

CONSONANTS.

Among the consonants we will first take up some of those as to whose mode of representation there can be no question whatever. There are, for example, the three so-called "mutes," *p*, *t*, and *k*; these signs belong to the sounds instanced below:

p *t* *k*
prop *trot* *creek*.

The last example shows that we use *c* as well as *k* with this value; that must, of course, be avoided in a systematic alphabet.

The *t* and *k* of other languages often do not precisely agree in character with ours; one should be on the look-out here (as, indeed, everywhere else) for differences, and should note and describe them, if possible.

Of these three, the *p* is called a "labial" mute, because made with the lips; the *t* a "lingual" (or "dental"), because made with the tongue-tip (and near the teeth); the *k* a "palatal" or "guttural," because made against the palate, or near the throat, with the back part of the tongue.

Then there are three other mutes, closely related with these; they and their examples are these:

b *d* *g*
hub *bread* *grog*.

They differ from the three preceding in that there is tone, audible sound, made in the throat during the continuance of the contact by which they are produced. They are, therefore, properly called the "sonant" mutes, while the others are called the "surd," or "non-sonant," or "toneless" mutes—or something equivalent to this (the names "hard" and "soft," and their like, are altogether to be rejected). Usually, a language has both the surd and sonant corresponding mutes—*t* and *d*, *p* and *b*, *k* and *g*—if it has either.

In some languages the mutes (especially the surd ones) are sometimes uttered in such a way that there is a little perceptible puff of breath, a kind of *h* sound, between them and the following sound. In such cases they are said to be "aspirated," or the resulting sounds are called "aspirates." They may be best written with a so-called "rough-breathing" (Greek), or reversed apostrophe, after the letter: thus,

p' *b'* *t'* *d'* *k'* *g'*.

All these sounds are called mutes because the mouth-organs are so closed in making them that no breath escapes until the closure is broken or exploded.

If, now, with just the same positions of the mouth-organs the breath is suffered to pass into or through the nose, the result is the so-called "nasal mutes," or "nasal consonants," or simply "nasals." Generally, a language has a nasal corresponding to each pair of non-nasal mutes (surd and sonant). So, in English we hear the labial nasal *m*, the lingual nasal *n*, and the palatal nasal, in *ring*, *bring*, etc. This last is just as simple a sound as either of the others, but we have no simple sign for it, and write it with *ng*. If this double sign, or "digraph," were adopted as its representative, we should have difficulty in distinguishing the simple nasal, as in *singer*, from the nasal followed by a *g*-sound, as in *singer*. The best single substitute is *ñ*, because it is always to be found in the printing office.

The nasals, then, are—

m *n* *ñ*
num *nun* *singing*.

The nasal mutes are made, as above defined, with complete closure of the mouth-organs, and get their peculiar nasal quality from the ringing of the expelled air in the nose. But if the same nasal ringing is made while the mouth-organs are in a position which produces a vowel, part of the breath being driven through the mouth, as in ordinary vowel utterance, but a part also into or through the nose, the result is a vowel with a nasal tinge or tone added to it, or a "nasal vowel." The French, for example, has four nasal vowels, as in *vin*, *en*, *ou*, *un*. Whenever such are found in an Indian language, they may best be written with the proper sign for just that vowel-sound which is given, and with the addition of a "superior" *n* to indicate the nasality. Thus, the four French sounds would be represented thus:

vinⁿ *enⁿ* *ouⁿ* *unⁿ*.

But there are other pairs of surd and sonant sounds (without any nasal correspondents).

Thus, for example, the *f* of *fff* and the *r* of *rrrr* stand related in this way, the *f* being made by an expulsion of pure breath, and the *r* of intoned or sonant breath; through precisely the same position of the mouth-organ. In English, this position is a pressing of the upper teeth upon the lower lip; but some languages leave out the teeth altogether, and produce very nearly the same sounds between the edges of the two lips alone. In any language, it would be well to look sharply to see whether its *f* or *r*, or both, are of the one kind or the other, and the purely labial pair may best be written *ph* and *bh*.

The *th*-sound in our words *this* and *truth*, and that in *then* and *with*, are related in the same way, one being surd and the other sonant. Although they are simple sounds, we have no simple signs for them; we must write them, the *this-truth* one with *th*; and then we shall best write the other, the *then-with* one, with *dh*, because it stands in precisely the same relation to the *th*-sound as the *d* does to the *t*.

This class of sounds are best called the "spirants." The *f* and *r* are labial, and the *th* and *dh* are lingual (although each pair brings in an additional organ, the teeth). In English we have no palatal spirants; but they are found in many languages. The German, for example, has two: one in words like *ich* and *milch*, formed further forward on the tongue; the other, in *ach*, *doch*, etc., further back, more gutturally. By analogy with the *th*-sign we may best write the German *ich*-sound with *kh*; and then, for convenient distinction, we may write the *ach*-sound with *gh*. They are both surd, and the corresponding sonant is very rare; if met with (nearly the Arabic "ghain"), it would have to be written with *gh*.

The spirants, then, are—

f *v* *th* *dh* *kh* *gh*
fff *vvv* *thth* *dhdh* *khkh* *ghgh*.

We come now to the class of "sibilants," or hissing letters. Our common English *s* and *z* need no explanation; they, too, are corresponding surd and sonant. But our *sh*-sound is just as much a simple sound as *s*, although we use two letters to write it with; and it, as a surd, has its corresponding sonant in *azure* and *pleasure*, in *fusion* and *adhesion*, and their like. So, if we continue to write *sh*, we must represent its sonant by *zh*; and there is nothing better that we can do.

Thus, the sibilants are—

s *z* *sh* *zh*
sauce *zones* *shrewish* *azure*.

The *ch* and *j* sounds in *church* and *judge* are compound, having for their last part the *sh* and *zh* sounds, with a *t* prefixed to the one and a *d* to the other; the *t* and *d*, however, formed in a somewhat different way from our usual ones—namely, further back in the mouth, and with the flat of the tongue. They may, if met with, be written with *th* and *dh*; or, for brevity's sake, with *ch* and *j*; or even with *c* instead of *ch*; according as the *c* or *ch* may be required for no other use.

The sounds of our *y* and *w*, as in *you* and *we*, should be written with those letters. The same with an *h*-sound prefixed to them—as in *when*—*wh* should be written *wh* pronounced that is, *hw* and *hy*. Some hold, to be sure, that these sounds are not *w* and *y* with an *h* prefixed, but rather are the corresponding surds to *w* and *y*; in either case, however, the *hw* and *hy* signs are the best, and unobjectionable.

The precise English *w* is a rather uncommon sound among other languages; the *y* is almost universal. Both, as regards the way in which they are made by the mouth-organs, are only infinitesimally different from *t* (*pique*) and *s* (*rule*).