other forest cantons in opposing the Reformation and took part in the battle of Kappel (1531), in which Zwingli fell. In 1586 it became a member of the Golden or Borromean League, formed to continue the work of St Charles Borromeo in carrying out the counter reformation in Switzerland. In 1798 Schwyz, including Gersau (free from 1390), formed part of the République Telliane (or Tellgau) set up by the French, which a week later gave way to the Helvetic republic. The men of Schwyz, under Aloys Reding, offered a valiant resistance to the French, but they were forced to yield. Their land formed part of the vast canton of the Waldstätten, though the March and the Höfe were lost to that of the Linth. In 1799 a French occupation was successfully resisted, while later in the same year part of the canton was the scene of the disastrous retreat from Altdorf to Glarus over the Kinzigkulm and Pragel passes by the Russians under Suvarov in face of the French army. In 1803 the separate canton of Schwyz was again set up, the March and the Höfe being recovered, while Gersau now became part of it. In 1806 the great landslip from the Rossberg buried Goldau, causing great loss of life and of property. Later, Schwyz resisted steadily all proposals for the revision of the pact of 1815, joined in 1832 the league of Sarnen, and in 1845 the Sonderbund, which was put down by a short war in 1847. In 1832 the outer districts (Einsiedeln, the March, Küssnacht and Pfäffikon) formed themselves into a separate canton, an act which brought about a federal occupation of the old canton in 1833, this ending in the dissolution of the new canton, the constituent parts of which were put on an equal political footing with the rest. In 1838 a strife broke out in the older portion of the canton between the richer peasant proprietors (nicknamed the “ Horns,” as they owned so many cows) and the poorer men (dubbed the “ Hoofs,” as they possessed only goats and sheep) as to the use of the common pastures, which the “ Horn ” party utilized far more than the others. The “ Horn ” party finally carried the day at the Landsgemeinde held at Rothenthurm. The cantonal constitution of 1848 put an end to the ancient Lands- gemeinde; it was revised in 1876 (when membership of one of the 29 communes became the political qualification), and in 1898.

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SCHWYZ, the capital of the Swiss canton of that name, a picturesque little town, admirably situated, amid fruit trees, on a mountain terrace (at a height of 1706 ft.), commanding a glorious view, at the north-west foot of the conical peak of the Gross Mythen (6240 ft.), and at a considerable height above the valley of the Muota. Besides a stately 18th century parish church and several convents, it contains a 16th century town hall (housing various precious MSS. and banners captured in various wars), as well as several curious old patrician houses, such as that of the Reding family, a member of which, Aloys (1765-1818), headed the patriotic resistance to∣the French in 1798-1799. Including the neighbouring hamlets of Ibach, Rickenbach, &c., the parish had 7398 inhabitants in 1900, practically all German-speaking and Romanists. The town is connected by an electric tramway with the Schwyz-Seewen station on the St Gotthard railway, about 3 m. from Brunnen, the port of Schwyz on the lake of Lucerne.

SCIACCA, a town and episcopal see of Sicily, on the S. coast, in the province of Girgenti, 45 m. N.W. of Girgenti by road,

and about 30 m. direct. Pop. (1906) 24,645. It is surrounded by walls erected in 1400, and has two ruined castles, belonging to the Luna and Perollo families, whose hereditary feuds lasted from 1410 to 1529, some fine medieval palaces, and several interesting churches. The cathedral, founded in 1090, was largely reconstructed in 1686. The convent of Sta. Maria delle Giummare, with its battlemented walls, occupies the former palace of the Saracen governors, and contains a painting of the foundation of the convent by Count Roger. The town has only an open roadstead. It has an important trade in coral.

Three miles E. of the town is the Monte San Calogero (the ancient Mons Cronius) with sulphurous and saline springs and vapour baths, which are still frequented and were known in Roman times as Aquae Larodes or Thermae Selinuntiae (Sciacca is about 15 m. direct S.E. of Selinus). The name Sciacca is Arabic, but of uncertain meaning. The town is the birthplace of Tommaso Fazello (1498-1570), the father of Sicilian history.

SCIATICA (from a late Lat. corruption, *sciaticus,* of Gr. *íσχιαδιaκοs,* from *ισχιοv,* the hip-joint), a form of neuralgia localized in the sciatic nerve, or its cords of origin; see Neur­algia.

SCIENCE (Lat. *scientia,* from *scire,* to learn, know), a word which, in its broadest sense, is synonymous with learning and knowledge. Accordingly it can be used in connexion with any qualifying adjective, which shows what branch of learning is meant. But in general usage a more restricted meaning has been adopted, which differentiates “ science ” from other branches of accurate knowledge. For our purpose, science may be defined as ordered knowledge of natural phenomena and of the relations between them; thus it is a short term **for** “ natural science,” and as such is used here technically **in con­**formity with a general modern convention.

The beginnings of physical science are to be sought in the slow and unconscious observation by primitive races of men of natural occurrences, such as the apparent move­ments of the heavenly bodies, and in the gradually acquired mastery over the rude implements by the aid of which such men strove to increase the security and comfort of their lives. Biological science similarly must have begun with observation of the plants and animals useful to man, and with empirical medicine and surgery. It was only when a considerable progress had been made with ordered knowledge that men began to ask questions about the meaning and causes of the phenomena, and to discern the connexions between them.

In the earliest stage of development it seems that an anthropo­morphic or mythological explanation is always assigned to the phenomena of nature. With no clue to trace the regularity of sequence and connexion between those phenomena, an untutored mind inevitably refers the apparently capricious events which succeed each other to the direct and immediate intervention of some unseen being of a nature essentially similar to his own. The sun is the flaming chariot of the sun-god, driven day by day across the heavens; the clouds are cows from which milk descends as nourishing rain on the fruitful earth. We may regard such myths as childlike fancies, but they were doubtless an advance on the want of all explanation which preceded them; they supplied hypotheses which, besides giving rise to themes of beauty and suggestiveness for poetry and art, played the first and chief part of a scientific hypothesis in pointing the way for further inquiry. Much useful knowledge was acquired and much skill gained in logical analysis before these primitive explana­tions were proved insufficient. A false theory which can be compared with facts may be more useful at a given stage of development than a true one beyond the comprehension of the time, and incapable of examination by observation or experiment by any means then known. The Newtonian theory of gravitation might be useless to a savage, to whose mind the animistic view of nature brought conviction and helpful ideas, which he could test by experience.

The phenomena of the heavens are at once the most striking, the most easily observed and the most regular of those which