the predicate of the last. Such was that merry argument of Themistoclee, to prove that his little son under ten years old governed the whole world : “ My son governs his mo­ther; his mother me; I the Athenians; the Athenians the Greeks ; Greece commands Europe ; Europe the whole world : therefore my son commands the whole world.”

SORRENTO, a city of Italy, in the province of Naples. It is finely situated among olive, citron, and pomegranate trees, and is the seat of an archbishop. It is on the sea coast, and has some foreign trade. The chief occupation is collecting and spinning silk. It was the birthplace of the poet Tasso. The surrounding hills are chiefly compos ed of tufa, which was originally lava ; and the doors and windowseats are generally formed of that substance. It contains 4240 inhabitants.

SORTILEGE *(Sortilegiυm),* a species of divination per formed by means of *sortes* or lots. The *sortes Prænestinæ,* famous in antiquity, consisted in putting a number of let ters, or even whole words, into an urn ; and then, after shaking them together, they were thrown on the ground ; and whatever sentences could be made out of them constituted the answer of the oracle. To this method of divination succeeded that which has been called the *sortes Homericæ* and *sortes Virgilianæ ;* a mode of inquiring into futurity which undoubtedly took its rise from a general custom of the oracular priests of delivering their answers in verse. It subsisted a long time among the Greeks and Ro­mans, and being from them adopted by the Christians, it was not till after a long succession of centuries that it be came exploded. Among the Romans it consisted in open .ing some celebrated poet at random, and among the Chris­tians the Scriptures, and drawing, from the first passage which presented itself to the eye, a prognostic of what would befell one’s self or others, or direction for conduct when under any exigency. There is good evidence that this was none of the vulgar errors ; the greatest persons, philosophers of the best repute, admitted this superstition. Socrates, when in prison, hearing this line of Homer,

**within three days I Phthia’s shore shall see,** immediately said, within three days I shall be out of the world ; gathering it from the double meaning of the word *Phthia,* which in Greek is both the name of a country and signifies corruption or death.

SORTINO, a city of the island of Sicily, in the province of Noto. It stands on a healthy spot on a gentle elevation, the ancient Xuthinum, 130 miles from Palermo, and is watered by a small stream. It contains 7300 inhabitants.

SORTINSKOI, a village of Tobolsk, in Asiatic Russia, seventy-two miles southsouthwest of Beresof.

SOSVA, the name of two considerable rivers in Asiatic Russia, in the government of Tobolsk. The first has a course of 160 miles. It rises in the Oural Mountains, about the sixtyfifth degree of north latitude, and running almost due east, falls into the Obi near Beresof, after receiving a smaller river of the same name, called the Little Sosva. The other river rises somewhat farther to the north, in the same chain of hills, and running southwards about 200 miles, joins the Sosva, where their united streams take the name of Tauda.

SOTERIA, in *Antiquity,* sacrifices offered to the gods for delivering a person from danger ; as also poetical pieces composed for the same purpose.

SOUDAN, a kingdom of Africa, situated between 11° and 16° north latitude, and 26° and 30° east longitude. See Africa.

SOUERICK, a town of Armenia, in the pachalic of Ourfa, and on the road from Ourfa to Diarbekir. It contains about 500 inhabitants, with three mosques and a strong castle. It is sixty miles northeast of Ourfa.

SOUGH, among miners, denotes a passage dug under ground to convey off waters from mines.

SOUITCHEOU, a city of China, of the first rank, situated at the confluence of the rivers Yan and Kincha, in a fertile though mountainous country. Long. 104. 23. E. Lat. 28. 40. N.

SOUL, the principle of perception, memory, intelligence, and volition, in man ; which, since the earliest era of philo sophy, has furnished questions of difficult investigation, and materials of keen and important controversy.

SOUND. So many things relating to this subject have been already treated at considerable length under the arti cle Acoustics, that what we now propose shall be chiefly confined to the propagation of sound in the atmosphere, which, as Laplace observes, affords the most important ap plication which has yet been made of the theory of elastic fluids. In this we shall first give the results of the princi pal attempts which have been made with the view of determining the velocity of sound experimentally ; and shall notice more particularly some of them which are of a later date, and were made with far greater precautions than any of those mentioned under the article just cited. We shall then advert to various important oversights and imperfections which still attach to this department of science, and to certain improvements of which it seems to be susceptible.

Results of Various Experiments on the Velocity Of Sound.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Observers. | Date. | Country. | Distance in Feet. | Velocity. | Temperature. |  |
| **Florentine Academicians...** | **1660** | **Italy** | **5,906** | **1148** |  | **Tentamina Acad. del Cimenta.** |
| **Cassini, Huygens, &c*.......*** |  | **France** | **9,239** | **1151** |  | **Hist. Acad. Royale, lib. ii.** |
| **Flamsteed and Halley** |  | **England** | **15,840** | **1142** |  | **Phil. Trans. 1708, 1709.** |
| **Derham** | **1704** | **England** | **5,280 to 63,360** | **1142** |  | **Ibid.** |
| **French Academicians** | **1738** | **France** | **18,744 to 102,824** | **1106** | **43° F.** | **Mém. de l'Acad. 1738, 1739.** |
| **Cassini and Lacaille** | **1739** | **France** | **144,124** | **1110** |  | **Ibid.** |
| **Bianconi** | **1740** | **Italy** | **78,740** | **1043** |  | **Comment. Bononiensis, vol. ii.** |
| **La Condamine** | **1740** | **Quito** | **67,400** | **1112** |  | **La Condamine, Introd. Hist. 1751.** |
| **La Condamine** | **1744** | **Cayenne** | **129,360** | **1175** |  | **Mém. de l’Acad. 1745.** |
| **T. F. Maver** | **1778** | **Germany** | **3,412** | **1105** |  | **Mayer, Prakt. Geometrie, 1792.** |
| **G. E. Müller** | **1791** | **Germany** | **8,530** | **1109** |  | **Müller, Gelehrt Anzeige, 1791.** |
| **Espinoza and Bauza** | **1794** | **Chili......** | **53,626 to 14,071** | **1222·3** | **74°·7** | **Ann. de Chimie, vii. 93.** |
| **Benzenberg** | **1809** | **Germany** | **29,764** | **1093** | **32** | **Gilbert’s Annalen, N. Folge, b. v.** |
| **Goldingham...** | **1321** | **India** | **13,932 to 29,547** | **1086∙7** | **32** | **Phil. Trans. 1823, p. 96.** |
| **Myrbach** | **1822** | **Germany** | **32,615** | **1092·1** | **.32** | **Mean of eightyeight experiments.** |
| **Λrago, Matthieu,** | **1822** | **France** | **61,064** | **1086∙l** | **32** | **Conn. des Terns, 1825.** |
| **Moll, Van Beek, &c** | **182.3** | **Holland** | **57,971·2** | **1089·5** | **33** | **Phil. Trans. 1824, p. 424.** |
| **Gregory** | **1823** | **England** | **2,700 to 13,460** | **1088∙l** | **32** | **Phil. Magazine, June 1824.** |
| **Parry and Foster** | **1825** | **Polar Regions..** | **12,892·9 ....** | **1035·2** | **— 17·7** | **Phil. Trans. 1828, p. 97** |

**The reduction of such results to 32° Fahrenheit is usually made conformably to the expansion of air given by Dalton, Gay Lussac, &c., "which is nearly at the rate of 1·14 foot for each degree. The expansion of Rudberg, about to be noticed, being rather smaller, would slightly lessen the reduction.**