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authority that so undoubted a veteran in this great work as Mr. John B. Gough recognizes the value and good sense of a modified pledge for those who are unwilling to take a more stringent one.

Finally, there is unlimited hope in the general progress of Christianity, and its increased power in the hearts of men. Never was the outlook so favorable as at the present time for the rapid coming of the kingdom of God throughout the world. Never was there less reason to doubt the entire sufficiency of biblical methods for hastening the glorious coming.

ARTICLE IV.

RELATIONS OF THE ARYAN AND SEMITIC LANGUAGES.

BY REV. J. F. MCCURDY, PH.D., PRINCETON, N. J.

WORDS FOR STRETCHING OR EXTENDING.

27. Proto-Aryan *tan*; Proto-Semitic ת to stretch, extend.

The Aryan root *tan* appears in Skr. *tan*, *tan-omi*, to stretch, strain; Zend. *tan*, to stretch out, spread out; Gr. *τείνω* for *τεν-ω*, *τι-ταίνω* for *τι-ταν-ω*, to stretch, extend; Lat. *ten-do*, to stretch, *ten-eo*, to hold, i.e. to keep on the strain; *tempto* (properly *ten-to*, according to Corssen), to try, or, primarily, as Curtius says, to stretch a thing till it fits; Goth. *than-yan*; A. S. *then-yan*, to extend. It is also found in many noun-stems in these and all the other Indo-European dialects, with kindred or derived meanings, in which the force of the primary idea is variously and vividly represented. This *tan* is really a nasalized form of *ta*, which appears as the stem before a consonant in Greek and Sanskrit. Thus *tan* in Skr. has the participle *ta-ta*, to stretch, and *τείνω* gives the aor. *ἐτάθην*, while we also meet with the form *τάσις*, a stretching, and *τά-νν-μαι*, I stretch myself; cf. the note in Chap. IV. on nasal vowels in connection with the determinative *n*. — The Semitic ת shows itself most simply in the Heb. תָּ, to

stretch, extend, and its antiquity is attested by the noun-stems ṭ-ṭ , extension, and ṭ-ṭ , a shoestring, in Ethiopic; and especially by the word for large serpent or sea-monster: Heb. and Chald. ṭ-ṭ ; Arab. ṭ-ṭ , which is derived from ṭ , just as the Lat. *regulus* is from *rego*, to stretch. With a predeterminative ṭ the idea of extension denoted by the simple root is transferred to time; hence the Arab. ṭ-ṭ , to be perpetual, and the obsolete Heb. ṭ-ṭ , which is to be presupposed for the noun ṭ-ṭ , perpetuity. With the predeterminative ṭ the idea of stretching becomes that of giving, or reaching forth.¹ So we have the Heb. ṭ-ṭ , to give, which appears also in Chaldee and Samaritan, and of which the Syr. ṭ-ṭ is probably a corruption. The Assyr. ṭ-ṭ is the same word with *t* softened to *d*, according to a common change. In the Eth. ṭ-ṭ , however, the primary notion has apparently been transferred to the mental sphere, and the word means, in conj. vi. 1, to be busily engaged, assiduously occupied,² or, as we say, to have the mind on the strain, to be *in-tent*. The same root, ṭ , with a vowel postdeterminative, appears in Heb. ṭ-ṭ , as well as in several of the Aramaic idioms, with the proper sense of rewarding.³ As corresponding with the Aryan *ta* we may possibly have a relic of a Semitic ṭ or ṭ in the Arab. reduplicated form ṭ-ṭ , to incline downwards.

28. Proto-Aryan *nat* (*nit*); Proto-Semitic ṭ , ṭ , to stretch forward, incline.

¹ This transference of meaning is very common in language. It is manifest in the origin of the words *offer* and *proffer*, Lat. *praebeo* (= *prae-habeo*, to hold out), and even in the word *give* which is probably identical with the Lat. *habeo*, to hold. So also in the Skr. *prayacchāmi*, I offer, give, from the root *yam*, properly to stretch.

² See Dillman, *Lex. Aethiop.* col. 660, who, however, with apparent impropriety, connects the meaning with the idea of giving, and compares the Lat. expression: *se dedere*.

³ Cf. the Lat. *dono* from *do*, or, as a still better illustration, the Germ. *darreichen*, to reach forth, present.

An Indo-European combination is given by Fick (i. 125). From the adducible examples there would seem to have been not only the root *nat*, but a degenerated form *nit*. The Skr. *nāth* means to seek for help.¹ Comparing this with the Goth. *nath*, *nithan* (Teutonic *nātha*), to support, help, and the Lat. *nit-or*, to strive after, to seek or gain support, it is evident that the primary meaning of the root is, to reach after, or stretch forwards. — On the Semitic side the Arab. نَاس , and with a vowel determinative نَاسٌ , to stretch out, lengthen, preserves the primary signification of the root; but the corresponding Heb. נָסַח , while yielding the same sense, means more generally to stretch or lean forwards, to incline. Again, Eth. ከተሰ , with the post-determinative ህ , means, primarily, to extend, stretch out, as the noun-stem ከተሰ , a tent, implies, which is formed from it as Lat. *tentorium*, L. Lat. *tenta*, *tent*, came from *tendo*. But ከተሰ also meant to stretch forward or incline, for its current sense is to flee or to be put to flight.² The proof is complete when we refer to the identical root in Syriac, ܢܫܐ , to incline, used specially of a scale of the balances.

29. Proto-Aryan *mad*; Proto-Semitic מָד , to extend, to measure.

The root *ma* yields the common Indo-European words for measuring. In its undeveloped form it is found in Skr. *mā*, to measure; Zend *mā*, to measure, to produce; Gr. $\mu\acute{\epsilon}\tau\rho\nu$, a measure; Lat. *me-tior*, to measure; Eccl. Slav., мѣра , a measure. The secondary root *mad* is also Proto-Aryan. It appears in Lat. *mod-us* measure, and *mod-eror*, to keep in

¹ Pott's attempt (*Wurzelwörterbuch*, i. 576), to connect *nāth* with *na*, to lead, fails, because it begins at the wrong end of the train of ideas. The Skr. *nātha*, means, a "leader," only because it first meant a protector, i.e. one who is sought for help or support. As a neuter noun, *nātha* means help or support.

² Just as the Lat. *fugio* is from the root *bhug*, to incline, bend, which also yields our English *bow*. The Arabic نَاس , just cited, means also to flee; cf. Heb. נָסַח , 1 Sam. xiv. 7.

measure, *mod-ius* and Gr. μέδ-μνος, a bushel measure, and it takes the place of *ma* entirely in the Teutonic *mat* (Goth. *mitan*, Engl. *mete*). In the figurative sense of considering (cf. Germ. *ermessen*) we have it in Gr. μῆδ-ομαι, to think on, μέδ-ομαι, to care for; while it is found also in the same sense in Keltic. The sense of measuring, then, is the prevailing notion attaching to these roots. That the primary idea was that of extension can, we think, be pretty clearly shown. In the first place the idea of measuring is not primitive; it is essentially a secondary and complex notion, implying a factitious comparison with an accepted standard: it must be expressed by the new application of a previously existing term. What, then, is it to measure? It is just to take the length, or rather the extent, of anything. Hence, when we come to examine in various languages the words for measuring whose etymology is accessible, we find that the radical notion is that of extending, in nearly every case.¹ In the second place, we have apparent secondary forms of the root *ma* which imply the notion of extending. There are in Indo-European apparently three roots, *mak*, *mag*, and *magh* (see Curtius, 5 ed. p. 328, No. 462), which had the sense referred to. These have given rise respectively to such representative words as the Gr. μακ-ρός, long; Lat. *mag-nus*, great, and Skr. *mah-ant*, great. These are most naturally to be connected with a root *ma*, having the general sense of extending.² In the third place, there is more direct evidence from the usage of the root *ma* itself. In Zend. it means to make, produce, and a similar sense is given by it in Sanskrit, when it is compounded with the prefix *nis*. But it is more significant still that the Proto-Aryan word for mother, *matar*, is from *ma*, and as it obviously means the producer, it shows how very early this meaning was attached to the root. Now,

¹ The Arab. جك is an exception. Like the equivalent Heb. כִּי it primarily meant to hold or contain, and was thus applied to dry and liquid measure. This, of course, belongs to a later order of things.

² It is noteworthy that *mā* is the stem of the Latin comparative *mā-jor*, and that there is no final consonant in the stem of the Gaelic *mór* and Welsh *mawr*, great, which are undoubtedly hometymous.

we cannot very readily get the idea of producing from that of measuring, but we can very easily associate it, as well as the notion of measuring, with the idea of extending (cf. the Lat. *pro-duce*). — The root מָד is preserved in the Arab. مَدَّ and مَدَى , to extend, spread out, and though it does not appear in other idioms in verb-stems without consonantal determinatives, it is probable that the Semitic word for hundred (Heb. מֵאָה) is derived from it. However this may be, there is no doubt that this fundamental expression occurs in many other forms. The most notable is the root מָד , which appears as Proto-Semitic, not only in the simple form, but also with various determinatives, as מָדוּר , מָדוּר , מָדוּר ,¹ all having the notion of extending. The simple root מָד had also, from early Semitic times, the sense of measuring, as appears from the Heb. מָדוּר , to lengthen, to measure, as compared with the Arab. مَدَّ , the name of a certain dry measure, from the root مَدَّ ; cf. مَدَى , of like meaning. In the same way, as we have seen, the root *mad* yields the Lat. *mod-ius* and Gr. $\mu\acute{\epsilon}\delta\text{-}\mu\upsilon\nu\alpha$, and thus the analogy is completed with the root מָד .

30. Proto-Aryan *raḱ*; Proto-Semitic, רָח , to extend.

In the Indo-European sphere the two roots *raḱ*, *rag* lie side by side; each of them means, properly, to stretch, extend. Whether the form *rag* has been weakened from *raḱ*, according to the analogy of a multitude of roots in Greek (Curtius, p. 533 ff.), and occasional examples elsewhere, or whether they are equally autonomous, we do not need to attempt to determine. The root *raḱ*, in the sense of extending, seems to survive in the Zend *raḱ-ta*,² right, straight (as

¹ From this root comes the Assy. *ma'adu*, great, and also, as Schrader has suggested (Keilinschriften u. d. Alte Test. p. 3) the Heb. מָדוּר , much, which has nothing to do with מָדוּר , to be strong.

² The ç here corresponds to an original k , as in Sanskrit, and not to g , which it represents, in place of an intermediate z , only before m and n . See Schleicher, Compendium, p. 186. The root is therefore *raḱ*, and not *rag*. Pott, who brings it in under *rag* (Wurzelwörterbuch, iii. 593), admits that the sibilant looks suspicious. Fick (i. 406), combines with Lat. *rec-tus* (for *reg-tus*) without hesitation.

our word *right* is from the root *rag*). It also appears in the Skr. *raç-mi*, *raç-and*, a string, a thong, a measuring line, and probably, in *raç-i*,¹ a large quantity. A weakened form of the same primitive root is perhaps traceable in the Lat. *por-ric-i-o*, to present, offer to the gods, which would stand to the root *rak* as *por-rig-o* does to *rag*,² which also has the sense of Lat. *pro-duco*. — The Semitic רך appears clearly in the form רך, to extend. This is represented by Heb. רָחַץ, to prolong; also to be long, or to delay; Arab. رَأَى, to delay, Syr. رَأَى, to be long, delay; and in other Aramaic dialects. The Assy. *arik*, long, with various other derivatives, presents the same root. רך, in this sense, seems also to have had another vowel predeterminative; for the Arabic رَوَّحَ, means to delay, to linger,³ while the same root in various Semitic idioms conveys the kindred notion of coming behind. It is most fully represented in Assyrian,⁴ where we have *arku*, *arki*, *arka*, behind, *arka*, *arki*, after, *arkatu*, the hinder part of anything. The last-named word is the exact phonetic representation of the Heb. אַרְכִי, which has the same meaning, and which also means the hinder part of the body; cf. Arab. رَوَّحَ, رَوَّحَ, and Heb. אַרְכִי.

31. Proto-Aryan *rak*; Proto-Semitic רך, to dispose, arrange.

For the Indo-European root, see Fick i. 188 f., and cf. Pott III. 216 ff. (Nos. 1024, 1025). It is allowable to compare the Skr. *rac*, to arrange, compose, set right; Goth. *rak-nyan*,⁵

¹ It is a fancy of the Hindu grammarians that this is erroneously written for *raç-i*. But no root *raç* or *ras* yields the proper sense.

² Cf. Corssen: *Aussprache u. s. w. d. lat. Sprache*, i. 500 f. He assumes a root *rik*, which he finds represented in many other words. Most of the combinations seem hazardous. The most plausible is that with O. High Germ. *rih-an* (cf. Eng. *row*), to place in line.

³ This root in Arabic also means to stand still. For the sense, may we not compare עָמַד, to stand, with the root עָמַד, already discussed?

⁴ For a full discussion of the Assyrian words, see Lenormant: *Etude sur quelques parties des syllabaires cunéiformes* (Paris, 1876), p. 143 ff.

⁵ This must be carefully distinguished from Eng. *reck-on*, A.S. *reconan*, which is from the root *rag*, to extend, direct.

to reckon, determine; Lith. *renk-ù*, to collect. — The Semitic root, like the preceding, is found with a light predeterminative: Heb. קָרַף, to set in line, arrange, adjust; Eth. ሀረፍ and ሀረከ, to adjust, reconcile.¹

WORDS FOR BENDING OR CURVING.

32. Proto-Aryan *kap*, *kup*; Proto-Semitic קָפַ, to bend, to curve.

Kap is represented in the Gr. κάμπ-τω, to bend, καμπ-ύλος, curved, and probably in Lat. *cap-erare*, to wrinkle. The Skr. *kamp*, which is undoubtedly the same root, to tremble, the expression being suggested by the curvature of trembling objects; *cāp-a*, a bow, from the primitive form *kap*, preserves the earlier notion. The same notion is apparent in *kap-aná*; Gr. κάμπ-η, a worm (cited by Fick, i. 39). — The Semitic קָפַ has a very wide representation, and in its simplest form it appears in Heb. קָפַף. Syr. كَفَف; Chald. קָפַ, to bend, to be curved; Arab. كَفَف, to turn away or aside; while the Assyrian has it as a noun-stem in *kap-u*,² a hollow place. The apparent derivative קָפַף, the palm, or hollow hand, is found throughout the system. With closely related meanings the root is also found with various determinatives in verb and noun stems that are surely Proto-Semitic.

33. Proto-Aryan *kmar*; Proto-Semitic קָמַר, to bend around.

The researches of Pictet³ and of Pott (W. Wb. i. 503) have made highly probable the existence of a primitive root *kam*, with the sense of bending (comp. also Fick, i. 40). More certain, however, is the occurrence of a root *kmar*, with three

¹ There can be no doubt that the last two pairs of roots (Nos. 30, 31) were originally the same. The idea of arranging is a secondary one, and, according to a multitude of analogies, it is usually expressed by words that mean extend, etc., to put in line. So with our word *ar-range*, the Lat. *or-do* (cf. *or-ior*), *dis-pruo*, *rec-tus*, our word *right*, *reck-on*, and a great number of hometymous words from the root *rag*. Indeed, the root קָרַף (No. 30), has also the sense of fitting, adjusting, in Hebrew, Talmudic, and Arabic.

² For examples of this word, see Norris, *Assyrian Dictionary*, p. 592 f.; cf. 516.

³ *Les origines indo-européennes* (2d ed. 1877), ii. p. 277.

consonants. The Sanskrit has a root *kmar*, *kmarati*,¹ to be curved, and although the verb-stem does not emerge elsewhere, we find in Zend the noun *kamar-a*, a vault, and a girdle; cf. Gr. *καμάρα*, Lat. *camer-a*, a vault, and Lat. *camur*, bent inwards (used of horns). It is possible, as Fick suggests, that the same stem appears in O. S. *himil* (Germ. *himmel*) as the vault of heaven. — The Semitic root is developed in precisely the same way. Cf. Eth. $\Phi\Omega\angle$, to vault over, to make round, $\Phi\Omega\zeta$, a vault, and an orb, with Chald. ܦܩܦ , to gird; ܦܩܦܝܢ , a girdle, Syr. ܦܩܦܝܢ .²

34. Proto-Aryan *ank* (*ak*); Proto-Semitic כפ , to bend, curve.

The Indo-European has mostly the nasalized *ank* in stems from this root; but *ak* appears in some forms, and according to what was said on the subject of nasalization in Indo-European roots in Chap. iv., the primary sound may be represented by *ak*. Cf. Skr. *ac*, *anc*, to bend, *ak-a*, the curved bosom, and a kook; Zend *ak-a*, a clasp; Gr. *ἄγκος*, a clasp, hook, *ἀγκών*, the bent arm, *ἀγκύλος*, bent, curved; Lat. *unc-us*, bent, and a hook; O. Irish *éc-ad*, a hook; Engl. *angle* in its two senses. — The Semitic root is not found in its simplest representation; but appears with a variety of determinatives, all of which reveal its primary force. Thus כפ (in verb or noun stems in Heb., Chald., Syr., and Arab.), to bend or twist; Eth. ሀቀ , and Arab. عَقَم , to bend, restrain, shut up; Syr. ܕܦܩܦ , Chald. ܦܩܦ , to twist, to turn; כפ , to bend, to arch, כפפ and כפפ , to twist, all of which also are Proto-Semitic. Forms with other determinatives are found besides in the separate dialects. Moreover, the ancient roots כפ and כפפ give the idea of restraining, already adduced.

¹ This root, though not quotable in the literary language, is attested by the Dhātupāṭha; see the Petersburg Lexicon, s.v.

² This root is not borrowed from the Greek *καμάρα*, or from any Indo-European source. It is probable, however, that the Heb. כפפ , an idol-priest, through its Syriac equivalent, was derived from the Persian source above indicated; *kamrd* was the girdle of the fire-worshippers.

WORDS EXPRESSIVE OF MOVEMENT.

35. Proto-Aryan *sad*; Proto-Semitic צָד, to go.

The root *sad* has not a large extant representation in the Indo-European; but is well defined and well established. Cf. Skr. *sad*, to go; Gr. ὁδός, a way, ὁδ-εῖω, to walk, etc.; Eccl. Slav. *šid*, to go, *chod-ŭ* (χodŭ), a course, *chod-iti*, to go, proceed. Other combinations made by Curtius (5 ed. p. 241, No. 381) must be regarded as hazardous; cf. Pott, iv. 712 f. (No. 1788). — The root צָד, in its simplest representation, means to go away, to go aside;¹ Arab. صَدَّ, to turn aside; cf. Heb. צָד, a side. With indeterminative צ, Heb. צָדָה and Arab. صَعَدَ means to go up or go down, but also to proceed or march.² With internal vowel expansion we have צָדָה, meaning to go after, to pursue; the Proto-Semitic word for hunting, found in all the dialects except the Ethiopic. The sense of lying in wait, ascribed by Gesenius to this root as its primary meaning, is naturally secondary. It seems also probable that through the postdeterminative פ, the root צָדָה, the ancient and universal term for righteousness, meant primarily, to go straight, or right on.

36. Proto-Aryan *sar*; Proto-Semitic שָׂר, to go, to move quickly.

The root *sar* is found in Skr. *sar*, to go, to flow; Zend *har*, to go; Gr. ἀλλομαι, to spring, ἀλ-σις, springing, etc., ὀρμή, impulse; Lat. *sal-io*, to leap, and many other Indo-European forms. — שָׂר is seen in Arab. سَارَ, Med. Ye, to go, to walk, to journey; سَارَ, Med. Waw, to go up, to leap upon; Heb. שָׂרַח, to travel, to go around; Chald. שָׂרַח, Syr. هَمَّ, to leap upon or forward. These forms arise from internal

¹ That the verb is not a denominative from צָד, a side, is proved from the fact that the latter is only Hebrew, while the former is Proto-Semitic. The Syr.

سَارَ, with, among, is, of course, not connected with צָד.

² Cf. the uses of Latin *scando*, and its compounds; also the Proto-Aryan *skand* (Fick, i. 232), in which all the above meanings are exemplified.

vowel expansion. The simplest form is apparently preserved in Eth. ሰረረ, to leap, to rush upon (in the Amharic dialect the same root means to be carried along); while with the determinative ʾ we find Arab. سَرَعَ, to go swiftly; Syr. ܣܪܥܐ, to slip down. The agreement between the Aryan and Semitic roots in both general and special meanings should be well noted.

37. Proto-Aryan *ragh*; Proto-Semitic ʾr, to move quickly.

For the various representations of the root *ragh* Fick, I. p. 190, may be compared with Curtius, p. 192 (No. 168). We shall cite a few cases in which it undoubtedly appears: Skr. *rañh* (= *rah* = *ragh*) and *rangh* (= *ragh*), to run, to hasten; *languh*, to spring up or over; *rangh-as*, *rañh-as*, *rah-as*, swiftness, haste; *lagh-u* and *ragh-u*, quick, small; Gr. ἐλαχ-ύς, small; Lat. *lev-is*, light, for *legv-is*; Eccl. Slav. *lig-uku*, light; Goth. *leih-tas* = Eng. *light*; O. Irish, *ling-im*, I leap, and the common Teutonic root *lang-an*, to go forward, hasten. — The root ʾr appears in Arab. رَجَّ, to move quickly,

to tremble; Syr. ܪܓܝܢ, to long after, to desire = Chald. ܪܓܝܢ.¹

With a postdeterminative ʾ, we have ʾrɔ (Heb., Aram., and Arabic), combining the notions of trembling and being angry. With postdeterminative ʔ, the root, in the form ʾrɔʔ, means to run, to go about: cf. Heb. ʾrɔʔ, to move about; Syr. ܪܓܝܢܐ, to lead, ܪܓܝܢܐ, a torrent; thence also a Proto-Semitic word for foot (found in Heb., Syr., Chald., Arabic, and some minor dialects), Heb. ʾrɔʔ.²

38. Proto-Aryan *di* (*da*); Proto-Semitic ʾd (ʾd), to move swiftly, to fly.

The root *di* shows itself in Skr. *dī* and *dī*, to hasten, to fly; Gr. δέω, to flee, to hasten, δέμαι, to speed away, δινός, a

¹ For the connection of ideas, cf. Lat. *cupio*, which is homonymous with Skr. *kup*, to move quickly, to be angry; see Pott, W.Wb. v. 91. Our word to long for and the Germ. *er-lang-en*, are from the root under discussion.

² So our word *foot*, representing the Proto-Aryan term, is from the root *pad*, to go.

whirling, *δένω*, etc., to whirl; O. Irish *dt-an*, swift. That there was another, perhaps earlier, form *da*, as Fick (iv. 106) suggests, seems probable enough from the Gr. *δο-νέω*, to shake, to drive about. — The root *nr* is seen in Heb. *נָרַף*, to fly swiftly (see especially Deut. xxviii. 49; Ps. xviii. 11); cf. Arab. *نَرَفَ*, to run swiftly, also to roll about. Hence, or from a cognate *nr*, we have the Heb. *נָרַף*; Chald. *נָרַף*; Syr. *ܢܪܦܐ*, the name of a bird of prey, so called from its swift flight.

39. Proto-Aryan *tal*; Proto-Semitic *br*, to raise, to weigh.

The root *tal* has a very wide distribution. For a very satisfactory discussion of the history and mode of its development, see Curtius, p. 220 f. (No. 236); cf. Fick, i. 94; Pott, ii. 304–314 (No. 442). In Greek the fundamental form has been retained, though it also appears as *tel* and *tol*. Thus we have, with other forms, *τλ-άω*, for *ταλ-άω*, to bear, *τάλ-ας*, enduring, wretched, *τάλ-αντον*, a balance, weight, *τέλ-λω*, to rise, and also to raise upon (cf. *ἀνατέλλω* and *ἐπιτέλλω*), *τόλ-μα*, endurance, daring. In Sanskrit the degenerated form *tul* alone appears: *tul*, to lift up, weigh, *tul-ā*, balance. In Latin the ground-form is *tol*, from which *tul* comes by weakening: *toll-o*, *tul-i*, *tol-erare*. In Teutonic the root comes out as *thul*; Goth. *thul-a*, I endure (cf. Germ. *dul-den*; Scottish *thole*; Eng. *thole-pins*): In Eccl. Slavonic we find *tul-ŭ* a quiver; and in Irish *tal-laim*, I take away. The occurrence of this root throughout the Indo-European system is one of the strongest evidences of the existence of a Proto-Aryan *l*. Cf. our remarks on that point under the subject of comparative phonology. — The Semitic *br* agrees with *tal* not only in the primary, but also in most of the secondary meanings. In the simplest inflective form the Heb. *בָּרַף* means to raise, also to heap up; cf. Chald. *בָּרַף*, elevated; Assyr. *tal-lu*, exaltation; Arab. *مَتَلَّ*, erect. From this root we have the word for mound or heap: Heb. and Chald. *בָּרַף*; Syr. *ܒܪܦܐ*; Arab. *تَلَّ*; Assyr. *tul*. The same root has the sense of

suspending,¹ hanging up; hence in Heb. **רָחַף**, the pendulous leaves of the palm. A like meaning is found in **רָחַף**, which is the same root with a post-determinative vowel, and appears in Heb., Chald., and Syriac, though the primary sense of lifting up comes out also in Syriac. In Arabic and Ethiopic the associated idea of adhering to is expressed by this form.² The vitality of the root is further seen in the Arab. **رَفَعَ**, to rise up, become prominent, **رَفَع**, to ascend, to rise (used of the sun and stars); conj. II., to raise up. The Assyr. **רָחַף**³ derives its meaning of weighing from the same root with predeterminative **ר**.

WORDS INDICATING POSITION.

40. Proto-Aryan *sad*; Proto-Semitic **ס**, to sit, to be situated.

For the familiar root *sad* cf. the Skr. *sad*, to sit; Lat. *sed-eo*; Teutonic *sat* (Goth. *sit-an*; Engl. *sit*; cf. Goth. causative *sat-yan*; Engl. *set*), and corresponding terms in Slavonic and Celtic. The Gr. **ἔδ**, for **σέδ**, is transitive; cf. **ἔδ-σα**, for **ε-σέδ-σα**, I set, **ἔξ-ομαι**, for **σέδ-ιομαι**, I sit = Germ. *ich setze mich*. The causative form *sad-aya* is also Proto-Aryan, and a large number of primary noun-stems in all the dialects preserve the ancient root. The force of the causative verbs throughout shows that the word meant first not to sit, but to be situated or placed. — The Semitic **ס** appears mostly as causative or transitive with the predeterminate **ו**; so Heb. **וָסַף**, to place, to lay a foundation, to set in order = Chald. **וָסַף**; Arab. **وَسَدَ**, with a specialized meaning, to set a pillow; Assyr. *isid*,⁴ a foundation; cf. Heb. **וָסַף**, etc. That

¹ So in Greek **τάλαρος**, a basket, and **ταλαμύρον**, a supporting strap, from the root *tal*. These as well as the words for weighing, above cited, have their meaning from the sense of suspending.

² Cf. the Germ. *an-hängen*, to cling, adhere.

³ It should be mentioned that in Hebrew, Chaldee, and Syriac the same root means to raise, and to be heavy; the additional meaning in Assyrian well illustrates the Greek and Sanskrit usage.

⁴ See Norris, Assyr. Dict. (ii.), p. 495, for sufficient examples.

the root **סב** was primarily intransitive is clear from the Arab. **سَبَّ**, to be placed, to be in the way, to obstruct; cf. Heb. **סָבַר**; Chald. **סַבְרָא**; Syr. **ܣܒܪܐ**, a block; while the Heb. **סִידַר**, an assembly (cf. Lat. *consensus*) has as its most probable etymon an obsolete verb **קָדַד** or **סִידַר**, meaning to sit. With a post-determinative **ר** we find **סִדְרָר** (Heb., Chald., and Syriac), meaning to set in order, like the Heb. **רָסַד** in one of its applications.

41. Proto-Aryan *as, ás*; Proto-Semitic **אס**, to sit, to remain.

Cf. No. 58. For discussion of the root *ás* see Pott, W. Wb. II. 2. 299–302 (No. 683); Curtius, p. 379 f. (No. 568). The following forms clearly represent it: Skr. *ás*, to sit, dwell, remain; Zend *áh*, to sit, to remain; Gr. **ἵμαι**, for **ἵσμαι**, I sit. Very probable derivations are, Lat. *á-nus*, for *as-nus*, the fundament, and Lith. *as-là*, floor, ground.—The Semitic **אס** does not seem to be retained as a verb-stem, except in denominatives, but its existence in the sense indicated is shown in many noun-stems. Cf. Arab. **أَسَّ** and **أَسَّ**, a foundation, also anything that remains or abides; **أَسَّ**, the foundation of a house = Assy. *asas-u, uss-u*, foundation; Heb. **אָשַׁשׁ**. Hence Arab. **أَسَّسَ**, Assy. *asas-u*, to lay a foundation. The root also comes out in **אָשַׁשׁ** with similar meanings in Heb. and Arabic. From these instances it is clear that, as in the Proto-Aryan *ás*, the root **אס** meant originally to be placed, to remain.

42. Proto-Aryan *man*; Proto-Semitic **מָן**, to stay, to be fixed.

For a full exhibition of the words that spring from the root *man* see Pott, W. Wb. II. 2, 118 ff. (No. 607). The discussion of Curtius, p. 311 ff. (No. 429), is complicated by the identification of this root with *man*, to think. This combination, which is maintained by leading Indo-European etymologists, is of no significance for our present business, inasmuch as *man*, to remain, is an independent Proto-Aryan

root.¹ We cite Zend and Old Persian *man*, to remain; Mod. Persian *mán*, to remain, also abiding, eternal; Gr. μένω, 1. to stand fast, to endure; 2. transitively, await, expect; μέμνω, to remain, await; Lat. *man-eo*, to remain, also to wait for. Such noun-stems as Gr. μουή and Lat. *man-sio* show well the inherent notion of the root. — Precisely the same primary sense appears in the various representations of the Semitic 𐤎. With the lightest predeterminate 𐤎 the root 𐤎𐤍, widely represented in verb and noun stems in all the dialects, means to be fixed, firm, enduring, and in causative uses and forms, to make firm, establish. The figurative sense of enduring, abiding, comes out in all the dialects as clearly and fully as it appears in the root *man*. Thus the simplest abstract expression of the root is Heb. רָצַח, for רָצַח. Assyr. *amat-u*; Arab. ^أأَمَنَة; Eth. ለዋናት, truth, fidelity, religion, i.e. what is fixed and abiding. This figurative use is almost the exclusive one in some of the dialects; but the primary physical notion is exhibited in all. With the predeterminative 𐤎 the Arab. عَمِنَ means to stand still, to remain in a place. This last form, though not certainly Proto-Semitic, shows the presence and force of the ancient root, with its meaning as above given.

WORDS FOR SHUTTING OR ENCLOSING.

43. Proto-Aryan *klu*; Proto-Semitic 𐤊𐤋, to shut, enclose.

The Indo-European root is not found in the Indo-Eranian division, but it appears in every other branch of the family, and must have a Proto-Aryan origin. For its manifestations see Pott, W. Wb. I. 684 ff. (No. 227); Curtius, p. 149 f. (No.

¹ The identity of these two roots is nothing more than a brilliant hypothesis. No apt analogy for the etymological association of the ideas is at hand. Something more is needed than a mere plausible connection of the notions expressed. And the association is nothing more than plausible. The intermediary idea is given by Pott, for example, as that of expecting or waiting in meditation. But it will be found that in all the cases where the root shows the two meanings of expecting and remaining, the latter is primary, the former secondary. So with *manere*, μένω, μέμνω. In any case *man*, to remain, and *man*, to think, should be treated as separate roots.

59); Fick, i. 541. The most significant representations are found in Gr. *κλη-ίς*, *κλείς*, for *κλεF-ίς*, a key, *κλείω*, for *κλεF-ιω*, to shut, *κλοι-ός*, a collar, *κλεί-θρον*, a bolt or bar; Lat. *clāv-is*, a key, *clāv-us*, a nail (as a fastener), *clau-do*, to shut; O. Irish *clá-i*, nails; Lith. *kliūv-ù*, to fasten on, attach. Whether the Old High Germ. *sliu-zan*, for *skliu-z-an*, to shut (whence Germ. *schliessen*, *schloss*, etc.; cf. Engl. *sluice*, *slat*, *slot*), belongs here is doubtful; but its affinity would not prove, as Curtius imagines, that the root was primarily *sklu*. See our remarks on the prothetic *s* in the discussion of the morphology of Aryan roots. — The Semitic *כב* is represented by Heb. *כָּבַד*, to shut, enclose, *כֶּבֶד*, a prison; Chald. *כְּבִי*; Syr. *ܕܒܐ*, to shut, *ܕܒܐܘܢܐ*, a bolt; Eth. *በልሎ*, to shut out, prohibit; Arab. *كَبَر*, to guard, watch; Assy. *כב*,¹ to hold back, to refuse. The root has also the secondary sense of shutting out, separating,² as appears from the Heb. *כָּבַד*, different species, with hometymous words in Ethiopic and Arabic. A great number of Semitic forms point to a simpler root, *בב*, represented in all the dialects, with the general sense of including, holding, containing. It should also be observed that the Aryan root *klu* has not the physiognomy of an ultimate root.

WORDS FOR GUARDING AGAINST OR FEARING.

44. Proto-Aryan *var*; Proto-Semitic *וּר*, to guard against, to fear.

The root *var* may be traced through its various manifestations in its treatment by Pott, W. Wb. II. 1. 552–597 (No. 512); Fick, i. 211; Curtius, p. 346 f. (No. 501), and p. 550 (No. 660). We shall cite only a few of the many cases in which the root appears, according to the judgment of these and other leading etymologists. These instances will be found to be the most truly representative: Skr. *var*, to cover, protect, ward off; *vār-a*, *var-útha*, defence; Zend *apa-var*, to

¹ E.g. *ik-lu-u*, Inscr. of Khorsabad (ed. Oppert), lines 28, 69, 113, and *ik-la-a*, lines 79, 122.

² Cf. *ex-cludo*, *dis-cludo*, and *δια-κλείω*.

ward off, hold back, *var-atha*, defence; Gr. *ῥομαι*, for *φομαι*, to keep watch, *οἰπος*, a sentinel, *φρουρά*, for *προ-φορα*, a guard, *ῶρα*, care, apprehension, *ῶρα*, to see; Lat. *ver-eor* to fear, *ver-êcundus*, modest, i.e. diffident, apprehensive Goth. *var-ian*, to keep off, *var-as*, careful; O. High Germ. *wâr-a*, care, regard (cf. Engl. *war-y*, *ware*, *ward*, *a-ware*). — The Semitic root unites in the most signal manner the two meanings of guarding and fearing, indicated by the Aryan *var*. We first call attention to the Arab. وَرَّى , to repel, hinder. Comparing this with the Eth. ዋራሽ , an apron, from the corresponding obsolete root ወርሽ , it is clear that the primary meaning was to keep off, to guard against. Now the same root in Hebrew is וָרַי , meaning to fear, which completes the parallel. If further assurance is needed, we may cite the Arab. عَرَى , عَرَى , and عَرَى , which is the same root ر with post-determinative ع , and means to be afraid of, to keep away from, عَرَى , pious, God-fearing (cf. Lat. *re-verens*). Its equivalent, the Heb. פָּרַח , means to tremble, i.e. to quake with fear (Isa. xv. 4). No two related words in different branches of the Indo-European family show more striking correspondences in meaning than do the root *var* and ר .

WORDS FOR BINDING TOGETHER.

45. Proto-Aryan *sar*; Proto-Semitic סר , צר , to bind together.

For the root *sar* see especially Curtius, p. 853 f. (No. 518), and the references to Kuhn's *Zeitschrift* there given. We cite the following forms: Skr. *sar-at*,¹ a thread; Gr. *ῥμος*, for *σῶρ-μος*, a collar, necklace, *ῥμαθός*, a string, or chain, *εἶρω*, to tie, to bind, *εἶρ-μός*, a fastening, *εἶρ-επος*, bondage; Lat. *ser-o*, to string, to tie, *ser-a*, a bolt (fastener), *series*, a

¹ See the Petersburg Dictionary, s.v. The word is not cited there from current literature, but from a native lexicon.

series, *ser-tum*, a garland; O. Norse *sör-vi*, a collar; Lith. *ser-is*, a thread. — The Semitic סר has properly the sense of holding together firmly. With predeterminative ס it yields the Heb. אסר ; Syr. آسر ; Arab. آسر ; Eth. ለሰረ and ለሠረ , to bind, with many hometymous noun-stems; for the Assyrian we may compare '*isir-u*,¹ a band. With another predeterminative, the Heb. יָסַר , to punish, chasten, obviously meant at first to bind.² The root צר , with a like primary force, appears in Heb. צָרַר ; Arab. صَر ; Syr. ܥܘܪ , Chald. ܥܘܪ , all meaning to bind together. The same root, צר , reveals the same meaning in many developed forms; the examples just given will, however, suffice for our purpose.

WORDS FOR PRESSING AND CRUSHING.

46. Proto-Aryan *mak*; Proto-Semitic מק , to press, to crush.

Certain of the ideas expressed by this pair of roots agree with some conveyed by the group meaning to rub, to bruise (Nos. 21–26), though the fundamental notions are different. For the root *mak*, cf. Skr. *mac*,³ with the bye-form *manc*, to crush; Gr. root $\mu\alpha\gamma$, for $\mu\alpha\kappa$, in $\mu\acute{\alpha}\sigma\sigma\omega$ (= $\mu\alpha\gamma\omega$), to knead, $\mu\alpha\gamma\epsilon\upsilon\varsigma$, a baker, $\mu\acute{\alpha}\gamma\mu\alpha$, etc., dough, bread; Lat. *mac-er*, lean, meagre (i.e. pressed out), *mác-erare*, to macerate, *mác-eria*, a clay wall (as kneaded or pressed together); Lith. *mìnk-au*, I knead; Eccl. Slav. *mák-a*, flour. Curtius, in his discussion of the Greek root (p. 356: No. 455), cites with approval the conjecture that the Lat. *maxilla*, jawbone, or crusher, belongs here also. — The Proto-Semitic מק is shown in Heb. מָצַק , to sink (to be pressed down); and while the Chald. ܩܩܩ preserves the transitive meaning to press down, part. ܩܩܩܐ , humbled, afflicted, the developed form ܩܩܩܐ exhibits the intransitive sense, answering to Heb. מָצַק . The Arab. مَك , again, has figurative applications: to diminish,

¹ The cuneiform sign indicated by 'i stands often for ס as well as for פ .

² Cf. the Indo-European *dam*, to subdue, as developed from *da*, to bind; Lat. *stringo* in Virgil, Aen. 9. 294; Germ. *bändigem*

³ Attested by Hindu lexicographers; see the Petersburg Dictionary.

to consume, and in conj. v. to oppress a debtor. With indeterminate ν the Heb. פָּרַס means to press and to crush (cf. 1 Sam. xxvi. 7 and Ezek. xxv. 3 with Lev. xxii. 24); and Arab. مَعَد means to rub and, as the derivations show, to crush small. The Chald. פָּרַס has a meaning similar to that of the Hebrew; and as the root פָּר , with the secondary פָּרַס , run a perfectly parallel course through Hebrew, Aramaic, and Arabic, they are plainly Proto-Semitic in the sense indicated.

WORDS FOR CARVING OR GRAVING.

47. Proto-Aryan *grap*, *glup*; Proto-Semitic חָבַב , to carve, to grave.

For these Aryan roots cf. Curtius, p. 178, 180 (Nos. 134, 138), with Fick, i. 574. The root *grap* is seen in the Gr. γράφω , for γράφω , to cut into (as in Iliad 17, 599), to write;¹ A. S. *ceorfan*; Swed. *karfva*; Engl. *carve*. The root *glup* appears in Gr. γλύφω , for γλύπω , to grave, γλύφανος , a graving tool, γλυφή , carved work, γλυπτής , a sculptor; A. S. *cleofan*, to hew; Engl. *cleave*. The *f* in the primary eutonic forms shows that the final letter was originally *p*. The A. S. *grafan*; Engl. *grave*, may possibly be from the root *grap*, with *g* exceptionally retained; but this is by no means certain. We cannot agree with Curtius in comparing the Lat. *glubo*, to peel off, with γλύφω . These are probably related, but not identical. The use of *grap* and *glup*, with their train of allied words in the widely separated Greek and Teutonic, is very strong evidence that they are Proto-Aryan. — The Semitic חָבַב is represented in Chald. חָבַב , frequent in the Targums; Syr. حَبَب , Eth. ገላፍ , to carve, to grave, which is common in verb and noun stems relating to sculpture. The Arab. جَلَف means to cut off, and especially to peel off (cf. the use of *glubo* just mentioned). In

¹ So terms for writing are made generally from such words; cf. Engl. *write*, with Germ. *ritzen*; and the Lat. *scribo* is from a root allied to *grap* with prothetic *s* and just as *sculpo* is related to *glup*.

regard to the roots here combined it should be observed that neither of them is secondary in its origin; the evidence of their primary identity is strengthened from the consideration that to all appearance they are ultimate roots.

WORDS FOR PIERCING, INFIXING.

48. ? Proto-Aryan *smar*; Proto-Semitic רָצַע , to pierce, infix.

All leading etymologists hold to the originality of the *s* in the root *smar*. For the forms cf. Pott, W. Wb. v. 713 ff. (No. 550); Fick, I. 254; Curtius, p. 330 (No. 466). The following forms will show that the current Indo-European sense of the root is to hold in mind; Skr. *smar*, to remember, keep in mind; Zend *mar*, of like meaning; Lat. *me-mor*, mindful, etc.; Gr. $\mu\epsilon\rho\text{-}\mu\nu\alpha$, anxiety, $\mu\epsilon\rho\text{-}\mu\epsilon\rho\text{-}\sigma\text{-}\omega\varsigma$, memorable, $\mu\acute{\alpha}\rho\text{-}\tau\upsilon\rho$, a witness, etc. The idea of remembering or keeping in mind is, of course, secondary. It remains to be seen what the primary notion was. This cannot be learned from the form of the root *smar* itself; but perhaps it is legitimate to try to get it from other sources. Let us look at the secondary root *smard*, formed through the determinative *d*. This is seen in A. S. *smear-tan*, to feel stinging pain; Engl. *smart*; cf. Germ. *schmerz*; Gr. $\sigma\mu\epsilon\rho\delta\text{-}\alpha\lambda\epsilon\acute{\omicron}\varsigma$, $\sigma\mu\epsilon\rho\delta\text{-}\nu\acute{\omicron}\varsigma$, terrible, frightful; Zend *a-hmars-ta*, for *a-smard-ta*, not bitten or gnawed¹ (cited by Pott, W. Wb. v. 540). This last form is the key to the meaning of the other words: *smard* meant (1) to pierce, and (2) to pierce or sting the soul, just as Lat. *pungo* means (1) to pierce, and (2) to vex or grieve. The primary *smar* would then mean (1) to pierce, (2) to pierce or infix in the mind, to remember. This is in accordance with the analogy of many similar terms in other languages. Thus the familiar Semitic root רָצַע meant (1) to pierce, (2) to pierce or infix in the mind, to remember. The Heb. רָצַע , as we shall presently show, means (1) to pierce, (2) to keep in mind, to watch. Cf. also Arab. حَدَقَ , to cut, to pierce,

¹ Fick assigns here the Lat. *mord-eo*, to bite; but see No. 24.

to commit to memory; قَصَّ , to cut, conj. v. to keep in memory. The root *smar*, then, according to the best lights, meant first to pierce. — That סמר and סמר mean to pierce, to infix, is apparent from the following examples: Heb. סָפַרְסָפַר ; Chald. ܣܦܪܣܦܪ ; Arab. مِسْمَار , a nail; Chald. ܣܦܪ ; Arab. سمر , conj. II., to fasten with nails. Now the Heb. סָפַר means a thorn, and Arab. سِر , thorns, especially “*spina Egyptiaca*”; Heb. סָפַר and Assy. *semir-u*, also meaning a diamond. The Heb. סָפַר , and Chald. ܣܦܪ mean to keep in mind, to watch, i.e. obviously, to pierce, or fix in the mind. The analogy is thus completed with the root *smar*.

WORDS FOR WETTING OR POURING OUT.

49. Proto-Aryan *sak* (*sik*); Proto-Semitic ספ , to moisten, pour out.

For the Indo-European forms see Pott, *W. Wb.* v. 331–334 (No. 1069); Curtius, p. 137 (No. 24 *b*); Fick, i. 229. The following forms from *sik* are representative: Skr. *sic*, to moisten, sprinkle, pour out, *sek-a*, *sec-ana*, a sprinkling, etc.; Gr. *ικ-μάς*, moisture, *ικ-μος*, moist, etc., also *ἱχ-ωρ*, divine blood; O. High Germ. *sih-an* (cf. Germ. *seih-en*), to strain, filter, *seich*, wine; Eccl. Slav. *šic-ati*, to make water. Fick (cf. iv. 56) calls attention to Lith. *sunk-iu*, to filter; Eccl. Slav. *sok-ŭ*, juice; Lat. *sang-uis*, blood, as indicating the existence of an earlier root *sak*, from which *sik* arose through weakening. — For Semitic forms cf. Arab. سَقَى , to moisten, water, pour out water; Eth. ሰፈረ , to water. In Hebrew, Aram., and Assyrian the corresponding verbs mean to be moist, to drink in, and in the causal forms, to water, give to drink. The notion of drinking is, of course, secondary. It is not found at all in Ethiopic, and is subordinate in Arabic, as it does not appear in any of the sixteen derivative nouns.

WORDS DENOTING COLD.

50. Proto-Aryan *kar*; Proto-Semitic קר, to be cold, to freeze.

The root *kar* is established by Fick, I. 57. Cf. Skr. *çi-çir-a*, cold (as noun and adjective); Zend *çar-eta*, cold; Lith. *szal-u*, to freeze, *szal-nà*, hoar-frost, also *szar-mà*. The A. S. and Icelandic *hrím*; Engl. *rime*, probably contains the same root. — For the root קר cf. Arab. قَرَّ, to be cold; Eth. ቀረረ, to be cold; Syr. صَرَّ, to become cool (cf. Chald. אַחַרְקַר, to cool ones self). It appears also in many noun-stems in all of these dialects, as well as in Heb. קָר, cold (adj.), and קָר, cold (noun), etc. It is not remarkable that we should find an Aryan-Semitic word for cold, when we find so many for the action of fire (Nos. 1–4).

WORDS FOR THINKING.

51. Proto-Aryan *man*; Proto-Semitic מן, to think (to measure).

The familiar root *man* in Indo-European means, predominantly, to think. The following are a few of the numerous forms that represent it: Skr. *man*; Zend *man*, to think, suppose; Gr. μέν-ος, spirit, disposition, μαιν-ω, for μαν-ω, to rave, μάν-τις, a seer; Lat. *men-s*, mind, etc., *men-tior*, to lie (i.e. to devise); Goth. *ga-mun-an*, to think of; A. S. *ge-mun-an*, remember, *man-ian*, to remind, *maen-an*, to wish = Engl. *mean*; Lith. *min-iù*, to think of; O. Irish *men-me*, mind. The primary meaning is to measure, as all etymologists agree, and it is clearly a secondary from *ma*¹ (No. 29). In some words for measuring, the root *man* actually appears, as in Lat. *men-sus*, participle of *me-tior*, *men-sa*, a table, *im-man-is*, immense. — For the sense of thinking in the root מן cf. the form with indeterminative נ, Arab. مَانَ, to care

¹ The root *ma* also means to think, as in Skr. *mà-ti*, thought, Gr. μῆ-τις, and in Gr. μέ-μα-α, etc., to wish for; *man* in this case does not arise through the nasalization of the vowel.

for, to be aware of; conj. II. and III. to consider, cogitate. Turning to the Proto-Semitic form with inner vowel expansion, we find the Eth. ጠገ , in conj. III. 2, means (1) to devise means, in general, and (2) to devise cunningly, fraudulently. The first meaning is, of course, the primary one. The corresponding Arab. مَانَ , mid. Ye, retains the secondary sense of the Ethiopic, and means, to use deceit, to lie (cf. the use of Lat. *mentior*); but with mid. Waw it corresponds to the primary sense of the Ethiopic and to the sense of مَانَ , above cited, meaning to care for, provide for. But the same root exists in Heb. מָנָה , likeness, image, form, and מַנְיָה , a species, and is then evidently used to express the idea of a mental conception or image transferred to sensible objects¹ (cf. the various uses of the Gr. *ἰδέα*). The notion of thinking is thus shown to be Proto-Semitic. If the primary notion of the root is sought for, it seems more than probable that it is to be found in those common Semitic words from the root מָנָה which convey the fundamental idea of measuring. For example, the Heb. מָנָה ; Arab. مَنَى means to measure out, allot (cf. Germ. *ermessen*), and the same root in all the dialects means to number, while the Arab. مَنَا means a definite measure or weight. Derivations and kindred roots illustrate the same general signification. The Aryan and Semitic roots are thus shown to be completely in accord.

WORDS FOR KNOWING.

52. Proto-Aryan *vid*; Proto-Semitic יָדַע , to know.

The root *vid* is one of the most familiar of the whole Indo-European stock. The citation of the following forms will suffice: Skr. *vid*, perf. *ved-a*, I know, *vid*, to find; Gr. *ἰδ-εῖν*, for *ἴδ-εῖν*, to see, *οἶ-δα*, for *ἴδ-δα*, I know = Skr. *veda*,

¹ Hence, in Job iv. 16, מָנָה is expressively employed for a form appearing in visions of the night. Gesenius' association of these words with the Arabic sense of deceiving, is as though one should derive *species* from *specious*, or *fingo* from *feign*.

id-éa, a conception, etc.; Lat. *vid-ere*, to see, etc.; Goth. *vait*, I know = Skr. *ved-a*; cf. Engl. *wit*, *wot*, *wil-ness*; Eccl. Slav. *vid-ěti*, to see, *věd-ěti*, to know; Old Prussian *vaid-imai*, we know. The idea of knowing predominates in the system as a whole, but in some of the dialects the notion of seeing prevails; and it may be true, as Curtius says (p. 101, Engl. transl. of 4. ed., p. 124), that the fundamental expression was that of a seeing which apprehended and discovered. This fact, however, has no direct bearing upon the validity of our combination; for the sense of knowing evidently goes back to early Proto-Aryan times.—The Semitic root is no less ancient, as it is found in all the great divisions of the family. It sometimes expresses the idea of observing, though the physical notion of seeing is not found. We cite the following verbal forms: Heb. יָרַע; Chald. יָרַע; Syr. ܝܪܥ; Assy. *id-u*, to know; Eth. 𐩧𐩢𐩨, conj. 𐩠 1, to make known, etc. That the first radical was originally 𐩧 appears from the Heb. יָרַע in the Hithpael, and the Assyrian forms¹ are rightly assigned to the Assy. ܝܪܥ, or original 𐩧 class, by leading authorities. The Ethiopic 𐩧 in the place of the first radical is probably an early dialectic variation. That the third radical, 𐩨, is merely a determinative is made plain from the fact that the fundamental notion is expressed also by the Proto-Semitic root יָרַע. This in the causative forms, Heb. יוֹרְעוּ; Syr. ܝܪܥܘ; Chald. ܝܪܥܘ, cf. Arab. وَدَعَى, conj. Ⅹ., means both to celebrate and to confess,² i.e. to make known.

¹ See Lenormant, *Etude sur quelques parties des syllabaires cunéiformes*, p. 171; Schrader, *Keilinschriften u.d. alte Test.* p. 223.

² These meanings can be best explained on the hypothesis of a connection between יָרַע and יָרַע. The common way of treating them is to make them causatives of the homophonous root יָרַע, to throw. But this does not explain them at all suitably. Nor is the attempt more successful (Gesenius's *Hebrew Handwörterbuch*, 8th ed. by Mühlau and Volck), to associate יָרַע with the Arab.

وَدَعَى, to place. The connection is not obvious; and since the root in the sense of knowing is absent from the Arabic only of all the dialects, and in the sense of placing is found only in Arabic, the combination shows bad etymologizing.

The root γ is thus shown to be as old and independent as the root *vid*, and it is worthy of attention that the meanings coincide precisely. The application of both roots is almost exclusively to mental, not to physical apprehension. They do not signify to be acquainted with, but to know within the strict sphere of self-consciousness. These two roots seem thus to claim a common origin through their individuality, antiquity, and commanding influence in the fulfilment of a common destiny.

WORDS FOR BEING OR EXISTING.

53. Proto-Aryan *as*; Proto-Semitic אס , to be, exist.

For the root *as* cf. Skr. *as*, to be = Gr. $\epsilon\sigma$ in $\acute{\epsilon}\sigma\text{-}\tau\acute{\iota}$; Lat. *es*, *es-t*; Lith. *es-mi*, I am; Goth. *im*, *is*, *ist*; Engl. *is*. It is generally agreed that it rests upon the root $\acute{a}s$, to be fixed, to sit (No. 41). — The Semitic root is represented by the Heb. אס and אס . יש and אס , there is = the Arab. أيس ; Syr. ܐܝܫ ; Assy. *is-u*. The γ in Heb. יש is plainly secondary, אס representing the fundamental Semitic sound, which is revealed in all the other forms. With regard to its origin, it should be remarked that several independent observers have already suspected its affinity with the root אס , to be fixed, to remain (No. 41).¹ Is not this remarkable double parallel with Proto-Aryan forms very strong evidence of the identity of the two pairs of roots here involved?

I have thus taken up the predicative roots of the two systems of speech which seem to justify an attempt to identify them. Something should be said now of those nominal forms which show a mutual resemblance. It should be remarked that, as a general thing, such forms cannot furnish nearly such strong evidence of relationship as do the verbal roots. The reason is plain. The general conceptions con-

¹ See what is said by Mühlán and Volck in their edition (the eighth) of Gesenius' Heb. Handwörterbuch. Even Gesenius, who wrongly assigned the Heb. יש directly to a root יש , did not fail to perceive the connection with אס , etc. (Thesaurus, p. 636).

veyed by such predicative roots as we have been discussing are necessarily expressed by a comparatively limited number of words in any language. If in a large number of these the primary forms and notions correspond to a certainty, the proof of ancient unity is overwhelming. But derivatives are numerous, and are based upon secondary applications of the roots, and not only upon their radical meaning. The chances of coincidence are therefore greater in this region. It should be noticed, again, that the chances of one family borrowing from another the names for sensible objects are immeasurably greater than the chances of appropriating signs for fundamental and generic conceptions, just as it is easier to appropriate a formula than a system of thought, or a maxim than an idea. Very much stress should, therefore, not be laid upon most of the examples of homophonous and synonymous words that might easily be brought forward. We shall, however, discuss two or three that seem worthy of special consideration from the character of the notions they express.

WORDS FOR HORN.

54. Proto-Aryan *ḥarna*; Proto-Semitic קַרְן, a horn.

The Indo-European forms are Lat. *corn-u*; Irish, Welsh, and Cornish *corn*; Teutonic *horn-a* (Goth. *haurn*; Engl., etc. *horn*). The Greek may possibly have had the same word; see Curtius, p. 147 (No. 50). In Skr. it is probably represented in *ḥru-ga*, horn. There is another Proto-Aryan word for horn, *kar-na* (Fick, I. 58), which seems connected with words for head, such as Skr. *ḥir-as*; Gr. *κάρ-α*, etc.; but no satisfactory root has been found. — For Semitic forms cf. Heb. קַרְן; Chald. קַרְנָא; Syr. كَرْنٌ; Arab. قَرْنٌ; Eth. ቀርን; Assyr. *ḥarn-u*. No plausible roots can be found for these forms. If *ḥarn-a* and קַרְן are not the same, the identity of the forms might be accounted for either on the assumption that the two were developed quite separately from distinct roots, or on the supposition that in very early times one family borrowed the term from the other. Considering the

apparent priority of Proto-Aryan related words it would seem as if, on the latter theory, the Semites must have borrowed from the Aryans.¹ Neither of these hypotheses seems probable, but of the two the second is the less improbable.

55. Proto-Aryan *agra*; Proto-Semitic אַגַר, a field.

For *agra* cf. Skr. *ajra*, a plain, open country; Gr. ἀγρός; Lat. *ager*; Teutonic *akra* A. S. *acer*; Engl. *acre*, cf. Germ. *acker*), tilled land. The Gr. adj. ἀγρός agrees with the identical Skr. *ajr-ya* in its sense of belonging to the country, rustic, wild. It is a plausible, though not certain, conjecture of Kuhn (*Zeitschrift* III. 334), who is followed by Pictet (*Origines indo-européennes*, 2. ed., p. 108), that the word means properly pasture ground, from *ag*, to drive (Lat. *ag-o*; Gr. ἄγω, etc.), or the place to which flocks are driven.² But, as Pictet remarks, the use of the Latin and German words shows that it was very early employed to denote cultivated land. — The Semitic term is found in Assyrian *agar*, a field,³ in Eth. אַגַר, (1) cultivated, inhabited land, a region, (2) a village, (3) a town or city.⁴ In the Himyaritic dialect of Arabic فَجْر means a district, a town. The Ethiopic form appears in Amharic as ለገር, but this is probably a degeneration.⁵ These forms are not susceptible of explanation from any Semitic source. The same alternatives are pre-

¹ Prof. Sayce says, in arguing against Aryo-Semitic relationship (*Assyrian Grammar for comparative purposes*, p. 14): "Words like אַגַר compared with *ἀγρός* are borrowed." This implies the belief that such resemblances are not due to mere chance or "onomatopoeia." If they are not borrowed, therefore, they must point to a primary identity. *A fortiori*, then, the conceptual roots compared above, which cannot have been borrowed, point to an ancient oneness of origin. But who would compare directly אַגַר with the simpler *ἀγρός*?

² Cf. Heb. מַדְבָּר, wilderness, from דָּבַר, to drive, and the homonymous Syriac and Ethiopic words (see Gesenius, *Thesaurus*, p. 318).

³ For examples of this word, see Norris, *Assyr. Dict.* i. p. 15.

⁴ See Dillmann, *Lexicon*, col. 20.

⁵ Ewald (*Ausführliches hebr. Lehrbuch*, 8th ed. p. 402), who is followed by Dillman (l. c.), combines these words with Heb. אֶבֶר, a tiller, husbandman, and its hometyma in Syriac and Arabic, at the same time connecting all of them with Lat. *ager*, etc. But אֶבֶר is probably from אָבַר, to dig, found in conj. v. in Arabic.

sented as in No. 54. In the present case the chances of the words being borrowed seem very slight, and the chances of fortuitous coincidence no stronger.

WORDS FOR WINE.

56. ? Proto-Aryan *vain*; Proto-Semitic וַיַּי, wine.

Leading etymologists are at variance upon all possible questions connected with this most common Indo-European word for wine. The ascertainable forms are Gr. *οἶνος*; Lat. *vin-um*, anciently *vain-om*; Goth. *vein*; Armenian *gin-i*, for *gwin-e* (= Georgian *gwin-o*), for *win-i*. Similar words in the Keltic seem to have been borrowed from the Latin. For a full discussion of the possible origin, as well as the history, of these words the reader is referred to Pictet.¹ It is difficult to find a suitable etymology in the Indo-European family, though several notable attempts have been made. — The Semitic forms are Heb. וַיַּי, for וַיַּי, wine; Arab. ^{وَيَيْن}, dark-colored grapes; Eth. **ፊይን**, wine and a vineyard. No satisfactory etymon has been found for these words. It should be remarked that some eminent Indo-European etymologists, after Friedrich Müller, hold to the Semitic origin of the non-Semitic forms. It is probable that both the primitive Semites and primitive Aryans cultivated or were acquainted with the grape-vine. The evidence for the theory of the ancient identity of the terms involved is of the same general character as that adducible for Nos. 54 and 55, though borrowing on one side or other is perhaps more probable in the present instance.

Although many other cases more or less plausible could be cited, these are the only nouns which seem worthy of serious discussion in a treatise like the present. I think they are worthy of attention from impartial students; the agreement between the first two especially seems hard to account for on any other theory than that of oneness in origin.

Another class of words should be mentioned, though not

¹ Op. cit. ii. p. 311 ff.; cf. Hintner in Fick's *Vergl. Wörterbuch*, ii. 795.

discussed. These are pronominal and demonstrative roots which are surprisingly alike in the two systems. But for two reasons the treatment of them here would be unprofitable: (1) In most cases only a single consonant is found in each one of a pair of similar roots, and the identification is not so conclusive as when two or three consonants are the same. At all events, such combinations would meet with that objection. (2) Such roots are found to be (though in less measure) alike in most of the languages of the world; and it is easy to put aside all these resemblances on the assumption that demonstrative roots, being interjectional in their character, are apt to be alike everywhere, since men, in a state of nature, are held to express similar feelings by similar sounds.

The following table will exhibit in one view the comparable forms which have just been expounded. Some of the forms have a twofold representation which is not exhibited here in every case.

Proto-Aryan.	Proto-Semitic.		Proto-Aryan.	Proto-Semitic.	
1. <i>ku</i>	קו	} to burn.	21. <i>mar</i>	מר	} to rub, or bruise.
2. <i>kad</i>	קד		22. <i>mark</i>	מרק	
3. <i>kar</i>	קל		23. <i>marg</i>	מרג	
4. ? <i>us</i>	אש		24. <i>mard</i>	מרד	
5. <i>bha</i>	בח	25. <i>mars</i>	מרש		
6. <i>bhar</i>	בר	} to shine.	26. <i>gam</i>	גם	to unite.
7. <i>bhark</i>	ברק		27. <i>tan</i>	תן	} to stretch, extend.
8. <i>bharg</i>	ברג		28. <i>nat</i>	נט	
9. <i>bhas</i>	בש		29. <i>mad</i>	מד	
10. <i>ark</i>	רק	} to cut or separate.	30. <i>rak</i>	רך	} to arrange.
11. <i>bhar</i>	בר		31. <i>rak</i>	רך	
12. <i>bhid</i>	ביד		32. <i>kap</i>	קה	} to bend.
13. <i>pat</i>	פת		33. <i>kmar</i>	קמר	
14. <i>park</i>	פרק	} to go.	34. <i>ak</i>	עק	} to move quickly.
15. <i>kar</i>	כר		35. <i>sad</i>	צד	
16. <i>kart</i>	כרת		36. <i>sar</i>	שר	
17. <i>karp</i>	קפה		37. <i>ragh</i>	רג	to fly.
18. <i>kars</i>	קרש				
19. <i>sak</i>	סד				
20. <i>tak</i>	תד				
			38. <i>di</i>	דא	

Proto-Aryan.	Proto-Semitic.		Proto-Aryan.	Proto-Semitic.	
39. <i>tal</i>	חל	to raise, weigh.	48. ? <i>smar</i>	סמר	to pierce.
40. <i>sad</i>	סר) to sit.	49. <i>sik</i>	שק	to moisten.
41. <i>as</i>	אש		50. <i>kar</i>	קר	to be cold.
42. <i>man</i>	מן	to be fixed.	51. <i>man</i>	מן	to think.
43. <i>klu</i>	כלא	to shut.	52. <i>vid</i>	ויר	to know.
44. <i>var</i>	ויר	to keep off.	53. <i>as</i>	אש	to be.
45. <i>sar</i>	סר	to bind.	54. <i>karna</i>	קרן	horn.
46. <i>mak</i>	מך	to press.	55. <i>agra</i>	אגר	field.
47. <i>grap</i>)	גלה	to carve.	56. ? <i>vain</i>	וין	wine.
<i>glup</i>)					

With regard to these forms, taken in connection with the ideas they express, it is necessary to make some closing remarks :

(1) It should be observed that no form has been admitted against which the objection might fairly be made that it is onomatopoeic in its origin. The list might have been largely increased if such terms had been included.¹ On the other hand, it is impossible, in the case of most of the terms compared, to see how onomatopoeia could have had to do with their origin. The only ones in which this might be suspected are those which express the ideas of cutting or separating and rubbing or bruising. But these notions might be expressed in a hundred different ways ; and here the coincidences are so numerous and striking, in both primary and secondary forms, that we must, in reason, either maintain that the onomatopoeia acted in primitive Aryo-Semitic speech, or reject that theory altogether for those classes of roots.

(2) The close phonetic correspondence between the forms compared should be well considered. If it is admitted, as I think it will be, that in these discussions there has been no straining after an imaginary identity of primary meaning

¹ It is to be noted, however, that ideas which are usually held to be expressed most frequently by onomatopoeia are rarely conveyed by similar terms in the two systems of speech. For example, no two terms for breathing are alike, and only one pair of words for calling resemble one another. The onomatopoeic theory is a very easy one to employ, but it is apt to be overworked.

in the roots and no false phonologizing in the harmonizing of the forms, the results are well worth serious attention from this standpoint. The main fact in the question is simply this: leaving out the cases in which an interrogative mark has been used, we have over fifty pairs of roots which agree exactly in their primary notions and ultimate forms. The value of this fact, as bearing upon the issue involved, may be estimated from the attempt to conceive what the chances would be against such an agreement, if the two linguistic systems did not spring from a common source. That two peoples, not having a common origin or a common early history, should have separately framed a primitive speech from precisely the same elements would seem to be a phonological and psychological miracle after which such difficulties as are presented by the confusion of Babel would become problems only fit for the kindergarten. The chances would have been just as good for a merely partial agreement in any one of an infinite variety of ways. In bi-consonantal forms the first radical and the second in each pair might have been the same and the other two have differed from one another by the whole range of phonetic expression. Or in the dissimilar letters the divergence might have been slight, involving only cases of possible sound-shifting.¹ Of the tri-consonantal roots, of which a goodly number have been cited, a much more various and bewildering series of combinations than even these might have been presented, if the theory of a chance coincidence were valid. And the proved conditions of the question must shut us up to that theory of a purely fortuitous resemblance, unless we assume that the two systems were originally one.

(3) The ideas which are found to be expressed by the

¹ In a few cases, but only in a very few, there are bye-forms in one family or the other, which differ from the forms above compared, by merely this slight measure. The Proto-Aryan root *rag*, to extend, along with the form *raḡ*, has been already alluded to (No. 30). In Proto-Semitic, the only ones are פָּרַח and בָּרַח, to separate, along with בָּרַח, בָּרַח, and פָּרַח (Nos. 11, 12, 13); מָטַח, to extend, along with מָדַח (No. 29); רָלַח, to raise, along with רָלַח (No. 39), and perhaps כָּבַח, to be round, along with כָּבַח, to bend (No. 32).

same forms in the two systems are just those which we should naturally expect to have been employed by a primitive people. The notions are simple and primary. The action of the forces of nature; the most spontaneous works and ways of men and animals; the efforts and movements required in the most essential acts and arts of life, are what we find represented in this brief, but rich vocabulary. There are only three ideas expressed here which do not relate to the world of sense; but these are the most essential of all metaphysical conceptions: to think, to know, to be. Only one term is absent which we might seem to have a right to expect: there is no word in our list relating to human speech. But even this accords with what our observation of language would lead us to look for. Words for speaking are notoriously different, for example, in the different branches of the Indo-European family. They are mostly secondary and originally figurative.¹ The same remark holds equally good of such terms within the Semitic family.²

From all that has been said it seems to be a just and necessary conclusion that the primitive Aryans and primitive Semites possessed in common a good working vocabulary.

¹ Proto-Aryan words for speaking are but few, and most of them are but sparsely represented. Only one, the root *vak* has been at all persistent. Pictet has no treatment of this subject in his "Origines indo-européennes."

² In fact, it is doubtful whether any Proto-Semitic word for speaking has survived.