Oxford statute. At the time of the Conquest Stamford was governed by aldermen. It was incorporated by charter in the reign of Edward IV. In 1663 it received a charter from Charles II., constituting its chief magistrate a mayor. It returned two members to parliament from the reign of Edward I. till 1867, and one from 1867 to 1885. The deanery of Stamford is an ancient peculiar, the appointment being vested in the bishop of Lincoln.

STAMFORD, a borough of the United States, in Fairfield county, Connecticut, is situated on Long Island Sound, 35 miles north-east of New York city, on the New York, New Haven, and Hartford Railroad. It has a small harbour accessible to steamboats by means of a canal ; and among its public buildings are the town-hall and several handsome churches. Locks, carriages, stoves, fire-bricks, edge-tools, cranes, hardware, hosiery, and especially log­wood extract and liquorice are manufactured in the borough. The population was 9714 in 1870 and 11,297 in 1880.

STAMMERING, or Stuttering, designates a spas­modic affection of the organs of speech in which the articulation of words is suddenly checked and a pause ensues, often followed by a repetition in rapid sequence of the particular sound at which the stoppage occurred. Of this painful affection there are many grades, from a slight inability to pronounce with ease certain letters or syllables, or a tendency to hesitate and to interject unmeaning sounds in a spoken sentence, to the more severe condition in which there is a paroxysm of spasms of the muscles, not only of the tongue and throat and face, but even of those of respiration and of the body generally. To under­stand in some degree the explanation of stammering it is necessary to consider shortly the physiological mechanism of articulate speech. Speech is the result of various muscular movements affecting the current of air as it passes in expiration from the larynx through the mouth. If the vocal cords are called into action, and the sounds thus produced are modified by the muscular movements of the tongue, cheeks, and lips, we have vocal speech ; but if the glottis is widely open and the vocal cords relaxed the current of air may still be moulded by the muscular apparatus so as to produce speech without voice, or whisper­ing (see Voice). In both cases, however, the mechanism is very complicated, requiring a series of nervous and muscular actions, all of which must be executed with pre­cision and in accordance. In vocal speech, for example, it is necessary that the respiratory movements, more espe­cially those of expiration, occur regularly and with nice adjustment to the kind of articulate expression required ; that the vocal cords be approximated and tightened by the muscles of the larynx acting with delicate precision, so as to produce the sound of the pitch desired ; that the *rima glottidis* (or aperture of the larynx) be opened so as to produce prolonged sounds, or suddenly closed so as to cut off the current of air ; that the movements of the muscles of the tongue, of the soft palate, of the jaws, of the cheeks, and of the lips occur precisely at the right time and to the requisite extent ; and finally that all of these muscular adjustments take place with rapidity and smoothness, gliding into each other without effort and without loss of time. Exquisite co-ordination of muscular movement is therefore necessary, involving also complicated nervous actions. Hence is it that speech is acquired by long and laborious effort. A child possesses voice from the beginning ; it is born with the capacity for speech ; but articulate expression is the result of education. In infancy, not only is knowledge acquired of external objects, and signs attached in the form of words to the ideas thus awakened, but the nervous and muscular mechanisms by which these signs or words receive vocal expression are trained by long practice to work harmoniously.

It is not surprising, therefore, that in certain cases,

owing to some obscure congenital defect, the co-ordination is not effected with sufficient precision, and that stammer­ing is the result. Even in severe cases no appreciable lesion can be detected either in the nervous or muscular mechanisms, and the condition is similar to what may affect all varieties of finely co-ordinated movements. The mechanism does not work smoothly, but the pathologist is unable to show any organic defect. Thus the co-ordinated movements necessary in writing are disturbed in scrivener’s palsy, and the skilful performer on the piano or on any instrument requiring minute manipulation may find that he is losing the power of delicate adjustment. Stammer­ing is occasionally hereditary. It rarely shows itself before the age of four or five years, and as a rule it is developed between this age and puberty. Men stammer in a much larger proportion than women. It may occur during the course of nervous affections, such as hysteria, epilepsy, or tabes dorsalis; sometimes it follows febrile disorders ; often it develops in a child in a feeble state of health, without any special disease. In some cases a child may imitate a stammerer and thus acquire the habit. Any general enfeeblement of the health, and especially nervous excitement, aggravates the condition of a con­firmed stammerer.

Stammerers, as a rule, find the explosive consonants *b*, *p, d, t, k,* and hard *g* the most difficult to articulate, but many also are unable easily to deal with the more con­tinuous consonants, such as *v, f th, s, z, sh, m, n, y,* and in severe cases even the vowels may cause a certain amount of spasm. Usually the defect is not observed in whispering or singing; but there are exceptions to this statement. In pronouncing the explosive sounds the part of the oral apparatus that ought suddenly to open or close remains spasmodically closed, and the stammerer remains for a moment voiceless or strives pitifully to overcome the obstruction, uttering a few successive puffs or sounds like the beginning of the sound he wishes to utter. The lips thus remain closed at the attempted utterance of *b* and *p ;* the tip of the tongue is pressed against the hard palate or the back of the upper front teeth in *d* and *t* ; and the back of the tongue presses against the posterior part of the palate in pronouncing *g* hard and *k.* In attempting the continuous consonants, in which naturally the passage is not completely obstructed, the stammerer does not close the passage spasmodically, but the parts become fixed in the half-opened condition, or there are intermittent attempts to open or close them, causing either a drawling sound or coming to a full stop. In severe cases, where even vowels cannot be freely uttered, the spasm appears to be at the *rima glottidis* (opening of the larynx). Again, in some cases, the spasm may affect the respiratory muscles, giving rise to a curious barking articulation, in consequence of spasm of the expiratory muscles, and in such cases the patient utters the first part of the sentence slowly, grad­ually accelerates the speed, and makes a rush towards the close. In the great majority of cases the spasm affects the muscles of articulation proper, that is, those of the pharynx, tongue, cheeks, and lips. In the most aggravated cases the condition of the patient is pitiable. It has thus been well described by Dr Bristow in an article full of inter­esting details :—

“The most distressing cases are those in which the spasm extends to parts unconnected with speech,—it may be to nearly the whole muscular organism. In such a case the spasm com­mences, let us assume, at the base of the tongue ; the mouth opens widely and remains in that position ; the muscles of expiration work convulsively ; the glottis contracts ; respiration becomes arrested ; the face becomes congested and the veins dilated ; violent spasmodic movements involve the trunk and limbs ; and only alter some time, either when the patient becomes exhausted, or when he resolutely restrains his attempts to articulate, does his paroxysm come to an end.”—*Quαin's Dictionary of Medicine,* p. 1513.