ARTICLE V.

COMPARATIVE PHONOLOGY: OR, THE PHONETIC SYSTEM OF THE INDO-EUROPEAN LANGUAGES.

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[Completed from Vol. XVII., from page 302].

2d. The phonetic force of the different Greek letters, in alphabetic order; or a synoptical view of the capacities of the Greek letters, for a variable manifestation of different equivalent sounds in the Sanskrit.

A. This represents the Sanskrit a, illustrations of which will be, of course, unnecessary.

It is sometimes euphonic, and so not a radical part of the stem of a word; as in ἀσταῖρος, to gasp, compared with σταῖρος. In ἀστέροπη (= ἀστήρ + δψ) lightning, (and also ἀστραπῆ) compared with στέροπη, we have, on the contrary, a full and contracted form of the same word, which might readily be mistaken, but for etymological reasons, for an instance of a euphonic. Like the Sanskrit a, the Greek a shaded off in kindred or derived forms, in different dialects, into almost all the other vowels: as ε, Ionic ἔροπη for ἄροπη; η, Epic ἱώρης and σοφῆ for ἱώρας and σοφία; o, Αἰολικ ὁπροτός for ὁπρατός.

In the Doric dialect, a was almost as great a favorite in all consonantal forms, as in Sanskrit; and it abounded greatly also in the forms of the Αἰολικ dialect. In the different dialectic forms of the genitive of ναῦς, a ship (Sansk. navas, Lat. navis), as Doric ναός, Ionic νῆός and νεός and Attic νεός, we see the radical vowel a represented by a variety of kindred vowels.

B. This is equivalent to the Sanskrit b, bh, g, j, and v.

(b) Specimens of this kind will be unnecessary.
This aspirate is, however, most commonly represented by φ in Greek.

(g) γð, a cow, βοῦς; 1 γὰ, to go, βαίνω (pure stem βα) ;
gurus heavy, βαρύς.

(j) ḥya, a bowstring, βύς, a bow.

(v) vrish, to irrigate, βρέχω.

The sound of the Greek θ was softer than ours, more like indeed, as in the Modern Greek, our v than b; or, as in Spanish, medial between the two. Before ρ, it was substituted in the Εολic dialect for the ordinary aspirate, as in βρόδων for βόδων and βράκος for βάκος. It was also epen­thetically inserted before ρ after μ, as in μεσημβρία, for μεση ημέρα ; and ἄμβροτος for ἄμροτος.

It was interchangeable in the different dialects, with the following consonants:

(1) π; as in βατεῖν for πατεῖν, to tread. Before τ in verbal forms, according to the law of the harmonization of mutes in Greek (smooth with smooth, middle with middle, etc.), θ is regularly changed to π, as in τέτρυπταυ for τέτρυβταυ. Compare the change of b to p in Latin before s and t, as in scripsi and scriptum from scribo.

(2) φ; as in βρίγεις and βρύγουι compared with φρύγες. Cf. Lat. fremo and βρέμω; and balaena, a whale and φάλανω.

(3) γ; as γλύκων for βλύκων, penny-royal. Compare, also, βαρύς and Lat. gravis; and also βάλανος an acorn and glans.

(4) δ; as ὀδελός (Doric) for ὀβελός, an obelisk.

(5) μ; as βρατός for μορτός by metathesis for μορτός, Sansk. maratas (mri, to die) Lat. mortuus (morior). Cf. μύρ-μηξ an ant, and Lat. formica; and also μορμός a bugbear, and formido, fear.

Γ. This corresponds with the Sanskrit g, h, j, k (and ch), gh, and c.

(g) γάς, the earth (stem γᾶ), γῆ, Archaic γαία; sthag, to cover, στέγω, Lat. tego.

1 Labials often represent gutturals in a cognate language, as a degenerate form of them, as in Ἐολ. ἱς, who; Attic ρίς; Sansk. kis; Lat. quis.
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(h) hanus, the jaw, γένιος, Lat. gena.

(j) jānu, the knee, γόνιος, Lat. genu; jan to beget, γεννάω; aj to drive, ἄγω; yaj to sacrifice, to worship, ἔγιος.

(k) kan (cf. also chad and chand of same sense) to shine, γανάω.

(gh) ghas, to eat, γάνειον, an eating-house.

(ç) paç, to bind, πίγγυμι, stem παγγυμί.

In the Greek itself it was interchangeable with β, δ, κ, λ. Thus for β, compare βλήχων and γλήχων; for δ, γή and δᾶ (Doric); for κ, γνάπτω and κνάπτω; and for λ, μόγις and μόλις.

Δ. This is equivalent to the Sanskrit d, dh, j, and g.

(d) dakshas, right (as right-handed) δεξίος; dvau, two, δίω; dam, to subdue, δαμάω.

(db) dhâman, a house, δόμος.

(j) jiv, to live, διάιτα.

(g) guh, to conceal, δόω and δύω, to get into, to put on.

Cf. Lat. induo and exuo.

It is interchangeable in various dialects with different letters in Greek.

(1) In the Æolic dialect with β, as σάμβαλον for σάνδαλον.

(2) In the Doric, with γ, as γαῖα and γῆ, Doric δᾶ and also γᾶ. Cf. also δύοφος as a parallel form of γνόφος. So Δημήτηρ, Ceres, is formed from Δη + μήτηρ.

(3) In the Ionic, with ζ, as in Ζεύς and Δεύς; with κ, as δαίω and καίω; and with σ, as δομή and ὁσμή.

(4) In the Attic dialect, with τ, as in δάπεδος and τάπης. It became also euphonically in the Attic in verbal forms σ, before τ and η, as in ἔψειςθην for ἔψειςθην, and ἔπειτα for ἔπειτα; as in Latin we find fissum for fidtum.

Ε. This represents the Sanskrit a, e, i, v.

(a.) api, to or towards, ἐπί; ahis, a snake, ἕχις; jarat an old man, γέραω (stem γεραοῦ); ana, in, ἐν and eis for ἐντι, (cf. Lat. in and with Sansk. antar among Lat. inter).

(e) ēna, one, eis for ἐν.

(i) pippali, pepper, πέπερι (Lat. piper).
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(v) varman, an arming, ἐρυμα (Lat. arma); varn, to vomit, ἐμεῶ. Cf. vas to wish and ἐκοῦν for Εὔκον, Lat. invitus.

E is sometimes euphonic, as in ἐλαχὼς small, Sansk. laghus, light. In ἐκατὸν one hundred, the initial ἐ is not euphonic, but is an abbreviation of the numeral ἕς for ἕν one (= ἕν + κατὸν. Cf. Lat. centum, Sansk. çatam). In the Oeolic dialect, ει was exchanged for η, as κῆνος for κεῖνος and κῆ for κεῖ.

Z. Its equivalents in Sanskrit are d and y.

(d) dam, to conquer (Lat. domo. Cf. dominus and damnum) ξηλα, loss, damage. Cf. δαµᾶς to subdue.

(y) yu and yuj, to bind, or join together, ζεῦρυμα; yana, barley, ζέα for ζέFα.

Z does not represent in Greek the combination, as might be supposed, of δ, τγ, and ζ, etymologically, but of δ and γ. Thus σχίζω is for σχίδω (stem σχίδ); οτίζω fut. οτίζω (stem οτίν) is for οτίγω; (cf. Lat. instigo, Germ. stechen, Eng. stick); and μείζων is for μέγων. It is also sometimes equivalent when initial to the simple Sanskrit y; as in ζηγόν (Lat. jugum) a yoke, and yuga equal; and ζεῦρυμα to join (Lat. jungo) Sansk. yuj to bind. In a few cases ζ represents a contraction of σδ (not δζ), as 'ΑΣθναζε for 'ΑΣθναδε. Dionysius, who yet himself represents ζ as being pronounced as δζ, says that it arose from σδ. In the Doric dialect, it was indeed so written, so that Zeύς was in Doric Σδεύς; but the analysis of its origin, as representing an earlier form δζ or γζ, is alike its true historical and phonetic analysis. Z early sank in sound into soft s, and was by Lucian substituted in some words for it, as in ζυκρός for σμυρός and Ζμύρνα for Σμύρνα.

Z was interchanged in Greek, when initial, by the Dorians, with δ, and, when medial, by the Tarentine Greeks with σζ; as, with δ, in the Doric forms δύγον and δωμός for ζυγόν and ζωμός; and with σζ in the Tarentine form λακτίζω σζ for λακτίζω.

H. This is equivalent to the Sanskrit a. Thus the Sansk. śāmi half, Lat. semi, is in Greek ἥμι-; in which form the η represents the Sansk. long ā, and the accompanying aspi-
rate represents the Sanskrit and Latin sibilant. So ččūś compares with Sansk. svadus, sweet, Lat. suavis; and ħņap the liver, with Sansk. yakrit, Lat. jecur.

Θ. This is equivalent to the Sanskrit t, d, dh, and gh.

(t) tij, to put together, स्त्रयान, stem ṣyor.
(d) duhitri, a daughter, स्वयत्र; dvar, a door, स्वरा.
(dh) dhūma(s), smoke, स्वमु (Lat. fumus); indh to burn, αἰθω; dhā, to place, τιθημι, stem ἔτε; údhār, a teat, αὐθάρ.

(gh) gharma, heat, स्वर्म्स. For a similar change of another guttural into a lingual, compare τίς with the Vedic kis, Lat. quis.

Θ was interchanged, in the different Greek dialects, with various letters: as σ, Doric σῶ for ἴας to see; φ, Æolic φήρ for φήρ, a wild beast (cf. Lat. fera, German thier, Eng. deer); δ, ψεδῶς poetic form of ψεῦδος, a lie; the aspirate, as Ἐμαι in Homer and Pindar for ἄ.

I. This is equivalent to the Sanskrit a, e, and the half-vowel y.

(a) ᾅθα, a horse, ᾅτθος, Æolic ἀκος for ἱς ἐπος.

(e) βάτρα, a reed (from βε to weave) ἵτεα for Φιτεά, Lat. vitis, Eng. withe.

(y) mahiyas comp. of mahat great (μέγας) comp. μείξων for μέγιστον.

I was exchanged sometimes in Greek for eι, as in εἶλη compared with Ἰλη, a band, and εἰστή (Ionic) compared with ἑστία, for Φεστία, the hearth of a house (cf. Lat. vesta).

K. Its equivalents in Sanskrit are k, c, ch, g, h.

(k) krė to distinguish, κρὲνω (Lat. cerno, cretus and crimen); kapālas, the skull, κεφαλῆ; kathinas, a bowl, κάτανος.

(ç) çangkhas, a shell κόρχη; çiras, the head, κάρα; çru to hear, κλῶ (Lat. inclytus and gloria); daç to bite, δάκυο; daçan ten δέκα; diç to show δείκνυμι (Lat. dico and digitus); çad to fall, κατά down (Lat. cado, to fall and caedo to fell, or cut down).

(ch) cha, and, κε (and τε); chay, to go κίο.

(g) gaura, yellow, κυρρός (Lat. gilvus, German gelb, Eng. yellow).

(h) hal, to hollow, κοίλος (Lat. coelum, Germ. hohl, Eng. holl).
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hole, hollow and hell); hard and hridaya, the heart, κηρ and καρδιά.

K is interchangeable in Greek:
1) with τι as Æolic κῶς and κότε, Attic πῶς and πότε.
2) with τι as πόκα, Doric form of πότε, and τήνος Doric of κείνος.
3) with γ and χ; as in κνάπτει (Old Attic) to scratch and γράπτει (New Attic), and ἰέγκει to snore, Attic ἰέγκει. So in the Doric ἀτρεχές occurs for ἀτρεχές, which in Pindar is ἀτρεχής.

L. This is equivalent to the Sanskrit l, n, r, d, and even to the half-vowel y by assimilation.
1) lih (Vedic rih) to lick, λείχω (German lechen, Eng. lick); sphal to waver, σφάλλω (Lat. fallo).
2) anyas, another, ἀλλός for ἄλος (Lat. alius,1 ollus and ille Gothic alia). In Prâkrit, as in Greek, the half-vowel y is assimilated, and the word is there annas.
3) rich, to leave, λείπω, stem λιπ (Lat. linquo, stem liq). So, contrarily, Sansk. lup and lump, to break, is equivalent to Lat. rumpon, perf. rupi; and Sansk. ruch to be bright, to the Greek λευκός bright, (Lat. lux, luceo, illustris etc).
4) dipa a lamp, λάμπας (where the root is also nasalized).
5) Vid. ἀλλος, above; and so βάλλω is for βιλλω.

L is interchangeable in different dialects with various letters; as (1) in the Doric, with ν, where ἕνεκεν becomes ἕνεκον. Compare double forms πνεύμον and πλεύμων; and also the Spanish nival and French niveau, as derived from Lat. libella (diminutive of libra) a level. (2) In the Attic, with ρ, as ναύκαρας for ναύκλαρος, the chief of a division of citizens.
3) In the Æolic, with δ, as δάφνη and λάφυν the laurel. Compare in Latin oleo to smell and odor fragrance.

M. M is simply equivalent to Sansk. m and sm. As examples of m, see samā together, ἀμα (Lat. simul and similis) and samā half, ἡμ (Lat. semi): of sm, smi, to laugh, μείδαω (for σμείδαω). It is interchanged in the Æolic with

1 From this same stem alter also is formed: (−ter being a comparative suffix, Gr.−τερος; as also in the prepositions inter, praeter, propter and subter); and also aliquis (= alius + quis).
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β and π, as δππα for δμμα and βροτός for μροτός; and in the Attic with ν, as μν for μυν (cf. Lat. num and μων).

N. Its equivalents in Sanskrit are n and sn, jn, m and s.

(sn) snuśā, a daughter-in-law, नुस्स for सुन्स्स (Lat. nurus); snu, to flow, न्व (for स्नेव) fut. न्वप्यो.

(jn) jnā, to know, न्वेन for ग्न्वेन (cf. ग्न्वर्यन्वक्य). Compare न्वेन the mind; Lat. nosco for gnosco; and Eng. know.

(m) M final in original forms is everywhere changed in Greek to ν as in the person-endings, for the first person, of the imperfect active, and of the first and second aorists passive; the nominative case-ending of the 2d declension neutral (Greek -ον, Sansk. -am, Lat. -um); and the accusative singular and genitive plural endings in ν; in all of which respects, the Latin more nearly represents the original form than the Greek. Thus ἔφερον is for ἐφέρομ(ε)ν; πόσιν (acc. of πόσις) is for πόσιμ Sansk. patim; and ποδῶν is for ποδῶμ, Sansk. padām.

(s) Final s in Sanskrit is often represented by ν in the Greek equivalent, as in the plural active suffix -μεν (Doric -μες) Sansk. -mas, Lat. -mus for the first person of verbs; and so in the 2d and 3d person dual endings -τον and -την for Sansk. -thas and -tas.

N is exchanged, especially in the Ἑolic dialect with λ and μ.

Ξ. The equivalents of this letter in Sanskrit are kṣh and sh.

(kṣh) akshas, an axle, ἀξον (Lat. axis).

(sh) shash, six, ξ (Lat. sex).

For initial ξ the Dorians used sometimes σκ, as σκίφος for ξίφος.

O. This represents the Sanskrit a, as dhāman, a house, δόμος (Lat. domus); akshas the eye, δοκος and δοςε for original δε (Lat. oculus); avis a sheep, δις for oFis (Lat. ovis.) Like a and e, the letter o is sometimes euphonic, as in ὀκέλλω compared with κέλλω (Lat. -cello, celer etc.); ὀδύρομαι with δύρομαι (cf. δύτ pain and δυς hard Sansk. du to suffer pain); and ὀρέγω Sansk. ῥाज Lat. rego.
O was interchanged in the Æolic dialect with \( a, e, u, o \); and in the Doric with \( o \): as with

(a) Æolic στρατός, for στρατός an army;

(b) Doric ποία and Ionic ποίη for πόα grass.

\( O \), sometimes called a movable \( o \), is often substituted in derived forms for a radical vowel, as in λόγος from λέγω, στόλος from στέλλω, πόρος from περίο, τράχος from τρέχω. Cf. in Latin socius from sequor, sodalis from sedeo, nodus from necto.

II. The equivalents of \( \pi \) in Sanskrit are \( p, b, v, k \).

(p) pitar a father πατήρ; para farther para; apa from, από (Lat. ab).

(b) budh and bundh, to know, to learn, πισδάνμαι, stem πυς.

(v) varâhas, a boar, πόρκος (Lat. porcus and verres).

(k) kadâ, when, πότε; kati, how many, πόσος Æol. κώσος.

\( \Pi \) is interchangeable in Greek with \( \gamma \), as λαταράς and λαγαρός, slack; with \( \varepsilon \), as πόσος and Ionic κοσός; with \( \tau \), as πέντε and Æolic πέμπε; and with \( \beta \) and \( \phi \) as βάλλω and πάλλω (cf. Lat. pello, palpo and palpito); and σπόγγος, Attic σφόγγος, a sponge (cf. Lat. fungus).

P. This letter represents the Sanskrit \( r, d, s, b, h, v, g \).

(r) urus, wide, εύρις; ar to rise, ὄρνυμι Lat. orior.

(dr) draksha, a grape, ῥάξ (Lat. racemus, Fr. raisin, Eng. race and raisin).

(sr) sru, to pour forth, ῥέω for σρέω.

(bh) bhanj, to break, βήχαναμι for Φρήχαναμι (Lat. frango).

(vr) vri, to cover, βυός the rind.

(ghr) ghrân, the nose, βίς gen. βυός.

\( P \) is interchanged in the Æolic dialect with \( s \), as οὔτερ for οὔτος, μάρτυρ for μάρτυς; and so Laconic τόρ for τίς and νεκύρ for νεκύς. (Cf. Lat. arbor and arbos, honor and honos, and eram for esam, imperf. of sum). It was also prefixed sometimes in the Æolic dialect with \( \beta \), to represent what was in
other dialects the aspirate, as βρόδον for ρόδον, βρίζα for ρίζα, etc.

In the Attic it was interchanged with λ, as συγγρός for συγγλώς. Cf. in same way Lat. lilium a lily, with λείριον. It was also sometimes transposed by metathesis, as κάρτος for κράτος.

The letter r was called by the ancients the canine letter, as it is a continuous rolling r-sound that an angry snarling dog makes.

Σ. Σ is equivalent to ç and s in Sanskrit.

(ç) çarkaga, candied sugar, σάκχαρον. (Lat. saccharum, Germ. zucker, Fr. sucre.)

(s) stabh to press together and stambh to support, στείβω and στέμβω; sphaí, to deviate σφάλλω (Lat. fallo, Fr. faillir, Span. faltar, Eng. fail, fall, fell, falter, false, fault.)

Its dialectic interchanges are with δ, ζ, τ, ππ, ξ, the aspirate, and ρ: as with δ, ΑEol. and Dor. ἵμεν for ἵμεν; with ζ, Dor. ἱγασός for ἱγασός; with τ, ΑEol. and Dor. τυ for συ; with ππ, πέσσω Sansk. pach, to cook and collateral form πέπτω; with ξ, Dor. τρίγος for τρίγος and ξύν for σύν.

T. Its equivalents in Sanskrit are t, th, dh, ch and k.

(t) anti over against, ἀντὶ (Lat. ante); pat to fly πέτομαι; tan, to extend, τείνω for τείνω.

(th) asthi. a bone, ὀστέον (Lat. os for oss, for ost); sthâ to stand ἱστήμη, stem στα; sthiras, fixed, firm, στερέος.

(dh) dhâ, to place, τίθημι, stem τε.

(ch) cha, and, ke and te.

(k) kas, who, τίς Lat. quis. So, τέσσαρες is for κέσσαρες, for κέτταρες, Sansk. catvāras, Lat. quattuor (pronounced as if katnour); and πέντε ΑEol. πέμπτε is for πέντε, Sansk. panchan, five, Lat. quinque.

The following are its dialectic interchanges: δ, σ and π. For δ, compare αἰδός and Ionic αῖδός; for σ, ζυν, and ΑEol. τυ. (For a similar change in the modern languages compare Lat. stratus, part. of sterno, Span. strada, Germ. Strasse, Eng. street; and Germ. essen with Lat. edo, Gr. ἐῖδω, Eng. eat.) For π compare τέσσαρες, Doric τέμπερες and πέντε, Dor. πέμπτε. Compare similarly στουδή and Lat. studium zeal; τάως, a
peacock and pavo; and also in Latin itself hospe and hos-
tis, the primary meaning of both of which is the same, a
stranger.

T. T corresponds with the Sanskrit a, u, v, sv.
  (a) sam, with, śvā; nakhas, a nail, ōnvī.
  (u) upari, above, ūpēr; udan water, ūdār, stem ūdār.
  (v) dvān, two, ēvō; vē and vap to weave, ēvaínō; tvam,
thou, sū (Lat. tu); ēva, a dog, kūvā. (So cf. Lat. suus, Sansk.
svas). As with i and j, so u is but a vowelized form of v,
or, which is the same thing, v is but a hard consonantal
form of u.

(sv) svapnas, a dream, ὑπνος.
In the Greek dialects v was interchanged with a, i, o, w,
or. For (a) compare sāpē and ᾱEol. σύρζ, as also tēstapē
and ᾱEol. πίσιρες; for (i) see φέντω and poet. φυτώ: for
(o) ὀνόμα and ὄνομα (ᾲEol.); for (ω) χελώνη and ᾱEol. χι-
lώνη; and for (ι) χρυσός and ᾱEol. χρυσός.

Φ. The equivalents of φ in Sanskrit are bh, p, ph, v.
  (bh) bhū to be, φώ (Lat. fui and fore); bhid to divide,
φίδομαι (reflexive), (cf. German beissen, Eng. bite); bhū, to
shine, φαίνω (cf. φημί and Latin for and facio); bhar and
bhri, to bear, φέρω; bhuj, to turn or bend, φεύγω, stem φυ
(Latin fugio).
  (p) pāl, to love, φιλέω; πράṇa breath, spirit, φρήν.
  (ph) phullan, a blossom, φύλλον.
  (v) svas his, σφός, Lat. suus.

Φ is interchangeable in Greek with π and Σ: with π, as
ᾲEol. σπόγγος for σφόγγος, and, in the Doric, ἐπιρκέωμι oc-
curs for ἐφιρκέωμι; and with Σ, as ᾱEol. Σήρ, Attic φήρ, as
also ᾱλίβω and ᾱEol. φλίβω.

Χ. The letter χ represents variously the Sanskrit h, kh, g,
χτ.
  (h) hrish, to rejoice χαίρω; hyas, yesterday, χάς; lih to
lick, λείψα.
  (kh) khola(s) wavering, χωλός; nakhas a nail ὀνυξ, gen.
ὀνυχος.
  (g) garhan, an enclosure χόρτος (Lat. hortus and cohors;
Eng. cohort and court); gaura, χαλή bile.
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The interchanges of Χ in Greek are in the Ionic with Κ as διόμωσ for δέκομαι, and so the Sicilian Greeks made χιτών a tunic κιτών; and in the Doric with Ψ, as ὀρνίχος, gen. of ὀρνίς a bird for ὀρνύος.

Ψ. As ψ represents the combination of any one of the labials with Σ, its equivalents are of the same general sort with theirs. In δψ the voice (Sansk. vachs Lat. vox) it represents the Sansk. chs.

Ψ was interchanged in Greek with σπ, as σπαλλόν for φάλαιν; with σφ, as by the Dorians and the Syracusan Greeks σφίν was made ψίν; and with σ, as ψιττακός for σιττακός. There are also some correlative forms in ψ and ξ, as ψάω and ξάω.

Ω. This letter is representative of the Sanskrit a, υ, ω.

(a) ἀσως, quick, ὀκίς: qvan a dog, κώω.

(v) νάρα, time, ὀρα (Lat. hora, Fr. heure, Germ. jahr and uhr, Eng. hour and year); van to sell, ὀνεόμαι (Lat. vendo).

(y) γατ, ὀς (for ώτ).

The Greek interchanges of ω are with α, αυ, ου, ο: with α as Ionic ὁμρατος for ἀνθρατος, Doric πράτος for πράτος; with αυ, ήμα Ionic for ημα wonder; with ου, ὄρανος, heaven, ἑολic for οὐρανός; and with o, ὄτειλη ἑολic for ὄτειλη, a wound.

3d. Special Pathological Affections of the Greek.

I. Digammation.

II. Sibilation.

III. Aspiration.

IV. Reduplication.

V. Nasalization.

These affections of words, while pertaining more or less to the three classical languages in common, have a special relevancy to the Greek in respect to their influence on the forms of the language, or the prominence with which they appear, as special features of it.

I. Digammation.

The digamma, or double-gamma, F, was originally the
sixth letter of the Grecian alphabet. It corresponded to the Phoenician $\alpha$ and the Latin $F$. In some old Peloponnesian inscriptions in the Laconic or Doric dialect, this character is found representing it. The Laconians, indeed, and especially the Laconian colonists of Heraclea in Southern Italy, and the Cretans, showed much more fondness for retaining the digamma, in either its natural form, or as softened into $\beta$, than most of the other Greeks. The name digamma was given by both the Greek and Roman grammarians to this character, because its form was that of two gammas united, one above the other, in one compound symbol. From the great fondness of the Æolians for this letter, it was often called the Æolic digamma. It was used at first by all the Greeks; or, in other words, it was one of the characteristics of the Pelasgic or Pioneer period of Greek development; and, as it is not found in any Attic or Ionic inscriptions, it must have fallen very early into disuse by the Ionian race.

It was probably pronounced very much like our $w$ in its softened form; for Dionysius says, that it sounded like $\omega$. Its corresponding vowel is $\nu$; and it is often changed into it, as in the diphthongs $\alpha\nu$ and $\epsilon\upsilon\nu$; which at times originate in this way, as well as $\omega$, when not formed by lengthening $\alpha$, to represent a contracted form. Thus $\beta\omega$, $\nu\alpha\upsilon$ and $\pi\lambda\epsilon\upsilon\omega$, fat. of $\pi\lambda\epsilon\omega$, are for $\beta\delta F\epsilon$ (Lat. bos for bovs, gen. bovis) $\nu\alpha F\epsilon$ $\pi\lambda\epsilon\upsilon F\omega$.

As the digamma lost its distinct symbol, it underwent several interesting transformations, such as the following:

1. It was sometimes, when initial, weakened into a mere breathing, as $\epsilon\sigma\pi\rho\rho\sigma$ for $F\epsilon\sigma\pi\rho\rho\sigma$ (Lat. vesper and Hesperia), $\epsilon\sigma\tau\iota\alpha$ for $F\epsilon\sigma\tau\iota\alpha$ (Lat. vesta) and $\epsilon\nu\nu\mu$ for $F\epsilon\nu\nu\mu$ (Lat. vestio to clothe).

2. It was changed by the Laconians, and some others of the Dorian family, into $\beta$, $\gamma$ or $\phi$, as, $\beta\epsilon\rho\gamma\upsilon\nu$, work, for $F\epsilon\rho\gamma\upsilon\nu$, later, $\epsilon\rho\gamma\upsilon$ (Germ. werk, Eng. work). $\beta\epsilon\delta\epsilon\nu\nu$ to see, for $F\delta\epsilon\nu\nu$, later, $\epsilon\delta\epsilon\nu\nu$ (Lat. videre). $\beta\epsilon\kappa\alpha\tau\iota$ twenty for $F\epsilon\kappa\alpha\tau\iota$, later, $\epsilon\kappa\alpha\tau\iota$ (Sansk. vinçati).

$\gamma\sigma\chi\upsilon\upsilon$ force and $\beta\sigma\chi\upsilon\upsilon$ for $F\sigma\chi\upsilon\upsilon$, later, $\sigma\chi\upsilon\upsilon$ ($\upsilon$ and Lat. vis). $\gamma\nu\tau\iota\alpha$ a willow, for $F\tau\iota\alpha$, later, $\tau\iota\alpha$ (Lat. vitex).
(3). It was changed in some cases to 0, as in Οἰκύλως and Βεύνυλως for Φίτυλως, a Laconian town, also called Τύλως.

(4). It was sometimes softened into υ, as in ναύς for νάυς.

(5). It was completely rejected, as in ἔρο for Φέρο Lat. ver; ὀδός for Φοίκως, Lat. vicus. Cf. Ἰταλὸς and Ἰταλία (Italy) for Φιταλὸς etc. Lat. vitulus: so called on account of its fine oxen.

Some words originally beginning with two consonants, the first of which was the digamma, have remaining but a mere weakened form of one of them, as Sansk. svadus, sweet, Gr. συνάς for σΦνάς. (Cf. Lat. suavis, where the original sv are both represented; and also Sansk. svapnas, sleep, (Gr. σπνος for σΦνος, Lat. somnus for sopnus for svopnus). Thus, by the comparison of many Sanskrit forms and their Latin equivalents with kindred forms in Greek, which are now aspirated or contracted, or otherwise marked as having once had a fuller form of another sort, we assure ourselves absolutely of the fact, that the archaic form of the Greek was itself also digammated.

It is clear, that in Homer's time many words had the digamma, which afterwards lost it. The concurrence of two vowels in the radical part of a word would make a hiatus, particularly disagreeable to a Greek ear; which both poets and prose writers would seek carefully to avoid. In the case of words that at first had the digamma, such a hiatus did not originally exist, of course, when the preceding word ended in a vowel; and, in the absence of the digamma, accordingly, they are still found occurring together, as when it did exist, as in προ ἔσεν for προ Φέσεν (for σΦσεν). For the same reason, the influence of the lost Φ of a once digammatized word is still felt, in making with a preceding consonant the vowel originally followed by them both, although one of them is now wanting, long by position.

The following are some of the most important specimens of Greek words that were beyond doubt once digammated:

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1 The hiatus of two vowels in juxtaposition was far less offensive to the Latin ear, than to the Greek, and less even to the Greek than to the Indian.
Comparative Phonology.

(1) Initially.

άργυροι, to break, for Φάργυροι.

ίνδος, to please, for Φανδάνος.

άστις, a city, for Φαστις (Sansk. vastu from vas to dwell).

ξηρημ, spring, and ήρ for Φέαρ (Persian behár, Lat. ver).

είδω, to see, for Φίδω (Lat. video, Sansk. vid).

εὐνυμ, to clothe for Φένυμ (Lat. vestio, Sansk. vas).

ἐλλας, to seize, for Φέλλας (Lat. vello).

ἐργαν, work, for Φέργαν (cf. Sansk. vay to bestir one's self).

ἔσπερος, evening for Φῄσπερος (AEol. φέσπερε, Lat. vesper)

and Hesperia, cf. Sansk. vas to cut off and vasati night.

εστία, the hearth, for Φεστία (Lat. vesta; Sansk. vas, to dwell).

λου, the violet, for Φίλου (Lat. viola).

τος, poison, for Φός (Lat. virus, Sansk. vishas).

τος, force, for Φός (Lat. vis, pl. vires for vises).

ιτέα, a willow for Φτέα (Sansk. vētra a reed Lat. vitex).

οικός, a house, for Φόικος (Sansk. vēsas, Lat. vicus).

οίνος, wine, for Φόινος, Cretan Φοίνος (Lat. vinum; cf.

Sansk. vēna beloved).

πήγυμ, to break for Φρήγυμ (Lat. frango, Sansk. bhanj).

δυνάμαι to buy for Φωνάμαι (Sansk. van, Lat. vendo).

ιδιος, own, peculiar for Φίδιος (Sansk. vidh, to separate, Lat.

Suus and sui, sibi etc. in Latin.

(2) Medially.

αιός, aień and aiel, always, for αἴελ (Lat. aevum and aev,)

Sansk. évas, a moving or going).

βούς, an ox, for βός (Lat. bos gen. bovis, Fr. boeuf Eng.

beef and beeves).

κλῆς, a key, for κλῆς (Lat. clavis, Fr. cléf).

λαιός, left, for λαίας (Lat. laevus).

λειός, light, for λέας (Lat. levís, Eng. lift, lever, etc.).

σάνς, safe, for σάς (Lat. salvus, Eng. safe).

σκαίος, left, for σκαίας (Lat. scaevus, Germ. schief, Eng.

skew).

νέος, new, for νέας (Lat. novus, Sansk. navas).

δις, a sheep, for δίς (Lat. ovis, Sansk. avis).
{ ὀὐ, an egg, for ὀφὺ (Lat. ovum, Fr. œuf).
{ Doric ὀθήα,1 with which compare ὀθε, in Epicharmus).

Between two vowels, therefore, an original digamma often dropped quietly out of sight; leaving not a trace behind it of its former existence. Thus πλέω is for πλεὶFo (root πλυ, and, when gunated, πλευ) Sansk. plavāmi, I wash; and κλαίω Attic κλὼ, to weep, fut. κλαύσομαι, is for κλαFω, Sansk. crahvāyāmi. Other words of this sort are πνέω, pure stem πνυ; νέω, stem νυ; ῥέω, stem ῥυ; and ἡν wo stem ἡυ. The analysis of this class of forms is this: the final v of the stem was lengthened to ev, as a mode of strengthening it; but ev before vowels became, in early Greek, eF, from which finally F dropped away, as everywhere else in the language, because distasteful to the cultivated Greek sense. The different stages, accordingly, through which the stem πλυ went, may be thus represented: πλυ — πλευ — πλεὶF — πλε.

II. Sibilation.

S is a sui generis sound, which, like the sponge, mediate, as it were, between a vegetable and an animal, or the bat, between birds and quadrupeds, occupies a sort of middle ground between a consonant and a vowel; uniting the characteristics of them both. While various letters, found in some languages, are wanting in others, as the letter v or w, or the French u, like, also, the compound consonants, termed the nasal ng and the guttural ch, not to speak of more still; no language fails to possess the sibilant s. Its two chief sounds are the soft and hard, or its s- and z-sounds. With ch in some languages, as the German, and h in others, as ours, it forms a softened compound-sound, in which it appears in its most agreeable form, at least to modern ears, and which was not known at all to the ancients.

1 The Ἐολians and Dorians kept the digamma in the beginning of many words (as Ἐολικά Ἰεώς a year, Doric Ἰῆος, own, peculiar), and the Heracleans in Magna Graecia preserved it in many inscriptions, in words, in which it does not occur in any of the other dialects, or exhibit any signs of having occurred; while as strangely they have omitted it in many words, in which it does occur in the other dialects. Ahrens, Vol. II., p. 42.
S often occurred initially in Greek, and was pronounced, in such cases, with its sharp sibilant sound; but it was as little pleasing to the Greek ear as to the French; and on this account, it was so frequently exchanged for the rough breathing in many words, whose original stems possessed it; as in ἕξ (sex) and ἐπτά (septem).

When occurring in the middle of a word, it is manifest that it had a very soft sound, as it so often fell out from weakness, as in βουλεύη for βουλεύεια, for βουλεύεσσα, and ἐβουλεύων, for ἐβουλεύεια, for ἐβουλεύεσσα, and γένους for γένες for γενεσσά.

In Latin, between two vowels, and at the end of words, when it formed a part of their original stem, it passed into r; so weak was its sound, or rather its power of retaining its own permanence; as in Papirius for original Papisius, Valerius for Valesius, honor and arbor for honos and arboa, and generis and foederis, genitives of stems originally ending in s, as genes and foedes. So eram is for esam, imperfect of sum — for esum (i); and corpus is for corporis, for subsequent corpor, as the stem. Compare, also, honor and honestus, robur and robustus, arbor and arbusum.

The term assibilation is used to denote the combination of the sibilant with the various mutes, as in ps, ts, and ks, gz and dz. In Greek, this assibilation is represented by the compound letters ψ and ξ, occurring in all parts of words, as the beginning, middle, and end. With regard to ξ, see previous page.

The graphic symbols ξ and ψ were added by Simonides, in the times of the Persian wars (B.C. 500), to the Greek syllabarium.

The final s, so often found affixed, in the classical languages, at the end of nominal and adjective bases, in the nominative, and called properly the gender-sign, represents the Sanskrit personal pronouns he and she (Sansk. sa, he; śā, she; tat, it. Cf. ὃ, ἥ, τό, and Germ. sie, she; and Eng. he and she). This affix is a sign, at once, to the eye, that personality is predicated of the noun receiving it; it carries with itself a vitalizing force. The tendency to the imperso-
nation, in thought, of material objects, is very strong indeed, in not only poetical natures as such, who love to see and to feel the reflection of their own vitality, from every mute form of beauty around them; but also, especially, in the early, impressive, and imaginative period of a nation's first intellectual life.

III. Aspiration.

The influence of climate on the tendency to aspiration, in any language, is very great, and even, in fact, determinate, it would seem, of the whole taste and tendency of a people in that direction. "Nowhere," says Benary, "is a simple dialectic difference, in the use of aspiration, more significant than in Germany; so that, he who should go from the highlands of that country in the centre, to the low plains of the north, might mark, quite well, the successive steps of decline, in its use, from his starting-point, until, on arriving at Denmark, all traces of its use would disappear." So, in Italy, the Sabines who lived among the mountains, were specially fond of aspiration; while the Romans, dwelling on the broad plains of Latium, were averse from it.

Each of the three cardinal classes of mutes, the gutturals, labials, and linguals, has its own aspirate. The aspirates may be classified as follows:

1. The Guttural Aspirates.
   (1) The Greek. The rough breathing ι and χ.
   (2) The Latin. H and ch (of Greek origin).

2d. The Labial Aspirates.
   (1) Greek, φ, F (obsolete).
   (2) Latin, f, ph (of Greek origin).

3d. The Lingual or Dental Aspirates.
   (1) Greek, θ, σ.

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1 Says Cicero "aversus a vero." Oration IV., in Catilinam § 9. The very a in aversus is a for ab, from. How empty, therefore, Webster's remark under this word, that "it is absurd to speak of an affection of the mind exerted from an object." It is surely the most natural thing in the world, to speak of a state of feeling, as turned away from a given object.
(2) Latin s and th (of Greek origin).

The genuine aspirates, except s, are of course all double sounds, consisting of some mute, as the stable element, and an added breathing; so that they correspond, among consonants, to diphthongs among vowels. The Greek is rich in this class of mixed consonants, as it is also in diphthongal mixtures among vowels; while the Latin is poor in them both; and the Slavic languages are almost wholly destitute of them. The original forms of the aspirates were for the guttural, gh; for the labial, bh; and for the dental, dh. Curtius classifies the Indo-European languages, in five divisions, in respect to the phenomena of their aspirates.

1. The Sanskrit\(^2\) by itself: exhibiting the original bases, in the aspirates gh, bh and dh, of the whole system of aspiration, in any and all languages; and yet gh often settles in Sanskrit, into mere h, as lih for ligh. Gr. λευκω, Lat. lingo; and mahat great, for maghat, Gr. μεγας, Lat. magnus.

2. All those languages, which, by giving up the breathing, remove the difference between the medial aspirates and the medials themselves in given forms; as the Zend, which, while sometimes retaining the aspirates, at other times weakens them to medials, as in gh, bh, dh, weakened to g, b, d.

3. That embracing the Germanic languages, which has, with the same characteristics as those that mark the second class, an additional tendency to a strengthening of the mute element of the aspirates, as of g in gh into k; of d in dh into t; and of b in bh into p.

4. The Greek in all its dialects with its tenuis aspirated, instead of the original medial aspirates; in which it is the exact counterpart of the second and third classes.

5. The Italic languages having only the two aspirates, h and f.

To the above schedule, drawn so well by Curtius, might

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\(^1\) Zeitschrift Der Sprachforschung, Vol. II., pp. 328—334.

\(^2\) The scale of aspirates in Sanskrit, while reducible to the simple elements above stated, is full of varied forms of them, as gh, kb, ch, chh, jh, as well as bh, ph, dh and th, and compound consonantal aspirates as ksh, chch, chchh, nchh, nth, dhh, dbh, mbh, dhr, sth, sch, kshm, chchhy, chchhr, ddhy, etc.
be added, properly, for an absolutely complete view of the aspirates.

6. The Slavic languages, as the end of the scale, and the antipodes in its particulars of the Sanskrit: being nearly wanting in aspirates of any kind.

The stronger the aspiration, the more is the mute itself, which is aspirated, covered up by it; and the weaker the aspiration, the more distinct the sphere and scope of the mute.

The following are some of the more noticeable principles, pertaining to the aspirates:

§ 1. Since the aspirates possess, as a class, a special nature of their own, in common; they are more readily exchanged for each other, in passing from one language or dialect of the same language to another, than are the other mutes.

§ 2. The stronger the aspirate, so much easier the exchange.

1. Aspirates in Greek.

1st. What the aspirates represent, as their originals or equivalents.

The rough breathing in Greek represents

(1) The Sanskrit sibilant, as its equivalent. Instances abound, as

<table>
<thead>
<tr>
<th>SANSKRIT.</th>
<th>LATIN.</th>
<th>GREEK.</th>
</tr>
</thead>
<tbody>
<tr>
<td>sarp, to creep,</td>
<td>serpo and repo,</td>
<td>ἐπιω.</td>
</tr>
<tr>
<td>sad, to sit,</td>
<td>sedeo,</td>
<td>ἐχομαι.</td>
</tr>
<tr>
<td>sain, with, together,</td>
<td>cum and simul,</td>
<td>ἀμα.</td>
</tr>
</tbody>
</table>

(2) An obliterated s medial as ἤμα for ἴσμα.

(3) ϋ, or the digamma Ψ. See digamation. So also, ἐκοντι is for ἐκοντι Sansk. vaçant and ἐνεκα for ἐνεκα AEol. ἐνεκα Ionic ἐνεκα.

(4) It sometimes represents both an obliterated sibilant and digamma, as in ἐ for σΦέ, ἐδοσ for σΦαιδ. So compare ἐός, ἐς and σφός, his, as various equivalent forms to the one Sansk. form svas, Lat. suus. Ἰδιως likewise is claimed by some as for σΦαιδος, from same root, as Sansk. svas, own.

(5) The half-vowel Ϭ initial. Thus ἄκ, the relative adj.
pronoun, represents the Sansk. yas, who; ῦταρ, gen. ῦτατος, for ῦταρτος, Sansk. yakrit, from yakart, Lat. jecur; ῦμεις, for ῦμμεις, for original ῦμμεις, Sansk. yusma; and ῦμερος, tame Sansk. yam to restrain; and ᾤςω, for ᾤμω (cf. ᾤιος), Sansk. yaj to worship.

2d. The effects of aspirates on letters immediately preceding them.

(1) A hard mute (π, κ, τ) is changed into the corresponding aspirate φ, χ, ζ, by an aspirated vowel succeeding it.

§ 1. In composition, as ᾤφήμερος (= ἐπιζήμερα).

§ 2. At the end of a word, whether the conjunction occurs regularly, or by apocope, as νυχιοπτος; ᾤφή ἴμερας; νυχιος ὅλην.

(2) The alliteration of two aspirates of the same kind, in successive syllables, displeased the Greek ear; so that one of them may be said to have annulled the other, or rendered it impossible; as, in all reduplicated forms of verbs in -μυ, like τιλημυ, and likewise reduplicated perfects generally, as πε-φίληος.

II. Aspirates in Latin.

There are but two aspirates in Latin, h and f.

1st. The following facts exhibit the function of h, in Latin.

(1) It may represent any one of the following Sanskrit aspirates h, bh, gh: h, as heri for hesi, yesterday (cf. hesternus), Sansk. hyas; bh, as mihi for mibhi, Sansk. mabhyam; and gh, as hospes a guest Sansk. ghas, to eat.

It belongs only to vowels and to them as succeeding it, and is found indeed in the middle of words, only between two vowels, as in nihil and traho; but its possession of its place, or of any phonetic power in it, is so very feeble, that it is readily removed, for the convenience of a contracted form, as in nil for nihil and vehemens, for vehemens; while for prosodical effect it is treated, when occurring between two vowels, as if it did not exist at all.

(2) Its conversion with s, when in conjunction with it, into x, has analogies of a parallel and illustrative sort in the Sanskrit.

When h is reduplicated in Sanskrit, it becomes some-
times g, as in hâ to leave, which becomes gahâmi, instead of hahâmi (cf. Sansk. hri to seize, Gr. χείφ and Lat. gero); and so, in the middle of a word, hs becomes ks, as in máxyâmi, for maihsyami, fut. of mih to urinate (cf. Lat. traxi and vexi perf.’s of traho and velho). In both Greek and Latin, g is often the equivalent of the Sanskrit h, as in γέννη, Lat. gena, Sansk. hanus; ἐγώ and ego Sansk. aham; and, as in these instances we have for the guttural equivalent the medial mute γ, so, in the following instances, we have likewise the smooth mute k representing the Sanskrit h: καρδία, Lat. cor(d), Sansk. hard, hrid and hridaya, and necto Sansk. nah.

(3) H is not so much a consonant as a breathing. It differs from the sibilant, physiologically, only in being a breathing through the whole open mouth, with the tongue at rest on its base and the teeth apart; while the sibilant is a breathing through the teeth, in a nearly closed state, with the tongue against the upper teeth. H and s are therefore both breathings and differ, only in the different positions of the tongue and teeth. The sibilant and aspirate have accordingly an etymological, as well as phonetic, parallelism with each other; and the sibilant, as has been abundantly shown, fades away readily in the Greek into the aspirate.

(4) Ch, although found in Latin, is not properly a Latin combination.

It occurs seldom and is resolvable: (1) sometimes into a specimen of wrong orthography, in imitation by the Latin grammarians of the Greek, who, as the founders of the science of language, as of so many other sciences and arts, gave law to the Romans in all matters of theoretic and formal criticism; and (2) into the resulting form of a contraction.

Ch occurs in a few proper names as Bacchus (Βάκχος) and Gracchus. The strictly Roman words, in which it is found, are the following four: pulcher, mispelled for pulcer, the original form, which, like the Gr. φύλλον, a leaf, (pl. foliage) represents the Sansk. phullan, a blossom; brachium, which is but the Latinized Greek word βραχύλον, Sansk. babu; inchoë, which is contracted, as old manuscripts show,
from incoho; and sepulcrum, in which the suffix -chrum is misspelled for -crum, meaning the place or the means of any given act described in the root, as in the words lavacrum (lavo) and fulcrum (fulcio). Cicero spells the word, sepulcrum, and states directly that the ancients did not aspirate words. Inchoo is regarded by some, as a strictly Greek word (ἐνχώννυμι, to gather in heaps, i.e. for building). Benary conceives of it, in the light of its original form incoho, as contracted, like traho in his view for traveho, from an original form incoveho (in+con+veho), to bear together: the loss of the radical syllable ve being accounted for by syncope, as in nòram for noveram. If Benary's analysis be accepted, we shall have but three verbal roots in Latin, in which h occurs, as the final letter of the stem—traho, vecho, and coho; and these will be still farther reducible to but one ultimate form, vecho (Sansk. vah to bear cf. Gr. ὕπε). Leo Meyer however, laughs at such a derivation of traho (as tra-veho) and derives it, like the Gothic dragan (Eng. draw) and German tragen, from the Sanskrit drāgh to stretch out, to lie on the ground, to be weary (cf. Germ. träge idle). With this he compares also Sansk. dirgha long, Gr. δολχός and Sanks. darh, to be long. But Meyer, in his notions of the origin of traho, stands, it is believed, by himself.

Since the aspirate combines in Sanskrit with the medial mutes, as well as with the soft, that is, with d as well as with t; and b as well as p; and c as well as k; it was probably weaker than in most of the cognate languages.

2d. The function of F in Latin.

(1) F is a much more positive, definite, aspirate than h. It occurs in combination with l and r; is capable of being doubled (as in effero) and maintains its position between two vowels against any and all tendencies to contraction. It occurs almost entirely in the beginning of words, and seldom in the middle.

(2) It is equivalent, etymologically, to several Sanskrit aspirates, as dh, ch, h, bh; and to the unaspirated letters, m, p, dv.

1 Zeitschrift, etc. Vol. VI., p. 223.
Comparative Phonology.

(dh), inferus from infra, Sansk. adharâ(s) lower, comparative form of adhas below. Cf. also the superlative forms in the two languages adhamas and insimus; the Latin form throughout being nasalized. In Afer also Africa and Africus, f is equivalent to the same consonant in the same word, adharâ(s), meaning the lower or inferior place or places.

(ch) fundo (root fud) Sansk. chut to pour forth. Gr. χέω fut. χέωσω: (cf. also Gr. χολή and fel, the gall-bladder).

(h) rufus (cf. ruber) Sansk. rohitâs Gr. ἐρυθρός (with which compare also Sansk. rudhira blood).

(bh), fremo, to murmur Sansk. bhron, Gr. ὑπέμμην a temple, for fagnum, (like finis for signis from figo) Sansk. bhaj to honor.

(m) formica, Gr. μύρμηξ. The Greek equivalent Benary regards, as immediately corresponding with the Sanskrit root mush, to steal, which in the Greek form is reduplicated, so as to express the idea more strongly: the -ηξ being in his view a mere denominative suffix, like -ex in Lat. senex gen. senis. Compare in same way frendo to gnaw (pure stem fred, as in supine fresum for fredum) and Sanskrit mrid (with which also for a double equivalent of same root, cf. Lat. mordeo, like repo and serpo in Latin, compared with Sansk. sarv, to creep, Gr. ἐρπτω).

(p), foeteo, Sansk. puy, to be corrupt or fetid, Gr. πῦς, (cf. also Sansk. puyan corrupt matter, Gr. πῦν and Lat. pus). Compare similarly fodio to dig and Sansk. buhdh to find out (that is, physically,) and Gr. βύδος depth, the root being βυς or βος, as in βυδρος a pit (cf. also βαδος and βαδής).

(dv), fores, Sansk. dvâr, a door, Gr. θύρα. So festus, in the word infestus (the preposition in having only a directive or objective force), compares with the Sansk. word dvish to hate.

The Latin however, it must be remembered, is essentially averse from aspirates. Many are the examples of their rejection in Latin, compared with equivalent forms in Greek and Sanskrit, as
Reduplication, like nasalization, is a mode of strengthening the symbol of a thought, or thing. The use of strengthened forms was an early feature of language, abounding in the Sanskrit and Greek, and of frequent occurrence also in Latin; but occurring less and less in derived languages, as we get farther and farther from their primeval sources. As the Latin generally preserves, with the Sanskrit, more of the same simple strong characteristics, which they thereby both indicate to have belonged to their common mother-tongue, than does the Greek; its departure to a wider degree than the Greek from its original, in this respect, is to be ascribed probably to the direct practical tendencies of the Roman temperament, which did not relish double forms of the same thing, or multiplied modes of reaching the same end.

While human sensibility is instinctively averse from monotonous iteration of any kind; there is yet manifestly a strong tendency, as appears not only in the first syllabication of infants, but also in the confirmed usage of all nations, to a repetition of the same consonantal sound in the utterance of many words, although the repetition is usually connected with some attending vowel-modification. The reiteration of a given sound intensifies it, as does that of a word or syllable, by not only drawing the hearer's attention to it more strongly; but also by showing that the speaker thinks, from his purposed repetition of it, that it deserves to do so.
Reduplication abounds in Sanskrit and occurs, as in Greek, in the present active of many verbs, and also in the preterite, as a sign of past time; and even a retiplication of the root sometimes occurs in Sanskrit, as bhibhibhid, from the simple base bhid to divide (German beissen, Eng. bite, cf. Lat. findo, as a strengthened form).

1st Reduplication in Greek.

(1) A reduplication of the stem occurs, as a mode of strengthening it, in the present tense, and those tenses which are derived from it, of some verbs.

Thus γιόρνομαι (stem γεν) is for γιγένομαι; μίμω (stem μεν) for μιμέω, and πίπτω for πιπέτω. So τίθημι, δίδωμι and ἱστημι are reduplications of the stems θε, δό, and στα. Other examples are such as μιμέομαι, to imitate; μερμήριζω, to be anxious; πορφύρω (stem φυρ, to mix), to gleam, from which comes πόρφυρα, purple (referring to the constant play of light upon it); in all of which words, their own very repetitiousness of sound is a good image of the repetitiousness of the act, which they denote.

In such reduplicated words, the verb is strengthened in two ways: by the repetition of the stem itself as such, and also by the consequent lengthening of the verb-form as a form.

Some reduplications, in both Greek and Latin, manifest clearly a simple onomato-poetic origin, as mere syllabication, in human speech, of repetitious sounds previously heard in nature; as μορμύρω, Lat. murmuro, to murmur; λαλαγέω, to babble; καλαλάζω (stem λαλάζ), to dash or plash; so Lat. susurro (simple stem sur reduplicated), to whisper.

Of the reduplicated verbs in Greek, when not onomato-poetic, or, like μερμήριζω, ideopoetic, it may be said, as of δίδωμι, τίθημι, etc., that they are among the most common words in the language; whose emphasis, being somewhat impaired by the constant familiarity of their use, is quite restored by the intensification of their form. Many also, if not most of them, are but copies of similar forms, in earlier languages, as δίδωμι, Sansk. dadami, and τίθημι, Sansk. dadhāmi.

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An exhibition of the attending changes that occur, in some of the common instances of reduplication in Greek, will perhaps be of service. In δίδωμι (stem δό, Sansk. da) the reduplicated vowel ο is changed to short ι, so as to compensate for the added length of the word, and also so as to throw the reduplicated vowel into the shade, compared with the stem-vowel; while, similarly, in order to make the stem-vowel still more prominent, or to increase its relative, dynamical effect, as containing in itself all the sense of the verb, as such; as well as for the further purpose of preventing the concurrence of three short vowels; the short stem-vowel ο is lengthened into ω. The same analysis, step by step, will resolve the changes that have occurred in τίθημι, stem τέ, except that, in addition to those made in δίδωμι, ς is changed, in the reduplicated syllable, into its corresponding smooth mute τ, as two initial aspirates cannot succeed each other in two successive syllables. Apply also the same analysis to ῥημι, stem ῦ (Sansk. यात्रा, to send away), and βίθημι, stem βα (Sansk. गः as also in बालव for बालव), in which form the stem is nasalized. The form ἵστημι is for the more normal form σίστημι, and this for the fuller form still στι-στημι, stem στα; with which compare Lat. sisto (for full form sistami) reduplicated from stem sta, as in сто, stare, Sansk. शात्. In the reduplicated syllable (ʔ) of ἵστημι, two special changes have occurred: the dropping out of a radical letter of the stem (ʔ) and the exchange, as in so many other instances in Greek, of the initial sibilant for the aspirate. In γένομαι (stem γεν), for fullest unaltered form γεγένομαι, the final ν of the reduplicated syllable has been dropped, and the ε of the stem syllable (γεν) rejected, as in other reduplicated consonantal stems, as πίπτω, μέμνω, etc.; instead of being lengthened as in the vowel stems. In πίπτω for πεπτέτω and μέμνω for μεμένω, there are the same changes as in γένομαι.

(2) The reduplication occurring in the form of the Greek perfect, consists regularly in doubling the initial consonant of the stem, with the vowel ε appended to it; which, unless it be the stem-vowel itself, as in νέμω, perf. νενέμηκα, is adopted
as a compensative shortening inwardly of the increased volume of the word outwardly, as in λέλυκα from λύω and γεγράφα from γράφω. If the reduplicated stem be a vowel-stem, as in the contract verbs, the final vowel of which is always short (on the principle that a vowel before another vowel is short), that short vowel is lengthened, as in τιμᾶω, τετιμηκα; φιλέω, πεφιληκα; δηλῶ, δεδηλωκα. Unlike the augment, which is rejected in all the moods besides the indicative, reduplication is retained in them all. In stems beginning with two consonants or a double consonant, except a mute preceding either λ, μ, ν or ρ, the reduplication amounts only to the usual augment e in form, as in ξώνυμι perf. ξοικα. Those beginning also with ρ prefix e, and at the same time double the initial ρ, as in ρίπτω, perf. ἐρήμεια. Such forms as ξεξώκα and ἐρεμία, however normal in their type, the Greek ear could not abide. Some few verbs also, instead of the usual syllable of reduplication, prefix e lengthened into et, as in εἰληφα perf. of λαμβάνω, instead of λέληφα (for the explanation of which see previous part of this Article, page 704 Vol. xvi. (1859).

In those few peculiar perfect forms, which change the stem vowel into an o-sound in reduplication, as ἐσολπα perf. of ἔλπω, ἐσοργα perf. of ἔργω, ἐσικα, of εἰκω and ἐσωδα of ἐσω, the facts which at first sight appear to be so anomalous, are yet quite resolvable by analysis. Ἐλπώ, ἔργω and ἐσω are each for Φέλπω, Φέργω and Φέσω, respectively; and their proper perfect forms for the second perfect tense, from such digammated originals, would be ΦέΦελπα, ΦέΦηργα and ΦέΦησα. With the digammas dropped, there would be a hiatus at once caused by two vowels of the same kind in conjunction, which was the most offensive form of hiatus to a Greek ear: a difficulty which could in no way be relieved so well, as by the change of η to o; e and η being compound vowels formed from α+ε (η differing from ε as having two measures of α in its composition, since ε is α+ε, and η is α+ε+α); while o is a compound vowel also formed from α+υ. The vowel o was as special a favorite with the Greeks, in changed forms and derived forms, as was the
vowel a with the Romans. The perfect ἔουα from ἐίκω to seem (from ἐίκω, one with itself, likely; Sanskrit ēkas for aikas one; Lat. aequus; cf. also ἔρως, to make like, and ἐός, equal), would be, reduplicated without change, ἐεύωνα. But the i of the reduplicated syllable must fall out, by the rule that that must be shortened; and the e of the stem-syllable ἵ is changed readily, as in so many other cases in Greek (as in the perfects of μένω, δέρκομαι, λείπω etc.), to o. In the form εἰσάδα from ἐισώ for ἐισω, we have such changes as the following from ἐἴσαδα, the unchanged normal archaic form: the change of the reduplicated vowel (ε), after the dropping of the digammas, into ε which, contrary to the usual rule, is the lengthening instead of the shortening of the vowel of reduplication, and which was probably done for the sake of adding strength to a base of so weak a consonantal character — ζ (much weaker than any of the others enumerated); and the same phonetic instinct, which would suggest or rather demand the lengthening of the reduplicated vowel, would demand, for the preservation of the proper relative vowel-weight of the stem-vowel in the form, the lengthening of that also from o as the new vowel naturally selected for it to a.

The Attic reduplication, so called, differs from the common form of reduplication, in repeating the entire initial syllable, instead of merely the initial consonant with e: the radical syllable also at the same time being emphasized, as such by the lengthening of its vowel, as in ἄρησα, perfect of ἁρῶ, etc.

2d. Reduplication in Latin.

This verbal affection is not of so wide a scope in Latin, as in Greek or Sanskrit. In Sanskrit, there are three distinct preterite forms: the first, answering in form to the Greek and Latin imperfect; the second, to the Greek perfect; and the third, to the Greek aorist. Yet neither one of these three perfects is generally used, to represent the completeness of an action; and their parallelism with the corresponding tenses named in Latin and Greek, is one of form instead of being one also of sense. The first preterite, like the Greek imperfect in form, is marked by the augment (a); the second, like
the Greek perfect, is marked by reduplication; and the third, like the Greek aorist, is marked by s and the augment.

In Latin the perfect and aorist are combined in the same form, commonly denominated the perfect, and discriminated in practice only by the sense of the context. While there are several modes of forming the Latin perfect — as by the use of the auxiliary verb,-fui, which is indeed the prevailing mode of forming it (being hardened in the first and fourth conjugations into -vi; and often also in the second, in which it is otherwise softened into -ui; and sometimes even in the third); and also by the addition of s to the verb-stem, as in the Sanskrit third preterite and Greek aorist,—many instances are found in the different conjugations, except the fourth, of its formation also by the reduplication of the stem.

A few instances occur in Latin of words possessing a reduplicated form, in themselves; as sisto, stem sta (cf. sto, stare); gigno, stem gen, (perf. genui); both of which verbs are causative in their force: sisto meaning to cause to stand, and gignō to cause to be, or become (γέγνομαι, stem γεν). So bibo has for its stem bo (cf. πίω, stem πο, fut. πόσω); sero, for seso, (Gr. σελω and σείω, to hurl about, Sansk. su and sū), has the stem se. Memini is a reduplication of the root men, to think (Sansk. man, as also in Lat. moneo. Cf. reminiscor, mens and Minerva, goddess of wisdom; and also μνημομαι, μένος and μήνις) Populus is but plus (πολύς cf. πλέον) reduplicated, to signify a great number. Jejunus (cf. inión, to be empty and inanis) seems to be a reduplicated derivative from the same root with inión.

While in Greek the vowel of the reduplicated syllable is ε, it may be, in Latin, as in Sanskrit, o or u; as in momordi, spopondi and tutudi, perfects of mordeo, spondeo, and tundo.

As the perfect denotes a past act, viewed as complete in present time, there is certainly a theoretic propriety, in expressing its sense by a reduplication; as the calling up of something already past into the present again, is making it repeat itself: appearing first in its own occurrence as a fact, and secondly appearing again in the announcement of it.
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anew to those, who did not see it themselves but who learn it from the testimony of another.

Before the light of Sanskrit philology was obtained, the Greek augment (ἐ) was analyzed by the best scholars, like Buttmann, as but a form of reduplication, shortened by the rejection of the initial consonant. But the discovery of the Sanskrit augment (a), as well as that of the reduplicated preterite in Sanskrit, dispelled at once such a theory.

In German, as in some English derivatives also from it, repetitious forms of words occur, which are instances indeed of reduplication, but which occur only in the lower strata of the language, as zigzag, hurly-burly, criss-cross, hurry-scurry, hocus pocus (hoc est corpus), helter skelter (hilariter et celeriter). Such forms have no grammatical or lexical significance of their own.

V. Nasalization.

The one letter most frequently used in all languages, to strengthen the stem of a word, is n; which contains in it also, because of its own phonetic strength, the idea of negation in all languages. Even our very words negation (ne+natio), and deny (de+nego), do but echo it again to us, as it appears in the words no, neither, nor, never, nay, not, none; Latin ne, non (archaic nenu), nullus (ne+ullus), nihil (ne+hilum), neuter (ne+uter), nunquam (ne+unquam); Gr. ης, μη; French ne and non; and German nicht (not), nie and nimmer (never), nein (no), and niemand (no one). So in Greek the same negative nasal appears in the preposition ἄνω, without, and the abbreviated particles αὐτα, αὐ and the inseparable prefix ηρ, which is but a strengthened form of αὐτα abridged; and the Latin negative prefix in-; the German preposition ohne without, and the English prefixes of negation in- and un-. In Sanskrit and Zend we find na, not, and in Sanskrit also mà and Persian me (Gr.
N is a stronger nasal than m and is accordingly, as we have shown, the prevailing base of negative words in the different languages. There are properly three nasal liquids m, n, ng, which abound in Latin and Greek, as also in German and English. Examples of the nasal ng in Latin are ango, inquam, anxius; in Greek κλαργγή, ἀγγελος; and in English, anger, with which compare for difference of sound the word singing; in the pronunciation of which, the g-sound does not duplicate itself upon the next syllable. The soft sound of ng, in such words as singing, ringing, etc., occurs abundantly in German; and, while it is not found in Greek and Latin, it does belong to the Sanskrit.

Ng may be accordingly analyzed, as a guttural nasal, as in English longer, Lat. longus; and as a palatal or resonant nasal; and this of two kinds: hard, as in English words swinging and hanger; and soft, as in words strange and mangy. The English and French nch, as in Eng. haunch and French blanche, forms a dental nasal, as in German the word manch does a lingual nasal, where nch has a sound peculiar to that language. At the end of words in French, as in bon, bien, nom, n and m have a very light sound as palatal nasals.

The class of stems strengthened by nasalization, or by the insertion or addition of n to them, with or without an accompanying vowel, is that of verb-stems. The tenses thus strengthened are in each of the three classical languages, as a general fact, only the present and the derived tenses. In Latin however jungo preserves its nasalized stem throughout all its forms; with which compare the simple stem jug, as seen in jugum, and also both the strengthened and simple stems, as combined in ζεύγνυμι fut. ζεύξω etc. In Lat. words fingo, pingo, and stringo, the nasalized stem prevails throughout the verb, except in the supine stem.

The nasal is added to the stem in two ways, in reference to the place of its connection: (1) At the end of the stem. Specimens of its addition at the end of a vowel-stem are ἐννω, κρίνω, τίνω, stems δυ, κρυ, τι; and at the end of a consonantal stem are δάκνω, κάμνω, τέμνω, stems δακ, καμ, ταμ. As,
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in Latin, cerno, sperno, and sterno are cases of metathesis, their simple roots being cre, spre and stra, they are not to be reckoned as verbs having consonantal stems. (2) In the middle of the stem; as, in Latin, in findo, fundo, linquo, pango, pungo, rumpo, vinco.

Roots are nasalized also in different modes and to different degrees, as to the volume and effect of the nasal addition made to their weight:

(1) By the addition of mere $\nu$ to them, which is the exclusive mode in Latin; as in $\text{tīnō}$ fut. $\text{tīnō}$, $\text{tēnum}$ fut. $\text{te-}$

(2) By adding $\text{av}$, as in $\text{δαρδάνος}$, $\text{αἰσχάνω}$, $\text{αὐξάνω}$.

When the root-vowel is short, as in the stems $\lambda\beta$, $\lambda\alpha$, $\text{μαδ}$. $\text{υδ}$. $\text{φυν}$, a double nasalization occurs: the simple nasal $\nu$ being inserted before the final consonant as well as the nasal appendage $\text{av}$ after it; as in $\lambda\text{μβάνω}$, $\lambda\text{ωδάνω}$, $\lambda\text{γχάνο}$, $\muανάνο}$, $\text{πυλάνοαι}$, $\text{φυγάνο}$. Here, as Curtius beautifully suggests, the nasal of the stem syllable is a sort of fainter phonetic reflection of the nasal ending added to it.

(3) By adding $\text{ve}$: as in $\text{kυνέω}$ fut. $\text{kυσω}$; $\text{ικνέομαι}$ fut. $\text{ικω-}$

(4) By adding $\text{vv}$. This class of strengthened verb-forms in Greek should be viewed, in connection with their equivalent forms in Latin: as

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<tr>
<th>GREEK.</th>
<th>Sanskrit.</th>
<th>Latin.</th>
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<tr>
<td>$\text{βήγνυμι}$, for $\text{Fηγνυμι}$.</td>
<td>$\text{bhanj and bhāj}$.</td>
<td>$\text{frango}$.</td>
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<tr>
<td>$\text{ζείγνυμι}$ (stem $\text{ζυγ}$.)</td>
<td>$\text{yu and yuj}$.</td>
<td>$\text{jungo}$.</td>
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<tr>
<td>$\text{πήγνυμι}$ (stem $\text{παγ}$.)</td>
<td>$\text{paç}$,</td>
<td>$\text{pango}$.</td>
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<tr>
<td>$\text{σκέδανυμι}$, (cf. $\text{σκίδημι}$), chid, and khid,</td>
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<tr>
<td>${ \text{σχίζω}$ and $\text{κεδίζω}$. $}$</td>
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<td>$\text{scindo}$.</td>
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In this class of verbs, while the nasal is inserted before the guttural in Latin, it is placed in Greek after it and syllabicated with a vowel, that it may be placed there.

All the vowel sounds are capable of receiving, in various modern languages, a nasal quality. In French we have a nasal a-sound, broad, and flat, as in ange and linge; and a nasal u-sound in both French (un) and Portuguese (um): as also a nasal o-sound in French (bon); and a nasal i-sound in Portuguese (im).
Nasalization, on a larger or smaller scale, is one of the inner forces to be found at work in all languages, ancient and modern, and occurring, not only in Sanskrit, Greek, and Latin, but also in the German and English.

B. The Latin.

1st. Benary's classification, in brief, of the fundamental principles of its special phonetic system.

After what has been said, in detail, in different parts of this Essay, on the phonetic elements and laws of the Latin language, it will not be necessary to enlarge the separate features of the general view, here furnished by Benary. The outline is indeed brief but comprehensive, and well worthy of study as a whole. The first half of the first volume published by him (in 1837), which is all that has yet appeared from his pen on the subject, is occupied with the subject of diphthongation; and the remaining half with that of aspiration.

These, then, are the special peculiarities of the phonetic system of the Latin, as grouped by him into one view, and are here thus formally quoted, on account of their value, as a group in one whole.

I. Disinclination to diphthongs.

II. The small range of aspiration.

III. The limited use of consonantal combinations, in initial and medial syllables.

IV. The counterbalancing influence of consonants and vowels.

V. The weakening of final letters, after consonants, as well as after vowels.

2d. The phonetic force of the Latin letters in alphabetic order.

A. This represents the Sanskrit a, and the Greek α, ε, and η.

(a) Sansk. sara, salt; ὀξ; sal.

(ε) ἐνος and ἐναντός, a year; annus.

(η) ἄρπη, a sickle; harpa. 1

1 The harp gets its name from its being sickle-shaped; and it is of the same root with harpoon and the harpies.
In composition it is changed into the different vowels, e, i, u.

(e), inermis (in+arma); imberbis (in+barba); aspergo (ad+spargo). So even au may be changed to e, as in obedio (ob+audio).

(i) incido (in+cado); insilio (in+salio).

(u) insulsus (in+salsus).

In reduplicated forms it changes also in the tone-syllable, into e and i, as feselli perf. of fallo, and tetigi and cecidi of tango and cado.

B. It is equivalent to the Sanskrit bh, b, g and p.

(b) bhû, to be, imperfect. abhavam; -bam -bo, imperfect and future tense-suffixes, in the Act. voice of Latin verbs. So Sansk. barbara, foolish, barbarus.

(g) gô, gen. gavas, a cow; bos (βος). G in Sanskrit is however more often represented by g in Latin than by b; while β occurs, as its equivalent, much more frequently in Greek than in Latin.

(p) plu, to move, to flow; bullo, to bubble; Gr. βαλεω.

It represents the Greek β, π, φ.

(β) bos; βος; bulbus; βολβος.

(π) bibo (stem bo, reduplicated); πίνω fut. πῶσω (stem πο), to drink. So, buxus, the box-tree and πῦξος. Compare in the same way in Latin publicus with its archaic form poplicus from populus; and in German Burg, and in Eng. -burgh and burgher and burgess with πῦργος.

(φ) Compare the following equivalent forms in the two languages: balaena, a whale, and φαλανα; orbus, bereft, ὀρφανός, later ὀρφός; ambo, both, ἀμφω (cf. ambi- and ἀμφι); nebula, a cloud, νεφέλη.

Its changes in Latin are the following:

(1) Before the labial aspirate f, b passes sometimes into f, as offero for obfero; sometimes it changes into u, as aufugio for abfugio; and sometimes it is rejected, while its previous existence is recorded in the lengthening of the preceding vowel, as in āverto for ābverto and āvello for ābvello.

(2) Before s and t, it is commonly softened into p, as
scripsi perf. of scribo, and nuptus from nubo. In one case however it becomes s before si by assimilation, as jussi for jubi, perf. of jubeo. In compound words, as obtendo, subtraho, etc., heterogeneous sounds are endured in combination in Latin contrary to the law of homogeneity required in concurrent vowels so universally in Greek and occasionally at least in Latin.

C. Its equivalents in Sanskrit are č, g, ch, h, k and v.

(č) čana, hemp; cannabis, kánnabhis; čarnis, a horn, cornu (kēras): čarabhā, a crab, carabas, kārabhōs.

(g) gala, the neck; collum.

(ch) char, to go, and chāras, a course; curro and cursus: chil, to cover; celo.

(h) hard, hrid and hridaya, the heart; cor(d) (kēp and kārdhā): hal, to hollow; coelum, (kōilos).

(k) karavah, a crow; corvus (kōrātē): kar and kri, to make, creo, to create, (cf. cresco).

(v) bhavāyāmi (causative form of bhû, to be), I make; facio (for faciāmi): jiv, to live; vixi (for vici) and victum, perf. and supine of vivo.

C is equivalent to ḵ, ĵ, k, w, in Greek.

(ķ) caro, flesh, křēas: cygnus, a swan, kūνos.

(γ) conger, an eel, γόγγρος: caneo, to glisten, γανύω.

(χ) cedo, to depart, χάζω: corium, skin, χόριον: scindo, to divide, σχιζω: credo, to believe, χράω.

(π) linquo, to leave λειτυω.: Cf. lupus, a wolf, λύκος.

In the Latin itself, c sometimes changes into g; as, contrarily, g sometimes becomes c. See the supines of verbs in -go, as cinctum, junctum, rectum, from cingo, jungo, re-go, for the change of g to c; and for that of c to g, quadrin-genti, quingenti, etc., and negligeo, negotium etc.

So long as the Latin remained pure, c had the hard sound of k even before the vowels e and i; and in later times, as we learn from Quinctilian, c was pronounced in such names as Caius and Caēus, as G. No distinction in fact was made archaically between c and g; and c occupies the same relative position in the Roman alphabet that g does in the
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Greek and Phoenician. The graphic symbol g was not introduced into the Roman alphabet, until five hundred years and more had passed from the founding of the city. Spurius Cervilius devised it (A. U. C. 623), in order to represent the medial guttural sound, for the soft sound of which c, as well as qu, both pronounced as k, were kept. Prodigium is accordingly for prodicium, from prodico, to tell beforehand; so congruo and ingruo, thought by many to be compounds of con and gru, in and grus, are probably but contracted forms of concurro and incurro; compare also dulcis and indulge. The fact that several words have double forms interchangeably in c and g, as vicesimus and vigesimus, -centi and -genti, in the various cardinal numbers for hundreds; and the change of c to g, in some compound words as negotium (nee. otium), or in derived ones, as digitns from root dic (cf. dico and disco Gr. δείκνυμι), shows that the sound of c wavered at times at least between k and g.

C, like g and like v also sometimes, combined with s is changed to x; while in some perfects in s the guttural entirely disappears, as in tersi from tergo for tergsi.

D. The equivalents of d are in Sanskrit d, dh.

(d) dam, to subdue; domo (cf. dominus and domina; Eng. dominion, domineer, domain, dame, dam, damsel, Madam).

(dh) dhâman, a house; domus.
Its Greek correspondents are δ, ζ, ι, σ.

(δ) δέκα, ten; decem.

(ζ) ζημία, damage; damnum.

(ι) θεός, God, (Æol. θεός, cf. Zeus, gen. Διός); Deus. (Cf. τιθημι, stem ἰθε, Sansk. dhâ, German thun, Eng. do.)

(σ) μέσος, middle, medius. Cf. also ῥόδος and rosa, a rose.

Its peculiarities in Latin are the following:

(1) Before c, p, r, t, it is regularly assimilated to those letters, as in accedo, appello, arrideo and attendo. It is also
often assimilated before f, g, l, n, s; as in sella for sedla (for sedela), fossa for fodsa, agger for adger, etc.

(2) Before t, it changes in the middle of words by assimilation into s, as in rastrum for radtrum (from rado), and rostrum for rodttrum (rodo), and est 3d pers. sing. present of edo to eat, for eda. In some words, after the change of the d to s, the t wholly disappears, as in morsum (for mordsum) for mortum, from mordo; and so pensum (for pensum) for pendtum from pendo; and risum for ridtum.

(3) In nominative forms d drops out before the gender-sign s, as laus for lauds, frons for fronds, pes for peds, vas for vads and lapis for lapids.

(4) D has wholly disappeared from the ablative singular of nouns where it once existed, as the case-characteristic of the ablative in all the different declensions; as in domino for dominod, sermone for sermoned: forms found in archaic inscriptions, which yet have left no trace of their previous existence upon the present state of the language, except in the prosodial fact of the elongation of the final vowel of the ablative, as in a, o, u and e terminal, of the 1st, 2d, 4th and 5th declensions.

(5) D, original in archaic forms, became afterwards sometimes l, as in lingua for dingua (cf. German zunge, Eng. tongue) and lacrima for dacrima (δάκρυμα). So compare levir and δαῖρο for δάήρο, and Ulysses and Ὄδυσσεως. Compare also lignum, wood (for burning) and λύμνος flame-smoke, with Sansk. dah, to burn and δαίω, to kindle.

(6) D followed by u in archaic forms was afterwards represented by b, as in bellum for archaic duellum; bis, archaic dvvs (Gr. δίς for δις); and also bonus for duonus.

(7) Di and J were correlated in some forms in Latin; as Diana and Janus; dies, deus, Jovis and Juno. In the derived languages the Latin di is abundantly thus represented.

E. This letter represents the Sanskrit a, i, y.

(a) ad, to eat; edo.

(i) īr to go; erro, ἐρρῶ (cf. īra and ἔρα, the earth).

(y) yam, to obtain; emo (cf. νέμω).

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It corresponds with ε and η in Greek.

(ε) κέντρον, a point from κέντρω, to prick; centrum (Eng. centre).

(η) ἥρως, a hero: heros.

In several words the double forms of the present and preterite roots, apparently occurring, by some inexplicable metathesis, within the bounds of the Latin itself, are wonderfully parallel with similar double forms of the same roots in Sanskrit: as cerno, perf. crevi (Sansk. kar and kri); sterno, perf. stravi (Sansk. star and stri). So compare Sansk. sarp and srip, to creep and Lat. serpo and repo.

E is often changed in Latin in compound and derived forms into i, o and u.

(i) pertinax (per+tenax); contineo (con+teneo)

(o) extorris (ex+terra); socius (sequor); sodalis (sedeo); toga (tego); vortex (verto).

(u) In genus (Gr. γένος, stem γενες) the proper stem of the word is genes and the present genitive generis is for genesis. In pulsus (part. of pello) for pelsus, for peltus, as likewise in sepultus part. of sepelio, and also in avulsus part. of avello and tugurium, from tego, we see similar specimens of the same change. E also interchanges sometimes with u in double forms, as dejero and dejuro, pejero and perjuro.

F. F represents several Sanskrit letters, as already shown under "Aspiration" (p. 839).

Its Greek equivalents are Σ, χ, β.

(Σ) fera, a wild beast; Σηρ : ferveo, to be hot; Σέρω.

(χ) fel, gall; χόλος : fatisco, to gape; χατέω. So compare frenum, a bridle, and χαλκύς ; and funis, a rope and σχοίνος.

(β) fremo, to roar; βρέμω: fascino, to bewitch; βασκάινο. Cf. also rufus and ruber, and French siffler with Lat. sibilare, as also Lat. frater and Eng. brother. It is sometimes hardened in derived forms in Latin into b; as in the suffixes -ber, -brum and -brium. Thus saluber (salus+fero) means literally bearing health; and candelabrum, a candlestick, is literally
something *bearing* a candle. Cf. likewise the imperfect and future tense-endings -bam and -bo, with the preterite suffix -ui and -vi (fui): all from same root as SANSK. bhû, to be.

**G.** The equivalents of *g* in Sansk. are *g, gh, j, c, h, y.*

- **(g)** gaudeo, to rejoice; garv: garrio, to chatter; grij, or gri: gigvus, yellow; gaurá (cf. German gelb, Eng. yellow with gigvus).
- **(gh)** ganea, an eating-house for gasnea; ghas, to eat.
- **(j)** genu, the knee; jānu: geln, cold; Jalas.
- **(ç)** gloria, glory and inclytus, renowned; çravas, (cf. GR. κλέος for κλέος).
- **(h)** gena, the cheek (γένος); hanu(s): so also ego (ἐγώ) and Sansk. aham (for agham): and neq (=ne+aio), to deny; ah, to say: and anguis, a snake; achis.
- **(y)** geminus, twin; yamas and yamana, united, from yam, to unite (GR. γαμέω)

Its correspondents in Greek are *γ, χ, β, κ.*

- **(γ)** genu, the knee; γόνυ: gyrus, a circle; γυρός.
- **(χ)** gutta, a drop; χέω fut. χέως, adj. χυτός: gero, to bear; χειρ: ango, to squeeze; ἄγχω.
- **(β)** glans, an acorn; βάλανος.
- **(ε)** guberno, to govern; ευβερνάω.

*G* becomes *c* before *t,* as in lectus and rectus for legitus and regitus. The law of homogeneousness in consonantal combinations prevails in the middle of words, in Latin as in Greek: smooth with smooth; middle with middle; and rough with rough, as scriptus for scribtus, etc. With a succeeding *s,* *g* becomes *x,* as in rexi (reg-si), maximus (mag-simus); or disappears before *s,* as mulei (for mulg -si). As an initial letter occurring in combination with other consonants, it is found only with *l* and *r.* Before *n* it has entirely disappeared from the beginning of many words once possessing it, as in navus (Fr. naïve) and nosco and nascor, originally gnauus, gnosco and gnoscor; although it reappears again in compound forms, as ignauus (in+gnauus) and agnosco.
H. H represents Sansk. h; as hiems, wintry storm; himan (cf. \( \chi \epsilon \mu \alpha \)) : also veho, to carry; vah. Its equivalents in Greek are the aspirate, as horror and \( \delta \rho \rho \omega \delta \epsilon \omega \); and \( \chi \), as hortus and \( \chi \rho \rho \tau \sigma \), veho and \( \delta \chi \epsilon \omega \); hirundo and \( \chi \epsilon \lambda \delta \omega \nu \). H is but a light breathing, and so light that two vowels enclosing it between them are affected by their juxtaposition, just as if it were wanting: the first being made short by the second, according to the usual rule, that a vowel before another vowel is short.

It changes before t into c ; as tractus from traheo and vectus from veho. So mactus agrees with Sansk. mah in its root; as do also magnus, magis and major, for magior (cf. \( \mu \epsilon \lambda \gamma \omega \nu \) for \( \mu \beta \gamma \mu \nu \)).

The sign \( H \) was used as a sign to represent the aspirate by the Greeks, before being used, as it came to be in the end, as the sign for double e, or \( \eta \); and it was accordingly placed, at the outset, after the smooth mutes \( \pi \), \( \kappa \), \( \tau \), to indicate the aspiration of them, afterwards indicated by the symbols \( \phi \), \( \chi \), \( \varsigma \). When used as a whole simply to designate the vowel \( \eta \), it was also divided and one half of the symbol \( H \) shortened for convenience into \( ' \) was used to denote the rough breathing; while the other half \( I \) shortened into the smooth breathing, and turned from the proper cursive direction of the letter, to indicate that its force did not go over upon it, was used to discriminate as such every initial vowel that was not aspirated.

I. and J. I is often the equivalent of the Sanskrit a, and i, and \( \hat{a} \).

(a) ignis, fire; agnis: in, into and in; ana: imber, a shower; abhra: invitus, unwilling; vas, to wish.

(i) is, he; i, the demonstrative particle i (cf. also idem the same and Sansk. idam, he, it); eo, ire, to go; i, to go: viginti, twenty; vinçati.

(e) vitis, a vine; vêtra, a reed.

J is equivalent to Sansk. y, as jungo, to join; yu and yuj: juvenis, a youth; yuvan.

The Greek correspondent of j is \( \zeta \), which was not pro-
nounced, as commonly in this country, as if ds, but as dsh or j or zh; and the ancients spoke admiringly of its soft liquid sound.

I in compound and derived forms in Latin is often substituted for other letters, as for a, ae, e, o and u. It is the substitute of a in incido (in+cado); ae, in incido (in+caedo); e, in retineo (re+teneo); o, in illico (in+locus); u, in consilium (from consulo) and exsilium (exsul). I represents the short vowel-sounds in Greek a, e, o. (a) digitus; δάκτυλος: catinus, a bowl; κάτανος. (e) piper, pepper, πέπερι. (o) canis gen. canis, a dog; κῦνον, gen. κῦνος.

J sometimes falls out of the middle of words as in obex for objex (objicio) and a'is, 2d pers. present of aio, or ajo, for ajis. J is the consonantal counterpart of the vowel i, as v is also of u.

As the Greek ν was pronounced like the French u, the corresponding vowel of Latin forms, from the same root as Greek forms containing it, takes i in its place, to which the short French u-sound is very similar. The letter y accordingly has received from this fact the alphabetic name y Grec, in French.

K. K was employed in the earliest period of the Latin, as the equivalent of the Greek κ; at which time c represented the Greek γ in sound as well as in its alphabetic place and its symbolic form (inverted). When subsequently a new symbol for g was invented, c supplanted k in use; and k in consequence fell into disuse, except in a few abbreviated forms as Kal. for calendae, etc.

L. L is equivalent to Sanskrit l, n, r. d.

(l) labor, labi, to fall and labo, are; lab and lamb: libet and lubet, it is pleasing; lubh: ligo, to bind; lig.

(n) alius, another; anyas.

(r) lyra (Gr. λύρα prob. at first λύδρα; ru, to sound forth and rudr, an instrument): laedo, to injure; radh; lateo, to be concealed; rah, (cf. Fr. rossignol and lusciniolus). So the terminations -alis and -aris are radically the same.

(d) lignum, wood (to burn); dah, to burn: levir, a
brother in law (Gr. δάνηρ for δαφήρ); dêvri: mel, honey; madHu. So lingua was originally dingua. Cf. also the double forms in Greek δαφνη and λάφνη, a laurel, and Lat. oleo, to smell and odor; also, Lat. amyllum, starch and Fr. amidon.

As I could not remain doubled at the end of a word, it was removed, in the nominative, from the end of the stems mell, honey, and fell, gall.

M. M has for its Sanskrit equivalent m. Cf. machi­nor, to contrive, etc.; Sansk. mah (Gr. μηχανάωμαι, Eng. make, Fr. maçon, Eng. mason.

M interchanges with n, as immanis and immittor for in­manis and in­mitto. M also corresponds as a final letter, in the declension of both verbs and nouns, with ν in Greek (Sansk. m); since the Greek ear would not tolerate m, at the end of words. Before s, it is assimilated in one case to s; as pressi, perf. of premo, for premaz. Usually when m and s would occur together in the perfect of verbs, p is euphonically inserted between them, as prompsi, perf. of pro­mo (= pro+emo): and sumpsi perf. of sumo (= sub+emo). Cf. for similar epenthesis of p in French, domptor, to subdue (Lat. domitare), and in English tempt (Lat. tento).

M interchanges in Latin in some instances with b and v, as hibernus (hiems) and promulgo for provulgo; with which compare also globus and glomus.

N. The Sansk. equivalents of n, are n, sn, jn.

(n) neo, to spin and necto, to connect together; nah, to
knit: nasus, the nose; násas(s).

(sn) no, to swim, and nato; snâ: nix, nivis, snow; san­yas (from verb snu, to pour forth).

(jn) nosco (for gnosco), to know; jnâ.

N in Latin corresponds sometimes with τ in Greek; as pinus, a pine, Gr. πίτυς: planus, broad, Gr. πλατύς.

In composition with l and r, n is assimilated to them, as

1 So in French also, m often changes to n, as colonne, a column (columna); sentier a path (Lat. semita).
colligo for conligo and corruo for conruo. So also ullus is for unlus, for unulus; and corolla for coronla for coronola. Before s, as in trans, n often disappears, as in trado (trans +do), traduco, and traho, and tracto its derivative (supposing traho to be for tra+veho). So in elephas (of elephants) and gigas (gigants), and adamas (adamants), the letters nt have been dropped out before the gender-sign, as always in Greek 1 when the gender-sign is retained. The disappearance of n, in the perfect and supine forms of verbs, which contain it in the present and imperfect tenses, as in fundo, pungo, tango, is not, of course, to be explained, as a matter of euphonic necessity or convenience. Such verbs have their pure stems, which are found, as in Greek, in the preterite tenses, nasalized in the present and imperfect tenses, as likewise in the Greek in both voices.

Other words besides verbs are sometimes thus strengthened in Latin, as ambi (āmuḥ) Sansk. abhi; and inferus, sup. infimus; Sansk. adhas, low, comp. adharās, sup. adhamas.

O. O is equivalent to Sansk. a, â, âu.
(a) os(s), a bone; asthi.
(â) vox, voice; vâch(s).
(âu) octo, eight; ashtâu.
Its correspondents in Greek are o, ω, ε.
(o) nomen, a name; δυομα. (ω) ago; ὁγω. (ε) oliva, the olive, ἥλαια, and oleum, oil, ἥλαιον.
O is frequently interchanged with u in derived forms: as srmunculus, diminutive of sermo(n); exsul (ex+solum); cultum (sup. of colo); robur, gen. roboris; publicus (for populicus) from populus; vult (for volit) from volo; and also homo and humanus. So, the ancient name of Modena was Mutina.

It sometimes interchanges with e, in the same word, as

1 When such a combination would occur in nominal bases as πυς, ντς, or, ρς, in Greek, the rule is, if the gender sign is retained, to reject the other letters of the combination as γυς (γυςας) or, to reject the gender-sign and keep final υ or ρ, and lengthen the vowel preceding it, by way of compensation, as τομήν (τομήνυς); φτόπ (φτόπυς).
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vertex and vortex (vert); vester and voster (vos). It is in derivatives sometimes changed to i, as in cognitus (cognosco).

By way of adding more weight to the stem-vowel, other vowels, and especially e, are changed to o, in derived forms, as so often occurs also in Greek: as socius (from sequor); sodalis (sedeo); procus (precor); solium (sedeo); modus (metior); nodus (necto). These changes occur chiefly, in both Latin and Greek, in the case of nouns derived from verbs.

P. Its Sanskrit equivalents are p, v, b. (p) palus, a marsh; palvala(s): pingo, to paint; pij and pinj. (v) porcus, a pig; varâha(s). (b) puto, to consider; budh: pestis, a plague; bâdhâ.

P, when initial, can be followed only by l and r of all the consonants. Its euphonic insertion between m and s, in perfect and supine forms, has been already described. Its Greek correspondents are π, φ, τ, κ. (π) palma, the hand; παλάμη. (φ) pars, a part, φάρσος, from φάρω, to divide. (τ) pavo, a peacock; ταός. (κ) lupus, a wolf; λύκος.

P is interchangeable in Latin with b, as scripsi perf. of scribo; with v, as opilio and ovilio, a shepherd from ovis, a sheep; and with t, as hospes and hostis, each having for their primary signification, a stranger.

Q. Q and qu represent Sansk. k, ch, p, q. (k) quis, who; kas: quatio, to shake; kvath, to agitate. (ch) coquo (for poquo), to cook; pach (cf. πέττω for πέκτω): quæro for quæso, perf. quæsivi; chesth, to seek. (p) quinque, five, panchan (πέντε πέγκε): (q) equus, a horse; açvas.

1 In German, and correspondingly in English, there are many instances of a change of the stem-vowel of verbs, to indicate distinctions of time.

As, singen, to sing. Imperf. sang. Fast. Part. gesungen.
" sprechen, to speak. " sprach. " gesprochen.
" binden, to bind. " band. " gebunden.

4 So, Latin apotheca becomes, vice versa, French boutique.
6 Cf. Lat. pauper and French pauvre; and also German vater and Lat. pater.
Its correspondents in Greek are π, as sequor, to follow; 
ἐπομεν: and τ, as quis, who; τικ (for κω). With refer­
ence to the interchangeableness of q, or any other guttural,
with p, or any other labial, in Sanskrit or Greek, compare
with other examples previously cited, proximus (for propti­
minus); vixi (vivst) and nix (nivos). So tabeo, to pine away,
corresponds with τήκω and French suivre with Lat. sequi.

Qu is not a diphthong in Latin, as in German and Eng­
lish. It had only, as in French, the simple sound of k. The
vowel u was added, simply to make it capable of articula­
tion. In early forms a similar combination of u with g oc­
curred, as tinguo, unguo and urgeo, first forms of tingo,
un, and urgeo. So in French we find guérir, guider, etc.;
and in English, guide, guard, etc.

Q in qu, before another u and also before t, becomes c;
as secutus for sequatus (sequor) and secundus for sequu­
dus. So is it with relictus from relinquu and coctus
from coquo and concutio for conquatio and cujus, gen. of quis
(for quojus). In one word, inquilinus for incolinus, a re­
verse change occurs; and in quum with its double form
cum, we have two different spellings of the same word with
the same pronunciation.

R. Its equivalents are in Sanskrit r, l; and various con­
sonantal combinations with r, as pr, dr, sr, kr.

(r) res, a thing; ras: rex, a king; râj: rodo, to gnaw; rad:
rheda, a carriage, rathas.

(1) rumpo, to break; lup and lump.

(pr) re- and red-back; prati.

(dr) racemus, a cluster of grapes; draksha(s).

(sr) rivus, a brook (cf. ἔω for σφo); sr, to pour forth.

(kr) rideo, to laugh; krid.

Before s, r is sometimes rejected, as lepus for lepers (o
being also euphonically changed to u); flos for flors, mus
for murs; pulvis for pulvers; cinis for ciners; in which
cases s is the gender-sign. So hausi perf. of haurio is for
haursi and haeasi for haersi. But in such neuter forms as
jus, corpus, foedus etc. the s is to be analyzed as a substi-
tute for r: and radical r is accordingly often changed to s, before nominal and adjective suffixes; as flosculus for flor­
culus and corpusculum for corpo­
le tum; seele stus for scel­
lertus and rusticus for rusticus: while before t, especially in supines, radical r often becomes s; as gestum for ger­
tum (gero), questus for qui­
tus (queror) and ustum (uro) for urtum.

R is often assimilated before l and s: as puella, for pu­
erla for puerula; libellus for libel­lus; and pellucidus for per­
llucidus: as also gessi for gersi (gero) and ussi (uro) for ursi.

It is sometimes inserted into words by epen­thesis, as in
sero perf. sevi (Gr. sevelo, Sansk. su, German saên) and in
the genitive plurals of nouns -arum, -orum, -erum for aüm, oü­
em, eüm, Gr. aou etc. So brachium compares with Sansk.
bahu and frango with bhanj.

R is often the representative of an original s in Latin: as
ara for asa; eram for esam quorum for quosum (Sansk.
kaśām) dirimo for disemo; diribeo for dishibeo. So com­
pare nasus and naris. In German and English likewise r
and s often interchange: as German war, frieren, hase, ei­
sen; Eng. was, freeze, hare, iron.

S. S represents Sansk. s, ç, ch, sv, ksh. (s) scando, to
climb; skand. (ç) saccharum, sugar; çarkaga. (ch) obscu­
rus (σκάα, σκοώς and σκότος); chhāya. (sv) soror for so­
sor, a sister; svasri and svasar. (ksh) sipo, to cast away; kship.

The correspondents of s in Greek are the aspirate, as su­
per and ὑπερ; σ, as studeo and σπεύδω.

In some cases s initial is found in roots wanting it in
Greek, as scalpo and γλύφω, scruta and γρύτη; and, vice
versa, it is not found in some roots where in Greek it does
occur, as fallo and σφάλλω.

S is dropped in the nominative from the end of any stem,
where it would otherwise be doubled, as as (for ass) gen. as­
sis and os (for oss) gen. ossis. It is also often dropped in
the middle of compound words as diduco, dimico, divello
for disduco etc.
For the interchange of s and r, see letter r.
S is assimilated before f, as differo for disfero; and it assimilates to itself in many cases, a preceding b, d, m, r, t, as jussi (for jubsi), cessi (cedsi), pressi (premsi), gessi (ger­si), confessus (confetsus, for confettus).
S sometimes represents in Latin an original d, as esca and esculentus and est, he eats, from edo, to eat, for edca etc. So in Greek ἐοίς and fut. ἐομεῖς compare; as also Lat. rosa and ῥόδον and Sansk. madhyas and μέσος.

T. The Sanskrit equivalents of t are t, st, sth, dh. (t) tendo, to extend; tan. (st) tono, to thunder; stan (cf. Στέντορ, famous for his loud voice). (sth) taurus, a bull; sthiras. (dh) terra, the ground; dhara.
Its Greek correspondents are τ; and S, as vestis; ἐοῆς, etc.
T is assimilated to s, as quassi perf. of quatio for quatsi and missum for mitsum (for mittum). T is also often suppressed before s, as in the nominatives mors, mens, dos, for morts, mens, dots and the perfects misi, sensi for mitsi and sentsi. T becomes sometimes d in derived forms, as quadra and quadraginta from quatuor, and so mendax, de­ceitful from mention, to lie.
In the middle of a word before two vowels the first of which is i, t was in the later period of the Latin language pronounced with a sibilant sound, as is evident from the double spelling ci and ti used in such cases, as in nuntius and nuncius.

U and V. U represents Sansk. u, v or kv and a. (u) sub, under (ὑπό); upa. (kv) ubi, where, for cubi, as in alicubi (alius—cubi, or ubi); kva.
U is sometimes hardened into its corresponding consonantal form v, as gavisus, perf. form of gaudeo. Sometimes it is shortened into e or i, as bacillus, dimin. of bacu­lus (for baculus); and so tabella (for tabulula) dimin. of tabula; and familia formed from famulus. Other vowels frequently change in derived forms to u, but u seldom
changes to them as in cultum sup. of colo; insulto and ex-sulto from salio, compounded with in and ex.

The equivalents of v in Sanskrit are u, v, b, k. (u) vacca a cow; ukshan, an ox from vah, to carry. (v) veneror, to worship: van; via, a way; vah, to go. (b) valeo, to be strong; bala, force. (k) vermis, a worm; krimi.

Its correspondents in Greek are the digamma $\mathrm{Ϝ}$, as vīnum (οίνος for Φοίνος); and $\beta$, as vólōmaі.

V is properly a labial differing from f, only as being somewhat harder. The two sounds compare phonetically, as in English the two sounds of th, in think and rather, or bath and bathe. After a vowel and before a consonant, especially t, it changes often into u, as lautum for lavtum (lavo), nauta for navta; cautum for cavtum. And so also, vice versa, after a consonant and before a vowel or t, it changes into u, as docui for docvi and solutum for solv-tum. In some words v drops out and the previous vowel is lengthened as votum supine of voveo, for vovtum and obligatus, part. of obliviscor, for obli-vus. In a few cases it is changed, in combination with s into a guttural, as vixi, victum for vivsi and vivtum from vivo; and nix (for nivs) gen. nivis. In forms like jūvi, fōvi, mōvi, cāvi etc., there is a contraction of the full original forms, which were juv-vi (juv- being the verb stem and -vi the tense-ending, composed of the tense characteristic v and the person-ending i), and fōv-vi, mov-vi, cav-vi etc. V, when occurring in a syllable which was afterwards contracted, changed to u, as neu for neve, seu for sive, nauta for navita.

X. Its Sanskrit equivalent is ksh as axis (αξων), an axle-tree; aksha; and its Greek correspondents are $\xi$ and, in proper names sometimes, $\sigma$ and $\sigma\sigma$: as sex, six; $\xi$: Ajax and $\Lambdaίας$, Ulixes and 'Οδυσσεύς.

X represents, as a compound consonant, cs, gs, and sometimes vs, ps and ts.

(cs) vox: (gs) rex: (vs), connixi perf. of conniveo for connivsi and fluxi perf. of fluo, for fluvisi: (ps) proximus, superlative of propior, for propsimus: (ts) nixus for nitus from nitor.
In one word at least the use of $x$ seems to be altogether arbitrary; senex, gen. senis. The author can think of no euphonic analysis that will explain it.

$X$ in the preposition ex changes into $f$ by assimilation before $s$, as effero etc.

The change of $x$ to $ss$ or $sc$ is noticeable in a few words, as lassus (for laxus) and lascivus (for laxivus).

$Y$. This letter was not introduced until a late period into the Latin alphabet; and it was then confined to words borrowed from the Greek, in which $v$ had been previously used. As the Greek $v$ was in pronunciation the modern French $u$, its representation by $y$ in Latin, in the middle of words, was very natural.

$Z$ was borrowed from the Greek, and used only to denote foreign words.

No one who has not undertaken to compass the whole subject of phonology, for himself, in its many internal elements and external relations; and to subject its facts and difficulties to a thorough analysis of his own; and to adjust the results of his manifold investigations in all their separate and combined aspects into a harmonious scientific system, adequate to the wants of so great and so complicated a subject,—can have any just idea of the amount of earnest, varied and repeated thought and research required for its proper development. No one will welcome more gladly than the author, the sound of another's blast, drill or hammer, in these vast and but partially worked mines of scholarly exploration. His own effort has been, to throw a true and strong light on matters hitherto lying out of the field of scholastic vision, in this country; and to him who shall give them a brighter and fuller illumination, no one shall shout with more gladness: All hail!

**Erratum.**—On page 691 (Vol. XVI.), of previous article, lines 2 and 80, for word daddâmi, I place, read dadhâmî.