

NATI, or Change of Dental न् n and स् s into Lingual ण् ṇ and श् sh.

§ 95. In addition to the rules which require the modification of certain letters at the beginning and end of words, there are some other rules to be remembered which regulate the transition of dental न् n and स् s into lingual ण् ṇ and श् sh in the body of words. Beginners should try to impress on their memory these rules as far as they concern the change of the dental nasal and sibilant into the lingual nasal and sibilant in *simple words*: with regard to compound nouns and verbs, the rules are very complicated and capricious, and can only be learnt by long practice.

Change of न् n into ण् ṇ.

§ 96. The dental न् n, followed by a vowel, or by न् n, म् m, य् y, and व् v, is, in the middle of a word, changed into the lingual ण् ṇ if it is preceded by the linguals च् ri, च् ṛi, र् r, or श् sh. The influence of these letters on a following न् n is not stopt by any vowel, by any guttural (क k, ख kh, ग g, घ gh, ङ ṅ, ह h, ञ ṇ), or by any labial (प p, फ ph, ब b, भ bh, म m, व v), or by य् y, intervening between the linguals and the न् n.

Ex. नृ + नां = नृणां nṛi + nām = nṛiṇām, gen. plur. of नृ nṛi, man.

कर्णः karnaḥ, ear.

दूषणं dūṣhaṇam, abuse.

वृंहणं vṛimhaṇam, nourishing, (ह h is guttural and preceded by Anusvāra.)

अर्केण arkeṇa, by the sun, (क k is guttural.)

गृह्णाति grihṇāti, he takes, (ह h is guttural.)

क्षिप्नुः kshipṇuḥ, throwing, (प p is labial.)

प्रेम्या premṇā, by love, (म् m is labial.)

ब्रह्मण्यः brahmaṇyaḥ, (ह h is guttural, म् m is labial, and न् n followed by य् y.)

निषणः niṣhaṇṇaḥ, (न् n is followed by न् n, which is itself afterwards changed to ण् ṇ.)

अक्षयवत् akṣhaṇvat, (ण् ṇ is followed by व् v.)

प्रायेण prāyeṇa, generally, (य् y does not prevent the change.)

But अर्चन archana, worship, (च ch is palatal.)

अर्णवेन arṇavena, by the ocean, (ण् ṇ is lingual.)

दर्शनं darśanam, a system of philosophy, (श् ś is palatal.)

अर्धेन ardheṇa, by half, (ध dh is dental.)

कुर्वन् kurvanti, they do, (न् n is followed by त् t.)

रामान् rāmān, the Rāmas, (न् n is final.)

Note—रुग्णः ruḡṇaḥ, like वृक्णः vṛikṇaḥ (Pāṇ. vi. 1, 16), should be written with ण् ṇ. The ग् g is no protection for the न् n. Thus अग्नि agni has to be especially mentioned as an exception for not changing its न् n into ण् ṇ in compounds, such as शरद्गनिः śaradgñiḥ. (Pāṇ. Gaṇa kṣubhñādi.)

§ 97. The न् n of तु nu, the sign of the Su conjugation, and the न् n of ना ná, the sign of the Kṛi conjugation, are not changed into ण् n in the two verbs तृप् trip and क्षुब् kshubh (Pāṇ. VIII. 4, 39). Hence

तृप्नोति tripnoti, he pleases *. क्षुब्नोति kshubhnóti, he shakes.

But तृणोति śṛṇoti, he hears. पुष्णोति pushṇáti, he nourishes.

क्षुभाण kshubhāṇa, imper. shake.

Table showing the Changes of न् n into ण् n.

च ri,	in spite of intervening Vowels, Gutturals (including ह् h and Anusvāra), Labials (including व् v), and य् y,	change	if there follow Vowels, or
च rí,		न् n	न् n,
र् r,		into	म् m,
श् sh,		ण् n	य् y, व् v.

§ 98. The changes here explained of न् n in the middle of simple words, (whether it belongs to a suffix or a termination,) are the most important to remember. But न् n is likewise liable to be changed into ण् n when it occurs in the second part of a compound the first part of which contains one of the letters च ri, च rí, र् r, or श् sh, and particularly after certain prepositions. Here, however, the rules are much more uncertain, and we must depend on the dictionary rather than on the grammar for the right employment of the dental or lingual nasals. The following rules are the most important :

1. The change of न् n into ण् n does not take place unless the two members of the compound are combined so as to express a single conception. Hence बार्ध्री bārdhrī, a leathern thong, + नस nasa, nose, gives बार्ध्रीणसः bārdhrīṇasa, if it is the name of a certain animal ; according to Wilson, of a goat with long ears ; according to others, of a rhinoceros, or a bird. (Uṇādi-Sūtras, ed. Aufrecht, s. v. Pāṇ. VIII. 4, 3.) But चर्मन् charman, leather, + नासिका nāsikā, nose, gives चर्मनासिकः charmanāśikah, if it means having a leathern nose. An important exception is सर्वनामन् sarvanāman, a technical term for pronouns, (सर्वे sarva being the first in their list,) which Pāṇini himself employs with the dental न् n only. (Pāṇ. I. 1, 27.) Other proper names not following the general rule, are त्रिनयनः trinayanah, three-eyed, name of Śiva ; रघुनन्दनः raghunandanah, name of Rāma ; स्वर्भानुः svarbhānuḥ, name of Rahu, &c.

* In the Veda we find तृप्नुहि trippnuhi, Rv. II. 16, 6 ; तृप्णवः trippṇavah, Rv. III. 42, 2.

Words to be remembered :

अग्रणीः *agranīḥ*, first, principal, from अग्र *agra*, front, and नी *nī*, to lead.

ग्रामणीः *grāmaṇīḥ*, head borough, from ग्राम *grāma*, multitude, and नी *nī*, to lead.

वृत्रघ्नः *vrītraghnah*, Indra, killer of Vṛitra; but वृत्रघ्नम् *vrītrahanam*, acc. of वृत्रघ्न *vrītrahan*. (Pāṇ. VIII. 4, 12; 22.)

गिरिनदी or गिरिणदी *girinadī* or *giriṇadī*, mountain-stream.

पराह्णं *parāhnam*, afternoon, from परा *parā*, over, and अहन् *ahan*, day; but सर्वोह्णः *sarvāhṇah*, the whole day, from सर्व *sarva*, all, and अहन् *ahan*, day; and the same whenever the first word ends in अ a. (Pāṇ. VIII. 4, 7.)

There are minute distinctions, according to which, for instance, क्षीरपानं *kṣhīrapānam* if it means the drinking of milk, or a vessel for drinking milk, कंसः क्षीरपानः *kamsaḥ kṣhīrapānah*, may be pronounced with dental or lingual न् *n* (न् *n* or ख् *ṣ*); but if it is the name of a tribe who live on milk, it must be pronounced क्षीरपाखः *kṣhīrapāṇah*, milk-drinking. (Pāṇ. VIII. 4, 9 and 10.) In the same manner दर्भवाह्यं *darbhavāhanam*, a hay-cart, is spelt with lingual ख् *ṣ*; while in ordinary compounds, such as इन्द्रवाहनं *indravāhanam*, a vehicle belonging to Indra, the dental न् *n* remains unchanged. (Pāṇ. VIII. 4, 8.)

2. In a compound consisting of more than two words the न् *n* of any one word can only be affected by the word immediately preceding. Hence माषवापेयं *māsha-vāpeṇa*, by sowing beans; but माषकुम्भवापेन *māsha-kumbhā-vāpeṇa*, by sowing from a bean-jar. (Pāṇ. VIII. 4, 38.)

3. In a compound the change of न् *n* into ख् *ṣ* does not take place if the first word ends in ग् *g*.

Ex. चृक् + अयनं = चृगयनं *ṛik + ayanam = ṛigayanam*.

Some grammarians restrict this to proper names. (Pāṇ. VIII. 4, 3, 5.)

Or if it ends in श् *śh*, and the next is formed by a primary suffix with न् *n*.

Ex. निः + पानं = निष्पानं *niḥ + pānam = nishpānam*.

यजुः + पावनं = यजुष्पावनं *yajuh + pāvanam = yajushpāvanam*. (Pāṇ. VIII. 4, 35.)

4. In compounds the न् *n* of nouns ending in न् *n*, and the न् *n* of case-terminations, if followed by a vowel, are always liable to change.

व्रीहिवापिन् *vrīhivāpin*, rice-sowing, may form the genitive व्रीहिवापिः *vrīhivāpiḥ*; but also व्रीहिवापिनः *vrīhivāpinah*.

व्रीहिवापाणि or व्रीहिवापानि *vrīhivāpāṇi* or *vrīhivāpāni*, nom. plur. neut.

व्रीहिवापेय or व्रीहिवापेन *vrīhivāpeṇa* or *vrīhivāpena*, instrum. sing.

Likewise feminines such as व्रीहिवापिणी or व्रीहिवापिनी *vrīhivāpiṇī* or *vrīhivāpīnī*.

(Kās.-Vṛitti VIII. 4, 11.)

Note—The न् n of secondary suffixes, attached to the end of compounds, is, under the general conditions, always changed to य् y. Thus खरपः *kharapaḥ* (i. e. donkey-keeper) becomes खरपाययः *kharapāyayaḥ*, the descendant of Kharapa. मातृभोगीयः *mātṛibhogīyaḥ*, fit to be possessed by a mother, from मातृ *mātṛi*, mother, and भोगः *bhogaḥ*, enjoyment, with the adjectival suffix ईन् *īna* (*samāsānta*), is always spelt with य् y. (See also § 98. 6.) Again, while गर्गभगिनी *gargabhaginī*, the sister of Garga, always retains its dental न् n, being an ordinary compound, गर्गभगिणी *gargabhaginī* would have the lingual य् y, if it was derived from गर्गभगः *gargabhagaḥ*, the share of Garga, with the adjectival suffix इन् *in*, fem. इनी *inī*, enjoying the share of Garga. Words which after they have been compounded take a new suffix are treated in fact like single words (*samānapada*), and therefore follow the general rule of § 96. (Pāṇ. VIII. 4, 3. Kāś.-Vṛitti VIII. 4, 11, v.)

5. If the second part of the compound is monosyllabic, then the change of a final न् n followed by a terminational vowel, or of a terminational न् n, is obligatory. (Pāṇ. VIII. 4, 12.)

Ex. वृत्रहन् *vṛitrahan*, Vṛitra-killer; gen. वृत्रहयः *vṛitrahayaḥ*.

सुरापः *surāpaḥ*, drinking surā; nom. plur. neut. सुरापयि *surāpāni*.

क्षीरपः *kṣhīrapaḥ*, drinking milk; instrum. sing. क्षीरयेय *kṣhīrapaṇa*.

6. If the second part of a compound contains a guttural, the change is obligatory, even though the second part be not monosyllabic. (Pāṇ. VIII. 4, 13.)

Ex. हरिकामः *harikāmaḥ*, loving Hari; instrum. sing. हरिकामेय *harikāmeṇa*.

शुष्कगोमयेय *śuṣhkagomayeṇa*, instrum. sing. of शुष्कगोमय *śuṣhkagomaya*; (शुष्क *śuṣhka*, dry, गोमय *gomaya*, dung.)

7. Likewise after prepositions which contain an र r, the न् n of primary affixes, such as अन *ana*, अनि *ani*, अनीय *anīya*, इन् *in*, न *na* (if preceded by a vowel), and मान *māna*, is changed to य् y, but under certain restrictions. (Pāṇ. VIII. 4, 29.)

Ex. प्रवपयं *pravapaṇam*; प्रमायं *pramāṇam*; प्रापयमायं *prāpyamāṇam*.

While in these cases the change is pronounced obligatory, it is said to be optional after causative verbs (Pāṇ. VIII. 4, 30), and after verbs beginning and ending in consonants with any vowel but अ a (Pāṇ. VIII. 4, 31); hence प्रयापयं and °नं *prayāpaṇam* and *prayāpanam*; प्रकोपयं or °नं *prakopaṇam* or *prakopanam*. Again, after verbs beginning in a vowel (not अ a) and strengthening their bases by nasalization, the change is necessary; it is forbidden in other verbs, not beginning with vowels, though they require nasalization: hence प्र + इंगनं = प्रेगयं *pra + inganam = preṅganam*; but प्र + कंपनं = प्रकंपनं *pra + kampanam = prakampanam*. Lastly, there are several roots which defy all these rules, viz. भा *bhā*, भू *bhū*, पू *pū*, कम् *kam*, गम् *gam*, प्याय *pyāy*, वेप् *vep*: hence प्रभानं *prabhānam* &c., never प्रभायं *prabhāṇam*; प्रवेपनं *pravepanam*, never प्रवेपयं *pravepaṇam*.

8. After prepositions containing an र r, such as अन्तर *antar*, निर् *nir*, परा *parā*,

परि *pari*, and प्र *pra*, and after दुर *dur*, the change of न् n into ख् k takes place :

1. In most roots beginning with न् n. (Pân. VIII. 4, 14.)

प्र + नमति = प्रणमति *pra + namati = prañamati*, he bows.

परा + नुदति = पराणुदति *parā + nudati = parāñnudati*, he pushes away.

अंतः + नयति = अंतर्नयति *antaḥ + nayati = antarnayati*, he leads in.

प्र + नायकः = प्रणायकः *pra + nāyakaḥ = prañāyakaḥ*, a leader.

The roots which are liable to this change of their initial न् n are entered in the Dhātupāṭha, the list of roots of native grammarians, as beginning with ख् k. Thus we should find the root नम् *nam* entered as खम् *nam*, simply in order thus to indicate its liability to change.

2. In a few roots this change is optional if they are followed by Kṛit affixes, viz. (Pân. VIII. 4, 33.)

निषि *niṣi*, to kiss ; प्रणिंसितव्यं or प्रनिंसितव्यं *prañiṁsitavyam* or *praniṁsitavyam*.

निष् *niṣh*, to kiss ; प्रणिष्णव्यं or प्रनिष्णव्यं *prañiṣṇavyam* or *praniṣṇavyam*.

निदि *niḍi*, to blame ; प्रणिंदनं or प्रनिंदनं *prañindanam* or *pranindanam*.

3. In a few roots the initial न् n resists all change, and these roots are entered in the Dhātupāṭha as beginning with न् n, viz. (Pân. VI. 1, 65, v.)

नृत् *nṛt*, to dance.

नन्द *nand*, to rejoice.

नर्द् *nard*, to howl.

नक् *nakk*, to destroy.

नाद् *naḍ*, to fall down, (Chur.) *

नाष् *nāth*, to ask.

नाध् *nādh*, to beg.

नृ *nṛ*, to lead.

Ex. परिनर्तनं *parinartanam* ; परिनन्दनं *parinandanam*.

4. The root नञ् *naś*, to destroy, changes न् n into ख् k only when its ञ् ṣ is not changed to श् sh. प्र + नश्यते = प्रणश्यते *pra + naśyate = prañasyate*; but प्र + नष्टः = प्रणष्टः *pra + naśṭaḥ = prañashṭaḥ*, destroyed. (Pân. VIII. 4, 36.)
5. In the root अन् *an*, to breathe, the न् n is changed to ख् k if the र r is not separated from the न् n by more than one letter. Thus प्र + अनिति = प्राणिति *pra + aniti = prāṇiti*, he breathes ; but परि + अनिति = पर्याणिति *pari + aniti = paryāṇiti*. The reduplicated aorist forms प्राणिषत् *prāṇiṣat* ; the desiderative with परा *parā* is पराणिषिषति *parāṇiṣiṣati*. (Pân. VIII. 4, 19, 21.)
6. In the root हन् *han*, to kill, the न् n is changed except where ह् h has to be changed to घ् gh. (Pân. VIII. 4, 22.) Thus प्र + हन्यते = प्रहण्यते *pra + hanyate = prahanyate*, he is struck down ; अंतर्हण्यते *antarhanyate* (Pân. VIII. 4, 24) ; but प्र + हन्ति = प्रघ्नन्ति *pra + ghnanti = praghñanti*, they kill. Also प्रहणनं *prahañanam*, killing.

* It is not नद् *naḍ*, to dance, but नद् *naḍ* of the Chur class, and hence written with a long ḍ. Siddh.-Kaum. II. p. 41, note.

The change is optional again where न् n is followed by म् m or व् v. (Pân. VIII. 4, 23.) Thus ग्रहन्मि or ग्रहन्मि *prahanmi* or *prahanmi*; ग्रहन्वः or ग्रहन्वः *prahanvāḥ* or *prahanvāḥ*.

7. The न् n of नु nu of the Su and of ना nd of the Krî conjugation is changed to श् sh in the verbs हि hi, to send, and मी mi, to destroy. (Pân. VIII. 4, 15.)

Ex. ग्रहन्मन्ति *prahṇvanti*; प्रमीयन्ति *pramīyanti*.

8. The न् n of the termination नानि dñi in the imperative is changeable. (Pân. VIII. 4, 16.) Thus प्र + भवानि = प्रभवानि *pra + bhavāni = prabhavāñi*.

9. The न् n of the preposition नि ni, if preceded by प्र pra, परि pari, &c., is changed into श् sh before the verbs (Pân. VIII. 4, 17) गद् gad, to speak, नद् nad, to be happy, पत् pat, to fall, पद् pad, to go, the verbs called घु ghu, माङ्* mā, to measure, मेङ् me, to change, सो so, to destroy, हन् han, to kill, या yā, to go, वा vā, to blow, द्रा drā, to flee, प्सा psā, to eat, वप् vap, to weave, वह् vah, to bear, शम् śam, to be tranquil (*div*), चि chi, to collect, दिह diḥ, to anoint.

The same change takes place even when the augment intervenes. (Pân. VIII. 4, 17, v.)

प्रत्यगदत् *pranyagadat*; प्रत्यनदत् *pranyanadat*.

§ 99. In all other verbs except those which follow गद् gad, the change of नि ni after प्र pra, परि pari, &c., is optional.

प्रनिपचति or प्रणिपचति *pranipachati* or *pranipachati*.

Except again in verbs beginning with क ka or ख kha, or ending in श् sh (Pân. VIII. 4, 18), in which the न् n of नि ni remains unchanged.

प्रनिकरोति *pranikaroti*; प्रनिखादति *pranikhādati*; प्रनिपिनष्टि *pranipinashṭi*.

Change of स् s into श sh.

§ 100. A dental स् s (chiefly of suffixes and terminations), if preceded by any vowel except अ, आ ā, or by क k, र r, ल l, is always changed into the lingual श sh, provided it be followed by a vowel, or by त t, थ th, न n, म m, य y, or व v; likewise by certain Taddhita suffixes, क ka, कल्प kalpa, पाश pāśa, &c.

* Where it seemed likely to be useful, the Sanskrit roots have been given with their diacritical letters (*anubandhas*), but only in their Devanāgarī form. Pāṇini in enumerating the roots which change नि ni after प्र pra, प्रति prati, &c., into शि shi, mentions मा मा, but this, according to the commentaries, includes two roots, the root माङ् mā(ñ), which forms मीमते mīmāte, he measures, and the root मेङ् me(ñ), which forms मयते mayate, he changes. Where in this grammar the transcribed form of a root differs from its Devanāgarī original, the additional letters may always be looked upon as diacritical marks employed by native grammarians. Sometimes the class to which certain verbs belong has been indicated by adding the first verb of that class in brackets. Thus śam (*div*) means śamyati, or śam conjugated like div, and not śamayate.

If Anusvāra* or Visarga or $\text{श् } sh$ intervenes between the vowel and the $\text{स् } s$, the change into $\text{श् } sh$ takes place nevertheless.

Ex. सर्पिस् *sarpis*, inflectional base; सर्पिः *sarpīḥ*, nom. sing. neut. clarified butter; instrum. सर्पिणा *sarpishā*; nom. plur. सर्पिणी *sarpīṇshi* (here the Anusvāra intervenes); loc. plur. सर्पिषु *sarpīḥshu* (here the Visarga intervenes), or सर्पिष्णु *sarpishshu* (here the $\text{श् } sh$ intervenes).

वाक्शु *vākshu*, loc. plur. of वाक् *vāch*, speech.

सर्वशक् + सु = सर्वशक्षु *sarvaśak + su = sarvaśakshu*, omnipotent.

चित्रलिक् (क्) + सु = चित्रलिक्षु *chitralikh (k) + su = chitralikhshu*, painter.

गीर्षु *gīrshu*, loc. plur. of गिर् *gir*, speech.

कमल् + सु = कमल्लु *kamal + su = kamalshu*, naming the goddess Lakshmi.

द्रोक्षति *dhrokshyati*, fut. of द्रुह् *druh*, to hate; (here $\text{ह } h$ is changed to $\text{क् } k$, and the aspiration thrown on the initial $\text{द् } d$.)

पोक्षति *pokshyati*, fut. of पुष् *push*, to nourish; (here $\text{श् } sh$ is changed into $\text{क् } k$.)

सर्पिः + कः = सर्पिष्कः *sarpīḥ + kaḥ = sarpishkaḥ*; adj. formed by क *ka*, having clarified butter.

सर्पिः + तरः = सर्पिष्टरः *sarpīḥ + taraḥ = sarpishṭaraḥ*; (here the $\text{ह } t$ of तरः *taraḥ* is changed into $\text{ट } ṭ$, as in § 89, III. 2.) If the penultimate vowel be long, no change takes place; गीस्तरा *gīstara*. (Pāṇ. VIII. 3, 101.)

सर्पिः + मत् = सर्पिष्मत् *sarpīḥ + mat = sarpishmat*, having clarified butter.

Table showing the Changes of $\text{स् } s$ into $\text{श् } sh$.

Any Vowel except $\text{अ, आ } \bar{a}$, (in spite of intervening Anusvāra or Visarga or sibilant,) and $\text{क् } k, \text{र् } r, \text{ल् } l$ if immediately preceding,	change $\text{स् } s$ into $\text{श् } sh$	if there follow Vowels, or $\text{त् } t, \text{थ } th,$ $\text{न् } n, \text{म् } m,$ $\text{य } y, \text{व } v.$
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§ 101. The same rule produces the change of $\text{स् } s$ into $\text{श् } sh$ in roots beginning with $\text{स् } s$, if reduplicated, provided the vowel of the reduplicated syllable is not $\text{अ, आ } \bar{a}$: Ex. स्वप् *svap*, to sleep; Redupl. Perf. सुष्वप् *sushvāpa*,

* The Anusvāra must not represent a radical nasal; hence पुंसु *puṁsu*, not पुंशु *puṁshu*, loc. plur. of पुंस् *puṁs*, man; Pada base पुम् *pum*. (Pāṇ. VIII. 3, 58.) The Śārasvatī prescribes पुंशु *puṁshu*. The $\text{स् } s$ must not be a radical $\text{स् } s$; hence सुपिसौ *supisau*, because the $\text{स् } s$ belongs to the root पिस् *pis*. (Pāṇ. VIII. 3, 59.) Yet आशिषः *āśiṣaḥ*, from root श्राष् *śāṣ*. The rules do not apply to final $\text{स् } s$; hence अग्निस्तत्र *agnis tatra*. (Pāṇ. VIII. 3, 55.)

I have slept. शिप् *sidh*, Des. शिषित्सति *sishitsati*. This rule is liable to exceptions.

§ 102. Again, many roots beginning with स् s change it into श् sh after prepositions requiring such a change, viz. अति *ati*, over, अनु *anu*, after, अपि *api*, upon, अभि *abhi*, towards, नि *ni*, in, निर् *nir*, out, परि *pari*, round, प्रति *prati*, towards, वि *vi*, away: Ex. अभि + स्तौति = अभिष्टौति *abhi + stauti = abhishṭauti*, he praises. The same change takes place even after the augment has been added, in which case the स् s is really preceded by an अ a: Ex. अभ्यष्टौत् *abhyashṭaut*, he praised. Some verbs, after these prepositions, keep the श् sh in the reduplicated perfect: Ex. शिप् *sich*, to sprinkle; अभिशिञ्चति *abhishiñchati*, he sprinkles; अभिशिञ्चेत् *abhishishecha*, he has sprinkled. In the intensive शिप् *sich* does not follow this rule; hence अभिशिञ्च्यते *abhishesichyate* (Pân. VIII. 3, 112); but in the desiderative स् s is changed, अभिशिशिक्षति *abhishishikshati*. Many other cases must be learnt from the dictionary or from Pânini.

§ 103. In order to give an idea of the minuteness of the rules as collected by native grammarians, and of the complicated manner in which these rules are laid down, the following extracts from Pânini have been subjoined, though they by no means exhaust the subject according to the views of native grammarians. It need hardly be added that beginners should not attempt to burden their memory with these rules, though a glance at them may be useful by giving them an idea of the intricacies of Sanskrit grammar.

Native grammarians enumerate all monosyllabic verbs beginning with स् s, and followed by a vowel or by a dental consonant, (likewise स्मि *smi*, स्विद् *sviḍ*, स्वद् *svad*, स्वञ् *svañj*, स्वप् *svap*,) as if beginning with श् sh. Thus they write शिप् *shidh*, शिप् *shidh*, शिप् *shmi*. (Pân. VI. 1, 64.)

This is not done with शृप् *śrip*, शृञ् *śrij*, शृत् *śrī*, शृन् *śrī*, स्तौ *styai*, सेक् *sek*, शृ *śri*, in order to show that their initial स् s is not liable to be changed into श् sh under any circumstances.

They then give the general rule that this initial श् sh is to be changed into स् s, in all these verbs, except शिप् *shīhiv* and श्वप् *shvashk*, (and according to some in श्चि *shṭyai*, Sâr.,) unless where श् sh is enjoined a second time.

Now श् sh for स् s in these verbs is enjoined a second time :

1. When a preposition, or what else precedes it, requires such permutation, according to general rules. वि + स्तौति = विष्टौति *vi + stauti = viṣṭauti*. सेक् *sev* forms सिञ्चेत् *sisheva* in the reduplicated perfect.
2. In desideratives, when the reduplicative syllable contains इ or उ, णि or उ. शिप् *sidh*, Des. शिषित्सति *sishitsati*.

But if the स् s of the desiderative element must itself be changed to श् sh,

the initial स् s remains unchanged. सिद् *sidh*, सिद्धेयिषति *sisedhishati*. (Pāṇ. VIII. 3, 61.)

Except in स्तु *stu*, and in derivative verbs in अय *aya*, where स् s is changed to श् *sh*. स्तु *stu*, Des. तुष्टुवति *tushtūshati*. सिद् *sidh*, Caus. सेधयति *sedhayati*, Des. सिद्धेयिषति *sishedhayishati*; but सुसूचति *susūshati*. (VIII. 3, 61.)

Except again, in certain causatives, in अय *aya* (VIII. 3, 62), where स् s is not changed into श् *sh*. सिद् *sidh*, सिद्धेयिषति *sivedayishati*. स्वद् *svad*, सिद्धादयिषति *sivādayishati*. सह *sah*, सिद्धाहयिषति *siddhayishati*.

3. In certain verbs, after prepositions which require such a change, even when they are separated from the verb by the augment, viz. सु *su* (*su*), सू *śū* (*tud*), सो *so* (*div*), स्तु *stu* (*ad*), स्तुम् *stubbh* (*bhū*); or even if separated by reduplication, in the verbs स्था *sthā*, सेनय *senaya*, सिद् *sidh*, सिद् *sich*, संज् *sañj*, स्वञ्ज् *svañj*, सद् *sad*, स्तम्ब *stambh*, स्वन् *svan*, सेव् *sev*, (the last only after परि *pari*, नि *ni*, वि *vi*: VIII. 3, 65.)

After prepositions: अभिषुचति *abhiśhuṇoti*. अभिषुचति *abhiśhuṇoti*. अभिष्यति *abhiśhyati*. परिहोति *pariśṭauti*. परिहोते *pariśṭobhate*. अभिह्रास्यति *abhiśṭhāsyati*. अभिषेयति *abhiśheṇayati*. परिषेयति *pariśhedhati*. अभिषिञ्चति *abhiśhiñchati*. परिषजति *pariśhajati*. परिष्वजते *pariśhvajate* (VIII. 3, 65). निषीदति *niśīdati*, but प्रतिसीदति *pratisīdati* (VIII. 3, 66). अभिष्टभाति *abhiśṭabhāti* (VIII. 3, 67 and 114). Also अवशब्ध *avashṭabhya* (VIII. 3, 68, in certain senses). वि and अवष्वयति *vi* and *avashvaṇati* (VIII. 3, 69, in the sense of eating). परिषेवते *pariśhevate*.

After prepositions and augment: अभ्यषुचत् *abhyashuṇot*. पर्येषुचत् *paryaśhuṇat*. अभ्यष्यत् *abhyashyat*. पर्येष्यत् *paryaśṭaut*. अभ्यहोभत् *abhyashṭobhata*. अभ्यह्रात् *abhyashṭhāt*. अभ्यषेयत् *abhyashheṇayat*. पर्येषेयत् *paryaśhedhat*. अभ्यषिञ्चत् *abhyashhiñchat*. पर्येषजत् *paryaśhajata*. अभ्यष्वजत् *abhyashhvajata*. अभ्यषीदत् *abhyashīdat*. अभ्यष्टभात् *abhyashṭabhāt*. व्यष्वयत् *vyashvaṇat* and अवाष्वयत् *avāshvaṇat*. पर्येषेवत् *paryaśhevata*.

After prepositions and reduplication (VIII. 3, 64): अभितहो *abhitashṭhau*. अभिषिषेयिषति *abhiśhiśheṇayishati*. अभिषिषेयिषति *abhiśhiśhedhayishati*. अभिषिषिषति *abhiśhiśhikshati*. अभिषिषिषति *abhiśhiśhikshati* and अभ्यषिषिषत् *abhyashishikshat*. परिषिष्विषते *pariśhiśhvāṅkshate*. निषिषत्सति *niśhiśhatsati* (VIII. 3, 118). अभितहंभ *abhitashṭambha*. अवष्वयत् *avashvaṇat*. परिषेव *pariśheva*, (the last only after परि *pari*, नि *ni*, वि *vi*.)

4. Only after the prepositions परि *pari*, नि *ni*, वि *vi*, the following words (VIII. 3, 70): the part. सितः *sitaḥ*, the subst. सयः *sayah*, सिद् *siv*, सह *sah*; कृ *kṛi* (if with initial स् s, स्क् *skṛi*) and similar verbs; स्तु *stu*.

The words mentioned in 4. and स्वञ्ज् *svañj* may optionally retain स् s, if the augment intervenes. (VIII. 3, 71.)

5. After the prepositions अनु *anu*, वि *vi*, परि *pari*, अभि *abhi*, नि *ni*, संद् *syand* may take श *sh*, except when applied to living beings. (VIII. 3, 72.)
 6. After the prep. वि *vi*, स्कंदिर् *skand* may take श *sh*, though not in the past participle in त *ta* (VIII. 3, 73), but after the prep. परि *pari*, throughout, even in the past participle (VIII. 3, 74). परिष्कन्तः or परिस्कन्तः *parishkannah* or *pariskannah*.
 7. After the prep. निर् *nir*, नि *ni*, वि *vi*, the verbs स्फुर् *sphur* and स्फुल्ल *sphul* may take श *sh*. (VIII. 3, 76.)
 8. After the prep. वि *vi*, स्कम्ब् *skambh* must always take श *sh*. (VIII. 3, 77.)
 9. The verb अस् *as*, after dropping its initial vowel, takes श *sh* after prepositions which cause such a change, and after प्रादुर् *prādur*, if the श *sh* is followed by य *y* or a vowel (VIII. 3, 87). अभिष्यात् *abhishyāt*. प्रादुःष्यात् *prāduṣhyāt*. प्रादुःषन्ति *prāduṣhanti*.
 10. The verb स्वप् *svap*, when changed to सुप् *sup*, takes श *sh*, after सु *su*, वि *vi*, निर् *nir*, दुर् *dur* (VIII. 3, 88). सुषुप्तः *sushuptah*. दुःषुप्तः *duṣhuptah*.
- Exceptional cases, where स *s* is used, and not श *sh* :
11. The verb सिष् *sich*, followed by the intensive affix (VIII. 3, 112). अभिसेचिष्यते *abhisecichyate*.
 12. The verb सिध् *sidh*, signifying to go (VIII. 3, 113). परिसेधति *parisedhati*.
 13. The verb सह् *sah*, if changed to सोद् *soḍh* (VIII. 3, 115). परिःसोदुं *pariḥsoḍhum*.
 14. The verbs स्तम्ब् *stambh*, सिव् *siv*, सह् *sah*, in the reduplicated aorist (VIII. 3, 116). पर्यसीषहत् *paryasīshahat*.
 15. The verb सु *su*, followed by the affixes of the 1st future, the conditional, or the desiderative (VIII. 3, 117). अभिसोष्यति *abhisoshyati*. अभिसुसूः *abhisusūḥ*.
 16. The verbs सद् *sad*, संज् *svañj*, in the reduplicated perfect (VIII. 3, 118). अभिषसाद् *abhisahasāda*. अभिषस्रजे *abhisahasvaje*.
 17. The verb सद् *sad*, optionally, if preceded by the augment (VIII. 3, 119). न्यसीदत् or न्यसीदत् *nyasīdat* or *nyasīdat*.

§ 104. There are many compounds in which the initial स *s* of the second word is changed to श *sh*, if the first word ends in a vowel (except *ā*).
 Ex. युधिष्ठिर *yudhishtira*, from युधि *yudhi*, in battle, and स्थिर *sthira*, firm; सुहृ *sushṛ*, well; दुहृ *dushṛ*, ill; सुषमः *sushamah*, beautiful, विषमः *vishamah*, difficult, from समः *samah*, even; त्रिष्टुब् *trishṭubh*, a metre; अग्निषोमौ *agnishomau*, Agni and Soma; मातृश्वसृ *mātrishvasri*, mother's sister; पितृश्वसृ *pitriśvasri*, father's sister; गोष्ठः *goshṭhah*, cow-stable; अग्निहोमः *agnishṭomah*, a sacrifice; ज्योतिहोमः *jyotishṭomah*, a sacrifice, (here the final स *s* of ज्योतिस् *jyotis* is dropt.) In तुरासाह *turāsāh*, a name of Indra, and similar compounds,

स् is changed to श् whenever ह h becomes र r; nom. तुरासाद् *turdsad*; acc. तुरासाहं *turdsaham*. (Pāṇ. VIII. 3, 56.)

Change of Dental ध dh into Lingual ढ dh.

§ 105. The ध dh of the second pers. plur. Âtm. is changed to ढ dh in the reduplicated perfect, the aorist, and in शीघ्रं *śhīdhvam* of the benedictive, provided the ध dh, or the शी *śhī* of शीघ्रं *śhīdhvam*, follows immediately an inflective root ending in any vowel but अ, आ ऌ. (Pāṇ. VIII. 3, 78.)

Ex. कृ *kṛi*; Perf. चकृदे *chakṛīdhve*.

चु *chyu*; Aor. अच्योदं *achyodhvam*.

सु *plu*; Bened. श्लोषीदं *ploshīdhvam*.

But क्षिप् *kship*; Aor. अक्षिभ्यं *akshibdhvam*.

यज् *yaj*; Bened. यक्षीभ्यं *yakshīdhvam*.

If the same terminations are preceded by the intermediate इ i, and the इ i be preceded by य y, र r, ल l, व v, ह h, the change is optional.

Ex. लु *lu*; Perf. लुलुविध्वे *luluvidhve* or लुलुविदे *luluvidhve*.

लु *lu*; Aor. अलविभ्यं *alavidhvam* or अलविदं *alavidhvam*.

लु *lu*; Bened. लविषीभ्यं *lavishīdhvam* or लविषीदं *lavishīdhvam*.

But बुद् *budh*; Aor. अबोधिभ्यं *abodhidhvam*.

Rules of Internal Sandhi.

§ 106. The phonetic rules contained in the preceding paragraphs (§ 32-94) apply, as has been stated, to the final and initial letters of words (*padas*), when brought into immediate contact with each other in a sentence, to the final and initial letters of words formed into compounds, and to the final letters of nominal bases before the Pada-terminations, and before certain secondary or Taddhita suffixes, beginning with any consonant except य y.

There is another class of phonetic rules applicable to the final letters of nominal (*prātipadika*) and verbal bases (*dhdtu*) before the other terminations of declension and conjugation, before primary or Kṛit suffixes, and before secondary or Taddhita suffixes, beginning with a vowel or य y. Some of these rules are general, and deserve to be remembered. But in many cases they either agree with the rules of External Sandhi, or are themselves liable to such numerous exceptions, that it is far easier to learn the words or grammatical forms themselves, as we do in Greek and Latin, than to try to master the rules according to which they are formed or supposed to be formed.

The following are a few of the phonetic rules of what may be called *Internal Sandhi*. The student will find it useful to glance at them, without