such words and apparitions mean, and what indications they afford to this man or that, of past, present or future good and evil. But, while he continues demented, he cannot judge of the visions which he sees or the words which he utters. . . . And for this reason it is customary to appoint diviners or interpreters to be judges of the true inspiration.”@@1 From such passages as the above we infer that the gift of tongues and of their inter- pretation was not peculiar to the Christian Church, but was a repetition in it of a phase common in ancient religions. The very phrase *yλωσσaιs λαλeιv,* "to speak with tongues,” was not invented by the New Testament writers, but borrowed from ordinary speech.

Virgil (*Aen.* vi. 46, 98) draws a life-like picture of the ancient prophetess “ speaking with tongues.” He depicts her quick changes of colour, her dishevelled hair, her panting breast, her apparent increase of stature as the god draws nigh and fills her with his divine afflatus. Then her voice loses its mortal’s ring: “ nec mortale sonans.” The same morbid and abnormal trance utterances recur in Christian revivals in every age, *e.g.* among the mendicant friars of the 13th century, among the Jansenists, the early Quakers, the converts of Wesley and Whitefield, the persecuted protestants of the Cevennes, the Irvingites.

Oracular possession of the kind above described is also common among savages and people of lower culture; and Dr Tylor, in his *Primitive Culture,* ii. 14, gives examples of ecstatic utterance interpreted by the sane. Thus in the Sandwich Islands the god Oro gave his oracles through a priest who “ ceased to act or speak as a voluntary agent, but with his limbs convulsed, his features distorted and terrific, his eyes wild and strained, he would roll on the ground foaming at the mouth, and reveal the will of the god in shrill cries and sounds violent and indis- tinct, which the attending priests duly interpreted to the people.”

See E. B. Tylor, *Primitive Culture;* H. Weinel, *Die Wirkungen des Geistes und der Geister* (Freiburg, 1899); Shaftesbury’s *Letter on Enthusiasm;* Mrs Oliphant, *Life of Irving,* vol. ii. (F. C. C.)

**TONK,** a native state of India, in the Rajputana agency. It consists of six isolated tracts, some of which are under the Central India agency. Total area, 2553 sq. m.; total population (1901), 273,201; estimated revenue £77,000. No tribute is payable. The chief, whose title is nawab, is a Mahommedan of Afghan descent. The founder of the family was Amir Khan, the noto- rious Pindari leader at the beginning of the 19th century, who received the present territory on submitting to the British in 1817. The nawab Mahommed Ibrahim Ali Khan, G.C.I.E., succeeded in 1867, and was one of the few chiefs who attended both Lord Lytton’s Durbar in 1877 and the Delhi Durbar of 1903 as rulers of their states. The late minister, Sir Sahibzada Obeidullah Khan, was deputed on political duty to Peshawar during the Tirah campaign of 1897. Grain, cotton, opium and hides are the chief exports. Two of the outlying tracts of the state are served by two railways. Distress was caused by drought in 1899-1900. The town of Tonk is situated 1462 ft. above sea-level, 60 m. by road south from Jaipur, near the right bank of the river Banas. Pop. (1901), 38,759. It is surrounded by a walI, with a mud fort. It has a high schooI, the Walter female hospital under a lady superintendent, and a hospital for males.

There is another town in India called Tonk, or Tank, in Dera Ismail Khan district, North-West Frontier Province; pop. (1901), 4402. It is the residence of a nawab, who formerly exercised semi-independent powers. Here Sir Henry Durand, lieutenant- governor of the Punjab, was killed in 1870 when passing on an elephant under a gateway.

**TONNAGE.** The mode of ascertaining the tonnage of mer­chant ships is settled by the Merchant Shipping Acts. But before explaining the method by which this is computed, it is well to remark that there are several tonnages employed in different connexions. *Displacement tonnage* is that which is invariably used in respect of warships, and is the actual weight of water displaced by the vessel whose tonnage is being dealt

with. Men-of-War are designed to carry all their weights, including coal, guns, ammunition, stores and water in tanks and in boilers, at a certain draught, and the tonnage attributed to them is the weight of water which at that designed draught they actually displace. This displacement tonnage is therefore a total made up of the actual weight of the ship’s fabric and that of everything that is on board of her. It can be found by ascertaining the exact cubic space occupied by the part of her body which is immersed (including her rudder, propellers and external shafting) at the draught under consideration in cubic feet, and dividing this by 35, since 35 cubic feet of sea-water weigh one ton. Of course there is nothing to prevent displacement tonnage from being used in describing the size of merchant ships, and indeed in regard to the performances of fast steam- ships on trial it is usual to give their draught on the occasion when they are tested, and to state what was their actual displacement under these trial conditions. But it is obvious, from what has been said as to the components which go to make up the displacement at load draught, that this tonnage must, in respect of any individual ship, be the greatest figure which can be quoted in regard to her size. It is usual for dues to be assessed against merchant vessels in respect of their *registered tonnage.* This must therefore be fixed by authority, and at present vessels are measured by the officer of customs according to the rules laid down in the second schedule to the Merchant Shipping Act 1894. As will be seen from the explanation of the method adopted, this is a somewhat arbitrary process, and even the gross registered tonnage affords little indication of the actual size of the ship, whilst the under-deck and net tonnages are still less in accord with the extreme dimensions.

As to *length for tonnage,* the measurements start with the tonnage deck, which in vessels with less than three decks is the upper, and in vessels of three or more decks is the second from beIow. The length for tonnage is measured in a straight line along this deck from the inside of the inner plank at the bow to the inside of the inner plank at the stern, making allowance for the rake, if any, which the midship bow and stern timbers may have in the actual deck. When this is measured it is apparent into which of five classes the ship’s tonnage-length places her. If she be under 50 ft. in length she falls into the first class, while if she be over 225 ft. in length she falls into the fifth class, the remaining three classes being intermediate to these. Vessels of the first class are measured as in four equal sections, and vessels of the larger class as in twelve equal sections, according to their length. Then at each of the points of division so marked off *transverse areas* are taken. This is done by measuring the depth in feet from a point at a distance of one- third of the round of the beam below the tonnage deck to the upper side of the floor timbers. Where the vessel has a ceiling and no water-ballast tanks at the point of measurement, 2½ in. is allowed for ceiling. But where there are such tanks the measurement is taken from the top of the tank and no allowance is made for ceiling, whether there in fact be any or not. If the midship depth so found exceeds 16 ft., each depth is divided into six equal parts, and the horizontal breadths are measured at each point of division and also at the upper and lower points of the depth, extending each measurement to the average thickness of that part of the ceiling which is between the points of measurement. They are then numbered from above, and the second, fourth and sixth multiplied by four, whilst the third and fifth are multiplied by two. The products are then added together. To the sum are added the first and the seventh breadths. This total having been multiplied by one-third the common interval between the breadths, the resultant is the transverse area. The transverse areas so obtained at each point of the vessel’s length are numbered from the bow aft. Omitting the first and last, the second and every even area so obtained are multiplied by four, whilst the third and every odd area are multiplied by two. These products are added together, as are also those of the first and last areas if they yield anything, and the figure thus reached is multiplied by one-third of the common interval between the areas. This product is reckoned as the *cubical capacity of the*

@@@1 Jowett's translation.