. Thomas. *Paris*. Bouvard.
 " 23. *Kaafjord*. Thomas. *Eutin*. Roth. Schmidt.
 " 24. *Kaafjord*. Thomas.
 " 26. *Kaafjord*. Thomas.
 " 27. *Sky*. Necker.
 " 28. *Christiania*. Hansteen.
 " 28. *Sky*. Necker. Arago. *Kaafjord*. Thomas.
 " 30. *Kaafjord*. Thomas.
 " 31. *Spain*. Rico.¹
 Nov. 1. *Kaafjord*. Thomas. *Eutin*. Roth. Schmidt.
 " 2. *Kaafjord*. Thomas.
 " 3. *Christiania*. Hansteen.
 " 4. *New Haven*. Herrick. Newton and Loomis.
 " 4. *New York*. Hough. *Christiania*. Hansteen.
 " 6. *New Haven*. Herrick. Newton and Loomis.
 " 6. *Kaafjord*. Thomas. *Bogoslawski*. Kupffer.
 " 7. *Kaafjord*. Thomas.
 " 8. *New Haven*. Herrick. Newton and Loomis.
 " 8. *Kaafjord*. Thomas.
 " 10. *Christiania*. Hansteen. *Kaafjord*. Thomas.
 " 11. *New Haven*. Herrick. Newton and Loomis.

¹ *Connais. de Tems.* 1843, p. 408.¹ *Mem. Acad. Cienc. Madrid.* III. 77.

- Nov. 11. *Bogoslawski*. Kupffer. *Kaafjord*. Thomas.
 " 13. *Dorchester*. Bond. Lovering. *Sky*. Necker.
 " 13. *Christiania*. Hansteen. *Kaafjord*. Thomas.
 " 15. *Kaafjord*. Thomas.
 " 16. *Kaafjord*. Thomas.
 " 17. *New Haven*. Herrick. Newton and Loomis.
 " 17. *Bogoslawski*. Kupffer. *Dunse*. Stephenson.
 " 18. *New York*. Hough. *Newberry*. Johnson.
 " 19. *Kaafjord*. Thomas.
 " 23. *New Haven*. Herrick. Newton and Loomis.
 " 23. *Bogoslawski*. Kupffer. *Kaafjord*. Thomas.
 " 26. *Kaafjord*. Thomas.
 " 29. *Kaafjord*. Thomas.
 " 30. *New York*. Hough. *Kaafjord*. Thomas.
 Dec. 1. *Christiania*. Hansteen. *Kaafjord*. Thomas.
 " 2. *Kaafjord*. Thomas.
 " 4. *New Haven*. Herrick. Newton and Loomis.
 " 4. *Christiania*. Hansteen. *Kaafjord*. Thomas.
 " 5. *Kaafjord*. Thomas.
 " 6. *New York*. Hough.
 " 8. *Kaafjord*. Thomas.
 " 9. *Kaafjord*. Thomas.
 " 14. *Gosport*.¹ Burney.
 " 18. *Bogoslawski*. Kupffer.
 " 20. *Kaafjord*. Thomas.
 " 21. *Dorchester*. Bond. Lovering.
 " 24. *Kaafjord*. Thomas.
 " 25. *Kaafjord*. Thomas.
 " 26. *Kaafjord*. Thomas. *Bogoslawski*. Kupffer.
 " 29. *Kaafjord*. Thomas.
 " 30. *Kaafjord*. Thomas.
 " 31. *New Haven*. Herrick. Newton and Loomis.
 " 31. *Kaafjord*. Thomas. *Sky*. Necker.
- 1840.
- Jan. 1. *Nijne-Taguilsk, Mt. Ourals*. Demidoff.²
 " 2. *Newberry*. Johnson.
 " 3. *New Haven*. Herrick. Newton and Loomis.
 " 3. *New York*. Hough. *Newberry*. Johnson.
 " 3. *Huggate*. Rankin.³ *Scandinavia*. Lottin.
 " 3. *Sky*. Necker. *Geneva*. Plantamour.
 " 3. *Christiania*. Hansteen.
 " 4. *New Haven*. Herrick. Newton and Loomis.
 " 4. *New York*. Hough. *Newberry*. Johnson.
 " 4. *Sky*. Necker. *Dunse*. Stevenson. Arago.
 " 4. *Christiania*. Hansteen.
 " 4. *Bogoslawski and Zlatoouste*. Kupffer.⁴
- Jan. 5. *New Haven*. Herrick. Newton and Loomis.
 " 5. *New York*. Hough. *Toronto*. Hough.
 " 5. *Christiania*. Hansteen. *Sky*. Necker.
 " 8. *New York*. Hough.
 " 25. *Christiania*. Hansteen.
 " 26. *Nijne-Taguilsk*. Demidoff.
 " 28. *Christiania*. Hansteen. *Kaafjord*. Ihle. Reich.¹
 " 29. *Christiania*. Hansteen.
 " 30. *New Haven*. Herrick. Newton and Loomis.
 " 30. *New York*. Hough. *Providence*. Caswell.
 " 31. *New Haven*. Herrick. Newton and Loomis.
 " 31. *New York*. Hough.
 Feb. 5. *New York*. Hough.
 " 6. *Cambridge*. Bond. Lovering.
 " 6. *Bogoslawski*. Kupffer.
 " 6. *Jakobshavn, Greenland*. Rudolph.²
 " 7. *Cambridge*. Bond. Lovering.
 " 7. *New Haven*. Herrick. Newton and Loomis.
 " 7. *New York*. Hough. *Providence*. Caswell.
 " 7. *Catharinebourg*. Kupffer.
 " 7. *Zlatoouste*. Kupffer.
 " 15. *New York*. Hough.
 " 18. *Christiania*. Hansteen.
 " 20. *Christiania*. Hansteen.
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 21. *New York*. Hough.
 " 22. *Christiania*. Hansteen.
 " 24. *New York*. Hough.
 " 25. *Christiania*. Hansteen. *Sky*? Necker.
 " 25. *Bogoslawski*. Kupffer.
 " 26. *Christiania*. Hansteen.
 " 27. *Christiania*. Hansteen. *Sky*. Necker.
 " 28. *Sky*? Necker.³
 Mar. 2. *Sky*? Necker. *Jakobshavn*. Rudolph.
 " 5. *New Haven*. Herrick. Newton and Loomis.
 " 5. *New York*. Hough. *Washington*. Gilliss.
 " 5. *Providence, R. I.* Caswell. *Toronto*. Sabine.⁴
 " 6. *Toronto*. Sabine.
 " 8. *New York*. Hough.
 " 9. *Kaafjord*. Thomas.
 " 12. *New York*. Hough.
 " 13. *New York*. Hough. *Christiania*. Hansteen.
 " 19. *Christiania*. Hansteen.
 " 20. *Christiania*. Hansteen.
 " 20. *Kaafjord*. Thomas. *Sky*. Necker.
 " 21. *Christiania*. Hansteen. *Kaafjord*. Thomas.

¹ Phil. Mag. Second Series, VII. 158.² L'Institut. Sci. Math. Phys. &c. IX. 154.³ Proc. Brit. Assoc. XV. 15.⁴ Annuaire Magnet. et Meteor. de Russie, 1840, pp. 128 et 289.¹ Edin. New Phil. Journ. XXXV. 384.² Collect. Meteor. Soc. Sci. Danicæ. Fasc. IV. 82.³ Compt. Rend. XII. 347.⁴ Magnet. and Meteor. Observ. Toronto, I. 50.

- Mar. 22. *Cambridge.* Bond. Lovering.
 " 22. *New York.* Hough.
 " 22. *Christiania.* Hansteen. *Kaafjord.* Thomas, &c.
 " 23. *Christiania.* Hansteen. *Kaafjord.* Thomas.
 " 24. *New York.* Hough. *Kaafjord.* Thomas.
 " 25. *New York.* Hough. *Toronto.* Hough.
 " 25. *Christiania.* Hansteen. *Kaafjord.* Thomas.
 " 26. *New York.* Hough.
 " 26. *Christiania.* Hansteen. *Sky?* Necker.
 " 27. *Christiania.* Hansteen.
 " 28. *Christiania.* Hansteen. *Sky.* Necker.
 " 29. *Cambridge.* Bond. Lovering.
 " 29. *Christiania.* Hansteen.
 " 31. *New Haven.* Herrick. Newton and Loomis.
 Apr. 1. *New Haven.* Herrick. Newton and Loomis.
 " 1. *New York.* Hough. *Toronto.* Sabine.
 " 1. *Christiania.* Hansteen.
 " 2. *New York.* Hough.
 " 4. *New Haven.* Herrick. Newton and Loomis.
 " 4. *Providence, R. I.* Caswell.
 " 4. *New York.* Hough. *Toronto?* Hough.
 " 5. *New York.* Hough.
 " 9. *New York.* Hough.
 " 18. *Christiania.* Hansteen.
 " 19. *New Haven.* Herrick. Newton and Loomis.
 " 19. *New York.* Hough.
 " 20. *New Haven.* Herrick. Newton and Loomis.
 " 20. *New York.* Hough.
 " 21. *New York.* Hough.
 " 23. *New York.* Hough.
 " 24. *Cambridge.* Lovering.¹ Bond.
 " 24. *New Haven.* Herrick. Newton and Loomis.
 " 24. *Newberry.* Johnson. *New York.* Hough.
 " 24. *Christiania.* Hansteen.
 May 1. *New Haven.* Herrick. Newton and Loomis.
 " 1. *New York.* Hough.
 " 6. *New York.* Hough.
 " 17. *New York.* Hough.
 " 20. *New York.* Hough.
 " 23. *New York.* Hough.
 " 23. *Caraccas, S. America.* Cagigal. Arago.
 " 27. *New York.* Hough. *Toronto.* Sabine.
 " 28. *Cambridge.* Lovering. *New York.* Hough.
 " 29. *Cambridge.* Lovering.
 " 29. *Boston.* Hale. Lovering.
 " 29. *New Haven.* Herrick.² Newton and Loomis.
 " 29. *New York.* Hough. *Providence.* Caswell.
 May 29. *Toronto.* Sabine. *Paris.* Bouvard.¹
 " 30. *New Haven.* Herrick. Newton and Loomis.
 " 30. *New York.* Hough. *Canada.* Riddell.
 June 1. *Cambridge.* Bond. Lovering.
 " 10. *New York.* Hough.
 " 22. *Cambridge.* Bond. Lovering.
 " 25. *New York.* Hough.
 " 26. *Cambridge.* Lovering.
 " 28. *New York.* Hough.
 July 4. *Cambridge.* Lovering. *New York.* Hough.
 " 16. *New Haven.* Herrick. Newton and Loomis.
 " 21. *Toronto.* Sabine.
 " 25. *New Haven.* Herrick. Newton and Loomis.
 " 25. *New York.* Hough.
 " 29. *Cambridge.* Lovering. Bond.
 " 29. *New Haven.* Herrick. Newton and Loomis.
 " 29. *Providence, R. I.* Caswell. *New York.* Hough.
 Aug. 9. *New York.* Hough.
 " 10. *New York.* Hough.
 " 19. *Cambridge.* Lovering.
 " 19. *New Haven.* Herrick. Newton and Loomis.
 " 19. *New York.* Hough. *Toronto.* Sabine.
 " 20. *New York.* Hough.
 " 21. *New York.* Hough.
 " 23. *New York.* Hough.
 " 24. *New Haven.* Herrick. Newton and Loomis.
 " 24. *Toronto.* Sabine.
 " 25. *New York.* Hough.
 " 26. *New York.* Hough.
 " 26. *Christiania.* Hansteen.
 " 28. *Cambridge.* Lovering. *Washington.* Gilliss.
 " 28. *Boston.* Hale. Lovering.
 " 28. *New Haven.* Herrick. Newton and Loomis.
 " 28. *New York.* Hough. *Toronto.* Sabine.²
 " 28. *Christiania.* Hansteen.
 " 29. *New Haven.* Herrick. Newton and Loomis.
 " 31. *Cambridge.* Bond. Lovering.
 Sept. 1. *New York.* Hough. *Newberry.* Johnson.
 " 2. *Toronto.* Sabine.
 " 19. *New Haven.* Herrick. Newton and Loomis.
 " 21. *Cambridge.* Bond. Lovering.
 " 21. *New Haven.* Herrick. Newton and Loomis.
 " 21. *New York.* Hough. *Washington.* Gilliss.
 " 21. *Toronto.* Sabine. *Paris.* Bouvard.
 " 21. *Christiania.* Hansteen. *Brussels.* Quetelet.
 " 22. *New Haven.* Herrick. Newton and Loomis.
 " 23. *New York.* Hough. *Washington.* Gilliss.

¹ Mem. Amer. Acad. II. 52.² Amer. Journ. Sci. XXXIX. 194 and 383. XL. 337.¹ *Connaiss. de Tems.* 1844, p. 408.² *Compt. Rend.* XIII. 724-5.

- Sept. 24. *New York.* Hough.
 " 25. *Jakobshavn.* Rudolph.
 " 25. *New York.* Hough. *Toronto.* Sabine.
 " 27. *Toronto.* Sabine.
 " 30. *Christiania.* Hansteen.
 Oct. 2. *New York.* Hough.
 " 4. *Jakobshavn.* Rudolph.
 " 11. *New York.* Hough.
 " 18. *Christiania.* Hansteen.
 " 19. *New York.* Hough. *Toronto.* Sabine.
 " 19. *Parma. Colla.*¹ *Jakobshavn.* Rudolph.
 " 20. *New York.* Hough. *Newberry.* Johnson.
 " 21. *New York.* Hough. *Paris.* Bouvard.
 " 22. *Cambridge.* Lovering. *Newberry.* Johnson.
 " 22. *New Haven.* Herrick. Newton and Loomis.
 " 22. *Christiania.* Hansteen. *Italy?* Hough.
 " 23. *New Haven.* Herrick. Newton and Loomis.
 " 23. *New York.* Hough.
 " 27. *New Haven.* Herrick. Newton and Loomis.
 " 29. *Brussels.* Quetelet. *Italy?* Hough.
 " 31. *New Haven.* Herrick. Newton and Loomis.
 Nov. 12. *Paris.* Laugier. Boué.
 " 13. *New Haven.* Herrick. Newton and Loomis.
 " 13. *New York.* Hough. *Toronto.* Sabine.
 " 13. *Providence, R. I.* Caswell.
 " 13. *Washington, D. C.* Gilliss.
 " 15. *New Haven.* Herrick. Newton and Loomis.
 " 15. *New York.* Hough. *Providence.* Caswell.
 " 17. *New York.* Hough. *Dunse.* Stevenson.
 " 19. *New York.* Hough.
 " 20. *New Haven.* Herrick. Newton and Loomis.
 " 20. *New York.* Hough. *Jakobshavn.* Rudolph.
 " 21. *Christiania?* Hough. *Kaaford.* Ihle. Reich.
 " 22. *Christiania.* Hansteen.
 " 23. *New Haven.* Herrick. Newton and Loomis.
 " 28. *Jakobshavn.* Rudolph.
 " 29. *Cambridge.* Lovering.
 " 30. *New Haven.* Herrick. Newton and Loomis.
 Dec. 7. *Nijne-Taguilsk.* Demidoff.
 " 11. *Brussels.* Quetelet.
 " 12. *Christiania.* Hansteen.
 " 13. *New Haven.* Herrick. Newton and Loomis.
 " 13. *Jakobshavn.* Rudolph.
 " 13. *Christiania.* Hansteen.
 " 14. *New York.* Hough. *Nijne-Taguilsk.*
 " 16. *Jakobshavn.* Rudolph.
 " 17. *New York.* Hough. *Jakobshavn.* Rudolph.
 " 17. *New Haven.* Herrick. Newton and Loomis.
 Dec. 20. *New York.* Hough. *Toronto.* Sabine.
 " 20. *Christiania.* Hansteen.
 " 21. *New Haven.* Herrick. Newton and Loomis.
 " 21. *Newberry.* Johnson. *New York.* Hough.
 " 21. *Brussels.* Quetelet.
 " 21. *Eutin.* Schmidt.
 " 21. *Christiania.* Hansteen.
 " 21. *Catharinebourg.*¹ Kupffer.
 " 21. *Bogoslowski.* Kupffer.
 " 22. *New Haven.* Herrick. Newton and Loomis.
 " 23. *Christiania.* Hansteen.
 " 24. *New Haven.* Herrick. Newton and Loomis.
 " 24. *Christiania.* Hansteen. *Parma. Colla.*
 " 25. *New York.* Hough.
 " 28. *New Haven.* Herrick. Newton and Loomis.
 " 28. *Toronto.* Sabine. *Parma. Colla.*
 " 31. *Christiania.* Hansteen.
 1841.
 Jan. 10. *Zlatoouste?* Kupffer.
 " 11. *Zlatoouste.* Kupffer.
 " 14. *Cambridge.* Bond. Lovering.
 " 14. *New York.* Hough.
 " 15. *Christiania.* Hansteen.
 " 18. *Toronto.* Sabine.
 " 19. *Christiania.* Hansteen.
 " 20. *Christiania.* Hansteen.
 " 22. *New Haven.* Herrick. Newton and Loomis.
 " 24. *Brussels.* Quetelet. *Toronto.* Sabine.
 " 24. *Christiania.* Hansteen.
 " 25. *New Haven.* Herrick. Newton and Loomis.²
 " 25. *Toronto.* Sabine. *Christiania.* Hansteen.
 " 27. *Cambridge.* Bond. Lovering.³
 " 27. *Toronto.* Sabine.⁴
 " 28. *New Haven.* Herrick. Newton and Loomis.
 " 31. *Christiania.* Hansteen.
 " x. *Eutin.* Schmidt.
 Feb. 7. *Cambridge.* Bond. Lovering.
 " 7. *New Haven.* Herrick. Newton and Loomis.
 " 7. *New York.* Hough.
 " 8. *New Haven.* Herrick. Newton and Loomis.
 " 8. *New York.* Hough. *Providence.* Caswell.
 " 8. *Newberry.* Johnson. *Jakobshavn.* Rudolph.
 " 9. *New York.* Hough. *Jakobshavn.* Rudolph.
 " 11. *New York.* Hough. *Toronto.* Sabine.

¹ Annuaire Magnet. et Meteor. de Russie, 1840, p. 72, &c.

² Bull. de l'Acad. Brux. VIII. Pt. II. p. 64.

³ From the Meteor. Records of the Harvard College Observatory, not yet published.

⁴ Observ. during unusual Magnet. Disturb. Pt. I. p. XXII.

¹ L'Institut. Sci. Math. Phys. &c. VIII. 57 and 180.

- Feb. 12. *New Haven.* Herrick. Newton and Loomis.
 " 15. *Worcester.* Woodward. *Newberry.* Johnson.
 " 16. *New York.* Hough. *Jakobshavn.* Rudolph.
 " 17. *New York.* Hough.
 " 18. *New Haven.* Herrick. Newton and Loomis.
 " 19. *Washington, D. C.* Gilliss.
 " 20. *New York.* Hough.
 " 21. *New York.* Hough.
 " 22. *Cambridge.* Bond. *Boston.* Hale. Lovering.
 " 22. *New Haven.* Herrick. Newton and Loomis.
 " 22. *New York.* Hough. *Providence.* Caswell.
 " 23. *Cambridge.* Bond. Lovering.
 " 23. *Boston.* Hale. Lovering. *Toronto.* Sabine.
 " 23. *Newberry.* Johnson. *New York.* Hough.
 " 24. *New Haven.* Herrick. Newton and Loomis.
 " 24. *New York.* Hough. *Brussels.* Quetelet.
 " 25. *New York.* Hough.
 " 26. *Jakobshavn.* Rudolph.
 Mar. 1. *New York.* Hough.
 " 11. *New Haven.* Herrick. Newton and Loomis.
 " 11. *New York.* Hough. *Newberry.* Johnson.
 " 11. *Jakobshavn.* Rudolph.
 " 12. *Cambridge.* Bond. Lovering.
 " 14. *Cambridge.* Bond. Lovering.
 " 14. *Worcester, Mass.* Woodward.¹
 " 14. *New York.* Hough. *Newberry.* Johnson.
 " 14. *Christiania.* Hansteen. *Canada.* Sabine.
 " 15. *Cambridge.* Bond. Lovering.
 " 15. *New York.* Hough. *Newberry.* Johnson.
 " 15. *Worcester.* Woodward. *Christiania.* Hansteen.
 " 16. *Cambridge.* Bond. Lovering.
 " 16. *New York.* Hough.
 " 17. *New York.* Hough. *Newberry.* Johnson.
 " 17. *Hobarton, Van Dieman's Land.* Sabine.²
 " 19. *New Haven.* Herrick. Newton and Loomis.
 " 20. *Cambridge.* Bond. Lovering.
 " 20. *New York.* Hough.
 " 21. *Cambridge.* Bond. Lovering.
 " 21. *New Haven.* Herrick. Newton and Loomis.
 " 22. *Newberry.* Johnson.
 " 22. *Dunse.* Stevenson. *York.* Phillips.³
 " 22. *Durham.* Chevalier. *Belfast.* Stevelly.⁴
 " 23. *New Haven.* Herrick. Newton and Loomis.
 " 23. *New York.* Hough. *Hobarton.* Sabine.
 " 24. *Cambridge.* Bond. Lovering.
 Mar. 24. *New Haven.* Herrick. Newton and Loomis.
 " 24. *New York.* Hough. *Providence.* Caswell.
 " 24. *Newberry.* Johnson. *Worcester.* Woodward.
 " 24. *Philadelphia.* Bache.¹
 " 25. *Cambridge.* Bond. Lovering.
 Apr. 7. *Christiania.* Hansteen.
 " 8. *Christiania.* Hansteen.
 " 11. *Cambridge.* Bond. Lovering.
 " 11. *New Haven.* Herrick. Newton and Loomis.
 " 11. *New York.* Hough. *Christiania.* Hansteen.
 " 14. *Cambridge.* Bond. Lovering.
 " 16. *Cambridge.* Bond. Lovering.
 " 16. *New Haven.* Herrick. Newton and Loomis.
 " 16. *New York.* Hough.
 " 18. *Cambridge.* Bond. Lovering.
 " 18. *New Haven.* Herrick. Newton and Loomis.
 " 18. *New York.* Hough.
 " 19. *Cambridge.* Bond. Lovering.
 " 19. *New Haven.* Herrick. Newton and Loomis.
 " 19. *Providence.* Caswell. *Toronto.* Sabine.
 " 20. *New York.* Hough.
 " 21. *New York.* Hough.
 " 22. *Toronto.* Sabine.
 " 25. *New York.* Hough. *Bogoslowski.* Kupffer.²
 " 27. *Toronto.* Sabine.
 May 3. *Cambridge.* Bond. Lovering.
 " 7. *New York.* Hough.
 " 8. *New Haven.* Herrick. Newton and Loomis.
 " 8. *New York.* Hough.
 " 9. *New York.* Hough.
 " 18. *Hobarton.* Sabine.
 " 20. *New York.* Hough.
 " 26. *New York.* Hough.
 June 11. *New York.* Hough.
 " 15. *New Haven.* Herrick. Newton and Loomis.
 " 15. *New York.* Hough. *Brussels.* Quetelet.
 " 16. *Brussels.* Quetelet.
 " 17. *Worcester.* Woodward.
 " 21. *Worcester, Mass.* Woodward.
 July 6. *New York.* Hough.
 " 11. *Cambridge.* Bond. Lovering.
 " 18. *New York.* Hough.
 " 19. *Cambridge.* Bond. Lovering.
 " 19. *New Haven.* Herrick. Newton and Loomis.
 " 19. *Worcester.* Woodward.³ *Washington.* Gilliss.
 " 19. *New York.* Hough. *Toronto.* Sabine.

¹ Med. and Surg. Journ. Boston, XXIV. 83, 148 and 383.² Magnet. and Meteor. Observ. Hobarton, I. 130.³ Proc. Brit. Assoc. XVI. 7.⁴ Athenæum, 1841, pp. 266 and 340.¹ Magnet. and Meteor. Observ. Girard College, I. 266 and 938.² Annuaire Magnet. et Meteor. de Russie, 1841, pp. 373 et 404.³ Med. and Surg. Journ. Boston, XXV. 20, 103 and 231.

- July 20. *New York.* Hough. *Hobarton.* Sabine.
 " 21. *New Haven.* Herrick. Newton and Loomis.
 " 21. *New York.* Hough. *Toronto.* Sabine.
 " 24. *New York.* Hough.
 " 25. *New York.* Hough.
 " 28. *Toronto.* Sabine.
 " 29. *New York.* Hough. *Worcester.* Woodward.
 Aug. 2. *New Haven.* Herrick. Newton and Loomis.¹
 " 3. *New York.* Hough.
 " 4. *New York.* Hough.
 " 5. *New York.* Hough.
 " 6. *Worcester, Mass.* Woodward.
 " 6. *New York.* Hough. *Washington, D. C.* Gilliss.
 " 6. *New Haven.* Herrick. Newton and Loomis.
 " 6. *Toronto.* Sabine. *Dunse.* Stevenson.
 " 7. *New York.* Hough.
 " 11. *New York.* Hough.
 " 14. *New York.* Hough. *Washington, D. C.* Gilliss.
 " 14. *New Haven.* Herrick. Newton and Loomis.
 " 14. *Toronto.* Sabine.
 " 16. *New York.* Hough.
 " 17. *New York.* Hough.
 " 22. *New York.* Hough.
 " 23. *New York.* Hough. *Toronto.* Sabine.
 " 23. *New Haven.* Herrick. Newton and Loomis.
 " 24. *Toronto.* Sabine.
 " 26. *Christiania.* Hansteen.
 " 27. *New York.* Hough. *Christiania.* Hansteen.
 Sept. 5. *Gothaab, Greenland.* Block.²
 " 10. *Gothaab.* Block.
 " 11. *Toronto.* Sabine.
 " 12. *New York.* Hough.
 " 12. *Michigan.* Nicollet. Newton and Loomis.³
 " 12. *Montreal.* Olmsted. Newton and Loomis.
 " 13. *New Haven.* Herrick. Newton and Loomis.
 " 13. *Christiania.* Hansteen.
 " 14. *New Haven.* Herrick. Newton and Loomis.
 " 14. *Michigan.* Nicollet. Newton and Loomis.
 " 14. *New York.* Hough.
 " 15. *Gothaab.* Block.
 " 16. *New York.* Hough.
 " 17. *Gothaab.* Block.
 " 18. *New York.* Hough.
 " 18. *New Haven.* Herrick. Newton and Loomis.
 " 24. *Christiania.* Hansteen. *Gothaab.* Block.
 " 25. *New Haven.* Herrick. Newton and Loomis.
 Sept. 25. *Washington, D. C.* Gilliss.
 " 25. *New York.* Hough. *Toronto.* Sabine.
 " 25. *Christiania.* Hansteen. *Dunse.* Stevenson.
 " 26. *Cambridge.* Bond. Lovering.
 " 26. *New Haven.* Herrick. Newton and Loomis.
 Oct. 5. *New York.* Hough.
 " 6. *New York.* Hough. *Gothaab.* Block.
 " 7. *Toronto.* Sabine. *Gothaab.* Block.
 " 8. *New York.* Hough. *Toronto.* Sabine.
 " 8. *Jakobshavn.* Rudolph. *Gothaab.* Block.
 " 9. *Cambridge.* Bond. Lovering.
 " 9. *New Haven.* Herrick. Newton and Loomis.
 " 9. *Providence, R. I.* Caswell. *New York.* Hough.
 " 9. *Toronto.* Sabine. *Gothaab.* Block.
 " 10. *Gothaab.* Block.
 " 11. *Gothaab.* Block. *Jakobshavn.* Rudolph.
 " 12. *Gothaab.* Block.
 " 13. *New York.* Hough. *Gothaab.* Block.
 " 14. *Cambridge.* Bond. Lovering.
 " 14. *New Haven.* Herrick. Newton and Loomis.
 " 14. *Worcester.* Herrick. Newton and Loomis.
 " 14. *Jakobshavn.* Rudolph. *Gothaab.* Block.
 " 15. *Cambridge.* Bond. Lovering.
 " 15. *Christiania.* Hansteen. *Gothaab.* Block.
 " 16. *Gothaab.* Block.
 " 18. *Brussels.* Quetelet. Arago.
 " 18. *Geneva.* Wartmann. *Christiania.* Hansteen.
 " 19. *Gothaab.* Block.
 " 20. *New Haven.* Herrick. Newton and Loomis.
 " 20. *Gothaab.* Block.
 " 21. *Cambridge.* Bond. Lovering. *Gothaab.* Block.
 " 24. *Toronto.* Sabine.
 " 25. *New Haven.* Herrick. Newton and Loomis.
 " 28. *Christiania.* Hansteen.
 " 29. *Christiania.* Hansteen.
 Nov. 1. *New York.* Hough. *Canada.* Hough.
 " 1. *Gothaab.* Block.
 " 2. *Gothaab.* Block.
 " 3. *Gothaab.* Block.
 " 5. *New Haven?* Herrick. Newton and Loomis.
 " 5. *New York.* Hough. *Gothaab.* Block.
 " 6. *Christiania.* Hansteen. *Gothaab.* Block.
 " 7. *Christiania.* Hansteen. *Gothaab.* Block.
 " 7. *Jakobshavn.* Rudolph.
 " 8. *New Haven.* Herrick. Newton and Loomis.
 " 8. *Toronto.* Sabine. *Christiania.* Hansteen.
 " 8. *Gothaab.* Block.
 " 9. *Gothaab.* Block.
 " 10. *New York.* Hough. *Christiania.* Hansteen.
 " 11. *Christiania.* Hansteen. *Gothaab.* Block.

¹ Bull. de l'Acad. Brux. IX. Pt. I. 185.

² Collect. Meteor. Soc. Sci. Danice. Fasc. IV. p. 167.

³ Trans. Amer. Phil. Soc. VIII. 323.

- Nov. 12. *Paris*. Laugier. Arago. *Gothaab*. Block.
 " 12. *Christiania*. Hansteen. *Jakobshavn*. Rudolph.
 " 13. *Christiania*. Hansteen. *Gothaab*. Block.
 " 14. *Christiania*. Hansteen. *Gothaab*. Block.
 " 15. *New Haven*. Herrick. Newton and Loomis.
 " 15. *Jakobshavn*. Rudolph. *Gothaab*. Block.
 " 17. *New York*. Hough. *Christiania*. Hansteen.
 " 17. *Jakobshavn*. Rudolph. *Gothaab*. Block.
 " 18. *Cambridge*. Lovering. *Providence*. Caswell.
 " 18. *New Haven*. Herrick. Newton and Loomis.
 " 18. *New York*. Hough. *Toronto*. Sabine.
 " 18. *Brussels*. Quetelet. *Gothaab*. Block.
 " 18. *Christiania*. Hansteen. *Dunse*. Stevenson.
 " 19. *Christiania*. Hansteen. *Dunse*. Stevenson.
 " 19. *Jakobshavn*. Rudolph.
 " 20. *Gothaab*. Block.
 " 21. *Gothaab*. Block.
 " 23. *Gothaab*. Block.
 " 28. *Gothaab*. Block.
 Dec. 1. *Gothaab*. Block.
 " 2. *Gothaab*. Block.
 " 3. *Christiania*. Hansteen. *Gothaab*. Block.
 " 3. *Jakobshavn*. Rudolph.
 " 4. *Gothaab*. Block. *Jakobshavn*. Rudolph.
 " 5. *Gothaab*. Block.
 " 6. *Gothaab*. Block.
 " 7. *Gothaab*. Block.
 " 8. *Bogoslawski*. Kupffer. *Gothaab*. Block.
 " 9. *Christiania*. Hansteen. *Gothaab*. Block.
 " 10. *Gothaab*. Block.
 " 11. *Gothaab*. Block.
 " 12. *Paris*. Boué.¹ *Gothaab*. Block.
 " 13. *Paris*. Boué. *Gothaab*. Block.
 " 14. *New Haven*. Herrick. Newton and Loomis.
 " 14. *New York*. Hough. *Gothaab*. Block.
 " 14. *Christiania*. Hansteen. *Dunse*. Stevenson.
 " 15. *New Haven*. Herrick. Newton and Loomis.
 " 15. *Gothaab*. Block.
 " 16. *Gothaab*. Block. *Jakobshavn*. Rudolph.
 " 17. *Toronto*. Sabine. *Dunse*. Stevenson.
 " 17. *Hobarton, V. D. Land*. Sabine.²
 " 17. *Gothaab*. Block.
 " 18. *Gothaab*. Block.
 " 19. *Cambridge*. Bond. Lovering.
 " 19. *Cracow*. Weisse. *Christiania*. Hansten.
 " 19. *Gothaab*. Block.
 " 20. *Cracow*. Weisse.³
 Dec. 21. *Cambridge*. Bond. Lovering.
 " 24. *Cambridge*. Lovering.
 " 24. *New Haven?* Herrick. Newton and Loomis.
 " 27. *Gothaab*. Block.
 " 30. *Gothaab*. Block.
 " 31. *Gothaab*. Block.
 1842.
 Jan. 1. *Hobarton*. Sabine.¹ *Jakobshavn*. Rudolph.
 " 2. *Gothaab*. Block.
 " 2. *Worcester, Mass*. Woodward.²
 " 3. *Gothaab*. Block.
 " 4. *Cambridge*. Lovering.
 " 5. *Cambridge*. Lovering.
 " 6. *Christiania*. Hansteen. *Gothaab*. Block.
 " 6. *Jakobshavn*. Rudolph.
 " 7. *Cambridge*. Lovering.
 " 8. *St. Louis*. Herrick. Newton and Loomis.
 " 8. *Gothaab*. Block. *Jakobshavn*. Rudolph.
 " 9. *Cambridge*. Lovering. *Gothaab*. Block.
 " 9. *New Haven?* Herrick. Newton and Loomis.
 " 11. *Cambridge*. Bond. Lovering.
 " 11. *New York*. Hough. *Newberry*. Johnson.
 " 11. *Toronto*. Sabine. *Gothaab*. Block.
 " 12. *Cambridge*. Bond. Lovering.
 " 12. *Gothaab*. Block.
 " 13. *Gothaab*. Block.
 " 14. *Gothaab*. Block.
 " 15. *Cambridge*. Lovering. *Worcester*. Woodward.
 " 15. *Washington, D. C*. Gilliss.
 " 15. *New Haven*. Herrick. Newton and Loomis.
 " 15. *New York*. Hough. *Canada*.
 " 15. *Newberry*. Johnson. *Providence*. Caswell.
 " 15. *Christiania*. Hansteen. *Gothaab*. Block.
 " 16. *Gothaab*. Block.
 " 17. *Gothaab*. Block.
 " 18. *Gothaab*. Block.
 " 20. *New Haven?* Herrick. Newton and Loomis.
 " 20. *Gothaab*. Block.
 " 24. *St. Petersburg*. Kupffer.
 " 31. *Gothaab*. Block.
 Feb. 1. *New York*. Hough.
 " 1. *Hobarton*. Sabine.¹ *Gothaab*. Block.
 " 2. *Worcester*. Woodward. *Gothaab*. Block.
 " 3. *Gothaab*. Block.
 " 4. *Gothaab*. Block.

¹ *Encyclopedie du Monde Savant*, 1841, p. 728.² *Aurora Australis*. ³ *Bull. de l'Acad. Brux.* IX. Pt. I. p. 14.¹ *Aurora Australis*.² *Med. and Surg. Journ. Boston*, XXVI. 36, 83, 228 and 391.

- Feb. 6. *New Haven?* Herrick. Newton and Loomis.¹
 " 6. *Washington, D. C.* Gilliss.
 " 7. *Gothaab.* Block.
 " 8. *Christiania.* Hansteen. *Gothaab.* Block.
 " 9. *Gothaab.* Block.
 " 10. *Gothaab.* Block.
 " 11. *Cambridge.* Lovering. *Worcester.* Woodward.
 " 11. *New Haven.* Herrick. Newton and Loomis.
 " 11. *Dunse.* Stevenson.
 " 12. *New York.* Hough.
 " 13. *New York.* Hough. *Gothaab.* Block.
 " 14. *Christiania.* Hansteen. *Gothaab.* Block.
 " 16. *Christiania.* Hansteen. *Gothaab.* Block.
 " 17. *Gothaab.* Block.
 " 18. *Christiania.* Hansteen. *Hobarton.* Sabine.
 " 18. *Gothaab.* Block.
 " 19. *Gothaab.* Block.
 " 24. *Worcester, Mass.* Woodward.
 " 24. *Christiania.* Hansteen. *Gothaab.* Block.
 " 24. *St. Petersburg.* Kupffer.²
 " 24. *Alford.* Farquharson.³
 " 26. *Gothaab.* Block.
 " 27. *Gothaab.* Block.
 " 28. *Gothaab.* Block.
 Mar. 1. *Christiania.* Hansteen.
 " 2. *Gothaab.* Block.
 " 3. *Sitka.* Kupffer. *Gothaab.* Block.
 " 3. *St. Petersburg.* Kupffer.
 " 4. *Gothaab.* Block.
 " 5. *Christiania.* Hansteen. *Gothaab.* Block.
 " 6. *Sitka.* Kupffer.
 " 7. *New Haven?* Herrick. Newton and Loomis.
 " 10. *Toronto.* Sabine.
 " 11. *Toronto.* Sabine.
 " 12. *New York.* Hough.
 " 15. *St. Petersburg.* Kupffer.
 " 16. *Christiania.* Hansteen.
 " 17. *Gothaab.* Block.
 " 19. *Sitka.* Kupffer.
 " 20. *New York.* Hough. *Sitka.* Kupffer.
 " 23. *Cambridge.* Bond. Lovering.
 " 27. *Gothaab.* Block.
 " 28. *Gothaab.* Block.
 " 29. *Christiania.* Hansteen.
 " 30. *Christiania.* Hansteen.
 Apr. 1. *Christiania.* Hansteen.
 Apr. 3. *St. Petersburg.* Kupffer. *Gothaab.* Block.
 " 3. *Christiania.* Hansteen.
 " 4. *Gothaab.* Block.
 " 5. *New York.* Hough. *Christiania.* Hansteen.
 " 6. *Gothaab.* Block.
 " 7. *Christiania.* Hansteen. *Gothaab.* Block.
 " 8. *Christiania.* Hansteen. *Gothaab.* Block.
 " 9. *Christiania.* Hansteen. *Gothaab.* Block.
 " 10. *Cambridge.* Bond. Lovering.
 " 10. *Worcester, Mass.* Woodward.
 " 10. *New Haven.* Herrick. Newton and Loomis.
 " 10. *New York.* Hough. *Christiania.* Hansteen.
 " 10. *Gothaab.* Block.
 " 11. *New Haven.* Herrick. Newton and Loomis.
 " 11. *New York.* Hough. *Toronto.* Sabine.
 " 11. *Christiania.* Hansteen. *Sitka.* Kupffer.
 " 11. *Hobarton, V.D.Land.* Sabine.¹ *Gothaab.* Block.
 " 12. *Cambridge.* Bond. Lovering.
 " 12. *New York.* Hough. *Christiania.* Hansteen.
 " 13. *Worcester, Mass.* Woodward.
 " 13. *Christiania.* Hansteen. *Hobarton.*¹ Sabine.
 " 14. *Worcester.* Woodward. *Washington.* Gilliss.
 " 14. *New Haven.* Herrick. Newton and Loomis.
 " 14. *New York.* Hough. *Toronto.* Sabine.²
 " 14. *Christiania.* Hansteen. *Hobarton.* Sabine.¹
 " 15. *New York.* Hough. *Toronto.* Sabine.
 " 15. *Philadelphia.* Bache.
 " 15. *Christiania.* Hansteen. *Hobarton.* Sabine.
 " 15. *St. Petersburg.* Kupffer.
 " 16. *Worcester, Mass.* Woodward.
 " 16. *Christiania.* Hansteen. *Toronto.* Sabine.
 " 20. *New Haven.* Herrick. Newton and Loomis.³
 " 26. *Gothaab.* Block.
 " 29. *Christiania.* Hansteen.
 May 16. *Hobarton, Van Dieman's Land.* Sabine.¹
 June 2. *New York.* Hough.
 " 4. *New York.* Hough. *Toronto.* Sabine.
 " 7. *Worcester, Mass.* Woodward.
 " 9. *Worcester, Mass.* Woodward.
 " 13. *New York.* Hough. *Hobarton.* Sabine.
 " 30. *Brussels.* Quetelet.
 " 31? *Brussels.*⁴
 July 2. *New York.* Hough. *Hobarton.* Sabine.
 " 3. *Cambridge.* Bond. Lovering.
 " 3. *New York.* Hough. *Toronto.* Sabine.

¹ Bull. de l' Acad. Brux. IX. Pt. II. p. 145.² Annuaire. Magnet. et Meteor. de Russie. 1842, p. 41.³ Phil. Trans. 1842, p. 87. Edin. New Phil. Journ. XXXVIII.¹ Aurora Australis.² Magnet. and Meteor. Observ. Toronto, II. 172.³ Amer. Journ. Sci. XLIII. 213.⁴ Bull. de l' Acad. Brux. IX. Pt. II. p. 6.

- July 3. *Brussels*. Quetelet.
 " 6. *New York*. Hough.
 " 9. *New York*. Hough.
 " 11. *New Haven*. Herrick. Newton and Loomis.
 " 12. *Toronto*. Sabine.
 " 13. *New York*. Hough.
 " 20. *Sitka*. Kupffer.
 " 31. *New York*. Hough. *Canada*. Hough.
 Aug. 5. *New York*. Hough. *Canada*. Hough.
 " 7. *Christiania*. Hansteen.
 " 9. *Cambridge*. Lovering.
 " 9. *Christiania*. Hansteen.
 " 10. *Christiania*. Hansteen.
 " 14. *Christiania*. Hansteen.
 " 23. *New Haven*. Herrick. Newton and Loomis.¹
 " 24. *Gothaab*. Block.
 Sept. 2. *New Haven*. Herrick. Newton and Loomis.
 " 2. *New York*. Hough. *Toronto*. Sabine.
 " 2. *Philadelphia*. Bache.
 " 2. *Christiania*. Hansteen. *Sitka*. Kupffer.
 " 2. *Hobarton*. Sabine. *Gothaab*. Block.
 " 3. *Gothaab*. Block.
 " 4. *Gothaab*. Block.
 " 5. *Gothaab*. Block.
 " 8. *Gothaab*. Block.
 " 9. *Gothaab*. Block.
 " 10. *Gothaab*. Block.
 " 11. *Gothaab*. Block. *Jakobshavn*. Rudolph.
 " 12. *Jakobshavn*. Rudolph.
 " 13. *Gothaab*. Block.
 " 14. *Gothaab*. Block.
 " 15. *Gothaab*. Block.
 " 18. *Gothaab*. Block.
 " 19. *New York*. Hough. *Gothaab*. Block.
 " 20. *Christiania*. Hansteen.
 " 23. *Jakobshavn*. Rudolph.
 " 25. *Jakobshavn*. Rudolph.
 " 28. *Cambridge*. Bond. Lovering.
 " 28. *New Haven*. Herrick. Newton and Loomis.
 " 28. *Christiania*. Hansteen.
 " 29. *New York*. Hough.
 " 30. *Christiania*. Hansteen. *Gothaab*. Block.
 Oct. 2. *Gothaab*. Block.
 " 3. *Jakobshavn*. Rudolph.
 " 7. *France*. Marcel.² Hough.
 " 7. *Christiania*. Hansteen.
 " 8. *Christiania*. Hansteen. *Jakobshavn*. Rudolph.
 Oct. 9. *Gothaab*. Block.
 " 13. *New York*. Hough.
 " 15. *Christiania*. Hansteen.
 " 16. *Parma*. Colla.
 " 17. *Geneva*. Wartmann.¹
 " 18. *Brussels*. Quetelet.
 " 23. *Gothaab*. Block.
 " 27. *Christiania*. Hansteen.
 " 28. *Christiania*. Hansteen.
 " 29. *New York*. Hough.
 " 29. *Christiania*. Hansteen. *Gothaab*. Block.
 " 30. *Christiania*. Hansteen. *Gothaab*. Block.
 " 31. *Gothaab*. Block.
 Nov. 1. *Gothaab*. Block.
 " 2. *Gothaab*. Block.
 " 3. *New Haven*? Herrick. Newton and Loomis.
 " 3. *Christiania*. Hansteen. *Jakobshavn*. Rudolph.
 " 4. *Christiania*. Hansteen.
 " 6. *New Haven*? Herrick. Newton and Loomis.
 " 7. *Jakobshavn*. Rudolph.
 " 8. *Gothaab*. Block.
 " 9. *New York*. Hough. *Jakobshavn*. Rudolph.
 " 10. *Christiania*. Hansteen. *Gothaab*. Block.
 " 10. *Jakobshavn*. Rudolph.
 " 11. *Sitka*. Kupffer. *Jakobshavn*. Rudolph.
 " 12. *Gothaab*. Block.
 " 13. *Gothaab*. Block.
 " 14. *Gothaab*. Block.
 " 21. *Worcester, Mass.* Woodward.²
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 21. *Philadelphia*. Bache.
 " 21. *New York*. Hough. *Newberry*. Johnson.
 " 21. *Christiania*. Hansteen.
 " 22. *Gothaab*. Block.
 " 23. *Gothaab*. Block.
 " 24. *New York*. Hough. *Paris*. Bouvard. Arago.³
 " 24. *Gothaab*. Block.
 " 25. *Gothaab*. Block.
 " 27. *New York*. Hough.
 " 28. *Cambridge*. Bond. Lovering.
 Dec. 1. *Gothaab*. Block.
 " 2. *Gothaab*. Block.
 " 5. *Christiania*. Hansteen.
 " 5. *Gothaab*. Block. *Jakobshavn*. Rudolph.
 " 6. *Christiania*. Hansteen. *Toronto*. Sabine.
 " 6. *Gothaab*. Block.
 " 7. *Gothaab*. Block.

¹ Bull. de l'Acad. Brux. X. Pt. II. p. 111.² L'Institut. Sci. Math. Phys. &c. X. 443.¹ L'Institut. Sci. Math. Phys. &c. X. 443.² Med. and Surg. Journ. XXVII. 324.³ L'Institut. X. 443. *Connaiss. de Tems.* 1846, p. 412.

- Dec. 8. *Gothaab.* Block.
 " 9. *Christiania.* Hansteen.
 " 14. *Gothaab.* Block.
 " 17. *New York.* Hough.
 " 18. *Gothaab.* Block.
 " 19. *New York.* Hough.
 " 20. *Gothaab.* Block.
 " 21. *Jakobshavn.* Rudolph.
 " 22. *Gothaab.* Block.
 " 27. *Cambridge.* Bond. Lovering.
 " 27. *Christiania.* Hansteen.
 " 28. *Christiania.* Hansteen. *Gothaab.* Block.
 " 29. *Gothaab.* Block.
 " 31. *Hobarton, Van Dieman's Land.* Sabine.
- 1843.
- Jan. 2. *Hamburg.* Schmidt. *Christiania.* Hansteen.
 " 2. *Jakobshavn.* Rudolph.
 " 5. *Christiania.* Hansteen.
 " 6. *Gothaab.* Block.
 " 8. *Gothaab.* Block.
 " 10. *New York.* Hough.
 " 12. *Scotland.* Hough.
 " 13. *Gothaab.* Block.
 " 17. *Gothaab.* Block.
 " 20. *Gothaab.* Block.
 " 21. *Gothaab.* Block.
 " 22. *Christiania.* Hansteen.
 " 23. *Gothaab.* Block.
 " 24. *New York.* Hough. *Gothaab.* Block.
 " 25. *Gothaab.* Block.
 " 27. *Christiania.* Hansteen.
 " 28. *Christiania.* Hansteen. *Gothaab.* Block.
 " 28. *Edinburgh.* *Makerstoun.* Broun.¹
 " 28. *Jakobshavn.* Rudolph.
 " 29. *New York.* Hough.
 " 29. *Christiania.* Hansteen. *Gothaab.* Block.
 " 30. *Gothaab.* Block.
 " 31. *New York.* Hough.
- Feb. 3. *New York.* Hough.
 " 4. *New York.* Hough.
 " 6. *Christiania.* Hansteen.
 " 13. *New York.* Hough.
 " 14. *Gothaab.* Block.
 " 15. *Gothaab.* Block.
 " 17. *Christiania.* Hansteen.
 " 18. *New York.* Hough. *Gothaab.* Block.
- Feb. 19. *Christiania.* Hansteen. *Gothaab.* Block.
 " 20. *Christiania.* Hansteen. *Gothaab.* Block.
 " 20. *Jakobshavn.* Rudolph.
 " 21. *Gothaab.* Block.
 " 22. *Christiania.* Hansteen. *Gothaab.* Block.
 " 23. *New York.* Hough. *Christiania.* Hansteen.
 " 23. *Gothaab.* Block.
 " 24. *Philadelphia.* Bache.¹
 " 24. *New York.* Hough. *Christiania.* Hansteen.
 " 24. *Makerstoun.* Broun. *Jakobshavn.* Rudolph.
 " 25. *New York.* Hough. *Christiania.* Hansteen.
 " 25. *Gothaab.* Block.
 " 26. *New York.* Hough.
 " 28. *Gothaab.* Block.
- Mar. 2. *Hamburg.* Schmidt.
 " 3. *Gothaab.* Block.
 " 4. *New York.* Hough. *Newberry.* Johnson.
 " 4. *Christiania.* Hansteen. *Gothaab.* Block.
 " 5. *New York.* Hough. *Christiania.* Hansteen.
 " 5. *Gothaab.* Block.
 " 6. *New Haven.* Herrick. Newton and Loomis.
 " 6. *New York.* Hough. *Providence.* Caswell.
 " 6. *Toronto.* Sabine. *Christiania.* Hansteen.
 " 6. *Gothaab.* Block.
 " 7. *New York.* Hough. *Christiania.* Hansteen.
 " 7. *Makerstoun.* Broun.
 " 11. *Jakobshavn.* Rudolph.
 " 12. *Holland.* Hough. *Makerstoun.* Broun.
 " 12. *Gothaab.* Block. *Jakobshavn.* Rudolph.
 " 13. *Parma.* Colla. *Gothaab.* Block.
 " 17. *New Haven.* Herrick. Newton and Loomis.
 " 17. *Gothaab.* Block.
 " 18. *New York.* Hough. *Christiania.* Hansteen.
 " 18. *Gothaab.* Block.
 " 19. *Christiania.* Hansteen.
 " 20. *Christiania.* Hansteen. *Gothaab.* Block.
 " 21. *Christiania.* Hansteen. *Gothaab.* Block.
 " 22. *Christiania.* Hansteen. *Gothaab.* Block.
 " 22. *Gothaab.* Block. *Jakobshavn.* Rudolph.
 " 25. *Gothaab.* Block.
 " 27. *Gothaab.* Block.
 " 29. *Newberry.* Johnson.
 " 29. *Christiania.* Hansteen. *Gothaab.* Block.
 " 29. *Makerstoun.* Broun. *Dunse.* Stevenson.
 " 30. *Christiania.* Hansteen. *Gothaab.* Block.
- Apr. 2. *New Haven.* Herrick. Newton and Loomis.
 " 2. *New York.* Hough.
 " 3. *Gothaab.* Block.

¹ Edin. Phil. Trans. XIX. Pt. 2. The time of these observations has been reduced from Gottingen Astron. time to the mean civil time of the place.

¹ Magnet. and Meteor. Observ. Girard College, II. 1248.

- Apr. 4. *New York.* Hough.
 " 5. *New York.* Hough. *Toronto.* Sabine.
 " 5. *Brussels.* Quetelet. *Hamburg.* Schmidt.
 " 5. *Makerstoun.* Broun. *Edinburgh.*
 " 6. *New Haven.* Herrick. Newton and Loomis.
 " 6. *New York.* Hough. *Providence.* Caswell.
 " 6. *Toronto.* Sabine. *Brussels.* Quetelet.
 " 6. *Gothaab.* Block.
 " 7. *Makerstoun.* Broun.
 " 11. *New York.* Hough.
 " 14. *Gothaab?* Block.
 " 15. *New York.* Hough.
 " 17. *Christiania.* Hansteen. *Gothaab.* Block.
 " 19. *New York.* Hough.
 " 22. *New York.* Hough.
 " 23. *Edinburgh.*¹
 " 25. *Dunse.* Stevenson.
 May 6. *Brussels.* Quetelet. *Greenwich.* Airy.²
 " 6. *Collingwood.* Herschel. *France.* Arago.³
 " 7. *New York.* Hough. *Philadelphia.* Bache.
 " 9. *Brussels.* Quetelet.
 " 13. *New York.* Herrick. Newton and Loomis.
 " 17. *Litchfield, Conn.* Herrick. Newton and L.
 " 23. *Goshen, Conn.* Herrick. *New Haven.* Bradlee.
 " 25. *New York.* Hough.
 " 29. *New York.* Hough.
 June 3. *New York.* Hough.
 " 8. *New York.* Hough.
 " 13. *New York.* Hough.
 " 15. *New York.* Hough.
 " 22. *New York.* Hough.
 " 27. *Philadelphia.* Bache.
 " 29. *New York.* Hough.
 " 30. *New Haven.* Herrick. Newton and Loomis.⁴
 " 30. *Philadelphia.* Bache.
 " 30. *New York.* Hough. *Toronto.* Sabine.
 July 1. *New York.* Hough.
 " 2. *New York.* Hough. *Toronto.* Sabine.
 " 4. *New York.* Hough. *Toronto.* Sabine.
 " 7. *Philadelphia.* Bache.
 " 19. *New York.* Hough.
 " 25. *New Haven.* Herrick. Newton and Loomis.
 " 25. *New York.* Hough. *Newberry.* Johnson.
 " 25. *Philadelphia.* Bache. *Toronto.* Sabine.
 " 30. *New York.* Hough.
 July 31. *New York.* Hough.
 Aug. 3. *Cambridge.* Bond. Lovering.
 " 3. *New York.* Hough. *Toronto.* Sabine.
 " 3. *Hamburg.* Schmidt.
 " 12. *New York.* Hough.
 " 22. *New York.* Hough. *Edinburgh.* Paul.¹
 " 26. *Gothaab.* Block.
 Sept. 1. *Christiania.* Hansteen. *Gothaab.* Block.
 " 2. *Christiania.* Hansteen. *Gothaab.* Block.
 " 9. *New York.* Hough.
 " 10. *Gothaab.* Block.
 " 13. *New Haven.* Herrick. Newton and Loomis.
 " 14. *Gothaab.* Block.
 " 15. *Gothaab.* Block.
 " 18. *New Haven.* Bradley. Newton and Loomis.
 " 18. *New York.* Hough. *Toronto.* Sabine.
 " 18. *Christiania.* Hansteen. *Makerstoun.* Broun.
 " 19. *Christiania.* Hansteen. *Makerstoun.* Broun.
 " 20. *New York.* Hough.
 " 21. *Christiania.* Hansteen. *Gothaab.* Block.
 " 21. *Makerstoun.* Broun.
 " 22. *Christiania.* Hansteen. *Gothaab.* Block.
 " 22. *Jakobshavn.* Rudolph.
 " 24. *Gothaab.* Block.
 " 25. *Gothaab.* Block.
 " 26. *Christiania.* Hansteen.
 " 27. *Cambridge.* Bond. Lovering.
 " 27. *New Haven.* Herrick. Newton and Loomis.
 " 27. *New York.* Hough. *Providence.* Caswell.
 " 28. *Cambridge.* Bond. Lovering.
 " 28. *Gothaab.* Block. *Jakobshavn.* Rudolph.
 " 29. *New York.* Hough. *Toronto.* Sabine.
 " 30. *New York.* Hough. *Newberry.* Johnson.
 " 30. *Gothaab.* Block.
 Oct. 2. *Jakobshavn.* Rudolph.
 " 5. *New York.* Hough.
 " 9. *New York.* Hough.
 " 14. *Cambridge.* Bond. Lovering.
 " 14. *New Haven.* Herrick. Newton and Loomis.
 " 14. *Christiania.* Hansteen.
 " 15. *Lake Athabasca.* Lefroy.²
 " 15. *Makerstoun.* Broun. *Christiania.* Hansteen.
 " 16. *Lake Athabasca.* Lefroy.
 " 16. *Makerstoun.* Broun.
 " 18. *Jakobshavn.* Rudolph.
 " 19. *New York.* Hough.

¹ Edin. Phil. Journ. 1844, p. 378.² Greenwich Magnet. and Meteor. Observ. 1843, p. 251.³ Compt. Rend. XVI. 1092. Athenæum, 1843, p. 465.⁴ Bull. de l'Acad. Brux. XII. Pt. I. 532.¹ Edin. Phil. Journ. 1844, p. 378.² Magnet. and Meteor. Observ. at Lake Athabasca, &c. p. 147.

- Oct. 19. *Toronto and Lake Athabasca.* Lefroy.
 " 20. *New York.* Hough.
 " 20. *Lake Athabasca.* Lefroy.
 " 21. *New York.* Hough.
 " 24. *Christiania.* Hansteen. *Gothaab.* Block.
 " 25. *Lake Athabasca.* Lefroy. *Gothaab.* Block.
 " 26. *Christiania.* Hansteen.
 " 26. *Lake Athabasca.* Lefroy.
 " 26. *Makerstoun.* Broun. *Gothaab.* Block.
 " 28. *Lake Athabasca.* Lefroy.
 " 31. *Lake Athabasca.* Lefroy.
 " 31. *Jakobshavn.* Rudolph.
 Nov. 1. *Lake Athabasca.* Lefroy. *Gothaab.* Block.
 " 2. *Lake Athabasca.* Lefroy. *Gothaab.* Block.
 " 2. *Makerstoun.* Broun.
 " 4. *Gothaab.* Block.
 " 8. *Gothaab.* Block.
 " 9. *Lake Athabasca.* Lefroy.
 " 10. *Gothaab.* Block.
 " 13. *Lake Athabasca.* Lefroy.
 " 13. *Makerstoun.* Broun.
 " 14. *Makerstoun.* Broun. *Gothaab.* Block.
 " 15. *Cambridge.* Bond. Lovering.
 " 15. *Gothaab.* Block.
 " 16. *Gothaab.* Block. *Jakobshavn.* Rudolph.
 " 17. *Lake Athabasca.* Lefroy. *Gothaab.* Block.
 " 18. *Gothaab.* Block.
 " 20. *Gothaab.* Block.
 " 21. *Gothaab.* Block.
 " 22. *Lake Athabasca.* Lefroy. *Gothaab.* Block.
 " 23. *Gothaab.* Block.
 " 24. *Gothaab.* Block.
 " 25. *Gothaab.* Block.
 " 26. *Gothaab.* Block. *Jakobshavn.* Rudolph.
 " 27. *New Haven?* Herrick. Newton and Loomis.
 " 27. *Lake Athabasca.* Lefroy.
 " 28. *Lake Athabasca.* Lefroy. *Gothaab.* Block.
 " 29. *Lake Athabasca.* Lefroy.
 Dec. 6? *Edinburgh.* Paul.¹
 " 8. *Parma.* Colla. Arago.²
 " 9. *Lake Athabasca.* Lefroy.
 " 9. *Christiania.* Hansteen.
 " 11. *Toronto.* Sabine. *Makerstoun.* Broun.
 " 11. *Gothaab.* Block. *Jakobshavn.* Rudolph.
 " 12. *New Haven.* Herrick. Newton and Loomis.
 " 12. *Makerstoun.* Broun. *Jakobshavn.* Rudolph.
 " 13. *Lake Athabasca.* Lefroy.
 Dec. 15. *Lake Athabasca.* Lefroy.
 " 17. *Gothaab.* Block. *Jakobshavn.* Rudolph.
 " 21. *Gothaab.* Block.
 " 22. *Lake Athabasca.* Lefroy.
 " 22. *Jakobshavn.* Rudolph.
 " 24. *Gothaab.* Block.
 " 26. *Lake Athabasca.* Lefroy.
 " 27. *Makerstoun.* Broun. *Gothaab.* Block.
 " 28. *Gothaab.* Block.
 " 29. *Paris.* Coulvier-Gravier. Arago.
 " 29. *Gothaab.* Block.
 " 30. *Gothaab.* Block.
 " 31. *Gothaab.* Block.
 1844.
 Jan. 2. *Gothaab.* Block.
 " 3. *Gothaab.* Block.
 " 5. *Makerstoun.* Broun.
 " 7. *Gothaab.* Block. *Jakobshavn.* Rudolph.
 " 8. *New Haven?* Herrick. Newton and Loomis.
 " 8. *Lake Athabasca.* Lefroy. *Gothaab.* Block.
 " 8. *Christiania.* Hansteen.
 " 9. *Lake Athabasca.* Lefroy. *Gothaab.* Block.
 " 9. *Jakobshavn.* Rudolph.
 " 10. *Makerstoun.* Broun. *Gothaab.* Block.
 " 11. *Gothaab.* Block.
 " 12. *Hamburg.* Schmidt.
 " 13. *New Haven.* Herrick. Newton and Loomis.
 " 13. *Hamburg.* Schmidt.
 " 15. *Lake Athabasca.* Lefroy. *Gothaab.* Block.
 " 16. *Lake Athabasca.* Lefroy.
 " 16. *Christiania.* Hansteen.
 " 17. *Lake Athabasca.* Lefroy.
 " 17. *Jakobshavn.* Rudolph.
 " 18. *Lake Athabasca.* Lefroy.
 " 19. *Hamburg.* Schmidt. *Lake Athabasca.* Lefroy.
 " 21. *Lake Athabasca.* Lefroy.
 " 22. *Lake Athabasca.* Lefroy.
 " 22. *Christiania.* Hansteen.
 " 23. *Gothaab.* Block.
 " 24. *New Haven.* Herrick. Newton and Loomis.
 " 24. *Philadelphia.* Bache.¹
 " 24. *New York.* Hough. *Toronto.* Hough.
 " 24. *Lake Athabasca.* Lefroy. *Gothaab.* Block.
 " 25. *Gothaab.* Block.
 " 26. *Lake Athabasca.* Lefroy.
 " 27. *New Haven?* Herrick. Newton and Loomis.
 " 28. *Lake Athabasca.* Lefroy.
 " 30. *Lake Athabasca.* Lefroy.

¹ Edin. Phil. Journ. 1844, p. 378.² L'Institut. Sci. Math. Phys. &c. XII. 9.¹ Magnet. and Meteor. Observ. Girard College. III. 2204.

- Jan. 31. *Lake Athabasca.* Lefroy.
 Feb. 4. *New York.* Hough.
 " 5. *Lake Athabasca.* Lefroy.
 " 6. *Gothaab.* Block.
 " 7. *Lake Athabasca.* Lefroy.
 " 7. *Makerstoun.* Broun.
 " 9. *Jakobshavn.* Rudolph.
 " 11. *New Haven?* Herrick. Newton and Loomis.
 " 11. *Lake Athabasca.* Lefroy. *Gothaab.* Block.
 " 12. *Lake Athabasca.* Lefroy.
 " 12. *Makerstoun.* Broun.
 " 13. *Lake Athabasca.* Lefroy.
 " 15. *Lake Athabasca.* Lefroy. *Gothaab.* Block.
 " 16. *Lake Athabasca.* Lefroy. *Gothaab.* Block.
 " 17. *Lake Athabasca.* Lefroy.
 " 17. *Jakobshavn.* Rudolph.
 " 17. *Christiania.* Hansteen. *Gothaab.* Block.
 " 20. *Hamburg.* Schmidt. *Lake Athabasca.* Lefroy.
 " 21. *Lake Athabasca.* Lefroy.
 " 22. *Makerstoun.* Broun. *Gothaab.* Block.
 " 23. *Gothaab.* Block.
 " 26. *Lake Athabasca.* Lefroy.
 " 28. *Lake Athabasca.* Lefroy. *Gothaab.* Block.
 Mar. 2. *Makerstoun.* Broun. *Toronto.* Sabine.
 " 4. *New Haven?* Herrick. Newton and Loomis.
 " 7. *New York.* Hough. *Toronto.* Sabine.¹
 " 7. *Christiania.* Hansteen. *Makerstoun.* Broun.
 " 8. *New York.* Hough. *Gothaab.* Block.
 " 9. *New York.* Hough. *Makerstoun.* Broun.
 " 9. *Jakobshavn.* Rudolph.
 " 10. *Gothaab.* Block.
 " 11. *Gothaab.* Block.
 " 12. *Makerstoun.* Broun. *Gothaab.* Block.
 " 13. *Gothaab.* Block.
 " 16. *Gothaab.* Block.
 " 17. *Christiania.* Hansteen. *Gothaab.* Block.
 " 19. *Christiania.* Hansteen.
 " 20. *Christiania.* Hansteen. *Gothaab.* Block.
 " 21. *Christiania.* Hansteen.
 " 23. *New York.* Hough. *Gothaab.* Block.
 " 24. *New York.* Hough.
 " 29. *Newberry.* Johnson. *Makerstoun.* Broun.
 " 31. *Christiania.* Hansteen.
 Apr. 1. *Fort Simpson.* Lefroy.²
 " 2. *Fort Simpson.* Lefroy.
 " 3. *Fort Simpson.* Lefroy. *Gothaab.* Block.
 " 5. *Cambridge.* Bond. Lovering.
 Apr. 5. *New Haven.* Herrick. Newton and Loomis.
 " 5. *New York.* Hough. *Fort Simpson.* Lefroy.
 " 5. *Makerstoun.* Broun. *Gothaab.* Block.
 " 6. *Fort Simpson.* Lefroy. *Gothaab.* Block.
 " 7. *Fort Simpson.* Lefroy. *Gothaab.* Block.
 " 9. *Fort Simpson.* Lefroy.
 " 10. *Fort Simpson.* Lefroy. *Makerstoun.* Broun.
 " 11. *Fort Simpson.* Lefroy.
 " 13. *Fort Simpson.* Lefroy.
 " 14. *Fort Simpson.* Lefroy.
 " 15. *Fort Simpson.* Lefroy.
 " 16. *Fort Simpson.* Lefroy. *Toronto.* Sabine.
 " 16. *Hobarton, Van Dieman's Land.* Sabine.
 " 17. *Cambridge.* Bond. Lovering.
 " 17. *Philadelphia.* Bache.
 " 17. *New York.* Hough. *Fort Simpson.* Lefroy.
 " 17. *Hamburg.* Schmidt. *Makerstoun.* Broun.
 " 17. *Christiania.* Hansteen.
 " 18. *Fort Simpson.* Lefroy.
 " 19. *New York.* Hough. *Fort Simpson.* Lefroy.
 " 19. *Gothaab.* Block.
 " 20. *Fort Simpson.* Lefroy.
 " 21. *Fort Simpson.* Lefroy. *Hobarton.* Sabine.¹
 " 25. *Fort Simpson.* Lefroy.
 " 28. *Fort Simpson.* Lefroy.
 May 2. *Fort Simpson.* Lefroy.
 " 4. *New York.* Hough. *Fort Simpson.* Lefroy.
 " 5. *New York.* Hough. *Fort Simpson.* Lefroy.
 " 7. *Toronto.* Sabine.
 " 8. *Cambridge.* Bond. Lovering.
 " 8. *New York.* Hough. *Toronto.* Sabine.
 " 8. *Makerstoun.* Broun.
 " 14. *New York.* Hough. *Toronto.* Sabine.
 " 21. *Makerstoun.* Broun.
 " 22. *New Haven.* Herrick. Newton and Loomis.
 " 22. *New York.* Hough. *Toronto.* Sabine.
 " 22. *Makerstoun.* Broun.
 " 25. *Hobarton, Van Dieman's Land.* Sabine.
 June 12. *Providence, R. I.* Caswell.
 " 16. *New York.* Hough.
 " 22. *New Haven?* Herrick. Newton and Loomis.
 July 8. *New York.* Hough.
 Aug. 1. *New York.* Hough.
 " 1. *Christiania.* Hansteen. *England.* Hough.
 " 3. *Makerstoun.* Broun.
 " 9. *Nantucket.* Mitchell. Herrick.²
 " 9. *Toronto.* Sabine. *Makerstoun.* Broun.

¹ Magnet. and Meteor. Observ. Toronto, II. 336.² Magnet. and Meteor. Observ. at Lake Athabasca, &c. p. 179.¹ Magnet. and Meteor. Observ. Hobarton, II. p. 326.² Bull. de l'Acad. Brux. xii. Pt. I. p. 534.

- Aug. 9. *Hamburg*. Schmidt. *England*. Hough.
 " 11. *New Haven* Herrick. Newton and Loomis.
 " 22. *Gothaab*. Block.
 " 23. *Gothaab*. Block.
 " 25. *Gothaab*. Block.
 " 29. *Cambridge*. Bond. Lovering.
 " 29. *Cambridge*. Herrick. Newton and Loomis.
 " 29. *Homer, N. Y.* Herrick. Newton and Loomis.
 " 29. *Toronto*. Sabine. *Christiania*. Hansteen.
 Sept. 2. *Gothaab*. Block.
 " 3. *Gothaab*. Block.
 " 4. *New York*. Hough. *Gothaab*. Block.
 " 7. *Gothaab*. Block.
 " 8. *Christiania*. Hansteen. *Gothaab*. Block.
 " 9. *Gothaab*. Block.
 " 10. *Gothaab*. Block.
 " 13. *Gothaab*. Block.
 " 14. *New York*. Hough. *Toronto*. Sabine.
 " 14. *Gothaab*. Block.
 " 15. *New York*. Hough.
 " 17. *Newberry*. Johnson. *Gothaab*. Block.
 " 18. *Gothaab*. Block.
 " 19. *New York*. Hough. *Christiania*. Hansteen.
 " 20. *Christiania*. Hansteen.
 " 27. *Gothaab*. Block.
 " 30. *New Haven?* Herrick. Newton and Loomis.
 " 30. *Toronto*. Sabine.
 Oct. 1. *Christiania*. Hansteen. *Gothaab*. Block.
 " 2. *Makerstoun*. Broun. *Gothaab*. Block.
 " 4. *Christiania*. Hansteen. *Gothaab*. Block.
 " 5. *Makerstoun*. Broun.
 " 6. *Gothaab*. Block.
 " 7. *Makerstoun*. Broun.
 " 9. *Gothaab*. Block.
 " 10. *Gothaab*. Block.
 " 19. *Gothaab*. Block.
 " 20. *Cambridge*. Bond. Lovering. *Toronto*. Sabine.
 " 20. *New Haven*. Herrick. Newton and Loomis.
 " 20. *New York*. Hough. *Providence*. Caswell.
 " 21. *New York*. Hough. *Makerstoun*. Broun.
 " 22. *Gothaab*. Block.
 " 23. *New York*. Hough. *Gothaab*. Block.
 " 24. *Gothaab*. Block.
 " 25. *Gothaab*. Block.
 " 27. *Christiania*. Hansteen.
 " 28. *Gothaab*. Block.
 Nov. 1. *New York*. Hough. *Gothaab*. Block.
 " 2. *Christiania*. Hansteen. *Jakobshavn*. Rudolph.
 " 3. *Gothaab*. Block.
 " 4. *Gothaab*. Block.
 Nov. 5. *New Haven?* Herrick. Newton and Loomis.
 " 5. *Hartford?* Herrick. Newton and Loomis.
 " 5. *Gothaab*. Block.
 " 6. *New Haven*. Herrick. Newton and Loomis.
 " 6. *New Britain*. Herrick. Newton and Loomis.
 " 8. *Gothaab*. Block. *Jakobshavn*. Rudolph.
 " 10. *Gothaab*. Block.
 " 11. *Makerstoun*. Broun. *Gothaab*. Block.
 " 12. *Gothaab*. Block.
 " 13. *Albany*. Herrick. Newton and Loomis.
 " 13. *Christiania*. Hansteen. *Makerstoun*. Broun.
 " 14. *Hamburg*. Schmidt.
 " 15. *New York*. Hough. *Toronto*. Sabine.
 " 15. *Gothaab*. Block.
 " 16. *New Haven*. Herrick. Newton and Loomis.
 " 16. *New York*. Hough. *Jakobshavn*. Rudolph.
 " 16. *Christiania*. Hansteen. *Yakoutsk*. Kupffer.¹
 " 16. *Makerstoun*. Broun. *Dunse*. Stevenson.
 " 16. *Gothaab*. Block.
 " 17. *Gothaab*. Block.
 " 18. *Makerstoun*. Broun. *Jakobshavn*. Rudolph.
 " 19. *New York*. Hough.
 " 24. *Makerstoun*. Broun.
 " 25. *Gothaab*. Block.
 " 27. *Gothaab*. Block.
 " 28. *Jakobshavn*. Rudolph. *Gothaab*. Block.
 " 29. *Gothaab*. Block.
 Dec. 2. *Gothaab*. Block.
 " 3. *Gothaab*. Block.
 " 4. *Makerstoun*. Broun. *Gothaab*. Block.
 " 5. *Gothaab*. Block.
 " 6. *Gothaab*. Block.
 " 7. *Gothaab*. Block.
 " 8. *Parma*. Colla.
 " 9. *Gothaab?* Block.
 " 11. *Gothaab*. Block.
 " 14. *Cambridge*. Bond. Lovering.
 " 14. *New Haven*. Herrick. Newton and Loomis.
 " 15. *Gothaab*. Block.
 " 16. *Gothaab*. Block.
 " 18. *Jakobshavn*. Rudolph.
 " 19. *Gothaab*. Block.
 " 22. *Jakobshavn*. Rudolph.
 " 23. *Gothaab*. Block.
 " 29. *New Haven*. Herrick. Newton and Loomis.
 " 29. *New York*. Hough. *Jakobshavn*. Rudolph.
 " 29. *Makerstoun*. Broun. *Dunse*. Stevenson.
 " 30. *France*. Hough.

¹ Annal, de l'Obsery, Phys. Centrale de Russie, 1857, Suppl. p. 3.

1845.

- Jan. 1. *Makerstoun*. Broun. *Gothaab*. Block.
 " 2. *Gothaab*. Block. *Jakobshavn*. Rudolph.
 " 4. *Gothaab*. Block.
 " 6. *Nantes*. Perrey.¹
 " 8. *New York*. Hough. *Gothaab*. Block.
 " 9. *Cambridge*. Bond. Lovering.
 " 9. *New Haven*. Herrick. Newton and Loomis.
 " 9. *New York*. Hough. *Newberry*. Johnson.
 " 9. *Philadelphia*. Bache.²
 " 9. *Providence, R. I.* Caswell. *Toronto*. Sabine.³
 " 9. *Makerstoun*. Broun. *Dunse*. Stevenson.
 " 9. *Gothaab*. Block. *Yakoutsk*. Kupffer.
 " 10. *Hamburg*. Schmidt.
 " 11. *Sitka*. Kupffer. *Gothaab*. Block.
 " 12. *New Haven?* Herrick. Newton and Loomis.
 " 12. *Gothaab*. Block. *Jakobshavn*. Rudolph.
 " 13. *Sitka*. Kupffer.
 " 19. *New York*. Hough.
 " 19. *Makerstoun*. Broun. *Gothaab*. Block.
 " 20. *Makerstoun*. Broun.
 " 21. *Makerstoun*. Broun.
 " 23. *Makerstoun*. Broun. *Gothaab*. Block.
 " 24. *Makerstoun*. Broun. *Jakobshavn*. Rudolph.
 " 26. *Gothaab*. Block.
 " 27. *Makerstoun*. Broun. *Gothaab*. Block.
 " 28. *Makerstoun*. Broun. *Gothaab*. Block.
 " 29. *New Haven*. Herrick. Newton and Loomis.
 " 29. *Makerstoun*. Broun. *Jakobshavn*. Rudolph.
 " 30. *Makerstoun*. Broun.
- Feb. 1. *Makerstoun*. Broun. *Gothaab*. Block.
 " 4. *Gothaab*. Block.
 " 5. *Christiania*. Hansteen. *Makerstoun*. Broun.
 " 6. *Gothaab*. Block.
 " 8. *Makerstoun*. Broun. *Gothaab*. Block.
 " 9. *Gothaab*. Block.
 " 10. *Gothaab*. Block.
 " 11. *Gothaab*. Block.
 " 12. *Gothaab*. Block.
 " 13. *New Haven?* Herrick. Newton and Loomis.
 " 21. *Gothaab*. Block.
 " 23. *Gothaab*. Block.
 " 24. *New York*. Hough. *Newberry*. Johnson.
 " 24. *Makerstoun*. Broun.
 " 24. *Gothaab*. Block. *Jakobshavn*. Rudolph.
 " 25. *New Haven*. Herrick. Newton and Loomis.
- Feb. 25. *New York*. Hough. *Providence*. Caswell.
 " 25. *Newberry*. Johnson.
 " 25. *Christiania*. Hansteen. *Gothaab*. Block.
 " 26. *Jakobshavn*. Rudolph. *Gothaab*. Block.
 " 27. *New York*. Hough. *Makerstoun*. Broun.
 " 28. *Makerstoun*. Broun. *Jakobshavn*. Rudolph.
 " 28. *Lat. 62° S. Long. 71° E.* Clerk.¹
- Mar. 3. *Christiania*. Hansteen.
 " 4. *Gothaab*. Block.
 " 5. *Lat. 62° S. Long. 85° E.* Clerk.
 " 7. *Lat. 62° S. Long. 91° E.* Clerk.
 " 8. *Gothaab*. Block.
 " 9. *New Haven?* Herrick. Newton and Loomis.
 " 9. *Gothaab*. Block.
 " 9. *Lat. 62° S. Long. 92° E.* Clerk.
 " 10. *Makerstoun*. Broun.
 " 11. *Gothaab*. Block.
 " 12. *Toronto*. Sabine. *Gothaab*. Block.
 " 13. *Toronto*. Sabine. *Gothaab*. Block.
 " 13. *Jakobshavn*. Rudolph.
 " 14. *Makerstoun*. Broun. *Gothaab*. Block.
 " 15. *Gothaab*. Block.
 " 15. *Lat. 56° S. Long. 103° E.* Clerk.
 " 16. *New Haven?* Herrick. Newton and Loomis.
 " 16. *Jakobshavn*. Rudolph.
 " 18. *New Haven?* Herrick. Newton and Loomis.
 " 18. *Makerstoun*. Broun.
 " 18. *Lat. 53° S. Long. 110° E.* Clerk.
 " 19. *Lat. 51° S. Long. 111° E.* Clerk.
 " 19. *Makerstoun*. Broun.
 " 20. *Lat. 49° S. Long. 113° E.* Clerk.
 " 20. *Makerstoun*. Broun.
 " 23. *Makerstoun*. Broun. *Jakobshavn*. Rudolph.
 " 24. *Makerstoun*. Broun.
 " 25. *Makerstoun*. Broun.
 " 26. *Makerstoun*. Broun.
 " 27. *Christiania*. Hansteen.
 " 28. *Sitka*. Kupffer. *Christiania*. Hansteen.
 " 28. *Makerstoun*. Broun.
 " 29. *Makerstoun*. Broun.
 " 31. *Gothaab*. Block.
- Apr. 1. *Jakobshavn*. Rudolph.
 " 7. *Gothaab*. Block.
 " 9. *Gothaab*. Block.
 " 13. *New Haven*. Herrick. Newton and Loomis.
 " 13. *New York*. Hough. *Makerstoun*. Broun.
 " 13. *Toronto*. Sabine.
 " 14. *New York*. Hough.

¹ Bull. de l'Acad. Brux. XII. Pt. I. p. 355.² Magnet. and Meteor. Observ. Girard College, III. 2806.³ Magnet. and Meteor. Observ. Toronto. II. 542.¹ Phil. Trans. 1846, p. 437.

- Apr. 15. *Makerstoun*. Broun.
 " 19. *Sitka*. Kupffer. *Makerstoun*. Broun.
 " 23. *Christiania*. Hansteen.
 " 27. *New Haven*. Herrick. Newton and Loomis.
 " 30. *Cambridge*. Bond. Lovering.
 " 30. *New Haven*. Herrick. Newton and Loomis.¹
 " 30. *New York*. Hough. *Makerstoun*. Broun.
 May 1. *New Haven?* Herrick. Newton and Loomis.
 " 5. *New Haven*. Herrick. Newton and Loomis.
 " 11. *Makerstoun*. Broun.
 " 29. *New York*. Hough.
 June 5. *New Haven?* Herrick. Newton and Loomis.
 " 17. *New Haven?* Herrick. Newton and Loomis.
 " 24. *New Haven?* Herrick. Newton and Loomis.
 " 25. *Worcester*. Herrick. Newton and Loomis.
 " 30. *Toronto*. Sabine.
 July 4. *New York*. Hough.
 " 5. *Toronto*. Sabine.
 " 8. *Worcester*. Herrick. Newton and Loomis.
 " 8. *Toronto*. Sabine.
 " 24. *New Haven?* Herrick. Newton and Loomis.
 " 24. *Worcester*. Herrick. Newton and Loomis.
 " 24. *New York*. Hough. *Toronto*. Sabine.
 " 25. *New York*. Hough.
 " 28. *New Haven*. Bradley. Newton and Loomis.
 " 31. *New Haven*. Herrick. Newton and Loomis.
 Aug. 1. *New Haven*. Herrick. Newton and Loomis.
 " 1. *New York*. Hough. *Toronto*. Sabine.
 " 2. *Toronto*. Sabine.
 " 3. *New York*. Hough.
 " 4. *New Haven*. Herrick. Newton and Loomis.
 " 26. *New York*. Hough.
 " 27. *New York*. Hough.
 " 29. *New Haven?* Herrick. Newton and Loomis.²
 " 29. *Worcester*. Herrick. Newton and Loomis.
 " 29. *Bilk*. Schmidt. *Huggate*. Rankin.³
 " 29. *Makerstoun*. Broun. *Dunse*. Stevenson.
 " 29. *Sitka*. Kupffer.
 " 30. *From Dusseldorf to Cologne*. Schmidt.
 " 30. *New Haven?* Herrick. Newton and Loomis.
 " 30. *New York*. Hough. *Montreal*. Olmsted.
 " 30. *Christiania*. Hansteen. *Makerstoun*. Broun.
 " 31. *Christiania*. Hansteen.
 Sept. 1. *From Dusseldorf to Cologne*. Schmidt.
 " 1. *Jakobshavn*. Rudolph.
 " 2. *Christiania*. Hansteen. *Makerstoun*. Broun.
 " 3. *Toronto*. Sabine.
 Sept. 4. *Gothaab*. Block.
 " 7. *New Haven*. Herrick. Newton and Loomis.
 " 7. *Toronto*. Sabine. *Gothaab*. Block.
 " 8. *New York*. Hough. *Gothaab*. Block.
 " 17. *Gothaab*. Block.
 " 18. *Gothaab*. Block.
 " 20. *Ausland*. Boué. *Gothaab*. Block.
 " 24. *Cambridge*. Bond. Lovering.
 " 24. *New Haven*. Herrick. Newton and Loomis.
 " 24. *Jakobshavn*. Rudolph. *Toronto*. Sabine.
 " 24. *From Dusseldorf to Cologne*. Schmidt.
 " 25. *Cambridge*. Bond. Lovering.
 " 25. *New Haven?* Herrick. Newton and Loomis.
 " 25. *Toronto*. Sabine. *Gothaab*. Block.
 " 25. *From Dusseldorf to Cologne*. Schmidt.
 " 26. *Toronto*. Sabine. *Gothaab*. Block.
 " 26. *Bilk*. Schmidt. *Makerstoun*. Broun.
 " 27. *New York*. Hough. *Gothaab*. Block.
 " 27. *New Haven*. Herrick. Newton and Loomis.
 " 27. *Makerstoun*. Broun. *Jakobshavn*. Rudolph.
 " 28. *Gothaab*. Block.
 " 29. *Jakobshavn*. Rudolph. *Gothaab*. Block.
 Oct. 1. *Christiania*. Hansteen. *Jakobshavn*. Rudolph.
 " 2. *Makerstoun*. Broun.
 " 4. *Gothaab*. Block.
 " 5. *Gothaab*. Block.
 " 6. *Gothaab*. Block.
 " 7. *Gothaab*. Block.
 " 8. *Gothaab*. Block.
 " 9. *New York*. Hough.
 " 9. *New Haven*. Herrick. Newton and Loomis.
 " 19. *Jakobshavn*. Rudolph.
 " 20. *Toronto*. Sabine. *Makerstoun*. Broun.
 " 21. *Cambridge*. Bond. Lovering.
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 21. *Newberry*. Johnson. *New York*. Hough.
 " 21. *Gothaab*. Block.
 " 22. *Makerstoun*. Broun.
 " 23. *Jakobshavn*. Rudolph. *Gothaab*. Block.
 " 28. *Gothaab*. Block.
 " 29. *Gothaab*. Block.
 " 31. *Christiania*. Hansteen.
 " 31. *Makerstoun*. Broun. *Gothaab*. Block.
 Nov. 1. *Christiania*. Hansteen.
 " 2. *Sitka*. Kupffer. *Gothaab*. Block.
 " 3. *Gothaab*. Block.
 " 4. *Christiania*. Hansteen. *Makerstoun*. Broun.
 " 5. *Christiania*. Hansteen.
 " 5. *Makerstoun*. Broun. *Gothaab*. Block.
 " 9. *Toronto*. Sabine.

¹ Bull. de l'Acad. Brux. XII. Pt. II. p. 226.² Bull. de l'Acad. Brux. XIII. Pt. I. p. 745.³ Proc. Brit. Assoc. XV. 15.

- Nov. 16. *Gothaab.* Block.
 " 17. *Makerstoun.* Broun.
 " 17. *Dunse.* Stevenson. *Gothaab.* Block.
 " 18. *Gothaab.* Block.
 " 19. *Gothaab.* Block.
 " 20. *Gothaab.* Block.
 " 21. *Jakobshavn.* Rudolph.
 " 27. *New Haven.* Herrick. Newton and Loomis.
 " 27. *Toronto.* Sabine. *Jakobshavn.* Rudolph.
 Dec. 2. *New Haven.* Herrick. Newton and Loomis.
 " 2. *Gothaab.* Block.
 " 3. *Cambridge.* Bond. Lovering. *Gothaab.* Block.
 " 3. *New Haven.* Herrick. Newton and Loomis.
 " 3. *New York.* Hough. *Manchester.* Sturgeon.¹
 " 3. *Eutin.* Schmidt. *Near Nottingham.* Lowe.²
 " 3. *Makerstoun.* Broun. *Dunse.* Stevenson.
 " 3. *Jakobshavn.* Rudolph. *Yakoutsck.* Kupffer.
 " 4. *Bonn.* Schmidt. *Amsterdam.*³
 " 4. *Gothaab.* Block.
 " 5. *Cambridge.* Bond. Lovering. *Gothaab.* Block.
 " 6. *Gothaab.* Block.
 " 13. *Makerstoun.* Broun.
 " 14. *Bonn.* Schmidt.
 " 15. *Gothaab.* Block.
 " 16. *New Haven?* Herrick. Newton and Loomis.
 " 16. *Jakobshavn.* Rudolph.
 " 17. *Jakobshavn.* Rudolph.
 " 26. *Jakobshavn.* Rudolph.
 " 27. *Gothaab.* Block.
 " 29. *Rheims.* Coulvier-Gravier. *Spain.* Rico.⁴
 " 30. *New Haven?* Herrick. Newton and Loomis.
 " 30. *Gothaab.* Block.
 " 31. *New Haven?* Herrick. Newton and Loomis.
 " 31. *Gothaab.* Block.
 1846.
 Jan. 3. *New Haven?* Herrick. Newton and Loomis.
 " 4. *London.*⁵ *Gothaab.* Block.
 " 5. *Gothaab.* Block.
 " 11. *Gothaab.* Block.
 " 12. *Gothaab.* Block.
 " 13. *Gothaab.* Block.
 " 14. *Jakobshavn.* Rudolph. *Gothaab.* Block.
 " 16. *Gothaab.* Block.
 " 17. *Gothaab.* Block.
 " 19. *New Haven?* Herrick. Newton and Loomis.
 Jan. 20. *New Haven?* Herrick. Newton and Loomis.
 " 21. *Gothaab.* Block.
 " 23. *New Haven.* Herrick. Newton and Loomis.
 " 23. *New York.* Hough. *Newberry.* Johnson.
 " 24. *New York.* Hough. *Gothaab.* Block.
 " 27. *Gothaab.* Block.
 " 28. *New Haven.* Herrick. Newton and Loomis.
 " 28. *New York.* Hough. *Providence.* Caswell.
 " 28. *Jakobshavn.* Rudolph.
 " 31. *New Haven?* Herrick. Newton and Loomis.
 Feb. 1. *Gothaab.* Block.
 " 4. *Gothaab.* Block.
 " 14. *Newberry.* Johnson.
 " 18. *Bonn.* Schmidt. *Gothaab.* Block.
 " 19. *New Haven?* Herrick. Newton and Loomis.
 " 19. *Gothaab.* Block.
 " 20. *Gothaab.* Block.
 " 21. *Jakobshavn.* Rudolph. *Gothaab.* Block.
 " 22. *Gothaab.* Block.
 " 23. *Gothaab.* Block.
 " 24. *Jakobshavn.* Rudolph. *Gothaab.* Block.
 " 25. *New Haven.* Herrick. Newton and Loomis.
 " 25. *Newberry.* Johnson. *Providence.* Caswell.
 " 25. *Geneva.* Schmidt. *Makerstoun.* Broun.
 " 26. *Makerstoun.* Broun. *Jakobshavn.* Rudolph.
 " 27. *Gothaab.* Block.
 " 28. *Gothaab.* Block.
 Mar. 1. *Gothaab.* Block.
 " 7. *Jakobshavn.* Rudolph.
 " 13. *Christiania.* Hansteen. *Gothaab.* Block.
 " 14. *New Haven?* Herrick. Newton and Loomis.
 " 14. *Geneva.* Schmidt. *Gothaab.* Block.
 " 15. *Gothaab.* Block.
 " 16. *Makerstoun.* Broun.
 " 17. *New Haven.* Herrick. Newton and Loomis.
 " 18. *Christiania.* Hansteen.
 " 19. *Gothaab.* Block.
 " 20. *Gothaab.* Block.
 " 25. *New York.* Hough. *Christiania.* Hansteen.
 " 27. *Gothaab.* Block.
 " 28. *New York.* Hough. *Gothaab.* Block.
 " 31. *Gothaab.* Block.
 Apr. 4. *Gothaab.* Block.
 " 6. *New Haven.* Herrick. Newton and Loomis.
 " 6. *Makerstoun.* Broun.
 " 12. *New Haven?* Herrick. Newton and Loomis.
 " 14. *New York.* Hough.
 " 15. *Cambridge.* Bond. Lovering.
 " 15. *New Haven.* Herrick. Newton and Loomis.
 " 15. *New York.* Hough. *Christiania.* Hansteen.

¹ Phil. Mag. Third Series. XXVIII. p. 70.² Athenæum, 1845, p. 1203.³ Pogg. Ann. LXVII. 591.⁴ Mem. Acad. Cienc. Madrid, III. 77.⁵ L'Institut. Sci. Math. Phys. &c. XIV. 24.

- Apr. 16. *Cambridge*. Bond. Lovering.
 " 16. *New Haven*. Herrick. Newton and Loomis.
 " 16. *New York*. Hough. *Providence*. Caswell.
 " 16. *Christiania*. Hansteen. *Makerstoun*. Broun.
 " 18. *Toronto*. Sabine.
 " 19. *Toronto*. Sabine.
 " 22. *Christiania*. Hansteen.
 " 24. *New York*. Hough.
 " 25. *New York*. Hough.
 May 3. *New York*. Hough.
 " 3. *New Haven?* Herrick. Newton and Loomis.¹
 " 4. *Cambridge*. Bond. Lovering.
 " 4. *New York*. Hough. *Christiania*. Hansteen.
 " 10. *New Haven?* Herrick. Newton and Loomis.
 " 11. *Toronto*. Sabine.
 " 12. *New Haven*. Herrick. Newton and Loomis.
 " 13. *New York*. Hough.
 " 13. *New Haven*. Herrick. Newton and Loomis.
 " 14. *New York*. Hough.
 " 17. *New York*. Hough.
 " 18. *New York*. Hough.
 " 18. *New Haven*. Herrick. Newton and Loomis.
 " 19. *New Haven*. Herrick. Newton and Loomis.
 " 19. *New York*. Hough. *Providence*. Caswell.
 " 21. *New York*. Hough.
 " 23. *New York*. Hough.
 " 23. *Toronto*. Sabine.
 " 30. *New York*. Hough.
 " 31. *Toronto*. Sabine.
 June 8. *At Sea*. Lyell. Hough.
 " 10. *New York*. Hough.
 " 14. *New Haven*. Herrick. Newton and Loomis.
 " 14. *New York*. Hough.
 July 12. *Cambridge*. Bond. Lovering.
 " 15. *New Haven?* Herrick. Newton and Loomis.
 " 20. *New York*. Hough.
 " 24. *Toronto*. Sabine.
 " 25. *New Haven?* Herrick. Newton and Loomis.
 " 27. *New York*. Hough.
 " 31. *New York*. Hough.
 Aug. 2. *New York*. Hough.
 " 6. *New York*. Hough.
 " 10. *New York*. Hough.
 " 11. *Cambridge*. Bond. Lovering.
 " 11. *New Haven*. Herrick. Newton and Loomis.
 " 12. *New Haven*. Herrick. Newton and Loomis.
 " 13. *Toronto*. Sabine.
 " 14. *New York*. Hough.
 Aug. 15. *New York*. Hough. *Repulse Bay*. Rae.
 " 16. *Toronto*. Sabine.
 " 18. *New Haven?* Herrick. Newton and Loomis.
 " 21. *Christiania*. Hansteen.
 " 22. *Christiania*. Hansteen.
 " 24. *Cambridge*. Bond. Lovering.
 " 24. *New Haven*. Herrick. Newton and Loomis.
 " 24. *New York*. Hough. *Providence*. Caswell.
 " 24. *Christiania*. Hansteen. *Makerstoun*. Broun.
 " 25. *Christiania*. Hansteen.
 " 27. *Comrie, Perthshire*. M'Farlane.¹
 " 27. *Christiania*. Hansteen. *Makerstoun*. Broun.
 " 28. *Bonn*. Schmidt. *Christiania*. Hansteen.
 " 28. *Toronto*. Sabine.
 " 29. *New Haven?* Herrick. Newton and Loomis.
 " 29. *Ridgefield, Conn.* Bradley.
 " 29. *Christiania*. Hansteen.
 " 30. *New Haven?* Herrick. Newton and Loomis.
 " 31. *Christiania*. Hansteen.
 Sept. 1. *New York*. Hough. *Christiania*. Hansteen.
 " 9. *New York*. Hough.
 " 10. *Cambridge*. Bond. Lovering.
 " 10. *New York*. Hough. *Makerstoun*. Broun.
 " 10. *Christiania*. Hansteen.
 " 11. *Cambridge*. Bond. Lovering.
 " 11. *New York*. Hough. *Toronto*. Sabine.
 " 11. *Christiania*. Hansteen.
 " 11. *Makerstoun*. Broun. *Jakobshavn*. Rudolph.
 " 12. *Toronto*. Sabine. *Christiania*. Hansteen.
 " 13. *Toronto*. Sabine. *Christiania*. Hansteen.
 " 14. *Toronto*. Sabine. *Christiania*. Hansteen.
 " 16. *Jakobshavn*. Rudolph.
 " 17. *Christiania*. Hansteen.
 " 19. *Christiania*. Hansteen.
 " 20. *Christiania*. Hansteen.
 " 21. *Ashfield, Mass.* Herrick. Newton and Loomis.
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 21. *New York*. Hough.
 " 21. *Providence*. Caswell. *Toronto*. Sabine.
 " 21. *Durham*. Chevallier. *Norwich*. Marshall.²
 " 21. *Christiania*. Hansteen. *Comrie*. M'Farlane.
 " 21. *Makerstoun*. Broun.
 " 22. *Cambridge*. Bond. Lovering.
 " 22. *Ashfield, Mass.* Herrick. Newton and Loomis.
 " 22. *New Haven*. Herrick. Newton and Loomis.
 " 22. *Repulse Bay*. Rae.³ *Toronto*. Sabine.
 " 22. *New York*. Hough. *Christiania*. Hansteen.

¹ Athenæum, 1846, p. 917.² Proc. Brit. Assoc. XVI. 7.³ Narrative of an Expedition, &c.¹ Bull. de l'Acad. Brux. XIV. Pt. I. p. 420.

- Sept. 22. *Makerstoun.* Broun. *Hobarton.* Sabine. | Nov. 13. *New York.* Hough.
 " 22. *Yakoutsk.* Kupffer. *Bonn.* Schmidt. | " 13. *Bonn.* Schmidt. *Christiania.* Hansteen.
 " 23. *Cambridge.* Bond. Lovering. | " 14. *Repulse Bay.* Rae.
 " 23. *New Haven.* Herrick. Newton and Loomis. | " 16. *Christiania.* Hansteen.
 " 23. *New York.* Hough. *Providence.* Caswell. | " 17. *New Haven.* Herrick. Newton and Loomis.
 " 23. *Hartford.* Herrick. Newton and Loomis. | " 17. *New York.* Hough.
 " 23. *Christiania.* Hansteen. | " 17. *Bonn.* Schmidt. *Brussels.* Quetelet.
 " 24. *Christiania.* Hansteen. | " 17. *Makerstoun.* Broun. *Dunse.* Stevenson.
 " 25. *New York.* Hough. | " 17. *Kingstown, near London.* Starkey.
 " 27. *England.* Hough. | " 17. *Repulse Bay.* Rae. *Christiania.* Hansteen.
 Oct. 2. *New York.* Hough. *Toronto.* Sabine. | " 18. *Brussels.* Quetelet.
 " 7. *Cambridge.* Bond. Lovering. | " 20. *Repulse Bay.* Rae.
 " 7. *New Haven.* Herrick. Newton and Loomis. | " 21. *Bonn.* Schmidt.
 " 8. *New York.* Hough. *Makerstoun.* Broun. | " 22. *Repulse Bay.* Rae. *Jakobshavn.* Rudolph.
 " 9. *Makerstoun.* Broun. *Toronto.* Sabine. | " 23. *Repulse Bay.* Rae.
 " 10. *New Haven?* Herrick. Newton and Loomis. | " 25. *Repulse Bay.* Rae.
 " 11. *New Haven.* Herrick. Newton and Loomis. | " 26. *Yakoutsk.* Kupffer.
 " 11. *Toronto.* Sabine. *Christiania.* Hansteen. | " 30. *Jakobshavn.* Rudolph.
 " 12. *Jakobshavn.* Rudolph. | Dec. 4. *New Haven?* Herrick. Newton and Loomis.
 " 15. *New Haven.* Herrick. Newton and Loomis. | " 4. *Amsterdam.*¹
 " 15. *New York.* Hough. | " 5. *Repulse Bay.* Rae.
 " 16. *Repulse Bay.* Rae. | " 9. *Cambridge.* Bond. Lovering.
 " 17. *Repulse Bay.* Rae. *Ireland.* Hough. | " 9. *New Haven.* Herrick. Newton and Loomis.
 " 18. *Repulse Bay.* Rae. | " 9. *New York.* Hough. *Newberry.* Johnson.
 " 19. *Cambridge.* Bond. Lovering. | " 9. *Christiania.* Hansteen. *Jakobshavn.* Rudolph.
 " 19. *New Haven.* Herrick. Newton and Loomis. | " 9. *Makerstoun.* Broun.
 " 19. *New York.* Hough. *Newberry.* Johnson. | " 10. *Christiania.* Hansteen.
 " 19. *Christiania.* Hansteen. *Toronto.* Sabine. | " 11. *Bonn.* Schmidt. *Christiania.* Hansteen.
 " 19. *Makerstoun.* Broun. *Dunse.* Stevenson. | " 13. *Bonn.* Schmidt. *Repulse Bay.* Rae.
 " 19. *Jakobshavn.* Rudolph. | " 13. *Christiania.* Hansteen. *Jakobshavn.* Rudolph.
 " 20. *Christiania.* Hansteen. | " 14. *New Haven?* Herrick. Newton and Loomis.
 " 21. *Cambridge.* Bond. Lovering. | " 14. *Repulse Bay.* Rae.
 " 21. *New Haven.* Herrick. Newton and Loomis. | " 15. *Repulse Bay.* Rae. *Jakobshavn.* Rudolph.
 " 21. *New York.* Hough. | " 16. *Bonn.* Schmidt.
 " 21. *Christiania.* Hansteen. *Repulse Bay.* Rae. | " 17. *Repulse Bay.* Rae. *Bonn.* Schmidt.
 " 21. *Jakobshavn.* Rudolph. | " 17. *Jakobshavn.* Rudolph.
 " 22. *New Haven.* Herrick. Newton and Loomis. | " 18. *Repulse Bay.* Rae.
 " 22. *Newberry.* Johnson. | " 21. *Repulse Bay.* Rae.
 " 22. *Makerstoun.* Broun. *Jakobshavn.* Rudolph. | " 22. *New York.* Hough.
 " 24. *New Haven.* Herrick. Newton and Loomis. | " 23. *New Haven.* Herrick. Newton and Loomis.
 " 25. *Jakobshavn.* Rudolph. | " 23. *New York.* Hough.
 " 27. *Repulse Bay.* Rae. | " 23. *Christiania.* Hansteen. *Jakobshavn.* Rudolph.
 " 28. *Repulse Bay.* Rae. *Jakobshavn.* Rudolph.
 " 29. *Repulse Bay.* Rae.
 Nov. 5. *Repulse Bay.* Rae. | 1847.
 " 6. *Repulse Bay.* Rae. | Jan. 2. *Repulse Bay.* Rae.
 " 11. *New Haven?* Herrick. Newton and Loomis.¹ | " 3. *Repulse Bay.* Rae.
 " 11. *Bonn.* Schmidt. | " 4. *Repulse Bay.* Rae.
 " | " 6. *Repulse Bay.* Rae.

¹ Amer. Journ. Sci. Second Series, III. 126.¹ Pogg. Ann. LXVII. 591.

- Jan. 8. *Jakobshavn.* Rudolph.
 " 11. *Repulse Bay.* Rae.
 " 12. *Repulse Bay.* Rae. *Jakobshavn.* Rudolph.
 " 13. *Bonn.* Schmidt. *Christiania.* Hansteen.
 " 13. *Repulse Bay.* Rae.
 " 14. *Bonn.* Schmidt. *Repulse Bay.* Rae.
 " 16. *Repulse Bay.* Rae.
 " 17. *New Haven?* Herrick. Newton and Loomis.
 " 17. *New York.* Hough.
 " 17. *Repulse Bay.* Rae. *Jakobshavn.* Rudolph.
 " 18. *Repulse Bay.* Rae. *Jakobshavn.* Rudolph.
 " 20. *Christiania.* Hansteen.
 " 21. *New Haven?* Herrick. Newton and Loomis.
 " 25. *New York.* Hough.
 " 26. *Repulse Bay.* Rae.
 " 28. *Repulse Bay.* Rae.
 " 30. *Makerstoun.* Broun. *Dunse.* Stevenson.
- Feb. 5. *Jakobshavn.* Rudolph.
 " 6. *Cambridge.* Bond. Lovering.
 " 6. *New Haven?* Herrick. Newton and Loomis.
 " 6. *Makerstoun.* Broun. *Dunse.* Stevenson.
 " 6. *Jakobshavn.* Rudolph.
 " 7. *New Haven?* Herrick. Newton and Loomis.
 " 9? *Repulse Bay.* Rae.
 " 10. *Repulse Bay.* Rae.
 " 21. *New York.* Hough. *Jakobshavn.* Rudolph.
 " 22. *Christiania.* Hansteen. *Toronto.* Sabine.
- Mar. 1. *Christiania.* Hansteen.
 " 4. *New York.* Hough. *Christiania.* Hansteen.
 " 5. *New York.* Hough.
 " 6. *New York.* Hough.
 " 8. *Cambridge.* Bond. Lovering.
 " 8. *New Haven.* Herrick. Newton and Loomis.
 " 8. *Newberry.* Johnson.
 " 9. *Jakobshavn.* Rudolph.
 " 10. *Christiania.* Hansteen.
 " 11. *New Haven?* Herrick. Newton and Loomis.
 " 12. *Christiania.* Hansteen. *Jakobshavn.* Rudolph.
 " 13. *Christiania.* Hansteen.
 " 14. *Jakobshavn.* Rudolph.
 " 15. *New York.* Hough.
 " 17. *New Haven?* Herrick. Newton and Loomis.
 " 17. *Eutin.* Schmidt.
 " 18. *New York.* Hough.
 " 19. *Cambridge.* Bond. Lovering.
 " 19. *New Haven.* Herrick. Newton and Loomis.
 " 19. *Newberry.* Johnson. *New York.* Hough.
 " 19. *Boston.* *Washington, D. C.* Hough.
 " 19. *Toronto.* Sabine.
 " 19. *Providence, R. I.* Caswell.
- Mar. 19. *Brussels.* Quetelet. *Buxton.* Mann.¹
 " 19. *London.* Adams. *Amsterdam, &c.*²
 " 19. *Cambridge, Eng.* Challis and Potter.
 " 19. *Makerstoun.* Broun.
 " 22. *New York.* Hough.
 " 28. *New York.* Hough.
- Apr. 3. *New York.* Hough. *Christiania.* Hansteen.
 " 3. *Makerstoun.* Broun. *Repulse Bay.* Rae.
 " 4. *New York.* Hough.
 " 6. *New York.* Hough.
 " 7. *Cambridge.* Bond. Lovering.
 " 7. *Boston.* Hale. Lovering.
 " 7. *New Haven.* Herrick. Newton and Loomis.³
 " 7. *Washington and Baltimore.* Hough.
 " 7. *New York.* Hough. *Toronto.* Sabine.
 " 8. *Toronto.* Sabine.
 " 10. *New York.* Hough.
 " 11. *New York.* Hough.
 " 13. *Christiania.* Hansteen.
 " 14. *Christiania.* Hansteen.
 " 15. *Christiania.* Hansteen.
 " 16. *Cambridge.* Bond. Lovering.
 " 16. *Christiania.* Hansteen.
 " 19. *Toronto.* Sabine.
 " 20. *Hobarton, Van Dieman's Land.* Sabine.⁴
 " 21. *Christiania.* Hansteen. *Hobarton.* Sabine.
- May 7. *New York.* Hough. *Toronto.* Sabine.
 " 9. *New York.* Hough.
 " 15. *Cambridge.* Bond. Lovering.
 " 15. *New York.* Hough. *Providence.* Caswell.
 " 15. *New Haven.* Herrick. Newton and Loomis.
 " 15. *Sitka.* Kupffer.⁵
- June 6. *Brussels.* Quetelet.
 " 12. *New Haven?* Herrick. Newton and Loomis.
 " 12. *New York.* Hough. *Newberry.* Johnson.
 " 12. *Providence.* Caswell. *Toronto.* Sabine.
- July 9. *New Haven.* Herrick. Newton and Loomis.
 " 9. *New York.* Hough. *Providence.* Caswell.
 " 9. *Toronto.* Sabine.
 " 11. *New Haven.* Herrick. Newton and Loomis.
 " 11. *New York.* Hough. *Toronto.* Sabine.
 " 12. *New York.* Hough.
- Aug. 3. *Cambridge.* Bond. Lovering.
 " 3. *New York.* Hough.
 " 4. *New Haven.* Herrick. Newton and Loomis.

¹ Athenæum, 1847, p. 335.² Proc. Brit. Assoc. XVI. 7.³ Amer. Journ. Sci. New Series, III. 440.⁴ Magnet. and Meteor. Observ. Hobarton, III. 324.⁵ Annal. de l'Observ. Phys. Centrale de Russie, 1848, p. 373.

- Aug. 4. *New York*. Hough. *Toronto*. Sabine.
 " 4. *Sitka*. Kupffer.
 " 16. *Toronto*. Sabine.
 " 21. *Cambridge*. Bond. Lovering. *Toronto*. Sabine.
 " 21. *Christiania*. Hansteen. *Sitka*. Kupffer.
 " 22. *Near Rankin's Inlet*. Rae. *Sitka*. Kupffer.
 " 23. *Makerstoun*. Broun.
 " 24. *Sitka*. Kupffer.
 " 25. *New York*. Hough.
 Sept. 10. *New York*. Hough.
 " 12. *Christiania*. Hansteen. *Sitka*. Kupffer.
 " 13. *New Haven*. Herrick. Newton and Loomis.
 " 13. *Sitka*. Kupffer.
 " 15. *England*. *Germany*. *Irkutsk*. Kupffer.¹ Boué.
 " 16. *New Haven*. Herrick. Newton and Loomis.
 " 16. *New York*. Hough. *Providence*. Caswell.
 " 24. *England*. Hough. *Christiania*. Hansteen.
 " 24. *Hobarton*. Sabine.
 " 25. *Hobarton*. Sabine.
 " 26. *England*. Hough. *Christiania*. Hansteen.
 " 26. *Makerstoun*. Broun. *Hobarton*. Sabine.
 " 27. *Inverness, Scotland*. Hough.
 " 28. *Near Louviers*.²
 " 29. *Cambridge*. Bond. Lovering.
 " 29. *Worcester*.³ Chandler.
 " 29. *New Haven*. Herrick. Newton and Loomis.
 " 29. *New York*. Hough. *Providence*. Caswell.
 " 29. *Westmoreland*. Sturgeon.⁴ *Swansea*. Hough.
 " 29. *Christiania*. Hansteen. *Carlisle*. Hough.
 " 29. *Makerstoun*. Broun. *Jakobshavn*. Rudolph.
 " 30. *Westmoreland*. Sturgeon.
 Oct. 1. *Christiania*. Hansteen. *Borsley*. *Havre*.⁴
 " 3. *Carlisle*.⁵
 " 5. *Christiania*. Hansteen.
 " 6. *Christiania*. Hansteen. *Carlisle*.
 " 7. *Jakobshavn*. Rudolph.
 " 8. *Makerstoun*. Broun. *Toronto*. Sabine.
 " 12. *Christiania*. Hansteen. *Toronto*. Sabine.
 " 13. *New York*. Hough. *Christiania*. Hansteen.
 " 13. *Westmoreland*. Sturgeon.
 " 14. *Bonn*. Schmidt. *Toronto*. Sabine.
 " 15. *Christiania*. Hansteen. *Toronto*. Sabine.
 " 16. *Makerstoun*. Broun.
 " 19. *Peru, N. Y.* Herrick. Newton and Loomis.
 " 19. *Makerstoun*. Broun.
 Oct. 22. *Hobarton*. Sabine. *Toronto*. Sabine.
 " 23. *New York*. Hough. *Hobarton*. Sabine.
 " 23. *Barnaoul*. Kupffer. *Christiania*. Hansteen.
 " 24. *New York*. Hough. *Hobarton*. Sabine.
 " 24. *Durham*. Chevallier. *Cambridge*. Challis.¹
 " 24. *Westmoreland*. Sturgeon. *York*. Phillips.
 " 24. *Oxford*. Rowell. *Blackheath*. Glaisher.²
 " 24. *France*. *Brussels*. Quetelet. Arago.
 " 24. *Germany*. Jahn.³ *Spain*. Rico.
 " 24. *Ireland*. *Christiania*. Hansteen.
 " 24. *Barnaoul and Bogoslowski*. Kupffer.
 " 25. *Paris*. Hough. *Christiania*. Hansteen.
 " 25. *Makerstoun*. Broun. *Barnaoul*. Kupffer.⁴
 " 26. *Jakobshavn*. Rudolph.
 " 27. *Cambridge, Oxford, &c. England*. Hough.
 " 29. *Makerstoun*. Broun.
 " 31. *Christiania*. Hansteen. *Jakobshavn*. Rudolph.
 Nov. 1. *New Haven*. Herrick. Newton and Loomis.
 " 1. *New York*. Hough. *Toronto*. Sabine.
 " 1. *France*. Coulvier-Gravier. Arago.
 " 1. *Makerstoun*. Broun.
 " 1. *Sitka*. Kupffer. *Westmoreland*. Sturgeon.
 " 2. *Bonn*. Schmidt.
 " 3. *New York*. Hough. *Christiania*. Hansteen.
 " 5. *Toronto*. Sabine.
 " 6. *Sitka*. Kupffer.
 " 7. *New York*. Hough. *Sitka*. Kupffer.
 " 8. *Sitka*. Kupffer.
 " 9. *Toronto*. Sabine.
 " 10. *New Haven*. Herrick. Newton and Loomis.
 " 10. *Christiania*. Hansteen.
 " 11. *New Haven*. Herrick. Newton and Loomis.
 " 11. *Jakobshavn*. Rudolph.
 " 12. *New Haven*. Herrick. Newton and Loomis.
 " 12. *Providence, R. I?* Caswell.
 " 13. *Christiania*. Hansteen.
 " 14. *New York*. Hough.
 " 17. *New York*. Hough.
 " 17. *Christiania*. Hansteen.
 " 18. *Brussels*. Quetelet.
 " 19. ——— Schmidt. Jahn.
 " 19. *Makerstoun*. Broun. *Dunse*. Stevenson.
 " 22. *New York*. Hough.
 " 22. *Catharinebourg*. Kupffer.⁵

¹ Annuaire Magnet. et Meteor. de Russie, 1844.² Compt. Rend. XXV. 765.³ Fifteenth Report of the Lunatic Asylum, p. 77, &c.⁴ Mem. Lit. and Phil. Soc. Manchest. VIII. 381.⁵ Athenæum, 1847, p. 1034 and 1058.¹ Athenæum, 1847, p. 1152.² Edin. New Phil. Journ. XLIV. 91. Phil. Mag. XXXI. 369.³ Sitzungsbericht. der Kaiserl. Akademie, &c. Wien. XXIII. 262.⁴ Annal. de l'Observ. Phys. Centrale de Russie, 1847, pp. 233 et 353.⁵ Annal. de l'Observ. Phys. Centrale de Russie, 1847, p. 147.

- Nov. 22. *Koursk and Bogoslowski.* Kupffer.¹
 " 25. *New Haven.* Herrick. Newton and Loomis.
 " 25. *New York.* Hough. *Toronto.* Sabine.
 " 25. *Worcester.* Chandler. *Makerstoun.* Broun.
 " 26. *New Haven?* Herrick. Newton and Loomis.
 " 26. *New York.* Hough. *Toronto.* Sabine.
 " 26. *Providence?* Caswell. *Worcester.* Chandler.
 " 26. *Makerstoun.* Broun.
 " 27. *New York.* Hough. *Makerstoun.* Broun.
 Dec. 1. *Christiania.* Hansteen.
 " 2. *Christiania.* Hansteen.
 " 3. *Christiania.* Hansteen.
 " 4. *New Haven?* Herrick. Newton and Loomis.
 " 4. *Christiania.* Hansteen.
 " 7. *New York.* Hough.
 " 8. *New York.* Hough. *Jakobshavn.* Rudolph.
 " 8. *Sitka.* Kupffer. ——— Schmidt.
 " 10. ——— Schmidt.
 " 15. *New Haven?* Herrick. Newton and Loomis.
 " 16. *Wurtemberg.* Demidoff.² *Toronto.* Sabine.
 " 17. *New York.* Hough. *Toronto.* Sabine.
 " 17. *Brussels.* Quetelet. *Eutin.* Schmidt.
 " 17. *France.* Rigault. Arago.
 " 17. *Neuchatel.* Coulon.³
 " 17. *Italy.* Demidoff. *Gorki.* Kupffer.⁴
 " 17. *Yakoutsk and Sitka.* Kupffer.
 " 18. *Toronto.* Sabine. *Eutin.* Schmidt.
 " 18. *Yakoutsk.* Kupffer.
 " 19. *New Haven?* Herrick. Newton and Loomis.
 " 19. *Worcester.* Chandler. *Christiania.* Hansteen.
 " 19. *Catharinebourg.* Kupffer. *Eutin.* Schmidt.
 " 20. *New Haven.* Herrick. Newton and Loomis.
 " 20. *New York.* Hough. *Eutin.* Schmidt.
 " 20. *Makerstoun.* Broun.
 " 20. *Zlatoouste.* Kupffer.⁵ *Hobarton.* Sabine.
 " 29. *Jakobshavn.* Rudolph.
 " 31. *Leipsic. Carlsruhe, Wurtemberg, &c.* Jahn.

1848.

- Jan. 3. *New Haven?* Herrick. Newton and Loomis.
 " 3. *New York.* Hough.

¹ Annal. de l'Observ. Phys. Centrale de Russie, 1858, Suppl. p. 85.

² L'Institut. Sci. Math. Phys. &c. XVI. 10.

³ Bull. Soc. Sci. Nat. Neuchatel. II. 194.

⁴ Annal. de l'Observ. Phys. Centrale de Russie, 1852, Suppl. p. 49.

⁵ Annal. de l'Observ. Phys. Centrale de Russie, 1847, p. 387.

- Jan. 3. *Kingston and Toronto.* Lefroy.¹
 " 6. *New York.* Hough.
 " 6. *London, Canada West.* Lefroy.
 " 10. *Jakobshavn.* Rudolph.
 " 11. *New York.* Hough.
 " 11. *Kingston, Toronto, and London.* Lefroy.
 " 12. *Christiania.* Hansteen. *Yakoutsk.* Kupffer.
 " 13. *Christiania.* Hansteen. *Dunse.* Stevenson.
 " 14. ——— Coulvier-Gravier.²
 " 15. *Kingston and London.* Lefroy
 " 16. *East Hartford.* Herrick. Newton and Loomis.
 " 16. *New York.* Hough.
 " 16. *Kingston, Toronto, and London.* Lefroy.
 " 17. *New York.* Hough.
 " 19. *New York.* Hough.
 " 20. *Montreal.* Hough.
 " 23. *New Haven?* Herrick. Newton and Loomis.
 " 23. *New York.* Hough. *Kingston.* Lefroy.
 " 23. *Russia?* Hough.
 " 24. *Christiania.* Hansteen. *Russia?* Hough.
 " 25. *Russia?* Hough.
 " 26. *Christiania.* Hansteen.
 " 27. *Jakobshavn.* Rudolph.
 " 28. *Cambridge.* Bond. Lovering.
 " 28. *New Haven.* Herrick. Newton and Loomis.
 " 28. *New York.* Hough. *Newberry.* Johnson.
 " 28. *Montreal, Kingston, and London.* Lefroy.
 " 28. *Bonn.* Schmidt.
 " 29. *Kingston.* Lefroy. *Yakoutsk.* Kupffer. Jahn.
 Feb. 2. *Jakobshavn.* Rudolph.
 " 4. *New Haven?* Herrick. Newton and Loomis.
 " 6. *New Haven.* Bradley. Newton and Loomis.
 " 6. *Christiania.* Hansteen.
 " 6. *Quebec, Montreal, and Kingston.* Lefroy.
 " 7. *New Haven.* Herrick. Newton and Loomis.
 " 7. *New York.* Hough. *Toronto.* Lefroy.
 " 7. *Quebec, Montreal, and Kingston.* Lefroy.
 " 8. *New Haven.* Herrick. Newton and Loomis.
 " 8. *New York.* Hough. *Providence.* Caswell.
 " 8. *Newberry.* Johnson. *Toronto.* Lefroy.
 " 8. *Quebec, Montreal, and Kingston.* Lefroy.
 " 12. *Montreal.* Lefroy.
 " 13. *Montreal.* Lefroy.
 " 14. *Christiania.* Hansteen.
 " 14. *Montreal and Toronto.* Lefroy.
 " 15. *New York.* Hough.
 " 18. *New York.* Hough.

¹ Phil. Mag. Third Series, XXXVI. 457.

² Compt. Rend. XXVIII. 89.

- Feb. 20. *New Haven?* Herrick. Newton and Loomis.
 " 20. *New York.* Hough.
 " 20. *Cumberland, Md.* Herrick. Newton and L.
 " 20. *London, Canada West.* Lefroy.
 " 20. *Makerstoun.* Broun. *England.* Hough.
 " 20. *Dunse.* Stevenson.
 " 21. *New Haven.* Herrick. Newton and Loomis.
 " 21. *New York.* Hough. *Providence.* Caswell.
 " 21. *Newberry.* Johnson. *Worcester.* Chandler.¹
 " 21. *Quebec and Montreal.* Lefroy.
 " 21. *Kingston, Toronto, and London.* Lefroy.
 " 21. *Jakobshavn.* Rudolph.
 " 21. *Christiania.* Hansteen. ——— Schmidt.
 " 21. *Makerstoun.* Broun. *Yakoutsk.* Kupffer.
 " 21. *Leipsic, Pegau, Lutzen, &c.* Jahn.
 " 22. *Toronto.* Lefroy. *Sitka.* Kupffer.
 " 22. *Makerstoun.* Broun. *Dunse.* Stevenson.
 " 23. *New Haven.* Herrick. Newton and Loomis.
 " 23. *New York.* Hough. *Providence.* Caswell.
 " 23. *Worcester.* Chandler.
 " 23. *Quebec and Montreal.* Lefroy.
 " 23. *Kingston, Toronto, and London.* Lefroy.
 " 23. *Christiania.* Hansteen. *Jakobshavn.* Rudolph.
 " 24. *Cambridge.* Bond. Lovering.
 " 24. *New Haven.* Herrick. Newton and Loomis.
 " 24. *New York.* Hough. *Providence.* Caswell.
 " 24. *Quebec and Montreal.* Lefroy.
 " 24. *Kingston, Toronto, and London.* Lefroy.
 " 24. *Jakobshavn.* Rudolph.
 " 24. *Yakoutsk and Burnaoul.* Kupffer.
 " 25. *Cambridge.* Bond. Lovering.
 " 25. *Newberry.* Johnson.
 " 25. *Quebec and Montreal.* Lefroy.
 " 26. *New Haven.* Herrick. Newton and Loomis.
 " 27. *Montpelier.* Roche.
 " 28. *Quebec.* Lefroy.
 " 29. *Kingston.* Lefroy.
 Mar. 1. *Montreal and Toronto.* Lefroy.
 " 4. *Christiania.* Hansteen.
 " 6. *New York.* Hough.
 " 6. *Montreal, Kingston, and Toronto.* Lefroy.
 " 7. *Bonn.* Schmidt. Boué.
 " 8. *Cambridge.* Bond. Lovering.
 " 8. *Toronto and London.* Lefroy.
 " 10. *Kingston.* Lefroy.
 " 14. *Quebec, Montreal, and Toronto.* Lefroy.
 " 16. *Quebec and Montreal.* Lefroy.
 " 16. *Kingston and Toronto.* Lefroy.
 Mar. 17. *New York.* Hough. *Makerstoun.* Broun.
 " 19. *New York.* Hough.
 " 19. *Kingston and Toronto.* Lefroy.
 " 19. *Makerstoun.* Broun. ——— Schmidt.
 " 20. *Quebec.* Lefroy.
 " 21. *Makerstoun.* Broun.
 " 22. *Cambridge.* Bond. Lovering.
 " 23. *New York.* Hough. *Quebec.* Lefroy.
 " 24. *Cambridge.* Bond. Lovering.
 " 24. *New Haven.* Herrick. Newton and Loomis.
 " 24. *New York.* Hough. *Providence.* Caswell.
 " 24. *Quebec and Montreal.* Lefroy.
 " 24. *Kingston and Toronto.* Lefroy.
 " 24. *Makerstoun.* Broun. *Hobarton.* Sabine.
 " 25. *Cambridge.* Bond. Lovering.
 " 25. *New York.* Hough.
 " 27. *Toronto.* Lefroy.
 " 29. *New York.* Hough.
 " 30. *New Haven.* Herrick. Newton and Loomis.
 " 30. *New York.* Hough.
 " 30. *Montreal and Kingston.* Lefroy.
 " 31. *Toronto?* Lefroy.
 Apr. 1. *New Haven.* Herrick. Newton and Loomis.
 " 1. *New York.* Hough.
 " 1. *Quebec and Montreal.* Lefroy.
 " 1. *Kingston, Toronto, and London.* Lefroy.
 " 2. *New Haven.* Herrick. Newton and Loomis.
 " 2. *New York.* Hough. *Worcester.* Chandler.
 " 2. *Kingston, Toronto, and London.* Lefroy.
 " 2. *Quebec and Montreal.* Lefroy. Jahn.
 " 3. *New York.* Hough. *Quebec.* Lefroy.
 " 4. *Kingston and Toronto.* Lefroy.
 " 4. *Christiania.* Hansteen.
 " 5. *Cambridge.* Bond. Lovering.
 " 5. *New York.* Hough.
 " 5. *Quebec and Montreal.* Lefroy.
 " 5. *Kingston, Toronto, and London.* Lefroy.
 " 5. *Christiania.* Hansteen.
 " 6. *Cambridge.* Bond. Lovering.
 " 6. *Boston.* Hale. Lovering.
 " 6. *Worcester.* Chandler.
 " 6. *New York.* Hough. *Providence.* Caswell.
 " 6. *New Haven.* Herrick. Newton and Loomis.
 " 6. *Newberry.* Johnson. *Hobarton.* Sabine.
 " 6. *Quebec and Montreal.* Lefroy.
 " 6. *Kingston, Toronto, and London.* Lefroy.
 " 6. *Aix-la-Chapelle.* Heis.¹ Jahn.
 " 7. *New Haven.* Herrick. Newton and Loomis.

¹ Sixteenth Report of the Lunatic Asylum, p. 60.¹ Bull. de l'Acad. Brux. XVI. Pt. I. p. 4.

- Apr. 7. *New York.* Hough.
 " 7. *Quebec and Montreal.* Lefroy.
 " 7. *Kingston, Toronto, and London.* Lefroy.
 " 7. *Christiania.* Hansteen.
 " 9. *Montreal and Kingston.* Lefroy.
 " 15. *Cambridge.* Bond. Lovering.
 " 15. *New York.* Hough. *Worcester.* Chandler.
 " 15. *Montreal, Kingston, and Toronto.* Lefroy.
 " 15. *Christiania.* Hansteen.
 " 16. *Kingston.* Lefroy.
 " 17. *Quebec.* Lefroy. *Christiania.* Hansteen.
 " 17. *Makerstoun.* Broun.
 " 20. *Quebec.* Lefroy.
 " 21. *Kingston, Halifax, and Toronto.* Lefroy.
 " 21. *Christiania.* Hansteen.
 " 23. *Toronto and London.* Lefroy.
 " 24. *Toronto.* Lefroy. *Inveresk.* Broun.¹
 " 26. *Quebec?* Lefroy.
 " 29. *New Haven.* Herrick. Newton and Loomis.
 " 29. *New York.* Hough. *Newberry.* Johnson.
 " 29. *Quebec and Montreal.* Lefroy.
 " 29. *Kingston, Toronto, and London.* Lefroy.
 " 29. *Makerstoun.* Broun.
 " 30. *New York.* Hough. *Newberry.* Johnson.
 " 30. *Quebec and Montreal.* Lefroy.
 " 30. *Kingston and Toronto.* Lefroy.
- May 2. *Toronto.* Lefroy.
 " 4. *Quebec.* Lefroy.
 " 7. *Montreal, Kingston, and Toronto.* Lefroy.
 " 8. *Quebec and Toronto.* Lefroy.
 " 10. *Makerstoun.* Broun.
 " 13. *New York.* Hough.
 " 17. *Quebec and Toronto.* Lefroy.
 " 18. *New Haven.* Herrick. Newton and Loomis.
 " 18. *New York.* Hough.
 " 18. *Quebec and Kingston.* Lefroy.
 " 18. *Makerstoun.* Broun.
 " 22. *Kingston.* Lefroy.
 " 24. *Worcester.* Chandler.
 " 24. *Kingston, Toronto, and London.* Lefroy.
 " 25. *Cambridge.* Bond. Lovering.
 " 25. *Kingston and Toronto.* Lefroy.
 " 26. *Toronto.* Lefroy.
 " 27. *New Haven.* Herrick. Newton and Loomis.
 " 31. *Cambridge.* Bond. Lovering.
 " 31. *New Haven.* Herrick. Newton and Loomis.
 " 31. *New York.* Hough. *Providence.* Caswell.
 " 31. *Kingston, Toronto, and London.* Lefroy.
- June 1. *New York.* Hough.
 " 3. *New York.* Hough.
 " 3. *Montreal and Kingston.* Lefroy.
 " 5. *Kingston.* Lefroy.
 " 9. *Kingston.* Lefroy.
 " 22. *New Haven.* Herrick. Newton and Loomis.
 " 22. *Toronto.* Lefroy.
 " 28. *London, Canada West.* Lefroy.
 " 29. *Quebec, Kingston, and Toronto.* Lefroy.
- July 1. *Edinburgh.* Boué. *Inveresk.* Broun.
 " 2. *Edinburgh.* Boué. *Inveresk.* Broun.
 " 3. *New Haven.* Herrick. Newton and Loomis.
 " 3. *New York.* Hough.
 " 3. *Kingston, Toronto, and London.* Lefroy.
 " 4. *New Haven.* Herrick. Newton and Loomis.
 " 4. *New York.* Hough. *Worcester.* Chandler.
 " 4. *Kingston and Toronto.* Lefroy.
 " 5. *Kingston.* Lefroy.
 " 7. *Cambridge.* Bond. Lovering.
 " 10. *Quebec and Montreal.* Lefroy.
 " 11. *Cambridge.* Bond. Lovering.
 " 11. *Worcester.* Chandler.
 " 11. *New Haven.* Herrick. Newton and Loomis.
 " 11. *New York.* Hough. *Providence.* Caswell.
 " 11. *Kingston and Toronto.* Lefroy.
 " 12. *New York.* Hough.
 " 23. *New Haven.* Herrick. Newton and Loomis.
 " 23. *New York.* Hough. *Inveresk.* Broun.
 " 24. *London, Canada West.* Lefroy.
 " 27. *London, Canada West.* Lefroy.
 " 28. *Kingston.* Lefroy.
 " 29. *Kingston.* Lefroy.
- Aug. 1. *Montreal and Kingston.* Lefroy.
 " 3. *Montreal.* Lefroy.
 " 6. *Christiania.* Hansteen.
 " 8. *New Haven.* Herrick. Newton and Loomis.
 " 8. *New York.* Hough. *Toronto.* Lefroy.
 " 8. *Quebec, Montreal, and Kingston.* Lefroy.
 " 8. *Christiania.* Hansteen. *Inveresk.* Broun.
 " 9. *New York.* Hough.
 " 14. *New York.* Hough.
 " 17. *Franconia, N. H.* Hough.
 " 19. *Portsmouth, England.* Hough.
 " 20. *New York.* Hough.
 " 21. *New Haven.* Herrick. Newton and Loomis.
 " 21. *New York.* Hough. *Newberry.* Johnson.
 " 21. *Quebec and Montreal.* Lefroy.
 " 21. *Kingston, Toronto, and London.* Lefroy.
 " 21. *Christiania.* Hansteen.
 " 22. *New Haven.* Herrick. Newton and Loomis.

¹ Trans. Roy. Soc. Edinb. XIX. Pt. II. p. LXXIX.

- Aug. 22. *Quebec, Montreal, and London.* Lefroy.
 " 28. *Toronto.* Lefroy.
 " 29. *Christiania.* Hansteen.
 " 31. *Christiania.* Hansteen.
 Sept. 3. *New Haven.* Herrick. Newton and Loomis.
 " 3. *Quebec and Kingston.* Lefroy.
 " 4. *Newberry.* Johnson. *Toronto.* Lefroy.
 " 4. *Quebec, Montreal, and Kingston.* Lefroy.
 " 4. *Christiania.* Hansteen.
 " 5. *Makerstoun.* Broun.
 " 9. *New York.* Hough.
 " 12. *Russia.* Hough.
 " 13. *Russia.* Hough.
 " 17. *Kingston.* Lefroy. *Christiania.* Hansteen.
 " 18. *Quebec and Kingston.* Lefroy.
 " 18. *Christiania.* Hansteen.
 " 19. *Christiania.* Hansteen.
 " 20. *Toronto.* Lefroy.
 " 29. *Toronto.* Lefroy.
 " 30. *Toronto.* Lefroy.
 Oct. 1. *Fort Confidence, Gr. Br. Lake.* Richardson.¹
 " 2. *Quebec.* Lefroy.
 " 4. *Quebec.* Lefroy.
 " 5. *New York.* Hough.
 " 6. *Cambridge?* Bond.² Lovering.
 " 8. *New York.* Hough. *Toronto.* Lefroy.
 " 8. *Quebec, Montreal, and Kingston.* Lefroy.
 " 10. *New York.* Hough.
 " 13. *Fort Confidence.* Richardson.
 " 17. *New Haven and Virginia.* Hough.
 " 17. *Toronto.* Lefroy. *England.* Hough.
 " 17. *Fort Confidence.* Richardson.
 " 18. *Toronto.* Lefroy. *Virginia.* Hough.
 " 18. *Fort Confidence.* Richardson.
 " 18. *Prestwich.* Sturgeon.³ *Dunse.* Stevenson.
 " 18. *Stonyhurst.* Weld.⁴
 " 18. *Gorki.* Kupffer. *Spain.* Rico.⁵
 " 18. *Kremsminster.* Littrow. Arago.
 " 18. *Christiania.* Hansteen. *Koursk.* Kupffer.
 " 18. *Makerstoun.* Broun. *Hobarton.* Sabine.
 " 19. *Worcester.* Chandler.
 " 19. *London, Canada West.* Lefroy.
 " 19. *Stonyhurst.* Weld. — Schmidt. Jahn.
 " 19. *Christiania.* Hansteen. *Yakoutsk.* Kupffer.
 Oct. 19. *Makerstoun.* Broun.
 " 19. *Fort Confidence.* Richardson.
 " 20. *Stonyhurst.* Weld. *Christiania.* Hansteen.
 " 20. *Makerstoun.* Broun.
 " 20. *Fort Confidence.* Richardson.
 " 21. *England.* Hough. *Christiania.* Hansteen.
 " 21. *Makerstoun.* Broun.
 " 21. *Fort Confidence.* Richardson.
 " 22. *New Haven.* Herrick. Newton and Loomis.
 " 22. *New York.* Hough.
 " 22. *Kingston, Toronto, and London.* Lefroy.
 " 23. *Makerstoun.* Broun. — Schmidt. Jahn.
 " 23. *New Haven.* Herrick. Newton and Loomis.
 " 23. *Providence, Rhode Island.* Caswell.
 " 23. *New York.* Hough. *Newberry.* Johnson.
 " 23. *Montreal, Toronto, and Kingston.* Lefroy.
 " 23. *Aix-la-Chapelle.* Heis. — Schmidt. Jahn.
 " 23. *Koursk.* Kupffer. *Christiania.* Hansteen.
 " 23. *Fort Confidence.* Richardson.
 " 24. *Toronto.* Lefroy. — Schmidt.
 " 24. *Fort Confidence.* Richardson.
 " 24. *Paris.* De la Pylaie. Jahn.
 " 24. *Aix-la-Chapelle.* Heis.
 " 24. *Makerstoun.* Broun.
 " 25. *Cambridge.* Bond. Lovering.
 " 25. *Providence.* Caswell.
 " 25. *New Haven.* Herrick. Newton and Loomis.
 " 25. *New York.* Hough. *Newberry.* Johnson.
 " 25. *Quebec and Toronto.* Lefroy.
 " 25. *Aix-la-Chapelle.* Heis. — Schmidt. Jahn.
 " 25. *Fort Confidence.* Richardson. *Koursk.* Kupffer.
 " 26. *New Haven.* Herrick. Newton and Loomis.
 " 26. *Fort Confidence.* Richardson.
 " 26. *Aix-la-Chapelle.* Heis. — Schmidt. Jahn.
 " 26. *Christiania.* Hansteen. *Makerstoun.* Broun.
 " 27. *Newberry.* Johnson. *Quebec.* Lefroy.
 " 27. *Fort Confidence.* Richardson.
 " 27. *Prestwich.* Sturgeon. *Jakobshavn.* Rudolph.
 " 28. *Newberry.* Johnson. *Quebec.* Lefroy.
 " 28. *Fort Confidence.* Richardson. — Schmidt.
 " 29. *Kingston.* Lefroy.
 " 30. *New York.* Hough.
 " 30. *Quebec.* Lefroy. — Schmidt.
 " 30. *Fort Confidence.* Richardson.
 " 31. *Kingston and Toronto.* Lefroy.
 Nov. 1. *Fort Confidence.* Richardson.
 " 1. *Jakobshavn.* Rudolph.
 " 2. *Newberry.* Johnson.
 " 2. *Fort Confidence.* Richardson.
 " 3. *Fort Confidence.* Richardson.

¹ Magnet. and Meteor. Observ. at Lake Athabasca, &c. p. 329.

² New York Tribune of Oct. 10.

³ Edin. New Phil. Journ. XLVII. 148.

⁴ Phil. Mag. Third Series, XXXIII. 376.

⁵ Mem. Acad. Cienc. Madrid, III. 77.

- Nov. 4. *Fort Confidence*. Richardson.
 " 5. *Fort Confidence*. Richardson.
 " 6. *Fort Confidence*. Richardson.
 " 7. *Fort Confidence*. Richardson.
 " 9. *Fort Confidence*. Richardson. *Tobolsk*. Kupffer.¹
 " 10. *Toronto*. Lefroy. *Tobolsk*. Kupffer.
 " 10. *Fort Confidence*. Richardson.
 " 11. *Fort Confidence*. Richardson.
 " 14. *Fort Confidence*. Richardson.
 " 14. *Cracow*. Boué.²
 " 15. *New Haven*. Herrick. Newton and Loomis.
 " 15. *Fort Confidence*. Richardson.
 " 15. *Toronto*. Lefroy.
 " 16. *Toronto*. Lefroy. *Christiania*. Hansteen.
 " 17. *Cambridge*. Bond. Lovering.
 " 17. *New Haven*. Herrick. Newton and Loomis.³
 " 17. *Maine*. Herrick. Newton and Loomis.
 " 17. *New York*. Hough. *Newberry*. Johnson.
 " 17. *Toronto, Montreal, and Kingston*. Lefroy.
 " 17. *Quebec, London, Penetanguishene*. Lefroy.
 " 17. *Fort Confidence*. Richardson.
 " 17. *California, Cuba*. Poey.⁴
 " 17. *Prestwich*. Sturgeon. *Northampton*. Watkins.⁵
 " 17. *Brussels*. Quetelet. Arago. *Gorki*. Kupffer.
 " 17. *Makerstoun*. Broun. *Dunse*. Stevenson.
 " 17. *Aix-la-Chapelle*. Heis. *Alsen*. Brorsen. Jahn.
 " 17. *Italy, Greece, Asia, Spain*. Rico.
 " 17. *Barnaoul and Lougan*. Kupffer.
 " 17. *Catharinebourg and Koursk*. Kupffer.⁶
 " 17. *Bogoslowski and Lougan*. Kupffer.
 " 18. *New Haven*. Herrick. Newton and Loomis.
 " 18. *Worcester*. Chandler. *New York*. Hough.
 " 18. *Quebec and Toronto*. Lefroy.
 " 18. *Fort Confidence*. Richardson.
 " 18. *Makerstoun*. Broun.
 " 18. *Aix-la-Chapelle*. Heis. Jahn.
 " 19. *New Haven*. Herrick. Newton and Loomis.
 " 19. *Quebec and Toronto*. Lefroy.
 " 19. *Yakoutsk*. Kupffer.
 " 19. *Christiania*. Hansteen. ——— Schmidt.
 " 19. *Hobarton, V. D. Land*. Sabine.
 " 20. *Fort Confidence*. Richardson.
- Nov. 21. *Cambridge*. Bond. Lovering.
 " 21. *Worcester*. Chandler. *Providence*. Caswell.
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 21. *New York*. Hough. *Yakoutsk*. Kupffer.
 " 21. *Toronto and London, C. W.* Lefroy.
 " 21. *Fort Confidence*. Richardson.
 " 21. *Makerstoun*. Broun. *Dunse*. Stevenson.
 " 21. *Brussels*. Quetelet. *Prestwich*. Sturgeon.
 " 21. *Aix-la-Chapelle*. Heis. ——— Schmidt. Jahn.
 " 22. *Cambridge*. Bond. Lovering.
 " 22. *New Haven*. Herrick. Newton and Loomis.
 " 22. *Quebec and Toronto*. Lefroy.
 " 22. *Aix-la-Chapelle*. Heis. ——— Schmidt. Jahn.
 " 22. *Makerstoun*. Broun. *Russia?* Hough.
 " 22. *Jakobshavn*. Rudolph.
 " 23. *New Haven*. Herrick. Newton and Loomis.
 " 23. *New York*. Hough.
 " 23. *Quebec and Kingston*. Lefroy.
 " 23. *Toronto and Penetanguishene*. Lefroy.
 " 24. *Christiania*. Hansteen.
 " 24. *Fort Confidence*. Richardson.
 " 25. *New Haven*. Herrick. Newton and Loomis.
 " 25. *Toronto?* Lefroy. *Tobolsk*. Kupffer.
 " 25. *Fort Confidence*. Richardson.
 " 25. *Jakobshavn*. Rudolph.
 " 26. *New Haven*. Herrick. Newton and Loomis.
 " 26. *Providence*. Caswell. *New York*. Hough.
 " 26. *Kingston, Toronto, and London*. Lefroy.
 " 26. *Newfoundland and Quebec*. Lefroy.
 " 26. *Fort Confidence*. Richardson.
 " 26. *Jakobshavn*. Rudolph.
 " 27. *New Haven*. Herrick. Newton and Loomis.
 " 27. *New York*. Hough.
 " 27. *Newfoundland and Toronto*. Lefroy.
 " 27. *Fort Confidence*. Richardson.
 " 27. *Christiania*. Hansteen.
 " 28. *Worcester*. Chandler.
 " 28. *New Haven*. Herrick. Newton and Loomis.
 " 28. *Fort Confidence*. Richardson.
 " 29. *New Haven?* Herrick. Newton and Loomis.
 " 29. *Fort Confidence*. Richardson.
 " 30. *Montreal*. Lefroy. *Makerstoun*. Broun.
 " 30. *Fort Confidence*. Richardson.
- Dec. 1. *New Haven*. Herrick. Newton and Loomis.
 " 1. *Fort Confidence*. Richardson.
 " 2. *Newfoundland*. Lefroy.
 " 2. *Fort Confidence*. Richardson.
 " 3. *Fort Confidence*. Richardson.
 " 3. *Jakobshavn*. Rudolph.

¹ Annal. de l'Observ. Phys. Centrale de Russie, 1859, Suppl. p. 170.

² Kreil's Jahrbuch für Prag, I. 312.

³ Amer. Journ. Sci. Second Series, VII. 127.

⁴ Amer. Journ. Sci. Second Series, VII. 127.

⁵ Phil. Mag. Third Series, XXXV. 69.

⁶ Annal. de l'Observ. Phys. Centrale de Russie, 1848, pp. 147, 213, 517 and 581.

- | | | | | | |
|---------|--|-------------------------------------|----------|--|--|
| Dec. 4. | <i>Fort Confidence.</i> | Richardson. | Dec. 26. | <i>New Haven.</i> | Herrick. Newton and Loomis. |
| " 5. | <i>Fort Confidence.</i> | Richardson. | " 26. | <i>Montreal and Kingston.</i> | Lefroy. |
| " 7. | <i>Fort Confidence.</i> | Richardson. | " 26. | <i>Newfoundland and Quebec.</i> | Lefroy. |
| " 8. | <i>Kingston.</i> | Lefroy. | " 26. | <i>Fort Confidence.</i> | Richardson. |
| " 8. | <i>Fort Confidence.</i> | Richardson. | " 26. | <i>Jakobshavn.</i> | Rudolph. |
| " 9. | <i>Fort Confidence.</i> | Richardson. | " 27. | <i>New York.</i> | Hough. |
| " 10. | <i>Fort Confidence.</i> | Richardson. | " 27. | <i>Fort Confidence.</i> | Richardson. |
| " 12. | <i>New York.</i> | Hough. | " 28. | <i>Fort Confidence.</i> | Richardson. |
| " 12. | <i>Fort Confidence.</i> | Richardson. | " 29. | <i>Fort Confidence.</i> | Richardson. |
| " 13. | <i>Newfoundland.</i> | Lefroy. | " 30. | <i>Fort Confidence.</i> | Richardson. |
| " 13. | <i>Aix-la-Chapelle.</i> | Heis. Jahn. | " 31. | <i>Fort Confidence.</i> | Richardson. |
| " 13. | <i>Fort Confidence.</i> | Richardson. | " 31. | <i>Jakobshavn.</i> | Rudolph. |
| " 14. | <i>Newfoundland.</i> | Lefroy. | | | |
| " 14. | <i>Fort Confidence.</i> | Richardson. | | 1849. | |
| " 16. | <i>New Haven.</i> | Bradley. Newton and Loomis. | Jan. 4. | <i>England.</i> | Hough. <i>Fort Confidence.</i> Richardson. |
| " 16. | <i>Fort Confidence.</i> | Richardson. | " 5. | <i>Makerstoun.</i> | Broun. |
| " 17. | <i>New Haven.</i> | Herrick. Newton and Loomis. | " 7. | <i>Newfoundland and Quebec.</i> | Lefroy. |
| " 17. | <i>Providence.</i> | Caswell. <i>New York.</i> Hough. | " 10. | <i>Fort Confidence.</i> | Richardson. |
| " 17. | <i>Quebec and Kingston.</i> | Lefroy. | " 11. | <i>Quebec.</i> | Lefroy. |
| " 17. | <i>Toronto and London.</i> | Lefroy. | " 11. | <i>Fort Confidence.</i> | Richardson. |
| " 17. | <i>Fort Confidence.</i> | Richardson. | " 11. | <i>Christiania.</i> | Hansteen. |
| " 17. | <i>Prestwich.</i> | Sturgeon. Dunse. Stevenson. | " 14. | <i>Providence, R. I.</i> | Caswell. |
| " 17. | <i>Leipsic.</i> | Jahn. | " 14. | <i>New Haven?</i> | Bradley. Newton and Loomis. |
| " 17. | <i>Christiania.</i> | Hansteen. <i>Makerstoun.</i> Broun. | " 14. | <i>New York.</i> | Hough. <i>Newberry.</i> Johnson. |
| " 18. | <i>New Haven.</i> | Herrick. Newton and Loomis. | " 14. | <i>Kingston, Toronto, and Halifax.</i> | Lefroy. |
| " 18. | <i>Toronto and London.</i> | Lefroy. | " 14. | <i>Newfoundland and Quebec.</i> | Lefroy. |
| " 18. | <i>Newfoundland and Kingston.</i> | Lefroy. | " 14. | <i>Fort Confidence.</i> | Richardson. |
| " 18. | <i>Fort Confidence.</i> | Richardson. | " 14. | <i>Prestwich.</i> | Sturgeon. <i>Christiania.</i> Hansteen. |
| " 19. | <i>Quebec and London.</i> | Lefroy. | " 14. | <i>Makerstoun.</i> | Broun. <i>Paris.</i> Hough. |
| " 19. | <i>Fort Confidence.</i> | Richardson. | " 15. | <i>New Haven.</i> | Herrick. Newton and Loomis. |
| " 20. | <i>Fort Confidence.</i> | Richardson. | " 15. | <i>New York.</i> | Hough. |
| " 21. | <i>Newfoundland.</i> | Lefroy. | " 15. | <i>Fort Confidence.</i> | Richardson. |
| " 21. | <i>Fort Confidence.</i> | Richardson. | " 15. | <i>Christiania.</i> | Hansteen. |
| " 21. | <i>Makerstoun.</i> | Broun. <i>Hobarton.</i> Sabine. | " 15. | <i>Makerstoun.</i> | Broun. |
| " 22. | <i>Kingston.</i> | Lefroy. | " 16. | <i>Makerstoun.</i> | Broun. |
| " 22. | <i>Fort Confidence.</i> | Richardson. | " 16. | <i>Fort Confidence.</i> | Richardson. |
| " 22. | <i>Christiania.</i> | Hansteen. | " 17. | <i>Penetanguishene.</i> | Lefroy. |
| " 23. | <i>Cambridge.</i> | Bond. Lovering. | " 17. | <i>Fort Confidence.</i> | Lefroy. |
| " 23. | <i>New Haven.</i> | Herrick. Newton and Loomis. | " 19. | <i>Fort Confidence.</i> | Richardson. |
| " 23. | <i>Providence.</i> | Caswell. <i>New York.</i> Hough. | " 20. | <i>Christiania.</i> | Hansteen. |
| " 23. | <i>Newberry.</i> | Johnson. | " 20. | <i>Fort Confidence.</i> | Richardson. |
| " 23. | <i>Newfoundland and Penetanguishene.</i> | Lefroy. | " 22. | <i>New York.</i> | Hough. <i>Toronto.</i> Lefroy. |
| " 23. | <i>Fort Confidence.</i> | Richardson. | " 22. | <i>Fort Confidence.</i> | Richardson. |
| " 23. | <i>Christiania.</i> | Hansteen. | " 23. | <i>Newfoundland.</i> | Lefroy. |
| " 24. | <i>Christiania.</i> | Hansteen. | " 23. | <i>Fort Confidence.</i> | Richardson. |
| " 25. | <i>Newfoundland.</i> | Lefroy. | " 24. | <i>Fort Confidence.</i> | Richardson. |
| " 25. | <i>Fort Confidence.</i> | Richardson. | " 25. | <i>Newfoundland.</i> | Lefroy. |
| " 25. | <i>Christiania.</i> | Hansteen. | " 25. | <i>Makerstoun.</i> | Broun. |
| " 26. | <i>Worcester.</i> | Chandler. <i>New York.</i> Hough. | | | |

- Jan. 26. *Toronto*. Lefroy.
 " 26. *Christiania*. Hansteen. *Jakobshavn*. Rudolph.
 " 26. *Makerstoun*. Broun.
 " 27. *Fort Confidence*. Richardson.
 " 27. *Smeena*. Boué.¹
 " 28. *Fort Confidence*. Richardson.
 " 30. *New York*. Hough.
 " 30. *Fort Confidence*. Richardson.
 " 31. *Makerstoun*. Broun.
 Feb. 1. *Fort Confidence*. Richardson.
 " 2. *Fort Confidence*. Richardson.
 " 3. *Quebec*. Lefroy.
 " 9. *Quebec*. Lefroy.
 " 10. *Fort Confidence*. Richardson.
 " 11. *Fort Confidence*. Richardson.
 " 11. *Christiania*. Hansteen.
 " 11. *Makerstoun*. Broun.
 " 12. *Quebec and Montreal*. Lefroy.
 " 12. *Fort Confidence*. Richardson.
 " 12. *Christiania*. Hansteen.
 " 13. *New Haven*. Herrick. Newton and Loomis.
 " 13. *New York*. Hough. *Newberry*. Johnson.
 " 13. *Quebec, Toronto, and Halifax*. Lefroy.
 " 13. *Fort Confidence*. Richardson.
 " 13. *Makerstoun*. Broun.
 " 14. *Toronto*. Lefroy.
 " 15. *Quebec and Penetanguishene*. Lefroy.
 " 15. *Montreal and Newfoundland*. Lefroy.
 " 16. *New Haven*. Herrick. Newton and Loomis.
 " 16. *Providence*. Caswell. *New York*. Hough.
 " 16. *Toronto and London, C. W.* Lefroy.
 " 16. *Newfoundland and Quebec*. Lefroy.
 " 16. *Fort Confidence*. Richardson.
 " 17. *New York*. Hough.
 " 17. *Penetanguishene*. Lefroy.
 " 17. *Fort Confidence*. Richardson.
 " 18. *New Haven?* Bradley. Newton and Loomis.
 " 18. *New York*. Hough. *Newberry*. Johnson.
 " 18. *Quebec, Kingston, and Toronto*. Lefroy.
 " 18. *London and Penetanguishene*. Lefroy.
 " 18. *England*. Hough. *Christiania*. Hansteen.
 " 18. *Makerstoun*. Broun.
 " 19. *Cambridge*. Bond. Lovering.
 " 19. *New Haven*. Herrick. Newton and Loomis.
 " 19. *New York*. Hough. *Providence*. Caswell.
 " 19. *Newberry*. Johnson. *Newfoundland*. Lefroy.
 " 19. *Quebec, Toronto, and Halifax*. Lefroy.
 Feb. 19. *Fort Confidence*. Richardson.
 " 19. *Prestwich*. Sturgeon. *Dunse*. Stevenson.
 " 19. *Makerstoun*. Broun. *Leipsic*. Jahn.
 " 20. *Quebec and Halifax*. Lefroy.
 " 20. *Newfoundland*. Lefroy. *Tobolsk*. Kupffer.
 " 20. *Fort Confidence*. Richardson.
 " 20. *Christiania*. Hansteen. *Dunse*. Stevenson.
 " 20. *Makerstoun*. Broun. *Leipsic*. Jahn.
 " 21. *New York*. Hough. *Newberry*. Johnson.
 " 21. *Quebec and Halifax*. Lefroy.
 " 21. *Fort Confidence*. Richardson.
 " 21. *Christiania*. Hansteen.
 " 21. *Makerstoun*. Broun. *Leipsic*. Jahn.
 " 22. *Newfoundland*. Lefroy. *Koursk*. Kupffer.
 " 22. *Bonn*. Schmidt. *Oxford*. Slatter.¹
 " 22. *Brussels*. Quetelet. *Christiania*. Hansteen.
 " 22. *Makerstoun*. Broun. *Leipsic*. Jahn.
 " 23. *Newfoundland*. Lefroy.
 " 23. *Fort Confidence*. Richardson.
 " 23. *Christiania*. Hansteen.
 " 24. *Makerstoun*. Broun.
 " 24. *Fort Confidence*. Richardson.
 " 25. *Quebec*. Lefroy.
 " 25. *Fort Confidence*. Richardson. — Schmidt.
 " 26. *Toronto and Penetanguishene*. Lefroy.
 " 26. *Newfoundland and Kingston*. Lefroy.
 " 26. *Fort Confidence*. Richardson.
 " 26. *Aix-la-Chapelle*. Heis.²
 " 26. *Makerstoun*. Broun.
 " 27. *Montreal, Kingston, and Toronto*. Lefroy.
 " 27. *Halifax and Penetanguishene*. Lefroy.
 " 27. *Newfoundland, Quebec, and London*. Lefroy.
 " 27. *Fort Confidence*. Richardson.
 " 27. *Brussels*. Quetelet. *Leipsic*. Jahn. Schmidt.
 " 27. *Aix-la-Chapelle*. Heis. *Pegau*. Kuhn. Jahn.
 " 28. *New York*. Hough. *Makerstoun*. Broun.
 Mar. 1. *Fort Confidence*. Richardson.
 " 3. *Fort Confidence*. Richardson.
 " 6. *Quebec*. Lefroy.
 " 6. *Fort Confidence*. Richardson.
 " 8. *Fort Confidence*. Richardson.
 " 9. *London, C. W.* Lefroy.
 " 11. *Fort Confidence*. Richardson.
 " 12. *Christiania*. Hansteen.
 " 12. *Fort Confidence*. Richardson.
 " 14. *New York*. Hough. *Illinois*.
 " 14. *Fort Confidence*. Richardson.

¹ Kreil's Jahrbuch für Prag. I. 415.¹ Phil. Mag. Third Series, XXXV. 71.² Bull. de l'Acad. Brux. XVIII. Pt. II. p. 47.

- Mar. 15. *Kingston*. Lefroy.
 " 15. *Fort Confidence*. Richardson.
 " 16. *Aix-la-Chapelle*. Heis.
 " 17. *Cambridge*. Bond. Lovering.
 " 17. *Worcester*. Chandler.¹ *New York*. Hough.
 " 17. *Kingston, Toronto, and London*. Lefroy.
 " 17. *Halifax, Bruce Mines, Lake Huron*. Lefroy.
 " 17. *Newfoundland and Quebec*. Lefroy.
 " 17. *Fort Confidence*. Richardson.
 " 17. *Christiania*. Hansteen.
 " 18. *Worcester, Mass.* Chandler.
 " 18. *New Haven*. Herrick. Newton and Loomis.
 " 18. *Providence*. Caswell. *New York*. Hough.
 " 18. *Quebec, Montreal, and Kingston*. Lefroy.
 " 18. *Toronto, London, and Bruce Mines*. Lefroy.
 " 18. *Fort Confidence*. Richardson.
 " 18. *Christiania*. Hansteen. *Makerstoun*. Broun.
 " 19. *Worcester*. Chandler. *New York*. Hough.
 " 19. *New Haven*. Herrick. Newton and Loomis.
 " 19. *Fort Confidence*. Richardson.
 " 19. *Makerstoun*. Broun.
 " 20. *New York*. Hough.
 " 20. *Fort Confidence*. Richardson.
 " 20. *Christiania*. Hansteen.
 " 21. *Toronto*. Lefroy.
 " 21. *Fort Confidence*. Richardson.
 " 22. *Fort Confidence*. Richardson.
 " 24. *Fort Confidence*. Richardson.
 " 25. *New York*. Hough.
 " 25. *Toronto and Halifax*. Lefroy.
 " 25. *Fort Confidence*. Richardson.
 " 25. *Christiania*. Hansteen.
 " 26. *Toronto and London*. Lefroy.
 " 26. *Fort Confidence*. Richardson.
 " 27. *New York*. Hough. *Toronto*. Lefroy.
 " 28. *Christiania*. Hansteen.
 " 30. *New York*. Hough.
 " 30. *Toronto and London, C. W.* Lefroy.
 " 30. *Newfoundland and Kingston*. Lefroy.
 " 30. *Fort Confidence*. Richardson.
 " 31. *Toronto*. Lefroy.
- Apr. 1. *New Haven*. Bradley. Newton and Loomis.
 " 1. *Toronto and Halifax*. Lefroy.
 " 2. *New York*. Hough.
 " 2. *Quebec, Montreal, and London*. Lefroy.
 " 4. *Halifax*. Lefroy.
 " 4. *Fort Confidence*. Richardson.
 " 8. *Fort Confidence*. Richardson.
- Apr. 11. *Kingston*. Lefroy.
 " 12. *Christiania*. Hansteen.
 " 13. *New York*. Hough.
 " 13. *Montreal, Toronto, and Halifax*. Lefroy.
 " 13. *Fort Confidence*. Richardson.
 " 13. *Christiania*. Hansteen.
 " 14. *Quebec*. Lefroy.
 " 14. *Fort Confidence*. Richardson.
 " 14. *Christiania*. Hansteen.
 " 15. *Newfoundland*. Lefroy.
 " 15. *Fort Confidence*. Richardson.
 " 15. *Christiania*. Hansteen.
 " 16. *New York*. Hough.
 " 16. *Toronto, London, and Halifax*. Lefroy.
 " 16. *Makerstoun*. Broun. *Christiania*. Hansteen.
 " 17. *Worcester*. Chandler. *New York*. Hough.
 " 17. *Montreal and Halifax*. Lefroy.
 " 17. *Newfoundland and Quebec*. Lefroy.
 " 17. *Makerstoun*. Broun.
 " 18. *Quebec and Montreal*. Lefroy.
 " 18. *Newfoundland*. Lefroy.
 " 18. *Fort Confidence*. Richardson.
 " 19. *New York*. Hough.
 " 20. *New York*. Hough.
 " 20. *Toronto and Halifax*. Lefroy.
 " 20. *Newfoundland*. Lefroy.
 " 21. *Quebec and Halifax*. Lefroy.
 " 21. *Fort Confidence*. Richardson.
 " 22. *Newfoundland and Toronto*. Lefroy.
 " 24. *Kingston and London*. Lefroy.
 " 24. *Newfoundland and Montreal*. Lefroy.
 " 25. *New York*. Hough.
 " 25. *Newfoundland*. Lefroy.
 " 26. *Newfoundland*. Lefroy.
 " 27. *Newfoundland and Quebec*. Lefroy.
 " 28. *London, C. W.* Lefroy.
 " 29. *Halifax? and Quebec*. Lefroy.
 " 30. *New York*. Hough.
 " 30. *Newfoundland*. Lefroy.
- May 1. *Quebec and Halifax*. Lefroy.
 " 6. *Halifax*. Lefroy.
 " 11. *Newfoundland and Halifax*. Lefroy.
 " 12. *Cambridge*. Bond. Lovering.
 " 12. *Newberry*. Johnson.
 " 14. *Toronto and London*. Lefroy.
 " 17. *Halifax and Toronto*. Lefroy.
 " 20. *Toronto*. Lefroy.
 " 21. *Toronto*. Lefroy.
 " 23. *Toronto?* Lefroy.
 " 25. *Kingston and Toronto*. Lefroy.

¹ Seventeenth Report of the Lunatic Asylum, p. 68.

- May 26. *Kingston.* Lefroy.
 " 27. *Montreal.* Lefroy.
 June 5. *Dorpat.* Mädler. Jahn.
 " 6. *Quebec.* Lefroy.
 " 8. *Kingston.* Lefroy.
 " 10. *New York.* Hough.
 " 12. *New Haven.* Herrick. Newton and Loomis.
 " 14. *New York.* Hough. *Quebec.* Lefroy.
 " 16. *Quebec?* Lefroy.
 " 17. *New York.* Hough. *Montreal.* Lefroy.
 " 18. *Montreal.* Lefroy.
 " 19. *New York.* Hough.
 " 20. *Toronto and London.* Lefroy.
 " 20. *Newfoundland and Quebec.* Lefroy.
 " 22. *Toronto.* Lefroy.
 " 24. *Kingston and London.* Lefroy.
 " 25. *Halifax?* Lefroy.
 " 26. *Warren Centre, Connecticut.* Hough.
 " 27. *Quebec.* Lefroy.
 " 29. *New York.* Hough.
 July 3. *Halifax.* Lefroy.
 " 4. *Halifax.* Lefroy.
 " 5. *Toronto.* Lefroy.
 " 9. *New York.* Hough.
 " 9. *Newfoundland and Toronto.* Lefroy.
 " 10. *Toronto.* Lefroy.
 " 12. *New Haven.* Herrick. Newton and Loomis.
 " 12. *New York.* Hough. *London, C. W.* Lefroy.
 " 13. *Cambridge.* Bond. Lovering.
 " 14. *New York.* Hough.
 " 20. *Toronto.* Lefroy.
 " 21. *Newfoundland.* Lefroy.
 " 22. *New York.* Hough.
 " 22. *Quebec and Toronto.* Lefroy.
 " 23. *New Haven.* Herrick. Newton and Loomis.
 " 23. *New York.* Hough.
 " 23. *Montreal, Kingston, and Toronto.* Lefroy.
 " 23. *Newfoundland and Quebec.* Lefroy.
 " 23. *Halifax and London, C. W.* Lefroy.
 " 24. *New York.* Hough.
 " 26. *Toronto.* Lefroy.
 " 31. *Montreal and Quebec.* Lefroy.
 " 31. *Kingston, Toronto, and London.* Lefroy.
 " 31. *Newfoundland.* Lefroy.
 " 31. *Christiania.* Hansteen.
 Aug. 2. *Toronto.* Lefroy.
 " 4. *Newfoundland and Kingston.* Lefroy.
 " 12. *New York.* Hough.
 " 12. *Fenelon Falls and London.* Lefroy.
 " 12. *Newfoundland and Toronto.* Lefroy.
 Aug. 13. *New York.* Hough.
 " 13. *Middlebury, Vt.* Herrick. Newton and Loomis.
 " 13. *Kingston and Newfoundland.* Lefroy.
 " 13. *Montreal.* McGinn. Lefroy.¹
 " 17. *New York.* Hough.
 " 18. *New York.* Hough.
 " 18. *Toronto and London.* Lefroy.
 " 20. *Newfoundland.* Lefroy.
 " 21. *Kingston and Toronto.* Lefroy.
 " 22. *Halifax and Quebec.* Lefroy.
 " 27. *New York.* Hough.
 " 28. *New York.* Hough.
 Sept. 3. *Quebec.* Lefroy.
 " 6. *New York.* Hough. *Christiania.* Hansteen.
 " 6. *Fort Macpherson.* Hooper.
 " 7. *New Haven.* Herrick. Newton and Loomis.
 " 7. *New York.* Hough.
 " 7. *Newfoundland and Toronto.* Lefroy.
 " 7. *Fort Macpherson.* Hooper.
 " 8. *New York.* Hough. *Newberry.* Johnson.
 " 8. *Kingston, Toronto, and London.* Lefroy.
 " 9. *New Haven.* Herrick. Newton and Loomis.
 " 9. *New York.* Hough. *Montreal.* Lefroy.
 " 12. *New York.* Hough. *Providence.* Caswell.
 " 12. *Pittsfield.* Herrick. Newton and Loomis.
 " 12. *Near Portland.* Herrick. Newton and Loomis.
 " 12. *Newfoundland and Kingston.* Lefroy.
 " 12. *Halifax and Toronto.* Lefroy.
 " 12. *Fort Macpherson.* Hooper. *Sitka.* Kupffer.²
 " 13. *New York.* Hough.
 " 16. *New Haven.* Herrick. Newton and Loomis.
 " 16. *New York.* Hough.
 " 16. *Newfoundland and Montreal.* Lefroy.
 " 16. *Fort Macpherson.* Hooper.
 " 17. *New York.* Hough.
 " 17. *Fenelon Falls and Toronto.* Lefroy.
 " 17. *Fort Macpherson.* Hooper.
 " 17. *Makerstoun.* Broun.
 " 18. *Worcester.* Chandler. *Newberry.* Johnson.
 " 18. *Providence.* Caswell. *New York.* Hough.
 " 18. *New Haven.* Herrick. Newton and Loomis.
 " 18. *Montreal, Kingston, and Toronto.* Lefroy.
 " 18. *Halifax and Fenelon Falls.* Lefroy.
 " 18. *Newfoundland and Quebec.* Lefroy.
 " 18. *Makerstoun.* Broun.
 " 19. *New York.* Hough.
 " 19. *Quebec and Montreal.* Lefroy.

¹ Phil. Mag. Third Series, XXXVI. 545.

² Annal. de l'Observ. Phys. Centrale de Russie, 1849, p. 377.

- Sept. 19. *Halifax and Fenelon Falls.* Lefroy.
 " 19. *Fort Macpherson.* Hooper.
 " 19. *Makerstoun.* Broun.
 " 20. *New York.* Hough.
 " 21. *Halifax.* Lefroy.
 " 23. *New York.* Hough. *Christiania.* Hansteen.
 " 24. *Kingston and Toronto.* Lefroy.
 " 24. *Christiania.* Hansteen.
 " 25. *Jakobshavn.* Rudolph.
 " 27. *Newberry.* Johnson. ——— Schmidt.
 " 27. *Fort Good Hope.* Hooper.
 " 27. *Jakobshavn.* Rudolph.
 " 29. *Montreal and Kingston.* Lefroy.
 " 29. *Newfoundland and Quebec.* Lefroy.
 " 29. *Dunse.* Stevenson.
 Oct. 1. *New York.* Hough. *England.* Hough.
 " 4. *New York.* Hough.
 " 7. *Montreal and Kingston.* Lefroy.
 " 7. *Toronto and London.* Lefroy.
 " 7. *Newfoundland and Quebec.* Lefroy.
 " 9. *Montreal.* Lefroy.
 " 10. *Toronto.* Lefroy. *Christiania.* Hansteen.
 " 13. *New York.* Hough. *Providence.* Caswell.
 " 13. *New Haven?* Herrick. Newton and Loomis.
 " 13. *Newberry.* Johnson. *Quebec.* Lefroy.
 " 13. *Kingston, Toronto, and London.* Lefroy.
 " 14. *New Haven.* Herrick. Newton and Loomis.
 " 14. *Newberry.* Johnson. *Providence.* Caswell.
 " 14. *New York.* Hough.
 " 14. *Quebec, Montreal, and Toronto.* Lefroy.
 " 14. *Halifax and London, C. W.* Lefroy.
 " 14. *Christiania.* Hansteen. *Makerstoun.* Broun.
 " 15. *Newberry.* Johnson. *Cambridge.* Glaisher.¹
 " 15. *Christiania.* Hansteen.
 " 16. *Fort Norman.* Hooper.²
 " 17. *Newfoundland and Kingston.* Lefroy.
 " 17. *Christiania.* Hansteen.
 " 18. *New York.* Hough. *Newberry.* Johnson.
 " 18. *Kingston and Toronto.* Lefroy.
 " 18. *Halifax and London, C. W.* Lefroy.
 " 18. *Makerstoun.* Broun.
 " 19. *New York.* Hough.
 " 19. *Halifax and Kingston.* Lefroy.
 " 20. *New York.* Hough. *Kingston.* Lefroy.
 " 21. *Newfoundland.* Lefroy.
 " 22. *Aix-la-Chapelle.* Heis. Jahn.
 " 22. *Leipsic.* Jahn. ——— Schmidt.
- Oct. 22. *Fort Norman.* Hooper. *Jakobshavn.* Rudolph.
 " 22. *Greenwich, Engl.*¹ *Christiania.* Hansteen.
 " 23. *New York.* Hough. *Fort Norman.* Hooper.
 " 23. *Christiania.* Hansteen. ——— Schmidt.
 " 24. *Montreal and Toronto.* Lefroy.
 " 24. *Dunse.* Stevenson. *Brussels.* Quetelet.
 " 24. ——— Schmidt. *Jakobshavn.* Rudolph.
 " 25. *New York.* Hough. *Fort Norman.* Hooper.
 " 26. *Fort Norman.* Hooper.
 " 29. *Fort Norman.* Hooper.
 " 30. *New York.* Hough.
 " 30. *Toronto? and London.* Lefroy.
 " 30. *Newfoundland and Quebec.* Lefroy.
 " 31. *Fort Norman.* Hooper.
 Nov. 3. *Fort Norman.* Hooper.
 " 5. *Senftenberg.*² ——— Schmidt.
 " 5. *Jakobshavn.* Rudolph.
 " 9. *Brussels.* Quetelet.
 " 10. *Newfoundland.* Lefroy.
 " 12. *New Haven.* Herrick. Newton and Loomis.
 " 12. *Toronto and Kingston.* Lefroy.
 " 12. *Fort Norman.* Hooper.
 " 13. *Toronto.* Lefroy. *Fort Norman.* Hooper.
 " 14. *Kingston and Toronto.* Lefroy.
 " 14. *Christiania.* Hansteen. *Jakobshavn.* Rudolph.
 " 15. *New York.* Hough. *Fenelon Falls.* Lefroy.
 " 17. *Jakobshavn.* Rudolph.
 " 18. *Kingston and Toronto.* Lefroy.
 " 19. *Toronto?* Lefroy. *Christiania.* Hansteen.
 " 19. *Dunse.* Stevenson. ——— Schmidt.
 " 20. *Fort Franklin.* Hooper.
 " 20. *Christiania.* Hansteen.
 " 21. *Toronto.* Lefroy. *Fort Franklin.* Hooper.
 " 25. *Toronto?* Lefroy.
 " 26. *Quebec and Toronto.* Lefroy. *Sitka.* Kupffer.
 " 27. *Providence.* Caswell. *Kingston.* Lefroy.
 " 27. *Christiania.* Hansteen. *Sitka.* Kupffer.
 " 28. *Newberry.* Johnson.
 " 28. *Montreal and Toronto.* Lefroy.
 " 28. *Newfoundland and Quebec.* Lefroy.
 Dec. 1. *Jakobshavn.* Rudolph.
 " 4. *Fort Franklin.* Hooper.
 " 5. *Fort Franklin.* Hooper.
 " 7. *New Haven?* Herrick. Newton and Loomis.
 " 7. *New York.* Hough. *Fort Franklin.* Hooper.
 " 7. *Jakobshavn.* Rudolph.
 " 8. *New York.* Hough. *Fort Franklin.* Hooper.

¹ Phil. Mag. Third Series, XXXVI. p. 116.² Journal of Proceedings, &c. 156.¹ Phil. Mag. Third Series, XXXVI. 116.² Kreil's Jahrbuch für Prag. I. 415.

- Dec. 9. *Fort Franklin.* Hooper.
 " 10. *Christiania.* Hansteen.
 " 11. *Montreal and Toronto.* Lefroy.
 " 11. *Fort Franklin.* Hooper.
 " 11. *Christiania.* Hansteen.
 " 12. *Newfoundland and Toronto.* Lefroy.
 " 12. *Fort Franklin.* Hooper.
 " 12. *Christiania.* Hansteen. *Sitka.* Kupffer.
 " 13. *Fort Franklin.* Hooper.
 " 17. *New Haven?* Herrick. Newton and Loomis.
 " 17. *New York.* Hough. *Fort Franklin.* Hooper.
 " 18. *New York.* Hough. *Toronto.* Lefroy.
 " 18. *Fort Franklin.* Hooper.
 " 18. *Jakobshavn.* Rudolph.
 " 19. *Fort Franklin.* Hooper.
 " 20. *Newfoundland.* Lefroy.
 " 20. *Fort Franklin.* Hooper.
 " 20. *Christiania.* Hansteen.
 " 21. *Christiania.* Hansteen.
 " 22. *Fort Franklin.* Hooper.
 " 25. *New York.* Hough.
 " 27. *Fort Franklin.* Hooper.
 " 30. *Fort Franklin.* Hooper.
 " 31. *New York.* Hough. *Fort Franklin.* Hooper.
- 1850.
- Jan. 1. *Fort Franklin.* Hooper.
 " 3. *Fort Franklin.* Hooper.
 " 4. *Fort Franklin.* Hooper.
 " 8. *Fort Franklin.* Hooper.
 " 9. *Fort Franklin.* Hooper.
 " 10. *Fort Franklin.* Hooper.
 " 11. *Fort Franklin.* Hooper. *Jakobshavn.* Rudolph.
 " 12. *Fort Franklin.* Hooper.
 " 12. *Christiania.* Hansteen.
 " 13. *Fort Franklin.* Hooper. *Jakobshavn.* Rudolph.
 " 14. *Fort Franklin.* Hooper.
 " 15. *Fort Franklin.* Hooper.
 " 16. *Fort Franklin.* Hooper.
 " 16. *Christiania.* Hansteen.
 " 17. *Fort Franklin.* Hooper.
 " 18. *New Haven.* Herrick. Newton and Loomis.
 " 18. *Litchfield.* Hough. *Fort Franklin.* Hooper.
 " 18. *Jakobshavn.* Rudolph.
 " 19. *Providence.* Caswell. *New York.* Hough.
 " 19. *Christiania.* Hansteen.
 " 22. *Fort Franklin.* Hooper.
 " 25. *Fort Franklin.* Hooper.
 " 27. *Fort Franklin.* Hooper.
- Jan. 31. *New York.* Hough.
 Feb. 1. *Fort Franklin.* Hooper.
 " 2. *Fort Franklin.* Hooper.
 " 3. *New Haven.* Herrick. Newton and Loomis.
 " 3. *New York.* Hough.
 " 4. *New York.* Hough.
 " 6. *New Haven.* Herrick. Newton and Loomis.
 " 6. *Yakoutsk.* Kupffer.¹
 " 7. *Fort Franklin.* Hooper.
 " 10. *Hammerfest, Norway.* Noodt.
 " 11. *New Haven?* Herrick. Newton and Loomis.
 " 12. *New York.* Hough. *Fort Franklin.* Hooper.
 " 13. *New York.* Hough. *Fort Franklin.* Hooper.
 " 13. *Christiania.* Hansteen.
 " 14. *Fort Franklin.* Hooper.
 " 15. *Fort Franklin.* Hooper. *Jakobshavn.* Rudolph.
 " 16. *Fort Franklin.* Hooper.
 " 17. *New York.* Hough.
 " 18. *Aix-la-Chapelle.* Heis.
 " 22. *New Haven.* Herrick. Newton and Loomis.
 " 22. *New York.* Hough. *Baltischport.* Kupffer.²
 " 22. *Christiania.* Hansteen.
 " 23. *Christiania.* Hansteen.
 " 26. *New York.* Hough.
- Mar. 1. *Fort Norman.* Hooper.
 " 2. *Cambridge.* Bond. Lovering.
 " 2. *New York.* Hough.
 " 3. *Cambridge.* Bond. Lovering.
 " 3. *New Haven?* Bradley. Newton and Loomis.
 " 3. *New York.* Hough. *Fort Norman.* Hooper.
 " 4. *Cambridge.* Bond. Lovering.
 " 4. *New Haven.* Herrick. Newton and Loomis.
 " 4. *Providence.* Caswell. *New York.* Hough.
 " 4. *Christiania.* Hansteen.
 " 5. *Fort Norman.* Hooper.
 " 6. *Fort Norman.* Hooper. *Jakobshavn.* Rudolph.
 " 7. *Fort Norman.* Hooper.
 " 8. *Fort Norman.* Hooper.
 " 9. *Sitka.* Kupffer.³ *Jakobshavn.* Rudolph.
 " 10. *New Haven.* Herrick. Newton and Loomis.
 " 10. *New York.* Hough. *Fort Norman.* Hooper.
 " 10. *Christiania.* Hansteen.
 " 11. *Cambridge.* Bond. Lovering.
 " 11. *New York.* Hough. *Fort Norman.* Hooper.
 " 11. *Christiania.* Hansteen.

¹ Annal. de l'Observ. Phys. Centrale de Russie, 1850, Suppl. p. 27.

² Annal. de l'Observ. Phys. Centrale de Russie, 1849, S. p. 109.

³ Annal. de l'Observ. Phys. Centrale de Russie, 1850, p. 375.

- Mar. 11. *Baltischport*. Kupffer.
 " 12. *Christiania*. Hansteen.
 " 13. *Fort Norman*. Hooper.
 " 13. *Christiania*. Hansteen. *Jakobshavn*. Rudolph.
 " 14. *Fort Norman*. Hooper.
 " 15. *Fort Norman*. Hooper.
 " 16. *New York*. Hough. *Fort Norman*. Hooper.
 " 16. *Christiania*. Hansteen.
 " 17. *Fort Norman*. Hooper.
 " 18. *New York*. Hough.
 " 21. *Fort Norman*. Hooper.
 " 22. *New York*. Hough. *Fort Norman*. Hooper.
 " 25. *New York*. Hough.
 " 26. *New York*. Hough.
 " 29. *New York*. Hough.
 " 31. *Providence, R. I.* Caswell.
 " 31. *New Haven*. Herrick. Newton and Loomis.
 " 31. *New York*. Hough. *Litchfield*. Hough.
- Apr. 1. *Christiania*. Hansteen.
 " 2. *Cambridge*. Bond. Lovering.
 " 2. *Fort Norman*. Hooper.
 " 3. *Fort Norman*. Hooper.
 " 4. *Fort Norman*. Hooper.
 " 6. *Cambridge*. Bond. Lovering.
 " 6. *Worcester*. Chandler.¹
 " 6. *New Haven*. Herrick. Newton and Loomis.
 " 6. *Providence*. Caswell. *New York*. Hough.
 " 6. *Fort Norman*. Hooper. *Sitka*. Kupffer.
 " 7. *Cambridge*. Bond. Lovering.
 " 7. *Providence, R. I.* Caswell.
 " 7. *New Haven*. Herrick. Newton and Loomis.
 " 7. *New York*. Hough. *Litchfield*. Hough.
 " 8. *New York*. Hough. *Fort Norman*. Hooper.
 " 9. *New York*. Hough.
 " 14. *New York*. Hough.
 " 15. *New York*. Hough.
 " 17. *New York*. Hough.
 " 19. *New York*. Hough.
 " 28. *Fort Norman*. Hooper.
 " 30. *Fort Norman*. Hooper.
- May 3. *Christiania*. Hansteen.
 " 7. *Cambridge*. Bond. Lovering.
 " 7. *Worcester*. Chandler.
 " 7. *New Haven*. Herrick. Newton and Loomis.
 " 7. *Providence*. Caswell. *New York*. Hough.
 " 9. *New York*. Hough.
 " 10. *New York*. Hough. *Litchfield*. Hough.
 " 12. *Worcester*. Chandler. *Providence*. Caswell.
- May 12. *New Haven*. Herrick. Newton and Loomis.
 " 12. *New York*. Hough. *Litchfield*. Hough.
 " 13. *New York*. Hough.
 " 18. *New York*. Hough.
 " 22. *New York*. Hough.
 June 4. *New York*. Hough. *Litchfield*. Hough.
 " 4. *Austria*. Heis. Jahn.
 " 7. *New York*. Hough.
 " 10. *New York*. Hough.
 " 13. *Bonn*. Schmidt.
 " 16. *New York*. Hough.
 " 22. *New York*. Hough.
 " 23. *New York*. Hough.
 " 29. *New York*. Hough.
 July 1. *New York*. Hough.
 " 2. *New York*. Hough.
 " 6. *New Haven?* Bradley. Newton and Loomis.
 " 7. *New York*. Hough.
 " 9. *Litchfield, Conn.* Hough.
 " 10. *New York*. Hough.
 " 11. *Cambridge*. Bond. Lovering.
 " 11. *Worcester*. Chandler. *Providence*. Caswell.
 " 11. *New Haven*. Herrick. Newton and Loomis.
 " 11. *Litchfield*. Hough. *New York*. Hough.
 " 12. *Cambridge*. Bond. Lovering.
 " 12. *New Haven*. Herrick. Newton and Loomis.
 " 12. *Litchfield*. Hough. *New York*. Hough.
 " 15. *New York*. Hough.
 " 16. *New York*. Hough.
 " 19. *New York*. Hough.
 Aug. 2. *New York*. Hough.
 " 3. *New York*. Hough.
 " 4. *New York*. Hough.
 " 6. *New York*. Hough.
 " 7. *New York*. Hough.
 " 9. *New Haven*. Herrick. Newton and Loomis.
 " 9. *Litchfield*. Hough. *New York*. Hough.
 " 9. *Sitka*. Kupffer.
 " 10. *Cambridge*. Bond. Lovering.
 " 10. *New Haven*. Herrick. Newton and Loomis.
 " 10. *New York*. Hough.
 " 12. *New York*. Hough.
 " 15. *New York*. Hough.
 " 16. *New York*. Hough. *Litchfield*. Hough.
 " 17. *New York*. Hough. *Litchfield*. Hough.
 " 18. *New York*. Hough. *Litchfield*. Hough.
 " 23. *New York*. Hough.
 " 29. *Cambridge*. Bond. Lovering.
 " 29. *New York*. Hough.
 " 30. *Cambridge*. Bond. Lovering.

¹ Eighteenth Report of the Lunatic Asylum, p. 64.

- Sept. 3. *New Haven.* Herrick. Newton and Loomis.
 " 3. *Litchfield.* Hough. *New York.* Hough.
 " 3. *Providence.* Caswell. *Christiania.* Hansteen.
 " 4. *New Haven.* Herrick. Newton and Loomis.
 " 4. *New York.* Hough. *Christiania.* Hansteen.
 " 5. *New York.* Hough.
 " 6. *New York.* Hough.
 " 7. *New York.* Hough. *Sitka.* Kupffer.
 " 8. *New Haven.* Bradley. Newton and Loomis.
 " 8. *New York.* Hough.
 " 9. *Sitka.* Kupffer.
 " 10. *New Haven.* Herrick. Newton and Loomis.
 " 10. *Litchfield.* Hough. *Providence.* Caswell.
 " 10. *Christiania.* Hansteen.
 " 11. *Litchfield.* Hough.
 " 12. *New York.* Hough.
 " 12. *Barrow Strait.* Kane. *Christiania.* Hansteen.
 " 13. *New York.* Hough.
 " 13. *Hamburg.* Schmidt. *Christiania.* Hansteen.
 " 14. *New York.* Hough. *Christiania.* Hansteen.
 " 15. *Newport.* Herrick. Newton and Loomis.
 " 15. *New York.* Hough. *Barrow Strait.* Kane.
 " 18. *Jakobshavn.* Rudolph.
 " 28. *New York.* Hough.
 " 29. *New York.* Hough. *Litchfield.* Hough.
 " 29. *Jakobshavn.* Rudolph.
 " 30. *New Haven?* Herrick. Newton and Loomis.
 " 30. *New York.* Hough.
- Oct. 1. *Worcester.* Chandler. *Providence.* Caswell.
 " 1. *New Haven.* Herrick. Newton and Loomis.
 " 1. *Litchfield.* Hough. *New York.* Hough.
 " 1. *Hamburg.* Schmidt. *Christiania.* Hansteen.
 " 1. *Sitka.* Kupffer. *St. Ives, Hunts.* Watts.¹
 " 1. *Jakobshavn.* Rudolph.
 " 2. *New Haven.* Herrick. Newton and Loomis.
 " 2. *Litchfield.* Hough. *Providence.* Caswell.
 " 2. *Hamburg.* Schmidt. *Bonn.* Jahn.
 " 2. *Aix-la-Chapelle.* Heis.
 " 3. *New York.* Hough. *Litchfield.* Hough.
 " 3. *Hamburg.* Schmidt.
 " 5. *Christiania.* Hansteen.
 " 6. *Litchfield.* Hough. *New York.* Hough.
 " 7. *Worcester.* Chandler. *New York.* Hough.
 " 8. *New York.* Hough.
 " 9. *New York.* Hough.
 " 12. *Jakobshavn.* Rudolph.
 " 14. *Yakoutsk.* Kupffer. *Jakobshavn.* Rudolph.
 " 15. *Christiania.* Hansteen.
- Oct. 17. *Wellington Channel.* Kane.
 " 21. *Wellington Channel.* Kane.
 " 22. *Wellington Channel.* Kane.
 " 26. *Wellington Channel.* Kane.
 " 27. *New Haven.* Herrick. Newton and Loomis.
 " 27. *Litchfield.* Hough. *New York.* Hough.
 " 27. *Wellington Channel.* Kane.
 " 27. *Christiania.* Hansteen.
 " 28. *Litchfield.* Hough. *Christiania.* Hansteen.
 " 29. *New Haven.* Herrick. Newton and Loomis.
 " 29. *Litchfield.* Hough. *New York.* Hough.
 " 29. *Wellington Channel.* Kane.
 " 31. *Wellington Channel.* Kane.
- Nov. 7. *New York.* Hough. *Jakobshavn.* Rudolph.
 " 8. *New York.* Hough.
 " 8. *Lat. 74° N. Long. 92° W.* Kane.
 " 10. *New Haven.* Bradley. Newton and Loomis.
 " 10. *Litchfield.* Hough. *New York.* Hough.
 " 10. *Jakobshavn.* Rudolph.
 " 11. *New York.* Hough.
 " 25. *Jakobshavn.* Rudolph.
 " 30. *Jakobshavn.* Rudolph.
- Dec. 1. *New Haven?* Bradley. Newton and Loomis.
 " 1. *Lat. 74° N. Long. 94° W.* Austin.¹
 " 1. *Lancaster Sound.* Kane.
 " 1. *Griffith's Island.* Markham.²
 " 3. *Lancaster Sound.* Kane.
 " 4. *New York.* Hough.
 " 5. *New York.* Hough.
 " 5. *Lancaster Sound.* Kane.
 " 5. *Griffith's Island.* Markham.
 " 6. *New York.* Hough. *Lancaster Sound.* Kane.
 " 7. *Jakobshavn.* Rudolph.
 " 8. *Lancaster Sound.* Kane.
 " 10. *Jakobshavn.* Rudolph.
 " 11. *New York.* Hough. *Lancaster Sound.* Kane.
 " 15. *Sitka.* Kupffer. *Jakobshavn.* Rudolph.
 " 17. *Sitka.* Kupffer.
 " 20. *New York.* Hough.
 " 23. *Jakobshavn.* Rudolph.
 " 26. *New Haven.* Bradley. Newton and Loomis.
 " 26. *Lancaster Sound.* Kane.³
 " 27. *Cambridge.* Bond. Lovering.
 " 27. *Lancaster Sound.* Kane.
 " 27. *Christiania.* Hansteen.
 " 28. *New York.* Hough. *Lancaster Sound.* Kane.

¹ Arctic Miscellanies, p. 113.² Franklin's Footsteps, &c. p. 70.³ The U. S. Grinnell Expedition, First, p. 523.¹ Proc. Brit. Assoc. XX. 41.

- Dec. 28. *Christiania*. Hansteen.
 " 29. *Lancaster Sound*. Kane.
 " 30. *Jakobshavn*. Rudolph.
 " 31. *Lancaster Sound*. Kane.

1851.

- Jan. 1.¹ *Lancaster S'd*. Kane. *Jakobshavn*. Rudolph.
 " 2. *Lancaster S'd*. Kane. *Jakobshavn*. Rudolph.
 " 3. *Lancaster Sound*. Kane.
 " 4. *Lancaster Sound*. Kane.
 " 4. *Hammerfest*. Noodt.
 " 8. *Newberry*. Johnson.
 " 15. *Lancaster S'd*. Kane. *Jakobshavn*. Rudolph.
 " 19. *Litchfield, Conn.* Hendrick.²
 " 20. *Catharinebourg and Tobolsk*. Kupffer.³
 " 20. *Zlatoouste*. Kupffer.³
 " 21. *Newberry*. Johnson.
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 21. *Litchfield*. Hendrick.
 " 23. *New Haven*. Herrick. Newton and Loomis.
 " 23. *Christiania*. Hansteen. *Lancaster S'd*. Kane.
 " 25. *Jakobshavn*. Rudolph.
 " 26. *Baffin's Bay*. Kane.
 " 27. *Baffin's Bay*. Kane. *Hammerfest*. Noodt.
 " 28. *Baffin's Bay*. Kane.
 " 29. *Baffin's Bay*. Kane.
 Feb. 2. *Baffin's Bay*. Kane. *Bonn*. Schmidt.
 " 5. *Cambridge*. Bond. Lovering.
 " 5. *Newberry*. Johnson. *Baffin's Bay*. Kane.
 " 6. *New York*. Hough.⁴ *Baffin's Bay*. Kane.
 " 7. *Baffin's Bay*. Kane.
 " 9. *Jakobshavn*. Rudolph.
 " 12. *Providence, R. I.* Caswell.
 " 13. *Baffin's Bay*. Kane.
 " 18. *Cambridge*. Bond. Lovering.
 " 18. *New York*. Hough. *Providence*. Caswell.
 " 18. *New Haven*. Herrick. Newton and Loomis.
 " 18. *Newberry*. Johnson. *Litchfield*. Hendrick.
 " 19. *New York*. Hough. *Christiania*. Hansteen.
 " 19. *Newberry*. Johnson. *Litchfield*. Hendrick.
 " 19. *Baffin's Bay*. Kane. *Jakobshavn*. Rudolph.

¹ The aurora was seen *eleven* times in January; *twelve* times in February; and *four* times in March, 1851, by Capt Austin, in Lat. 74° N. and Long. 94° W. Arctic Miscellanies, p. 197, &c.

² Regents' Reports of the Univ. New York, 1851, p. 524.

³ Annal. de l'Observ. Phys. Centrale de Russie, 1851, p. 127 and p. 549.

⁴ Regents' Reports of the Univ. New York, 1851.

- Feb. 20.¹ *Lat. 74° N. Long. 94° W.* Austin.
 " 20. *Christiania*. Hansteen.
 " 21. *Baffin's Bay*. Kane.
 " 23. *Litchfield*. Hendrick. *Christiania*. Hansteen.
 " 24. *Baffin's Bay*. Kane.
 " 25. *Baffin's Bay*. Kane. *Christiania*. Hansteen.
 " 26. *Baffin's Bay*. Kane. *Barnaoul*. Kupffer.
 " 27. *Baffin's Bay*. Kane. *Hammerfest*. Noodt.
 " 28. *Newberry*. Johnson.
 Mar. 1. *New York*. Hough.
 " 22. *New York*. Hough. *Newberry*. Johnson.
 " 22. *New Haven?* Herrick. Newton and Loomis.
 " 22. *Litchfield*. Hendrick. *Christiania*. Hansteen.
 " 25. *Lat. 74° N. 94° W.* Austin.²
 " 26. *Baffin's Bay*. Kane.
 " 26. *St. Ives, Hunts.* Watts.
 " 28. *New Haven*. Herrick. Newton and Loomis.
 " 28. *Worcester*. Chandler.³ *New York*. Hough.
 " 28. *Baffin's Bay*. Kane.
 " 29. *Cambridge*. Bond. Lovering.
 " 29. *New York*. Hough. *Newberry*. Johnson.
 " 29. *New Haven*. Herrick. Newton and Loomis.
 " 29. *Litchfield*. Hendrick. *Jakobshavn*. Rudolph.
 " 31. *New York*. Hough.
 Apr. 1. *New York*. Hough.
 " 3. *New York*. Hough.
 " 5. *New York*. Hough.
 " 6. *Baffin's Bay*. Kane.
 " 17. *New York*. Hough.
 " 19. *New York*. Hough.
 " 22. *New York*. Hough.
 " 30. *New York*. Hough.
 May 1. *Providence*. Caswell. *New York*. Hough.
 " 1. *New Haven*. Herrick. Newton and Loomis.
 " 1. *Worcester*. Chandler. *Litchfield*. Hendrick.
 " 2. *New York*. Hough.
 " 4. *New York*. Hough.
 " 12. *New York*. Hough.
 " 16. *Litchfield*. Hendrick.
 " 20. *New York*. Hough.
 " 24. *Cambridge*. Bond. Lovering.
 " 26. *Litchfield*. Hendrick.
 " 30. *New York*. Hough.
 June 5. *Cambridge*. Bond. Lovering.

¹ In regard to the winter of 1850-1, in Lat. 74° N. and Long. 95° W., Osborne says: "With one portion of the phenomena of the North Sea we were particularly disappointed; and this was the aurora." Stray Leaves from an Arctic Journal.

² Arctic Miscellanies, p. 291.

³ Nineteenth Report of the Lunatic Asylum, p. 65.

- June 5. *Providence*. Caswell. *New York*. Hough.
 " 5. *New Haven*. Herrick. Newton and Loomis.
 " 5. *Litchfield*. Hendrick.
 " 11. *Litchfield*. Hendrick.
 " 27. *Cambridge*. Bond. Lovering.
 " 27. *New Haven*. Bradley. Newton and Loomis.
 " 27. *Litchfield*. Hendrick.
 " 27. *Providence*. Caswell. *New York*. Hough.
 July 2. *New York*. Hough.
 " 7. *Litchfield*. Hendrick.
 " 13. *New York*. Hough.
 " 16. *New York*. Hough.
 " 17. *Cambridge*. Bond. Lovering.
 " 17. *New Haven*. Bradley. Newton and Loomis.
 " 17. *Litchfield*. Hendrick. *New York*. Hough.
 " 26. *Cambridge*. Bond. Lovering.
 " 26. *New Haven*. Bradley. Newton and Loomis.
 " 26. *New York*. Hough.
 " 29. *New York*. Hough.
 Aug. 8. *New York*. Hough.
 " 24. *Litchfield*. Hendrick.
 " 24. *Leipsic*. Keller. Jahn.
 " 25. *Lat. 61° N. Long. 54° W.* Sutherland.
 " 26. *Davis's Strait*. Sutherland.¹
 " 29. *Cambridge*. Bond. Lovering.
 " 29. *Litchfield*. Hendrick. *New York*. Hough.
 " 30. *Litchfield*. Hendrick.
 " 31. *New York*. Hough.
 Sept. 1. *Newberry*. Johnson.
 " 3. *New Haven*. Olmsted.² *New York*. Hough.
 " 4. *Cambridge*. Bond. Lovering.
 " 4. *New Haven*. Bradley. Newton and Loomis.
 " 4. *Worcester*. Chandler. *Rochester*. Dewey?
 " 4. *Christiania*. Hansteen. *Yakoutsk*. Kupffer.
 " 6. *Cambridge*. Bond. Lovering.
 " 6. *New Haven*. Olmsted and Bradley.
 " 6. *Litchfield*. Hendrick. *New York*. Hough.
 " 7. *Cambridge*. Bond. Lovering.
 " 7. *Worcester*. Chandler. *New York*. Hough.
 " 7. *New Haven*. Bradley. Newton and Loomis.
 " 7. *Litchfield*. Hendrick.
 " 7. *Yakoutsk and Barnaoul*. Kupffer.³
 " 7. *Christiania*. Hansteen.
 " 10. *New Haven*. Bradley. Newton and Loomis.
 " 13. *New York*. Hough.
 Sept. 14. *New York*. Hough.
 " 15. *New York*. Hough.
 " 16. *Newberry* Johnson. *Litchfield*. Hendrick.
 " 16. *New York*. Hough.
 " 24. *New York*. Hough.
 " 26. *Aix-la-Chapelle*. Heis. Jahn.
 " 27. *Hammerfest*. Noodt.
 " 28. *New York*. Hough.
 " 29. *New Haven*. Olmsted. *Providence*. Caswell.
 " 29. *Worcester*. Chandler. *South Carolina*. Gibbes.
 " 29. *St. Petersburg*. Kupffer.¹ *Rochester*. Dewey.
 " 29. *Newberry*. Johnson. *Georgia*. LeConte.²
 " 29. *Christiania*. Hansteen.
 " 30. *St. Petersburg*. Kupffer.
 " 30. *Kamens*. Vogel. Jahn. *Prague*.³
 " 30. *Neunkirchen*. *Lichtenberger*. Jahn.
 Oct. 1. *New Haven*. Bradley. Newton and Loomis.
 " 1. *New York*. Hough.
 " 2. *Cambridge*. Bond. Lovering.
 " 2. *New Haven*. Herrick. Newton and Loomis.
 " 2. *New York*. Hough. *Providence*. Caswell.
 " 2. *Brussels*. Quetelet. *Yakoutsk*. Kupffer.
 " 3. *Bonn*. Schmidt. *Dresden*. Jahn.
 " 3. ——— Heis. Jahn.
 " 4. *Hammerfest*. Noodt.
 " 18. *Newberry*. Johnson. *New York*. Hough.
 " 18. *Bonn*. Schmidt.
 " 19. *New York*. Hough. *Christiania*. Hansteen.
 " 20. *Cambridge*. Bond. Lovering.
 " 20. *Worcester*. Chandler. *Providence*. Caswell.
 " 20. *New Haven*. Herrick. Newton and Loomis.
 " 20. *Litchfield*. Hendrick. *Newberry*. Johnson.
 " 21. *Worcester*. Chandler.
 " 21. *New York*. Hough. *Christiania*. Hansteen.
 " 22. *New York*. Hough.
 " 23. *Cambridge*. Bond. Lovering.
 " 23. *New Haven*. Herrick. Newton and Loomis.
 " 23. *Litchfield*. Hendrick. *Providence*. Caswell.
 " 24. *Hammerfest*. Noodt.
 " 26. *New York*. Hough.
 " 28. *New Haven*. Herrick. Newton and Loomis.
 " 29. *Batty Bay*. Kennedy.⁴
 Nov. 11. *New York*. Hough.
 " 15. *Cambridge*. Bond. Lovering.
 " 17. ——— Jahn.

¹ Journal of a Voyage, &c. II. 346.² Amer. Journ. Sci. Second Series, XII. 442.³ Annal. de l'Observ. Phys. Centrale de Russie, 1851, p. 213 and p. 575.¹ Annal. de l'Observ. Phys. Centrale de Russie, 1851, p. 57.² Amer. Journ. Sci. Second Series, XIII. 128.³ Kreil's Jahrbuch für Prag. III. 126-7.⁴ Proceedings of Mr. W. Kennedy, &c. p. 86.

- Nov. 20. *Hammerfest*. Noodt.
 " 21. *Hammerfest*. Noodt.
 " 22. *Christiania*. Hansteen.
 " 30. ——— Jahn.
 Dec. 5. *New York*. Hough.
 " 6. *Christiania*. Hansteen.
 " 18. ——— Jahn.
 " 21. *Hammerfest*. Noodt. Jahn.
 " 23. *New York*. Hough.
 " 23. *Christiania*. Hansteen. *Hammerfest*. Noodt.
 " 25. *New York*. Hough.
 " 25. *Christiania*. Hansteen.
 " 26. *New York*. Hough.
 " 26. *Hannover*. Pape. Jahn.
 " 27. *New York*. Hough.
 " 28. *Batty Bay*. Bellot.¹
 " 28. *Christiania*. Hansteen. *Yakoutsk*. Kupffer.
 " 28. *Belgium*. Montigny.²
 " 29. *Cambridge*. Bond. Lovering.
 " 29. *Litchfield*. Hendrick.
 " 30. *Cambridge*. Bond. Lovering.
 " 31. *Osnabrück*. Jahn.

1852.

- Jan. 3. ——— Jahn.
 " 10. *Christiania*. Hansteen.
 " 17. *Hammerfest*. Noodt.
 " 19. *Cambridge*. Bond. Lovering.
 " 19. *Litchfield*. Hendrick. *Providence*. Caswell.
 " 19. *Burlington*. Thompson.³ *Sonora*. Goddard.
 " 19. *New Haven*. Herrick. Newton and Loomis.
 " 19. *San Francisco*. Gibbon. *Tennessee*. Morris.⁴
 " 19. *Hammerfest*. Noodt. *Sitka*. Kupffer.
 " 20. *Worcester*. Chandler.
 " 20. *Bonn*. Schmidt. Jahn. *Yakoutsk*. Kupffer.
 " 20. *Elberfeld*. Jahn. *Aix-la-Chapelle*. Heis.
 " 21. *Burlington*. Thompson.
 " 22. *Yakoutsk*. Kupffer.
 " 23. *Burlington*. Thompson.
 " 25. *Worcester*. Chandler. *Litchfield*. Hendrick.
 " 25. *Burlington*. Thompson. *Providence*. Caswell.
 " 25. *Aix-la-Chapelle*. Heis. Jahn.
 " 25. *Hammerfest*. Noodt. Jahn.
 " 26. *Burlington*. Thompson.
 Feb. 1. *Christiania*. Hansteen.

¹ Memoirs of J. R. Bellot, &c. II. 73.² Amer. Journ. Sci. Second Series, XIV. 289.³ Amer. Journ. Sci. Second Series, XV. 459.⁴ Amer. Journ. Sci. Second Series, XVII. 140. and XXIX. 260.

- Feb. 15. *New Haven*. Olmsted. *Litchfield*. Hendrick.¹
 " 15. *Christiania*. Hansteen. *Yakoutsk*. Kupffer.
 " 16. *New Haven*. Herrick and Olmsted.
 " 16. *Litchfield*. Hendrick. *Burlington*. Thompson.
 " 16. *Christiania*. Hansteen. *Hammerfest*. Noodt.
 " 17. *New Haven*. Herrick. Newton and Loomis.
 " 17. *Providence*. Caswell. *Christiania*. Hansteen.
 " 18. *Cambridge*. Bond. Lovering.
 " 18. *New Haven*. Herrick and Olmsted.
 " 18. *Burlington*. Thompson. *Newberry*. Johnson.
 " 18. *Catharinebourg and Sitka*. Kupffer.
 " 18. *Yakoutsk and Ichim*. Kupffer.²
 " 18. *Christiania*. Hansteen. *Kertchinsk*. Kupffer.
 " 19. *Cambridge*. Bond. Lovering.
 " 19. *New Haven*. Herrick and Olmsted.
 " 19. *Burlington*. Thompson. *Newberry*. Johnson.
 " 19. *Litchfield*. Hendrick. *Rochester*. Dewey.
 " 19. *Tennessee*. Morris. *San Francisco*.³ Gibbon.
 " 19. *Dunse*. Stevenson. *St. Ives, Hunts*. Watts.⁴
 " 19. *Bonn*. Schmidt. Jahn.
 " 19. *Barnaoul and Kertchinsk*. Kupffer.⁵
 " 19. *Christiania*. Hansteen. *Ichim*. Kupffer.
 " 20. *Cambridge*. Bond. Lovering.
 " 20. *New Haven*. Herrick. Newton and Loomis.
 " 20. *Litchfield*. Hendrick. *Newberry*. Johnson.
 " 20. *Yakoutsk and Tobolsk*. Kupffer.
 " 20. *Christiania*. Hansteen.
 " 20. *Verden*. Pape. *Leipsic, &c.* Jahn.
 " 21. *Christiania*. Hansteen. *Tobolsk*. Kupffer.
 " 21. *Hammerfest*. Noodt.
 " 21. *Dunse*. Stevenson. *St. Ives, Hunts*. Watts.
 " 26. *Cambridge*. Bond. Lovering.
 " 27. *Burlington*. Thompson.
 " 27. *Sitka*. Kupffer.
 Mar. 4. *Cambridge*. Bond. Lovering.
 " 6. *Christiania*. Hansteen.
 " 7. *New Haven*. Herrick. Newton and Loomis.
 " 7. *Litchfield*. Hendrick. *Burlington*. Thompson.
 " 7. *Christiania*. Hansteen. *Sitka*. Kupffer.
 " 9. *New Haven*. Herrick. Newton and Loomis.
 " 9. *Christiania*. Hansteen.
 " 10. *Burlington*. Thompson. ——— Jahn.

¹ Amer. Journ. Sci. Second Series, XIII. 426.² Annal. de l'Observ. Phys. Centrale de Russie, 1859, Suppl. p. 95.³ Dr. Gibbon says, that he saw the aurora at San Francisco, once in January, and once in February, 1852. Smithsonian Reports, 1854, p. 258. Amer. Journ. Sci. Second Series, XXVII. 260.⁴ Proc. Brit. Assoc. XXI. 32.⁵ Annal. de l'Observ. Phys. Centrale de Russie, 1852, pp. 127, 213, 311, et 561.

- Mar. 12. *Yakoutsk.* Kupffer.
 " 15. *Christiania.* Hansteen. *Verden.* Jahn.
 " 16. *Burlington.* Thompson.
 " 19. *Burlington.* Thompson.
 " 20. *Burlington.* Thompson.
 " 21. *St. Ives, Hunts.* Watts.
 " 21. *Christiania.* Hansteen.
 " 25. *Warsaw.* Jahn.
 " 26. *Bonn.* Schmidt. *Leipsic.* Jahn.
 " 26. *Christiania.* Hansteen.
 " 29. *Sitka.* Kupffer.
 " 31. *Christiania.* Hansteen.
 Apr. 8. *Burlington.* Thompson.
 " 8. *Christiania.* Hansteen.
 " 9. *Christiania.* Hansteen.
 " 10. *Cambridge.* Bond. Lovering.
 " 10. *New Haven.* Herrick. Newton and Loomis.
 " 10. *Litchfield.* Hendrick. *Christiania.* Hansteen.
 " 12. *Verden.* Spengler. Jahn.
 " 13. *Burlington.* Thompson.
 " 14. *Burlington.* Thompson.
 " 15. *New Haven.* Bradley. Newton and Loomis.
 " 15. *Christiania.* Hansteen.
 " 16. *Litchfield.* Hendrick.
 " 17. *Burlington.* Thompson.
 " 17. *Christiania.* Hansteen.
 " 18. *Christiania.* Hansteen.
 " 19. *Newberry.* Johnson.
 " 20. *Burlington.* Thompson. *Bogoslowski.* Kupffer.¹
 " 22. *New Haven.* Herrick. Newton and Loomis.²
 " 22. *Providence.* Caswell. *Tennessee.* Morris.
 May 3. *Burlington.* Thompson.
 " 5. *Burlington.* Thompson.
 " 8. *Burlington.* Thompson.
 " 9. *Burlington.* Thompson. *Tennessee.* Morris.
 " 10. *Providence, R. I.* Caswell.
 " 10. *New Haven.* Herrick. Newton and Loomis.
 " 14. *Burlington.* Thompson.
 " 17. *New Haven.* Herrick. Newton and Loomis.
 " 18. *Cambridge.* Bond. Lovering.
 " 18. *Burlington.* Thompson. *Providence.* Caswell.
 " 18. *New Haven.* Herrick. Newton and Loomis.
 " 19. *Cambridge.* Bond. Lovering.
 " 19. *New Haven.* Herrick. Newton and Loomis.
 " 19. *Providence, R. I.* Caswell.
 " 20. *Cambridge.* Bond. Lovering.
 " 20. *New Haven.* Herrick. Newton and Loomis.
 May 20. *Providence, R. I.* Caswell.
 " 21. *Cambridge.* Bond. Lovering.
 " 21. *New Haven.* Herrick. Newton and Loomis.
 " 25. *Litchfield.* Hendrick.
 June 5. *New Haven.* Herrick. Newton and Loomis.
 " 9. *Newberry.* Johnson.
 " 10. *New Haven.* Herrick. Newton and Loomis.
 " 10. *Litchfield.* Hendrick.
 " 11. *New Haven.* Herrick. Newton and Loomis.
 " 11. *Burlington.* Thompson. *Providence.* Caswell.
 " 11. *Litchfield.* Hendrick.¹
 " 15. *New Haven.* Herrick. Newton and Loomis.
 " 16. *Cambridge.* Bond. Lovering.
 " 16. *New Haven.* Herrick. Newton and Loomis.
 " 16. *Burlington.* Thompson.
 July 3. *Providence, R. I.* Caswell.
 " 5. *Cambridge.* Bond. Lovering.
 " 5. *Burlington.* Thompson.
 " 6. *Cambridge.* Bond. Lovering.
 " 6. *New Haven.* Herrick. Newton and Loomis.
 " 7. *Cambridge.* Bond. Lovering.
 " 8. *Cambridge.* Bond. Lovering.
 " 9. *Cambridge.* Bond. Lovering.
 " 9. *New Haven.* Herrick. Newton and Loomis.
 " 9. *Litchfield.* Hendrick. *Providence.* Caswell.
 " 10. *Cambridge.* Bond. Lovering.
 " 10. *New Haven.* Bradley. Newton and Loomis.
 " 10. *Litchfield.* Hendrick.
 " 11. *Cambridge.* Bond. Lovering.
 " 11. *Munster.* Heis. Jahn.
 " 12. *Cambridge.* Bond. Lovering.
 " 12. *Burlington.* Thompson.
 " 13. *Cambridge.* Bond. Lovering.
 Aug. 2. *Davis's Strait. L. 60° N. Lg. 49° W.* Inglefield.
 " 4. *At Sea. Lat. 61° N. Long. 49° W.* Inglefield.
 " 10. *Burlington.* Thompson. ——— Jahn.
 " 11. *New Haven?* Herrick. Newton and Loomis.
 " 11. *Burlington.* Thompson. ——— Jahn.
 " 14. *Cambridge.* Bond. Lovering.
 Sept. 2. *Cambridge.* Bond. Lovering.
 " 4. *Cambridge.* Bond. Lovering.
 " 4. *Christiania.* Hansteen.
 " 5. *Cambridge.* Bond. Lovering.
 " 6. *Cambridge.* Bond. Lovering.
 " 6. *New Haven.* Herrick. Newton and Loomis.
 " 6. *Burlington.* Thompson.
 " 6. *Christiania.* Hansteen.
 " 9. *Christiania.* Hansteen.

¹ Annal. de l'Observ. Phys. Centrale de Russie, 1852, p. 629.² Amer. Journ. Sci. Second Series, XIV. 130-1.¹ Regents' Reports of the Univ. New York, 1852, p. 244.

- Sept. 10. *Christiania*. Hansteen.
 " 11. *Christiania*. Hansteen.
 " 12. *Cambridge*. Bond. Lovering.
 " 12. *Christiania*. Hansteen. Jahn.
 " 13. ——— Jahn.
 " 16. *Cambridge*. Bond. Lovering.
 " 16. *New Haven*. Herrick. Newton and Loomis.
 " 16. *Newberry*. Johnson. *Providence*. Caswell.
 " 16. *Christiania*. Hansteen.
 " 17. *Cambridge*. Bond. Lovering.
 " 17. *New Haven*. Herrick. Newton and Loomis.
 " 17. *Burlington*. Thompson. *Newberry*. Johnson.
 " 17. *Christiania*. Hansteen. ——— Jahn.
 " 18. *Cambridge*. Bond. Lovering.
 " 18. *Burlington*. Thompson. *Newberry*. Johnson.
 " 19. *New Haven*. Herrick. Newton and Loomis.
 " 19. *Christiania*. Hansteen.
 " 20. *Christiania*. Hansteen.
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 21. *Baffin's Bay*. Inglefield. ——— Jahn.
 " 22. *Lake Superior*. Wagner. Boué.
 " 23. *Christiania*. Hansteen.
 " 29. *Cambridge*. Bond. Lovering.
 " 29. *New Haven*. Herrick. Newton and Loomis.
 Oct. 5. *Cambridge*. Bond. Lovering.
 " 5. *New Haven*. Herrick. Newton and Loomis.
 " 5. *Burlington*. Thompson.
 " 6. *Burlington*. Thompson.
 " 7. *Christiania*. Hansteen.
 " 7. *Catharinebourg*. Kupffer.
 " 9. *Cambridge*. Bond. Lovering.
 " 10. *Verden*. Jahn.
 " 13. *Cambridge*. Bond. Lovering.
 " 13. *Verden*. Jahn.
 " 18. *Christiania*. Hansteen. *Verden*. Jahn.
 " 18. *Wurtemberg*. Jahn. *Barnaoul*. Kupffer.
 " 19. *New Haven*. Herrick. Newton and Loomis.
 " 19. *Newberry*. Johnson. *Providence*. Caswell.
 " 20. *New Haven*. Herrick. Newton and Loomis.
 " 20. *Newberry*. Johnson.
 " 21. *Off Cape Farewell*.¹ Inglefield.²
 Nov. 10. *Cambridge*. Bond. Lovering.
 " 10. *Providence, R. I.* Caswell.
 " 10. *New Haven*. Herrick. Newton and Loomis.
 " 10. *Verden*. Pape. Jahn.
 " 11. *Cambridge*. Bond. Lovering.
 " 11. *New Haven*. Herrick. Newton and Loomis.
 Nov. 11. *Burlington*. Thompson. *Providence*. Caswell.
 " 11. *Newberry*. Johnson.¹
 " 11. *Dunse*. Stevenson. *Christiania*. Hansteen.
 " 11. *Wurtemberg and Verden*. Pape. Jahn.
 " 12. *New Haven*. Herrick. Newton and Loomis.
 " 12. *Christiania*. Hansteen.
 " 13. *Christiania*. Hansteen.
 " 14. *New Haven*. Herrick. Newton and Loomis.
 " 14. *Hammerfest*. Noodt.
 " 15. *Cambridge*. Bond. Lovering.
 " 16. *Cambridge*. Bond. Lovering.
 " 16. *Sitka*. Kupffer.
 " 17. *Hammerfest*. Noodt.
 " 18. *Yakoutsk*. Kupffer.
 " 19. *Burlington*. Thompson.
 " 25. *Christiania*. Hansteen.
 Dec. 2. *Cambridge*. Bond. Lovering.
 " 2. *Northumberland Sound*. Belcher.²
 " 3. *Christiania*. Hansteen.
 " 4. *Christiania*. Hansteen.
 " 5. *Cambridge*. Bond. Lovering.
 " 5. *Worcester*. Chandler.
 " 5. *Northumberland Sound*. Belcher.
 " 5. *New Haven*. Herrick. Newton and Loomis.
 " 6. *Christiania*. Hansteen.
 " 6. *Northumberland Sound*. Belcher.
 " 7. *Hammerfest*. Noodt.
 " 8. *Cambridge*. Bond. Lovering.
 " 8. *Burlington*. Thompson. *Hammerfest*. Noodt.
 " 9. *Northumberland Sound*. Belcher.
 " 9. *Sitka*. Kupffer.
 " 10. *Northumberland Sound*. Belcher.
 " 11. *Neunkirchen*. Lichtenberger. Jahn.
 " 11. *Sitka*. Kupffer.
 " 12. *Northumberland Sound*. Belcher.
 " 13. *New Haven?* Herrick. Newton and Loomis.
 " 13. *Christiania*. Hansteen.
 " 14. *Cambridge*. Bond. Lovering.
 " 14. *Bogoslawski*. Kupffer.
 " 15. *Cambridge*. Bond. Lovering.
 " 17. *New Haven*. Herrick. Newton and Loomis.
 " 18. *Christiania*. Hansteen. *Sitka*. Kupffer.
 " 28. *Sitka*. Kupffer.
 " 29. *Cambridge*. Bond. Lovering.
 " 29. *Worcester*. Chandler.
 " 29. *Christiania*. Hansteen.
 " 29. *Near Hartford*. Herrick. Newton and Loomis.

¹ Proceedings of Capt. E. A. Inglefield, p. 205.² Inglefield adds, that the aurora was frequently very brilliant. Force's Record of Auroral Phenomena, p. 7.¹ Regents' Reports of the Univ. New York, 1853, p. 249.² The last of the Arctic Voyages, &c. I. 173.

- 1853.¹
- Jan. 4. *Burlington, Vermont.* Thompson.²
 " 6. *New Haven.* Herrick. Newton and Loomis.
 " 6. *Burlington.* Thompson.
 " 8. *Burlington.* Thompson. *Newberry.* Johnson.
 " 9. *Cambridge.* Bond. Lovering.
 " 10. *Christiania.* Hansteen.
 " 12. *St. Martin, Canada.* Smallwood.³
 " 13. *St. Martin, Canada.* Smallwood.⁴
 " 14. *Christiania.* Hansteen.
 " 18. *Hammerfest.* Noodt.
 " 27. *Christiania.* Hansteen.
 " 28. *Christiania.* Hansteen.
 " 29. *Hammerfest.* Noodt.
 " 30. *Cambridge.* Bond. Lovering.
 " 30. *Worcester.* Chandler.⁵
 " 31. *Newberry.* Johnson.
- Feb. 1. *Cambridge.* Bond. Lovering.
 " 1. *Newberry.* Johnson. *St. Martin.* Smallwood.
 " 4. *Tobolsk.* Kupffer.
 " 8. *Burlington.* Thompson.
 " 8. *St. Martin.* Smallwood.
 " 13. *Hammerfest.* Noodt.
 " 14. *Cambridge.* Bond. Lovering.
 " 14. *New Haven.* Herrick. Newton and Loomis.
 " 14. *Burlington.* Thompson.
 " 14. *St. Martin.* Smallwood.
 " 20. *St. Martin.* Smallwood.
 " 21. *Newberry.* Johnson.
 " 28. *Hammerfest.* Noodt.
- Mar. 1. *Hammerfest.* Noodt.
 " 7. *Burlington.* Thompson. *Newberry.* Johnson.
 " 8. *Cambridge.* Bond. Lovering.
 " 8. *Burlington.* Thompson. *Newberry.* Johnson.
 " 8. *St. Martin.* Smallwood.
 " 9. *Cambridge.* Bond. Lovering.
 " 9. *New Haven.* Bradley. Newton and Loomis.
 " 10. *New Haven?* Bradley. Newton and Loomis.
 " 10. *Burlington.* Thompson.
 " 11. *Yakoutsk.* Kupffer.
- Mar. 12. *Dunse.* Stevenson.
 " 13. *Cambridge.* Bond. Lovering.
 " 13. *New Haven?* Bradley. Newton and Loomis.
 " 14. *New Haven.* Bradley. Newton and Loomis.
 " 17. *Christiania.* Hansteen.
 " 18. *Cambridge.* Bond. Lovering.
 " 27. *New Haven.* Herrick. Newton and Loomis.
 " 30. *Burlington.* Thompson.
 " 30. *Christiania.* Hansteen. *Yakoutsk.* Kupffer.
 " 31. *Yakoutsk.* Kupffer.
- Apr. 1. *Burlington.* Thompson.
 " 1. *St. Martin.* Smallwood.
 " 5. *Cambridge.* Bond. Lovering.
 " 5. *Worcester.* Chandler.
 " 5. *New Haven.* Herrick. Newton and Loomis.
 " 5. *St. Martin.* Smallwood.
 " 6. *Newberry.* Johnson.
 " 6. *New Haven.* Herrick. Newton and Loomis.
 " 6. *St. Martin.* Smallwood. *Yakoutsk.* Kupffer.
 " 7. *Burlington.* Thompson.
 " 8. *Christiania.* Hansteen.
 " 9. *Cambridge.* Bond. Lovering.
 " 9. *Christiania.* Hansteen.
 " 10. *New Haven.* Herrick. Newton and Loomis.
 " 10. *Burlington?* Thompson.
 " 10. *St. Martin.* Smallwood.
 " 11. *Cambridge.* Bond. Lovering.
 " 12. *Yakoutsk.* Kupffer.
- May 1. *Burlington.* Thompson.
 " 1. *St. Martin.* Smallwood.
 " 2. *Cambridge.* Bond. Lovering.
 " 2. *New Haven.* Herrick. Newton and Loomis.
 " 2. *Worcester.* Chandler.
 " 2. *Newberry.* Johnson. *Burlington.* Thompson.
 " 2. *Providence.* Caswell. *St. Martin.* Smallwood.
 " 4. *Cambridge.* Bond. Lovering.
 " 4. *Burlington.* Thompson. *Newberry.* Johnson.
 " 4. *St. Martin.* Smallwood.
 " 5. *Cambridge.* Bond. Lovering.
 " 6. *Burlington.* Thompson.
 " 7. *Cambridge.* Bond. Lovering.
 " 7. *Burlington.* Thompson. *Newberry.* Johnson.
 " 10. *Catharinebourg.* Kupffer.¹
 " 13. *New Haven.* Herrick. Newton and Loomis.
 " 24. *Providence, R. I.* Caswell.
 " 24. *Perryville, Illinois.* Wheeler.²
 " 30. *St. Martin.* Smallwood.

¹ Maguire refers to a frequent display of the aurora during the winter of 1823-4, at Moore's Harbor, in Lat. 71° N. and Long. 156° W. Proceedings of Capt. Maguire, &c.

² Amer. Jour. Sci. Second Series, XVII. 446.

³ Amer. Journ. Sci. Second Series, XVII. 288.

⁴ Smallwood observed traces of the aurora in thirty-nine nights in 1853; in fifty nights in 1854, and in thirty-seven nights in 1855. Amer. Journ. Sci. Second Series, XXI. 288.

⁵ Twenty-First Report of the Lunatic Asylum, p. 77.

¹ Annal. de l'Observ. Phys. Centrale de Russie, 1853, p. 136.

² Amer. Journ. Sci. Second Series, XVI. 298.

- May 31. *New Haven.* Herrick. Newton and Loomis. Sept. 2. *Angeln in Schleswig.* Jahn.
 " 31. *Burlington.* Thompson. " 2. *Catharinebourg.* Kupffer. *Prague.* Böhm.¹
 June 1. *Cambridge.* Bond. Lovering. " 3. *Cambridge.* Bond. Lovering.
 " 1. *Providence, R. I.* Caswell. " 3. *Worcester.* Chandler.
 " 1. *New Haven.* Herrick. Newton and Loomis. " 3. *Burlington.* Thompson. *Newberry.* Johnson.
 " 2. *Burlington.* Thompson. " 3. *St. Martin.* Smallwood. *Clifton.* Jahn.
 " 6. *Cambridge.* Bond. Lovering. " 4. *Cambridge.* Bond. Lovering.
 " 8. *Burlington.* Thompson. " 6. *Yakoutsk.* Kupffer.
 " 9. *Cambridge.* Bond. Lovering. " 8. *Arbroath.* Jahn.
 " 9. *New Haven.* Bradley. Newton and Loomis. " 10. *Burlington.* Thompson.
 " 9. *Burlington.* Thompson. " 12. *St. Martin.* Smallwood.
 " 14. *Cambridge.* Bond. Lovering. " 18. *St. Martin.* Smallwood.
 " 14. *St. Martin.* Smallwood. " 24. *Burlington.* Thompson.
 " 30. *St. Martin.* Smallwood. " 24. *St. Martin.* Smallwood.
 July 4. *Burlington.* Thompson. " 28. *Durham.* Jahn.
 " 10. *Burlington.* Thompson. Oct. 6. *Cambridge.* Bond. Lovering.
 " 10. *St. Martin.* Smallwood. " 23. *St. Martin.* Smallwood.
 " 11. *St. Martin.* Smallwood. " 31. *Cambridge.* Bond. Lovering.
 " 12. *Cambridge.* Bond. Lovering. " 31. *Burlington.* Thompson. *Newberry.* Johnson.
 " 12. *New Haven.* Herrick. Newton and Loomis. " 31. *New Haven.* Bradley. Newton and Loomis.
 " 12. *Burlington.* Thompson. " 31. *Bedfordshire.* Jahn. *Munster.* Heis. Jahn.
 " 12. *St. Martin.* Smallwood. Nov. 1. *New Haven.* Herrick. Newton and Loomis.
 " 12. *Hawarden.* Jahn. " 1. *Newberry.* Johnson.² *Burlington.* Thompson.
 " 16. *Cambridge.* Bond. Lovering. " 1. *Munster.* Heis. Jahn.
 " 18. *St. Martin.* Smallwood. " 2. *Cambridge.* Bond. Lovering.
 " 23. *Burlington.* Thompson. " 6. *Yakoutsk.* Kupffer.
 " 23. *St. Martin.* Smallwood. " 9. *St. Martin.* Smallwood.
 " 26. *St. Martin.* Smallwood. " 12. *Yakoutsk.* Kupffer.
 " 27. *St. Martin.* Smallwood. " 13? *Van Rensselaer Harbor.* Kane.
 Aug. 7. *St. Martin.* Smallwood. " 19. *Hammerfest.* Noodt.
 " 11. *New Haven.* Herrick.¹ Newton and Loomis. " 26. *Van Rensselaer Harbor.* Kane.
 " 20. *Hawarden.* Jahn. " 27. *St. Martin.* Smallwood.
 " 25. *St. Martin.* Smallwood. " 28. *Van Rensselaer Harbor.* Kane.
 " 26. *Newberry.* Johnson. *Hawarden.* Jahn. " 30. *Van Rensselaer Harbor.* Kane.
 " 30. *Hawarden.* Jahn. Dec. 1. *Van Rensselaer Harbor.* Kane.
 " 31. *Burlington.* Thompson. " 4. *Burlington.* Thompson. *Newberry.* Johnson.
 " 31. *St. Martin.* Smallwood. *Arbroath.* Jahn. " 4. *St. Martin.* Smallwood. *Hammerfest.* Noodt.
 Sept. 1. *Cambridge.* Bond. Lovering. " 4. *Van Rensselaer Harbor?* Kane.
 " 1. *New Haven.* Herrick. Newton and Loomis. " 6. *Yakoutsk.* Kupffer.
 " 1. *Worcester.* Chandler. *Burlington.* Thomson. " 8. *Burlington.* Thompson.
 " 1. *St. Martin.* Smallwood. *Greenwich.* Jahn. " 8. *Van Rensselaer Harbor?* Kane.
 " 2. *Cambridge.* Bond. Lovering. " 20. *St. Martin.* Smallwood.
 " 2. *Worcester.* Chandler. " 23. *New Haven.* Bradley. Newton and Loomis.
 " 2. *New Haven.* Herrick. Newton and Loomis. " 24. *Cambridge.* Bond. Lovering.
 " 2. *Burlington.* Thomson. *Newberry.* Johnson. " 24. *Van Rensselaer Harbor.* Kane.
 " 2. *St. Martin.* Smallwood. " 28. *Cambridge.* Bond. Lovering.
 " 2. *Bermuda.* Herrick. Newton and Loomis. " 28. *St. Martin.* Smallwood.
 " 2. *Liverpool, York, &c.* Jahn. " 29. *Van Rensselaer Harbor.* Kane.

¹ Magnet. et Meteor. Observ. zu Prag. 1853, p. 107.² Regents' Reports of the Univ. New York, 1854, p. 308.

1854.

- Jan. 2. *Cambridge*. Bond. Lovering.
 " 2. *Worcester*. Chandler.¹
 " 2. *New Haven*. Herrick. Newton and Loomis.
 " 2. *Newberry*. Johnson. *Providence*. Caswell.
 " 2. *Catharinebourg*. Kupffer.²
 " 3. *Zlatoouste*. Kupffer.² *Hammerfest*. Noodt.
 " 3. *Bogoslowski*. Kupffer.²
 " 8. *St. Martin*. Smallwood.³
 " 17. *Hammerfest*. Noodt.
 " 23. *Cambridge*. Bond. Lovering.
 " 23. *New Haven*. Herrick. Newton and Loomis.
 " 23. *Worcester*. Chandler.
 " 23. *St. Martin*. Smallwood.
 " 27. *Van Rensselaer Harbor*. Kane.
 " 28. *Cambridge*. Bond. Lovering.
 " 28. *New Haven*. Herrick. Newton and Loomis.
 " 28. *Newberry*. Johnson.
 " 28. *St. Martin*. Smallwood.
 " 28. *Van Rensselaer Harbor*. Kane.
 " 29. *Newberry*. Johnson.
 " 29. *St. Martin*. Smallwood.
 " 30. *Newberry*. Johnson.
- Feb. 2. *Cambridge*. Bond. Lovering.
 " 4. *Van Rensselaer Harbor*. Kane.
 " 4. *Hammerfest*. Noodt.
 " 5. *Van Rensselaer Harbor*. Kane.
 " 10. *St. Martin*. Smallwood.
 " 11. *St. Martin*. Smallwood.
 " 16. *Cambridge*. Bond. Lovering.
 " 16. *Worcester*. Chandler.
 " 16. *St. Martin*. Smallwood.
 " 17. *Cambridge*. Bond. Lovering.
 " 17. *Worcester*. Chandler. *Newberry*. Johnson.
 " 24. *Newberry*. Johnson.
 " 24. *St. Martin*. Smallwood.
 " 24. *Catharinebourg*. Kupffer. *Hammerfest*. Noodt.
 " 25. *Catharinebourg*. Kupffer.
 " 26. *Bogoslowski*. Kupffer.
 " 27. *Cambridge*. Bond. Lovering.
 " 27. *Newberry*.⁴ Johnson. *St. Martin*. Smallwood.
- Mar. 3. *Millford, Illinois*. Hendrick.⁴
 " 6. *St. Martin*. Smallwood.
- Mar. 15. *New Haven*. Bradley. Newton and Loomis.
 " 16. *Cambridge*. Bond. Lovering.
 " 16. *St. Martin*. Smallwood.
 " 20. *St. Martin*. Smallwood.
 " 21. *Cambridge*. Bond. Lovering.
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 21. *Newberry*. Johnson. *St. Martin*. Smallwood.
 " 27. *Worcester*. Chandler.
 " 27. *New Haven*. Herrick. Newton and Loomis.
 " 27. *Providence*. Caswell. *Rochester*. Dewey.
 " 28. *Cambridge*. Bond. Lovering.
 " 28. *Worcester*. Chandler.
 " 28. *New Haven*. Herrick. Newton and Loomis.
 " 28. *Providence, R. I.* Caswell.
 " 28. *Catharinebourg*. Kupffer.
 " 29. *Cambridge*. Bond. Lovering.
 " 29. *Worcester*. Chandler.
 " 29. *New Haven*. Herrick. Newton and Loomis.
 " 29. *Newberry*. Johnson. *St. Martin*. Smallwood.
 " 30. *Providence, R. I.* Caswell.
 " 30. *St. Martin*. Smallwood.
- Apr. 10. *Illinois*. Hendrick. *Rochester*. Dewey.
 " 14. *St. Martin*. Smallwood.
 " 15. *St. Martin*. Smallwood.
 " 20. *Cambridge*. Bond. Lovering.
 " 20. *Newberry*. Johnson.
 " 21. *Cambridge*. Bond. Lovering.
 " 21. *New Haven*. Herrick. Newton and Loomis.
 " 21. *St. Martin*. Smallwood.
 " 23. *Cambridge*. Bond. Lovering.
 " 23. *Worcester*. Chandler.
 " 23. *New Haven*. Herrick. Newton and Loomis.
 " 23. *Newberry*. Johnson. *St. Martin*. Smallwood.
 " 24. *Newberry*. Johnson. *St. Martin*. Smallwood.
- May 1. *Cambridge*. Bond. Lovering.
 " 4. *St. Martin*. Smallwood.
 " 15. *Cambridge*. Bond. Lovering.
 " 15. *New Haven*. Herrick. Newton and Loomis.
 " 16. *Cambridge*. Bond. Lovering.
 " 16. *New Haven?* Herrick. Newton and Loomis.
 " 16. *St. Martin*. Smallwood.
 " 19. *Cambridge*. Bond. Lovering.
 " 21. *Providence, R. I.* Caswell.
 " 23. *St. Martin*. Smallwood.
 " 26. *St. Martin*. Smallwood.
 " 28. *St. Martin*. Smallwood.
- June 12. *Cambridge*. Bond. Lovering.
 " x. *St. Martin*. Smallwood.
 " x. *St. Martin*. Smallwood.
- July 3. *St. Martin*. Smallwood.

¹ Twenty-Second Report of the Lunatic Asylum, p. 88.² Annal. de l'Observ. Phys. Centrale de Russie, 1854, pp. 127 et 525.³ Amer. Journ. Sci. Second Series, XX. 141.⁴ Regents' Reports of the Univ. New York, 1855, pp. 328 and 330.

- July 5. *St. Martin.* Smallwood.
 " 10. *Cambridge.* Bond. Lovering.
 " 10. *Rochester, N. Y.* Dewey.
 " 12. *St. Martin.* Smallwood.
 " 14. *St. Martin.* Smallwood.
 " 27. *Cambridge.* Bond. Lovering.
 " 27. *St. Martin.* Smallwood.
 " 29. *St. Martin.* Smallwood.
 " 30. *St. Martin.* Smallwood.
 Aug. 17. *St. Martin.* Smallwood.
 " 20. *St. Martin.* Smallwood.
 " 25. *St. Martin.* Smallwood.
 Sept. 10. *St. Martin.* Smallwood.
 " 12. *St. Martin.* Smallwood.
 " 13. *Cambridge.* Bond. Lovering.
 " 13. *St. Martin.* Smallwood.
 " 14. *Clays, near Amiens.* Quetelet.¹
 " 15. *St. Martin.* Smallwood.
 " 17. *St. Martin.* Smallwood.
 " 20. *St. Martin.* Smallwood.
 " 21. *Cambridge.* Bond. Lovering.
 " 21. *Worcester.* Chandler.
 " 21. *New Haven.* Bradley. Newton and Loomis.
 " 21. *Newberry.* Johnson. *St. Martin.* Smallwood.
 " 22. *Worcester.* Chandler.
 " 23. *Worcester.* Chandler.
 " 25. *Hammerfest.* Noodt.
 " 26. *Cambridge.* Bond. Lovering.
 " 26. *Worcester.* Chandler.
 " 26. *Providence.* Caswell. *Newberry.* Johnson.
 " 26. *New Haven.* Bradley. Newton and Loomis.
 " 26. *Illinois.* Hendrick. *Rochester.* Dewey.
 " 26. *St. Martin.* Smallwood.
 Oct. 8. *Millford, Illinois.* Hendrick.
 " 18. *Cambridge.* Bond. Lovering.
 " 18. *Providence.* Caswell. *Illinois.* Hendrick.
 " 18. *St. Martin.* Smallwood.
 " 23. *Newberry.* Johnson.
 " 24. *Hammerfest.* Noodt.
 " 25. *St. Martin.* Smallwood.
 Nov. 13. *Van Rensselaer Harbor.* Kane.
 " 14. *Hammerfest.* Noodt.
 " 15. *Hammerfest.* Noodt.
 " 18. *Van Rensselaer Harbor.* Kane.
 " 20. *Cambridge.* Bond. Lovering.
 " 20. *Hammerfest.* Noodt.
 " 22. *Van Rensselaer Harbor.* Kane.
- Dec. 8. *St. Martin.* Smallwood. *Hammerfest.* Noodt.
 " 14. *Van Rensselaer Harbor.* Kane.
 " 18. *St. Martin.* Smallwood. *Hammerfest.* Noodt.
 " 22. *St. Martin.* Smallwood.
 " 29. *Hammerfest.* Noodt.
- 1855.
- Jan. 7. *Van Rensselaer Harbor.* Kane.
 " 10. *Cambridge.* Bond. Lovering.
 " 10. *Newberry.* Johnson. *St. Martin.* Smallwood.¹
 " 14. *Hammerfest.* Noodt.
 Feb. 5. *Cambridge.* Bond. Lovering.
 " 10. *Van Rensselaer Harbor.* Kane.
 " 11. *St. Martin.* Smallwood.
 " 12. *Cambridge.* Bond. Lovering.
 " 12. *St. Martin.* Smallwood.
 " 14. *Catharinebourg.* Kupffer.²
 Mar. 8. *St. Martin.* Smallwood.
 " 9. *St. Martin.* Smallwood.
 " 12. *Cambridge.* Bond. Lovering.
 " 12. *Newberry.* Johnson.³ *New York.* Morris.
 " 12. *Rochester.* Dewey. *St. Martin.* Smallwood.
 " 18. *New York.* Morris. *St. Martin.* Smallwood.
 " 19. *St. Martin.* Smallwood.
 Apr. 7. *Cambridge.* Bond. Lovering.
 " 9. *Cambridge.* Bond. Lovering.
 " 9. *St. Martin.* Smallwood.
 " 12. *Cambridge.* Bond. Lovering.
 " 12. *Newberry.* Johnson. *New York.* Morris.
 " 12. *St. Martin.* Smallwood.
 " 14. *Cambridge.* Bond. Lovering.
 " 15. *St. Martin.* Smallwood.
 " 20. *St. Martin.* Smallwood.
 May 1. *St. Martin.* Smallwood.
 " 6. *St. Martin.* Smallwood.
 " 9. *St. Martin.* Smallwood.
 " 10. *Newberry.* Johnson. *New York.* Morris.
 " 24. *St. Martin.* Smallwood.
 July 7. *St. Martin.* Smallwood.
 " 9. *St. Martin.* Smallwood.
 " 16. *St. Martin.* Smallwood.
 Aug. 5. *St. Martin.* Smallwood.
 " 10. *St. Martin.* Smallwood.
 " 17. *St. Martin.* Smallwood.
 " 23. *St. Martin.* Smallwood.

Bull. de l'Acad. Brux. XXI. 551.

¹ Amer. Journ. Sci. Second Series, XXI. 288.² Annal. de l'Observ. Phys. Centrale de Russie, 1855, p. 127.³ Regents' Reports of the Univ. New York, 1856, p. 361.

- Sept. 10. *Cambridge*. Bond. Lovering.
 " 10. *New York*. Morris.
 " 11. *St. Martin*. Smallwood.
 " 13. *St. Martin*. Smallwood.
 " 17. *Cambridge*. Bond. Lovering.
 Oct. 3. *St. Martin*. Smallwood.
 " 4. *New York*. Morris. *Rochester*. Dewey.
 " 8. *New York*. Morris.
 " 9. *Cambridge*. Bond. Lovering.
 " 9. *New York*. Morris.
 " 10. *St. Martin*. Smallwood.
 " 14. *Hammerfest*. Noodt.
 " 16. *St. Martin*. Smallwood.
 " 18. *Hammerfest*. Noodt.
 " 20. *Hammerfest*. Noodt.
 Nov. 2. *St. Martin*. Smallwood.
 " 5. *St. Martin*. Smallwood.
 " 8. *Hammerfest*. Noodt.
 " 16. *Hammerfest*. Noodt.
 " 19. *St. Martin*. Smallwood.
 " 26. *Hammerfest*. Noodt.
 " 29. *Cambridge*. Bond. Lovering.
 " 29. *St. Martin*. Smallwood.
 " 30. *St. Martin*. Smallwood. *Hammerfest*. Noodt.
 Dec. 5. *St. Martin*. Smallwood.
 " 7. *St. Martin*. Smallwood.
 " 13. *St. Martin*. Smallwood.
 " 30. *St. Martin*. Smallwood.

1856.

- Jan. 29. *Hammerfest*. Noodt.
 " 31. *Newberry*. Johnson.²
 Feb. 6. *Hammerfest*. Noodt.
 " 7. *Hammerfest*. Noodt.
 Mar. 2. *Sponholz*. Jahn.
 " 4. *Hammerfest*. Noodt.
 " 11. *Senftenberg*. Borsen. Jahn.
 " 30. *Cambridge*. Bond. Lovering.
 " 31. *Newberry*. Johnson.
 Apr. 22. *Cambridge*. Bond. Lovering. *Sitka*. Kupffer.¹
 June 2. *Paris*. Boué.
 " 4. *Paris*. Boué.
 " 6. *Paris*. Boué.
 Aug. 22. *Cambridge*. Bond. Lovering. *Sitka*. Kupffer.
 " 24. *Cambridge*. Bond. Lovering.
 " 31. *Cambridge*. Bond. Lovering.
 " 31. *Millford, Illinois*. Hendrick.²

¹ Annal. de l'Observ. Phys. Centrale de Russie, 1856, p. 455.² Regents' Reports of the Univ. New York, 1857, pp. 312 and 317.

- Sept. 22. *Hammerfest*. Noodt.
 " 30. *Hammerfest*. Noodt.
 Oct. 4. *Cambridge*. Bond. Lovering.
 " 4. *Newberry*. Johnson.
 " 5. *Hammerfest*. Noodt.
 " 19. *Bamberg*. Ellner. Jahn.
 " 23. *Providence*. Caswell. *Newberry*. Johnson.
 " 23. *Bamberg*. Ellner. Jahn.
 Nov. 20. *Cambridge*. Bond. Lovering.
 " 23. *Newberry*. Johnson.
 Dec. 3. *Sitka*. Kupffer. *Hammerfest*. Noodt.
 " 4. *Hammerfest*. Noodt.
 " 29. *Sitka*. Kupffer.

1857.

- Jan. 16. *Hammerfest*. Noodt.
 " 26. *Hammerfest*. Noodt.
 Apr. 11. *Sitka*. Kupffer.¹
 " 13. *Newberry*. Johnson.
 Sept. 1. *Worcester*. Bemis.²
 " 3. *Providence, R. I.* Caswell.
 " 7. *Cambridge*. Bond. Lovering.
 " 8. *Cambridge*. Bond. Lovering.
 " 10. *Cambridge*. Bond. Lovering.
 " 10. *Newberry*. Johnson.
 " 13. *Sitka*. Kupffer.
 " 19. *Lat. 75° N. Long. 66° W.* M'Clintock.³
 " 27. *Lat. 75° N. Long. 65° W.* M'Clintock.
 Oct. 4. *Lat. 75° N. Long. 66° W.* M'Clintock.
 " 9. *Lat. 75° N. Long. 66° W.* M'Clintock.
 " 24. *Sitka*. Kupffer.
 " 30. *Lat. 75° N. Long. 69° W.* M'Clintock.
 Nov. 4. *Newberry*. Johnson.
 " 7. *Lat. 75° N. Long. 69° W.* M'Clintock.
 " 9. *Cambridge*. Bond. Lovering.
 " 9. *Lat. 75° N. Long. 69° W.* M'Clintock.
 " 10. *Bogoslowski*. Kupffer.
 " 11. *Lat. 75° N. Long. 68° W.* M'Clintock.
 " 17. *Cambridge*. Bond. Lovering.
 " 23. *Lat. 75° N. Long. 68° W.* M'Clintock.
 Dec. 4. *Newberry*. Johnson.
 " 10. *Lat. 75° N. Long. 68° W.* M'Clintock.
 " 12. *Lat. 75° N. Long. 68° W.* M'Clintock.
 " 13. *Lat. 75° N. Long. 68° W.* M'Clintock.
 " 14. *Lat. 74° N. Long. 67° W.* M'Clintock.

¹ Annal. de l'Observ. Phys. Centrale de Russie, 1857, pp. 385 et 513.² Twenty-Fifth Report of the Lunatic Asylum, p. 76.³ Meteor. Papers of the Board of Trade, London, IV. 9.

- Dec. 15. *Newberry*. Johnson.
 " 16. *Sacramento, California*. Logan.¹
 " 16. *St. Petersburg*. Kupffer.²
 " 16. *Lat. 74° N. Long. 67° W.* M'Clintock.
 " 17. *Catharinebourg*. Kupffer.²
 " 17. *Rochester, N. Y.* Dewey.
 " 17. *Hammerfest*. Noodt. *Brussels*. Quetelet.³
 " 17. *Lat. 74° N. Long. 67° W.* M'Clintock.
 " 17. *Nertchinsk and Barnaoul*. Kupffer.²
 " 20. *Cambridge*. Bond. Lovering.
 " 20. *Newberry*. Johnson.
 " 22. *Rochester, N. Y.* Dewey.

1858.

- Jan. 1. *Hammerfest*. Noodt.
 " 8. *Cambridge*. Bond. Lovering.
 " 8. *Worcester*. Bemis.⁴ *Providence*. Caswell.
 " 8. *Newberry*. Johnson. *Rochester*. Dewey.⁵
 " 8. *Catharinebourg*. Kupffer.⁶
 " 9. *Lat. 73° N. Long. 66° W.* M'Clintock.
 " 11. *Lat. 73° N. Long. 64° W.* M'Clintock.
 " 12. *Cambridge?* Bond. Lovering.
 " 12. *Rochester, N. Y.* Dewey.
 " 12. *Lat. 73° N. Long. 64° W.* M'Clintock.
 " 17. *Hammerfest*. Noodt.
 " 17. *Lat. 73° N. Long. 64° W.* M'Clintock.
 Feb. 2. *St. Petersburg*. Kupffer.⁶ *Hammerfest*. Noodt.
 " 2. *Lat. 72° N. Long. 61° W.* M'Clintock.
 " 3. *Hammerfest*. Noodt.
 " 3. *Lat. 72° N. Long. 61° W.* M'Clintock.
 " 6. *Lat. 72° N. Long. 61° W.* M'Clintock.
 " 7. *Lat. 72° N. Long. 61° W.* M'Clintock.
 " 9. *Lat. 72° N. Long. 61° W.* M'Clintock.
 " 10. *Lat. 72° N. Long. 61° W.* M'Clintock.
 " 12. *Sitka*. Kupffer.
 " 13. *Lat. 72° N. Long. 60° W.* M'Clintock.
 " 14. *Hammerfest*. Noodt.
 " 15. *Newberry* Johnson. *Sitka*. Kupffer.
 " 15. *Lat. 72° N. Long. 61° W.* M'Clintock.
 " 16. *Cambridge*. Bond. Lovering. *Sitka*. Kupffer.
 " 16. *Lat. 72° N. Long. 61° W.* M'Clintock.

¹ Amer. Journ. Sci. Second Series, XXIX. 260.² Annal. de l'Observ. Phys. Centrale de Russie, 1857, pp. 61, 147, 229, et 315.³ Bull. de l'Acad. Brux. Second Series, IV. 9.⁴ Twenty-Sixth Report of the Lunatic Asylum, p. 67.⁵ Reports of Regents of the Univ. New York, 1859, pp. 230 and 242.⁶ Annal. de l'Observ. Phys. Centrale de Russie, 1858, pp. 41, 127, et 451.

- Feb. 17. *Rochester, N. Y.* Dewey.
 " 17. *Lat. 71° N. Long. 61° W.* M'Clintock.
 " 18. *Lat. 71° N. Long. 61° W.* M'Clintock.
 " 19. *Lat. 71° N. Long. 61° W.* M'Clintock.
 Mar. 1. *St. Petersburg*. Bogoslawski. Kupffer.¹
 " 2. *Lat. 70° N. Long. 60° W.* M'Clintock.
 " 3. *St. Petersburg*. Kupffer.
 " 4. *Lat. 70° N. Long. 60° W.* M'Clintock.
 " 5. *Lat. 70° N. Long. 60° W.* M'Clintock.
 " 6. *Lat. 70° N. Long. 60° W.* M'Clintock.
 " 8. *Lat. 70° N. Long. 60° W.* M'Clintock.
 " 12. *Worcester*. Bemis. *Sitka*. Kupffer.
 " 13. *Cambridge*. Bond. Lovering.
 " 13. *Worcester*. Bemis.
 " 13. *Newberry*. Johnson. *Providence*. Caswell.
 " 13. *Hammerfest*. Noodt.
 " 13. *Lat. 72° N. Long. 60° W.* M'Clintock.
 " 14. *Armagh*. Robinson.² *Tobolsk*. Kupffer.
 " 14. *Hammerfest*. Noodt.
 " 15. *Lat. 70° N. Long. 60° W.* M'Clintock.
 " 16. *Lat. 70° N. Long. 59° W.* M'Clintock.
 " 17. *Lat. 70° N. Long. 59° W.* M'Clintock.
 " 18. *Lat. 70° N. Long. 59° W.* M'Clintock.
 " 28. *Sitka*. Kupffer.
 " 30. *Sitka*. Kupffer.
 " 31. *Sitka*. Kupffer.
 Apr. 1. *Lat. 68° N. Long. 59° W.* M'Clintock.
 " 2. *Newberry*. Johnson.
 " 3. *Newberry*. Johnson.
 " 9. *Worcester*. Bemis.
 " 9. *Tasmania*. Abbott.³ *Tobolsk*. Kupffer.
 " 9. *Munster*. Heis. *Christiania*. Hansteen.⁴
 " 10. *Cambridge*. Bond. Lovering.
 " 10. *Worcester*. Bemis. *Providence*. Caswell.
 " 10. *Newberry*. Johnson. *Melbourne*. Neumaier.⁴
 " 11. *Cambridge*. Bond. Lovering.
 " 11. *Newberry*. Johnson. *Tobolsk*. Kupffer.
 " 11. *Tasmania*. Abbott.
 " 11. *Lat. 67° N. Long. 59° W.* M'Clintock.
 " 12. *Lat. 67° N. Long. 58° W.* M'Clintock.
 " 14. *Cambridge*. Bond. Lovering.
 " 14. *Lat. 66° N. Long. 58° W.* M'Clintock.
 " 15. *Lat. 66° N. Long. 58° W.* M'Clintock.
 May 7. *Newberry*. Johnson. *Rochester*. Dewey.
 " 8. *Sitka*. Kupffer. *Tasmania*. Abbott.

¹ Annal. de l'Observ. Phys. Centrale de Russie, 1859, p. 507.² Phil. Mag. Fourth Series, XV. 326.³ Papers and Proc. Roy. Soc. Tasmania, III. Pt. II.⁴ Bull. de l'Acad. Brux. VI. 365.

- July 1. *Cambridge*. Bond. Lovering.
 " 5. *Cambridge*. Bond. Lovering.
 Aug. 20. *Christiania*. Hansteen. *Sitka*. Kupffer.
 " 21. *Christiania*. Hansteen.
 " 30. *Cambridge*. Bond. Lovering.
 " 31. *Cambridge*. Bond. Lovering.
 Sept. 1. *Cambridge*. Bond. Lovering.
 " 7. *Cambridge*. Bond. Lovering.
 " 7. *Worcester*. Bemis.
 " 7. *Newberry*. Johnson. *Providence*. Caswell.
 " 8. *Cambridge*. Bond. Lovering.
 " 8. *Newberry*. Johnson.
 " 12. *Worcester*. Bemis. *Newberry*. Johnson.
 " 14. *Cambridge*. Bond. Lovering.
 Oct. 2. *Cambridge*. Bond. Lovering.
 " 2. *Worcester*. Bemis.
 " 2. *Newberry*. Johnson. *Sitka*. Kupffer.
 " 4. *Cambridge*. Bond. Lovering.
 " 6. *Worcester*. Bemis. *Newberry*. Johnson.
 " 8. *Cambridge*. Bond. Lovering.
 " 8. *Newberry*. Johnson. *Rochester*. Dewey.
 " 9. *Cambridge*. Bond. Lovering.
 " 9. *Worcester*. Bemis. *Rochester*. Dewey.
 " 10. *Cambridge*. Bond. Lovering.
 " 10. *Worcester*. Bemis.
 " 27. *Cambridge*. Bond. Lovering.
 " 27. *Worcester*. Bemis. *Providence*. Caswell.
 " 27. *Newberry*. Johnson. *California*. Logan.
 " 28. *Port Kennedy*. M'Clintock.
 " 29. *Port Kennedy*. M'Clintock. *Sitka*. Kupffer.
 " 30. *Port Kennedy*. M'Clintock.
 " 31. *Cambridge*. Bond. Lovering.
 " 31. *Worcester*. Bemis.
 " 31. *Port Kennedy*. M'Clintock.
 Nov. 1. *Cambridge*. Bond. Lovering.
 " 6. *Port Kennedy*. M'Clintock.
 " 7. *Port Kennedy*. M'Clintock.
 " 9. *Port Kennedy*. M'Clintock.
 " 12. *Port Kennedy*. M'Clintock.
 " 14. *Sitka*. Kupffer. *Port Kennedy*. M'Clintock.
 Dec. 1. *Cambridge*. Bond. Lovering.
 " 2. *Sitka*. Kupffer.
 " 3. *Port Kennedy*. M'Clintock.
 " 4. *Rochester*. Dewey. *Munster*. Heis. *England*.
 " 4. *Sitka*. Kupffer. *Port Kennedy*. M'Clintock.
 " 5. *Rochester*. Dewey. *Port Kennedy*. M'Clintock.
 " 6. *Hammerfest*. Noodt. *Port Kennedy*. M'Clintock.
 " 8. *Port Kennedy*. M'Clintock.
 " 10. *Sitka*. Kupffer.
 " 12. *Port Kennedy*. M'Clintock.
 Dec. 13. *Port Kennedy*. M'Clintock.
 " 14. *Port Kennedy*. M'Clintock.
 " 15. *Port Kennedy*. M'Clintock.
 " 23. *Sitka*. Kupffer.
 " 24. *Worcester*. Bemis.
 " 24. *Port Kennedy*. M'Clintock.
 " 24. *Catharinebourg*. Kupffer.
 " 28. *Port Kennedy*. M'Clintock.
 " 30. *Port Kennedy*. M'Clintock.
- 1859.
- Jan. 1. *Port Kennedy*. M'Clintock.
 " 2. *Port Kennedy*. M'Clintock.
 " 3. *Port Kennedy*. M'Clintock.
 " 8. *Port Kennedy*. M'Clintock.
 " 9. *Port Kennedy*. M'Clintock.
 " 10. *Newberry*. Johnson. *Port Kennedy*. M'Clintock.
 " 11. *Port Kennedy*. M'Clintock.
 " 27. *Hammerfest*. Noodt.
 " 31. *Port Kennedy*. M'Clintock.
 Feb. 1. *Port Kennedy*. M'Clintock.
 " 8. *Port Kennedy*. M'Clintock.
 " 9. *Port Kennedy*. M'Clintock.
 " 9. *Sitka and Tobolsk*. Kupffer.¹
 " 19. *Port Kennedy*. M'Clintock.
 " 20. *Port Kennedy*. M'Clintock.
 " 22. *Cambridge*. Bond. Lovering.
 " 22. *Newberry*. Johnson. *Providence*. Caswell.
 " 23. *Cambridge*. Bond. Lovering.
 " 23. *Munster*. Heis.² *Sitka*. Kupffer.
 " 23. *Port Kennedy*. M'Clintock.
 " 24. *Newberry*. Johnson.
 " 26. *Port Kennedy*. M'Clintock.
 " 26. *St. Petersburg*. Kupffer.³
 " 26. *Catharinebourg*. Kupffer.³
 Mar. 2. *Hammerfest*. Noodt.
 " 5. *Hammerfest*. Noodt.
 " 6. *Port Kennedy*. M'Clintock.
 " 11. *Newberry*. Johnson. *Hammerfest*. Noodt.
 " 26. *Worcester*. Bemis. *Sitka*. Kupffer.
 " 30. *Worcester*. Bemis. *Port Kennedy*. M'Clintock.
 Apr. 2. *Sitka*. Kupffer.
 " 6. *Newberry*. Johnson.
 " 12. *St. Petersburg*. Kupffer.
 " 20. *Barnaoul*. Kupffer.

¹ Annal. de l'Observ. Phys. Centrale de Russie, 1859, p. 451, et Suppl. p. 170.

² Bull. de l'Acad. Brux. Second Series, VII. 365.

³ Annal. de l'Observ. Phys. Centrale de Russie, 1859, pp. 41, 127, 217, et 539.

- Apr. 21. *Newberry*. Johnson. *Brussels*. Quetelet.¹
 " 21. *St. Petersburg and Zlatoust*. Kupffer.
 " 22. *Munster*. Heis.
 " 24. *Germany, France, Belgium*. Heis.
 " 28. *Worcester*. Bemis. *Newberry*. Johnson.
 " 29. *Cambridge*. Bond. Lovering.
 " 29. *Worcester*. Bemis.
 " 29. *New Haven*. Herrick. Newton and Loomis.²
 " 29. *Newberry*. Johnson. *Providence*. Caswell.
 May 7. *Newberry*. Johnson.
 July 28. *Cambridge*. Bond. Lovering.
 Aug. 21. *Worcester*. Bemis.
 " 28. *Cambridge*. Bond. Lovering.
 " 28. *Providence*. Caswell. *Newberry*. Johnson.
 " 28. *Rochester*. Dewey. *Toronto*. Kingston.
 " 28. *Worcester*. Bemis.
 " 28. *Maine*. Loomis. *New Haven*. Lyman.²
 " 28. *California*. Logan. *Illinois*. Bandelier.
 " 28. *Cleveland, Ohio*. Stanard. Loomis.
 " 28. *Camp Simeahmoo, Wash. Ter.* Campbell.³
 " 28. *Hamilton, C. W.* Hurlburt. Loomis.
 " 28. *Melbourne*. Neumeyer. *Munster*. Heis.
 " 28. *Havana, Cuba*. Poey. *Key West*.⁴ Dennis.
 " 28. *Combe-Varin*. Desor.⁵ *Germany*.
 " 28. *St. Petersburg and Sitka*. Kupffer.
 " 29. *Cambridge*. Bond. Lovering.
 " 29. *Worcester*. Bemis.⁶ *Toronto*. Kingston.
 " 29. *Rochester*. Dewey. *Havana*. Poey.⁷
 " 29. *Providence*. Caswell. *Germany*. Heis.
 " 29. *Camp Simeahmoo*. Campbell. Loomis.
 " 30. *Camp Simeahmoo*. Campbell. Loomis.
 Sept. 1. *Indiana*. Kirkwood. *Rochester*. Dewey.
 " 1. *Toronto*. Kingston. *Cuba*. Poey.
 " 1. *Fort Bridger, Utah Ter.* Ryland. Loomis.
 " 1. *California*. Logan. *Santiago*. Moesta.
 " 1. *Sitka*. Kupffer.
 " 2. *Cambridge*. Bond. Lovering.
 " 2. *Worcester*. Bemis.
 " 2. *Providence*. Caswell. *Toronto*. Kingston.
 " 2. *Newberry*. Johnson. *Rome, N. Y.* Huntington.
 " 2. *Rochester*? Dewey. *Porto Rico*. DuColambier.
 " 2. *Cleveland, Ohio*. Stanard. Loomis.
 " 2. *Melbourne*. Neumayer. *Key West*. Dennis.
 Sept. 2. *Athens, Greece*. Schmidt.¹
 " 2. *Near Cape Horn*. Schumacher. Loomis.
 " 2. *St. Petersburg and Barnaoul*. Kupffer.
 " 2. *Catharinebourg*. Kupffer.
 " 2. *Nertchinsk and Lougan*. Kupffer.²
 " 3. *Newberry*. Johnson. *Rochester*. Dewey.
 " 3. *Toronto*. Kingston.³
 " 3. *Tobolsk and Lougan*. Kupffer.
 " 3. *Athens, Greece*. Schmidt.
 " 4. *New Haven*. Lyman. *Toronto*. Kingston.
 " 5. *Toronto*. Kingston. *Munster*. Heis.
 " 21. *Christiania*. Hansteen.
 " 24. *Cambridge*. Bond. Lovering.
 " 24. *Munster*. Heis.
 " 25. *Munster*. Heis.
 " 27. *Cambridge*. Bond. Lovering.
 " 27. *Worcester*. Bemis.
 " x. *Sandwich Islands*. Loomis.⁴
 Oct. 1. *Cambridge*. Bond. Lovering.
 " 1. *Providence*. Caswell. *Munster*. Heis.
 " 2. *Newberry*. Johnson.
 " 3. *Hammerfest*. Noodt. *Bogoslowski*. Kupffer.⁵
 " 12. *Cambridge*. Bond. Lovering. *Athens*. Schmidt.
 " 12. *Westphalia*. Heis. *Posen*. Spiller.⁶
 " 12. *Catharinebourg and Lougan*. Kupffer.
 " 12. *The Jura*. Desor. *Nertchinsk*. Kupffer.
 " 16. *Sitka*. Kupffer.
 " 17. *Sitka*. Kupffer.
 " 18. *Cambridge*. Bond. Lovering.
 " 18. *Providence*. Caswell. *California*. Logan.
 " 18. *Nertchinsk*. Kupffer.
 " 19. *Sitka*. Kupffer.
 " 20. *Cambridge*. Bond. Lovering.
 " 20. *Worcester*. Bemis.
 " 20. *Providence*. Caswell. *Sitka*. Kupffer.
 " 21. *Cambridge*. Bond. Lovering.
 " 21. *Worcester*. Bemis. *Providence*. Caswell.
 " 21. *Barnaoul*. Kupffer.
 " 22. *Ichim*. Kupffer.
 Nov. 2. *Hammerfest*. Noodt.
 " 11. *Sitka*. Kupffer.
 " 13. *Hammerfest*. Noodt.
 " 24. *Sitka*. Kupffer.

¹ Bull. de l'Acad. Brux. Second Series, VII. 72.² Amer. Journ. Sci. Second Series, XXVIII. 154, 391, &c.³ Amer. Journ. Sci. Second Series, XXX. 83, and XXXII. 148.⁴ Amer. Journ. Sci. Second Series, XXIX. 260.⁵ Bull. Soc. Sci. Nat. Neuchatel, V. 297.⁶ Twenty-seventh Report of the Lunatic Asylum, p. 71.⁷ Amer. Journ. Sci. Second Series, XXVIII. 404.¹ Public. de l'Observ. Athen. Second Series, I. 253. Amer. Journ. Sci. Second Series, XXX. 82.² Annal. de l'Observ. Phys. Centrale de Russie, 1859, pp. 315, et 577.³ Amer. Journ. Sci. Second Series, XXVIII. 389.⁴ Amer. Journ. Sci. Second Series, XXX. 88.

Annal. de l'Observ. Phys. Centrale de Russie, 1859, p. 513.

⁶ Mittheil. aus dem Osterlande. XXV. 33.

- Dec. 13. *Catharinebourg. Zlatoust.* Kupffer.
 " 14. *Cambridge. Bond. Lovering. Sitka.* Kupffer.
 " 15. *Marquette, Lake Superior.* Dewey.¹
 " 15. *Hammerfest.* Noodt.
 " 16. *Hammerfest.* Noodt.
 " 21. *Hammerfest.* Noodt.
 " 23. *Hammerfest.* Noodt.
 " 26. *Newberry.* Johnson.
 " 30. *Hammerfest.* Noodt.
- 1860.
- Jan. 14. *Haparanda, Sweden.* Böhm.²
 " 15. *Cambridge. Bond. Lovering. Dorpat.* Böhm.
 " 20. *Hammerfest.* Noodt.
 " 21. *Haparanda.* Böhm. *Hammerfest.* Noodt.
 " 22. *Haparanda.* Böhm.
- Feb. 10. *Bogoslowski.* Kupffer.³ *Hammerfest.* Noodt.
 " 11. *Haparanda.* Böhm.
 " 12. *Haparanda. Peckeloh.* Böhm.
 " 17. *Newberry.* Johnson.
 " 21. *Worcester.* Bemis.
 " 21. *Newberry.* Johnson. *Providence.* Caswell.
 " 22. *Stockholm. St. Petersburg. Reval.* Böhm.
- Mar. 10. *Zlatoust.* Kupffer.³
 " 12. *Bogoslowski.* Kupffer. *Haparanda.* Böhm.
 " 12. *Copenhagen. Stockholm.* Böhm.
 " 13. *Haparanda.* Böhm.
 " 14. *Newberry.* Johnson. *Sitka.* Kupffer.³
 " 16. *Sitka.* Kupffer.
 " 17. *Worcester.* Bemis. *Newberry.* Johnson.
 " 18. *Worcester.* Bemis.
 " 18. *Newberry.* Johnson. *Bogoslowski.* Kupffer.
 " 19. *Worcester.* Bemis.
 " 20. *Bogoslowski.* Kupffer.
 " 24. *Cuba.* Böhm.
 " 26. *Worcester.* Bemis. *Providence.* Caswell.
 " 27. *Cambridge. Bond. Lovering.*
 " 27. *Worcester.* Bemis.
 " 28. *Bogoslowski.* Kupffer.
 " 29. *Catharinebourg*³ and *Bogoslowski.* Kupffer.
 " 29. *Stockholm.* Böhm.
- Apr. 9. *Newberry.* Johnson.⁴ *Bogoslowski.* Kupffer.
 " 9. *Copenhagen. Paris. Dorpat.* Böhm.
 " 12. *Worcester.*⁵ Bemis.
 " 12. *Hamburg and Haparanda.* Böhm.
- Apr. 13. *Cambridge. Bond. Lovering. Worcester.* Bemis.
 " 13. *Newberry.* Johnson. *Providence.* Caswell.
 " 13. *Hamburg and Haparanda.* Böhm.
 " 14. *Cambridge. Bond. Lovering.*
 " 15. *Worcester.* Bemis.
 " 18. *Worcester.* Bemis.
 May 6. *St. Petersburg.* Kupffer.¹
 June 22. *Lougan.* Kupffer.²
 " 30. *Worcester.* Bemis.
 July 4. *Sacramento, Cal.* Logan.³
 " 17. *Newberry.* Johnson.
 " 19. *Cambridge. Bond. Lovering.*
 " 19. *Worcester.* Bemis. *Newberry.* Johnson.
 Aug. 6. *Worcester.* Bemis.
 " 7. *Prague. Vienna. Berlin.* Böhm.
 " 8. *Chicago, Illinois.* Bradley.³
 " 8. *Naugard and Athens.* Böhm.
 " 8. *Zlatoust and Lougan.* Kupffer.
 " 9. *New Haven.* Herrick.⁴
 " 9. *Prussia. France. Greece.* Heis.⁵ Böhm.
 " 10. *New Haven.* Herrick. *Chicago.* Bradley.
 " 10. *Paris.* Heis. *Norderney.* Böhm.
 " 10. *St. Petersburg.* Kupffer.
 " 11. *Prague and Peckeloh.* Böhm.
 " 12. *Chicago.* Bradley. *Bogoslowski.* Kupffer.
 " 12. *Prague.* Heis. *Catharinebourg.* Kupffer.
 " 12. *Paris. Kremsmunster, &c.* Böhm.
 " 13. *Emden and Westphalia.* Heis. Böhm.
 " 14. *Athens.* Heis. Böhm.
 " 16. *Worcester.* Bemis. *Newberry.* Johnson.
 " 17. *Chicago, Illinois.* Bradley.
 " 18. *Worcester.* Bemis. *Stockholm.* Böhm.
 " 22. *Newberry.* Johnson.⁶
 " 25. *Westphalia.* Böhm.
 " 27. *Westphalia.* Böhm.
 " 30. *Gouda, Netherlands.* Böhm.
- Sept. 6. *Cambridge. Bond. Lovering.*
 " 6. *Worcester.* Bemis. *Newberry.* Johnson.
 " 6. *Utrecht, Stockholm, Peckeloh.* Böhm.
 " 7. *New Haven.* Herrick.⁷ *Sitka.* Kupffer.
 " 7. *Stockholm and Leipsic.* Böhm.
 " 8. *Peckeloh.* Böhm.
 " 10. *Stockholm and Haparanda.* Böhm.
 " 15. *Worcester.* Bemis.

¹ Reports of Regents of Univ. New York, 1860, p. 229.² Magnet. and Meteor. Beobacht. zu Prag. XXI. Jahr. p. IX.³ Annal. de l'Observ. Phys. Centrale de Russie, 1860, pp. 131, 385, 505, et 539.⁴ Reports of Regents of Univ. New York, 1863, p. 415.⁵ Twenty-eighth Report of the Lunatic Asylum, p. 68.¹ Annal. de l'Observ. Phys. Centrale de Russie, 1860, p. 49.² Annal. de l'Observ. Phys. Centrale de Russie, 1860, p. 573.³ Amer. Jour. Sci. Second Series, XXXI. 136, and XXXII. 148.⁴ Amer. Jour. Sci. Second Series, XXX. 298.⁵ Bull. de l'Acad. Brux. X. 417 et 422.⁶ Aurora Australis.⁷ Bull. de l'Acad. Brux. Second Series, X. 420.

- Sept. 16. *Cambridge*. Bond. Lovering.
 " 17. *Newberry*. Johnson.
 " 25. *Worcester*. Bemis.
 Oct. 1. *Kreuznach, Prussia*. Böhm.
 " 8. *Worcester*. Bemis.
 " 11. *Cambridge*. Bond. Lovering.
 " 25. *Hammerfest*. Noodt.
 " 29. *Haparanda*. Böhm.
 Nov. 4. *Cambridge*. Bond. Lovering.
 " 4. *Worcester*. Bemis.
 " 13. *Zlatoust*. Kupffer.
 " 27. *Hammerfest*. Noodt.
 " 29. *Hammerfest*. Noodt.
 Dec. 8. *Munster*. Heis. *Peckeloh*. Böhm.
 " 9. *Hammerfest*. Noodt.
 " 10. *Catharinebourg*. Kupffer.
 " 10. *St. Petersburg*. Kupffer.
 " 15. *Worcester*. Bemis.
 " 15. *Catharinebourg*. Kupffer.
 " 18. *Hammerfest*. Noodt.
 1861.
 Jan. 2. *Hammerfest*. Noodt.
 " 7. *Zlatoust*. Kupffer.
 " 12. *Worcester*. Bemis.¹
 " 13. *Cambridge*. Bond. Lovering.
 " 22. *Cambridge*. Bond. Lovering.
 " 22. *Munster and Peckeloh*. Heis. *Dorpat*. Böhm.²
 " 22. *Locle*. Kopp.³ *Elberfeld*. Böhm.
 " 31. *Cambridge*. Bond. Lovering.
 " 31. *Worcester*. Bemis.
 Feb. 2. *Peckeloh*. Heis.
 " 3. *Hammerfest*. Noodt.
 " 12. *Prague*. Böhm.
 " 16. *Hammerfest*. Noodt.
 " 20. *Hammerfest*. Noodt.
 " 27. *Cambridge*. Bond. Lovering.
 " 27. *Worcester*. Bemis. *Newberry*. Johnson.
 " 27. *Rochester*. Dewey.⁴ *Prague*. Böhm.
 " 28. *Rochester*. Dewey.
 Mar. 1. *Haparanda*. Böhm.
 " 2. *Peckeloh*. Böhm.
 " 4. *Athens*. Heis.⁵
 " 5. *Rochester*. Dewey. *Hammerfest*. Noodt.
 " 9. *Cambridge*. Bond. Lovering.
 " 9. *Neuchatel*. Kopp.³ *Brussels*. Quetelet.⁵
- Mar. 9. *St. Petersburg*. Kupffer.¹ *Munster*. Heis.
 " 9. *Haparanda and Stockholm*. Böhm.
 " 9. *Greenwich, Paris, Cracow*. Böhm.
 " 9. *Prague, Berlin, Dorpat*. Böhm.
 " 11. *Newberry*. Johnson.
 " 13. *Stockholm*. Böhm.
 " 14. *Stockholm*. Böhm.
 " 17. *Haparanda*. Böhm.
 " 19. *Jicin*. Böhm.
 " 25. *Stockholm and Prague*. Böhm.
 " 26. *Stockholm*. Böhm.
 " 28. *Newberry*. Johnson.
 Apr. 7. *Sitka*. Kupffer.²
 " 11. *Newberry*. Johnson.
 " 15. *Haparanda and Munster*. Böhm.
 " 15. *Peckeloh and Berlin*. Böhm.
 June 12. *Worcester*. Bemis.
 Aug. 1. *Rochester*. Dewey.
 " 5. *Cambridge*. Bond. Lovering.
 " 22. *Near Lake Superior*. Sand. Rive.³
 Sept. 8. *Worcester*. Bemis.
 " 15. *Worcester*. Bemis. *Newberry*. Johnson.
 Oct. 10. *Newberry*. Johnson. *Rochester*. Dewey.
 " 24. *Worcester*. Bemis.
 " 25. *Newberry*. Johnson.
 " 27. *Newberry*. Johnson.
 Nov. 5. *Peckeloh*. Böhm.
 " 7. *Lichtenberg, Peckeloh, &c.* Böhm.
 Dec. 1. *Christiania*. Hansteen.⁴
 " 4. *Stockholm, Peckeloh*. Böhm.
 " 5. *Christiania*. Hansteen.
 " 18. *Christiania*. Hansteen.
 " 19. *Christiania, Dorpat, Dresden*. Böhm.
 " 29. *Haparanda*. Ballot.⁴
 1862.
 Jan. 1. *Christiania*. Ballot.
 " 2. *Haparanda*. Ballot.
 " 31. *Stockholm*. Ballot.⁴
 Feb. 1. *Christiania*. Hansteen.
 " 2. *Christiania*. Hansteen.
 " 7. *Stockholm*. Ballot.
 " 28. *Christiania*. Hansteen.
 Mar. 1. *Stockholm*. Ballot.
 " 3. *Haparanda*. Ballot.

¹ Twenty-ninth Report of the Lunatic Asylum, p. 61.² Magnet. und Meteor. Beobacht. zu Prag, XXII. Jahr. p. XII.³ Bull. Soc. Sci. Nat. Neuchatel. VI. 237.⁴ Reports of Regents of the Univ. New York, 1862, pp. 412, 421.⁵ Bull. de l'Acad. Brux. XI. 317 et 644.¹ Annal. de l'Observ. Phys. Centrale de Russie, 1861, pp. 45 et 537.² Annal. de l'Observ. Phys. Centrale de Russie, 1861, p. 455.³ Mém. de la Soc. de Phys. Geneva, XVI. 330.⁴ Nederlandsch. Meteorol. Jaarboek. 1862, p. 319.

- Mar. 7. *Christiania*. Hansteen.
 " 15. *Christiania*. Hansteen.
 Apr. 27. *Newberry*. Johnson.¹
 May 14. *Christiania*. Hansteen.
 July 27. *Leipsic*. Ballot.
 Aug. 4. *Worcester*. Bemis.² *Christiania*. Hansteen.
 " 14. *Worcester*. Bemis.
 " 18. *Worcester*. Bemis.
 " 22. *Newberry*. Johnson.
 " 28. *Worcester*. Bemis. *Christiania*. Hansteen.
 " 29. *Worcester*. Bemis. *Newberry*. Johnson.
 " 30. *Worcester*. Bemis. *Newberry*. Johnson.
 Sept. 1. *Christiania*. Hansteen.
 " 11. *St. Petersburg and Dorpat*. Ballot.
 " 17. *Christiania*. Hansteen.
 " 20. *Haparanda*. Ballot.
 " 21. *Christiania*. Hansteen.
 " 23. *Christiania*. Ballot.
 " 24. *Worcester*. Bemis. *Christiania*. Hansteen.
 " 25. *Worcester*. Bemis. *Newberry*. Johnson.
 " 25. *Christiania*. Hansteen.
 " 26. *Newberry*. Johnson. *Christiania*. Hansteen.
 " 27. *Worcester*. Bemis.
 Oct. 3. *Christiania*. Hansteen.
 " 4. *Christiania*. Hansteen. *Petersburg*. Ballot.
 " 10. *Reval, Russia*. Iwanoff.³
 " 11. *Montpellier*. Ballot.
 " 14. *Stockholm*. Ballot.
 " 23. *Christiania*. Hansteen.
 " 26. *Cherbourg?* Ballot.
 " 29. *Christiania*. Hansteen.
 " 30. *Christiania*. Hansteen.
 Nov. 10. *Christiania*. Hansteen.
 " 17. *Christiania*. Hansteen.
 Dec. 14. *Neuchatel*. Hirsch.⁴ *Brussels*. Quetelet.⁵
 " 14. *Christiania and Europe generally*. Ballot.
 " 23. *Newberry*. Johnson.
 " 24. *Worcester*. Bemis.⁶ *Christiania*. Hansteen.
 " 26. *Christiania*. Hansteen.

1863.

Jan. 25. *Christiania*. Hansteen.¹ Reports of Regents of the Univ. New York, 1863, p. 415.² Thirtieth Report of the Lunatic Asylum, p. 116.³ Corr. Annuell. des Mines de Russie, 1860, p. xxviii.⁴ Bull. Soc. Sci. Nat. Neuchatel. VI. 279.⁵ Annuaire de l'Observ. Royal de Brux. 1864, p. 200.⁶ Thirty-first Report of the Lunatic Asylum, p. 68.

- Jan. 26. *Christiania*. Hansteen.
 " 28. *Christiania*. Hansteen.
 Feb. 7. *Christiania*. Hansteen.
 " 8. *Worcester*. Bemis. *Christiania*. Hansteen.
 " 22. *Christiania*. Hansteen. *Stockholm*. Ballot.¹
 " 23. *Christiania*. Hansteen.
 " 24. *Christiania*. Hansteen.
 " 25. *Christiania*. Hansteen. *Stockholm*. Ballot.
 " 26. *Christiania*. Hansteen.
 Mar. 21. *Christiania*. Hansteen.
 " 22. *Worcester*. Bemis. *Christiania*. Hansteen.
 " 24. *Christiania*. Hansteen.
 Apr. 9. *Worcester*. Bemis. *New Haven*.²
 " 9. *Newburyport, Mass.* Perkins.
 " 9. *Christiania*. Hansteen. *Stockholm*. Ballot.
 " 15. *Christiania*. Hansteen.
 " 16. *Christiania*. Hansteen.
 " 17. *Christiania*. Hansteen.
 " 19. *Worcester*. Bemis.
 " 21. *Worcester*. Bemis.
 " 21. *Christiania*. Hansteen. *Munster*. Heis.
 " 24. *Christiania*. Hansteen.
 May 8. *Worcester*. Bemis.
 Aug. 14. *Christiania*. Hansteen.
 Sept. 9. *Worcester*. Bemis.
 " 23. *Worcester*. Bemis.
 " 24. *Christiania*. Hansteen.
 " 25. *Christiania*. Hansteen.
 Oct. 5. *Haparanda*. Ballot.
 " 7. *Christiania*. Hansteen.
 " 9. *Haparanda*. Ballot.
 " 10. *Christiania*. Hansteen.
 " 17. *Christiania*. Hansteen.
 " 20. *Christiania*. Hansteen.
 Nov. 5. *Christiania*. Hansteen.
 " 13. *Christiania*. Hansteen.
 " 14. *Christiania*. Hansteen.

1864.

June 7. *Cambridge*. Lovering.Aug. 14. *Campton, New Hampshire*. Lovering.Sept. 20. *Cambridge*. Bond. Lovering.Nov. 19. *Cambridge*. Lovering.¹ Nederlandsch. Meteorol. Jaarboek. 1863, p. 319.² Amer. Journ. Sci. Second Series, XXXV. 462.