eruption of any kind on the skin was generally observed ; Caius makes no allusion to such a symptom. In the later stages there was either general prostration and collapse, or an irresistible tendency to sleep, which was thought to be fatal if the patient were permitted to give way to it. The malady was remarkably rapid in its course, being sometimes fatal even in two or three hours, and some patients died in less than that time. More commonly it was protracted to a period of twelve to twenty-four hours, beyond which it rarely lasted. Those who survived for twenty-four hours were considered safe.

The disease, unlike the plague, was not especially fatal to the poor, but rather, as Caius affirms, attacked the richer sort and those who were free livers according to the custom of England in those days. *“ They* which had this sweat sore with peril or death were either men of wealth, ease, or welfare, or of the poorer sort, such as were idle persons, good ale drinkers, and taverne haunters. ”

Relapses were not uncommon; but the statements sometimes made about the disease attacking the same person several times seem to rest on a misunderstanding of the original authorities. What is meant is that they had several, even twelve, successive attacks of sweating. The disease was not thought to be transmitted by contagion from one person to another. Nevertheless, in its spread, it appears, like cholera, to have followed the main lines of human travel and traffic,—passing with Richmond’s army to Bos­worth, thence to London, and so on. It would be difficult other­wise to explain why Calais should have been affected and not the adjacent parts of France. Even the very circumstantial story of the disease having been brought to Hamburg by a ship from England seems by no means incredible, though it is doubted by some.

*Causes.—*Some attributed the disease to the English climate, its moisture and its fogs, a view which was thought to be supported by the occurrence of unusual rainfall and atmospheric moisture in the years of the sweating-sickness. But it is plain that the English climate was much the same before and after, and can hardly be regarded even as a predisposing cause, certainly not as an explana­tion. Nor is there much evidence that the epidemic years were distinguished for their humidity.

In 1485, 1507, and 1517 the seasons were in no way remarkable. The year 1528 (1529 in Continental reckoning) was, however, cer­tainly notable for excessive moisture. In England eight weeks continuous rain began in April, and the harvest was spoiled. In Germany the copious rainfall, and the cold fogs which endured through the summer, gave the impression that the air of England had been carried over to the Continent. In 1551 the outbreak of the sickness in Shrewsbury is described as having been preceded by dense and stinking fogs, which arose from the valley of the Severn and spread over other parts of England. The summer was everywhere very hot, and in England moist as well. In Amsterdam a similar fog announced the outbreak of the sickness in 1528. But we cannot attribute much importance to these circumstances, since in other epidemics they were wanting, and similar conditions have often occurred without any pestilence resulting.

It was again attributed by some to the intemperate habits of the English people, and to the frightful want of cleanliness in their houses and surroundings whieh is noticed by Erasmus in a well- known passage, and about which Caius is equally explicit. But causes such as these cannot, any more than climate, account for the incidence in time of an epidemic, even if they do something towards explaining its geographical range. Nor is there much evidence that the English were worse in these respects than most European nations, though the native country of Erasmus may have set an early example of cleanliness.

Caius and some of the chroniclers make out that this special liability of Englishmen to the sweating-sickness followed them even into foreign parts, so that in Calais, Brabant, and Spain it affected the English only and not the natives. This is puzzling and improbable, except so far that the English abroad may have belonged to the same classes who mainly suffered at home. But a careful examination of those statements shows that they referred either to Englishmen who had left England while the disease was raging there and carried the infection with them, or to merchants and others who were in direct communication with home. This disease, like others introduced into a foreign country, did not always take root there. But it did so sometimes, as, according to contem­porary evidence, was the case in Flanders in 1551. The statement also made that foreigners in England were not affected likewise requires qualification, since we know several instances of foreigners in London who died of it. On the whole, no great importance can be attached to this supposed special liability of the English physical constitution.

From all this we must conclude that climate, season, and manner of life were not adequate, either separately or collectively, to pro­duce the disease, though each may have acted sometimes as a pre­disposing cause. The sweating-sickness was in fact, to use modern language, a specific infective disease, in the same sense as plague, typhus, scarlatina, or ague. The origin of such diseases is not

explained by causes such as those above enumerated. We can only suppose that they come into being by laws similar to those which have determined the evolution of species of animals and plants. But when once their specific distinctness is established they “ breed true” and always present the same characters.

*Probable Identity with Miliary Fever.—*The important question, however, arises—Did this specific disease exist before or has it existed after the sixty-six years of its recognized history? or is it identical with any other known disease called by another name? It is very unlikely that any epidemic of so striking a disease should have existed before without having been noticed, and there is certainly no record since of any outbreak precisely similar. The only disease of modern times which bears any resemblance to the sweating-sickness is that known as miliary fever (“Schweiss- friesel,” “suette miliaire,” or “the Picardy sweat”), a malady which has been repeatedly observed in France, Italy, and Southern Germany, but not in the United Kingdom. It is characterized by intense sweating, and occurs in limited epidemics, not lasting in each place more than a week or two (at least in an intense form). On the other hand, the attack lasts longer than the sweating-sickness did, is always accompanied by an eruption of vesicles, and is not usually fatal. It is therefore evidently not the same as the English disease, though allied to it. The first clearly described epidemic was in 1718 (though probably it existed before), and the last in 1861. Between these dates some one hundred and seventy-five epidemics have been counted in France alone. A single epidemic of a disease which had a striking resemblance to the sweating- sickness was observed in 1802 at Rottingen, a village in the district of Würzburg, Germany. Its access was sudden; it affected chiefly robust persons; it was accompanied by profuse perspiration, rheumatic pains, &c., without any constant eruption. If death resulted it was usually in twenty-four hours. The epidemic lasted some ten days, and then entirely vanished. It may be considered as an extremely severe form of miliary fever. Finally, Hirsch has drawn attention to certain cases of a choleraic affection, observed first by Dr Murray in India (1839-40), which has been described as a sweating-sickness. It has, however, more resemblance to miliary fever than to the English sweat. A similar form of disease has been described by some French physicians as “choléra cutané ou sudoral. ” On a review of the whole evidence, it would appear that the only disease which the sweating-sickness much resembled was the miliary fever, of which it may conceivably have been, like the Rottingen epidemic; a highly malignant form.

*Where did it Originate* ?—Whether it really originated in England is a question difficult to answer. Its appearance certainly coincided with the arrival of a foreign army, consisting, as we know, largely of foreign mercenaries, men of foul habits and irregular lives (whom the French king was thought to have done his country a service by getting rid of), and crowded into small vessels. Among such men any infective disease which arose would, by want of cleanliness and overcrowding, be likely to be fostered into great intensity. It is in accordance with the history of many epidemics to suppose that an ordinary and not very fatal disease might under such circumstances assume a malignant form.@@1 Now, supposing that the French soldiers brought with them their native “Picardy sweat,” a malady local and not severe in its French home, might not this have become developed into the formidable English sweat­ing-sickness ? If so, its great destructiveness in England would also be in great measure explained by its affecting a new popula­tion. For we find that any exported epidemic disease is generally more fatal in a country which receives it for the first time, among a population which offers a virgin soil to the disease, than it was in the country where it was endemic, and where men were inured to the infection. The notable exemption of northern France from the true sweating-sickness would then have depended upon the population there being already inured to a milder form of the same disease. As to southern France and other countries of the south, they were evidently not adapted by climate to receive the infection. If this be true, we need hardly expect to see the sweating-sickness again. The sweat of Picardy may continue from time to time to produce its comparatively slight epidemics; but the conditions which launched the English sweat on its rapid career of destruc­tion are unlikely to occur a second time. The example of the Rottingen epidemic, which on a small scale was scarcely less re­markable, may show, however, that such an event is not quite impossible.

*Authorities.—*For history see Bacon’s *Life of Henry VII.,* and the chronicles of Grafton, Holinshed, Baker, Fahyan, «fee. The only English medical account is that of John Caius, who wrote in English *A Boke or Counseill Against the Disease commonly called the Sweate, or Sweating Sicknesse* (London, 1552), and in Latin *De Ephemera Britannica* (Louvain, 1556 ; reprinted London, 1721). The English tract is reprinted in Babington’s translation of Hecker’s *Epidemics of the Middle Ages,* Syd. Soc., 1844. This also contains Hecker’s valuable treatise on the English sweat, published in German, 1834, and also printed in his *Υolkskrank- heiten des Mittelalters,* edited by Hirsch, Berlin, 1865. Grüner’s *Scriptores de Sudore Anglico,* Jena, 1847, contains nearly all the original documents, including the two treatises of Caius. See also Hirsch, *Handbook of Geographical and Historical Pathology,* transl. by Creighton, New Syd. Soc., 18S5. (J. F. P.)

@@@1 This is the case even with the oriental plague itself. See Plague.