afterwards the subject of some dispute. Edward I. restored to it several free customs of which it had been deprived. Afterwards it received a confirmation of its various former charters by Edward II. and Richard II.

TYPE-FOUNDING. See Typography.

TYPE-WRITING. See Writing Machines.

TYPHON, or Typhoeus, son, according to Hesiod *(Theog.,* 820 *sq.),* of the Earth and Tartarus, is described as a grisly monster with a hundred dragons’ heads who was conquered and cast into Tartarus by Zeus. According to *Iliad* ii. 282, he lies in the land of the Arimi (Cilicia). Other legends place his prison under Ætna or in other volcanic regions and make him the cause of eruptions. The myth, there­fore, as we have it, rests on a personification of volcanic forces. He is the father of dangerous winds (typhoons), and by later writers is identified with the Egyptian Set (see vol. vii. p. 717).

TYPHUS, TYPHOID, and RELAPSING FEVERS. These are conveniently considered together, as they con­stitute the important class of continued fevers, having certain characters in common, although each is clearly dis­tinguishable from the others. The following is a general account of the more salient features of each.

Typhus Fever.

Typhus@@1 is a continued fever of highly contagious nature, lasting for about fourteen days and characterized mainly by great prostration of strength, severe nervous symptoms, and a peculiar eruption on the skin. It has received numerous other names, such as spotted, pestilential, putrid, jail, hospital fever, &c. It appears to have been known for many centuries as a destructive malady, frequently appearing in epidemic form, in all countries in Europe, under the con­ditions to be afterwards referred to. The best accounts of the disease are those given by English writers, who narrate its ravages in towns and describe many “ black assizes,” in which it was communicated by prisoners brought into court to the judges, jurymen, court-officials, &c., with fatal effect, producing oftentimes a widespread consternation. Typhus fever would seem to have been observed in almost all parts of the world ; but, although not unknown in warm countries, it has most frequently prevailed in temperate or cold climates.

The causes concerned in its production include both the predisposing and the exciting. Of the former the most powerful of all are those influences which lower the health of a community, especially overcrowding and poverty. Hence this fever is most frequently found to affect the poor of large cities and towns, or to appear where large numbers of persons are living crowded together in unfavour­able hygienic conditions, as has often been seen in prisons, workhouses, &c. Armies in the field are also liable to suffer from this disease ; for instance, during the Crimean War it caused an enormous mortality among the French troops. Some high authorities, including Dr Murchison, have held that such conditions as those referred to are capable of generating typhus fever by themselves, and the apparent occasional *de novo* origin of this disease has doubtless the support of many striking facts which would appear to favour this view (see Pathology, vol. xviii. p. 803). In the light, however, of recent researches into the relation of specific disease germs to the production of fevers and other infectious maladies, there is increasing difficulty in maintaining this position ; and the direction of opinion is decidedly towards the view that, however much insani­tary conditions and overcrowding act as causes predispos­ing to the reception of the disease, the introduction into the system of a living organism or germ is necessary to the manifestation of the phenomena of the fever. Never­theless no specific organism has yet been clearly identified

in the case of typhus fever. This disease is now much less frequently encountered in medical practice than formerly, —a fact which must mainly be ascribed to the great attention which in recent times has been directed to improvement in the sanitation of towns, especially to the opening up of crowded localities so as to allow the free circulation through them of fresh air. In most large cities, however, limited epidemic outbursts of the disease occur from time to time, under the conditions of over­crowding and poverty, although the increased facilities possessed by local authorities for recognizing such out­breaks, and for the prompt isolation or removal of infected persons to hospitals, operate in general effectually to prevent any extensive spread of the fever. All ages are liable to typhus, but the young suffer less severely than the old. The disease appears to be communicated by the ex­halations given off from the bodies of those suffering from the fever, and those most closely in contact with the sick are most apt to suffer. This is shown by the frequency with which nurses and physicians take typhus from cases under their care. As in all infectious maladies, there is often observed in typhus a marked proclivity to suffer in the case of individuals, and in such instances very slight exposure to the contagion may convey the disease. Typhus is highly contagious throughout its whole course and even in the early period of convalescence. The contagion, how­ever, is rendered less active by the access of fresh air; hence this fever rarely spreads in well-aired rooms or houses where cases of the disease are under treatment. As a rule one attack of typhus confers immunity from risk of others, but numerous exceptions have been recorded.

The course of typhus fever is characterized by certain well-marked stages. (1) The stage of *incubation,* or the period elapsing between the reception of the fever poison into the system and the manifestation of the special evidence of the disease, is believed to vary from a week to ten days. During this time, beyond feelings of languor, no particular symptoms are exhibited. (2) The *invasion* of the fever is in general well marked and severe, in the form of a distinct rigor, or of feelings of chilliness lasting for hours, and a sense of illness and prostration, together with headache of a distressing character and sleeplessness. Feverish symptoms soon appear and the temperature of the body rises to a considerable height (103°-105° Fahr.), at which it continues with but little daily variation until about the period of the crisis. It is, however, of import­ance to observe certain points connected with the tem­perature during the progress of this fever. Thus about the seventh day the acme of the fever heat has been reached, and a slight subsidence (1° or less) of the tem­perature takes place in favourable cases, and no further subsequent rise beyond this lowered level occurs. When it is otherwise, the case often proves a severe one. Again, when the fever has advanced towards the end of the second week, slight falls of temperature are often observed, prior to the extensive descent which marks the attainment of the crisis. The pulse in typhus fever is rapid (100-120

@@@1 From τὐ*φος,* smoke or mist, in allusion to the stupor of the disease.