surface of life, and endowed with a remarkable faculty of reproducing his impressions in striking imaginative pictures. His style is often rough and careless, but his artistic defects are never serious enough to interrupt the free development of his fresh and vivid conceptions.

Another German writer of Switzerland whose name is well known beyond the limits of his own country is Gottfried Keller. He established his reputation by his

romance *Der Grüne Heinrich* (1854), and afterwards he published *Die Leute von Seldwyla,* a series of tales of village life, and *Sieben Legenden.* He is also the author of some volumes of poems.

See E. H. Gaullieur, *Études sur l'Histoire Littéraire de la Suisse Française* (1856) ; J. C. Mörikofer, *Die schweizerische Literatur des achtzehnten Jahrhunderts* (1861) ; and E. Weber, *Die poetische Nationalliteratur der deutschen Schweiz* (1866-67). (J. SI. )

SWORD. *Origins and Early Forms.—*The sword is a hand-weapon of metal, distinct from all missile weapons on the one hand, and on the other hand from staff-weapons, —the pike, bill, halberd, and the like,—in which the metal head or blade occupies only a fraction of the effective length. The handle of a sword provides a grip for the hand that wields it, or sometimes for two hands ; it may add protection, and in most patterns does so to a greater or less extent. But it is altogether subordinate to the blade. For want of a metal-headed lance or axe, which indeed were of later invention, a sharpened pole or a thin- edged paddle will serve the turn. A sword-handle without a blade is naught ; and no true sword-blade can be made save of metal capable of taking an edge. There are so- called swords of wood and even stone to be found in collections of savage weapons. But these are really flattened clubs ; and the present writer agrees with Gen. Pitt-Rivers in not believing that such modifications of the club have had any appreciable influence on the form or use of true swords. On this last point, however, the opinions of competent archæologists are so much divided that it must be regarded as fairly open. We will only remark that the occurrence in objects of human handiwork of a form, or even a series of forms, intermediate between two types is not conclusive evidence that those forms are historical links between the different types, or that there is any historical connexion at all. In the absence of dates fixed by external evidence this kind of comparison will seldom take us be­

yond plausible conjecture. A traveller who had never seen velocipedes might naturally suppose, on a first inspection, that the tricycle was a modification of the old four-wheeled velocipede, and the bicycle a still later invention ; he would perhaps regard the two-wheeled “ Otto ” as the historical link between tricycles and bicycles. But we know that in fact the order of development has been quite different.

It is more difficult as a matter of verbal definition to distinguish the sword from smaller hand-weapons. Thus an ordinary sword is four or five times as long as an ordinary dagger : but there are long daggers and short swords ; neither will the form of blade or handle afford any certain test. The real difference lies in the intended use of the weapon ; we associate the sword with open combat, the dagger with a secret attack or the sudden defence opposed to it. One might say that a weapon too large to be concealed about the person cannot be called a dagger. Again, there are large knives, such as those used by the Afridis and Afghans, which can be distinguished from swords only by the greater breadth of the blade as com­pared with its length. Again, there are special types of arms, of which the yataghan is a good example, which in their usual forms do not look much like swords, but in others that occur must be classed as varieties of the sword, unless we keep them separate by a more or less artificial theory, referring the type as a whole to a different origin.

Of the actual origin of swords we have no direct evidence. Neither does the English word nor, so far as