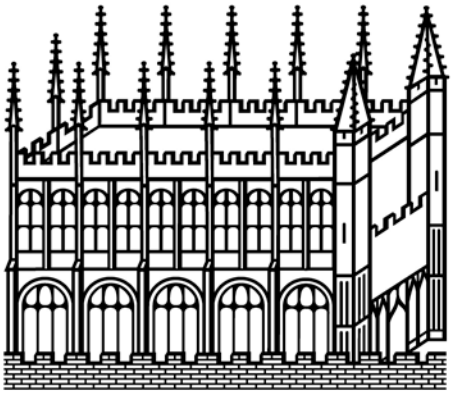

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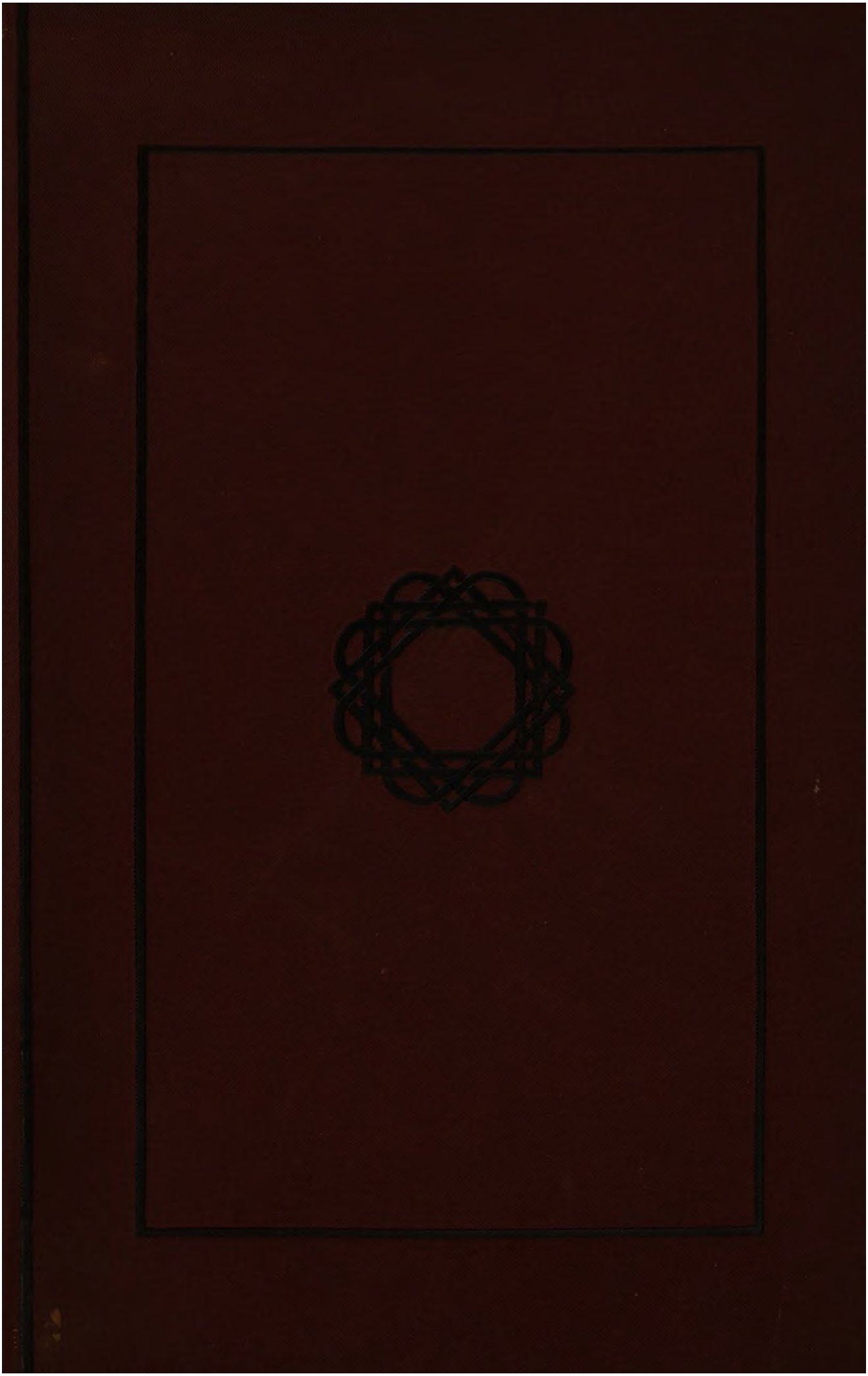

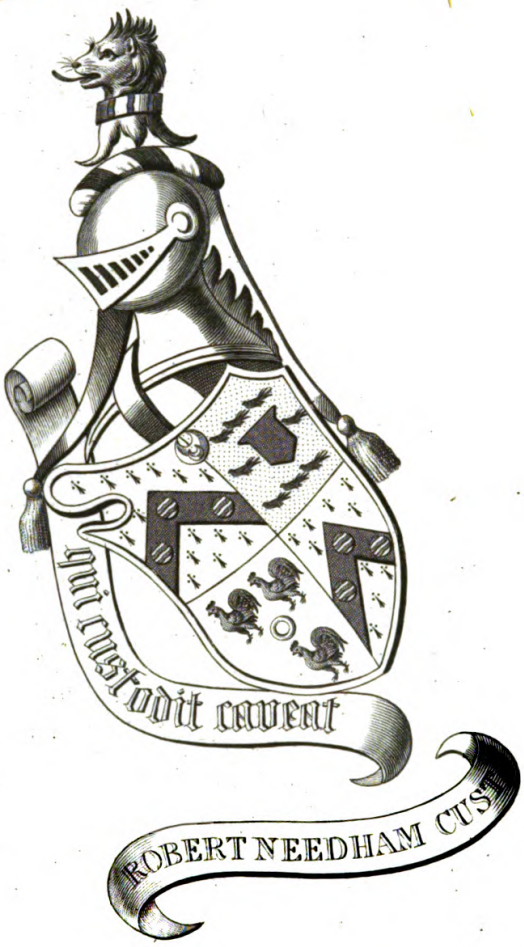
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A COMPENDIUM

OF THE

COMPARATIVE GRAMMAR

OF THE

INDO-EUROPEAN, SANSKRIT, GREEK AND LATIN LANGUAGES.

BY

AUGUST SCHLEICHER.

TRANSLATED FROM THE THIRD GERMAN EDITION

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II. MORPHOLOGY.

A. ROOTS AND STEMS.

THE FORM OF INDO-EUROPEAN WORDS. § 80.

The Indo-European language is one of the highest morphological regularity, since, besides the adjunction of sounds indicating relativity, it is also capable of flexion, that is, of regular variation of the root itself for the purpose of expressing relativity ; this variation of the root consists in the step-raising of its vowel (§ 2). The addition of sounds expressing relativity is found at the end only of a root, never at its beginning (the augment is an originally independent word, which only coalesces with the verb, and which can therefore disappear without detracting from the force of the word). Every Indo-European word actually employed in the language has a sound expressing relativity after the root, which, moreover, can also be reduplicated, e.g. *da-dā-mi* (I give) : naked roots do not appear in Indo-European as words (secondary loss of sounds expressing relativity naturally does not come under consideration here).

The unique exception occurs in the vocative of those nouns which possess no stem-formative-element besides their case-suffix, as e.g. stem *vāk-* (speech, √*vak*, speak), nom. sg. *vāk-s*, gen. *vāk-as*, etc., but voc. *vāk*. The vocative is, however, no real word, no element of a sentence, but a word which has

§ 80. assumed the form of an interjection, a gesture translated into sound. Very rarely (and even then due to relatively secondary processes) are relativity-sounds found in the root itself. This happens in the present form, as e.g. Gk. *λαμβάνω*, √*λαβ* (*ἔ-λαβ-ον*), *μ* is here a relativity-sound of the present; Lat. *iungo*, √*iug* (cf. *iug-um*), etc. The earlier forms had here also, probably, the nasal after the root-termination, v. post. 'Conjugation.' From this present-stem with medial nasal the nasalization has spread further to noun-stems (e.g. Gk. *τύμπ-ανο-ν* timbrel, √*τυπ* strike; Lat. *iunc-tu-s*, *iunc-tura*, √*iug*, etc.).

It is, therefore, a distinctive characteristic of the Indo-European language, that all words belonging to it have one and the same morphological construction; a regularly variable root and a regularly variable relativity-sound affixed thereto. The morphological formula for all Indo-European words is therefore $R^x s^x$ (v. Introd. II.).

§ 81. Root-formation. The earliest component parts of the Indo-European words are the roots. By 'root' we generally understand the meaning-sound, the sound that conveys the force of the word in question (*as* 'to be' is e.g. the root of *as-mi* I am, *as-ti* he is, etc.). But the stem- and word-formative suffixes also in Indo-European have arisen from originally independent roots by coalescence with other roots. Thus every Indo-European word may be treated as a whole which has gradually grown out of several roots, at the least out of two; of these roots one (the first) is the root of the word (in the narrower sense of the word 'root' in which it is generally used), and bears the meaning unaided, whilst the others have sunk to the subordinate position of relativity-suffixes to this chief-root, and have become welded on to it; e.g. *as-mi* (I am), √*as* with meaning 'be'; the √*ma*, here weakened as a suffix to *mi*, expresses the relation of the 1st pers. (*ma* as an independent root means 'measure,' 'think,'

'man,' 'I'); *as-ti* (he is) $\sqrt{as}+\sqrt{ta}$ 'that' dem., 'he'; *bhara-ti* (he bears), $\sqrt{bhar}$ (bear) $+\sqrt{a}$, here become a suffix, a root of demonstrative function, and *ta* (as in *as-ti*); *vāk-s* (speech n. sg.), $\sqrt{vak}$ (speak), $+\sqrt{sa}$ demonstrative, here shortened to *s*, etc. In more simply constructed languages we can see the early steps still preserved, steps which we must pre-suppose in Indo-European (e.g. in the words adduced forms *as ma, as ta, bhar a ta, vak sa*). Since the suffixes of the Indo-European language arise thus from roots originally independent, it becomes clear why the suffixes, as regards step-formation, are treated in precisely the same way as the chief-roots (e.g. *bhar--ā-mi* 'I bear,' with *a* of stem-formative sf. raised to *ā*, beside *bhar-a-ti* 'he bears,' without step-formation; *ta-nau-ti* 'he stretches,' beside *ta-nu-masi* 'we stretch,' etc.). The exact formula of the Indo-European word is therefore $R^x\ s^x$. We shall now treat of chief-roots, meaning-sounds, alone. § 81.

We have not hitherto any accurate investigation into the laws of root-formation in Indo-European. What sound-combinations occur in the roots of the Indo-European? Could roots change from one vowel-scale to another at a date as early as that of the Indo-European original language? What extension of meaning is permitted by a root, and in what cases must we assume original roots phonetically identical but nevertheless distinct? Several other similar questions hitherto unanswered might be proposed in this place.

Meaning-sounds or roots (chief-roots) are generally separable from the words which they now underlie. The Indo-European roots seem in the first period of the life of the original language to have possessed a sound-form still simpler than that shown by roots existing in the actual language, cf. e.g. $\sqrt{yu\text{-}g}$ beside *yu* (join), *ma-t* beside *ma* (measure), etc. In such cases what we see is probably the welding of a second root on to the first. Original reduplication also appears, e.g. *ka-k* (cook), *gi-g* (live). The origin of such secondary root-formations is in a great many

§ 81. cases due to the cohesion of the root and the addition which originally formed the present stem, e.g. √*man* (think) from *ma*, *gan* (be born) from *gā*, *bhandh* (bind) from *bhadh*, etc.; the nasal originally characterizes the present stem only. Hence we divide roots into primary and secondary.

It is an invariable rule that Indo-European roots are monosyllabic.

There is no distinction, as regards form, between the so-called verbal-roots (roots conveying a conception) and the so-called pronominal-roots (roots expressing relativity); the roots *i*, *ka*, *ta*, *ya*, e.g. are pronominal- as well as verbal-roots (*i* demonstrative, go; *ka* interrogative, be sharp; *ta* demonstrative, stretch; cf. Beitr. zur vergl. sprachforschung, ii. p. 92 sqq. 'wurzeln auf *a* im Indogermanischen,' by A. Schleicher. We get the root in its fundamental-form when we have taken from a given word all sounds expressing relativity and their possible influence upon the radical sounds (a process generally easy, but sometimes scarcely possible), and reduced the root-vowel to its fundamental-vowel, whenever it appears in a raised form in the word, e.g. *da* is the root of *da-dā-mi* (I give), *vak* of *vāk-s* (speech), *div* of *daiv-a-s* (shining, heavenly, God), *dyu* = *div* of *dyau-s* (heaven), *su* (bear, beget) of *su-nu-s* (son), *ta* of *ta-m* (him), etc.

Indo-European roots may be formed in any way provided they are monosyllabic. The following are the sound-combinations of the root:—

1. Vowel, that is, accurately speaking, spiritus lenis+vowel, e.g. *a* (dem. pron.), *i* (go), *u* (Sk. enjoy oneself, favour, Sclav., Lith., and Lat. ind-uere, ex-uere).

2. Consonant+vowel, e.g. *da* (give), *bhi* (fear), *bhu* (be).

3. Vowel+consonant, e.g. *ad* (eat), *idh* (kindle), *us* (burn).

4. Consonant+vowel+consonant, e.g. *pat* (fly, fall), *vid* (see), *bhugh* (bend).

5. Two consonants+vowel, e.g. *sta* (stand), *pri* (love), *kru* (hear).

6. Vowel + two consonants, e.g. *ardh* (wax), *ark* (shine; cele- § 81.
brate).

7. Two consonants + vowel + consonant, e.g. *star* (strew), *stigh* (ascend).

8. Consonant + vowel + two consonants, e.g. *dark* (see), *vart* (turn).

9. Two consonants + vowel + two consonants, e.g. *skand* (scandere).

In the case of roots of the form consonant + *a* + consonant, or *a* + consonant, even when these forms arise through step-formation from *u* and *i*, there occurs frequently a transposition of the sounds, so that *a* comes to be final, e.g. *gan* and *gna* (know, be born); *mar* and *mra* (die); *ghar* and *ghra* (shine, be yellow or green); *par* and *pra* (fill); *ak* and *ka* (be sharp); *i*, raised to *ai*, and *ya* (go); *hu* raised to *hau*, *hav*, and *hva* (call), etc. Likewise *div* and *dyu* (shine).

Note 1.—Transposition of consonants such as is assumed by Alb. Kühn, über Wurzelvariation durch Metathesis, Bonn, 1868, e.g. in *vid* (see) and *div* (shine), Sk. *paç* (bind), origl. *pak*, and Lat. *cap* (take), etc., I cannot consider proved.

Note 2.—In a complete grammar of Indo-European this chapter ought to contain a full list not only of those roots which can be proved to be Indo-European, but also of those which are peculiar to individual divisions or families (fundamental languages) of the Indo-European language.

Note 3.—Hindu grammar, which is in this respect still followed by many European philologists, assumes no verbal-roots in *a*. Hindu grammarians mark roots ending in *a* either (1) in the raised form (e.g. *dhā* put, *dā* give, instead of *dha*, *da*), or (2) give to the root final *n* and *y*, which arise from the formation of the present stem, and therefore originally belonged to a suffix (e.g. *ǵan* be born, instead of *ǵa*; *hvē* cry, instead of *hva*, *hu*; *rāi* bark, instead of *ra*), or (3) mark them with *ō*, which obviously does no more than indicate certain peculiarities of these roots in forming their tense-stems, since in really existing forms *ō* nowhere appears (e.g. *çō* sharpen, for *ça*, *aç*). *Cf.* Beitr. ii. 92 sqq.

§ 82. Stem-formation. From roots arise word-stems (themes), i.e. that part of a word which remains after we have taken away the terminations of conjugation and declension.

Stems are formed:

1. By the bare root raised or not. Since the root vowel occupies a certain step in the sound-scale, it may always appear as the substratum of a certain relation, and thus even by itself express a relation. This often happens in the case of verbs, e.g. *ai-*, *i-*, present-stem and root (go), 1 sg. *ai-mi*, 1 pl. *i-masi*; *as-*, present-stem and root (be), e.g. 1 sg. *as-mi*, 3 sg. *as-ti*, etc. This kind of stem-formation is less common in the case of nouns, e.g. n. sg. *dyau-s*, loc. *div-i*; *dyau-*, a raised-form from *dyu=div* (shine), is here a noun-stem (heaven), and likewise a root; *vāk-s* (speech), stem *vāk-*, is a step-form from √*vak* (speak), etc. The expression of relativity by means of step-formation of the root-vowel is symbolical. Moreover the reduplication of the root (with or without simultaneous step-formation), for the purpose of expressing relativity, is of very early date, and, like the simple root, suffices to form a stem, e.g. stem *da-da-* in *da-dā-mi*, 1 sg. pres.; *da-da-masi*, 1 pl. pres., √*da* (give).

2. By additions made to the end of a simple or reduplicated root whatever step-formation it may occupy. These additions were (as we remarked in § 81) originally independent roots, which, at an earlier period of development in the life of the language, when the language consisted of roots alone, came to be joined to other roots as defining elements; these roots expressing relation gradually lost their independence, and became welded on to those roots which they helped to define more accurately, e.g. *daiv-a*, n. sg. *daiva-s* (diuos, deus), √*div* raised *daiv*, +*a*; *bhāra-ya-*, causative-stem fr. √*bhar* (*bhāraya-ti* he makes to bear), cf. *a* (pron. demonstr.), *ya* (relat.); *vak-ta-*, n. sg. masc. *vak-ta-s* (dictus), √*vak*+*ta*, cf. √*ta* (pron. dem.); *vi(d)vid-vant-*, pf. part. act. of reduplicated √*vid* (see)+*vant*, etc. Most of these stem-formative elements can be traced as

roots of general and weakened function, that is, as pronominal roots (thus e.g. *a, i, u, ya, ta, ka,* etc.). § 82.

Note.—By a hyphen - we indicate that the element with which it is used is always in that very place joined to another. Stem-formative suffixes are accordingly to be known by - at the beginning and end, word-formative sff. by - at the beginning (e.g. *vark-a-s* with sff. *-a-* and *-s*). The roots may, we think, be left uncharacterized; it would perhaps be more correct to write them with - at the end (e.g. *vark-*), but by leaving them thus uncharacterized we wish to distinguish them from those stems which may coincide with them in sound-form.

These are the methods of stem-formation from roots. The language, however, did not remain stationary, but further stems began to be developed from these stems which were sprung directly from roots. Stems of the former kind we call primary stems, and suffixes which are used for their formation primary suffixes; stems of the latter kind, which presuppose other stems for their formation, we call secondary stems, and the suffixes used for their formation secondary suffixes. The latter partly coincide in form with the primary suffixes. In the case of verbs, the same suffixes are added to the derived verbal-stems as to the underived, the verbal-stem being equivalent to a root, whether it be derived or primitive: it is, therefore, right to count all suffixes which are joined immediately to the end of verbal-stems (forming participles, nomina actionis, nomina agentis) as primary suffixes; e.g. *-nt-* (*-ant-*) in *bhārayant-*, pres. part. act. causative stem, is no less a primitive suffix than in *bharant-*, pres. part. act. of the stem-verb. On the other hand, comparative- and superlative-suffixes, diminutive-formations, etc., which presuppose complete noun-stems, are secondary, e.g. Lat. *dīu-īnu-s* stem *dīuo-* (dīuos); *facil-ior* stem *fac-ii-*, √*fac*; *doct-ior-* stem *doct-o-*, √*doc*; whence again comes the stem *doct-is-simo-*, in which form *-is-* is a comparative-suffix (cf. *doct-ius*), and *-simo-* = *-timo-*, f.f. *-tama-*, the compounded superlative suffix; the stem *doc-t-is-si-mo-* has thus

§ 82. four stem-formative elements after the root. Moreover, vowel-raising may be combined with secondary stem-formation, e.g. Sk. stem *dāiv-ika-* (n. sg. masc. *dāivika-s* godlike) stem *dēvá-*, origl. *daiva-* (n. sg. *dēvá-s*, origl. *daiva-s* god).

The identity with pronominal roots of most elements used as stem-formative suffixes, including the most common ones, *ta*, *ya*, *ka*, etc., arises from the circumstance that this kind of root (i.e. a root whose originally more concrete meaning has sunk into a more general one, so that its meaning has been reduced to a relation), by bearing a general meaning, has become serviceable for the more accurate definition of other roots which convey more concrete meanings.

A further secondary means of stem-formation—one which is essentially distinct from those already mentioned—consists in—

3. Composition of word-stems to form a new word-stem. Composition is much employed in Indo-European languages. (Cf. Ferd. Justi, über die zusammensetzung der nomina in den Indog. sprachen. Göttingen, 1861.)

Stem-formation by attachment of relation-elements is distinct from composition in that it originated in the period of the growing language, whereas composition does not occur till the language is actually formed, presupposing, as it does, ready-made word-stems as its materials. Confluence or combination of words is likewise to be separated from true composition: in the case of the former words (i.e. elements of a sentence provided with terminations of case and person) become welded together, while the latter compounds word-stems so as to form a new stem.

Naturally this combination has not occurred till a later period in particular languages, whereas composition must perhaps be ascribed even to the Indo-European original language (the archaic stems *svastar-* sister, *svakura-* father-in-law, e.g. are probably compounded; so, too, must we assign to the compound stems of the aor. and fut. a date as early as that of the original language).

Prepositions and the augment before the verb form the commonest examples of combination or coalition of words once independent in our languages; they are adverbs which have grown on, i.e. they were originally cases, e.g. *abs-tineo* from *abs* and *teneo*; *abs*, like *ex*, etc., seems to be a gen. case; the looseness of the connexion shows itself in all cases, e.g. *ἐκ-πίπτω* beside *ἐξ-έ-πεσον*, etc. Yet we find combination elsewhere also, e.g. Lat. *quamuis*, *quamobrem*, etc.; German *frankenland* (*franken* is gen. pl.), *wolfsmilch* (*wolfs* is gen. sg.), etc. Here the accent is the only mark of the combination. § 82.

True composition has the power of expressing a relation; it can give the new word a relation which is foreign to the component parts taken separately, and which originates only in and through their composition; e.g. *μακρό-χειρ*, *longi-manus*, i.e. 'whose hands are long, long-handed': here the possessive relation belongs to the composition; *λογο-γράφο-ς* 'word-writing' =*λόγους γράφων*; *iu-dic-* (iudex)=*ius dicens* 'indicating, saying justice,' etc. In the latter instances the former element of the compound acts as a case, though it has no case-suffix. A fresh relation of this kind can never be produced by combination; for combination is nothing but varied and facilitated utterance —nothing but union, by means of a common accent, of words previously separate; it cannot therefore have anything in common with stem-formation.

An exhaustive statement of Indo-European stem-formation does not lie within the range of this compendium, since it is intended to embrace only what is indispensable for beginners in comparative philology. The science of stem-formation is moreover full of difficulties, and requires in parts a more detailed discussion than can be contained in a work which is confined to the narrowest limits possible. Of this wide range we select therefore only a few parts, which we shall now proceed to discuss, viz.: 1. derivative verbal-stems; 2. noun-stems which are most nearly connected with the verb, i.e. participles and in-

§ 82. finitives, and a few other noun-stems which are allied to these, or seem to be otherwise noteworthy; 3. comparative- and superlative-stems; 4. stems of cardinal- and ordinal-numbers. The last section, although of subordinate value for the explanation of the construction of language, is appended on account of the high interest of the numerals from other points of view. Hence under this last head we pass over the morphological arrangement, and direct our attention exclusively to the function, by discussing the separate numerals one by one irrespective of their phonetic expression.

Note.—It is obvious that here, in the chapter on morphology, if we had wished to be consistent, no regard should have been paid to the functions of stems, and that, since stems are not yet words, no distinction should have been made between verbal-stems and noun-stems. Likewise, the treatment of stem-formation should include the stem-forms of tenses and moods as well as all other stem-forms. The formation of verb-stems (in the widest sense of the word) does not, of course, belong to the statement of word-formation (conjugation), in which only the subject of person-terminations is to be treated, because the latter are the only elements which make the verb-stem a real member of a sentence, a word. However, in order not to divide the subject-matter in a way hitherto unusual, thereby rendering this work difficult to be used by students accustomed to earlier systems, we determine to leave the theory of tense-stems and mood-elements to the section 'Word-formation' (conjugation), and under 'noun-stems' (in Part II.) to refer now and then to similarly formed verbal-stems.

Hitherto we have no thoroughly scientific arrangement of Indo-European stem-forms. As regards Part II. of our fragmentary exposition of Indo-European stem-formations, in which we shall have to produce at least a fair number of stem-formative suffixes, we shall for the present follow the example of G. Curtius (De nominum Graecorum formatione, Berlin, 1842) in adopting a phonetic principle of arrangement; that is to say, we shall treat successively (1) stems without suffixes; (2) the simplest vowel-suffixes; and (3) suffixes having one or more consonants. Under the last head the suffixes *ya* and *va* will come first; after them suffixes with so-called liquids; and, finally, those whose chief element is a momentary sound,

to which has been added the suffix *as*. Compound suffixes should strictly form the last division and be treated separately; however, since the question whether a given suffix is simple or compound cannot always be answered with certainty, and since, moreover, compound suffixes often very closely resemble simple ones in function and employment, we here treat compound suffixes under their first elements. § 82.

1. Formation of Derived Verbal-Stems. § 83.

On derived verb-stems generally.

Derived verb-stems, though presupposing noun-stems, are here treated before the latter, because, like primary verb-stems and roots, they frequently underlie noun-stems.

All verbs which possess no stem-formative elements, except those which serve for the formation of the tense-stems, have the form of stem-verbs; but those verbs which, in other forms than the present, show besides the root such elements as were not originally used for the formation of present- or other tense-stems, have the form of derived verbs.

At later periods of language-development, present-stem formative elements easily become united with the verbal-root so closely, that they even remain in forms other than those of the present tense, e.g. *iu-n-g-o*, √*iug*, where *n* is the present infix; yet perf. is *iu-n-c-si* for **iuc-si*, even *iu-n-c-tu-s* for **iuc-tu-s*, cf. *iug-u-m:* a verb does not however become in any way a derived one by this union.

Intensive verbs in Sanskrit and Zend must be considered as closely akin to verbs which are reduplicated in their present- or aorist-stems; as we do not, therefore, hold them to be derived, in the stricter sense of the term (they show no constant additional element), we cannot deal with them in this place, but shall do so later on where we discuss 'present-stem-formation.'

It cannot be denied that sometimes verbs which are obviously derived may assume the form of primary verbs, *e.g.*

§ 83. Sk. *kršṇa-ti* (behave like *kršṇa-s*), from subst. *Kršṇa-s* (proper n.); Goth. *salti-th* (he salts), pf. *saisalt*, from subst. *salt* (salt), whilst at others stem-verbs appear in the form of derived verbs, as e.g. Lat. *habe-t*, Goth. *habai-th* (3 sg. pres.), Lat. *habē--bo* (fut.), Goth. *habai-da* (pf.), which we can hardly consider derived, is conjugated just like decidedly derived-verbs, e.g. Lat. *mone-t*, f.f. *mānaya-ti* (causes to think), fut. *monē-bo*, √*man* (think), Lat. *men* (cf. Lat. *me-min-i*, primary verb from same root), stem of causative verb *mānaya-*; Goth. *veihai-th* (hallows), pf. *veihai-da* from *veih-s* (holy). In fact the forms of undoubted stem-verbs and those of clearly derived-verbs are so intermingled in certain of the existing languages, that from a purely morphological point of view a sharp and complete distinction between primary and derived verbal-stems is impossible, and not unfrequently it is still doubtful to which class a given verb belongs. Certain tense-stems often have the forms of derived-verbs, whilst others show those of the stem-verbs, e.g. Lat. *vidē-mus* (pres.) beside *vīdi-mus* (pf.), etc.; v. 'Conjugation.'

Since we are here considering the form only, not the function of the words, we can arrange derived verb-stems only according to stem-formative elements, not according to the relations which they express. Hence we speak of stem-formation by means of *ya*, etc., not of intensive, causative, etc., verb-stems. We place first those formations which can be proved most archaic, and let follow in order those which occur in particular languages only of our family, and which must therefore in all likelihood, be considered as later formations.

It is often hard to pronounce with certainty what is the next underlying form in the case of derived verb-stems. We could not venture to decide off-hand whether, e.g. Sk. *bhāráyā-mi*, Gk. *φορέω-(μι)*, stem *bhāraya-*, Gk. *φορεγε-*, is formed by step-formation and by sf. *-ya-* from verb-stem Sk. *bhára-*, Gk. *φέρε-*, in Sk. *bhára-ti*, Gk. *φέρε-(τ)ι* (3 sg. pres.), or by means of sf.

-ya- from a substantive stem Sk. *bhāra-*, Gk. *φόρο-* (n. sg. Sk. § 83. *bhā́ra-s*, Gk. *φόρο-ς*).

Note.—The formation of the present-stem has been considered as the formation of a derived verb whenever it expresses an evident relation, as e.g. the passive or inchoative. This, however, is not admissible, were it only for the reason, that originally every kind of present-stem-formation represented a distinct relation. If this were not so, all verbs would exhibit one and the same present-stem-form. Besides there is no doubt that we count as 'derived verb-stems' only such formations as are not confined to the present-stem; and it would, moreover, be impossible to distinguish verbs as stem-verbs and derived-verbs.

Verbal-stems in original *-ya-* (*-a-ya-*) with root-vowel raised to first step, when formed from verbal-stems. § 84.

Verbal-stems in non-radical *-ya-* are found in all Indo-European languages, and must therefore be ascribed to a period as early as that of the original language (their function is manifold, especially causative, transitive, but also durative and intransitive). They naturally lean to verbal-stems and nominal-stems. The formative-element *-aya-* is probably to be broken up into *-a-ya-*, *a* being the final sound of the fundamental nominal- or verbal-stem, while *ya* is a very commonly used element in stem-formation (cf. pronominal √*ya*, of rel. and dem. functions). The root-vowel is regularly raised a step.

Indo-European original language. Only one kind of such verbs, and of this only a few forms can be traced, esp. the pres. (and what is akin to it), e.g. 3 sg. pres. *bhāraya-ti* (=Sk. *bhāráya-ti*, Gk. **φορεγε(τ)ι*, i.e. *φορεῖ*; in Sk. with causative, in Gk. with durative function, from a stem *bhāra-*, *φορο-*, origl. √ *bhar*, Gk. *φερ* ferre); further future *bhāraya-sya-ti* (Sk. *bhārayi-šyá-ti*, Gk. *φορή-σει*=**φορεγε-σγε-τι*), and lastly the compound aorist *a-bhāraya-sam* (*ἐ-φόρη-σα*). So too *sāda-ya-ti* (he places)=Sk. *sādá-ya-ti*, Goth. *sat-yi-th*, √*sad* (sit); *vaida-ya-ti* (foretells)=Sk. *vēdáya-ti* (id.), Goth. (*fair-*)*veiteith* (looks to) for **veit-yi-th*, √*vid* (see, know), etc.

§ 84. The correspondence between Gk. and Sk. makes it not unlikely that formations such as e.g. *maran-ya-ti* (dies, durative) from an abstract noun, n. sg. *marana-m* (whose final *a*, as often happens, has dropped out before sf. *ya*, √ *mar*, die), were not foreign to the origl. lang. In the formation of the remaining tense-forms languages do not agree. Probably the simple aorist was not formed at all, and the perfect expressed by periphrasis.

Sanskrit. E.g. *bhāráya-ti*, 3 sg. pres. causative vb. √*bhar*, either belonging to a noun-stem *bhāra-* (load), *bhara-* (bearing; or the act of bearing), or to a verb-stem *bhara-* (*bhára-ti* he bears); *sādáya-ti*, in the same way fr. √*sad* (sit), cf. stem *sāda-* (m. placing down, setting); *vēdáya-ti* (makes to know) similarly fr. √ *vid* (see, know), cf. *vēda-* (m. knowledge, holy writ); *bōdháya-ti* (makes to know), √*budh* (know), cf. *bōdha-*, pres.-stem and noun-stem, *bōdha-s* (knowledge, instruction). Roots in *-ar* often have no step-formation, e.g. *dāráya-* and *daráya-*, √ *dar* (burst, split); *vāráya-* and *varáya-*, √ *var* (cover, choose). Further, before two consonants the step-formn. does not take place, e.g. *kalpáya-*, √ *kalp* (be in order; *kalpa-*, adj. fitted, subst. m. order); indeed we actually find weakened root-syllables, e.g. *grbháya-*, √ *grabh* (grasp, akin to *grbhá-s*, gripe); *mrdáya-*, √*mard* (grind, both these examples belong to the more archaic language). Elsewhere also unraised *a* is sometimes found, e.g. *damáya-*, √ *dam* (be tame, tame; cf. *dama-s*, the act of taming, breaking in), etc. Roots in *i*, *u*, have the 2nd step, e.g. *nāyá-ya-ti*, √ *ni* (lead); *çrāvá-ya-ti*, √ *çru* (hear). The perf. of these verb-stems is periphrastically formed by means of an abstract-form in *ā* and the perf. of an auxiliary verb, e.g. *vēdayā́-ćakāra*, lit. 'notionem feci'; the aorist does not belong to these stems in *-aya-*, but was formed from the reduplicated root. This reduplication has the force of a causal function, which may be taken as a step-formation of the active, e.g. *á-vīvid-am*, pres. *vēdáyā-mi*; other forms of these verbs lose *ya*, thus the past formed from the future (the so-called conditional),

e.g. *á-vēd-i-šyam*, stem *vēdáya-*, etc. This belongs, however, rather to Indian special-grammar, as being peculiar to Sk. § 84.

Amongst stems clearly formed from nouns are *yōktrá-ya-ti* (binds round, embraces), noun-stem *yōktra-* (ntr. band); *tulá--ya-ti* (weighs), stem *tula-*, n. sg. *tulā́* (fem. balance, scales), etc.

But before the *-ya-* the final *-a-* of the stem is not seldom lengthened to *ā* (v. supr. § 15, 2, a), e.g. *vāšpā-ya-tē* (weeps), stem *vāšpa-* (tear), *lōhitā-ya-ti* (reddens), stem *lōhita-* (red), *açvā-yá-ti* (wishes for horses), stem *áçva-* (horse), etc.; cf. *rāǵā-ya-ti* (behaves like a king), stem *rāǵan-* (n. sg. *rā́ǵā* king), thus accompanied by loss of final *n* from the underlying noun-stem. Similar lengthening in the case of *i* and *u* before *y* occurs (cf. § 15, 2, a), e.g. *patī-yá-ti* (desires a husband), stem *páti-* (husband), *asū-yá-ti* (snarls, is angry), stem *ásu-* (breath, spirit).

The *a* also is weakened to *i*, and then *i* is lengthened to *ī*, e.g. *putrī-yá-ti* (filium cupit), stem *putra-* (son).

Moreover the stem-termination drops off altogether, e.g. *putrakām-ya-ti* (desires a son), stem *putrá-kāma-* (desiring sons, children; *putrá-s* son, *kā́ma-s* wish, love). Here we must esp. mention the verbs in *-anya* which occur in the earliest Sanskrit (the Vēdas): they are formed from abstract nouns in *-ana-* (n. sg. *-ana-m*, ntr.), e.g. *ǩaraṇ-yá-ti* (he goes), stem *ǩáraṇa-* (going) √*ǩar* (go); *bhuraṇ-yá-ti* (quivers, is in motion), stem *bhuraṇa-* (adj. active), √*bhur* (quiver, move rapidly). Cf. Gk. examples such as *μαραίνει* (makes to wither away), i.e. *maranya-ti*, √*mar* origl. (die).

To stems in *s*, *-ya-* is added immediately, e.g. *tapas-yá-ti* (chastises himself), stem *tápas-* (mortification); *namas-yá-ti* (worships), stem *námas-* (worship). Through the analogy of such forms arose a denominative-form in *-sya-*, which comes into use also where there is no noun-stem in *-as-*. In other than present forms, generally, the *y* only remains (e.g. fut. *namasy-išyá-ti*), yet this *y* also often disappears (*namas-išyá-ti*),

§ 84. so that these stems then coincide with those to be treated in § 85.

It is difficult to explain the suffix *-paya-*, which is added regularly to verbal roots in *a*, more rarely to other roots also, and further to monosyllabic, and also less frequently to other noun-stems in *a*; in function it corresponds perfectly to *-aya-*, i.e. *-ya-*. Before this sf. *a* is regularly lengthened to *ā*, or raised a step, e.g. *dā-payá-ti*, 3 sg. pres. caus. vb. √*da* (give); *satyā-payá-ti* (speaks truth), st. *satyá-* (true); *ar-payá-ti*, caus. √*ar* (rise, go); *ǵña-payá-ti* (makes to know), √*ǵña* (learn)= *ǵan*, origl. *gan*; also others show *a* instead of regular *ā*; hence fms. like *ǵāpayá-ti*, caus. √*ǵi* (conquer), appear to be formed acc. to analogy of the frequent roots in *a*, and not to assume *-āpaya-* as an element of formation, before which the final of the root must have been lost.

The attempts to prove the existence of this *-paya-* in other Indo-European languages seem to me unsuccessful on the whole, so that I prefer to consider it as a new formation in Indian, a view which is borne out likewise by the frequent occurrence of *-paya-* in the Prākrt. Probably they are compound-fms. (Benfey, kl. Sanskritgrammatik, § 123), containing a √*pa*=*ap*, meaning 'do, make,' cf. *áp-as*, Lat. *op-us*, Gk. *πο-ιέω*, f.f *pāyayā-mi*, the latter (connected with √*pa* by means of a noun-stem **ποιο-*, i.e. *pā-ya-*; cf. Sk. stem *dā-ya-*, giving, masc. gift, √*da*) formed from this root; *pa-ya-* will then be a causative stem of this root, precisely in the same way as the causative *kāraya-*, √*kar* (make), often appears in the function of the stem-verb.

Note.—*Pāláya-ti*, 3 sg. pres. caus. √*pa* (protect), is not immediately formed from the root, but from a noun-stem *pā-lá* (n. sg. *pā-lá-s* watcher, guard), and is therefore perfectly regular.

Greek.[1] Original *-a-ya-* has become **-a-yε-*, **-ε-yε*, **-o-yε-*;

[1] For fuller details on derived verbs of Gk. and Lat., cf. Leo Meyer, Vergl. gr. d. Griech. u. Lat. Sprache, ii. 1 sqq.

according to recognized phonetic laws *y* is lost between vowels (cf. § 65, 1, e), e.g. *τιμᾷ* (honours) = *τιμάει* fr. **τιμαγε-τι* fr. *τιμή* (honour); *φοιτᾷ* (goes frequently) = **φοιταγε-τι* fr. *φοῖτο-ς* (frequent going); *δαμᾷ* = **δαμαγε-τι* (cf. *δάμ-νημι*) = Lat. *doma-t*, Sk. *damáya-ti*, Goth. *tamyi-th* (tameth), etc.; *φορεῖ* (bears, durative) = *φορέει* for **φορεγε-τι*, origl. *bhāraya-ti*, stem *φόρο-* in *φόρο-ς*, or stem *φερε-* in *φέρει* fr. **φερε-τι*, by raising of *ε* to *ο*; *ὀχεῖ* (carries, lets ride) = *Fοχεγε-τι*, origl. form *vāghaya-ti*, cf. *ὄχο-ς* (waggon), f.f. *vāgha-s*, and *ἔχει*, f.f. *vagha-ti*; *ἀριθμεῖ* (counts) = **ἀριθμεγε-τι* fr. *ἀριθμό-ς* (number); *οἰκεῖ* (dwells), f.f. *vāikaya-ti*, *οἶκο-ς* (house), f.f. *vāika-s*; *ἀφρονεῖ* (is senseless) fr. stem *ἄφρον-* (senseless): thus also from consonantal stems after analogy of vowel-stems, etc. These verbs in *-εγε-* are much used in Gk. (in Lat., on the contrary, those in *-a-*). Further, *χρυσοῖ* (gilds) = *χρυσόει* fr. **χρυσογε-τι* fr. *χρυσό-ς* (gold), etc. The less common verbs in *-ιγε-* are mostly formed from noun-stems in *i*, and are not therefore to be traced back to *-a-ya-*, e.g. *κονΐω* (make dusty) from **κονιιω*, **κονιγωμι*, fut. *κονΐσω*, stem *κόνι-* (*κόνι-ς*, gen. *κόνιος*, *κόνεως*, dust). Some of these derived verb-stems form presents also by means of *-ska-* (v. post. "Conjugation"), e.g. *ἡβά-σκε-ι* (becomes a man, pubescit) beside *ἡβᾷ*, *ἡβά-ει* (*ἥβη* manhood), where nevertheless we may perhaps assume that *ἡβάσκω* is formed direct from stem *ἡβα-* (cf. however Lat.); *ἀλδή-σκω* (wax) beside *ἀλδέω*, etc. § 84.

Since in Gk., after sounds other than origl. *a*, *-ya-* is confined to the pres., the derived verbal-stems apparently formed by means of it will occur hereafter, i.e. where we speak of those verbs whose stem is the noun-stem without any further addition.

Note.—In Gk. stem-verbs often assume the form of derived verbs in certain tense-forms, e.g. *πέρδω*, but *παρδή-σομαι*, v. post. § 165.

Latin. In Lat., and, so far as we can see, in the other Italic languages, we find three forms caused by the splitting-up of

§ 84. the *a* of original *-a-ya-* into *a*, *e*, and through its being weakened to *i*.

1. *-aya-* is contracted into *-ā-*, e.g. *sēda-t* (sets, settles) for *sēdā-t*, **sēdayi-t*, f.f. *sādaya-ti*, cf. √*sed* in *sĕd-eo* (sit); *doma-t* (tames)= Gk. *δαμᾰ́*, Sk. *damáya-ti*; in 1 sg. *-ayō*, i.e. *-ayāmi*, becomes **ao*, by elision of *y*, retained in Umbrian as *au* in *subocau*=Lat. **subuocao*, **subuoco*; this *ao* was then further contracted to *ō*, like Gk. *-αω* fr. *-ayω(μι)* to *ω*, e.g. *sēdō* for **sēdaō-mi*, **sēdayō-mi*, f.f. *sādayā-mi*; 2 sg. *sēdā-s*, f.f. *sād-aya-si*, etc.; perf. *sēdā-vi*, part. *sēdā-tus*. This formation is very common in noun-stems, also in those which end in *i* no less than those which end in a consonant, e.g. *forma-t* (shapes) fr. *forma* (shape); *planta-t* (plants) fr. *planta* (plant); *fūma-t* (smokes) fr. *fūmu-s* (smoke), st. *fūmo-*; *dōna-t* (gives), st. *dōno-* (*dōnu-m* gift); formations from participles and the like in *-to-* are particularly common, e.g. *canta-t* (sings), st. *canto-* (*cantu-s*), past part. pass. of *can-it* (sings); *facta-t* (makes, intensive), st. *facto-*, part. of *fac-it* (makes); *quassa-t* (shakes, intensive) fr. *quasso-*, part. of *quat-it* (shakes), etc. Of this class are the forms in *-tita-*, *-ita-*, like *factita-t* (makes often), cf. *facta-t*, *dictita-t* (says often) beside *dicta-t*, stem *dicto-* (*dīc-it* says, √*dic*); *uolita-t* (flies, flits) beside *uola-t*; *uocita-t* (calls often) beside *uoca-t* (calls), etc. Further, *piscā-tur* (fishes) fr. *pisci-s* (fish); *nōmina-t* (names) fr. *nōmen nōmin-is* (name); *rēmiga-t* (rows), stem *rēmig-* in *rēmex*, *rēmig-is* (rower) [prob. formed fr. stem *rēmo-* in *rēmu-s* oar, and *ig* weakened from *ag* (*ag-ere*)]; after the analogy of such forms arose a verbal-termination *-igā-*, e.g. *cast-iga-t*, *lēu-iga-t*, etc., even without a corresponding substantive. A list of verbs in *-ā-* in Oscan is given by Corssen, Zeitschr. v. 96 sqq.

Note.—In cases like *son-ui* beside *sona-t* (sounds) fr. *sonu-s* (sound), the derivational element is lost, cf. *monui* in 2.

2. *-aya-* is contracted to *-ē-*, e.g. *monē-mus* fr. **moneyi-mus*, f.f. *mānayā-masi*, 1 pl. pres. caus. verb √*man* (think), *moneo*

(remind), i.e. *mānayā* for *mānayā-mi*, 1 sg. pres.; 1 sg. pf. *monui*, § 84.
not **monē-ui*; past part. pass. *moni-tu-s*, not **monē-tus* (v. post. formation of pf. in Lat.); thus e.g. *flāueo* (am yellow) fr. *flāuo-s* (yellow); *cāneo* (am grey) fr. *cānu-s* (grey); *salueo* (am hale) fr. *saluo-s* (hale); *flōreo* (bloom) for **flōseo* from consonantal stem *flōs-* (*flōs*, gen. *flor-is* for **flōs-is*, blossom), etc. Underived verbs have very often assumed this form.

3. *-aya-* contracted to *-ī-*, 1 sg. *-io* = *-iyo*, *-ayā* fr. *-ayā-mi*, e.g. *sōpio* (make sleepy) = **sōpiyō*, f.f. *svāpayā* for *svāpayā-mi*, *sōpīmus* = **sōpiyi-mus*, f.f. *svāp-ayā-masi*, 1 sg. pl. pres. caus. verb √*svap* (sleep); perf. *sōpī-ui*, past part. pass. *sōpī-tu-s*; *mollī-mus* (soften) = **molliyi-mus* fr. *molli-s* (soft), therefore the *i* is origl. here, as in many other cases, e.g. *fīnī-mus* (we end), *fīni-s* (end); *lēnī-mus* (we smooth), *lēni-s* (smooth, mild), etc., yet others are by no means wanting where *i* is not caused by the termination of the underlying noun-stem, e.g. *saeuī-mus* (we rage), *saeuo-s* (raging); *equi-t* (wants the stallion), f.f. *akvaya-ti*, cf. Sk. *açvāya-ti*; *equo-s* (horse), origl. *akva-s*, Sk. *áçva-s*; *pūnī-mus* (we punish), *poena* (penalty), etc. Examples like *custōdī-mus* (we guard), stem *custōd-* (*custos* guardian), may likewise be reduced to stems in *i* (*custōdi-*), because in Lat. all consonantal stems follow the analogy of *i*-stems in most cases. In this way, by means of *ī*, verbs were formed from the part. (nom. agentis) ending in origl. *-tar*, Lat. *-tōr-*, *-tūru-s*, —retaining the archaic short form of origl. *-tar* (still found underlying secondary formations such as *uic-tr-īc-*, *doc-tr-īna*, fr. **uic-tŏr-īc-*, **doc-tŏr-īna*) — e.g. *ēsurī-mus* (wish to eat), i.e. **ed-tur-ī-mus*, f.f. *ad-tar-ayā-masi*, stem *ēsor-* = **ed-tor-*, origl. *ad-tar-* (*ed-o* eat; cf. § 77, 1, b), *par-tur-ī-mus* (wish to bear), fr. **par-tor-* (*par-io* bear), etc.

Note.—Lat. has no verbs corresponding to those of Gk. in *-οω*: G. Curtius indicates their traces in 'Ueber die Spuren einer lateinischen *o*-Conjugation,' Symbola philologor. Bonnens. in honor. Fr. Ritschelii collecta, fasc. i. Lips. 1864, p. 271 sqq.

§ 84. In Lat. the forms of stem-verbs and derived-verbs are mixed in many ways. Often stem-verbs take the form of derived verbs in the pres.; under this head come many cases such as e.g. *uenī-mus* beside *uēn-i*, *uen-tum*, *re-perī-mus* beside *re-p(e)per-i*, *re-per-tum*. Verbs in *eo* show on the contrary a regular loss of the derivation-element in all stems except the pres., so that here the stem-verbs which assume *-ē-* (=*-aya-*) in pres. only (as e.g. *sed-ē-mus* beside *sēd-i*, *sessum* = **sĕd-tum*; *uid-ē-mus* beside *uīd-i*, *uīsum*=**uĭd-tum*, § 77, 1, b) cannot be distinguished from derived verbs which have lost the same element.

These derived verb-stems may form (in order to express inchoation) their pres. also by means of *-ska-* (v. post. formation of pres.-stem), e.g. *in-uetera-sci-t* (grows old), stem *ueterā-*= **uetesā-* stem *ueter-* in *uetus*, *ueter-is* (old); *flāue-sci-t*, cf. *flāue-t* fr. *flāuo-s*; *ob-dormi-sci-t* (grows drowsy), cf. *ob-dormī-ui*, *ob-dormī-tu-m*, etc.

§ 85. Noun-stems used as verb-stems without change are found here and there in the languages. These formations are recent.

From this class of stems we must separate those verb-stems (mostly present-stems) which do not presuppose a noun-stem for their formation, though they coincide with one; e.g. *tanu-* from √*ta*, *tan* (stretch); *bhara-*, √*bhar* (ferre), etc.; an origl. *tanu-tai*, 3 sg. pres. med., *bhara-ti*, 3 sg. pres. act., are not formed from a noun *tanu-s* (tenuis), *bhara-s* (φορός), but both are mere coincidences in their stem-formation. If these verb-stems had been derived from nouns, the characteristic suffix would have remained throughout, whilst in fact it forms only the present (or aorist), but does not exist in the other tense-stems. On the other hand, the formations now in question are closely connected with those treated of in the preceding paragraph, from which sometimes they cannot be clearly separated.

Sanskrit. Rare, e.g. *lōhitá-ti* (is red) fr. *lṓhita-s* (red), etc.

Greek. Here noun-stems are very often used as verb-stems

likewise, in that the present-stem is formed by means of *-ya-* § 85. (our class V. of Present-stem-formation), while the noun-stem appears pure in the other tense-stems. To this kind belong the numerous verbs in *-ζω* and *-σσω*, e.g. *ἐλπίζει* (hopes), i.e. **ἐλπιδ-ye-τι*, stem *ἐλπίδ-* (n. sg. *ἐλπίς* hope, gen. sg. *ἐλπίδ-ος*); *ἐρίζει* (strives), stem *ἔριδ-* (*ἔρις* strife; in these cases, however, *ζ*, like the *δ* of the corresponding noun-stems, might be simply = *y*, and thus **ἐλπι-ye-τι*, **ἐρι-ye-τι*, be assumed as fundamental forms, cf. § 65, 1, c, note; yet *ζ* between vowels = *y* is in my opinion still doubtful); *πεμπάζει* (counts by fives), i.e. **πεμπαδ-ye-τι*, stem *πεμπάδ-* (*πεμπάς* number 5, collection of five); *μαστίζει* (lashes), i.e. **μαστιγ-ye-τι*, stem *μάστιγ-* (*μάστιξ* lash); *πομφολύζει* (bubbles), i.e. **-λυγ-ye-τι*, st. *πομφόλυγ-* (*πομφόλυξ* bubble); *ἁρπάζει* (seizes), i.e. **ἁρπαγ-ye-τι*, stem *ἅρπαγ-* (*ἅρπαξ* grasping), fut. in Hom. *ἁρπάξω*, i.e. **ἁρπαγ-σω*, but subsequently *ἁρπάσω*, as though a stem **ἁρπαδ-* underlay it, a confusion between *-δ-* and *-γ-* stems not uncommon, caused by the identity of the present-tense in each; *σαλπίζει* (trumpets), st. *σάλπιγγ-* (*σάλπιγξ* trumpet), the nasal falling away before *ζ*=*γγ*, just as it does before *σ*, cf. fut. *σαλπίγξω*, i.e. **σαλπιγγ-σω*, etc. From such cases arose the common terminations *-ιζω*, *-αζω*, which afterwards came to be used as independent terminations. In like manner was developed the termination *-σσω*, which arose in the case of stems in *τ*, *θ*, *κ*, *χ*, e.g. *βλίττω* (cut honey), i.e. **μλιτ-yω* (§ 68, 1, b. f.), **μελιτ-yω*, stem *μέλιτ-* (*μέλι*, gen. *μέλιτ-ος* honey); *κορύσσω* (fit with a helm), i.e. **κορυθ-yω*, stem *κόρυθ-* (*κόρυς*, gen. *κόρυθ-ος* helm); *κηρύσσω* (proclaim), i.e. **κηρυκ-yω*, stem *κήρῡκ-* (*κήρυξ*, gen. *κήρῡκ-ος* herald); *ἱμάσσω* (I lash), i.e. **ἱμαντ-yω*, stem *ἱμάντ-* (*ἱμάς*, gen. *ἱμάντ-ος* strap); *ἀνάσσω* (am king), i.e. **ἀνακτ-yω*, with loss of *κ* in the group *κτy*, st. *ἀνακτ-* (*ἄναξ*, gen. *ἄνακτ-ος* lord), etc.

Noun-stems in *s* are seen in *τελείει*, *τελέει*, *τελεῖ* (completes), i.e. **τελεσ-ye-τι*, stem *τέλες-* (cf. *τε-τέλεσ-μαι* pf. pass.) in *τέλος*, gen. *τέλους*, i.e. **τελεσ-ος* (end); *νεικείω*, *νεικέω* (wrangle), i.e.

§ 85. *νεικεσ-yω, stem νεῖκεσ- (νεῖκος ntr. quarrel); εὐτυχεῖ (is happy), i.e. *εὐτυχεσ-ye-τι, stem εὐτυχέσ- (adj. n. sg. masc. fem. εὐτυχής happy), etc.

From origl. -*an*-stems arise verbs in -αινω, i.e. *-ανyω, e.g. μελαίνει (blackens), i.e. *μελαν-ye-τι, stem μέλαν- (n. sg. masc. μέλας, ntr. μέλαν, gen. μέλαν-ος black); afterwards this termn. extended also to stems which do not end in -αν, e.g. λευκαίνει (whitens), i.e. *λευκαν-ye-τι, stem λευκό- (λευκό-ς white), etc.

A similar case occurs in verbs in -ῡνω, i.e. *-υινω, *-υνyω; here, however, ν is probably origl. from a present-formation in *na* (v. post., present-stem); e.g. ἡδύνει (sweetens), i.e. *ἡδυ-νye-τι, f.f. *svādu-nya-ti*, stem ἡδύ- (ἡδύ-ς sweet), f.f. *svādu-*; ἰθύνει (straightens), stem ἰθύ- (*ῑθυ-ς straight); εὐρύνει (broadens), stem εὐρύ- (εὐρύ-ς broad), etc. This ending also passed over to other stems, e.g. μεγαλύνει (enlarges), st. μεγάλο- (great); λαμπρύνει (brightens), stem λαμπρό- (bright), etc.

From *r*-stems arise e.g. τεκμαίρομαι (proclaim, infer), i.e. *τεκμαρ-yo-μαι, stem τέκμαρ (aim, mark); μαρτύρομαι (call to witness), i.e. *μαρτυρ-yo-μαι, stem μάρτυρ- (μάρτυς, gen. μάρτυρ-ος witness).

After stem-terminations in vowels *y* is entirely lost (as in φύω, earlier φυίω; ὀπύω, earlier ὀπυίω, v. post. § 165), e.g. μεθύει (is drunken), i.e. *μεθυ-ye-τι, f.f. *madhu-ya-ti*, stem μέθυ (ntr. mead); βασιλεύ-(*y*)ε-(τ)ι (is king), stem βασιλεύ- (βασιλεύς king); βουλεύ-ει (counsels) from an unused stem *βουλευ- (formed like φορεύ-ς bearer) and many more.

Frequently the noun-stem loses as a verb-stem the final vowel -*o*-, e.g. μαλάσσω (soften), i.e. *μαλακ-yω, fut. μαλάξω = *μαλακ-σω, stem μαλακό- (μαλακό-ς soft); ἰύζω (scream), i.e. *ἰυγ-yω, fut. ἰύξω = *ἰυγ-σω, cf. ἰῡγή (shriek); μειλίσσω (soothe, exhilarate), i.e. *μειλιχ-yω, stem μείλιχο- (μείλιχο-ς mild, friendly); καθαίρω (purify), i.e. *καθαρ-yω, stem καθαρό- (καθαρό-ς pure); δαιδάλλω (work cunningly), i.e.

δαιδαλ-γω, stem *δαίδαλο-* (cunningly wrought); *ἀγγέλλω* (an- § 85.
nounce), i.e. **ἀγγελ-γω*, stem *ἄγγελο-* (masc. messenger); *ποικίλλω* (adorn) fr. *ποικίλο-ς* (variegated); *καμπύλλω* (bend) fr. *καμπύλο-ς* (bent), etc.

Present-stems of similar derived verbs are also formed by means of the stem-formative suffix origl. *-ska-* (§ 165, VI.), e.g. *μεθύ-σκει* (makes drunk), f.f. *madhu-ska-ti*, stem *μέθυ-* (mead).

After labials occurs also the sf. origl. *-ta-* (§ 165, VII.) similarly used, e.g. *ἀστράπ-τω* (lighten) from *ἀστραπή* (lightning-flash); *χαλέπ-τω* (press hard) from *χαλεπό-ς* (hard), etc., with loss of the vowel stem-termination of the noun, provided these verbs are really derived.

As regards the verbs whose present-stem terminates in origl. *-asnu-*, e.g. *στορέννῡμι* (spread) for **στορεσ-νῡ-μι*, f.f. *staras-nau-mi*, f.f. of stem *staras-nu*, stem of remaining tenses *στορες-*, f.f. *staras-*,—a stem-form which frequently occurs also among nouns (v. post.),—for these verbs, which belong here by rights, v. post. under 'Present-stem-formation'; they appear as stem-verbs, because the noun-forms underlying them do not really exist in the language.

In Latin a few noun-stems are used as verb-stems; the present is formed, as in Gk., by means of *-ya-* (§ 165, V.); but the formation is confined to *u*-stems, e.g. *statui-t* (sets up), i.e. **statu-yi-t*, f.f. *statu-ya-ti* fr. *sta-tu-s* (subst. standing); *metui-t* (fears) from *metu-s* (fear); *acui-t* (sharpens) from *acu-s* (needle); *tribui-t* (assigns) fr. *tribu-s* (division); *minui-t* (lessens) from a non-existent **minu-s* (small), of which *minus* (smaller) for **minius*, f.f. **manyans*, is the comparative.

Verb-stems, formed by reduplication of the root, § 86.
and addition of *-sa-* or *-s-* in other tenses than the present (called desideratives from their function).

s frequently appears as an element in stem- and word-formation, and must be traced back either to the pronominal √ *sa*, or,

§ 86. as is more probable in the case in question, to verbal √*as* (esse).

Although these formations occur in Sk. and Zend only, yet they depend, like all reduplicated forms, on a very early method of expression, arising in that period of the language when the invariable roots possessed reduplication alone as a means of increasing their power of expressing relativity; Gk. forms such as γι-γνώ-σκω, μι-μνή-σκω, correspond with the Aryan languages at least in reduplication, and it is the reduplication of the root only that we consider ancient. We doubt therefore whether the method of formation belonging to the Aryan language, so far as we know it, should be assigned to the origl. language. Here perhaps the reduplication alone, without any special suffix, served to express desiderative relation.

Sanskrit (special grammars must be consulted for further details of Sk. desiderative-stem-formation). Before the *s* of the sf. there is found an auxiliary vowel *i* after most root-terminations (§ 15, f). The reduplication is completely retained only in cases of the simplest kinds of root, e.g. *ár-ir-i-ša-ti*, 3 sg. pres. (he wishes to go), √ *ar* (go; 3 sg. pres. *r-ṇṓ-ti*), cf. ἀρ-αρ-ίσκω (fit), at least the same root is reduplicated; otherwise, as is usual, only the initial consonant of the root or its representative according to sound-laws (v. post. formation of Perfect) remains with root-vowel, which is weakened to *i* whenever it is origl. *a*, e.g. *ǵi-ǵñā-sa-ti* (wishes to know), fut. *ǵi-ǵñā-s-i-šyá-ti*, aor. comp. *á-ǵi-ǵñā-s-i-šat*, etc., √ *ǵña* transposed fr. origl. *gan* (know); *didrk-ša-tē* (wishes to see), √ *darç*, origl. *dark*, for **di-dark-sa-tai*, *ḱi-klp-sa-ti* and *ḱi-kalp-i-ša-tē*, √*kalp* (be in order); some verbs lengthen the vowel of the reduplication-syllable (weakened from *a*), e.g. *mī-mā̃-sa-tē*, i.e. **mī-mān-sa-tai* (considers, reflects), √ *man* (think); *yú-yut-sa-ti* (wishes to fight), √ *yudh*; *vi-vik-ša-ti* (wishes to enter), √*viç*, origl. *vik*; *ḱi-ḱšip-sa-ti* (wishes to throw), √*kšip* (throw), etc.

2. Noun-stems which are most closely connected with verb-stems (participles and infinitives) and also certain other noun-stems. § 87.

I. The root without suffix is also a noun-stem.

This formation occurs in Aryograecoïtalic only; it is foreign to Sclavoteutonic.

Indo-European original-language. To the Indo-Eur. origl. lang. have most likely to be ascribed such root-forms as e.g. *bhar* (bear), *vid* (see), *yudh* (fight), etc., in the functions of nomina actionis and nomina agentis. As verb-stems they occur in the simple aorist (§ 164), e.g. *da-*; in pres. (§ 165), e.g. *as-* (I. a), *ai-* and *i-* (II. a). Reduplicated root without sff. is either perfect-stem (§ 163), e.g. *vi-vid-*, *da-da-*; or pres.-stem as *dha-dha-*, *da-da-* (III.), or aorist-stem (§ 164).

Sanskrit. The root appears not unfrequently as a nomen actionis and nomen agentis, e.g. in infinitives, as *drç-* (dat. *drç-é* to see), *sad-* (dat. *ā-sád-ē* to seat oneself), *kram-* (dat. *ati-krám-ē* transgress); *ya-* (dat. *ā-yái* fr.**ā-ya-ai* come); *rabh-* (acc. *rábh-am* desire, do); *idh-* (acc. *sam-ídh-am* kindle), etc. Similar roots, acting as verb-stems likewise, are also used in ordinary Sk. as nomina actionis, e.g. *yudh-* (fem. battle), *sam-pád-* (fem. happiness; *sam-* with, *pad* go); roots with *a* also raise it to *ā*, e.g. *vāk* (speech), √*vak* (speak). At the end of compounds such stems as coincide in form with roots and primary verb-stems are often found used as nomina agentis, e.g. *dharma-vid-* (knowing one's duty), etc. Roots in *a* lose it before most cases, or raise it to *ā*, e.g. *viçva-p-* (loc. *viçva-p-i*) and *viçva-pā-* (e.g. instr. pl. *viçva-pā-bhis*), f.f. of stem *viçva-pa-* (all-protecting), √ *pa* (protect).

The pure root-forms appear more rarely in this function without composition, e.g. *drç-* (eye, i.e. seeing), √*drç* (see); *viç-* (masc. cultivator, husbandman, man), √*viç* (enter, settle, cf. *vēç-a-* masc., *vēç-man-* ntr. house); *div-*, *dyu-* (m. f. heaven) with different scale-steps, e.g. *div-i*, *dyáv-i* loc. sg., *dyāu-s* n. sg., √*div* (shine);

§ 87. *mah-* (great), √ *mah* (*māh* wax). Reduplicated roots without sf. are seen in Vēd. infinitive-stems such as *çiçrath-* (dat. *çiçrath-ē*), cf. reduplicated pres.-stem *çiçrath-*, √ *çrath* (loosen).

In the stems *vak-š-* (dat. *vak-š-ē*), √ *vah* (uehere); *ǵē-s-* (dat. *ǵē-š-ē*) and *ǵi-s-* (dat. *ǵi-š-e*), √ *ǵi* (conquer); *stu-s-* (dat. *stu-š-ē*), √ *stu* (praise) aorist-stems in *s* have been rightly detected (Benfey, kurze Sanskritgrammatik, p. 236, § 402, 2)—partly, indeed, non-existent in these forms, but yet possible; cf. e.g. **á-stu-s-ma* 1 pl. act. etc. The *s* is a relic of √ *as* (be, v. post. § 169) added to the root. We adduce here certain other similar infinitive-stems formed from tense-stems, belonging to the more archaic (Vēdic) language, although they partly retain suffixes or their remains; thus *vyathišya-* (dat. *vyathišyāi*) like fut. stem *vyathišya-*, √ *vyath* (be vexed, afraid); here *-ya-* is a suffix (v. post. § 170, Future Tense); *muńk-* (acc. *muńk-am*), whose *n* comes from pres. stem *muńka-* (e.g. 3 sg. *muńká-ti*), √ *muk* (loose, free).

Greek. The root appears as a noun in cases like *Fοπ-* (n. sg. ὄψ voice) = origl. *vāk-*, Sk. and Zend *vāk-*, √ *Fεπ*, origl. *vak* (speak); *φλογ-* (n. sg. φλόξ flame), √ *φλεγ* (φλέγειν blaze); *Ζευ-* = **Δγευ-*, *ΔιF-* (pr. n. of a god, origl. heaven; n. Ζεύς, gen. *ΔιF-ός*), root origl. *div, dyu* (shine), cf. Sk. *dyāu-*, *div-*, etc. This happens more often at the end of compounds, as *χέρ-νιβ-* (n. sg. χέρνιψ water for handwashing), √ *νιβ*, origl. *nig* (νίζω, νίπτω wash); *πρόσ-φυγ-* (n. sg. πρόσ-φυξ fugitive), √ *φυγ* (φεύγω flee); *ψευσί-στυγ-* (n. ψευσί-στυξ lie-hating), √ *στυγ-* (στυγ-έω, ἔ-στυγ-ον hate); *δί-ζυγ-* (δί-ζυξ double-yoked), √ *ζυγ* (ζεύγ-νυμι I yoke, ζυγ-όν yoke); *ἀπο-ῥῥώγ-* (n. sg. *ἀπο-ῥῥώξ* for **ἀπο-Fρωγ-ς* fragment), √ *Fραγ* (break; cf. ῥήγ-νυμι, ἔ-ῥῥωγ-α), etc.

Further, we might here adduce the infinitives of the compound aorist, as e.g. λῦσαι, λέξαι, which should probably be taken as locatives of stems λῦσα-, λέξα-, i.e. *λεγ-σα- (cf. χαμαί, stem χαμα-, and infin. in *-μέναι*, § 91, and in *-έναι*, § 93, a), scarcely as datives

of stems λυ-σ-, λεξ-, i.e. *λεγ-ς- (cf. Sk.); in any case however they contain the stem of the aorist compounded with origl. √*as* (be), (e.g. ἔλυ-σα, ἔ-λεξα, i.e. *ἐ-λεγ-σα) as the stem of a nomen actionis which is unused except in this particular case. § 87.

Latin. Stems like *nec-* (*nex* murder), √*nec*; *duc-* (*dux* leader), √*duc*; with step-formation *lēg-* (*lex* law), √*leg*; *pāc-* (*pax* peace), √*pac*; *lūc-*, old Lat. *louc-* (*lux* light), √*luc*, origl. *ruk*; *uōc-* (*uox* voice), √*uoc*; *rēg-* (*rex* king), √*reg*. Further, stems used at the end of compounds, e.g. *iu-dic-* (iudex judge), √*dic*; *con-iug-* (coniux mate), √*iug*; *prae-sid-* (praeses president), √*sed* (*sed-eo*); *tubi-cin* (tubicen trumpeter), √*can* (*can-o*); *arti-fic-* (artifex skilled workman), √*fac* [on weakening of *a* to *i* v. § 32, 2; on *e* interchanged with *i* v. § 38], and others show the root as a noun-stem.

II. Stems with suffix -*a*-. § 88.

This is one of the commonest formations; before the sf. -*a* the root is sometimes raised, sometimes unraised.

Indo-European original-language. Already plenty of stems in -*a*- were existent, as *yug-a-*, cf. Sk. *yug-a-*, Gothic *yuk*, etc., √*yug*; *vid-a-*, cf. Lat. *vid-o-*, e.g. *pro-uidu-s*; *bhag-a-* (god), cf. Sk. *bhaga-*, Zend *bagha-*, Pers. *baga-*, O. Bulg. *bogŭ*, √*bhag*; *bhar-a-*, cf. Lat. *fer-o-*, e.g. *ensi-feru-m*; *vark-a-* (wolf), √*vark*; *daiv-a-* (shining, god), √*div* (shine), etc.

Amongst verb-stems here belong all conjunctive-stems (§ 161), e.g. *as-a-*, pres. stem and √*as*; moreover simple aorist-stems (§ 164), as *bhug-a-*, √*bhug*; *vavak-a-*, √*vak*; so too pres.-stems (§ 165) like *bhar-a-*, √*bhar* (I. b); *srav-a-*, √*sru* (II. b); thus here also, as in the case of noun-stems, partly with, partly without, raising of root-vowel.

Sanskrit. Stems in -*a*-, identical with verb-stems, are frequently used as nouns, e.g. nomina actionis like *bháv-a-* (masc. being, origin; cf. 3 sg. pres. *bháva-ti*), √*bhu* (become, be); *bhár-a-* (masc. burden; 3 sg. pres. *bhára-ti*), √*bhar* (ferre); *ǵáy-a-* (masc. victory; pres. *ǵáya-ti*), √*ǵi* (conquer); *bṓdh-a-*

§ 88. (masc. knowledge; pres. *bṓdha-ti*), √*budh* (know); *bhṓg-a-* (masc. use, enjoyment; a pres. **bhōga-ti* or **bhōǵa-ti* does not occur), √*bhuǵ* (enjoy); *bhḗd-a-* (masc. splitting), √*bhid* (split), etc. The datives of these nomina actionis serve for infinitives, e.g. *bharāya*, etc.; the accusatives, mostly repeated, for gerunds, e.g. *gámāgamam* (ever going), fr. *gam-a-*, √*gam* (go); so *bṓdh-a-m*, √*budh* (know); *bhḗd-a-m*, √*bhid* (split); *stắv-a-m*, √*stu* (praise); *kắr-a-m*, √*kar* (make, e.g. *svādū-kắram bhuṅktē* 'having sweetened he eats'), etc.

Nomina agentis of similar form are found in e.g. *plav-á-* (masc. boat; pres. *pláva-tē*), √*plu* (float); *ǩar-á-* (adj. going; pres. *ǩára-ti*), √*kar* (go); *vah-á-* (adj. carrying; pres. *váha-ti*), √*vah* (uehere); *dēv-á-* (shining, god), √*div*, *dyu* (shine); *ǵīv-á-* (living; pres. *ǵíva-ti*), √*ǵīv* (live), etc. This kind of stem-form is preserved most frequently at the end of compounds or words syntactically combined, as *arin-damá-* (*ari-m* acc. sg.; foe-subduing), √*dam*, etc.

In composition with *su-* (εὐ-) and *dus-* (δυσ-) adjectives of this kind act like participia necessitatis, e.g. *su-kár-a-* (easy to be made), *duš-kár-a-* (difficult to be made), √*kar* (make), etc.

Feminines of the same kind are e.g. *bhid-ắ́* (splitting), √*bhid* (split; 3 sg. simple aor. *á-bhida-t)*; *kšudh-ắ́* (hunger), √*kšudh* (hunger); *mud-ắ́* (joy), √*mud* (enjoy oneself); *mrgayā* (hunt), verb-stem *mrgaya-*, 3 sg. pres. *mrgaya-tē* (track, seek), etc.

Such noun-stems in *-a-* serve for periphrasis of the perfect, and in Vēd. also of the aorist, in many verbs, especially all derived verbs, by being placed, in the acc. sg. fem., before the perfect, in Vēd. also before the aorist of an auxiliary verb (*kar* make; *bhu* become, be; *as* be), e.g. st. *bubōdhiša-*, 3 sg. pf. *babōdhišắ́ ǩakāra* or *babhūva* or *āsa*, cf. 3 sg. pres. *búbōdhiša-ti*, intensive √*budh* (know); st. *bōdhaya-* (e.g. *bōdhayắ́ ǩakāra*, 3 sg. perf.), 3 sg. pres. *bōdháya-ti*, caus. √*budh*; st. *vida-* (3 sg. perf. *vidắ́ ǩakāra*, Vēdic aor. *vidām akar*), √*vid* (see, know), etc.

Greek. Here also nouns in -*a*- are common, as *Fέργ-ο-* (neut. work), √*Fεργ* (*ἐργ-άζο-μαι* I work); *φορ-ό-* (adj. bearing), *φόρ-ο-* (tribute), *φορ-ά* (fem. payment; quick motion), √*φερ* (ferre); *τόμ-ο-* (masc. cutting, piece), *τομ-ή* (cutting, stump), √*τεμ* (*τέμ-νω, ἔ-τεμ-ον* cut); *ζυγ-ό-* (neut. yoke), √*ζυγ* (bind together); *φυγ-ή* (fem. flight), √*φυγ* (*φεύγ-ω, ἔ-φυγ-ο-ν* flee); *πλόF-ο-* (masc. voyage), √*πλυ* (*πλέF-ω* sail); *ῥοF-ή* (stream), √*ῥυ*, origl. *sru* (*ῥέF-ω*, origl. *srav-āmi* flow); *σπουδ-ή* (haste), √*σπυδ* (*σπεύδω* hasten); *λοιπ-ό-* (adj. remaining), √*λιπ* (*λείπ-ω, ἔ-λιπ-ον* leave); *ἀκ-ωκ-ή* (point) reduplicated √*ἀκ* (be sharp), etc. These forms are mostly not distinguished from the pres.-stems *φερε-*, *λειπε-*, *πλεF-ε-*, except by the stronger step-formation of the root-vowel (perhaps in an unoriginal manner, cf. e.g. Sk. *bhara- plava-*, etc.). § 88.

In compounds also these nouns with suffix origl. -*a*-, are used, as in Sanskrit, e.g. *ἱππό-δαμ-ο-* (masc. horse-taming); even the peculiar relation of these noun-stems after *δυσ-* and *εὐ-* is not wanting, e.g. *δύσ-φορ-ο-* (hard to bear)=Sk. *dur-bhar-a-* (cf. supr.).

Concerning the infinitives of the aorist, as e.g. *λῦσαι, λέξαι*, which must be taken as locatives from stems like *λῦσα-* and *λέξα-*=**λεγ-σα*, v. supr. § 87.

Latin. Suffix -*a*- is found in *uad-o-* (ntr. uadum ford), √*uad* (go); *fid-o-* (fidus faithful), √*fid*; *iug-o-* (iugum yoke) √*iug*; *son-o-* (sonus sound), √*son*; *coqu-o-* (coquos cook), √*coqu*; *merg-o-* (mergus gull), √*merg*; *uīu-o-* (adj. living), √*uiu* (live; 3 pres. *uīui-t*); *dīu-o-* (godlike), *deo-* (god) fr. **dēu-o-*, **deiu-o-*, origl. √*div* (shine); *rūf-o-* (red), √*rub, ruf*, origl. *rudh* (be red), etc.

A great many nouns of this sort occur at the end of compounds, as *causi-dic-o-* (causidicus), √*dic*; *miri-fic-o-* (mirificus), √*fac*; *male-uol-o* (maleuolus), √*uol*; *ensi-fer-o-* (ensifer), √*fer*; *armi-ger-o-* (armiger), √*ger, ges*, etc.

Not unfrequently stems of this kind appear with lengthened

§ 88. stem-terminations, although expressing masculine relations, as *collēg-a* beside *sacri-lĕg-o-* (sacrilegus), √*leg*; *trans-fug-a* beside *pro-fug-o* (profugus), √*fug*; *parri-cīd-a*, √*caed*; *ad-uen-a*, √*uen*; *indi-gen-a-*, √*gen*; *agri-col-a*, √*col*, etc. In Gk. a perfectly corresponding formation is e.g. *εὐρύ-οπ-α*. Feminines of this sort are *mol-a* (mill), √*mol* (molere grind); *tog-a* (upper garment), √*teg* (tegere cover), etc.

As a secondary suffix -*a*- occurs, mostly accompanied by step-formation of the stem-vowel, e.g. Sanskrit stem *āyasá-* (adj. iron), stem *áyas-* (iron); *çaivá-* (masc. Çiva-worshipper), stem *çíva*, (nom. propr. of the god); the secondary suffix -*a*- becomes amalgamated with final *a* when the underlying stem ends in *a*, so that practically no fresh suffix is here added; *dāuhitrá-* (masc. daughter's-son), stem *duhitár-* (daughter); *mānavá-* (masc. man), stem *manú-* (masc. prop. noun of the primeval man), etc.

Greek. e.g. in *ἡγεμόνη* (leader fem.), stem *ἡγεμόν-* (masc. *ἡγεμών* leader); *ὁ-πατρο-* (having same father), stem *πατέρ-*; here, as often, shortened to *πατρ-* before suffix -*ο-*; *ἀστ-ό-* (masc. citizen, burgher), *ἄσ-τυ* (city), which has lost its termination before suffix -*a*-, etc.

Latin. Here belong cases like *decōro-* (*decoru-s* graceful, decent, adj.) fr. *decus*, gen. *decor-is* (ornament, dignity); *honōro-* (honourable) fr. *honōs*, gen. *honōr-is* (honour), and their like.

§88a. III. Stems with suffix -*i*-.

Suffix -*i*- is on the whole rare. In Indo-Eur. *ak-i-* (eye) is capable of proof, √*ak* (be sharp, see; cf. Joh. Schmidt, d. wurzel AK, Weimar, 1865, p. 38); *agh-i-* (snake; cf. Sk. *áh-i*, Zend, *až-i-*, Gk. *ἔχ-ι-*, Lat. *angu-i-*, Lith. *ang-ì-*), √*agh*.

Sanskrit. Nomina actionis and agentis, without, and more rarely with step-formation, also with weakening of root-vowel, e.g. *kŕš-i-* (fem. ploughing), √*karš* (plough); *sáḱ-i-* (fem. friendship), √*saḱ* (follow); *líp-i-* (fem. writing), √*lip* (smear); *yáǵ-i-* (masc. sacrificer), √*yaǵ* (sacrifice); *ḱhid-i-* (fem. axe), √*ḱhid*

(split); *çúk-i* (adj. pure), √*çuk* (shine); *bŏ́dh-i-* (adj. wise), §88a.
√*budh* (know); *gir-i* (masc. mountain), √*gar* (be heavy), etc.; with reduplicated root, e.g. *ǵá-gm-i-* (going, hastening), √*gam* (go); *ǵa-ghn-i-* (striking, slaying), √*han*, i.e. *ghan* (slay); *sā-sah-i-* (bearing), √*sah* (bear), etc.

Greek. e.g. **ὀκ-ι-* (ntr. eye); retained in dual ὄσσε=**ὀκγε*, **ὀκιε*), √ origl. *ak* (be sharp, see); *πόλ-ι-* (fem. city), origl. √*par* (fill, be full); *τρόχ-ι-* (masc. runner), √*τρεχ* (*τρέχ-ω* I run), etc.

Latin. *scob-i* (*scobis, scobs*, fem. sawdust, shavings), √*scab* (*scabo* scrape); *trud-i-* (*trudis* fem. punting-pole), √*trud* (*trūdo* push); *ou-i-* (*ouis* fem. sheep, cf. *ϝ́F-ι-ϛ*, Sk. *áv-i-s*, Lith. *av-ì-s*) fr. a √*u, av* (perhaps in sense of 'clothe,' in which it appears in Lat. and Sclavonic), etc.

IV. Stems with suffix *-u-*. §88b.

This suffix, though not very common, is yet on the whole commoner than *-i-*; in some languages it is much used, in others but little.

Indo-Eur. origl.-lang. *āk-u-* (adj. swift), √*ak* (be sharp, swift); *prat-u-* (adj. broad), √*prat*; *par-u-* (adj. full), √*par* (fill); *svād-u-* (sweet), √*svad*; *ragh-u-* (light), √*ragh*; *pak-u-* (cattle), √*pah* (perhaps 'bind').

Sanskrit. The suffix *-u-* occurs very often, mostly in formation of adjectives, e.g. *āç-ú-* (swift), √*aç* (reach), origl. *ak*; *prath-ú-* usually *prth-ú-* (broad), √*prath* (extend oneself, spread); *pur-ú* (much) for **par-u-*, √*par* (fill; 1 sg. pres. *pi-par-mi*); *svād-ú-* (sweet), √*svad* (taste, smack); *mrd-ú-* (soft), √*mard* (crush), etc. Similar adjectives from stems of desiderative verbs are especially common (§ 83), e.g. *didŕkš-u-* (wishing to see), cf. *didrkša-tē* (wishes to see), √*darç* (see), origl. *dark*; *dits-ú-* (wishing to give), cf. *ditsa-ti* for **di-da-sa-ti* (wishes to give), √*da*, etc. Substantives: e.g. *bándh-u-* (masc. relative), √*bandh* (bind); *bhid-ú-* (masc. thunderbolt), √*bhid* (split); *tan-ú-* (fem. body), √*tan* (stretch), etc.

Greek. *ὠκ-ύ-* (swift) = Sk. *āç-ú-*, origl. √*ak*; *πλατ-ύ-*

§88 b. (broad) = Sk. *prth-ú-*, origl. √*prat*; πολ-ύ- (much) = Sk. *pur-ú-*, origl. *par-u-*, √*par*; ἡδ-ύ- = Sk. *svād-ú-*, √*svad*; βαρ-ύ- (heavy) = Sk. *gur-ú-* for **gar-u-*, origl. √*gar* (be heavy); νέκ-υ- (masc. corpse) = Zend *naç-u-*, origl. √*nak* (die); θρασ-ύ- (daring), √*θαρσ*, *θρας* (be bold; cf. *θάρσ-ος* boldness), etc.

Latin. These stems have generally been completely shifted to the analogy of the *i*-declension, by an *i* having simply been added to the originally final *u*- e.g. *tenu-i-* (tenuis thin) from **ten-u-*, f.f. *tan-u-*, origl. √*tan* (stretch); *breu-i-* (short) for **bregu-i-* (§ 73, 1) from **breg-u-*, cf. Gk. *βραχ-ύ-*, root not otherwise traced; *leu-i* (light) for **legu-i-* from **leg-u-* = Gk. *ἐ-λαχ-ύ-*, Sk. *lagh-ú-*, origl. √*ragh* (cf. Sk. √*laṅgh* spring, despise; *rāh* haste), *grau-i-* (heavy) prob. for **garu-i-* from **gar-u-*, Gk. *βαρ-ύ-*, Sk. *gur-ú-*, origl. *gar-u-*; *suāu-i-* (sweet) for **suādu-i-*, from **suād-u-*, cf. Gk. *ἡδ-ύ-*, Sk. and origl. *svād-ú-*. The *u*-form has been retained in *ac-u-* (*acus* fem. needle), origl. √*ak* (be sharp); *id-u-* (fem. the 13th or 15th day of the month), probably from origl. √*idh* (burn, in sense of 'be bright,' thus lit. 'full-moon') and other stems of somewhat obscure derivation.

§ 89. V. Stems with suffix -*ya*-.

This suffix is very common; it occurs in all Indo-European languages. In Sanskrit by means of it the participium necessitatis is formed.

Like most stem-formative suffixes of Indo-European, the common primary and secondary relative suffix -*ya*- appears in several functions (cf. pronominal-root *ya* with demonstr. and relative function, e.g. in nom. sg. masc. Sk. *ya-s* qui, Lith. *ji-s* ille, is). Indeed the stem-formative elements of the more simply organized languages are applied in more ways than one; as also are the auxiliary roots which are loosely added to the end of the meaning-sounds (simple roots) of monosyllabic languages. The suffix -*ya*- has, of course, belonged, even in early times, to the Indo-European.

In Sk. this suffix forms regularly a participle of necessity; § 89.
a function of which traces only are found in the other languages. It is a frequent phenomenon to find a certain suffix developing itself in a particular language, so as to become a regular kind of formation, with a peculiar function, whilst in the kindred languages it is otherwise employed; thus e.g. -*ya*- as the formation of the passive in Sk.; the nasalized present-stems in Sclavonian, Lith., and Gothic as intransitives and passives; -*la*-, origl. -*ra*-, as past part. act. in Sclav., etc.

1. -*ya*- as a primary suffix.

Indo-European original language.

It is hard to find examples which can with certainty be traced to the origl. lang. A perfectly trustworthy example of this suffix -*ya*- would be seen in *madh-ya*-, if it were certain that *madh* is the root of Sk. *mádh-ya*-=Gk. *μέσσο*- for **μεθ-yo*-, Lat. *med-io*-, Goth. *mid-ja*-. If we may venture to draw an inference for the origl. lang. from the correspondence of Greek and Sanskrit, we may ascribe to it *yag-ya*- also (to be revered, holy), √*yag* (revere).

This sf. is common in verb-stems, as e.g. in stems of derived verbs (§ 84) ending in -*a-ya*-, e.g. *bhāra-ya*-, √*bhar*; here belong all optative-stems in -*ya*- (mostly raised a step to -*yā*-), e.g. stem *as-yā*- (§ 162), root and pres.-stem *as*; moreover many present-stems (§ 165 V.), as e.g. *svid-ya*-, √*svid*.

Sanskrit. The function of this sf. -*ya*- as a primary sf. is by no means exclusively that of a part. necessitatis, cf. e.g. *vid-yā́* (fem. knowledge), √*vid* (know); *vāk-yà*- (ntr. speech), √*vaḱ*; etc. As a rule 1st step-formation of root-vowel occurs before this sf. when it forms a part. necessitatis, e.g. *ḱḗ-ya*-, √*ḱi* (gather); *yōg-yà* and *yōǵ-yà*, √*yuǵ* (iungere); *pāk-yà*- and *pāḱ-yà*-, √*paḱ* (cook); *hār-yà*-, √*har* (take); *garǵ-yà*-, √*garǵ* (roar), etc.; but *vŕdh-ya*-, √*vardh* (wax); *gúh-ya*- and *gṓh-ya*-, √*guh* (hide), etc. Instead of the regular contraction to *ē*, *ō*, there occurs, in many roots in -*i*, and in all roots in -*u*, an unusual

§ 89. loosening of *ai, au*, into *ay, av*; e.g. *ǵáy-ya-*, √*ǵi* (conquer); *kšáy-ya-*, *kši* (destroy) and *stáv-ya-*, *stāv-ya-* (2nd step), √*stu* (praise). For details of this formation see special Sk. gramm.

Stems of derived-verbs in *-aya-* only show the root-vowel raised before sf. *-ya-*, while the sf. of the verb-stem disappears, e.g. *kōr-ya-* fr. verb-stem *kōraya-* (steal), etc.

Greek possesses no regular participle in *-ya-*; *-ya-* as a primary suffix, not uncommonly in the same function as in Sk., nevertheless occurs in cases like *ἅγ-ιο-* (holy), f.f. *yag-ya-*, cf. Sk. *yāǵ-yà-* (uenerandus), √*yaǵ* (worship); *στύγ-ιο-* (detestable), √*στυγ* (*ἔ-στυγ-ον* I detested); *πάγ-ιο-* (firm), √*παγ* (*πήγ-νυμι* fasten; *πάγ-ος*, masc. thing fixed, hill, frost); *ἐρείπ-ιο-* (ntr. ruins), √*ἐριπ* (in *ἐρείπ-ω*, *ἐρ-έριπ-το* destroy); *γλῶσσα* (tongue) for **γλωχ-ya-* (§ 68, 1, e, *β*), cf. *γλωχ-ίν*, gen. *γλωχ-ῖνος* (point), *μοῖρα* = **μορ-ya* (§ 26, 3; part, share), √*mar*, cf. *μέρ-ος* (part); *ὄσσα* (voice), i.e. **Fοκ-ya* (§ 68, e) origl. √*vak*, etc.

Latin likewise has no regular participle in *-ya-*. The suffix appears often primarily, e.g. in *ad-ag-io-* (adagium proverb), √*ag* (say, cf. *āio* for **ag-io*; § 39); *ex-im-io-* (eximius excelling), √*em, im (ex-im-o* pick out); *gen-io-* (genius), *in-gen-io-* (ingenium), *pro-gen-ie-* (progenies offspring), √*gen (gen-us, gi-g(e)no-); in-ed-ia* (fasting), √*ed (ed-o)*; *per-nic-ie-* (destruction), √*nec (nec-are, noc-ere)*; *fluu-io-* (river), √*flu (flu-o)*; *con-iug-io* (coniugium wedlock), √*iug (iung-o, iug-um)*; *ob-sequ-io-* (obsequium obedience), √*sec, sequ (sequ-or); od-io-* (odium hatred), √*od (ōd-i)*; *sacri-fic-io-* (sacrificium sacrifice), √*fac*; *ob-sid-io-* (obsidium siege); *in-sid-ia* (insidiae ambush), √*sed (sed-eo)*, etc. These formations are sometimes hard to distinguish from secondary ones, e.g. *con-iug-io-*, which has to be traced back to the noun *con-iug-* (n. sg. *con-iux* spouse), rather than to √*iug*.

The suffix *-iō-ni-*, *-iō-n-* is probably a further formation made by means of sf. *-ni-*, e.g. *leg-iōn-*, *leg-iōni-*, fr. √*leg* (legere); *reg-iōn-*, *reg-iōni-* (direction, region), √*reg (reg-ere* make straight); *ob-sid-iōn-*, *ob-sid-iōni-*, beside the above-mentioned

ob-sid-io- ; *con-tag-iōni-*, *-iōn-*, beside *con-tag-io-* (touching), § 89. *√tag* (tangere touch), etc. Cf. suffix *-tiōn-*, *-tiōni-* under *-ti-* (§ 98).

2. *-ya-* as a secondary suffix.

-ya- is frequently used as a secondary suffix in every Indo-European language, and hence must have existed as early as the date of the original-language.

Sanskrit. E.g. *dív-ya-* (adj. heavenly), st. *div-* (heaven); *çún-ya-* (canine), st. *çun-* (dog); *pítr-ya-* (fatherly), st. *pitár-* (father); *rahas-yà-* (secret), st. *ráhas-* (ntr. secrecy). Stems in *-a* lose their final *a* before *-ya-*, e.g. *dhán-ya-* (rich), st. *dhána-* (ntr. riches), etc. By means of step-formation of the underlying stem are formed stems like *rtav-yà-* (adj. seasonable) from *rtù-* (season); *mắdhur-ya-* (ntr. sweetness), st. *madhurá-* (sweet); *ǩāur-ya-* (ntr. theft) st. *ǩōrá-* (masc. thief), etc.

This sf. is added to a nomen actionis in *-tu-* (v. post.); this *-tu-* is thereupon mostly raised to *-tav-*, but more rarely remains unraised. Thus by the raising of *-tu-* arises the compound suffix *-tav-ya-* so commonly used; with unraised *-tu-* arises the form *-tvya-*, which occurs in the more archaic period; from this latter there arises, by evaporation of the *v* from the group *tvy*, the sf. *-tya-* used in certain cases in the ordinary lang.; by loss of the *y* arises the form peculiar to the Vēdic lang. *-tva-*. These sff. *-tav-ya-*, *-tv-ya-*, *-t-ya-*, *tv-a-*, originally identical, have the same function as simple *-ya-*, namely that of a participium necessitatis.

Before *-tav-yà-* (or *-táv-ya-*) most root-vowels are raised, thus all final vowels, and also medial *i* and *u*, e.g. *dā-tavya-*, *√da* (give); *ē-tavya-*, *√i* (go); *stō-tavya-*, *√stu* (praise); *ǩhēttavya-* for **ǩhēd-tavya-*, *√ǩhid* (split); *yōk-tavya-* for **yog-tavya-*, *√yug* (iungere); but *pak-tavya-*, *√paǩ* (cook); *kar-tavya-*, *√kar* (make), etc., without step-formation of root-vowel, because in Sk. *a* was felt to be a raised vowel, in contradistinction to its weakenings (§ 6). There is found also, in certain cases, the auxiliary vowel

§ 89. *i*, *ī*, between the end of the root and the suffix, e.g. *bōdh-i-tavya-*, √*budh* (know); *grah-ī-tavya-*, √*grah* (take). Examples of the shortened form of the sff. are found in Vēdic *kŕ-tvya-*, later *kŕ-tya-*, √*kar* (make); therefore we must probably assume *-tya-* to have arisen from *-tvya-*, also in forms in *-tya-*, which have no parallel Vēdic *-tvya-*, as e.g. in *i-tya-*, √*i* (go); *stú-tya-*, √*stu* (praise); *bhŕ-tya-*, √*bhar* (bear), and the like. It is however strange to find such root-vowels unraised or weakened. Vēdic *kár-tva-* (faciendus, as ntr. subst. *kár-tva-m* opus) is accordingly to be explained as formed from **kar-tv-ya-*, stem *kár-tu-* (v. post.) by means of *-ya-*; here *y* has been lost, whilst *v* is retained. The function of this form distinctly points to this explanation.

Since *-īya-* is identical with *-iya-*,—the vowel being lengthened before *y*, as happens frequently (§ 15, 2, a),—and since *-iya-* may moreover stand for *-ya-* (§ 15, 2, b), we may confidently assume that the participia necessitatis in *-anī́ya-* correspond in their sf. to a fundamental form *-an-ya-* from **-ana-ya-* (the loss of final *a* in *-ana-* before *-ya-* is regular, cf. § 14, 1, b), and therefore are formed by means of the same sf. *-ya-*, which we have already found used in this function, cf. *bhrātr-īya-* (brother's son, origly. 'fraternal') and *pítr-ya-* (paternal); *parvat-īya-* (hill-) from *parvata-* (hill), and *ráth-ya-* (waggon-) from *rátha-* (waggon); etc. The sf. *-īya-* is thus=*-ya-*. This sf. *-īya-*=*-ya-* is added to a nomen actionis in *-ana-* (as in *-tav-ya-*, *-tv-ya-*, it is to a similar one in *-tu-*; on nouns in *-ana-* v. post.), which, as aforesaid, regularly loses its final *-a* before *-ya-*. This sf. *-anīya-* also has the root-vowel almost always raised a step, e.g. *stav-anīya-*, √*stu* (praise); *ǵay-anīya-*, √*ǵi* (conquer); *dā-nīya-*=**dā-anīya-*, √*da* (give); but *kar-anīya-*, √*kar* (make); *paḱ-anīya-*, √*paḱ* (cook), etc. Verb-stems in *-aya-* lose this whole sf. before *-anīya-*, e.g. *ḱōr-anīya-*, st. *ḱōr-áya-* (steal).

In the Vēdic we find also sf. *-ḗn-ya-* thus employed; herein we can hardly fail to recognize a variation of f.f. *-an-ya-*; *ēn*

has arisen from *an* probably through the influence of the following *y*, e.g. *uç-énya-*, √*vaç* (wish); yet we find also *vár-ēnya-*, √*var* (choose) with accented root. § 89.

Greek. Here too *-ya-* as a secondary sf. is very common, e.g. *πάτρ-ιο-* (paternal), *πατρ-ιά* (f. race), from stem *πατέρ-* (father); *σωτήρ-ιο-* (saving), *σωτηρ-ία* (rescue), stem *σωτήρ-* (saviour); *τέλειο-* for **τελεσ-yo-* (§ 65, 2, c; complete), stem *τέλες-* (ntr. sg. *τέλος* end); *ἀλήθεια, i.e. *ἀληθεσ-ya* (truth), stem *ἀληθέσ-* (adj. true); *θαυ-μάσιο-* (wonderful) for **θαυματ-ιο* (§ 68, 1, c), stem *θαῦματ-* (ntr., n. sg. *θαῦμα* wonder); *δίκα-ιο-* (just), stem *δίκα-* (fem., n. sg. *δίκη* justice); *πήχυ-ιο-* (adj. ell-long) from *πῆχυ-* (masc., n. sg. *πῆχυ-ς* cubit), etc. Here also, before sf. *-ιο-*=origl. *-ya-*, the stem-termination *o*=origl. *a* is lost, e.g. *οὐράν-ιο-* (heavenly), stem *οὐρανό-* (masc., heaven); *ποτάμ-ιο-* (river-), stem *ποταμό-* (masc. river), etc. Here belong also the stems of participles and other consonantal stems used in fem. alone, like *φέρουσα*, i.e. **φερουντ-ya*; *λελοιπυῖα*, i.e. **λελοιπυσ-ya, *-υτ-ya*; *δότειρα*, i.e. **δοτερ-ya*; *μέλαινα*=**μελαν-ya*, etc.

The form exactly corresponding to the Sk. part. in *-táv-ya-* is in Gk. *-τέο-*, i.e. **-τε-Fyo-*, e.g. *δο-τέο-*, Sk. *dā-tav-ya-*, √*δο* (give); *ἰ-τέο-*, √*ἰ* (go); *πλεκ-τέο-*, √*πλεκ* (twist); *θρεπ-τέο-*, √*τρεφ* (rear); *πεισ-τέο-*, √*πιθ*, pres. *πείθ-ω*, aor. *ἔ-πιθ-ον* (persuade); etc. Perhaps we ought to place here the forms in *-σια* for *-τια*, e.g. *εὐεργεσία* from *-τία*, cf. *εὐεργέτη-ς*; *ἀκαθαρσία*, cf. *ἀκάθαρτο-ς*, etc.; this *-τια* may in other cases have also been developed from origl. sf. *-ti-* (§ 98).

Latin. *-ya-* as secondary suffix, e.g. in *patr-io-* (adj. patrius), fem. subst. *patr-ia*, from *pater-*, *praetor-io-* from *praetor-*, *victor-ia* from *victor-*, *scient-ia* from *scient-* (sciens), *rēg-io-* from *reg-* (rex); *audac-ia* from *audac-* (audax); *princip-io-* from *princip-* (princeps), *nefar-io-* from *nefas*, *sacerdot-io-* from *sacerdot-*, etc. Here also the origl. final *a* of stem is lost before *-ya-*, e.g. *domin-io-* (dominium) from *domino-* (dominus), *somn-io-*

§ 89. (somnium) from *somno-* (somnus), *colleg-io-* (collegium) from *collega*, etc.

Note 1.—Adjs. in *-tīuo-*, as *nā-tīuo-*, *ac-tīuo-*, have been compared to Sk. *-tavya-*, though they do not coincide in function. From *-tavya-* is said to have arisen *-taivya-*, by insertion of *i* (from *y* following) into the preceding syllable, thence *-taiva-*, *-teivo-*, *-tīuo-*. However there is no very strong reason for identifying Lat. *-tīuo-* with Sk. *-tavya-*, a comparison which is moreover phonetically very doubtful. It is possible that they are new formations in Latin, from stem *nāto-*, *acto-*, etc.; cf. *noc-īuo-* beside *nocuo-*, and *mortuo-* for the form **mor-to-*, which we should have expected.

Note 2.—In Latin the participium necessitatis ends in *-endo-*, earlier *-undo-*, e.g. *dic-endo-*, *dic-undo-*, etc. In the former part of this sf., *en*, *un*, hence earlier *on*, we may probably recognize the *an* of the Sk. *an-īya-*: the *-do-* is prob. the sf. *-do-* so common in Latin, e.g. *cali-do-*, *uali-do-*, *timi-do-*, etc., beside *calēre*, *ualēre*, *timēre*, etc.; in *uiri-di-* beside *uirēre*, *-di-* appears. This *-do-* probably is derived from the same verb-root *da* (Lat. *dare*, which has, however, apparently become confounded with origl. √*dha* 'facere'), which we see in *crē-do*, *con-do*, etc. Cf. formations like *ira-c-un-do-*, *rubi-c-un-do-*, *uere-c-un-do-*, *fa-c-un-do-*, in which the relation of necessity is not found,—a relation which is not really essential to forms in *-un-do-*, *-en-do-*, *-n-do-* (Corssen, Krit. Beitr. 120 sqq., and Krit. Nachtr. p. 133 sqq.); *-bu-n-do-* in *fur-i-bu-n-do*, *treme-bu-n-do-*, must be treated as a part. necess. of origl. √*bhu*, Lat. *fu*. Accordingly we recognize in *-do-*, the latter part of this sf., a new formation in Latin. We can scarcely assume that the f.f. *-an-ya-* (v. supr.) has in an exceptional way in the first place become **-an-dya-* by insertion of *d* before *y*, as not unfrequently happens in the languages, e.g. middle-Lat. *madius* for earlier *maius*, Gk. ζυγόν, i.e. **δυγον*, Sk. and f.f. *yugám*; from which form **-an-dya-* the loss of *y* would then have to be assumed in the same way as perhaps in *minus* for **minius*, *-bus* sf. of dat. abl. pl. for **-bius* (v. post. declension), so that e.g. *coqu-en-do-* (coquendus) would stand for **coquen-dyo-*, **coquen-yo-*, f.f. *kakan-ya-*=Sk. *paḱanīya-* (G. Curt. Gk. Etym.[2] 590 sqq.). However, as regards Lat., interchange of *d* and *y* is not capable of proof; on the contrary, this language shows a tendency towards accumulation of suffixes and suffixative composition with verb-roots, as e.g. *-cro- (laua-cru-m, sepul-cru-m)*, √*kar* (make); *-bo- (acer-bu-s, mor-bu-s, super-bu-s)* for **bhvo-*

from *bhu* (be); here probably we must reckon *-bili- (sta-bili-s, fle-bili-s, comprehensi-bili-s, flexi-bili-s)* and *-bulo- (sta-bulu-m, fa-bula)*, further formations of this *-bo-* (these forms are otherwise explained by others); *-bro-, -bra- (candela-bru-m*, light-bearer; in this example probably no one will deny the derivation of *-bro-* from √*bhar* (bear); *uerte-bra, late-bra)*, from √*bhar* (bear); *-gno- (mali-gnu-s)*, √*gan* (beget); *-ig- (rem-ig-*, n. sg. *remex)*, √*ag* (drive, do). § 89.

VI. Stems with suffix *-va-*. § 90.

Stems with sf. *-va-* are found in every Indo-Europ. language; in Lat. and Sclavonic, amongst others, it is a favourite suffix. Stems in *-van-* are akin to these, and are seen especially in Sk. The sf. *-vant-* we treat hereafter separately.

Indo-European original language. Certainly demonstrable is *ak-va-* (masc. horse), √*ak* (run; cf. *āk-u-* quick).

Sanskrit. *áç-va-* (masc. horse), √*aç* (cf. *āç-ú-* quick); *é́-va-* (masc. going), √*i* (go); *pád-va-* (masc. way, waggon), √*pad* (go); *pak-vá-* (adj. cooked), √*paḱ* (cook); *ūrdh-vá-* (directed upwards, raised), i.e. **ardhva-* (§ 7, 2), √*ardh* (grow), etc.

-van- is akin, e.g. *pád-van-* (masc. way), cf. *pád-va-*; *mád-van-* (intoxicating), √*mad* (become intoxicated); *ŕ́k-van-* (praising), beside *ŕ́k-vant* and *rk-vá-*, √*arḱ* (praise), etc.

Greek. On account of the loss of *v* in Gk. the sff. in question are hard to recognize. Clearly we may place here e.g. *ἵππο-* (horse) for **ἰκ-Fo-* =Lat. *equo-*, origl. *ak-va-*, etc.; *πολλό-* (many, collateral form to *πολύ-*) from **πολ-Fo-*, f.f. *par-va-*, √*par* (fill); in some other cases the root cannot be further traced, as e.g. *λαι-Fό-* =Lat. *lae-uo-* (left); *ὅλο-*, Iôn. *οὐλο-* (whole), f.f. **ὁλ-Fo-* =Lat. *sollo-* from **sol-vo-*, Sk. *sár-va-*, etc.

The sf. *-van-* is seen in *αἰ-Fών-* (*αἰών* lifetime, time), a lengthening from a presupposed *ai-van-* (cf. Lat. *ae-uo-*, Goth. *ai-va-*, Sk. *é́-va-*), √*ἰ* (go); perhaps also *πέπ-ον-* (n. sg. masc. *πέπων* ripe) stands for **πεπ-Fον-*, cf. Sk. *pak-vá-*, √*πεπ*, origl. *kak* (cook).

Latin. The sf. origl. *-va-* is common; besides *eq-uo-* (horse)

§ 90. =origl. *ak-va-; ard-uo-* (steep)=Zend *eredh-wa-*, Sk. *ūrdh-vá-; ae-uo-* (ntr. lifetime, age)=Sk. *é-va-* (masc. going), occur many other formations like *noc-uo-* (hurtful), √*noc* (*noc-ēre* hurt); *uac-uo-* (empty), √*uac* (cf. *uacare* be empty); *per-spic-uo-* (perspicuous), √*spec* (*specere* see); *de-cid-uo-* (falling off), √*cad* (*cadere* fall); *re-sid-uo-* (remaining), √*sed* (*sedēre* sit); *ar-uo-* (ploughed, *ar-uo-m* ploughed field), √*ar* (*arāre* plough); *al-uo-* (fem. belly), √*al* (*alere* nourish), etc.

Here belong also formations in *-īuo-*, like *nocī-uo-* (hurtful); *uacī-uo-* (empty), *captī-uo-* (captive), etc., which are formed as if there were parallel forms **nocī-re*, **uacī-re*, **captī-re*.

The suffix *-vant-*, forming a past part. act., whose original existence is proved by the correspondence of the Aryan, Greek, and Sclavonic, is probably compounded of *-va-* and *-nt-*=*-ant-* (§ 101). With *-vant-* may be compared the origl. sf. *-yant-*, which also probably consists of *-ya-* and *-ant-* (v. post. 'Comparative'), and sf. *-mant-* (§ 91), which is similarly formed from *-ma-* and *-ant-*, so that we have a scale *-ant-*, *-yant-*, *-vant-*, *-mant-*, to which *-an-*, *-yan-*, *-van-*, *-man-*, and *-a-*, *-ya-*, *-va-*, *-ma-* are parallel.

The function of this *-vant-* is (like that of *-mant-*) that of expressing the 'having' the possession of something. The perf. part. and the perf. itself are in many languages expressed by means of possessive elements (e.g. Finnish, Magyar, the Cassia language, etc.), as is indeed the case also in the periphrasis by means of the auxil. verb 'have.' A form *vi-vid-vant-*, lit. 'having knowing or knowledge,' is not originally different, in point of suffix, from *arkta-vant-* 'bear-having.'

The sf. *-vant-*, which, as forming participles, is a primary sf., occurs also as a secondary suffix, e.g. Sanskrit *áçva-vant-* (provided with horses; n. sg. masc. *áçva-vān*, acc. sg. *áçva-vant-am*, gen. sg. *áçva-vat-as*, n. pl. masc. *-vant-as*, etc.), fem. *áçva-vatī*, i.e. *-vat-yā* (cf. § 15, c), with loss of *n*, as in similar cases; *vásu-vant-* (furnished with riches); *vīrá-vant-* (possessed of

heroes); *pád-vant-* (having feet), stem *pad-* (foot). The sf. § 90. *-mant-* is employed in similar functions, e.g. Sk. *agni-mánt-* (possessed of fire), v. post.

The sf. *-vant-* has also a special use in Sk., that of giving active force to past part., e.g. *krtá-*, (√*kar*, make)='made,' but *krtá-vant-* 'having made'; *bhagná-* (broken), √*bhaǵ*, *bhaṅǵ*, but *bhagná-vant-* 'having broken,' etc.

Greek. The suffix *-vant-* becomes *-Fεντ-* (the digamma being retained; n. sg. masc. *-Fεις*, ntr. *-Fεν*), fem. *-Fεσσα*, i.e. **-Fετya* =Sk. *-vatī*, i.e. *-vatyā*, e.g. *ἀμπελό-Fεντ-* (having vines), *ἄμπελο-* (fem. vine); *ἰχθυό-Fεντ-* (having fish), *ἰχθύ-* (masc. fish); *μητιό--Fεντ-* (having wisdom), *μῆτι-* (fem. wisdom); *νιφό-Fεντ-* (snowy), st. *νιφ-* (snow, acc. *νίφ-α*), etc. Thus all stems follow here the analogy of stems in *o-*, origl. *a-*, which is also the case elsewhere in Gk. (e.g. in gen. dat., dual, v. post.); yet *χαρί-Fεντ-* (graceful), *χάρι-* (fem. grace), and perhaps some few others.

In Latin *-vant-* has become *-vans-*, and passed over to the analogy of *a*-stems, so that we must here assume a f.f. *-vansa-*, from which *-vonso-* and *-vōso-* must have arisen; this *-vonso-* has, however, throughout lost its *v* (the suffix could scarcely have been *-ans-*, since the loss of the *v* does not occur in this function of the suffix, and the existence of the full form of the sf. in the S.W. division of the Indo-European languages is moreover proved by the occurrence of the well-preserved form in Gk. *-Fεντ-*); e.g. *fructu-ōso-*, *lumin-ōso-*, **forma-ōso-*, whence (§ 37) *formonso-*, later *formōso-*.

We must now treat of the employment of the sf. *-vant- (-vans-)* in forming past part. act.

Indo-European original-language. e.g. *vivid-vant-*, √*vid* (see, know); *dadha-vant-*, √*dha* (set), etc. These stems coincided in the three genders.

Sanskrit. The origl. sf. *-vant-* appears before the different case-suffixes as *-vat-*, *-vā̃s-*, i.e. *-vāns-* and *-us-* (v. post. Declension); *-vans-*, from origl. *-vant-*, became *-vas-* by loss of *n*

§ 90. before *s*, and this was weakened to *-us-* by loss of *a* (§ 6); *-vā̃s-*, i.e. *-vāns-*, is a lengthening or step-formation of *-vans-*. The suffix is added to the reduplicated root, to the perf.-stem in its weaker form (v. post. 'Conjugation'), e.g. *rurud-vánt-*, √*rud* (weep), fem. *rurud-úšī*, from **-vantyā*, **-vansyā*, **-vasyā*, **-usyā*; *tēn-i-vánt-* from **tatn-i-vant-*, with auxil. vowel *i*, √*tan* (stretch); the shortened st.-forms have not this *i*, e.g. dat. sg. masc. *tēnúš-ē*; n. sg. fem. *tēnúšī*, etc.; *vid-vánt* (knowing, origl. 'having seen'), with loss of reduplication of √*vid* (see, know), etc.

Greek. The origl. final *t* of the sf. has been almost always preserved, while the *n* is lost; in masc. and neut. it is *-Fότ-*=*-va(n)t-*; in n. sg. *-Fός* for **-Fοτ* (§ 69), masc. *-Fώς* for **-Fοτ-ς* with compensatory lengthening. The fem. is *-νῖα*, i.e. *-usyā* (§ 65, 2, c) from *-vasyā*, and this from *-vansyā*, f.f. *-vantyā*. This sf. is added to all perf.-stems ending (1) in case of simple perfects in the final letter of the root, (2) in the case of compound perfects in *κ*; e.g. (1) *λελοιπ-ότ-*, n. sg. masc. *λελοιπώς*=*λελοιπ-Fοτ-ς*, ntr. *λελοιπός*=**λελοιπ-Fοτ*, fem. *λελοιπ-νῖα*=**λελοιπ-υσγα*, √*λιπ* (leave); likewise (2) **λελυκ-Fοτ-* (n. sg. masc. *λελυκώς*, etc.), √*λυ* (loosen), etc. After roots ending in vowels perhaps the *υ* of the sf. held its place longer; thus *ἑστα-Fότ-* (Hom.) from perf.-stem *ἑστα-* (*ἕστα-μεν* 1 pl.), √*στα* (stand); *γεγα-Fότ-*, perf.-stem *γεγα-*, √*γα*, *γεν* (pres. *γίγνομαι* become), etc. We must leave undecided the question whether the stems *γεγα-Fώτ-*, *τεθνη-Fώτ-*, etc., retain in *ω* a relic of the former *n* in **-Fοντ-*= *-vant-*, or whether we should see in it an unorigl. lengthening from *-Fοτ-*.

Archaic forms show the root-vowel still un-raised, especially in fem. stems, e.g. *Fιδνῖα* (usually *εἰδνῖα*, st. **Fειδ-Fοτ-*, from *Foῖδα*, f.f. *vivāida* 'I know,' √*vid*, see, know), i.e. **vid-usyā*=Sk. *vidúšī* from **vivid-vant-yā*.

Latin shows no such formation.

§ 91. VII. Stems with suffix *-ma-*, and sff. whose first element is *-ma-* (*-man-*, *-ma-na-*, *-mant-*; on secondary sf. *-ma-* cf. § 107,

where also are treated the sff. *ma-ma-* and *-ma-ta-*, which all of them form superl.); and especially the participle in *-ma-*, *-ma-na-*, of passive and middle use. § 91.

Participles in *-ma-na-* appear in the Asiatic and S.-European division of the Indo-European, in the Sclavo-Teutonic *-ma-* replaces it. Both forms we hold to be original, since it is common enough to find a simple and a compound suffix used alike.

-ma- is a frequent element in stem-formation (in word-formation it indicates 1 pers.). As a secondary suffix we shall find it employed to express the superlative.

Primarily it occurs e.g.

Indo-European. *ghar-ma-* (warm, heat), √*ghar*; *dhu-ma-*, or probably *dhau-ma-* (smoke), √*dhu*.

Sanskrit. In *tig-má-* (adj. sharp, pointed), √*tiǵ* (become sharp); *bhī-má-* (adj. fearful), √*bhi* (fear); *idh-má-* (masc. firewood), √*idh* (burn); *ghar-má-* (masc. warmth), √*ghar*; *dhū-má-* (masc. smoke), √*dhu* (move); *yug-má-* (ntr. pair), √*yug* (join), etc.

Kindred to this is sf. *-man-*, which apparently must be separated into *-m-an-*, i.e. *-m(a)-an-*, and is accordingly closely parallel to the participial *-ma-na-*.

Indo-European. e.g. *gnā-man-* (name), √*gna*=*gan* (know); *ak-man-* (stone), √*ak*, etc.

Sanskrit. In *ǵán-man-* (ntr. birth), √*ǵan* (gignere); *áç--man-* (masc. stone), √*aç*; *vḗç-man-* (ntr. house), √*viç* (enter); *nā́-man-* (ntr. name) for **gnā-man-*, √*gna*=*gan* (know); *úš-man-* (masc. summer), √*uš* (burn). With auxil. vowel *i*, in Vēd. also *ī* (§ 15, f), it appears e.g. in *star-i-mán-* (masc. bed), √*star* (sternere); *dhar-i-mán-* (masc. forma), √*dhar* (hold); *ǵán-i-man-* (ntr. birth) beside *ǵán-man-*, from which it is distinguished by the *i* alone. Side by side we find *dhár-man-* (masc. bearer; ntr. law) and *dhár-ma-* (masc. right, duty); *é́-man-* (ntr. going) and *é́-ma-* (masc. id.), √*i* (go), etc.

§ 91. -*mant*- is a secondary suffix, e.g. *yáva-mant*- (possessing barley), *yáva*- (barley); *mádhu-mant*- (possessing honey), *mádhu*- (honey); *gyṓtiš-mant*- (shining), *gyṓtis* (light), etc.

-*min*- also is secondary, e.g. *vāg-min*- (possessing speech, eloquent) for **vāk-min*-, stem *vāk*- (speech); *gō-min*- (masc. cattle-owner), *gō*- (cow, bullock) etc.

aç-man-ta- (ntr. furnace) must not be overlooked, from *áç-man*- (stone); cf. Lat sf. -*men-to*- and O.H.G. -*munda*-.

Greek. Sf. -*ma*-, e.g. in *θερ-μό*- (adj. hot), *θερ-μή* (fem. heat), √*θερ* (*θέρ-ομαι* grow hot), origl. *ghar* (§ 64, 2, n); *φλογ-μό*- (masc. brand), √*φλεγ* (*φλέγ-ειν* burn); *κευθ-μό*- (masc. lair), √*κυθ* (*κεύθ-ω* hide); *κομμό*- (masc. planctus) for **κοπ-μο*- (§ 68, 1, a), √*κοπ* (*κόπ-τω*, *κε-κοπ-ώς* strike); *ἄν-ε-μο*- (masc. wind) with an inserted *ε* (§ 29) from origl. √*an* (blow); *χῡ-μό*- (masc. sap), √*χυ* (*χέF-ω* pour); *θῡ-μό*- (masc. mind, spirit), √*θυ* (*θύ-ω* fume); *γνώ-μη* (opinion), √*γνο* (*γι-γνώ-σκω*), origl. *gan* (to know); *μνή-μη* (memory), √*μνα* (*μι-μνή-σκω*), origl. *man* (think); *τῑ-μή* (price, honour), √*τι* (*τί-ω* (honour); *οἶ-μο*- (masc. fem. way, course, stripe), √*ἰ* (*εἶ-μι* go), etc.

As secondary sf. also -*μο*- occurs, e.g. *ἄλκι-μο*- (strong), *ἀλκή* (strength); *νόστι-μο*- (belonging to return), *νόστο*- (masc. return); *φύξι-μο*- (whither one can flee, avoidable), *φύξι*- (fem. flight), etc.

The sf. origl. -*man*- appears in Gk. as -*μον*- and -*μεν*-, e.g. *ἄκ-μον*- (masc. n. sg. *ἄκ-μων* anvil)=Sk. *áç-man*-, beside *ἀκ-μή* (point, sharpness); *ἴδ-μον*- (adj., n. sg. masc. *ἴδ-μων*, ntr. *ἴδ-μον*, skilful, belonging to later period), √*Fιδ*, origl. *vid* (see, know); *τλῆ-μον*- (n. sg. *τλή-μων* suffering, wretched), √*τλα* (endure, cf. *τέ-τλα-θι*, *τλή-σομαι*); *γνῶ-μον*- (masc., n. sg. *γνώ-μων* knower), √*γνο* (*γι-γνώ-σκω*), origl. *gan* (know), cf. *γνώ-μη*; *μνῆ-μον*- (mindful), cf. *μνή-μη*, √*μνα*, origl. *man* (think), etc. In the form -*μων*- we recognize an unorigl. lengthening of the same sf., cf. *κευθ-μών* (masc., gen. sg. *κευθ-μῶν-ος* lair), √*κυθ*, raised to *κευθ* (*κεύθ-ω*, *ἔ-κυθ-ον* hide), cf. *κευθ-μό-ς*; *θη-μών* (masc., gen. sg. *θη-μῶν-ος*, heap), √*θε* (*τί-θη-μι*), etc.

Sf. *-μεν-*, e.g. in *πυθ-μέν-* (masc., n. sg. *πυθ-μήν* bottom, foun- § 91.
dation), √*πυθ*, cf. O.H.G. *bod-am*; *ποι-μέν-* (masc., n. sg. *ποι-μήν* shepherd) = Lith. *pë-men-* (n. sg. *pĕ-mŭ̃*), root accordingly *pi*, perhaps a weakening from *pa* (protect).

Closely connected is the sf. *-μονη*, e.g. *φλεγ-μονή* (inflammation), √*φλεγ* (*φλέγ-ω* burn); *χαρ-μονή* (joy), √*χαρ* (*χαίρω* rejoice), etc.

Here too probably belong sff. *-μῑ-ν-* and *-μῑ-νο-*, e.g. *ῥηγ-μῖν-* (masc., gen. sg. *ῥηγ-μῖν-ος* surf, breakers), √*ῥαγ* (in *ῥήγ-νυμι* break); *ὑσ-μῖν-* (dat. sg. *ὑσ-μῖν-ι*) and *ὑσ-μίνη* (strife), √*ὑθ*, Sk. and origl. *yudh* (strive); also as secondary sf., e.g. in *κυκλά-μῑνο-* (masc. and neutr., name of a plant, cyclamen), from *κύκλο-* (*κύκλο-ς* circle).

Also the very common sf. *-ματ-* (ntr.) is related to the sff. above named; e.g. *εἶ-ματ-* (garment), Aiol. *Fέμματ-*, i.e. **Fεσ-ματ-*, √*Fες* (*ἕννυμι*, i.e. **Fεσ-νυμι* clothe); *ὄμματ-*, i.e. **ὀπ-ματ-* (eye), Aiol. *ὄπ-πατ-*, √*ὀπ* (*ὄψομαι*, *ὄπ-ωπ-α* see); cf. *δέσ-ματ-* (bond) beside *δεσ-μό-* (masc. id.) and *δεσ-μή* (bundle), √*δε*, *δες* (*δέω* bind); *βαδίσ-ματ-* (going) beside *βαδισ-μό-* (masc. id.) from *βαδίζω* (step, go); *χάρ-ματ-* (joy) beside *χαρ-μονή* (v. supr.); *ῥῆγ-ματ-* (fracture) beside *ῥηγ-μῖν-* (v. supr.); *εἶ-ματ-* beside *ἀν-εῖ-μον-* (garmentless); *πρᾶγ-ματ-* (deed), √*πραγ* (*πράσσω*), beside *πολυ-πρᾶγ-μον-* (busybody); *μνῆ-ματ-* (memorial) beside *μνή-μη* and *μνῆ-μον-* (v. supr.); *σπέρ-ματ-* (seed), √*σπερ* (*σπείρω* sow), beside *σπερ-μαίνω*, i.e. **σπερ-μαν-γω* (sow), and the like.

In Latin also the sf. origl. *-ma-* occurs, as Lat. *-mo-* (*-mu-*) in *an-i-mo-* (n. sg. animus spirit), origl. √*an* (blow); *fū-mo-* (fumus smoke), origl. √*dhu* (move); *fir-mo-* (firmus firm), probably Sk. √*dhar* (hold; cf. *frē-n-um* bridle, from same root); *for-mo-* (formus warm), √*fer* (*fer-ueo*); *al-mo-* (almus nourishing), √*al*, nourish; *an-i-ma* (life), cf. *an-i-mo-*, origl. √*an* (breathe, blow); *fā-ma-* (fame) = Gk. *φή-μη*, √*fa* (*fa-ri* say); *for-ma* (form), cf. Sk. *dhar-i-mán-* (v. supr.), etc.

§ 91. Sf. origl. -*man*-, Lat. -*men*-, is common; e.g. *ger-men* (ntr. germ, shoot), √*ger*, origl. *ghar* (be green); **gnō-men* (*nō-men*, *co-gnō-men* name), √*gno*, origl. *gan* (know); *sē-men* (seed), √*sa* (sow), *teg-men*, *teg-i-men* (covering), √ *teg* (cover); *ag-men* (troop, crowd), √*ag* (drive); *solā-men* (solace), verb-stem *sola*- (solari console); *certā-men* (contest, match), verb-stem *certa*- (certare struggle); *molī-men* (effort), verb-stem *molī*- (moliri undertake), etc.

This sf. is lengthened into -*mōn*-, e.g. in *ser-mōn*- (n. sermo masc. speech), √*ser* (arrange, put together; in *ser-o*, *ser-tum*); *ter-mōn*-, cf. *ter-men*, *ter-min-o*- (border), √*ter*, Sk. and origl. *tar* (exceed, come to the end); often moreover increased by -*to*-, e.g. in *co-gnō-mento*-, *in-crē-mento*, *teg-i-mento*-, *aug-mento*- beside *aug-men*, *seg-mento*- beside *seg-men*, etc.; this -*mento*- is particularly common in case of derived verbs, e.g. *armā-mento*-, *nutrī--mento*-, *experī-mento*-, etc. (ntr., n. acc. sg. -*mentu-m*); to this sf. -*mōn*- was added the suffix origl. -*ya*- also, likewise attended by lengthening (or step-formation), whereby consequently arose sf. -*mōnio*-, f.f. -*mānya*-, which is mostly a secondary suffix, e.g. *quer-i-mōnia* (complaint), *quer-or* (complain); *acri-mōnia* (sharpness) from stem *ācri*- (*ācer*, *ācri-s* sharp); *testi-mōnio*- (testimony) from *testi-s* (witness); *mātri-mōnio*- (wedlock) from stem *mātri*-, from *māter*-, origl. *mātar*- (mother), etc.

Participial suffix -*mana*-.

Indo-European. -*mana*-, in the function of forming participles, appears originally annexed to the stems of the present, future (formed indeed by means of a present), aorist, and perfect, thus e.g. √*dha*, pres.-stem *dhadha*-, *dhadha-mana*- (*τιθέ-μενο*-), fut. *dhā-sya-mana* (*θη-σό-μενο*-), aor. *dha-mana*- (*θέ-μενο*-), perf. (from √*dha* this part. would coincide with the pres. part. in form), e.g. *bha-bhar-mana*- or *bhabhār-mana*- from √*bhar*, perfect-stem *bhabhar*-, *bhabhār*-.

Sanskrit. This sf. is here sounded -*māna*-, wherein we recognize an unoriginal lengthening or step-formation of origl.

-*mana*- (cf. Zend -*mna*-, Gk. -*μενο*-, Lat. -*mino*-, -*mno*-, all with vowel unraised), just as in Lat. -*mōn*-, -*mōn-ia*-, Gk. -*μων*- stand contrasted with sf. -*man*-, which is proved to be the original form by the correspondence of the languages. It occurs as part. med. and pass., added to present- and future-stems as well as to the perfect-stem (the latter however almost exclusively in the earlier stage of the language). Instead of this -*māna*- there mostly appears in those present-stems which do not end in stem-formative *a* (except *na*), and in the perfect, a form -*āna*-, which appears to be a later, secondary form for -*māna*-, just as -*ē* for -*mē*, origl. -*mai*, in 1 sg. med., -*a* for -*ma* in 1 sg. act. pf. (v. post. Personal-terminations of the verb). The possibility that -*āna*- for earlier -*ana*- may be a sf. distinct from -*mana*- cannot nevertheless be denied, only in that case -*na*- would be expected rather than -*āna*-. § 91.

Examples. 1. Sf. -*māna*-, e.g. pres. *bhára-māna*-, pres.-stem *bhāra*- √ *bhar* (bear); *nahyá-māna*-, pres.-stem *nahyá*-, in pass. function, med. on the other hand *náhya-māna*-, pres.-stem *náhya*-, √*nah* (tie), etc. Fut. *dāsyá-māna*-, fut. stem *dā-syá*-, √*da* (give); perf. *sasr-māná*-, perf. stem *sasar*- √*sar* (go); *íǵa-māna*- (Vēd.) with stem-termination *a* affixed to perfect-stem, according to analogy of other tense-forms; perf.-stem here *īǵa*- for *īǵ*- from *iyaǵ*-, *yayaǵ*- (§ 6), √*yaǵ* (offer, worship).

2. Forms with -*āna*-, e.g. pres. *lih-āná*-, root and pres.-stem *lih*- (lick); *çáy-āna*-, pres.-stem *cay*-, *çē*- (*çḗ-tē* he lies), √ *çi*; *ḱinv-āná*-, pres.-stem *ḱi-nu*-, √*ḱi* (gather); *yunāná*- from **yu-na*--*āna*-, pres.-stem -*yuna*-, √*yu* (join); *dádāna*-, pres.-stem *dada*-, *dad*-, √*da* (give), etc.; perf. *dádrç-āna*- (Vēd.), perf.-stem *dadarç*-, √*darç* (see); *çiçriy-āná*-, perf.-stem *çiçri*-, √*çri* (go); *bubhuǵ*--*āná*, √*bhuǵ* (bend), etc.

In nom. sing. these sff. are masc. -*māna-s*-, *āna-s*; ntr. -*māna-m*, -*āna-m*; fem. -*mānā*, -*ānā*.

In Greek we find everywhere -*μενο*- = origl. -*mana*- (n. sg. masc. -*μενο-ς*, ntr. -*μενο-ν*, fem. -*μενη*), and this in regular use after

§ 91. pres.-, fut.-, perf.-, and aor.-stems; e.g. pres. *φερό-μενο-*, pres.-stem *φερε-*, *φερο-*, origl. *bhara-*, *bharā-*, √*φερ*, origl. *bhar* (bear); *διδό-μενο-*, pres.-stem *διδο-*, √*δο*, origl. *da* (give); *δεικνύ-μενο-*, pres.-stem *δεικνύ-*, √*δικ* (show), etc.; fut. *δωσό-μενο-*, fut.-stem *δωσο-*, √*δο*; perf. *λελυ-μένο-*, perf.-stem *λελυ-*, √*λυ* (loose); *λελειμ-μένο-* for **λελειπ-μενο-*, perf.-stem *λελειπ*, √*λιπ* (leave); simple aor. *δό-μενο-*, aor.-stem and √*δο-*; *λιπό-μενο-*, aor.-stem *λιπε-*, *λιπο-*, √*λιπ*; compound aor. *λῡ-σά-μενο*, aor.-stem *λῦσα-*, √*λυ*, etc.

The sf. origl. *-mana-* appears in early Gk. (Hom.) also in the function of a nomen actionis or infinitive in loc. sg. fem. *-μεναι* (cf. *χαμαί* loc. from stem *χαμα-*), shortened to *-μεν* (also in Dôr. and Aiol. in verbal stems after the root-termination and aor. pass.), e.g. pres. *ἔδ-μεναι*, f.f. of stem *ad-mana-*, root and earlier pres.-stem *ἐδ-*, origl. *ad* (eat; the pres.-stem in use is *ἐδε-*, *ἐδο-*); *ἀμυνέ-μεναι*, *ἀμυνέ-μεν*, pres.-stem *ἀμυνε-* (ward off); *φορή-μεναι*, f.f. of stem *bhāraya-mana-*, pres.-stem *φορη-*, *φορεε-*, f.f. *bhāraya-*; fut. *ἀξέ-μεναι*, *ἀξέ-μεν*, f.f. of stem *agsya-mana-*, fut.-stem *ἀξε-*, i.e. **ἀγσε-*, **ἀγσγε-*, f.f. *ag-sya-*, √*ἀγ*, origl. *ag* (agere); pf. *τεθνά-μεναι*, *τεθνά-μεν*, pf. stem *τεθνα-*, √*θνα*=*θαν* (die); *Fίδ-μεναι* with lost reduplication, as *Foῖδα*, f.f. *(vi)vāida*, f.f. of particip.-stem thus *vivid-mana-*, √*Fιδ* (know); aor. simpl. *δόμεναι*, aor.-stem and √*δο-*; *εἰπέ-μεναι*, *εἰπέ-μεν*, aor.-stem *εἰπε-*, f.f. *vavaka-*, √*Fεπ*, origl. *vak* (speak); *ἐλθέ-μεναι*, *ἐλθέ-μεν*, aor.-stem *ἐλθε-* (*ἦλθο-ν*, *ἤλυθο-ν*), √*ἐλυθ* (come); aor.-pass. *μιχθή-μεναι*, *μιγή-μεναι*, *φανή-μεναι*, etc. Cf. also § 93, a.

Note.—The (Vēd.) forms adduced by Benfey (Or. u. Occ., i. 606; ii. 97. 132) in Sk., such as *dā́-man-ē*, cf. *δό-μεναι*, *vid-mán-ē*, cf. *Fίδ-μεναι*, as also the Zend *çtao-main-ē* (√*çtu* praise), are indeed datives of a neut. subst. stem Sk. *dā́-man-* (gift), *vid-mán-*, Zend *çtao-man-* (praise); notwithstanding which we believe that we must adhere to our explanation as regards Gk., on account of the parallel participles in *-μενο-*, and moreover from want of evidence for the dat. sf. *αι* belonging to consonantal stems in Gk. It is possible that the Gk. sf. *-μανα-* stands parallel to the

Aryan sf. *-man-*, besides the examples adduced—at least the two which I have met with (*dắmanē* and *çtaomainē*)—do not by any means correspond with the Gk. infin. in function. § 91.

Latin. The sf. origl. *-mana-* is retained only in relics, which yet show that it was once more generally used, and perfectly in accordance with Gk. analogy.

Substantives like *alu-mno-*, fem. *alumna* (nursling); *uertu-mno-* (Vertumnus, name of a god), probably from early Lat. **alo-meno-*, √*al* (nourish); **uerto-meno-*, √*uert* (turn), have lost the *e* of *-meno-*=*-μενο-*=*-mana-*; the ending is here regularly added to the pres.-stem, just as in Sk. and Gk. The termination is added immediately to the final of the root in *ter-mino-* (bound), √origl. *tar*; also *fē-mina* (woman) belongs here, though there may be some doubt as to the root of the word; further, *da-mno-* (damnum loss; Ritschl, Rhein. Mus. für Philol. N. F. xvi. pp. 304–308), pres.-stem and √*da* (*da-mus*, etc.; the change of meaning is shown by Ritschl in the passage quoted; perhaps also √*da* (cut) or *dha* (set, make) and not *da* (give), may here be fundamental, so that this has no bearing on the explanation of the form given by Ritschl).

The nom. pl. masc. of the sf., thus *-mini-* from earlier **-menei*, **-menei-s* (v. post. Declension), has remained as a periphrastic 2 p. pl. of med. pass., with auxil. vb. lost; the *i* for *e* (cf. Gk. *-μενο-*) is probably caused by following *ni* (§ 38), and here we find Lat. *i* corresponding to Gk. *ε*, as not unfrequently, e.g. in forms like *homin-is*, *flāmin-is*, and *ποιμέν-ος*. Accordingly Lat. *feri-mini* corresponds exactly to Gk. *φερό-μενοι*, f.f. of the stem *bhara-mana-*, pres.-stem *feri-*, origl. *bhara-*, √*fer*, origl. *bhar*. This *-mini* is simply added to tense- and mood-stems, also in the latest new-formations, e.g. pres. ind. *amā-mini*, *monē-mini*, *audī-mini*; opt. and conj. *ferā-mini*, *moneā-mini*, *amē-mini*, etc.; *ama-bā-mini*, *ama-rē-mini*, *ama-bi-mini*, etc.

The singular of this kind of the middle form, which in an earlier stage of the language probably coexisted with the other

§ 91. (v. post.) in all forms (thus e.g. a **feriminos sum*, — *es*, etc.), has been retained as 2 and 3 p. sg. imper. of the earlier lang., where it ends, however, not in *os*, but in *o*, probably after the analogy of the other real imperative endings in *o* (final *s* may be lost in Old-Lat., v. supr. § 79); e.g. *fā-mino, frui-mino, progredi-mino, arbitrā-mino, profitē-mino*, to which we must supply *es* or *esto:* thus the underlying forms are probably such as **fāminos esto*, etc.

§ 92. VIII. Stems with sf. origl. *-ra-*.

Noun-stems with sf. *-ra-, -la-*, occur in the separate Indo-Eur. languages, and consequently it is certain that this formation belonged to the period of origl. language. To show that *l* is a particularly common element in sff., it is enough to mention the diminutives in *l* (for Lat. and Gk. cf. L. Schwabe, de deminutivis Graecis et Latinis liber, Gissae, 1859). On *-ra-* as compar. sf., v. § 105.

Indo-Eur. origl.-lang. *rudh-ra-* (red), √*rudh* (become red); *sad-ra-* (seat), √*sad* (sit); *ag-ra-* (masc. field), √*ag*.

Sanskrit. Sf. *-ra-, -la-*, sometimes occurs with auxil. vowel *i* (§ 15, f). *rudh-i-rá-* (v. supr.); *dīp-rá-* (shining), √*dīp* (shine); *ḱid-rá-* (pierced; ntr. defect, flaw), √*ḱid* (split); *áǵ-ra-* (masc. plain, field), √*aǵ* (go, drive); *an-i-lá-* (wind), √*an* (blow), etc.

Greek. *ἐρυθ-ρό-* (red); *λαμπ-ρό-* (shining), *λάμπ-ω* (shine); *φαιδ-ρό-* (bright), cf. *φαίδ-ιμο-* (gleaming); *λυπ-ρό-* (grievous), √*λυπ* (*λύπ-η* grief); *ἄκ-ρο-* (highest, topmost; ntr. *ἄκ-ρο-ν* top, point; *ἄκ-ρα* fem. top), √origl. *ak* (be sharp); *πτε-ρό-* (ntr. feather, wing), √*πετ* (*πέτ-ομαι* fly); *ἀγ-ρό-* (masc. field), √*ἀγ*; *δῶ-ρο-* (ntr. gift), √*δο* (give); *ἕδ-ρα* (fem. seat), √*ἑδ* (*ἕζομαι* sit), etc.; *διψη-ρό-* (thirsty), verb.-stem *διψα-* (*διψάω* thirst); *σιγη-λό* (silent), verb-stem *σιγα-* (be silent); *ἀπατη-λό-* (deceitful), verb-stem *ἀπατα-* (cheat); *δει-λό-* (timid), √*δι* (fear, e.g. *δέ-δι-μεν, δέ-δοι-κα*); *μεγ-άλο-* (big), √origl. *mag* or *magh* (wax, thus origly. 'grown'); *ὀμίχ-λη* (mist), √ *migh* (moisten); *βη-λό-* (threshold), √*βα* (go); *φῦ-λο-* (ntr. race), *φῡ-λή* (tribe),

√φυ (beget, grow), etc. As primary and secondary sf. -ερο- § 92.
often occurs, e.g. φανερό- (clear), √φαν (φαίνω show); δροσερό- (dewy) from δρόσο-ς (fem. dew); φοβερό- (fearful), φόβο-ς (masc. fear), etc.; also in other sff., e.g. -υρο-, -ωρη-, -ωλο-, -ωλη-, -ῑλο-, we find origl. sf. -*ra*-.

Latin. *rub-ro-* (ruber red), √ *rub*, origl. *rudh*; *scab-ro-* (scaber rough), √*scab* (scabo scratch); *sac-ro-* (sacer holy), √*sac* (sancire); *gnā-ro-* (gnarus knowing), √*gna* (know); *plē-ro-* (full), √*ple* (fill); *ag-ro-* (ager field), √*ag* (agere); *sella* (stool) for **sed-la* = ἕδ-ρα, √ *sed* (sedere sit); sf. -*la*- is frequently added to derived verbal-stems, e.g. *candē-la* (lamp), stem *cande-* (candēre glow, be white); *medē-la* (remedy), stem *mede-* (medēri heal), etc., whose analogy, as in impf. (v. post. § 173, 7), is followed by the formations of stem-verbs, as e.g. *sequē-la* (following), *sequi* (follow); *fugē-la* (flight), *fugere* (flee); *loquē-la* (speech), *loqui* (speak); *querē-la* (complaint), *queri* (complain). Hence we see here, as in the Sclavonic participle, clearly an addition to verbal-stems, which occurs in Greek as well. -*la*- is also a common element in Latin in sff. (-*ulo*-, -*ula*-, -*ili*-).

IX. Stems with sf. origl. -*an*-. § 93.

These stems occur in all Indo-Eur. languages, but rarely, it is true, in some of them, while in others they are very common —e.g. Teutonic; but I know of no example which we may confidently ascribe to Indo-European except *vad-an-* (ntr. water), and *ak-an-* (masc. stone; cf. Sk. *áç-an-* and Goth. *aúhna-*, which may very probably be derived from an older consonantal stem).

Sanskrit. *rā́ǵ-an-* (n. sg. *rā́ǵā*, n. pl. *rā́ǵān-as*, loc. sg. *rā́ǵñ-i*, *rā́ǵan-i*, king), √*raǵ* (*rā́ǵ-ati* shines, rules); *snḗ-han-* (friend), √*snih* (love); *vŕš-an-* (rainer; bull), √*varš* (rain) and other like nom. agentis; *áç-an-* (masc. stone, rock), √*aç* (strike); *ud-án-* (ntr. water, not used in all cases), √*ud* (wet), probably arising from *vad*.

The very frequent Sk. sf. -*in*- is probably akin, e.g. primary

§ 93. in *math-in-* (beside *mánth-an-*, churning stick), √*math* (move, stir); exceptionally common as secondary sf., e.g. *dhan-in-* (rich), *dhána-* (ntr. possession), etc.

Greek. The sff. corresponding to origl. -*an*- are here not uncommon, e.g. *τέρ-εν-* (n. sg. masc. *τέρην* tender), √*τερ* (*τείρ-ω* rub); *ἀρηγ-όν-* (masc., n. *ἀρήγ-ων* helper), cf. *ἀρήγ-ω* (help); *εἰκ-όν-* (fem., n. *εἰκ-ών* image), cf. *ἔ-οικ-α* (perf. am like) and the like; more frequently still is found the sf. *-ων-*, which must be considered a lengthening or step-formation of -*an*-, e.g. *αἴθ-ων-* (glowing), cf. *αἴθ-ω* (kindle), √*ἰθ; κλύδ-ων* (masc. wave, surge), √*κλυδ* (*κλύζω* rinse, wash); *πόρδ-ων* (masc. farter), √*περδ* (*πέρδ-ω* fart), etc. In *πευθ-ήν* (masc. inquirer), √*πυθ* (*πυνθάνομαι*, fut. *πεύ(θ)-σομαι* inquire); *λειχ-ήν* (scale), √*λιχ* (*λείχ-ω* lick), etc., we see the rarer *-ην-*=origl. -*an*-. As secondary sf. *-ων-* appears in *ἀνδρ-ών* (men's apartment), stem *ἀνδρ-* for **ἀνρ-*, *ἀ-νερ-* (n. *ἀνήρ*, gen. *ἀνδρ-ός* man); *ἱππών* (masc. stable), *ἵππο-* (horse), etc.

§93a. Latin. Sff. with short vowel are not very common, e.g. n. sg. *a-sperg-o* gen. *-in-is* (fem. besprinkling), stem thus *-sperg-on-*, *-sperg-en-*, √*sparg* (*sparg-o* sprinkle, scatter; *a-sperg-o* besprinkle); *com-pāg-en-* (fem., n. *com-pāg-o* fastening), √*pag* (*pang-o* fix, *com-ping-o* fix together); *pect-en-* (masc. comb; gen. *pect-in-is*), *pect-o* (comb); on the other hand, *-ōn-* is common, as in Gk. *-ων-*, e.g. *ed-ōn-* (masc., n. *edo*, gen. *edōn-is* eater), *com-ed-ōn-* (devourer), √*ed* (*ed-o* eat, *com-ed-o* eat up); *com-bib-ōn-* (fellow-drinker), cf. *com-bib-o* (drink with); *ger-ōn-* (bearer), cf. *ger-o* (bear, bring) and the like.

X. Stems with sf. -*ana*-.

The sf. -*ana*-, which in Sk., Zend, Gk., and Gothic forms stems used as infinitives, belongs to the period of the Indo-Eur. origl. language, in which formations such as *bhar-ana-*, √*bhar* (bear); *vagh-ana-*, perhaps *vāgh-ana-* (uectio, ntr. waggon), √*vagh* (uehere), and the like must be presupposed. Cf. moreover the med. participles of Sk. and Zend in -*ana*-, -*āna*- (§ 91),

which perhaps belong here; the Gk. pres.-stems such as *ἰκ-ανε-*, *μανθ-ανε-*, and Sk. e.g. *iš-aṇa-*, *grh-āṇa-* (§ 165, iv. b). §93b.

Sanskrit. Sf. *-ana-*, with root-vowel *i*, *u* accompanied by step-formation of root-vowel, forms nomina actionis and nomina agentis (also adjectivals). The dat. and loc. sg. of the abstracts in *-ana-* (*-anāya-*, *-anē-*) are used as infinitives, e.g. dat. *gám-anāya*, loc. *gám-anē*, stem *gám-ana-*, n. sg. *gám-ana-m* (ntr.), √*gam* (go); likewise *bhár-ana-* (bear, hold), √*bhar* (bear); *bhḗd-ana-* (split), √*bhid*; *bháv-ana-* (be), √*bhu*; *dā́na-* (giving, gift), i.e. **dā-ana-*, √*da* (give); *kā́r-ana-* (cause), verb-stem *kāraya-* (caus., √*kar* make), etc. The sf. appears as fem. also in this function, e.g. *ās-anā́-* (stay), √*ās* (sit); *yāǰ-anā́* (begging), √*yāǰ* (beg).

Nomina agentis of this form are e.g. *náy-ana-* (ntr. eye 'the guiding thing'), √*ni* (lead); *vád-ana-* (ntr. mouth, 'the speaking thing'), √*vad* (speak); *vāȟ-ana-* (ntr. waggon, 'the carrying thing'), √*vah* (carry); *dáç-ana-* (masc. tooth, 'the biting one'), √*daç* (bite); *nánd-ana-* (masc. delighter), verb-stem *nandaya-* (delight), √*nand* (rejoice), etc. Fems. of this function are e.g. *ǵan-anī* (genetrix), i.e. **ǵan-anyā* from masc. *ǵán-ana-*, verb-stem *ǵanaya-* (beget), √*ǵan* (be born; beget), etc.

As adjs. are used e.g. *ǵval-aná-* (burning), √*ǵval* (burn); *çōbh-aná-* (pretty), √*çubh* (sparkle), etc.

Greek. Here belong the nouns in *-ανο-*; thus neuters *κόπ-ανο-* (pestle), √*κοπ* (*κόπ-τω*, *κε-κοπ-ώς* strike); *ὄργ-ανο-* (tool), √*Fεργ* (*ἔργ-ον* work); *ὄχ-ανο-* (handle), √*ἐχ* (*ἔχ-ω* have, hold), *δρέπ-ανο-* (sickle), √*δρεπ-* (*δρέπ-ομαι* pluck), etc.; *τύμπ-ανο-* (ntr. drum, cudgel) with nasalized √*τυπ* (*τύπ-τω* beat), which often happens in the stems of this formation used as pres.-stems; masculines, e.g. *στέφ-ανο-* (crown) √*στεφ* (*στέφ-ειν* gird, crown); *χόδ-ανο-* (Hêsuch. podex), √*χεδ* (*χέζω* caco); feminines like *ἡδ-ονή* (pleasure), √*ἁδ* (*ἀνδ-άνω*, *ἀδ-ήσω*, *ἔ-αδ-ον* please), origl. *svad*; *ἀγχ-όνη* (strangling, hanging), √*ἀγχ*, *ἀχ* (*ἄγχ-ω* throttle, *ἄχ-νυ-μαι* am pained), etc.; *δρεπ-άνη* (id. q. *δρέπ-ανον*); *θηγ-άνη*

§93b. (whetstone, also *θήγ-ανο-ν* is attested), √*θηγ* (*θήγ-ω* whet); *στεφ-άνη* (encircling, crown), cf. *στέφ-ανο-ς*, etc. Adjectival, e.g. *σκεπ-ανό-* (covering), √*σκεπ*, cf. *σκέπ-η* (cover); *ἰκ-ανό-* (sufficient), √*ἰκ* (*ἰκ-νέομαι*, *ἰκ-όμην* come), etc.

As from sf. -*as*- arises Lat. infin. in -*re*-, and from -*mana*- Gk. infin. -*μεναι* (v. § 91), so also from -*ana*- comes Gk. infin. in -*εναι*, which we consider as loc. sg. of a fem.-stem. A form *λελοιπ-έναι* points to a stem origl. *rirāikana*-, i.e. a nom. agentis in -*ana*- formed from perfect-stem; *φέρειν* for **φερεινι*, **φερενι* (§ 26, 3), with shortened ending for **φερεναι*, to a stem *bharana*- from pres.-stem *φερε* = *bhara*-, whose termination -*a* serves likewise as initial sound of sf. -*ana*-. Stems ending in a vowel mostly do not assume -*ana*-, but only -*na*-, hence *διδό-ναι*, *ἱστά-ναι*, *δεικνύ-ναι*; yet *θεῖναι* = **θεεναι*, *δοῦναι* = **δοεναι*.

Latin. A formation quite corresponding to origl. -*ana*- does not occur to me. As Gk. *μηχανή* appears in Lat. as *māchina*, we may probably place here the Lat. forms with sf. -*ino*-, -*ina*, whose *i* therefore, as often in Lat., is weakened from *a*; thus, e.g. *pāg-ina* (fem. leaf, page), √*pag* (fasten, join, pres. *pang-o*); *sarc-ina* (fem. bundle, load), √*sarc* (*sarc-io* patch, repair); *dom-ino*- (lord), fem. *dom-ina*, √*dom* (*dom-o* subdue, tame), cf. Sk. *dam-ana*- (taming, subduing).

§ 94. XI. Stems with sf. -*na*-.

These stems, used in all Indo-Eur. languages, are much employed as past part. pass., in meaning like those in -*ta*-.

As a regular formation this part. occurs only in certain Sk., Scl. and Teut. verb-stems, whereby its existence in Indo-Eur. is sufficiently proved.

Indo-Eur. The frequent use of -*na*- in noun-stems appears from words such as *svap-na*- (masc. sleep), √*svap* (sleep); *stā-na*- (ground, place), √*sta* (stand).

Sanskrit. *sváp-na*- (as orig.); *yaǵ-ñá*- (masc. offering, worship), √*yaǵ* (offer, worship); *ánna*- (ntr. food) for **ad-na*-

(§ 59, 1), √*ad* (eat); *sthā́-na-* (place, ntr.), √*stha* (stand,—if § 94. it belong not to *-ana-*); secondarily in *purā-ṇa* (adj. old) from *purā́* (previous, earlier); *mali-ná-* (adj. dirty), from *mala-* (masc. ntr. dirt); *phali-ná* (bearing fruit), from *phala-* (ntr. fruit); the latter exx. coincide in form and function with past part. pass.

Greek. *ὕπ-νο-*=Sk. and origl. *sváp-na-*; *λίχ-νο-* (adj. dainty, greedy), √*λιχ* (*λείχω* lick); *λύχ-νο-* (masc. lamp), √*λυκ* (*λευκ-ό-ς* clear), origl. *ruk* (on *χ* for *κ* before *ν*, v. § 68, 1, c; other exx. of primary sf. *-na-* v. post.); the sf. is secondary in cases like *ὀρεινό-*=**ὀρεσ-νο* (hilly), stem *ὄρες-* in *ὄρος* (ntr. hill); *σκοτεινό-*=**σκοτεσ-νο-* (dark), stem *σκότες-* in *σκότος* (ntr. darkness), etc.

Latin. *som-no-* for **sop-no-*=origl. *svap-na-*; common as secondary sf., e.g. *pater-no-*, *uer-no-*, *salig-no-* (stem *salic-*), etc.; also often with long *ā*, *ē*, *ī* before *-na-*, as *font-āno-*, stem *font-*, *equī-no-*, stem *equo-*, *aliē-no-* (§ 38) from stem *alio-*, *canī-no-*, stem *cani-*, *bouī-no-*, stem *bou-*, *boui-* (conson.-stems change to *i*-forms), *doctrī-na*, stem *doctor-*, *doctri-* from **doctori-*, etc.

Suffix *-na-* forming past part. pass.

We reckon here those languages also which show only a few exx. or scattered traces of this use of sf. *-na-*.

Indo-Eur. The different uses in the different languages of *-na-* make it almost impossible to find many roots in which we can be sure that the p.p. pass. was formed from them by *-na-* as early as the time of the origl. lang. This was however undoubtedly the case with √*par* (fill), whose part. *par-na-* (full), masc. *parna-s*, ntr. *parna-m*, fem. *parnā*, was already in existence. We cannot believe that this method of formation was confined to this one root.

Sanskrit. The formation in *-na-* is used in comparatively few roots, e.g. *pūr-ṇá-* for **par-ná-* (§ 7), √*par* (fill); *stīr-ṇá-* for **star-ná-* (§ 7), √*star* (sternere); *bhug-ná-*, √*bhuǵ* (bend); *bhin-ná-* for **bhid-ná-* (§ 59, 1), √*bhid* (split), etc.

Greek. Not as a regular participial formation. Yet here

§ 94. belong adjs. like e.g. σεμνό- for *σεβ-νό- (§ 68, 1, c) 'revered,' √σεβ (σέβ-ομαι revere); ἀγ-νό- (worshipper, hallowed), √ἀγ (ἄζο-μαι revere); στυγ-νό- (hated, detested), √στυγ in ἔ-στυγ-ον (στυγ-εῖν hate); στεγ-νό- 'covered,' √στέγ in στέγ-ω (cover); δει-νό- 'feared,' √δι (fear, cf. δει-λό-ς cowardly, δέ-δοι-κα); ποθει-νό- 'longed-for,' verb-stem ποθεε- (ποθέω long for), etc. Substantivally used is τέκ-νο- 'thing born, bairn,' √τεκ (bear, cf. ἔ-τεκ-ον, τέ-τοκ-α).

Latin. Not as regular participial formation. Relics are e.g. *plē-no-* (filled) √*ple*=*pla*, origl. *par* (fill); *mag-no-* 'increased,' √*mag*=Sk. *mah* (wax); *dō-no-* 'gift,' √*da* (give); *reg-no-* 'ruled thing,' √*reg* (rule), etc.

§ 95. XII. Stems with suffix -*ni*-.

Sf. -*ni*- is much like -*ti*- in use and function, but rarer. Like -*ti*- it appears added to other sff. (cf. § 98, Lat. sf. -*tiō-ni*-). Generally speaking, there stand side by side the suffix-scales -*na*-, -*ni*-, -*nu*-, and -*ta*-, -*ti*-, -*tu*-. Sf. -*ni*- is origl.

Indo-Eur. *ag-ni-* (fire), √*ag*?, is the only trustworthy example; yet it is highly probable that abstracts in -*ni*- were formed before the division of languages, because they occur in all Indo-Eur. languages.

Sanskrit. E.g. *glā́-ni-* (fem. fatigue, exhaustion), √*gla* (lose strength); *hā́-ni-* (fem. abandonment), √*ha* (leave); *ǵī́r-ni-* (weakness from age) for **gar-ni-* (§ 7), √*ǵar* (to age), etc., which all form their p.p. pass. in -*ná*-: all, however, do not take sf. -*ni*-, the majority take -*ti*-, e.g. *kʰin-ná-* (splitten), but *kʰit-ti-* (splitting, n.), √*kʰid*.

The datives of these abstracts in -*ni*-, like those in -*ti*-, can serve as infinitives.

Greek. Sf. -*ni*- is rare in Gk.; e.g. μῆ-νι- (μῆνι-ς, g. μήνι-ος, fem. wrath), √origl. *ma* (think); σπά-νι- (fem. want), √σπα.

Note.—Benfey, followed by Leo Meyer (Vgl. Gramm. ii. 141), explains the much-debated Gk. forms in -ω, such as ἠχ-ώ (echo),

πειθ-ώ (persuasion, earlier ῳ), etc., voc. πειθοῖ, g. πειθοῦς from *πειθοος, etc., as stems in *-ονι-*, f.f. thus *-ani-* (*πειθ-ονι, whence πειθ-οῖ, as e.g. μείζω from μείζονα); G. Curtius (Erläuterungen, p. 50 sqq.) on the other hand, as stems in *-oFι-*, probably rightly (cf. their Iôn. acc. in *-ουν*). § 95.

Latin. Masculines only, e.g. *ig-ni-* (ignis fire)=Sk. *ag-ni-*; *pā-ni-* (bread), √*pa* (cf. *pa-sco*); *pē-ni-* for **pes-ni-* (§ 77, 1, a), √origl. *pas* (gignere?), cf. Sk. *pás-as* (ntr. pēnis), Gk. πέος for *πεσ-ος, M.H.G. *vis-ellīn* (penis); probably also *crī-ni-*, *fū-ni-*, *fī-ni-* and *lē-ni-*, *seg-ni-*, the roots of which are difficult to trace.

XIII. Stems with sf. *-nu-*.

Indo-Eur. *ta-nu-* (stretched; body), √*ta* (stretch); *su-nu-* (one born, son), √*su* (bear, beget). The stems in *-nu-* are also used as pres.-stems (§ 165, iv. a), e.g. *ta-nu-*, √*ta*; *ar-nu-*, √*ar*. §95a.

Sanskrit. *ta-nú-* (thin; fem. body), √*ta*; *sū-nú-* (son), √*su*; *bhā-nú-* (sun), √*bha* (shine); *tras-nú-* (fearful), √*tras* (tremble); *grdh-nú-* (greedy, eager), √*gardh* (seek, strive), etc.

Greek. Sf. *-nu-* is very rare, e.g. θρῆ-νυ- (footstool), √θρα (θρή-σασθαι seat oneself; θρᾶ-νο-ς seat), origl. *dhra*, *dhar* (set, fix); λιγ-νύ- (fem. smoke, mist), root doubtful.

Latin. Sf. *-nu-* very rare, as in Gk.; *te-nu-i-*, like adj.-stems in *u-* generally (§ 88, b), has passed into the *i*-form; **te-nu-*=origl. *ta-nu-*. Probably *ma-nu-* (fem. hand) belongs here, √origl. *ma* (measure, shape).

XIV. Stems with sf. *-ta-*. § 96.

The participle in origl. *-ta-*, the past part. pass. comes under special notice here.

The element *-ta-* (cf. the pronominal root of like sound), one of the commonest sff. of our language, is multifariously used in stem- and word-formation (for the formation of the 3 pers. of the verb, probably also for the ablat. sg., as case-sf.). The sf. *-ta-* forms not only the adj. discussed hereafter, which must probably have had a more general meaning originally (cf. e.g. Sk. stem *sthi-tá-* 'standing,' √*stha* stand, like Gk. στα-τό-; *çak-tá-* 'powerful, mighty,' √*çak* 'be able, capable'), and have been

§ 96. hardened into a regular means of expressing p.p. pass. only at a later period of the Indo-Eur. lang.—but nouns also substantivally used are formed by -*ta*-, e.g. Gk. *κοῖ-το-* (masc. couch, bed), *κοί-τη* (fem. id.), √*κι* (*κεῖ-ται* lies); *φόρ-το-* (masc. load, burden), √*φερ* (*φέρ-ω* bear); *πό-το-* (masc. draught), √*πο* (drink); *ἄρο-το-* (masc. ploughing), stem *ἀρο-* (plough); here belong nomina agentis masc., with stem termination raised to -*τη*-, as *κρι-τή-* (n. *κριτής* judge), √*κρι* (*κρῑ́-νω* sift); *δέκ-τη-* (receiver), √ *δεκ* (Iôn. *δέκομαι* beside *δέχομαι*, receive); *ποιη-τή-* (maker, poet), verb-stem *ποιη-* (*ποιέω* make); *προ--φη-τή-* (prophet), √*φα* (*φη-μί* say); *τοξευ-τή-* (bowman), verb-stem *τοξευ-* (*τοξεύω* shoot arrows), etc., which end in -*τα*, sometimes in nom. case, in Hom.; Latin *noxa* (hurt), i.e. **noc-ta*, √*noc* (nocere hurt); *sec-ta* (mode of action, sect), √*sec* (sequi follow); and in Zend, Scl., and Lith.

As a secondary sf. -*ta*- often occurs, thus in function of forming superl. (v. post. § 106), moreover in Gk. -*τη*- (as primarily), forming nomina agentis, e.g. *τοξό-τη-* (bowman), *τόξο-* (bow, ntr.); *ἱππό-τη-* and -*τα* (horseman), *ἵππο-* (horse); *πολί-τη-* (burgher), *πόλι-* (fem. city), etc.; further often forming fem. abstracts, e.g. Sk. *prthu-tā* (breadth), *prthú-* (broad); Gk. *βιο-τή* (life), *βίο-* (masc. life); Scl. and Goth.

Sf. -*ta*- forms moreover one kind of pres.-stem (§ 165, vii.), e.g. Gk. *τύπ-τε-*, √*τυπ*; often it stands combined with other sff. also added. These combinations will be collected at the end of this section.

Indo-Eur. The sf. -*ta*-, forming the p.p. pass., occurs immediately at the end of the fundamental form of the root in case of stem-verbs, in case of derived verbs at the end of the verb-stem, e.g. *da-ta-* (datus), n. sg. masc. *da-ta-s*, ntr. *da-ta-m*, fem. *da-tā*, √*da* (give); *kru-ta-* (*clutus), √*kru* (hear); *kak-ta-* (coctus) √*kak* (cook); *sādaya-ta-* (fixed, set), stem *sādaya-*, √*sad* (sit), etc.

Sanskrit. Sf. -*tá*-, n. sg. masc. -*tá-s*, ntr. -*tá-m*, fem. -*tā́*,

e.g. *çru-tá-*, √*çru* (hear); *ma-tá-*, √*ma, man* (think); *ǵñā-tá-*, § 96.
√*ǵña* (know); *bhr-tá-*, √*bhar* (bear); *yuk-tá-*, √*yuǵ* (join); *bad-dhá-* for **badh-ta-*, √*badh, bandh* (bind); *lab-dhá-* for **labh-ta-*, √*labh* (get); *viṣṭá-* for **viç-tá-*, √*viç* (enter), etc. The contact of the sf. with consonantal root-terminations brings many sound-laws into play (cf. §§ 58, 59, for details a Sk. special grammar). Several roots have auxil.-vowel *i* (§ 15, f), e.g. *pat-i-tá-*, √*pat* (fall); rarely *ī*, e.g. *grh-ī-tá-*, √*grah, grabh*, (seize, grasp); stems in *-aya-* always have *i*, which is probably a relic of *-ya-*, e.g. *vēdi-tá-*, stem *vēdaya-*, or perhaps from a stem **vēd-ya-* (make known) √*vid* (perceive).

Roots ending in nasals, which did not become amalgamated with the origl. root vowel-termination till a later date, show their shorter primitive form before the sf., e.g. *ga-tá-*, √*ga* (go), which appears mainly as *gam; ta-tá-*, √*ta*, which appears mostly as *tan* (stretch), etc. On the other hand, e.g. *kān-tá-*, with nasal retained and root-vowel lengthened, √*kam* (love).

Before this sf. weakening or loss of root-vowel *a* is very common, e.g. *kr-tá-*, √*kar* (make); *prš-ṭá-*, √*praṅkh* (ask); *sthi-tá-*, √*stha* (stand); *hi-tá-* for **dhi-tá-*, √*dha* (set); *pī-tá-*, √*pa* (drink), etc.; *dattá-* for **dad-ta-* retains pres.-reduplication (cf. 1 pl. pres. *dad-más* damus), √*da* (give). Particulars of this formation would be out of place here.

Greek. Sf. *-τό-*, n. sg. masc. *-τό-ς*, ntr. *-τό-ν*, fem. *-τή*; e.g. *κλυ-τό-*, √*κλυ* (hear); step-formn. of root-vowel remains the same as in pres.-stem, *φευκ-τό-*, 1 sg. pres. *φεύγ-ω*, √*φυγ* (flee), at an earlier period *φυκ-τό-* still existed; *λειπ-τό-*, pres. *λείπ-ω*, √*λιπ* (leave); other pres. formns. however are not retained in these forms; *σπαρ-τό-*, √*σπερ* (sow), pres. *σπείρω*=**σπερ-γω*; *στα-τό-*, √*στα* (stand), pres. *ἵστημι*; *θε-τό-*, √*θε* (set), pres. *τί-θη-μι*; *γνω-τό-*, √*γνο* (know), pres. *γι-γνώ-σκω*; *Fρηκ-τό-*, √*Fρακ* (break), pres. *Fρήγ-νυμι*; *τιμη-τό-*, verb-stem *τιμη-* (honour), pres. *τιμάω*, etc. Acc. to Leo Meyer (Vgl. gr. ii. 318 sqq.) in like compound forms there occurs *-τ-* also, instead of

§ 96. complete -*το*-, e.g. *ἀ-γνώτ-* (n. *ἀγνώς*, gen. *ἀγνῶτ-ος* unknown), cf. *γνω-τό-*; *ἀβλής*, *ἀβλή-τ-* beside *ἀβλη-τό-* (unstruck), and a few similar cases, wherein *τ* follows a long root-vowel.

Latin. Sf. *-tu-*, earlier *-to-*, n. sg. masc. *-tu-s*, earlier *-to-s*, ntr. *-tu-m*, earlier *-to-m*, fem. *-ta*, e.g. *da-to-*, √*da* (give); *sta-to-*, √*sta* (stand); *i-to-*, √*i* (go); *di-ru-to-*, √*ru* (destroy); *in-clu-to-*, √*clu* (hear); but *ex-ū-to-*, √*u* (put on; *ex-u-o* put off), *im-bū-to-*, etc.; *coc-to-*, √*coc* (cook); *rup-to-*, √*rup* (break); *strā-to-*, √*ster*, *stra* (spread); *passo-* for **pas-to-* for **pat-to-*, √*pat* (suffer), etc.; (the sound-laws in cases where final consonants of roots come into contact with *t* of sf. *-to-* are treated of in § 77, 1). With active function, a tolerably common use of this sf., *pō-to-* (drunken), √*po*, origl. *pa; pranso-* for **prand-to-* (having dined), √*prand* (prandēre), etc. These participles are often used substantivally, e.g. stems *dic-to-* (*dic-tu-m* saying), *gnā-to-* (*nā-tus* son), *fac-to-*, *uō-to-*, etc.

Screĭp-to- (cf. Umbr. *screih-to-*) may come from the pres. *screib-o*, *scrĭbo* (write), like *iunc-to-* from *iung-o* (join). The lengthening of vowel in *āc-to-*, *lēc-to-*, *strūc-to-*, *iūnc-to-*, etc., not universally marked in pronunciation (Corssen, Aussprache und Betonung, i. 156, 158, sqq.), is a late-formation in Latin, or perhaps nothing more than a result produced by the influence of grammarians upon the language. In *secū-to-*, √*sequ*, *sec*, origl. *sak*, Sk. *sak*, etc. (follow); *locū-to-*, √*loqu*, origl. *rak* (speak); *ū* has been developed out of the *v* following guttural *k* (§ 71, 1), after the analogy of derived verbs; the origl. **sec-to-* occurs clearly in e.g. *sectari* (Pauli, Geschichte der Lateinischen Verba in *-uo*, Stettin, 1865, p. 17).

Not unfrequently there occurs the auxiliary vowel *i* (§ 43), e.g. in *uom-i-to-*, √*uom* (spue), beside *em-p-to-*, √*em* (buy; for *-p-* v. § 77, g); *gen-i-to-*, √*gen* (produce), 1 sg. pres. *gi-g(e)n-o; amā-to-*, *sopī-to-*, *acū-to-*, from verb-stems *amā-*, *sopī-*, *acu-*, but *mon-i-to-*, *auc-to-*, etc., according to the class of stem-verbs, not **monē-to-*, **augē-to-* (moneo, augeo), yet *dēlē-to-*, *suē-to-*, etc.

The sf. *-ta-* often occurs, as we have already remarked, as the first element of compound suffixes; thus in *-ta-ta-*, forming superl. in Gk. (§ 106); *-ta-ti-* in the Sanskrit (Vēd.) secondary sf. *-tā-ti-* (fem.), in which we have probably to recognize a further formation of the above-mentioned sf. *-ta-*, fem. *-tā*, which is used in a similar function to form abstracts, e.g. *sarvá--tāti-* (totality), st. *sárva-* (all); *devá-tāti-* (godhead), stem *dēvá-* (masc. god); *vasú-tāti-* (wealth), stem *vásu-* (possession), etc. The rarer sf. form *-tā-t-*, e.g. *dēvá-tāt-*=*dēvá-tāti-*; *satyá-tāt-* (truthfulness), stem *satya-* (true), etc., is clearly a shortening of *-tā-ti-*. With regard to sf. *-ti-* we shall see that even by itself it is shortened to *-t-* in Sk., Zend, Gk., and Lat. § 96.

In Greek this *-tāt-* is much used in a similar function in form *-τητ-*, e.g. *νεό-τητ-* (n. sg. *νεότης* fem. youth), stem *νέο-* (new, young); *φιλό-τητ-* (love), *φίλο-* (dear); *βραδύ-τητ-* (slowness), *βραδύ-* (slow); *ἑνό-τητ-* (oneness), stem *ἑν-*; *παντό-τητ-* (universality), stem *παντ-*, etc. Thus here also, as in not a few other cases (e.g. gen. dat. dual.; before sf. *-Fεντ-* § 90), the consonantal stems follow the analogy of the *a*-stems. In Latin the sf. becomes *-tā-ti-*, *-tā-t-*, e.g. *dūri-tāti-* (hardness), *dūro-* (hard; on *i* for *o*, v. § 40); *anxie-tāti-* from *anxio-* (on *ie* for *ii*, v. § 38); *ciui-tāti-*, *ciui-*; *uetus-tāti-*, *uetus*, etc.

Note.—Acc. to Benfey (Or. und Occ. ii. 521 sqq.) Lat. *salūt-* is from **saluot-*, itself a shortening of **saluo-tāt-*, like Zend *haurvat-* from *haurva-tāt-*.

A secondary sf. *-ta-na-* occurs in Sk. e.g. *hyas-tana-* (yesterday's), *hyas* (yesterday), to which Lat. *-tino-* in such forms as *cras-tino-*, *sērō-tino-*, closely corresponds; cf. Iran. *-ta-na-*, Zend *-çaṅh-*, Lith. *-tina-*.

Concerning sf. *-ta-ma-*, forming superl. like *-ta-* and *-ta-ta-*, v. § 108; on *-ta-ra-* used in comp. degree, v. § 105. It may be that the sff. *-tar-*, *-tra-*, which will be handled in the next section, are likewise contracted forms of *-ta-* and *-ra-* combined, for archaic abbreviations of the elements of suffixes are undeniable in some cases.

§ 97. Stems with sff. *-tar-*, *-tra-* ; *-tar-* forms a nomen agentis and fut. part. act.; *-tra-* forms nouns which mostly signify an instrument.

That the nouns in origl. *-tar-* in Indo-Eur. were even at that period employed as pres. and fut. participles, we cannot prove with certainty, because those functions are found only in the Asiatic and S. European divisions of the speech-stem. There was no doubt originally only one formation, whose earliest form has held its ground in those nouns of this kind which are used as words of kinship, i.e. *-tar-* for all genders, n. sg. masc. and fem. *-tar-s*, neut. *-tar-*. This sf. is added immediately to the root, which mostly is raised one step; in case of derived verbs it is added to the verb-stem, e.g. *mā-tar-* (the 'female producer,' mother), √*ma* (produce, bring forth); *pa-tar-* (father), √*pa* (protect, rule); *bhrā-tar-* (brother), √*bhar, bhra* (bear, preserve); *dā-tar-* or perhaps *da-tar* (giver), √*da* (give); probably *su-tar-* (woman), √*su* (produce, bear), whence *sva-sutar-* (woman related, i.e. sister); *gan-tar-* (begetter), √*gan* (beget), etc.

The correspondence between the languages tends to prove that already in early times there existed a kindred form in **-tara-* (for *-tara-* used to form comparative, v. post.), whence came *-tra-*; whilst *-tar-* represents persons, this *-tara-*, *-tra-* was used of things, and hence does not form nomina agentis, but usually indicates the instrument. Formations such as *dak-tra-* (tooth), √*dak* (bite); *gā-tra-* (limb), √*ga* (go); *krau-tra-* (ear), √*kru* (hear), etc., can scarcely have been wanting in the origl.-language.

The origin of the suffix *-tar-*, *-tra-*, is obscure. We conjectured (§ 96), that it is composed of two suffixes *-ta-* and *-ra-*, as *-mana-* from *-ma-* and *-na-*; we might make an equation thus, *-tar-* : **-ta-ra- (tra)* :: *-man-* : *ma-na- (mna)*. As *-mana-*, *-man-*, is raised to *-māna-*, *-mān-*, so also *-tara-*, *-tar-*, is raised in the languages to *-tāra-* (Lat. *-tūro-*), *-tār-* (Lat. *-tōr-*).

Sanskrit. Suffix *-tar-*, n. sg. *-tā* for *-tar-s* (§ 15, d), acc. sg. *-tar-am*, in words expressing kinship, e.g. *pi-tár-* for **pa-tar-* (father), *mā-tár-* (mother), *bhrā-tar-* (brother), etc. The formations of this kind which were felt as nomina agentis are distinguished by a higher step-formation of *-tar-* to *-tār-* (n. sg. masc. *-tā-* for *-tar-s*, but acc. sg. *-tār-am*); this is also shared by *svásar-* (sister), for **sva-star-*, **sva-su-tar-* (literally kinswoman). The suffix *-tar-* belonging to nomina agentis is added to the end of the root. With the exception of medial *a*, the root vowels are raised one step before this suffix, e.g. *dā-tár-* (dator), √*da* (give). The fem. affixes *-ya*, e.g. n. sg. *dā-trī́*, i.e. **da-tryā* (§ 15, c), from **dā-tar-yā;* instead of the primary form of the suffix, which has held its ground in words expressing relationship (*mā-tar-* fem., but may be masc. as well) also in feminines, a further formation has here worked its way in; cf. forms such as *pi-tr-ya-* (fatherly), from *pi-tar-* (father); *kar-tár-*, √*kar* (make); *pak-tár-*, √*paḱ* (cook); *bōddhár-* for **bōdh-tar-* (§ 59, 2), √*budh* (know), etc. Before this suffix, as e.g. in past part. pass. and elsewhere, many roots show an auxiliary vowel *i*, more rarely *ī*, e.g. *ǵan-i-tár-*, √*ǵan* (beget); *grah-ī-tár-*, √*grah* (seize), etc. § 97.

These stems in *-tar-* serve for a periphrastic future, in such a way that the masc. is used for all genders; in pers. 1 and 2 the nominative form of the singular has become stationary (thus passing over likewise into the dual and pl.), and is welded together with the pres. of the verb *as* (be), while the 3rd pers. does not require the verbal form, e.g.

Sing. 1. *dātā́smi* from *dātā́ asmi* (I am [about] to give).
2. *dātā́si* from *dātā́ asi.*
3. *dātā́* (rarely *dātā́sti* from *dātā́ asti).*

Plur. 1. *dātā́smas* from *dātā́* (we might have expected *dātā́ras) smas.*
2. *dātā́stha* from *dātā́ stha.*
3. *dātā́ras.*

§ 97. In the earliest Sanskrit (Vēd.) these forms appear also accentuated on the root, e.g. *dā́-tar-*, etc., wherein we ought perhaps to recognize an earlier system of accentuation, since the rule is for accent and step-formation to go together.

Suffix *-tra-*, almost always neut., n sg. *-tra-m*, rarely fem., n. sg. *-trā*, e.g. *çrṓ-tra-* (ear), √*çru* (hear); *gā́-tra-* (limb), √*ga* (go); *vás-tra-* (garment), √*vas* (clothe); *vak-trā́-* (mouth), √*vaḱ* (speak); *dā́š-ṭra-* masc., and *dā́š-ṭrā* fem., acc. to sound-laws for **dāç-tra-*, *-trā* (tooth), √*daç*, *dāç* (bite), etc. Also with auxil. vowel *i*, e.g. *khan-i-tra-* (shovel), √*khan* (dig), etc. Moreover the root sometimes appears furnished with the stem-termination *a*, as in pres., e.g. *páta-tra-* (wing), √*pat* (fly), pres. stem *páta-* (3 sg. *páta-ti)*; *kṛ́nta-ta-* (plough), √*kart* (split), pres.-stem *krntra-* (3 sg. *krntá-ti)*, etc.

Greek. The suffix original *-tar-* does not serve to express the future-relation; it appears as *-τερ-* in words of kinship, as *-τηρ-*, *-τορ-*, when forming nomina agentis, in the latter of which formations the feminine is distinguished by the affix *-ya-* here also (cf. § 97). 1. Words of kinship, e.g. *πα-τέρ-* (father, acc. *πατέρ-α*), *μη-τέρ-* (mother, acc. *μητέρ-α*); 2. nomina agentis, e.g. *δο-τήρ-* (giver, acc. *δο-τῆρ-α*), also *δω-τήρ*, √*δο* (give); the fem. is formed from unraised suffix *-tar-*, *δό-τειρα*, i.e. **δο-τερ-ya*, f.f. *da-tar-yā*; *σω-τήρ* (saviour), stem *σω*, fem. *σώ-τειρα*, etc. Forms like *γενε-τήρ*, √*γεν* (beget), must probably be held to have stems in original *a* underlying them (cf. Sanskrit). Beside these also is *-τορ-* = origl. *-tar-*, *ῥῆ-τορ-* (speaker, acc. *ῥήτορ-α*), √*ῥε* = *ἐρ* (speak); *Fίσ-τορ-* (*ἴστωρ*, *ἴστωρ* knower, witness), √*Fιδ* (know); *δῶ-τορ-* (*δώτωρ* Hom. Od. = *δωτήρ*), etc.; *φρά-τορ-* (n. pl. *φρά-τορ-ες*), origl. *bhrā-tar-* (brother), has become removed from words of kinship in form as well as in meaning (member of a *φράτρα*). In *-τορο-* we see almost certainly a further formation from *-τορ-*, after the analogy of the *a*-stem, thus in *διάκ-τορο-* (guide, Hom.); *ἀ-λάσ-τορο-* beside *ἀ-λάσ-τορ-* (malignant, avenger), √*λαθ* (forget); a solitary

-τυρ-, -τυρο-, is found in μάρ-τυρ- (gen. μάρτυρος witness), § 97. μάρ-τυρο-, √ originally *smar* (remember).

The feminines in -τρια are distinguished from those in -τειρα only by the loss of the *a* of the suffix original -*tar*-; from -*tar-ya* came -*trya*, i.e. -*tria*, e.g. ποίη-τρια, verbal-stem ποίη- (make). The secondary formation by suffix -*ya*- is generally very common here, as e.g. from stem πα-τέρ- is formed a stem πά-τρ-ιο- (paternal), fem. πα-τρ-ιά (origin, race); σω-τήρ-ιο- (saving), stem σω-τήρ-; these secondary formations intruded into the fem. and supplanted the original stem in -*tar*- with few exceptions.

The feminines in -τρίδ- (n. sg. -τρίς) are either late-formations peculiar to the Greek, formed by means of a later suffix -ιδ-, or (cf. G. Curtius Gk. Etym.[3] p. 583 sqq.) -τριδ- is merely a phonetic variation from *τριγ-, so that here a suffix -*tri*- would have to be presupposed, e.g. αὐλη-τρίδ- (flute-player, fem.), verbal-stem αὐλη-; πα-τρίδ- (fatherland) from stem πα-τέρ-, etc.

The suffix origl. -*tra*- appears as -τρο-, -θρο- (neut.), -τρα, -θρα (fem.); the aspiration is probably caused by the *r*, e.g. νίπ-τρο- (neut. washing-water) for *νιβ-τρο-, √νιβ, original *nig* (retained in νίζω, wash, =*νιγ-γω, § 63, 1); ἄρο-τρο- (neut. plough), from verbal-stem ἀρο- (plough, in ἀρό-ω, ἀρό-σω, ἀρό-σαι), √ἀρ. In ἰᾱ-τρό- (masc. healer), verbal-stem ἰα- (ἰάομαι heal); δαι-τρό- (masc. carver), cf. δαί-ομαι (divide), nomina agentis are formed in -τρο- (cf. -τορο- above). Further βά-θρο- (ntr. base, step), √βα, original *ga* (go); ῥή-τρα (fem. agreement), √ῥε; μάκ-τρα (kneading-trough), √μακ (knead, μάσσω = *μακγω, generally softened into μαγ); φρά-τρα, Iôn. φρή-τρη (clan), √φρα=φερ, origl. *bhra*, *bhar*, cf. φρᾶ-τορ-=origl. *bhrā*--*tar*-; κοιμή-θρα (sleeping-place), verbal-stem κοιμα- (κοιμάω put to rest), etc. The suffixes -τλο-, -θλο-, fem. -τλη-, θλη-, e.g. χύ-τλο- (neut. liquor, fluid), √χυ (pour); θύσ-θλο- (neut. implement for Bacchus-worship), √θυ, the σ appears in other

§ 97. formations also from this root; ἐχέ-τλη (plough-tail), verbal-stem ἐχε- (cf. ἔχε-τε), √ἐχ (have, hold); γενέ-θλη (birth), stem γενε- (cf. γένε-σις, γενέ-σθαι, etc.), √γεν, must be treated as parallel forms of the above.

Latin. Words expressing kinship have suffix *-ter-*, whose *e* is lost in almost all cases; the nomina agentis in *-tor-*, with step-formation of original *-tar-*, like Greek *-τηρ-*; for the periphrasis of the future is used the suffix *-tūro-* from **-tōro-*, f.f. *-tāra-*, raised from original *-tar-* and + suffix *-a-*, as in suffix *-tro-*, f.f. *-tra-*, likewise frequently used. The suffix **-tūro-* occurs as fem. *-tūra* in forming nomina actionis as well. The fem. *-trīc-* is a further formation by means of *-c-*, and perhaps presupposes *-tria-*; a similar further formation is found in *-trī-no-*, *-trī-na-*; cf. with *-tr-ī-c-* such formations as *-ī-uo-*, *-ī-no-*.

1. Words of kinship, e.g. *pa-ter*, *mā-ter*, *frā-ter* (but *sorōr-* from **sosōr-*, and this from **sos-tōr-*, **svas-tār-*, as in Sk. *svá-sar-*, acc. *svá-sār-am)*; 2. nomina agentis, e.g. *uic-tōr-*, √*uic (uinco, uic-tus)*; *censōr-* for **cens-tōr-*, √*cens (censeo)*; *sponsōr-* for **spond-tōr-* (§ 77, b), √*spond* (spondeo); *balnea-tōr-*, verbal-stem **balnea*, which is not used, however; *moni-tōr-*, √*moni-tus* (monere); *da-tōr-*, √*da*, etc.

Suffix *-tāra-*, forming fut. part., e.g. *da-tūro-*, √*da*; *uic-tūro-*, √*uic*, etc.; as a fem., forming nomina actionis, e.g. *sepul-tūra-*, cf. *sepul-tus* (sepelio bury); *ūsūra* (use, interest) for **ūt-tūra* (§ 77, 1, b), cf. *ūt-or* (use); *censūra* for **cens-tūra*, √*cens*, etc.

Suffix *-tro-* (cf. Corssen, Krit. Beitr. 366 sqq.), e.g. in *rōs-tro-* (rostrum beak) for **rōd-tro-* (§ 77, 2), √*rōd* (rōdo gnaw); *claus-tro-* (lock, barrier) for **claud-tro-* (§ 77, 2), √*claud* (claudo shut); *arā-tro-* (plough), verbal-stem *arā-* (plough), √*ar*, etc.; this suffix seldom appears as fem., as in *fulgē-tra-* (Plin. = *fulgor* brightness), verbal-stem *fulgē-* (shine, gleam).

Further formations of this suffix original *-tar-*. 1. Through *-ya-*, esp. *-trio-* and *-tōrio*, e.g. in *pa-tr-io-* from *pa-ter*; *audī-tōr-io-* from *audī-tōr-*; *lēgā-tōr-io-* from *lēgā-tōr-*; *uic-tōr-ia*

from *uic-tōr-*, etc. 2. Through *-īc-*, e.g. *uic-tr-īc-* from *uic-tōr-*, § 97. or rather from an older unraised form of the suffix original *-tar-*, which lost its vowel before *-īc-*; *imperā-tr-īc-* from *imperā-tōr-*; *ex-pul-tr-īc-* likewise from an unused **ex-pultōr-*; *pis-tr-īc-* from *pis-tōr-*, √*pis* (pinso, pistus), etc. 3. Through *-īna*, e.g. *pis-tr-īno-* (pistrinum), *pis-tr-īna* from *pis-tōr-*, √*pis*; *doc-tr-īna* from *doc-tōr-*, √*doc*, etc.

Note.—In some cases at least Lat. *-bro-* appears to be=Gk. *-θρο-* (medial *b* corresponds of course by rule to Gk. *θ*; cf. § 77, 1, c), which, as we saw, arose from *-τρο-*, *-tra-* (cf. Leo Meyer, Vergl. gr. der griech. u. lat. Sprache, ii. 235, 241; Ebel, zeitschr. xiv. 77 sqq.; Kuhn, ib. p. 215 sqq.). If this assumption is well founded, this *-bro-*=f.f. *-tra-* has become mixed in Lat. with *-bro-* = f.f. *-bhra-* (√*bhar* bear; cf. supr. § 89, n. 2), precisely as in Lat. the root original *dha* has become confounded with root original *da* (§ 73, 2). As examples of Lat. *-bro-*=*-tra-* we adduce *crī-bro-* (cribrum sieve), √*kri* (cf. *κρί-νω*, *κρί-σι-ς*)= O.H.G. *hrī-tara*, M.H.G. *rei-ter*, f.f. therefore *krai-tra-*; *tere-bra* (fem. borer), cf. *τέρε-τρο-ν* (id.); *palpe-bra* (eyelid) bes. earlier and more vulgar *palpe-tra*, as in Gk. *φέρε-θρο-ν* bes. *φέρε-τρο-ν*; *tene-brae* (darkness) for **tenes-brae*, **temes-brae* (§ 77, 1, a), **temes-θrae*, =Sk. *támis-rā* (dark) for **tamis-trā*=O.H.G. *dins-tar*, M.H.G. *dims-ter*, *dins-ter* (Kuhn, Zeitschr. xv. 238), f.f. *tams-tra-* from *tamas-tra-*. The mainstay of these explanations lies in *consobrīno-* (consobrīnus cousin on mother's side), which is explained as from **sosbrīno-*, **sosθrīno-*, **so-str-īno-*, from stem **so-stor-*= original *sva-star-* (sister). So that in consobrinus the *t* of *svastar-* would be retained, which is lost in *soror*=**sosor*. Corss. (Krit. Nachtr. 186 sqq.), however, does not allow Lat. *-bro-*= *-tro-*; he explains *-sobrīno-* from **-sor-brī-no-* (§ 77, 1, a), and this from **soror-brī-no-* (§ 77, 2). This view is supported by the Keltic, cf. *siur*, which points to an Italo-Keltic form **svasar-* without *t*. This difficult question has been handled at length by Ascoli, Studj. crit. ii. p. 33 sqq.; he pronounces in favour of Lat. *-bro-*=original *-tra-*. Cf. § 89, Lat. n.

XVI. Stems with suffix *-ti-*. § 98.

The suffix *-ti-* is often used to form verbal-substantives, which serve in several languages (Sanskrit, Zend, Sclavonian, Lithuanian) as infinitives and gerundives in certain cases. The

§ 98. suffix -*ti*- has besides—like suffix -*a*-—the function of forming nomina agentis, but is more rarely so employed. The suffix is at home in all Indo-European languages, and was therefore already in existence in the original-language. It occurs also as a secondary suffix, cf. *tā-ti-* (§ 90), *tū-ti-* (§ 99) and the numeral (§ 109 sqq.).

Indo-European original-language. From each verbal-stem might perhaps have been formed a nomen in -*ti*-, e.g. *ma-ti-* (thought), √*ma*; *bhu-ti-* (φύ-σι-ς), √*bhu* (become, be); *kak-ti-* (coc-ti-o), √*kak* (cook); *mar-ti-* (death), √*mar* (die), etc.

In the function of a nomen agentis a certain example in the original-language is found in *pa-ti-* (lord), √*pa* (protect).

Sanskrit. The suffix -*ti*- forms:—

1. Nomina actionis feminina, e.g. *má-ti-* (meaning, thought), √*ma* (*man* think); *sthi-ti-* (stand), √*stha* (stand); *çrú-ti-* (hearing), √*çru*; *bhū́-ti-* (being), √*bhu* (be); *pák-ti-* (coctio), √*pak* (cook); *úk-ti-* (speech), √*vaḱ* (speak); *yúk-ti-* (iunctio), √*yuǵ* (join), etc.

Infinitive functions are found in the dative of these nomina actionis in -*ti*-, thus *yúk-tayē*, etc.

2. Nomina agentis, e.g. *pá-ti-* (masc. lord), √*pa* (protect); *ǵńā́-ti-* (masc. kinsman), √*ǵńa* from *ǵan* (gignere).

A shortening of this -*ti*- (cf. suffix -*tā-t-*=-*tā-ti*- § 96) is found in suffix -*t*-, which occurs especially in those roots which terminate in a short vowel, e.g. *mahī-kši-t-* (ruling the land), √*kši* (rule); *sarva-ǵi-t-* (conquering all), √*ǵi* (conquer); likewise -*sru-t-* (flowing), √*sru*; -*kr-t-* (making, fashioning), √*kar* (make), etc.

In gerundive use we find a shortened instrumental from nomina actionis in -*ti*-, i.e. -*ty-a* (from -*ty-ā*, v. post. Declension), which originally had probably a wider employment, but is confined in the actual state of the language to roots in *i*, *u*, and *ar*, and is moreover only used where prepositions have become welded on before them, e.g. *sā́-çrú-tya*, √*çru* (hear);

vi-ǵi-tya, √*ǵi* (conquer). If the root end in other sounds, the *t* of suffix -*ti*- is lost, so that -*ya* only remains; the cause of this loss may possibly be seen in the frequent position of *t* after consonants, and the weakened termination of the word due to the prefixed, originally adverbial, elements (the prepositions). A similar unusual loss of consonants in the case of person-terminations (v. post. in loco). E.g. *ā-dā́-ya* from *ā-da* (take), √*da* (give); *ni-viç-ya* from *ni-viç* (settle down), √*viç* (go in), etc. Stems in -*aya*- lose this first *a* of the suffix, e.g. *pra-bōdh-ya* from stem *pra-bōdhaya*- (awaken, remind). Details of this formation would be out of place here. § 98.

In the earlier language this formation of the gerundive occurs also in case of uncompounded verbal-stems; on the other hand there are traces of the more complete -*tya*-, even after consonantal root-terminations (cf. post. -*tvā* used with uncompounded verbal-stems).

Perhaps -*tya*-, fem. -*tyā*, is a further formation of the suffix -*ti*-, e.g. in *kr-tyā́* (deed, doing), √*kar* (make); *i-tyā́* (going), √*i* (go); *ǵi-tyā́* (gain, victory), √*ǵi* (conquer); *ha-tyā́* (slaying), √*ha*, *han* (kill), etc.

Greek. The suffix -τι-, regularly -σι- (§ 68, 1, c), which has arisen from the earlier -τι- (preserved in Dôric), is frequently used, and forms nomina actionis fem. from verbal-stems, e.g. μῆ-τι- (wile), √*ma* (think); φά-τι- (speech, report), √φα (say), beside φά-σι- (speech, saying); φύ-σι- (nature), √φυ (be, grow); πέψι-, i.e. *πεπ-σι- from earlier *πεπ-τι- (coctio), √πεπ (cook); ζεῦξι-, i.e. *ζευγ-σι- (joining), √ζυγ (join); γνῶ-σι- (knowing), √γνο, etc.

Nomen agentis, e.g. πό-σι- (lord)=Sk. and original *pá-ti*-, √*pa*; μάν-τι- (seer), √*man* (think).

τ only has remained in ὠμο-βρῶ-τ- (raw-eating), √βρο, βορ (βι-βρώ-σκω eat, βορ-ά food), and perhaps in a few others.

-σια fem. is a further formation through combination of *a* with -σι-=-τι-, e.g. θυ-σία (sacrifice), √θυ (sacrifice); δοκιμα-σία

§ 98. (test), verbal-stem δοκιμαδ- (δοκιμάζω for *δοκιμαδγω test), etc. Cf. Sk. -*tyā*.

Latin. The primary suffix -*ti*- has mostly been shortened to -*t*- in consequence of the confusion of the *i*-forms and the consonantal stems, e.g. *dō-ti-* (dos dower), √*da* (give); *men-ti-* (mens mind), √*men* (think, cf. *memin-i*); *mor-ti-* (mors death), √*mor* (mori); the *i* is retained e.g. in *messi-*, i.e. **met-ti-* (harvest, § 77, 1, b), √*met* (metere); *ues-ti-* (cloak), root original *vas* (clothe).

Suffix -*ti*- appears as forming nomina agentis here too, in *po-ti-*, nom. sg. *poti-s* (powerful, capable), which however serves for all genders, Sk. and origl. *pá-ti-*, Gk. πό-σι-; cf. the compound of this *poti-*, *com-po-ti-* (compos), *im-po-ti-* (impos); further in *super-sti-t-* (superstes remaining over), √*sta*; *sacer--dō-t-* (sacerdos), root probably original *dha* (set, do), which is confused in Lat. with *da* (give; thus 'sacrificium perficiens' or 'dans'; cf. Benfey in Kuhn's Zeitschr. ix. p. 106); *com-i-t-* (comes, mate), √*i* (go), etc. -*ti*- is kept whole in *uec-ti-* (masc. lever), which can scarcely have been derived from any other root except √*ueh* (originally carry), and originally probably meant something like *uector* (bearer, carrier).

A further formation of -*ti*- is -*tio*- neut., -*tia* fem., both generally secondary; thus here an *o*, origl. *a*, has been added to the earlier suffix, cf. Sk. -*tyā*; e.g. stem *ini-tio-* (beginning), primary formation from √*i* (go); but *serui-tio-* (slavery) from stem *seruo-* (slave); *iusti-tia* (justice) from *iusto-* (just); *duri-tia* and *duri-tiē-*, stem *duro-* (§ 38; on weakening of final -*o* to -*i*, § 40), etc.

For the formation of abstracts the suffix -*ti*- has regularly given way to -*tiōn-*, earlier prob. -*tiōni-*, e.g. *coc-tiōn-*, *collāsiōn-* from **lād-tiōn-* (§ 77, 1, b; cf. *collād-o*), *sta-tiōn-*, *nā-tiōn-*, etc. Note also the diminutives in -*tiun-cula* formed from these stems, e.g. *ora-tiun-cula*, *sessiuncula*, i.e. **sed-tiun-cula*.

The suffix -*tiōn-*, -*tiōni-*, is probably (Leo Meyer, Or. und Occ. ii. p. 586) a further formation from -*tyā-*, Lat. -*tiō-*, -*tia*

(v. supr.), by means of suffix *-ni-*, cf. *-tā-ti-* from *-ta-*; the sff. *-na-*, *-ni-*, often indeed run parallel to *-ta-*, *-ti-*. As *-tā-ti-* was shortened to *-tā-t-*, so was *-tiā-ni-* to *-tiō-n-*; indeed in Latin the consonantal-stems are mostly like the *i*-stems. § 98.

XVII. Stems with suffix *-tu-* and kindred suffixes.

Stems in *-tu-* serve as verbal-substantives in Sk., Lat., Sclav., Lith.

Indo-European original-language. The suffix is undoubtedly original, and must probably have been in use in the case of each verb, as Sk., Lat., Lithuano-Sclav. testify to this employment, e.g. *da-tu-* or *dā-tu-*, √*da* (give); *bhar-tu-*, √*bhar* (bear), etc. These stems in *-tu-* were nomina actionis capable of complete declension. § 99.

Sanskrit. The suffix *-tu-* forms nomina actionis, with step-raising of root-vowel *u*, *i*, medially and finally, whilst *a* is rarely raised except when it is final; after the auxil. vowel *i* was often introduced before this suffix. These stems serve in ordinary Sanskrit in the accusative, but in the older language of the Vēdas, in the dat. and gen. sing. also, as Infinitive, e.g. *dā́-tu-m*, √*da* (give); *sthā́-tu-m*, √*stha* (stand); *ǵé-tu-m*, √*ǵi* (conquer); *çráy-i-tu-m*, √*çri* (enter); *stṓ-tu-m*, √*stu* (praise); *bháv-i-tu-m*, √*bhu* (become, be); *vét-tu-m*, √*vid* (see); *yṓk-tu-m*, √*yuǵ* (join): *pák-tu-m*, √*paḱ* (cook); *kár-tu-m*, √*kar* (make); *ḱṓrayi-tu-m*, verbal-stem *ḱōráya-* (steal), etc.

Vēdic dat.; e.g. *dā́-tav-ē*, *é-tav-ē*, *kár-tav-ē*, etc.; there is found a dative form also in *āi*, e.g. *yā́-tav-āi* (with two accents, a very exceptional circumstance), from √*ya* (go); *kár-tav-āi*, √*kar* (make); *yám-i-tav-āi*, √*yam* (subdue); moreover the gen. occurs, e.g. *sthā́-tō-s*, √*stha*; *é-tō-s*, √*i* (go); *ḱar-i-tōs*, √*ḱar* (go).

As ordinary nomina actionis there are in use e.g. *r-tú* (masc. definite time, season), √*ar* (go); *gā-tú-* (masc. going, place), √*ga* (go); *gā-tú-* (masc. singing), √*ga* (sing; 3 sg. *gā́-yati*); *ǵan-tú-* (masc. creation, being), √*ǵan* (beget).

§ 99. From this abstract in -*tu*- a participium necessitatis is formed by means of -*ya*-, v. supr. § 89.

-*tu*- rarely forms nomina agentis, e.g. *yā-tú*- (wanderer), √*ya* (go); *bhā-tú* (sun), √*bha* (shine), etc.

Suffix -*tva*-, near akin to suffix -*tu*-, and perhaps sprung from it; cf. -*tya*- beside -*ti*-, -*tra*- beside -*tar*-, -*anta*- beside -*ant*-.

A gerundive in -*tvā́* (used in case of verbal-stems not compounded with prepositions) shows by its accent, and the weakening of the root-vowel, that it is formed from -*tva*-, not -*tu*-; it is an instrumental of a stem-form in -*tva*-. In the Vēd. there appears also -*tvī́*, which must therefore be taken to stand for **tvyā* (§ 15, c), and this *-*tvyā* most prob. (Benfey, Kl. gr. § 389) by loss of *a* from *-*tvayā*, **tva-y-ā* is however likewise only another form of the instrum. sing., i.e. one formed through *y* according to the frequent stem-extension. In the Vēd. also occurs the dat. from -*tva*-, viz. -*tvā́ya*. Exx. *sthi-tvā́*, √*stha* (stand; cf. infin. *sthā́-tu-m)*; *dat-tvā́*, from present-stem *dad*, √*da* (give; cf. infin. *dā́-tu-m)*; *ǵi-tvā́*, √*ǵi* (conquer, infin. *ǵḗ-tu-m)*; *bhū-tvā́*, √*bhu* (be, infin. *bháv-i-tu-m)*; *uk-tvā́*, √*vaḱ* (speak; infin. *vák-tu-m)*; *kr-tvā́*, √*kar* (make; infin. *kár-tu-m)*; *pak-tvā́*, √*paḱ* (cook); the auxil. vowel *i* occurs, e.g. in *vid-i-tvā́* √*vid* (know; inf. *vḗt-tu-m)*; *likh-i-tvā́*, or *lēkh-i-tvā́*, √*likh* (scratch, write); *ḱōrayi-tvā*, verbal-stem *ḱōraya*- (steal), etc.

Vēdic forms in -*tvī* are found in e.g. *kr-tvī́*, √*kar* (make); Vēd. dat. e.g. *ga-tvā́ya*, √*ga* (go); *dat-tvā́ya* (cf. supr. *dat-tvā́)*, √*da* (give); *kr-tvā́ya*, √*kar* (make), etc.

Suffix -*tva*- appears also in the function of forming a participium necessitatis (Benfey, Volst. gr. § 904; also in Böhtlingk and Roth's Dictionary), e.g. *kár-tva*- (to be made; neut. work to do, task), √*kar* (make); *ǵḗ-tva*- (to be gained, captured), √*ǵi* (conquer); *vák-tva*-, √*vaḱ* (speak); *snā́-tva*-, √*sna* (bathe), etc.

The suffix -*tvá*- (neut., n. sg. -*tvá-m*) is very frequent as secondary suffix, forming abstracts, e.g. *nag-na-tvá*- (nakedness)

from *nagná-* (naked); *pati-tvá-* (wedlock), from *páti* (lord, husband); *panĭka-tvá-* (πεντάς) from *panĭkan-* (five); *bahu-tvá-* (plurality) from *bahú-* (many), etc. § 99.

In Vēd. is also found *-tva-ná-* (neut.), a further formation by means of suffix *-na-*, in a like employment, e.g. *sakhi-tvaná-* (friendship) from *sákhi-* (friend); *vasu-tvaná* (wealth), stem *vasu-* (id.), etc.

Also suffix *-tvan-* occurs in stems which serve as adjectival nomina agentis, e.g. *kŕ-tvan-* (causing, effective, active), √*kar* (make); another stem, whose f.f. is *kar-tva-rya-*, serves as fem., nom. sing. *kŕ-tvarī;* both stems occur side by side in *ǵi-tvan-*, *ǵi-tvara-*, fem. *ǵi-tvarī*, i.e. **ǵi-tvaryā* (victorious), √*ǵi* (conquer); *i-tvan-*, *i-tvara-*, fem. *i-tvarī* (going), √*i* (go).

Greek. Nomina actionis fem. like *βρω-τύ-* (food), √*βρο* (cf. *βρω-τός*, *βρῶ-μα*, *βι-βρώ-σκω*, *βρώ-σομαι*); *βοη-τύ-* (fem. crying), verbal-stem *βοα-*, *βοη-* (*βοάω*, *βοήσομαι* cry); *ἐδη-τύ-* (food), √*ἐδ* (eat), originally from a stem *ἐδε-*, which also occurs elsewhere; *γελασ-τύ-* (laughter), stem *γελας-* (cf. *γελασ-τός*, *ἐγέλασ-σα*); *Fάσ-τυ* (city), root original *vas* (dwell), etc.

-σύ-νη stands for **-τυνη* (like *σύ* for *τύ*; cf. § 68, 1, c) as a secondary suffix, cf. Vēd. *-tva-na-*, Zend *-thwa-na-*, e.g. *δικαιο-σύνη* (justice) from *δίκαιο-* (just); *μνημο-σύνη* (memory), stem *μνῆμον-* (n. sg. masc. *μνήμων* mindful), which has lost its final *n* before suffix *-συνη*, as occurs in other cases also, etc.

Latin. The suffix *-tu-* is a very favourite one, and serves regularly to form a nomen actionis (masc.), which is called supine in acc. and abl. sg., e.g. *stă-tu-*, n. sg. *sta-tu-s* (standing), acc. as supine *sta-tu-m*, abl. *sta-tū*, √*sta* (stare, sistere); *i-tu-*, √*i* (go); *dic-tu-* √*dic* (say); *uic-tu-* (as subst. victuals), √*uiu*, *uig* (uīuo live); *tac-tu-* (subst. touch), √*tag* (tangō touch); *cur-su-* for **cur-tu-* (subst. course), √*cur* (curro run); *aes-tu-* for **aed-tu-* (heat, tide), root original *idh* (burn); *ūsu-* for **ūt-tu-* (as subst. use), cf. *ūt-or* (use); *gressu-* for **gred-tu-* (as subst. going, step), √*grad*, *gred* (gradior step); *cāsu-* for

§ 99. **cad-tu*- (as subst. fall), √*cad* (cado fall), etc. Sound-laws of combination of *t* with other consonants are stated § 77, 1, b, 2. *apparā-tu*-, *magistrā-tu*-, *son-i-tu*-, *audī-tu*-, etc., are referred to derived verbs, which are moreover partly not in use.

Suffix -*tva*- is rare, e.g. *mor-tuo*- (dead), √*mor* (mori die); *mu-tuo*- (borrowed, interchanged), probably from a √*mi* (exchange), therefore for **moi-tuo*-, which may be traced in other languages (e.g. Old Bulgarian *mě-na* change, Lith. *maí-na-s* exchange); *sta-tua* (fem. statue), √*sta* (stand); *fā-tuo*- (foretelling), √*fa* (fari utter).

As a secondary suffix, in formation of abstracts is found not -*tu*-, but -*tū-ti*- and -*tū-don*-, -*tū-din*-, further formation from -*tu*- (the latter is obscure in its second element), both fem., e.g. *serui-tūti*- (fem. slavery), stem *seruo*- (slave), gen. pl. *serui-tūti-um* (Plaut.); *senec-tūti*- (old age), stem *senec*- (senex old man); *iuuen-tūti*- (young age), stem *iuuen*- (earlier than *iuueni-s* youth, cf. Sk. stem *yuvan-*); *uir-tūti*- (manhood, valour), probably from **uiri-tūti*-, stem *uiro*- (uir man). Concerning this suffix cf. Karl Walter, Zeitschr. x. 159. -*tūdin*- is more common, e.g. *alti-tūdo* (height), *alto*- (high); *turpi-tūdo* (loathsomeness, ugliness), stem *turpi*- (hateful, loathsome); *consuētūdo* for **consuēti-tūdo* (§ 77; wont), stem *consuēto*- (wont), etc.

§ 100. XVIII. Stems with suffix -*dhi*-.

Not vouched for except in Aryan and probably in Greek; it is therefore doubtful whether it can be ascribed to a date so early as that of the original-language.

Sanskrit. In the earliest period of the language only a dat. fem. (v. post. Cases) of the suffix -*dhi*-, -*adhi*-, i.e. -*dhyāi*, -*adhyāi*, is added to the verbal-stem of the present; where this ends in *a*, -*dhyāi* only is added, in the other cases -*adhyāi*; e.g. *yáǵa-dhyāi*, pres.-stem *yaǵa*-, √*yaǵ* (sacrifice); *sáha-dhyāi*, pres.-stem *sáha*-, √*sah* (subdue, endure); *píba-dhyāi*, pres.-stem *píba*-, √*pa* (drink); *mādayá-dhyāi*, verbal- and present-stem *mādáya*- (cheer), √*mad* (rejoice); *prṇá-dhyāi*, present-stem *prṇá*-, √*par*

(fill); *duh-ádhyāi*, present-stem *duh-* (3 sg. med. *dug-dhé* for **duh-tē)*, √*duh* (milk); *çay-ádhyāi*, present-stem *çē-*, *çay-* (3 sg. med. *çé-tē)*, √*çi* (lie, rest); *vāvrdh-ádhyāi*, intensive-stem *vāvrdh-*, √*vardh* (wax), etc. § 100.

The suffix appears added to the aorist-stem in *ǵará-dhyāi*, cf. 3 sg. aor. *á-ǵara-t*, √*ǵar* (become rotten, grow old; 3 sg. pres. *ǵírya-ti, ǵrṇá-ti)*; *huvá-dhyāi*, aorist-stem *huva-* (present-stem Vēd. *hava-)*, √*hu* (cry); probably also *gamádhyāi*, aorist-stem *gama- (á-gama-t*, present-stem *gáčča-*, √*ga, gam* (go).

These forms serve as infinitives.

Greek. *-σθαι* corresponds to this *-dhyāi;* it is, however, difficult to decide whether the *s* has here been tacked on at the beginning, or whether it has been lost in Aryan, in which case *-sdhyāi* would be the general fundamental form; the *y* is lost, as frequently, in Greek. It is not unlikely that the *σ* in *-σθαι* owes its origin to the analogy of the medial forms in *σθ* (*-σθε, -σθον, -σθην, -σθων*); besides *σ* is a very favourite sound before dentals in Greek. Also as regards the final *αι*, which does not appear elsewhere in Gk. as the dative suffix of *i*-stems, we may fall back on the analogy of the infinitive *-εναι, -μεναι*. This form serves for the med. In Greek *-σθαι* only appears as a suffix, not *-εσθαι* (cf. the perfect), as in Sk. *-adhyāi*. This *-σθαι* is added to the different tense-stems; e.g. pres. *φέρε-σθαι* = Sk. *bhára-dhyāi; τίθε-σθαι, δίδο-σθαι*, aor. *θέ-σθαι, δό-σθαι;* fut. *δώσε--σθαι*, Sk. **dāsya-dhyāi;* perf. *λελεῖφ-θαι* for **λελειπ-σθαι*, f.f. **riraik-dhyāi*, etc.

XIX. Stems with suffix *-ant-*, *-nt-*. § 101.

The suffix *-ant-*, when added to vowel-stems *-nt-*, forms active participles from the present-stems, and therefore also from the stems of the future (which is formed by means of a present-form of √*as*), and of the aorist. The suffix *-ant-*, *-nt-*, occurs in all Indo-European languages.

Indo-European original-language. Pres. *as-ant-*, pres.-stem and √*as* (be); *bhara-nt-*, pres.-stem *bhara-*, √*bhar*

§ 101. (bear); *starna-nt-*, pres.-stem *star-na-*, √*star* (strew, sternere), etc.; future *dāsya-nt-*, future-stem *dā-sya-*, √*da* (give); simple aorist *vavaka-nt-*, aorist-stem *vavaka-* √*vak* (speak); compound aorist *diksa-nt-*, aorist-stem *diksa-*, √*dik* (show), etc. These stems served originally for all genders.

Sanskrit. *-ant-* is added also to the pres.-stem in *-nu-*(*-u*), whilst to other vowel-stems *-nt-* is added. The formation from aorist-stems is unknown except to the earliest language. Reduplicated-stems lose the *n* of the suffix, and thus end in *-at-*, *-t-*. In fem., as frequently, a stem further formed by *-ya-* is used, and this *-ya-*—in fem. therefore *-yā-*—is not seldom contracted to *ī* (cf. § 15, c).

Examples: *ad-ánt-*, root and present-stem *ad-* (eat); *s-ant-*, root and present-stem *as-*, the initial *a* is lost also in other forms of this root; *ḱinv-ánt-*, √*ḱi* (gather), present-stem *ḱinú-*; *tudá-nt-*, √*tud* (strike), present-stem *tudá-*; *náhya-nt-*, √*nah* (tie), present-stem *náhya-*; *yuná-nt-*, √*yu* (join), present-stem *yuná-*; but *dádha-t-*, √*dha-* (set), present-stem *dádha-*, etc. The *n* which is lost in most cases never appears at all in neut., e.g. *ad-át*, etc.; fem. *ad-atī́*, *s-atī́*, *ḱinv-atī́*, *tudá-ntī* or *tuda-tī́*, *náhya-ntī*, etc.

Future *-syá-nt-*, neut. *-syá-t-*, fem. *-syá-ntī* or *-sya-tī́*; e.g. *karišyá-nt-*, fem. *karišyá-ntī* or *karišya-tī́*, √*kar* (make), future-stem *karišyá-*, i.e. √*kar*+auxil.-vowel *i* (§ 15, f) and present-stem in *-ya-* of √*as* (be).

Examples of 2 aor. are (acc. to Benfey) e.g. *vrdhá-nt-*, √*vardh* (wax), aor.-stem *vrdha-*; *sanišá-nt-*, √*san* (uphold, love), aor.-stem *saniša-*, i.e. √*san*, aux.-vowel *i* and past tense of √*as*.

In *nandaya-ntá-*, verbal-stem *nandaya-*, al. lect. *nanda-ntá-*, present-stem *nanda-*, √*nand* (rejoice); *ǵaya-ntá* (nom. propr. and in other meanings), present-stem *ǵaya-*, √*ǵi* (conquer, capture), is probably a further formation of this suffix by means of *a*; the same holds good of *dánta-* beside *dant-* (tooth; yet probably from √*da* 'cut,' 'part,' not from √*ad* 'eat'), and

of *raǵatá* (white, neut. silver), cf. *argento-*, √*raǵ*, f.f. *rag, arg* (gleam). § 101.

Greek. *-οντ-* and *-ντ-*; the *ν* is here fixed, and never lost; fem. **-οντya, *-ντya*, which in obedience to sound-laws becomes **-ονσα, -ουσα, -σα*, with compensatory lengthening of the preceding vowel; e.g. *ἐόντ-* (later *ὄντ-*), i.e. **ἐσ-οντ-*, fem. *ἐοῦσα*= **ἐσ-οντ-ya*, √*ἐς* (be), present-stem *ἐσ-*; *φέρο-ντ-*, fem. *φέρο-υσα* from **φερο-νσα, *φερο-ντya*, √*φερ* (bear), present-stem *φερο-, φερε-*; *τιθέ-ντ-*, √*θε* (set), present-stem *τίθε-*; *διδό-ντ-*, √*δο* (give), present-stem *δίδο-*; *ἱστά-ντ-*, √*στα* (stand), present-stem *ἵστα-*; *δεικνύ-ντ-*, √*δικ* (show), present-stem *δείκνυ-*, etc.

Likewise in the future, e.g. *λῦσο-ντ-*, √*λυ* (loosen); future-stem *λῦσο-*, etc.

Simple aorist, e.g. *θέ-ντ-*, root and aor.-stem *θε-*, (set); *δό-ντ-*, root and aorist-stem *δο-* (give); *στά-ντ-* root and aorist-stem *στα-* (stand); *φυγό-ντ-*, √*φυγ* (flee), aorist-stem *φυγο-, φυγε-*, etc.

Compound aorist, e.g. *λῦσα-ντ-* √*λυ*, aor.-stem *λῦσα-*, etc.

The further formation in *-ya* which occurs in fem., appears also in the noun subst. *γερουσία* (senate)=**γεροντ-ια*, from stem *γέροντ-* (v. sqq.).

These formations have sometimes no corresponding verbs extant, e.g. *γέρ-οντ-* (old), √*γερ*, Sk. *ǵar*, original *gar* (grow old); *ἑκ-όντ-*(willing), √*ἑκ*, Sk. *vaç*, original *vak* (will); *ἄκ-οντ-* (masc. dart), √*ἀκ* (be sharp), cf. *ἀκ-ή, ἀκ-ωκ-ή, ἀκ-μή* (point); *ὀ-δόντ-* (tooth)=Sk. *dant-*.

Latin. *-ent-*, earlier **-ont-*, *-unt-*, but mostly *-nt-*, because almost all present-stems in Latin end in vowels. The same stem serves for all genders; e.g. *(prae)s-ent-* (present) for **-es-ent*, root and present-stem *es; i-ent-, -e-unt-*, i.e. **e-ont-*, √*i* (go), present-stem *ei-; *uol-ont, uol-unt-*, present-stem and √*uol (uol-t* he wills), is retained in *uolunt-arius* beside the ordinary *uol-ent-; uehe-nt-*, √*ueh* (carry), present-stem *uehe-*, etc. Like all consonantal stems, these also in most cases revert

§ 101. to the analogy of the *i*-stems *(uehentē-s, uehenti-bus*, etc.). The further stem-form in *-ya-*, found in Sk., Zend and Gk. as fem., and possessing a yet wider range in Sclav. and Lith., is found substantively used in Latin, e.g. *silent-iu-m, sapient-ia, licent-ia, abundant-ia, lubent-ia, prudent-ia, Constant-iu-s, Fulgent-iu-s, Florent-ia, Leuces-io-s*=**Leucent-io-s* (present **leuco*, √*luc*, v. § 36), *Prudent-iu-s*, etc. No verbs are found parallel to such formations as *frequent-, recent-, petulant-, dent-*=Sk. *dant-* (tooth). Here belongs also *parent-*, as the aorist, to which its form and function point us (cf. § 36), is no longer extant (cf. *parient-* from the present stem).

The further formation by means of suffix *-a-*, Lat. *-o-*, is seen in *argent-o-* (neut. silver)=Sk. *raga(n)tá-; unguento-* (neut. ointment), cf. *unguent-* part., from present *ungui-t, ungi-t* (he anoints); *fluento-* (neut. stream), beside participle *fluent-*, present *flui-t* (flows).

§ 102. XX. Stems with suffix *-as-*.

Stems in origl. *-as-*, common to all Indo-European languages, serve mostly as neutral nomina actionis, more rarely as nomina agentis.

This suffix forms Infinitives in Sanskrit and Latin.

Indo-European original-language. e.g. *gan-as* (genus), √*gan* (beget); *ap-as* (opus), √*ap* (do); *man-as* (mind), √*man* (think); *nabh-as* (cloud, sky), √*nabh; vak-as* (voice), √*vak* (speak); *krav-as* (utterance, word), √*kru* (hear), etc.

Sanskrit. Substantives in *-as-*, before which root-vowels *i* and *u* are raised a step, e.g. *ǵán-as* (genus), √*ǵan* (beget); *mán-as* (mind), √*man* (think); *sád-as* (seat), √*sad* (sit); *vák-as* (speech), √*vaḱ* (speak); *vā́s-as* (garment), √*vas* (clothe); *ḱḗt-as* (mind), √*ḱit* (think); *çráv-as* (ear), √*çru* (hear); *áp-as* (work), √*ap*, etc.

These substantives are mostly neut., like the above, but there occur also nomina agentis, e.g. *uš-ás-* (fem. dawn), √*uš* (burn); this stem had in the earlier language step-formation of the

suffix besides, e.g. acc. sg. *uš-ás-am* (the instr. pl. *ušád-bhis* arises from another stem of the same meaning, *ušat-*, *ušant-*; § 101). In the earliest Sanskrit adjectives of this form also occur (nomina agentis), e.g. *tar-ás-* (quick) beside *tár-as* (neut. quick advance), √*tar* (arrive at); *ap-ás-* (active) beside *áp-as* (work), etc. This formation is founded on the present-stems of verbs; if they end in *a*, *-s-* only is added for *-as-*, i.e. the final *a* of the present-stem serves at the same time for the initial of the suffix (cf. the formation of pres. participle act., the 3 pl. pres., etc.); present-stems which do not end in *a* retain *-as-*. This form in dat. is used as infinitive, e.g. *ǵīvá-sē* from pres.-stem *ǵī́va-*, 3 sg. pres. *ǵī́va-ti*, √*ǵīv* (live); *ḱára-sē*, 3 sg. pres. *ḱára-ti*, √*ḱar* (go); *dhruvá-sē*, 3 sg. pres. *dhruvá-ti*, √*dhru* (be firm); *ḱákšas* (lustre, glance, eye), dative=infinitive *ḱákšas-ē*, pres.-stem *ḱákša-*, √*ḱakš* (see); *pušyás-e*, 3 sg. pres. *púšya-ti*, √*puš* (nourish; but in the pres. formation adduced, 'thrive'); *rṅǵás-ē*, pres.-stem *ŕṅǵa-*, √*arǵ* (strive), etc.; but *áy-as-ē*, pres.-stem *ai-*, 3 sg. *ḗti* for **ai-ti*, √*i* (go). § 102.

Greek. *μέν-εσ-*, *μέν-ος* (mind, bravery, anger), √*μεν*, origl. *man*; *γέν-εσ-*, *-ος* (race), √*γεν*, original *gan* (beget); *Fέπ-εσ-*, *ος-* (word), √*Fεπ*, original *vak* (speak); *ἕδ-εσ-*, *-ος* (seat), √*ἑδ*, original *sad* (sit); *κλέF-εσ-*, *-ος* (sound, glory), √*κλυ* original *kru* (hear); *πάθ-εσ-*, *-ος* (suffering), √*παθ* (*ἔ-παθ-ον* suffer); *μῆκ-εσ-*, *-ος* (length), √*μακ* (in *μακ-ρό-* long); *ἔρευθ-εσ-*, *-ος* (redness), √*ἐρυθ* (*ἐρυθ-ρό-* red), original *rudh* (be red), etc.

The Sanskrit and Zend stem *uš-as-*, *uš-ās-* (dawn), corresponds in like function, however, with the raised stem of the Gk. stem f.f. *aus-ōs-* (fem.), Lesb. Aiol. n. sg. *αὔως*, with regular loss of *s*, Dôr. *ἀώς*, Ep. *ἠώς* from **ἀF-ως*, *αὔ-ως*, and this from **αὐσ-ως*, with lengthened *a* after the loss of the following sound, Att. *ἑώς* without this lengthening, and with the asp. prefixed to the beginning (§ 65, 2).

The suffix *-ές-* forms adjectives (nomina agentis), e.g. *ψευδές-*, n. sg. masc. fem. *ψευδής*, neut. *ψευδές* (untrue), these adjectives

§ 102. appear especially as the second member of compounds, e.g. *ὀξυ-δερκ-έσ-* (sharp-sighted), √*δερκ*, original *dark* (*δέρκ-ομαι*, *δέ-δορκ-α* see); *ἀ-ληθέσ-* (not hidden, true) beside *λῆθεσ-*, *-ος* (forgetfulness), √*λαθ* (*ἔ-λαθ-ον*, escape notice), etc.

In *ἀ-λήθεια* (truth), i.e. **ἀ-ληθεσ-ια*; *εὐ-μένεια*, Iôn. *εὐ-μενέη* (goodwill), from **εὐ-μενεσ-ια*, f.f. *asu-man-as-yā*, cf. *μέν-ος*, origl. *man-as*, and the like, we see a further formation of the suffix by means of *-ya-*.

Latin. E.g. *gen-us* (race), early Lat. **gen-os*, Sk. *ǵán-as*, √*gen* (gignere); *op-us* (work), early **op-os*=Sk. *áp-as*; *corp-us* (body), root Sk. *karp*; *foed-us*, early *foid-os* (treaty), √*fid* (fido); *iūs* (right), f.f. **iou-os*, √*iu* (join); *pūs* (matter), f.f. **pou-os*, √*pu* (be foul; on these formations cf. § 36), etc.

Here also belong *rōb-ur* (strength), early *rōb-us*, gen. *rōb-or-is* =Sk. *rā́dh-as*, gen. *rādh-as-as* (vigour, wealth), cf. *rōbus-tus*, with change of *s* to *r*, etc. Fems. *Ven-us*, *Cer-es*, and probably also masc. *cin-er-* (ash), n. sg. *cin-is*; *pulu-er-* (dust), n. sg. *pulu-is*, as also adj. *uet-us* (old), gen. *ueter-is*.

Moreover the numerous masculines in *-ōr*, as *sop-ōr-* (*sōp-īre*), root original *svap*; *od-ōr*, √*od* (*ol-ēre* for **odēre* § 72, 2), with lengthening or raising of the suffix (on *r*=*s* cf. 77, 1, e), f.f. e.g. of *sop-ōr-* is therefore *svap-ās-*, etc. This *-ōr-* is also used as a secondary suffix, e.g. *albōr-* (whiteness) from *albo-* (white), etc.

In *aurōra* (dawn), i.e. **aus-ōs-ā*, the suffix original *-as-*, Latin *-ōs-*, *-ōr-*, is still further formed through *-a-* (cf. Greek **αὐ-σωσ-*, Sk. *uš-ás-*, *uš-ā́s-*).

In nom. sg. alone the suffix is retained in fem. forms like *sēdēs* (seat), i.e. **sēdes-s* (§ 39, 1), cf. *sed-eo*; *caed-ēs* (overthrow, slaughter), cf. *caed-o*; *lāb-ēs* (slip, fall), cf. *lāb-i*, etc. In most cases there are *i*-stems underlying these words (e.g. acc. *sēde-m*, gen. pl. *sēdi-um*), a very favourite formation in Latin. This explanation of the n. sg. is supported above all by the parallel *sēd-es-*, Gk. *ἕδ-εσ-* and Sk. *sád-as-*. In Sclav. also and Teutonic the *as*-stems show parallel forms without this suffix; the Sclav.

shows suffixes -*as*- and -*i*- interchanged in some stems, just as in Latin. § 102.

The dative of such nouns in -*as*- —no longer felt to be a case, and hence shortened—serves as an infinitive in Latin; e.g. *ueher-e*, f.f. *vaghas-ai*, Sk. *váhas-ē*, present-stem *uehe*-, original *vagha*-, root original *vagh; dīcer-e*, f.f. *daikas-ai*, present-stem *dīce*-, f.f. *daika*-, √*dic; monēr-e*, f.f. *mānayas-ai*, present- and verbal-stem *monē*-, f.f. *mānaya*-, root original *man*, etc. In *fierī, fierei* (also *fiere*), both from **feies-ei*, f.f. *dhayas-ai*, *ī* has, as often, been retained beside *ē (e)* =original *ai*. This form is in nowise distinct from the usual infinitive active (cf. L. Lange, über die bildung des lateinischen Infinitivus Praesentis Passivi. Denkschriften der philos. histor. Classe der Kaiserl. Akad. der Wiss. in Wien, Bd. x., and published separately there); *fīo* has indeed mainly an active form; the root of this word is *dha* (set, do), and *fio* a present formation in -*ya*- of intransitive-passive function; the f.f. of *fīo* is therefore **dha-yā-mi*, in Sk. with unoriginal weakening of *a* to *ī* and middle termination *dhīya-tē* from **dhaya-tē*, or else the final-sound of the root is lost in Sk. and -*īya*- stands for -*ya*- (§ 15, b). In either case the Sk. form is late and not original, and useless for the explanation of the Latin. From *dha-yā-mi* arose regularly in Latin **fe-io-mi*, **feio, fīo;* f.f. of *fieri, fiere*, is therefore **dhayas-ē;* in *fieri fī* has become *fĭ*, not an original shortening, the older *fīeri* being retained by Naeuius, Plautus, Pacuuius.

This formation is in Latin so closely joined to the pres.-stem that, except where the stem has the stem-addition -*a*-, it omits the -*a*- of the original suffix -*as*-, e.g. *es-se (posse=pot-esse)*, f.f. *as-s-ai* (not **as-as-ai*, which would have produced **ese-re*, **ere-re)*, *esse* for **ed-se*, f.f. *ad-s-ai*, √*ed* (eat); *fer-re* for **fer-se; uel-le* for **uel-se* (§ 77, 1, b); *da-re*, root and pres.-stem *da; fo-re* for **fu-re*, √*fu*, *u* having become *o* under the influence of the *r;* *ī-re*, early **ei-re*, f.f. *ai-s-ai*, pres.-stem *ī, ei*, original *ai*, √*i*. The analogy of the present has here throughout exercised

§ 102. its influence, and has called forth these new formations peculiar to Latin (perhaps the forms cited were at an earlier period of the language **eses-e, *edes-e, *feres-e, *ueles-e, *eies-e*, which would correspond exactly to Sk. forms like *asas-ē, adas-ē, bharas-ē, varas-ē, ayas-ē*).

This *-se* is added also to the perf.-stem in *-is-*, which is found in Latin only (v. post.), e.g. *peperis-se, dedis-se, fēcis-se*, etc. Forms like *dixe, uexe*, seem to be syncopated, like *dixti* for *dixisti;* possibly however they are older forms from the perf.-stem without *-is-* (v. post.), and thus stand for **didic-se, *ueueg-se*. Whether the full suffix *-es-* = *-as-* *(*didic-es-e, *dicsis-es-e)* ever existed or not, depends on the antiquity of these formations.

Note.—Impetrasse-re, leuasse-re and the like (used only in case of derived-verbs in *a*, and peculiar to the earlier language only) are used as fut. inf.; 1 sg. would be **impetrasso*, etc., cf. *facesso, incipisso*, etc. The peculiarity of these forms lies therefore not in the suffix, which is the usual one, but in the verbal-stem.

The infinitive forms of the medio-passive in Latin are hard to explain. The assumption of Bopp offends against the sound-laws (vgl. Gramm. iii. § 855, p. 273 sqq.); the form in *-i (dici)* is held by Bopp to be a curtailed form of the earlier *-i-er (dic-i-er)*, whose *er* he thinks is a transposition of *re*=*se* (acc. of the reflexive; cf. *amo-r* = **amo-se)*, thus explaining *dici-er* from **dici-se; *dicī* would correspond to Sk. forms like *drç-é* (§ 87), unless *dicier* were a shortening of **diceri-er* from **diceri-re, *dicesi-se* (i.e. **daikasai-svam*), just as *laudari-er* is produced by dissimilation from **laudare-er, *laudare-re, *laudase-se*, i.e. from inf. act. with *se* attached, which forms the middle voice in Latin. Notwithstanding that this view recommends itself in that it makes the inf. med. to be formed from inf. act. precisely as the med. generally was formed from the act. in Latin *(*amari-se* : *amare* :: **amo-se* : *amo)*, it is difficult to see the reason of the transposition of *se, re*, to *er* (from **laudare-se,*

**dici-se*, there would have arisen according to Lat. sound-laws § 102. perhaps a form **laudare-s*, **dice-s* or *dici-s*, like *laudaris*, 2 sg. med., from **laudas-i-se*; or also **laudare-re*, **dici-re* or **dice-re*). Pott (the last time in 'Doppelung, etc.,' Lemgo and Detmold, 1862, p. 266 sqq.) makes the division *laudarie-r*, earlier **laudasie-se*, thus assuming no transposition of *-se*, *-re*, to *-er*; *-sie* he holds to be an earlier termination of the active *-re*. But how is *-ie* then to be explained? In *legier* and the like, Pott assumes loss of the first *r* in consequence of dissimilation; **agerie-r* (this *-rier* is preserved in *fer-rier*), thence **agrier* and *agier* by loss of the first *r*, finally **agie*, *agī* [or perhaps **agīr*, *agī*?; cf. *sīs*, Umbr. *sīr*, *sī*, from *siēs*]. Also Leo Meyer (vergl. Gr. der griech. und lat. Spr. ii. 124) explains *legier* from **legerie-r*, **legesie-se*; *laudarier* from **laudasie-se*, which *-sie*, *-sye*, he holds to be "nothing else than a peculiar early infinitive-termination, which may perhaps be closely connected with Sk. *-syâi*, in Vēd. *rauhishyâi* [in our spelling *rōhiš'yāi*], —for *rauhisyâi*—(increase), and *á-vyathishyâi*,—for *á-vyathisyâi* (not tolerate)." But we hold with Benfey (v. supr.) these infinitives in *-syāi* to be inf. from fut.-stems *rōhišya-*, *vyathišya-*. Leo Meyer, raising this objection himself, adds: "Possibly this infinitival *sye* or more fully *esye* is likewise an early dative of an old suffix formation *asya*, a further formation, by means of suffix *ya*, of the old suffix *as*, well known in the Lat. act. infin." Moreover Leo Meyer holds it conceivable that forms like *dūcier* may be not shortened from **dūcerier*, but derived from stems like *dūcio-* (f.f. *daukya-* therefore). We should then have to assume fundamental forms perhaps such as **daukyāi-svam* [dat.+acc. of reflexive]. From this very uncertainty on Leo Meyer's part it is obvious that none of his conjectures are upheld by any decisive arguments. We should scarcely venture to maintain datives in *ī*, *ē (ei)*, from *a*-stems in Latin; in the dative the forms in question could only have been **laudariō-r*, **dūciō-r*, earlier **laudasiō-se*, *douciō-se*. Also the separ-

§ 102. ation of the med. (pass.) inf. from the act. will not approve itself to us. Lange (in his above-named work) takes forms like *legier* as shortenings for **legi-fier*, i.e. as compounded of the pres.-stem *legi- (legi-t)*, with infin. *fiere, fieri;* medial loss of *f* occurs e.g. in *lupīs* for **lupois* from **lupo-fios* (v. post. Case); *amaui* for **ama-fui, amasti* for **ama-fuisti* (v. post. § 173, 2). Forms like *amā-rier, da-rier,* he explains from **ama-siere, *da-siere,* i.e. from the present-stem and an infinitive **siere,* f.f. **-syas-ai,* for **esiere,* f.f. *asya-s-ai,* formed from √*es* (be), pres.-stem **asya-* (with passive function), like *fieri* from √*dha,* pres.-stem *dhaya-*. The present-formation in *-ya-* appears indeed in √*es* in Latin, but has a future, not a passive relation (v. post. § 165 Lat. V.). So also according to Lange *ferrier* is formed (f.f. therefore probably **bhar-syasai* or perhaps **bharasyasai*), whilst in other cases this **-sier, -rier,* is added to pres.-stems only which end in a vowel *(amā-rier, monē-rier, mollī-rier).*

The forms *legī, amarī,* are explained by Lange from **legies* (from **legi-fiese), *amasies* (from **ama-siese*), with frequent loss of final *s* (§ 79), and contraction of *ie* to *ī,* like later *sīm, sīs,* for *siēm, siēs.* Thus from common fundamental forms have been developed (1) *legier, amarier,* with the *s-* of the presupposed **-fiese, *-siese,* changed into *r,* and (2) *legī, amarī,* where the *s* has been lost.

Accordingly in the Lat. inf. pass. also we should see nothing but infinitives in *-se,* because they all would be compounded with either infin. *fierī,* f.f. *dhayas-ai,* or **siere,* f.f. *(a)syas-ai.* This view also is suspicious in some respects; above all we cannot conceive an inf. of √*es* (be) with passive function.

G. Schönberg (Zeitschr. xvii. 153 sqq.) has recently explained forms like *amārie-r* as dat. of stem **amāsi*+*se,* from **amāsiai-se,* forms like *legie-r,* on the other hand, as dat. of stem *legi-* (representing stem *leges-* of the act.)+*se,* from **legiai-se,* thus separating the latter from *as*-stems, probably correctly, like Leo Meyer (v. sup.); he has recourse to an interchange of consonantal-

stems with *i*-stems, and of suffix -*as*- with suffix -*i*- (adducing examples). It must, however, be allowed that the like dat. forms of *i*-stems are otherwise unauthenticated. § 102.

Thus Latin infinitives passive (med.)—clearly a recent formation of the language — must probably be treated as not hitherto explained with certainty.

XXI. Stems with suffix -*ka*-. § 103.

The suffix -*ka*- (cf. pronominal-stem *ka*-) is not common primarily, but secondarily is on the contrary a very favourite one (e.g. in the function of forming diminutives, cf. Lud. Schwabe, de deminutiuis graecis et latinis liber. Gissae, 1859, p. 44 sqq.). The numerous other suffixes, whose principal element is *k*, need not be considered here, excepting -*ska*- (whose *s*, it is true, is obscure), because it formed one kind of present-stem as early as the original language (§ 165, VI.), e.g. *ga-ska*-.

Sanskrit. Very rare as a primary-suffix, e.g. in *çuš-ka*- (dry) for **suš-ka* (§ 55, 2, n), √*çuš* (*çúš-yati* dries), original *sus* (cf. Lith. *saús-a-s*, Sclav. *such-ŭ* dry, Zend *hus-ka-*; *dhā-ká*- (masc. receptacle), √*dha* (set). As secondary suffix common, e.g. *síndhu-ka*- (adj. derived from Sindhu), stem *sindhú*- (nom. propr.); *putra-ká*- (masc. little son), *putrá*- (masc. son), etc.

Greek. Primary in *θή-κη* (store-place), √*θε* (place, lay); very common secondarily (cf. Budenz, das Suffix *κός* im Griechischen. Göttingen, 1858), e.g. *φυσι-κό*-, *φύσι*-, *θηλυ-κό*-, *θῆλυ*-, *καρδια-κό*-, *καρδία*, *λογι-κό*- (if rightly separated thus) *λόγο*-, etc. Suffix -*ισκο*- here forms diminutives, e.g. *παιδ-ίσκο-ς*, *παιδ-ίσκη*, stem *παιδ*-, etc.

Latin. Here also but few primary formations can be pointed to with certainty, as *pau-co*- (adj. few), cf. Gk. *παῦ-ρο*- (small), Goth. *fav-a* (adj. few); *lo-co*-, early *stlo-co*- (masc. place), from √*stal*, *stla*, further formation from √*sta*. Secondarily very common, as in Gk., e.g. *ciūi-co*-, stem *ciūi*-, *urbi-co*-, stem *urbi*-, *belli-co*, stem *bello*-, etc.

§104. 3. Formation of Comparative- and Superlative-Stems.

Comparative-stems.

1. Suffix original -*yans*-.

This suffix is perhaps a variation from a still earlier -*yant*-, and akin to -*ant*-, -*mant*-, -*vant*- (§§ 101, 91, 90); in these suffixes also we see *t* frequently passing over into *s*, and this change seems to have taken place in the case of -*yans*- as early as the original-language, since a **yant*- appears nowhere (e.g. *vidvád-bhis*, but *yávīyō-bhis*, i.e. **yavīyas-bhis*). The suffix is a primary one, and is added directly to the final of the root. Like most primary-suffixes it is in its use confined to a few particular roots.

Indo-European original-language. E.g. *nav-yans*-, from *nav-a*- (new); *magh-yans*-, from *magh-ant*- or perhaps also *magh-ara*- (great); *svād-yans*-, *svād-u*- (sweet); *āk-yans*-, *āk-u* (swift), etc.

Sanskrit. In later Sanskrit the early form -*yans*- is retained as -*yās*- only after vowels, but in the earlier language (Vēd.) also after consonants, in which case the later Sk. substitutes -*īyās*- for -*yās*-, *y* being split up into *iy* (§ 15, b) and the short vowel being lengthened before *y* (§ 15, a). The Sk. form -*īyās*- shows its modern date also by the fact that it is still wanting in a language so closely akin as Zend.

Suffix -*yās*-; e.g. Vēd. *náv-yās*- from *náva*- (new); Sk. *bhū́-yās*- from *bhū́-ri*- (much); *ǵyā́-yās*- (older) √*ǵya* (grow old), positive not used; *sthḗyās*-, i.e. **stha-iyās*- or **sthā-iyās*-, from *sthirá*- (firm) for **stha-ra*- (§ 7), √*stha* (stand); *sphḗyās*-, i.e. **spha-iyās*-, *sphi-rá*- (swollen), for **spha-ra*-, √*spha* (wax, swell); *prḗ-yās*- from *priy-á*- (dear), with root-vowel raised a step (or perhaps from an older root-form *pra*), etc.

Suffix -*īyās*-; e.g. *vár-īyās*- (better), *vár-a*- (good) and *urú*- for **var-ú* (broad, wide); *drā́gh-īyās*-, *dīrghá*- (long) for **dargh-a*- (§ 8), √**dargh (darh)*, **dragh*, and with many other adjectives

formed with suffix *-a-*; *gár-īyās-*, from *gur-ú-* (heavy) for *gar-u-* (§ 7), like it, from √*gar*; *lágh-īyās-* from *lagh-ú-* (light); *áç-īyās-*, Vēd. from *āç-ú-* (swift), and so with other adjs. formed with suffix *-u-*; *kšŏd-īyās-* from *kšud-rá-* (small, scanty) from √*kšud* with step-formation; *yáv-īyās-* from *yúvan-* (young), √*yu* with step-formation; *máh-īyās-* from *mah-ánt-*, Vēd. *mah-* (great), √*mah*. § 104.

As a secondary suffix *-īyās-* appears in certain cases only, e.g. *matīyās-* from *mati-mant-* (intelligent), *má-ti-* (mind, insight, √*ma* + suffix *-ti-* + also *-mant-*), etc. These words are treated according to the analogy of the above-mentioned, as if e.g. *mat* were root of *mati-*.

Greek. The *s* of the suffix *-yans-* (the *s* is retained in the superlative, v. post.) is lost, and the *y* changed to *ι* or combined with a preceding consonant into *σσ*, *ζ* (§ 68, 1, d. e), e.g. *κάκ-ιον-* (n. sg. masc. *κακίων*) from *κακ-ό-* (bad), √*κακ*; *ἔλασσον-*, i.e. **ἐλαχ-yον-*, *ἐλαχύ* (light), √*ἐ-λαχ-*; *ἥδ-ιον-* from *ἡδ-ύ-* (sweet), √*ἡδ*, *ἀδ*; *ἔχθ-ιον-* from *ἐχθ-ρό-* (hostile), from *ἐχθ-*, which serves here as a root; *μείζον-*, i.e. **μεγ-yον-*, from *μέγ-ας*, *μεγ-άλο-* (great), √*μεγ*; *πλείον-*, *πλέον-*, f.f. *pra-yans-*, *πολ-ύ-* (much), f.f. *par-u-*, √*pra=par*; so too *με-ῖον-* (less), f.f. *ma-yans*, from a root *ma*, which mostly appears weakened to *mi*, *mi-n* (cf. Sk. *mi-nā́-mi*, *mi-nṓ-mi*, pf. *ma-mā́*, *ma-māú*, fut. *mā-syā́mi* (throw down, annihilate).

Latin. *-yans-* became *-yons-* and subsequently *-iōs-* (e.g. *ma(g)iōsibus*; § 77, 1, a), later *-iōr-*; in acc. n. neut. the later language also shows still the old *s* in the form *-ius*, i.e. *-yas* with loss of the *n*. In Lat. the comparative is regularly formed by means of this suffix, which is therefore used as a secondary one also. E.g. **mag-iōr-*, hence *mā-iōr-* (§ 77, 1, a), n. neut. *mā-ius*, but adverb *mag-is* for **mag-ius*, *mag-no-* (great); *plūs*, *plous* (more) from **plo-ius=πλε-ῖον*, f.f. *pra-yans-*, √*pra=par* (fill), *pleores* (carmen Aruale) for **ple-ior-es*, √*ple=plo*, original *pra*, compar. of *plē-ro-* (*plerus* Cato, *pleri-que*), *plē-no-* (full);

§ 104. *leu-iōr-*, i.e. **legu-iōr-*, can come equally well from **leg-iōr-* (§ 73, 1), √*leg-*, f.f. *lagh*, or, though less probably, from adjective-stem *legu-* in *leui-* (light), i.e. **leg-ui-*, a further formation of **leg-u-*, Sk. *lagh-ú-*, Gk. ἐλαχ-ύ- ; *min-ōr-* (smaller), from a root *min*, stands for **min-iōr-*, *min-us* for **min-ius-*, f.f. *man-yans-* ; *doct-iōr-* from *docto-* (doctus learned, √*doc*), which loses its final vowel only before the suffix, like all adjs. in vowels ; *facil-iōr-* from *facili-* (easy to do ; √*fac*), etc.

§ 105. 2. The suffix *-tara-* and *-ra-*.

The suffix *-tara-* is the ordinary comparative suffix in Sk., Zend, and Greek ; it is also found here and there in the other languages. It is a secondary suffix ; primary but rarely.

The suffix *-tara-* is very probably compounded of the two frequent stem-formative suffixes *-ta-* and *-ra-* ; *-ra-* occurs also alone in the function of comparative formation, e.g. Sk. *áva-ra-* (lower), from *áva* (prep. of), *ápa-ra-* (hinder, latter), *ápa* (prep. of) = Zend *apa-ra-* from *apa* ; cf. Lat. *sup-eru-s*, *sup-er*, *inf-eru-s*, *inf-er* (*sup-er-ior*, *inf-er-ior*, add to the older comparative element —which has lost its comparative force—the ordinary comparative suffix).

Indo-European original-language.

The suffix *-tara-* was, it seems, already applied to the function of forming comparatives from pronominal-stems and the like ; thus an undoubted primitive stem is found in *an-tara-* (interior) from pronominal √*an*, stem *ana-* (demonstr.), where exceptionally the suffix is probably primary ; moreover *ka-tara-* (uter), pronominal-stem and √*ka-* (interrog.).

Sanskrit. *-tara-* (masc. *-tara-s*, fem. *-tarā*) is added to the end of nominal-stems simply (used also in case of substantives) ; variant nom.-stems have their shorter stem-forms before this suffix, e.g. *púṇya-tara-* from *púṇya-* (pure) ; *ka-tará-* (uter, interrog.), *ka-* (quis) ; *ya-tará-* (uter, rel.), *ya-* (rel.) ; *i-tara-* (other), √*i* (is) ; *çúći-tara-* from *çúći-* (pure) ; *agnimát-tara-* from *agnimánt-* (being with fire) ; *vidvát-tara-*, Vēd. also *vidúš-*

-ṭara-, stem *vidvant-*, *vidvans-*, weakened to *vidus-* (part. pf. act.; knowing, cunning); *dhani-tara-*, Vēd. also *dhanin-tara-*, *dhanin-* (rich). In *án-tara-* (interior) *-tara-* is primary, √*an*, stem *ana-* (demonst.); *-tara-* is found after comparatives in *-yans-*, and after superlatives in *-iš-ṭha-* also, e.g. *çrḗšṭha-tara-* from *çrḗṣṭha-* (best; cf. 'Superlative'). § 105.

Greek. Suffix *-τερο-* = original and Sanskrit *-tara-*, e.g. *κουφό-τερο-*, *κοῦφο-* (light), *πό-τερο-* for *κό-τερο-* (uter) from root and pron.-stem *πο-*, *κο-* (quis), but after a short vowel preceding, with final *o*, original *a*, lengthened, e.g. *σοφώ-τερο-*, *σοφό-* (wise); *γλυκύ-τερο-*, *γλυκύ-* (sweet); *χαριϜέσ-τερο-* for **Ϝετ-τερο* (§ 68, 2) from *χαρί-Ϝεντ-*, in shorter form *χαρίϜετ*, etc.

Cases like *φίλ-τερο-* from *φίλο-* (dear) treat *-τερο-* as primary suffix, whilst in *φιλαί-τερο-*, *ἰσαί-τερο-*, *μεσαί-τερο-*, and the corresponding superlatives, *φιλαί-τατο-*, *μεσαί-τατο-*, etc., there is an underlying stem different from that of the regularly-formed *φιλώ-τερο-*, etc.

Note.—Benfey (Or. u. Occ. ii. 656) assumes as a basis for this formation an early locative in *αι*, since in Sk. in certain cases before *-tara-*, *-tama-*, the locative case occurs instead of the stem, e.g. *aparāhṇē-tara-* beside *-ṇa-tara-*, from *aparāhṇá-* (masc. afternoon).

The termn. *-έσ-τερο-*, e.g. *εὐδαιμον-έσ-τερο-* from *εὐδαῖμον-* (fortunate), appears to have been transferred from adjs. in *-εσ-*, e.g. *σαφέσ-τερο*, *σαφές-* (clear), to other stems; whilst in *-ίσ-τερο-*, e.g. *λαλ-ίσ-τερο-* from *λάλο-* (talkative), we can hardly be mistaken in seeing a combination of the suffix *-yans-* in its shortest form *-is-*, with the more recent comparative-ending *-tara-* (cf. superlative *-ισ-το-*, and Lat. superlative in **-is-tama-*, *-issumo-*, as well as Lat. *-is-tero-*).

Latin. The suffix *-tara-* appears only exceptionally, e.g. in *u-tero-* for **cu-tero-* or **quo-tero-*, n. sg. masc. *u-ter* (whether, i.e. which of two), neut. *u-tro-m*, fem. *u-tra*, *e* of the suffix

§ 105. -*tero*-, original -*tara*-, being ejected; *dex-ter*- (right), cf. δεξιός, Sk. *dákš-iṇa*-; *in-ter* (between), cf. Sk. *án-tara*-, and the like.

In *min-is-tero*- (minister servant), Osk. *min-s-tro*- (lesser; gen. sg. masc. neut. *minstreis* is attested), and *mag-is-tero*- (magister master), Umbr. *mēs-tro*- (greater) from **ma-is-tro*-, **mag-is-tro*-, and probably in *sin-is-tero*- (sinister left), the suffix -*tara*- has been added to the comparative suffix -*is*- from -*yans*-, as in Gk. λαλ-ίσ-τερο-; in Sk. also the comparatives in -*yans*- and -*išṭha*- were sometimes further raised by means of -*tara*- and -*tata*-.

§ 106. SUPERLATIVE-STEMS.

For the purpose of expressing the superlative were used the suffixes -*ta*- and its compound -*tama*-, in Gk. and Erse also -*mata*-, and reduplication -*tata*-, in Erse also -*mama*-, all of which, as well as the simple -*ta*-, often appear in other functions also (cf. § 91). These are secondary suffixes often joined to the end of comparative-stems.

1. Suffix -*ta*-, alone used especially in ordinal-numbers (q. v.); added to the end of comparatives in original -*yans*-, it forms their superlative. The reduplication -*ta-ta*- occurs in Gk. as the regular superlative-formation beside comparatives in -*ta-ra*-.

Indo-European original-language. It is not easy to decide whether here we must suppose a complete *magh-yans-ta*- (μέγ-ισ-τος), to which the Goth. -*ōs-ta*- would seem to testify, and *āk-yans-ta*- (ὤκιστος), etc., or *magh-is-ta*-, *āk-is-ta*-, with -*yans*- shortened to -*is*-. The former assumption seems to me the best supported.

Sanskrit. Suffix -*ta*- added to the word-stem itself, e.g. in ordinals *šaš-ṭhá*- (sixth), with -*ṭha*- for -*ta*- on account of the foregoing *š* (§ 59, 1), *šaš* (six), *ƙatur-thá*- (fourth), with -*tha*- for -*ta*- (§ 52, 2), *ƙatur*- (four).

After the comparative-suffix -*yās*- (-*īyās*-) -*ta*- appears as the

regular formation of the superlative, *-yās-* being subsequently shortened to *-is-*, but *-is-ta-* changed into *-iš-ṭha-* (§ 59, 1); thus e.g. *máh-išṭha-*, *yáv-išṭha-*, *lágh-iš-ṭha-*, *gár-iš-ṭha-*, *kšṓd-iš-ṭha-*, etc., *sthéšṭha-*, *sphéšṭha-*, *ǵyéšṭha-* are = **sthā-iš-ṭha-*, **sphā-iš-ṭha-*, **ǵyā-iš-ṭha-*; *préšṭha-* either stands for *prē-išṭha-*, in which case the *i* of *-is-* would have disappeared in the *ē*, or, as I think more likely, an earlier √*pra* is underlying, and it must be divided **pra-is-ta-* (cf. the comparative, § 104, with this superlative); in *bhúyišṭha-*, beside the comparative *bhū́-yās-*, *-yis-* has arisen for *-is-* by an unusual splitting-up of *i* to *yi*. § 106.

Greek. Suffix *-το-* = Sk. *-ta-* is common in ordinal numbers, thus *πρῶ-το-* (first), *τρί-το-* (third), *τέταρ-το-* (fourth), *πέμπ-το-* (fifth), *ἕκ-το-* (sixth), *ἔνα-το-* (ninth), *δέκα-το-* (tenth), *εἰκοσ-τό-* (twentieth), etc.

-το- = *-ta-*, when added to *-ισ-* = *-yans-*, forms superlatives to comparatives in *-ιον-* = origl. *-yans-*, e.g. *κάκ-ισ-το-*, *ἐλάχ-ισ-το-*, *ἥδ-ισ-το-*, *ἔχθ-ισ-το-*, *μέγ-ισ-το-*, *πλε-ῖσ-το-*, etc. (cf. § 104).

The reduplicated form of the suffix, *-ta-ta-* = Gk. *-τα-το-*, appears as the regular superlative formation beside the comparatives in *-ta-ra-*; e.g. *κουφό-τα-το-*, *σοφώ-τα-το-*, *γλυκύ-τα-το-*, *χαριϜέσ-τα-το-*, *φίλ-τα-το-*, *φιλαί-τα-το-*, *εὐδαιμον-έσ-τα-το-*, *λαλίσ-τα-το-*. These superlatives were formed, as the adduced examples show, corresponding to the parallel comparative forms in *-τερο-*, which may be compared (§ 105).

Latin. Suffix *-to-*, *-tu-*, = Sk. and original *-ta-*, rarely serves as superlative-suffix in Latin, where *-mo-* = Sk. *-ma-*, and *-ti-mo-*, *-si-mo-*, f.f. *-ta-ma-*, is preferred; e.g. *quar-to-* (fourth); *quo-to-* (which in order or number), stem and √*quo-*, original *ka-*.

After *-is-* = *-yans-* is found not *-to-*, but only the representative of original *-ta-ma-* (q. v.).

2. Suffix *-ma-* and *ma-ta-* here and there in Gk. § 107.

I have not before me any perfectly certain example of suffix *-ma-* used to express the superlative in the original Indo-European; however, as *-ma-* appears in three divisions of the

§ 107. speech-stem in this function, it must be presupposed as existent in the original-language. Perhaps *sapta-ma-* (seventh) and *akta-ma-* (eighth) must be ascribed to the fundamental-language, because in these numbers this method of forming the ordinal is almost universal.

Sanskrit. Suffix *-ma-* forms the superlative in *ava-má-* (undermost, next, last), from *áva-* (as prep. 'from'), a pronominal-stem (demonstr.); *madhya-má-*, *mádhya-* (mid-); *para-má-* (furthest, last, best), *pára-* (removed, excellent); *ādi-má-* (first), *ādi* (beginning); *sapta-má-* (seventh), *saptán-* (seven); *aṣṭa-má-* (eighth), *aṣṭa-* (eight); *nava-má-* (ninth), *návan-* (nine); *daça-má-* (tenth), *dáçan-* (ten).

Greek. The superlative suffix *-μο-*, f.f. *-ma-*, is not frequent, it forms *ἕβδο-μο-* (seventh) alone, from *ἑπτά*, with a remarkable softening of *πτ* to *βδ* in the stem of the word.

In *ἑβδό-μα-το-* (seventh) we find suffix *-ma-ta-*, as in Keltic, which is seen unmistakably in *πύ-μα-το-* (last) also.

Latin. Suffix *-mo-*, f.f. *-ma-*, is a favourite means of forming superlatives, e.g. *sum-mo-* from **sup-mo-* (highest), *sup-*, cf. *sup-er*, comparative; *infi-mo-*, cf. comparative *infe-ro-*; *mini-mo-*, cf. *min-ōr-*; moreover the ordinals *prī-mo-*, *septi-mo-*, *deci-mo-*.

In *plūrimo-* (most), earlier *plūsimo-*, *plourumo-*, *ploirumo-*, *plī-si-mo-*, a f.f. **pra-yans-ma-* seems to be underlying; between *s* and *m* the auxiliary vowel *u* occurs (cf. *s-u-m*, § 43), later *i* (§ 43); thus by the usual shortening of *-yans-* to *-is-*, arose **plo-is-u-mo-*, i.e. *ploirumo-*, and by coalescence of *oi* to *ei*, *ī* (as in dat. abl. pl. of the *o*-stem, e.g. *nouīs*, *noueis* from **nouois)*, **plīsimo-*; in *plourumo-*, later *plūrimo-*, *y* may have been lost (as in *minus* for **min-yus*), so that this form points back to a form **plo-yus-u-mo-*, like *plūs*, *plous*, to **plo-yus*.

§ 108. 3. Suffix *-ta-ma-* occurs in Sk., Zend, Gk., Lat. and Gothic, and dates therefore from the common original-language.

Indo-European original-language. Although the suffix *-tama-* was in existence, we can hardly point to any

word-stems provided with this suffix; a form *nava-tama-* (per- § 108.
haps beside *nav-yans-ta-*) may be merely conjectured.

Sanskrit. *-ta-ma-* is the regular superlative formation beside the comparatives in *-tara-*, thus e.g. *púṇya-tama-*, *ka-tamá-* (one of many, interrog.), *ya-tamá-* (which of many, rel.) *çúki--tama-*, *agnimát-tama-*, *vīçati-tamá-* (twentieth) from *vīçáti-*, etc.

Suffix *-tama-* occurs also after comparatives in *-yans-*, and superlatives in *-iṣṭha-*, e.g. *ǵyéṣṭha-tama-*.

Greek. Wanting.

Latin. The suffix original *-tama-* occurs somewhat seldom added directly to the root or stem of the adj.; but it is the regular means of forming superlatives, in which case it is added to the comparative in *-yans-*; f.f. *-ta-ma-*, i.e. Lat. *-tu-mo-*, *-ti-mo-*, after gutturals *-si-mo-* (§ 77, 1, d) is added to the root in *maximo-* (greatest), i.e. **mag-timo-*, cf. *mag-is*, *mag-nus*; *op-timo-*, *op-tumo-* (best); *ul-timo-* (last); *in-timo-* (inmost), etc. Suffix *-timo-*, or more probably *-simo-* (cf. *mac-simo-*), is directly added to adj.-stems only when they end in *r* or *l*, stems ending in a vowel lose that vowel; thus *ueter-rimo-* for **ueter-simo-*, from **ueter-timo-*, stem *ueter-* (old; cf. *torreo* for **torseo* and the like), *pulcher-rimo-*, stem *pulchero-* (beautiful); *facil-limo-* for **facil-simo-* from **facil-timo-*, unless indeed these forms be for **ueter-is-timo-*, **facil-is-timo-*, whence **ueterstimo-*, **facilstimo-*, **uetersimo-*, **facilsimo-* (cf. *uellem* from **uel-sem*).

From the f.f. **-is-tama-*, the combination of the comparative suffix *-is-* = *-yans-* with the *-tama-* of the superlative, arose next *-is-tumo-*, *-is-timo-*, retained in the archaic *soll-is-timo-*; from *-is-tumo-*, *-is-timo-*, arose *-issumo-*, *issimo-*, by regular assimilation, e.g. *doct-is-simo-*, etc. Cf. *mag-is-ter*, *min-is-ter*, which show the combination of the comparative suffix *-yans-* + *-tara-* (cf. § 105), and therefore stand parallel to superlative *-yans-* + *-tama-*, and the corresponding Sk.-superlative formations. Cf. the suffix *-timo-* in other functions, *mari-timo-* (maritime), stem *mari-* (neut. mare, sea); *fini-timo-* (neighbouring), *fīni-* (finis masc. bound); *legi-timo-* (lawful), stem *lēg-*, *lēgi-* (lex, fem. law).

§109.

4. Stems of Numerals.

Stems of Fundamental Numbers.

Simple numbers 1–10.

1. Indo-European original-language.

The stem for the first numeral cannot be determined with absolute certainty, because the several Indo-Eur. languages differ greatly in the way they express the number one. Various stems in Indo-Eur. indicate the notion of the No. 1, but yet they are all alike formed from √*i*; *ai-na-* has most in its favour, because it serves to indicate the number one in the two European divisions of the Indo-European, and is likewise found in the Aryan in another function.

Sanskrit. *éka-*, probably a stem-formation by means of suffix *-ka-* from pronominal suffix *i*, or, what is not very different, a compound of *ai* from *i* with pronominal √*ka*.

Greek. Nom. sg. m. εἷς, i.e. *ἑν-ς, ntr. ἕν, gen. ἑν-ός, fem. μία (cf. Leo Meyer, Kuhn's Zeitschr. v. 161 sqq., viii. 129 sqq., 161 sqq.; id. vgl. Gramm. der griech. u. lat. Spr. ii. 417 sqq.). Stem ἑν-, f.f. *san-*, is considered as standing for *sam-*, and this *sam* (cf. Lat. *sim-plex, sem-el, sin-guli*), after losing a final *a*, as corresponding to Sk. *samá-* (similar, like; a superlative of demonstr.-stem *sa-*). This view is especially supported by fem. μία, which probably stands for *μία, i.e. *sm-yā-*=*sam-yā-* (a *ya*-stem, fem. only, as frequently). It cannot well be doubted that ἑν- contains the pronominal-root *sa-*; however, we hold that the final *n* is a later formation in Greek, cf. stem τί-ν-= original *ki-* (pron. interrog.), because a change of suffix *-ma-* to *n* is unexampled. So we conjecture for masc. neut. a stem *sa-n-*, developed from *sa-*, but recognize in fem. a f.f. *sa-myā*, thus varying from that of masc. and neut., i.e. a superlative-stem in *-ma-*, fem. *-myā*, from same √*sa*.

Latin. Early Latin *oi-no-*, whence *ū-no-*, f.f. *ai-na-*, is, like

Sk. pronominal-stem *ē-na-* (this), a stem in *-na-* from demonstra- § 109.
tivo-pronominal √*i*.

2. Indo-European original-language *dua-* or *dva-*; Sanskrit *dva-*; Greek δυο-=*dva-*; Latin *duo-*=δυο- (*duō-bus* like *ambō-bus* is probably caused by the nom. dual *duō*, *ambō*, f.f. *dvā*, *ambhā*).

3. Indo-European original-language *tri-*; *-i-* is a suffix and *tar*, *tra*, the root (cf. the ordinal); *tr-i-* is therefore probably shortened from **tar-i-*, or perhaps from **tra-i-* by loss of the *a*; the assumption that *tri-* is an archaic weakening from *tra-* is, I think, less likely; Sanskrit *tri-*, the fem. having the stem *-ti-sar-*, in which Bopp conjectures a reduplication, and which he imagines to have arisen from **ti-tar-*; Greek τρι-; Latin *tri-*.

4. Indo-European original-language *katvar-*; Sanskrit *ḱatvár-*, shortened *ḱatúr-*, fem. *ḱatasár-* (clearly formed after the analogy of 3, according to Bopp compounded with it, in which case *ka*='unum'); Greek τέτταρ-, τέσσαρ-, for *τετϜαρ-, κετϜαρ-, Dôr. τέτορ- for *τετϜορ-, with τ=original *k* (§ 62, 1), Boiôt. πέτταρ-, Hom. and Aiol. πίσυρ-, f.f. *katur-*, π=κ (§ 62, 1), and σ before υ=τ, as in σύ for τύ; Latin *quatuor-*, the best authenticated spelling *quattuor* is unsupported etymologically (inscriptions have also *quattor*, *quator*).

5. Indo-European original-language *kankan-*, an obviously reduplicated form; Sanskrit *páńkan-*, with *p*=*k* (§ 52, 1); Greek πέντε, Aiol. πέμπε, π and τ=κ (§ 62, 1); Latin *quinque*.

6. Indo-European original-language. By combining the Zend *khšvas* on the one side with the Greek, Latin and Gothic form with final *ks* on the other, the resulting f.f. would be *ksvaks* for Indo-European (Ebel, Beitr. iii. 270; Zeitschr. xiv. 259 sqq.), which likewise seems to be reduplicated, perhaps original **ksva-ksva-*; Sanskrit *šaš*, probably immediately from **kšakš* for **ksa-ks* (§ 55, 2); Greek and Latin with dissimila-

§ 109. tion of the initial sound from a f.f. **svaks* for **ksvaks*, Gk. ἕξ, Dôr. *Fέξ*, like Lat. *sex*, both therefore from **sveks* (Leo Meyer, Zeitschr. ix. p. 432 sqq.; cf. Lat. *se* for **sve*, etc.).

7. Indo-European original-language probably *saptan-*; Sanskrit *saptán-*, later *sáptan-*; Greek ἑπτά, i.e. **saptan-* (*a*=*an* § 19); Latin *septem*, i.e. **septim*. Bopp supposes that the *m* of *septe-m* has worked its way in from the ordinal *septi-mo-*, because it would be unlikely that *n* should change to *m;* possibly however an otherwise unusual sound-change is found in it, and we should not cut the Latin numeral adrift from the Erse and the Greek.

8. Indo-European original-language. Stem *aktu-*; Sanskrit *aṣṭán-*, later *áṣṭan-*, probably after the analogy of 7 and 9, and *aṣṭú-* (the latter in the nom. acc. *aṣṭā́u*, probably shortened from **aktáv-as* or **aktā́v-as*, apparently a dual-form, as also in Gk. and Lat.); Greek ὀκτώ, Latin *octō*, dual-forms arising just like Sk. *aṣṭā́u* through loss of the termination, in which respect the notion of 4+4 may have assisted; in *ὄγδοF-o-*, *octāu-o-*, the f.f. of the stem *aktu-* is unmistakable; it occurs also in Goth. and Lith.

9. Indo-European original-language *navan-*; Sanskrit *návan-*; Greek *ἐννέα*, i.e. **νεFa(ν)* with ε prefixed, and unoriginal doubling of initial consonant *ν;* Latin *nouem* (on the *m* cf. 7).

10. Indo-European original-language *dakan-*; the conjecture that *dakan* stands for **dva-kan- (kan* for *kan-kan)*, i.e. 2×5, is not proved, but it is too tempting to be passed by; Greek δέκα, i.e. **δεκαν*; Latin *decem*, i.e. **decim* (cf. 7).

§ 110. The numerals 11–19. They were formed by joining the number 10 to the units; in some languages we clearly see a mere addition.

Indo-European original-language. Originally the two words would probably exist separately, e.g. perhaps 12 *duā dakan;* 13, *tray-as dakan*, etc.

Sanskrit. 11, *ékā-daçan-*, with lengthening of final *a* of stem *éka-* (one); 12, *dvá-daçan-*, *dvā* probably must be considered a dual; 13, *tráyō-daçan-*, later *trayó-daçan-*, n. pl. *trayas+daçan-*; 14, *kátur-daçan-*; 15, *páńka-daçan-*; 16, *šó-ḍaçan-*; 17, *sápta-daçan*; 18, *aštá-daçan-*, with dual-form *aštā*; 19, *náva-daçan-*. § 110.

Greek. 11, *ἕν-δεκα*; 12, *δώ-δεκα*; from 13 the words originally separate are merely joined together, e.g. in *τρισ-καί-δεκα*, *τρις* must be taken as a shorter form for *τρεῖς*; 14, *τεσσαρες-καί-δεκα*, etc.

Latin. *un-decim* for **uni-decim*; 12, *duo-decim*; 13, *trĕ-decim*, perhaps with older stem-form *tra-*, cf. *ter-tius*, or else *tre-* is a shortening from *trēs*; 14, *quatuor-decim*, etc.

The numerals 20–90 (the intermediate numerals do not need discussion here; they are clear in all languages, and mostly quite uncompounded). In Aryan and South-European 20–90 were expressed by means of units compounded with a substantive formed from *daka-*, mostly shortened or otherwise altered. Whereas in the North-European division units and tens are separate words, at most joined together. The contrast between the two closely-related branches of the speech-stem—Aryan and Graeco-italo-keltic—and the Sclavo-teutonic is here clearly shown (cf. Introduction, IV.). It is scarcely to be supposed that in the original-language composition had already taken place; but the tens and units would still be separate words. § 111.

Sanskrit. The tens were originally expressed by *daça-ti-*, *daça-ta*, the units being prefixed. Of *daça-ti*, however, *-çati-* and even *-ti-* only remains, of *daça-ta-* only *-çat-*; so strong is the tendency to diminution in words so much used.

20, *vī-çáti-* for **dvī-daçati-*, the nasal of *vī* = **dvī* and the corresponding nasal of the two following numerals is obscure; perhaps we may detect in it the remains of a case-ending. It is shown by the Zend to be a late formation. 30, *trī-çát-*, probably for **trīni daçatā*, whence probably the nasal arose

§ 111. which worked its way into 20 and 40 by analogy; 40, *ḱatvārī--çát-*; 50, *pañkā-çát-*; 60, *šaš-ṭi*; 70, *sapta-ti-*; 80, *açī-ti-*, a form widely differing from the original; 90, *nava-ti-*, all with *-ti-* for **daçati*.

Greek. Except in 20, where likewise a form *daka-ti* appears, *-κοντα* appears as the second part of the compound, probably a neut. pl., f.f. *dakan-tā*, from a sg. **dakan-ta-m*. 20, *εἴ-κοσι*=**εἰ-κοτι* (§ 68, 1, c), Hom. *ἐείκοσι*, earliest form Dôr. *Fείκατι*, *Fίκατι*; *Fίκατι* stands for **dvī-daka-ti*, the length of *ī* may have its origin in an earlier case-ending, whence may come also *εἰ*; *ἐείκοσι*, i.e. *ἐ-Fείκοσι*, with the frequent vowel-prefix before consonantal beginning (§ 29, 2). 30, *τριᾱ́-κοντα*, i.e. **triā-dakan-tā*, similarly with the following; 40, *τεσσαρά--κοντα*; 50, *πεντή-κοντα*; 60, *ἑξή-κοντα*; 70, *ἑβδομή-κοντα*, formed with the ordinal, like 80, *ὀγδοή-κοντα*, and probably also 90, *ἐνενή-κοντα*, Hom. also *ἐννή-κοντα*, which we should accordingly take for a shortening of *ἐνενή-κοντα*; *ἐνενή-κοντα*= Lat. *nōnā-ginta*; the ordinal **ἐνε-νο-* from **ἐ-νεFα-νο-*, it is true, presupposes a strong shortening; the suffix *-νο-*, as in Lat. *-nō-no-* (v. Ordinals), we must treat as having arisen from *-μο-* through assimilation to the initial sound.

Latin. Except *-gin-ti* in 20, *-gin-ta* generally appears, probably a neut. pl.; *-gin-ti* and *-gin-ta* stand for **degin-ti*, **degin-ta*, and these for **decen-ti*, **decen-ta*, the f.f. of these stems is *dakan-ti-*, *dakan-ta-*; *c* has here become *g*, even as *uīcēsimus* from a form **uīcenti* has stood its ground beside the unoriginal *uīgēsimus*. Accordingly 20, *vī-gintī* from **dvī-decin-ī* (cf. Gk.; on the form, which seems to be a neut. dual, cf. Corssen, Krit. Nachtr. p. 96 sqq.); *trī-gin-ta*=**triā decintā*, **triā* becoming **triē*, and this becoming *trī*, like *s-yā-t*, *siēt*, *sīt* (3 sg. opt., √*es*); 40, *quadrā-gin-ta*, with softening of *t* to *d*, for **quatuorā decintā*; 50, *quinquā-gin-ta*; 60, *sexā-gin-ta*; 70, *septuā-ginta* from a stem *septuo-*, which does not appear elsewhere; 80, *octō-ginta*; 90, *nōnā-ginta*, from the ordinal, cf. the

Greek, with which the Latin essentially coincides in these formations. § 111.

Numerals 100–1000. § 112.

100. Indo-European original-language. Probably stem *kan-ta-* neutr., acc. n. sg. *kan-ta-m*, a shortening of **dakan--dakan-ta-*, i.e. *dakan-* + subst. *dakan-ta-* which forms the tens; we found it already shortened to *kan-ta-* (Zend *-çata-*, Greek *-κοντα*, Latin *-ginta)*. *(dakan-da)kanta-* thus means *ten-ty, **δεκήκοντα*, *decāginta. The *n* of *kan-ta* is kept in Lat., Kelt., Lith. and Goth., but is lost elsewhere.

Sanskrit *çáta-*; Greek *ἑ-κατό-*, *ἑ* can be nothing else than a diminished form of *ἑν-* (one); Latin *cento-*.

200–900. Originally expressed in two words. Sanskrit by two words, or by ordinary composition (e.g. *dvē çatē* or *dviçata-* neut.); Greek from stem *κατο-* or *κοτο-*, f.f. *ka(n)ta-*, cf. Sk. *çata-*, was formed a derivative in *-ya-*, before which according to rule (§ 89) the stem-termination is lost, thus **-κατιο-*, **-κοτιο-*, f.f. **-kat-ya-*; in Dôr. *-κατιο-* remains unchanged, whereas elsewhere the **-κοτιο-* passes regularly (§ 68, 1, c) into *-κοσιο-*. So from a hypothetical **τριᾱ-κατᾱ* or *-κοτᾱ*, f.f. *triā kantā* 300, arose Dôric *τρια-κάτιο-*, Attic *τριᾱ-κόσιο-*, these forms being used as adjs. and in the pl.

The Latin proceeds in a way similar to the Greek, employing as it does the stem *cento-* as the second member of the compound adjectivally in the plural, e.g. 200, *du-cento-*, *du* shortened from *duo;* 300, *tre-cento-*; 500, *quin-gento-* for **quinc-cento-*, with softening of *c* to *g* after *n*, as in 400, 700, 800, 900 (cf. *-ginta);* 600, *sex-cento-*; 900, *nōn-gento-*, from ordinal-stem *nōno-*. The numerals 400, *quadrin-gento-*; 700, *septin-gento-*; 800, *octin-gento-*, show an analogy, which perhaps may be traced to *septin-genti; septin-*, f.f. *saptan-; octin-* also corresponds to f.f. *aktan-*, cf. Sanskrit *aṣṭan-*, and so also a stem *quadrin-* has arisen from *quadro-*, shortened from *quatuor* (cf. *quadra-ginta)*. Pott (Zählmethode, p. 149) conjectures

§ 112. distributive in these forms, thus *quaterni (quadrīni), octōni*, etc.

1000. The Indo-European original-language seems not to have possessed a word to express 1000.

The two Aryan languages have a common word, Sanskrit *sahásra-* (masc. neut.), Zend *hazaŋra-* (neut.).

Greek *χῑ́λιο-*, Hom. in compounds *χῑλο-*, Boiôt. *χειλίο-*, Lesb. *χέλλιο-*, Dôr. *χηλίο-*, which points to a f.f. **χελyo-*, i.e. *gharya-*, of obscure origin.

Latin. St. *mīli-*, *milli-* (neut.), obscure.

Stems of the Ordinal Numerals.

§ 113. The ordinals are, except 2, superlatives, partly however with peculiarities distinguishing them from other superlatives. The forms of the Indo-European original-language for the most part cannot be restored, because the different languages frequently do not coincide in the choice of the suffix.

1–10.

1. Original-language probably *pra-ma-*, stem *pra-* (before); Sanskrit *pra-thamá-* from *pra-* (as prep. 'before') + *-thama-*, with *th* for *t* (§ 52, 2); Greek *πρῶ-το-*, Dôr. *πρᾶ-το-*, from *προ-* + suffix *-ta-* (§ 106), and with step-formation or lengthening of stem-vowel; Latin *prī-mo-*, with suffix *-mo-* (§ 107), probably from **pro-imo-*, so that *-imo-* not *-mo-* has here been added, according to the analogy of other forms in **-timo-*; according to Pott (Etym. Forsch. I.² 560) from **prīs-mo-* (§ 77, 1, a), **prīs*=*prius*, f.f. *pra-yans*, comparative of *pra-*, cf. *pris-tino-*, *prī-die*, for **prīs-die*; according to Corssen (Krit. Beitr., 433) *prī-* is an archaic form (attested) = *prae* (prep. 'before'), which is however clearly a case form, and would scarcely have admitted a superlative formation, cf. Umbr. *pru-mu- pro-mo-*; it would perhaps be difficult to come to a certain decision on this point.

2. Original-language (?); Sanskrit *dvi-tíya-*, i.e.

**dvi-tya-* (§ 15, 2, b), probably therefore a further formation by means of *-ya-* from **dvi-ta-*; Greek *δεύ-τερο-*, a comparative (§ 105) *δευ-* appears to be a raised-formation from **du* from *dva;* Lat. *secundo-* is formed not from stem *dva-*, but from √*sec, seq* (sequi); on the suffix cf. § 89, 2, n. 2. § 113.

3. Indo-European original-language probably *tar-tya-* or *tra-tya-*, *-tya-* being here also a further-formation of *-ta-*; Sanskrit *tr-tīya*, i.e. **tar-tya-*, (§ 15, 2, b), as it appears to belong to the root of the stem *tr-i-*, i.e. *tar* or *tra* (v. sup. cardinal 3); Greek *τρί-το-*, with superlative suffix *-ta-*, which helps to form all other ordinals in Greek except 7 and 8; Aiol. *τέρ-το-*; Lat. *ter-tio-*, like Sanskrit.

4. Original-language probably *katvar-ta-*; Sanskrit *ḱatur-thá- (tha=ta)*, also *túr-ya-*, *tur-ī́ya-*, for **ḱatur-ya-*, with loss of initial and suffix *-ya-*, not elsewhere used by itself to form superlatives; we have already noted the combination of *-ya-* with *-ta-;* here also we see the frequent phenomenon of two suffixes occurring combined,—as here *-t-ya-*, i.e. *-ta-ya-*,—either of which can exercise the same functions as the compound; Greek *τέταρ-το-* for **τετϜαρ-το-*; Latin *quar-to-* for **quatuor-to-*, *quator-to-* (on these forms cf. Corss. Krit. Nachtr., p. 298, 3).

5. Original-language probably *kankan-ta-* or perhaps already *kan-ta-*; Sanskrit *pañ́ca-má-*, Vēd. *pañ́ca-thā-*, with well-known suffixes; Greek *πέμπ-το-*; Latin *quin(c)-to-*.

6. Suffix *-ta-* throughout, which therefore must be ascribed to the original-language with certainty, thus perhaps *ksvaks-ta-*; Sanskrit *šaš-ṭhá-*; Greek *ἕκ-το-*, probably for **ἕξ-το-*, cf. Latin *sex-to.*

7. Indo-European original-language *sapta-ma-*, or *sapta-ta-*, or perhaps *saptan-ta-*?; Sanskrit *sapta-má-*; Greek *ἕβδο-μο-* for **ἕπτο-μο-*, with irregular softening of mutes *πτ* into sonants *βδ*, according to the conjecture of G. Curtius and Leo Meyer (cf. Curt. Gr. Et.[3] p. 488), through the influence of

§ 113. the *μ*, before which *o* forced its way as an auxiliary vowel at a later date (cf. Old Bulg. *sed-mŭ* for **sept-mŭ*); archaic and poët. form *ἑβδό-ματο-*; Latin *septi-mo-*.

8. Original-language perhaps *aktu-ma-*; Sanskrit *aṣṭa-má-*; Greek *ὄγδοFο-*, with the same weakening as in the case of *ἕβδο-μο-*, for **ὀκτοFο-*, which, as Curt. conjectures, arose from **ὀκτFο-*, and whose weakening of *κτ* to *γδ* must be ascribed to the *F* (cf. No. 7); on the other hand *ὄγδοFο-* and Latin *octāuo-* point to a common f.f. *aktāv-a-*, which is opposed to Curtius' supposition. The suffix here is therefore only *-a-*, which is added to the raised stem *aktu-* (consequently we must not assume either suffix *-va-* as in **par-va-*, or still less *-ma-* changed into *-va-*).

9. Indo-European original-language doubtful whether with suffix *-ma- (nava-ma-)*, or with *-ta- (navan-ta)*; Sanskrit *nava-má-*; Greek *ἔνα-το-*, *ἔννα-το-*, probably shortened from **ἐνεFα-το-*; Latin *nō-no-* from **nou-no-*, **noui-no-*, probably from **noui-mo-* by assimilation to the initial sound.

10. Original-language doubtful, as in the case of 9, whether *daka-ma-* or *dakan-ta-*; Sanskrit *daça-má-*; Greek *δέκα-το-*; Latin *deci-mo-*.

11–19. Originally by means of two words.—Sanskrit. Here, as in other compounds, the final *a* of the second element of *daçan-*, which has lost its *n*, serves likewise for an adjective-forming suffix, e.g. 11, *ēkā-daçá-*, from *ékā-daçan-*; 12, *dvā-daçā-*, etc. Here consequently we see suffix *a* also serving to form a superlative (as in Gk. Lat. **aktāv-a-*, 8). Greek throughout *-δέκα-το-*; 11, *ἑν-δέκα-το-*; 19, *ἐννεα-και-δέκα-το-*. Latin. 11, *un-deci-mo-*; 12, *duo-deci-mo-*, and the remaining numerals by separate words.

20–90. Originally by two words.—Sanskrit either with *-tama-*, e.g. 20, *vīçati-tamá-*; 30, *trīcati-tamá-*; or by suffix *-a-* like 11–19, with loss of final *-t*, *-ti*, e.g. *vīçá-*, *trīçá-*. Greek.

To *-κοτι-*, *-κοντα-*, was added suffix *-το-*, in such a way that *-κοτι-* and *-κοντα-* were shortened to *-κοτ-*; hence arose **-κοτ-το-* and by rule (§ 68, 2) *-κοσ-το-*, thus 20, *εἰκοσ-τό-*; 30, *τριακοσ--τό-*, etc. Latin. Suffix *-tumo-*, *-timo-*, added to the suffix **-cinti-*, **-cinta-*, which loses its final; or rather to an earlier **-centi-*, **-centa-*; thus **-cent-tumo-*, and thence regularly (77, 1, b) *-censumo-*, *-cēsimo-*, and *-gēsimo-* with *c* softened to *g*. E.g. 20, early *vicensumo-*, hence *vicēsimo-*, *vigēsimo-*, f.f. would therefore be some such form as **dvi-(da)kanti-tama-*; 40, *quadra--gensimo-*, *-gēsimo-*, etc. § 113.

100–1000. 100. Sanskrit *çata-tamá-*; Greek, with suffix *-στο-*, apparently through the analogy of *-ιστο-* (§ 106), formed from *-το-*, *ἑκατο-στό-*; Latin, according to analogy of the tens, *cent-ēsimo-*, as though *-ēsimo-* were the suffix (from **cent-tēsimo-* would have arisen **censēsimo-*, § 77, 1, b).

200–900. Sanskrit with *çata-tamá-*; Greek with *-στο-* (v. 100); e.g. 200, *διακοσιο-στό-*; Latin with *centēsimo*, e.g. 200, *du-centēsimo-*, *octin-gentēsimo-*, etc.

1000. Sanskrit *sahasra-tamá-*; Greek with *-στο-*, *χιλιο--στό-*; Latin with *-ēsimo-*, *mill-ēsimo-*.

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