ing explorer immediately wrote down, and duly printed as mathematical terms in the accounts of his travels. But, alas for the duplicity and unscrupulousness of savages! the supposed numerals in their higher ranges were really the rudest and naughtiest words in the Tongan language, with which, as missionaries subsequently discovered, the evil-disposed Polynesians had successfully imposed on the bland and child-like innocence of a scientific stranger. Such are the dangers of leading questions addressed in an imperfectly understood tongue to the wicked minds of the children of nature. The children of nature promptly respond in the precise spirit of an East-End Arab.

The basis of all arithmetic, it may be safely asserted, lies in the primitive habit of counting on one's finger's. Not only do all children and all savages so count at the present day, not only do we all learn our first arithmetical lessons on that simple and natural portable abacus, but also all our most advanced numerical methods bear still upon their very face the evident marks of their evolution from the old mode of reckoning on the human hand. For the decimal system itself is a living result of the fact that every man (bar accidents) has ten fingers, and ten only. Nay, the very word "digits," by which we still express in the most abstract manner the symbols of the numbers, points back at last to the ten upheld black fingers of the original savage.

At the very first outset, indeed, the decimal system didn't have things all its own way. It was vigorously and strenuously opposed in the beginning by its vigesimal rival, the system that went in for counting by twenties, or, in other words, by fingers and by toes, not by fingers alone. Primitive man varied in his practice. Sometimes he counted his fingers only, and sometimes he counted his toes as well. From the one plan springs the system of reckoning by tens, from the other plan that of reckoning by scores or twenties.

Both systems are at bottom, of course, identical. You want to count a great many objects—say, for example's sake, two hundred cocoa nuts. You begin by taking one man, and counting a cocoa nut for each one of his ten fingers; after that, you set him aside. You have reckoned ten, or one man; or, if you like, you put a pebble aside to do duty for him; it stands for ten—a decimal symbol. So you go on, making fingers and cocoa nuts balance one another, till you have got to the end of the whole heap; and you sum up your calculation briefly by saying that the cocoa nuts equal twenty men. To this day, when we write 200 we are keeping up the memory of that very act. Our decimal system marks, as it were, one man, 10; two men, 20; three men, 30; four men, 40; and so on *ad infinitum*. The 0 stands in place of a man; it is the abstract sign of a completed series.

The vigesimal system of reckoning by scores proceeds in just the same manner, only it numbers fingers and toes together, and sets aside one man only when it has counted up to twenty. This, not the decimal system, was probably the original method of all the Northern nations—certainly of all the Celtic peoples—and traces of it still remain in our old English numerals threescore and fourscore, as well as in the habit of reckoning sheep and various other agricultural objects by twenties. In French the two systems still live on amicably side by side. Up to *soixante* the reckoning is decimal; but the old-fashioned *septante* has been completely ousted by *soixante-dix* (threescore and ten), while *octante* and *nonante-trois* give place to pure scoring in the case of *quatrevingt* and *quatrevingt-treize*.