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*W. S. Hoodhouse*  
OF THE

CEYLON BRANCH

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OF THE



ROYAL ASIATIC SOCIETY,

1880.

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EDITED BY THE HONORARY SECRETARY.  
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"The design of the Society is to institute and promote enquiries into the History, Religion, Literature, Arts and Social condition of the present and former inhabitants of this Island, with its Geology, Mineralogy, its Climate and Meteorology, its Botany and Zoology."—RULES.

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*Alfred Grant*  
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OF THE *V. Souriswell*

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JOURNAL  
OF  
THE CEYLON BRANCH  
OF THE  
ROYAL ASIATIC SOCIETY.

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*The following address by the President of the Ceylon Branch of the Royal Asiatic Society* THE HON. COLONEL FYERS, R.E.  
*was read at the General Meeting held September XI, 1879.*  
H. E. SIR JAMES LONGDEN, K. C. M. G. *presiding.*

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YOUR EXCELLENCY AND GENTLEMEN,

I regret to state that for the last four or five years very little has been done by the Ceylon Branch of the Asiatic Society. When I left the Island on leave of absence to Europe in 1874, I resigned the Presidentship, which I had held for some time and it appears that I was re-elected President on 30th June 1877, but no official notification of the appointment was ever communicated to me.

Our late Secretary had more work on hand than he could possibly attend to, subscriptions were not called for and no steps were taken to shew that this Branch of the Society was in existence. However, Mr. H. Drew who is now doing the work of Secretary has communicated with all the Members, and I hope we may start afresh and make up in the future for our long period of lethargy.

In 1874-75, when the new Museum was built, it was decided that the books in the Society's Library and the

specimens in its Museum should be handed over to Government, to be placed in the new Museum, where the large meeting-room was to be available for meetings of the Society, and its members were to be allowed to have access to the Library of the Museum at all times.

I am sorry to say that many members complain of the rule which does not allow books to be taken out of the Museum Library: they state that formerly they were able to take books of reference home and study them, but that now, the books of the Society can only be referred to in the Museum, and that they see no reason why they should subscribe to the Asiatic Society if they are merely on the same footing as those who have reading tickets for the Museum Library, and who pay no subscription whatever.

This is a subject that will, I think, require some consideration, as there is no doubt that men who are employed all day, and who only leave their offices between 5 and 6 o'clock of an evening, cannot make use of the Museum Library which closes at 6 p. m.

As no subscriptions had been called for, for so long a period, it was decided at a meeting of the Committee that the Secretary should communicate with all the members of the Society, and enquire if they were willing to allow their names to be retained as members, it being understood that subscriptions for the current year only would be called for, and not those for the years during which the Society was inactive.

Many replied in the affirmative, but others declined to rejoin the Society for the reasons given above, viz: that they did not see why they should pay a subscription, without having any greater privileges than those who were allowed to have access to the Museum Library without payment.

I am glad to say that we have already issued a new number of the journal of this Branch of the Society, which contains several interesting papers, the first of which has a

melancholy interest attached to it, as it was written by the late Dr. Goldschmidt who unfortunately died from the effects of fever while he was employed on the work he had so much at heart. His paper is entitled Notes on Ancient Sinhalese Inscriptions, and in it he gives an analysis of all the forms of words in the inscriptions translated in his report to the Government of Ceylon dated September, 1876.

The paper is a very interesting one, and it is to be deeply regretted that the life of the learned author should have been sacrificed in consequence of his reluctance to leave off temporarily, from the prosecution of the work to which he was so devoted.

The other papers, all useful and interesting are, on the preparation and mounting of insects for the Binocular Microscope by S. Green Esq., on Neophon Puenopterus (Savigny) from Nuwara Eliya by Alexander Whyte, Esq., on the Climate of Dimbula by E. Heelis, Esq., and on the supposed cause of the existence of Mountain Patanas, or Grass Lands of the Mountain Zone of Ceylon, by the Revd. R. Abbay, M.A.

I would again, as I have done on previous occasions, direct attention to the design of this Society which is "to institute and promote enquiries into the History, Religion, Arts and Social Condition of the present and former inhabitants of this Island, with its Geology and Mineralogy, its Climate and Meteorology; its Botany and Zoology."

All these are very important subjects of investigation and afford various fields of research for those who are inclined to devote a portion of their time to scientific subjects.

I take this opportunity of stating how glad the Society will be to receive papers on any of the subjects enumerated above, from all who will co-operate with us and send us the results of their investigations.

Those who are stationed in distant parts of the Island, where there is little, if any society, and where time often

hangs heavily on their hands, would be amply rewarded if they would take up some branch of scientific research and devote their spare hours to it ; they would become more and more interested as they become better acquainted with their subject, and the results of their researches, if sent to the Society in the form of a paper, would be read at a meeting and published in our journal.

There are at present on the books of this Branch of the Society seven life and forty-five ordinary Members and there will be elected to-day ten ordinary members and one Honorary member and many others will, no doubt, join when they find that the Society is doing really good work.

The balance in the hand of the Treasurer is Rs. 792.64 as per annexed statement.

Many members have promised to prepare papers to be read at our ordinary meetings, which will I hope in future be held regularly, and well attended. On the present occasion papers will be read to the meeting by Mr. William Ferguson and Mr. Ievers.

A. B. FYERS, Colonel, R.E.,  
President, Ceylon Branch,  
Royal Asiatic Society.

COLOMBO, 11th February, 1879.

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TEXT AND TRANSLATION OF THE INSCRIPTION  
OF MAHINDO III AT MIHINTALE.BY DR. MÜLLER,  
GOVERNMENT ARCHÆOLOGIST.

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The inscription which I propose to publish in the following has been the object of several misstatements in books on Ceylon history and literature. It was first translated by Mr. Armour in the Appendix to Turnour's *Epitome of the history of Ceylon*, in the *Ceylon Almanac* for 1834. Afterwards, two extracts were published and translated by James Alwis in his introduction to the *Sidat Sangarâva*, p. XXXVI and CXLVII. Turnour (*Ceylon Almanac* for 1834 p. 173) fixed the date of the inscription to about 262 A. D., as he mistook the King Siri Sanga Bo mentioned in the first line to be Siri Sanga Bo I, descendant of Laeminitissa, who according to the *Mahâwanso* reigned from 246-248. This date was also adopted by Alwis, who gives this inscription as one of the first specimens of Singhalese prose, and by Emerson Tennent (*Ceylon* II. 507), who disputes the correctness of the statement given in the *Mahâwanso*, that Paduvil Tank was constructed by king Mahâsena.

Turnour was aware of the fact that the name of the king is not given in the inscription, and he accounts for this in the following way: Sanga Bo I, who is named in the inscription was a bigoted king whose whole reign was dedicated to religious pursuits. His brother Golu Abhaya, who succeeded him adopted a different policy, and soon became the enemy of the priests (especially by the influence of Sanghamitto.) His son Makalan Jeta Tissa returning to the views of his uncle gave the privileges mentioned in our inscription to the priesthood of Mihintale and as he did not want to record the

name of his father, he omitted his own as well, and dated the inscription after the accession to the throne of Siri Sanga Bo. For the purpose of defining his relationship to the royal family, he was compelled in consequence to record the name of his younger brother Mahâsena.

This argument although very ingenious, cannot hold good against a careful examination of the stone, for to any body who has seen inscriptions of the first centuries A. D., it can be no matter of doubt that the one in question must be much later.

It is written throughout in the round character which resembles very closely the modern Sinhalese alphabet, and which was not used in Ceylon before the 8th century. Dr Goldschmidt first found out the proper name of the King called Siri Sanga Bo by identifying the names of his parents Abhâ Salamevan and Queen Gon with those given in the inscription from Mayilagastota (published in my report on the Hambantota inscriptions, p. 4) as the parents of Mahindo III. (997—1013). He further took into consideration the fact that Mahindo tells us in the inscription that he was aêpâ before being King, as it is stated in the Mahâwanso ch. 54. His father called Abahay Salamevan in the inscription is Dappulo v. of the Mahâwanso, and his brother mentioned in line 5 most probably Sena I, who according to Mah. 53, 33 gave 40,000 to the Abhayagiri priesthood 'Silâpatthara' Mahâsenwâ in l. 5, is not the name of a king, but signifies 'a large army, a great host' as Alwis has already correctly translated.

The contents of the inscription are known from Mr. Armour's translation, but the text is given here for the first time in its whole extent, and it is interesting in more than one way. As Dr. Goldschmidt already has pointed out in his report No. XI, p. 10, the language employed in the inscription is older than that which was spoken at the time of King Mahindo, and hence also may partly be



derived Turnour's mistake in dating the inscription too early. I propose to give in a glossary annexed to the translation all the particulars concerning the etymology of the words contained in the inscription. For the present I will only mention a few points.

The vowel æ peculiar to the Sinhalese, is used very frequently in this inscription. It appears:

1) As a modification of a through the influence of a following i; for instance Aet = hastin in Aetwehera, aepa = adhipati, Aembulu = Ambilla, aêy = âdi.

2) As compensation for a nasal that was dropped for inst. aeka = ankâ, aetuḷ = antara, daehiṭ = dantakâshtâ or together with the nasal as in laengû A 4, naengû B 23, 24 both from Vlangh.

3) As equivalent of â as taen = sthâna, gaem = grâma, haenda = âchâdana with epenthesis of nasal.

Besides it occurs very frequently in inflexional forms where it is sometimes difficult to explain as f. i. karae from Vkri. A. 46, 49 gatae from Vgrih A. 30, 41 genae from the same A 25, 31.

In ledaru = lekhadhâra, Sey = Caitya we find still the old e where the modern language has Saêgiri and laê (nan) at B 51, however, we have saê. daeyak A. 25 corresponds to the modern deya or daê = dravya.

Vowel changes occur in the following instances:—

1) i to a : davas = divasa A 55 B 1, nakâ = nikâya A 20 B 1,

2) a to i : pisana = pacana cooking, diya = udaka water, ikut = atikrânta, ikmae = atikrântum, siya = sata, sirit = caritra, pirit = paritrâ, pilî = paṭikâ clothes, etc.

3) u to i : ipaetae A 2 a. v. upadinawâ, isirae a. v. utsrij.

4) û to i : bim = bhûmi, pij = pûjâ.

5) a to u : hawurudu = samvatsara, Ruwan = ratna in Ruwanasun.

6) i to u : ulu = ishtikā, tunu = trīṇi.

7) a to e : Demaḷa Pāli Dāmīḷa.

8) ū to e : pera = pūrva.

9) u to o : porona = Pāli parupati, but perewae A  
10, pot = pustaka, pokuna = pushkariṇī.

Epenthesis of vowels occur in siri = ṣrī, tumā = ātmā,  
isirae mod. ihirenawā = utsrīj.

## II.—CONSONANTS.

Aspirates do not occur in this inscription. We either find them expressed by the corresponding unaspirated sounds as in bidam = abhidhamma ledaru = lekhaḍhāraka bik = Bhikkhu, budu = buddha or divided into two parts as Abahay = Abhaya, dh besides is sometimes represented by j for inst. waejaeriyae A. 17 a verbo avadhareti, waraja = aparādha.

Unorganic nasalization occurs in maenda = madhya mundu = mūrdhā, laendae = āchāḍana A 10. In some cases a genuine nasal is supported by the sonant of its organ as paṇḍura 'tribute' = paṇṇakāra, kambur, 'blacksmith' = kammāra, saendae = kshaṇa, hambu = ācāma.

Among the explosive consonants c has totally disappeared. It is generally represented by s as in siwur = cīwara, siyu = catvar A 9, sey or saē = caitya, sunu = cunno, sirit = caritra, pas = pañca, pisana = pacana, by d in aedura = ācārya, and in the enclitic d (or t) = ca.

J is sometimes represented by d as in daehaepiyae a verbo jahāti, radava = rajaka, but generally it is retained as in janaka, jiwel, raj, raejna, pijniwat, jeṭu, etc.

Cerebralization is caused through the influence of r for instance aḍa = ardha, uḍa = ūrdhva, maeti = mṛittikā, waḍu = wardhakin, waetiya = wartikā (Beames l. 154,) through influence of s in yaṭa = adhashāt Pāli hetthā, for no visible reason in waetenawā = pat.

Cerebral *l* occurs in *aetuḷ* = *antara*, *kaḷa* = *kṛita*, *dolos* = *dwādaśa*, *Demaḷa* = *Dāmiḷa*, *uḷu* = *isṭhikā*, *piḷi* = *paṭikā*, *koḷ* 'shrubs' and *koḷ* 'clothes' *aeli* 'white,' *piḷimage*, *piḷibada*, *hel* 'lotus' and in one instance in the beginning: *Ḷahiniya pawu*, most probably = *Dāṭhānāga pabbata*.

Explosives are sometimes represented by *y* after the fashion of the Jaina-Prākṛit (called *yaṣṛuti*) for inst. *niyam* = *nigama*, *piyan* = *pidhāna*, *nayinda* = *nāgendra*, *piya* = *pada*, *giya* = *gata*, *siya* = *ṣata*, *diya* = *udaka*, etc.

Groups of consonants which do not contain a nasal are always represented by a single consonant except in composed words, for inst. *pak* = *paksha*, *was* = *warsha*, *sanda* = *kshaṇa*, *jeṭu* = *jyeshṭha*, *hawurudu* = *samvatsara*, *bat* = *bhakta*, *pot* = *pustaka*, etc. The only exceptions to this rule are *watsika* B. 7, which is a *tatsama*, and *desyawanu* B. 58, *pāṭṭa* A. 44, which are most probably mistakes. *ty* is changed into *s* f. inst. *pasos* = *pratyūsha*, *kisae* = *kṛitya*; *ntr* to *l* in *gael* = *gantri* 'cart.'

*S* is sometimes changed into *h* f. inst. *has* = *sasya*, *hawurudu* = *samvatsara*, *himi* = *swāmi*, *hindae*, *hun a verbo sad*, but generally it is retained as in *sāl* = *sāli* modern Singh. *hāl*, *sunu* = *cuṇṇa* mod. *hunu*, *setuwam* = *swetakamma*; *siṭi a verbo sthā* mod. *hiṭinavā*, etc. It is dropped only in *Aelgamiya* = *Sāli* cf. *Sāligiri Mah.*, II, 372.

Loss and inversion of syllables occurs several times f. inst. *yaṭa* = *adhaṣṭāt*, *kuḍi* = *kuṭumbin*, *wi* = *vrihi*, *ran* = *hiranya*, *visi* = *vinsati*, *poroṇa* = *parupaṇa*, *lahâg* = *ṣalākā*, *daehiṭ* = *dantakāṣṭhā*, *dāwar* days, *kumbal* = *kumbhakāra*, *dû* = *duhitā*, *nawâm* = *nawakarma*, *miṇṇir* = *maṇikāra*.

#### DECLENSION.

At terminations of cases we find old and modern forms used indiscriminately, and it is difficult to say in each instance why the preference was given to one or the other.

The plural is sometimes formed by the termination, *war* as in *pereliwar* A 38, *dâwar* A 44, *piliwarat* B 21, *sesuwar* A 45, but generally by dropping to final vowel as *gas koļ* *palaruk*, 'trees shrubs and fruit trees' A 50, *gam bim*, 'villages and lands' A 15, etc. The oblique cases of the plural are formed by inserting a nasal between the root and the termination as *samunge* A 37, *sangnat* A 15, *kuḍḍingen* A 15. Sometimes the forms of the singular are used in the plural, also for inst. *pas pothi*, 'in five books' A 54, *gaemhi* A 37.

The so-called indefinite Declension terminating in *ak* is in very common use both for the singular and plural as in *dasa yahaḷak* 'ten yāḷas' A 36. Also the modern *denek* connected with numerals (Childers' notes on the Sinhalese language II, 12) in its older form *janak* is used frequently for inst. *maha aedur de janakhu* p. 46, *kaebiḷi doḷos janakhat* B. 49.

The nom. sing. and plural is often formed by adding the termination *hu* as *maharajhu* A 1 (cf. *Sid. Sang.* 26) which was mistaken for a genitive by Goldschmidt, *Journal of the Ceylon Asiatic Society*, 1879, p. 35.

The acc. terminates in *ā* or *u* (cf. *Sid. Sang.* 27) for inst. *ākaemiyā*, *kaṇḍ leyā*, *jeṭu atsamu* A 21.

The instrumental and ablative ends in *in*, *en* or *gen* for inst. *Kaṇḍin*, *piṇḍin* A 12, *parapuren* A 1, *kuḍḍingen* A 41. Sometimes it is also formed by adding *keren* (for the abl.) to the base as *janakukeren no unu* A 28 not 'less than three people' or *hā* and *wisin* (for the instr.) as *nisiyanhā* A 7 *pilibadun wisin* A 18.

The Dative terminates in *hat* or *aṭ* which is a composition of the ancient genitive termination *sa* or *ha* and *aṭāya* for inst. *maharajhat* A 1 *himiyanaṭ* A 12.

The genitive is formed by the termination *ge* for inst. *samunge* A 37, *kaemiyange* A 58.

The locative is formed either by *hi* or *ae*, which latter transforms an *a* of the root into *ae* by attraction f. inst.

weherhi and weherae, sikakarañhi A. 10, kusae A 2, saendae, pasaekae, daegae, etc.

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### VERB.

The only verbal forms occurring in the inscription are Infinitives, Participles and Gerunds; no forms of the present, past or future tense are to be found.

The Infinitives generally terminate in *ae* as *iyae* 'to go' A 11, *katae* and *kaerae* 'to do' *ikmae* 'to transgress' B 58 *diyae* 'to give' *daehaepiyae* 'to leave' A 17, *f*, *gatae* and *genae* 'to receive,' etc.

The participles are only phonetic changes of the Samskrit or Pali forms, as *kaḷa* A 14, 51 = Pali *kaṭa*, *koṭ* A 22 = Skt. *kṛitwā gilan* = *glāna* A 11, *wû* = *bhûta* and *âwû*, belonging A 50, 53, most probably = *\*âbhûta*, *dena* A 47 = Pali *dinna*\* *nibad* A 15 = *nibaddha*, *laengû*, *naengû* and *naengi* = *lānghetwâ*, *yutu* = *yukta*, *mutu* = *mukta*, *ruswâ* = *rucitwâ* *enwâ* a verbo *enawâ*. Besides these we have forms in *ana* as *pisana* B 22, *balana* A 20, which correspond to the Samskrit present participles. (J. C. A. S. 1879, p. 10.) The Gerunds in *aya* which are very frequent in old inscriptions, were already obsolete at the time of this inscription, however, we find some of these forms as *nimaway* A 10, *karay* A 5, *karây waṭawây* A 56. The modern descendants of these are the Gerunds in *â* for inst. *paḷâ tabâ* A 57. The same form apparently is *wadnâ* B. 55 a verbo *wadinawâ* 'to enter,' but it is used as an infinitive (cf. the inscr. at Mahâkalattaewa J. C. A. S. 1879 p. 32.)

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\* This explanation seems to me more natural than that given by Goldschmidt, J. C. A. S. 1879. p. 33.

## TEXT A.

Siribar kaeta kula kot Okawas raj parapuren bat kaeta usab Abahay Salamewan mahara 2 j haŕ eme kulen samajâey dew Gon bisew raejna kusae ipaetae aêpâ mahayâ siri windae piliweŕae 3 sey raj wae tumâ sirin Lakdiw pahayamin siŕae Siri Sang Boy Abahay maharaj hu tumâ sat 4 laengû soŕoswana hawuruduyehi wap sand pun mashi dasapak dawas Seygiriweherhi isâ A 5 bahay giriweherhi isâ wasana maha biksang himiyan mahasenwâ karay tumâ baêwat himiya 6 n Seygiri weherhi pere tubû sirit nija Abahay giri weherhi sirit nija ruswâ genae me we 7 heraŕ me sirit tubuwa waŕi nisiyan hâ sasaendae me weherae wasana mahabiksang himiyanat isâ 8 kaemiyanat isâ dasnat isâ kaŕae yutu isâ labanu diyae yutu se isâ wiwaruŕen ek se koŕ me 9 sirit tabana ladi me weherhi wasana bik sang himiyan wisin bili pasos salhi naengŕ siyu ara 10 k menehi koŕ daehiŕ kisae nimaway sika karaŕihi kiyû seyin siwur haendae perewae Aet weherae lahâ 11 g awud met pirit koŕ baesae hambu bat gatae yutu gilan wae lahâg iyae noyahana himiyanat wedun 12 kiyû saendae wasag diyae yutu me weherae waesae wanawalâ kiyana bik sang himiyanat kaŕdin piŕdin wasa 13 g pasak isâ sutat walâ kiyana bik sang himiyanat wasag satak isâ bidam walâ kiyana bik 14 sang himiyanat wasag doŕosak isâ diyae yutu isâ dayakayan pirikapâ sangnat denu kaŕa pasa 15 no piriheŕâ diyae yutu me weherae âwû tuwâk awasae bad gam bim mehi me pasak di nibad wae waesae walandat mut bad awas hâ ekkasa wae no waeŕaendiyae yutu sang saemaengin kaemiyanat wajârat dahawut 17 mut pugul wae nowaejaêriyae yutu no daehaepiyae yutu me weherae wasana bik sang himiyan Aet weherae 18 bad tuwâk tanhi kumbur arub aey kawaru pariâyen no waeŕaendiyae yutu tuman piliŕadun wisi 19 n Aet weherae abaedi tâk tanhi isirae no kaŕae Jiyae yutu me sirit ikut himiyan me weherhi 20

no wisiyae yutu nakâ balana himiyan isâ weher piriwahanu  
wâ isâ niyam jetu isâ âkaemiyâ isâ 21 pasakkaemiyâ isâ  
weher leyâ isâ karaṇḍ leyâ isâ karaṇḍu atsamu aetuḷ wae  
me tuwāk janâ Aba 22 haygirî nakayhi Demuḷin sāhanuwat  
waedi sangun saemaengin Aet weherhi hindae kamtaen koṭ  
ae 23 tuḷ baehaeri aya wiya aēy kam kaṭae yutu aetuḷ  
baehaeri ayawiyehi yut kaemiyan naesûwāk denu waṭ 24  
nisi kuḍṇin aepae geṇae kamtaen saemaengin tibiyae yutu  
me weherae wasana himiyan piḷibadun nisid 25 hot meheyae  
no tibiyae yutu haeriyae yutu kaemiyan lekam karuṇa wû  
daeyak genae haeriyae yutu mundu kara 26 ṇḍukamtaen  
kaemiyan hasin has koṭ dāge kaemiyan pasaekin dāgehi  
tibiyae yutu me weherhi yut 27 kaemiyan keren weherat  
kaemiyan anoba giya kenekun mut kanae siṭi kaemiyan  
keren waṭ onâ taenae 28 isâ sâl gannâ taenae isa perewaru  
hambu bat sāhan taenae isâ tun janaku keren no unu wae pa 29  
saekae siṭiyae yutu Aet weher dāge piḷibad kawari watakud  
pirûḷ no diyae yutu kaemiyan wikiṇṇi 30 no gatae yutu meheyae  
bad minisun kaemiyan tumanat mehe no gatae yutu anoba  
meheyaṭ no diyae yutu 31 Katu Mahasaēyehi kam nawâmat  
Damgamiyen dun payala Aet weher kaemiyan balâ genae  
dāgaebhi 32 kam nawâm kaeraewiyae yutu Kirbaṇḍ pawu  
dāgaebhi arakaṭ Ael gamiyeṇ dun de kiriya dî arak 33  
kaeraewiyae yutu dāgehi isâ Mangul maha sala piḷimagehi  
isâ Mahaboygehi isâ Nayindae isâ Miṇṇal 34 dewdûn gehi  
isâ Katu mahasaēyehi isâ Kirbaṇḍ pawu dāgaebhi isâ  
udḡalae yaṭḡalae Aetwe 35 her piḷibad dāgaebhi isâ me  
tuwāk tanhi pijniwat isâ Aet weherin ran eksiyak kaḷa 36  
nd isâ wî dasa yahaḷak isâ me tuwāk genae hawurudu patâ  
me weherhi dāgab aēy haēmae tanhi kam 37 nawâm  
kaeraewiyae yutu dāge piḷimagehi bad Gutaē Karandaē de  
gaemhi dum malas samunge daṇḍ kodanḍ 38 kaerae  
pereliwar baēlae weherat gatae yutu Kirbaṇḍ pawuyehi  
Gasagaesiyeṇ tunin ekak isâ me 39 hi sangwaellehige kull  
isâ Maṇuwaēsara isâ Lahiniya pawuyehi uḍaesi yaṭaesi de

waêsara isâ mehi sa 40 ng waella isâ Pahanaê wilwaṭhi bim isâ Porodenî pokuṇi waṭae bim isâ me tuwâk tanhi labanu 41 weheraṭ gatae yutu weher dasun hâ kaemiyān mut weher bimae hun kuḍingen bim sowas nisi se 42 yin weheraṭ gatae yutu kaha sanwae gat wesat no anuru kiya wikiya aêy kam karanuwana paṇiwa 43 karanuwana gal waṭae no wisiyae diyae yutu sudasunwat weheraṭ mut kaemiyān no gatae yutu me wehe 44 rae bad tuwâk gam bim kaeraeyehi baendae salasat mut pātṭa no diyae yutu tun dâwar mut poho mangu 45 l aey sesuwar no gatae yutu kaemiyān weher dasun jiwel koṭ dunuwak mut Aet weherae bad tuwâk 46 tanhi ukas pamaṇu pātṭa kaera kumbur arub aêy no waeḷaendiyae yutu weheraṭ kaemin giya kae 47 miyān has karuwan dena pere sirit bili sâl mut raṭin waetum no gatae yutu kuḍingen paṇḍu 48 r no gatae yutu mekungen ge gon genae kaemiyān tumanat gowikam no kaeraewiyae yutu haskaru para 49 puren waetena kaerae kumbur no waetiyae het mut haerae no gatae yutu watupae. tat waedae aniyâ no kaṭae yutu 50 gas koḷ no kaepiyae yutu me weherae âwû tuwâk gam bimhi talan miwan aêy palaruk kamtaen sae 51 maengin duna mut no kaepiyae diyae yutu kuḍin kaḷa warajak aeta gam sirit daṇḍ kirâ kirû daṇḍ minae aekae 52 awaṭae solos riyān gaemburae riyān kabuḷ baegin genae waew mehe kaeraewiyae yutu no kaḷa kirû daṇḍ ga 53 tae yutu me weherae âwû tuwâk gam bimhi labanuwanat jiwel koṭ dunuwak mut tubû tâk tanhi 54 kamtaen saemaengin pasak wana seyin â kaḷa tuwâk pas pothi liyaewiyae yutu mahapâwaṭat isâ 55 labanuwanat isâ kam nawâmat isâ dawaspatâ wiyawû tuwâk pas pothi liyawâ kamtaen sae 56 maengin atwatu karây san otamana wun sanin waṭaway mundu karaṇḍuyehi tabâ mas maspatâ me 57 atwatu palâ ek atwatu koṭ hawuruduyehi doḷos atwatu yen hawurudu awasanhi lekam 58 karay sang maendaj enwâ nimaewiyae yutu me sirit ikut kaemiyān ge daṇḍ genae meheyin haeriyae yutu.



## TEXT B.

Nakâ balana himiyanat dawaspatâ sâl ek naeliyak isâ wasan bañae ran ek kaḷand satar aka 2 k isâ pawarun baēnaed me tek me isâ niyam jetakhaṭ jiwel pas kiriyaḥ isâ dawaspatâ sâl 3 ek naeliyak isâ hawuruduwaḥ setuwamaṭ mal milae pasaḷos kaḷandak isâ âkaemiya isâ wehe 4 rleyâ isâ karaṇḍ leyâ isâ karaṇḍu atsamu isâ pasakkaemiya isâ eknaṭ pas kirî baegin isâ 5 piriwahanuwat kaemiyaḥ haṭ ek kirî de payak isâ sâl de aḍmanâk isâ saeraeyin gannak ha 6 t de payak isâ sâl ekaḍmanâk isâ mangul jetakhaṭ ek kiriyaḥ isâ Damiyen wasagak isâ 7 hawuruduwaḥ setuwamaṭ mal milae tun kaḷand de akak isâ watsikâ kaemiyaḥ ek kiriyaḥ 8 isâ Damiyen wasagak isâ somnas mahabo mangulehi piḷiyaṭ ek kaḷandak isâ maetiṭpatakhaṭ 9 ek payak isâ sâl de patak isâ piṭas samakhaṭ isâ rajge upaenikaemiyaḥ isâ ekna 10 t ek kire de pâ baegin isâ eknaṭ de aḍmanâ baegin sâl isâ oḷ kaemiyaḥ de payak isâ 11 sâl ekaḍmanâ de patak isâ piyangalpere waeliyaḥ de payak isâ Damiyen wasagak isâ 12 Ruwanasun mahabo mangulehi piḷiyaṭ ek kaḷandak isâ pawu pere waeliyaḥ de payak isâ Damiye 13 n wasagak isâ aeli nâwakhaṭ de payak isâ sâl ekaḍmanâ ek patak isâ aeli ekaḷosak isâ 14 eknaṭ de pâ baegin isâ Damiyen ek baegin wasag isâ waṭnâwaeri satarak isâ eknaṭ eka 15 ḍmanâ baegin sâl isâ eknaṭ jiwel de pâ baegin isâ me weherhi bik sang himiyanat wasaegi 16 n siwur sâhâ ekkeneḥnaṭ ladu siwur sâhana kaemiyan beḍa gatae yutu isâ weher atsam de ja 17 nakhaṭ eknaṭ de pâ baegin isâ sâl ekaḍmanâ ek pat baegin isâ koṭa raekinaṭ wakhaṭ de pa 18 yak isâ sâl ekaḍmanâ de patak isâ koṭa raekiyaḥ de payak isâ sâl ekaḍmanâk isâ je 19 ṭmawat ek payak isâ sâl ekaḍmanâ de patak isâ batge laediyaṭ ek payak isâ sâl ekaḍ 20 manâ de patak isâ miṇḍi waejaēr-

makhaṭ de payak isā waṭ minḍi sūwisi janaku isā eknat ek  
 pā bae 21 gin isā hawuruduwaṭaṭ piḷiwarat eknat ekkaland  
 baegin isā sangwaeli upaēnikaemiyakhaṭ 22 ekkiriyak isā  
 sāl ekaḍmanāḱ isā pisana salayin doḷos janakhu isā eknat  
 Talolaḡae 23 min ek kiri de pā baegin isā salājeṭakhaṭ sāl  
 ekaḍmanā ek patak isā dar nangā bat pak sa 24 layakhaṭ  
 sāl tunadmanāḱ isā no pisae dar naengū salayakhaṭ isā  
 gamanwar giya salayakha 25 t isā eknat sāl de aḍmanā  
 baegin isā naengū darae bat pak salayakhaṭ sāl ex aḍmanāḱ  
 isā 26 pahāwaesijetakhāṭ de payak isā sāl ekaḍmanā ek patak  
 isā pahāwaesi ekḷosak isā ek 27 naṭ depā baegin isā eknat  
 sāl ekaḍmanā begin isā dawaspataḷ yalāpasak dena kumbal  
 pas 28 janakhaṭ eknat ek kirī baegin isā mas maspatā pā  
 dasayakhaḷ kumbudasayak dena pākumbalak 29 haṭ de kiriyak  
 isā sāl de aḍmanak isā masakaṭ paeraehaenak dena paerae-  
 haen diyakhaṭ ek ki 30 rī de payak isā wedakhaṭ de tisaē  
 seṇen niya paēḷiyāk isā Damiyen wasagak isā puhunḍawedak  
 31 haṭ de payak isā Damiyen wasagak isā maṇḍowuwakhaṭ  
 ekkirī de payak isā Damiyen wasagak 32 isā naekaetiyakhaṭ  
 de kiriyak isā Damiyen wasagak isā naepiyakhaṭ ek kiriyak  
 isā Damiye 33 n wasagak isā dāḡe atsamakhaṭ isā gaṇajetu-  
 wak haṭ isā karaṇḍ byakhaṭ isā warjeṭu tun 34 janakhaṭ isā  
 meknat jiwel karadaēgam isā warae dum malas samnat  
 Damiyen wasag satara 35 k isā dāḡehi waet telaṭ me gaemin  
 payalak isā dāḡehi heḷ mal onāmal war de janakhaṭ me  
 gaemi 36 n de kiriyak isā Damiyen ek baegin wasag isā  
 masakaṭ ek siya wisi baegin mal dena mahanel 37 gowuwak-  
 haṭ Sapugamiyen de kiriyak isā sittarakhaṭ de kiriyak isā  
 dāḡe raknā raṭ laduwak 38 haṭ sāl ek naēḷiyak isā maha-  
 budungehi dum malas sam sajanakhaṭ isā baṇ wajārana  
 damī 39 naṭ isā aedura damīnaṭ isā damīn sajanakhaṭ isā  
 meknat Gutaēgam isā mahabudungehi mal 40 warakhaṭ me  
 gaemin de payak isā Damiyen wasagak isā me gaemae dum  
 malas samnat Damiyen de wa 41 sagak isā mangul mahasal  
 piḷimagaehi pūṇā kaemiyakhaṭ isā kamas samakhaṭ isā

eknaṭ de pā 42 baegin isā eknaṭ ekaḍmanā depat baegin sāl isā dāgehi budi bisowaṭ tel gannā ek potāk 43 isā diya parahana ek tulluk isā piḷimagehid me tek me isā kamtaen ledaruwakhaṭ ek kirī 44 de payak isā sāl de aḍmanāk isā waḍu maha aedurakhaṭ Boṇḍ weherae seṇāya isā aedura waḍu de ja 45 nakhaṭ isā sirwaḍu aṭ janakhaṭ isā uluwaḍu de janakhaṭ isā meknaṭ Waḍudewaēgam isā ka 46 tuwaḍu de janakhu isā eknaṭ ek kirī baegin isā miṇṇr maha aedur de janakhu isā eknaṭ tu 47 n kirī baegin isā kambur de janakhu isā eknaṭ ek kirī baegin isā sunuboḷnaṭ Sunuboḷ dewaē 48 gam isā gaellan sa janakhu isā meknaṭ Dunumugama isā kam nawaēmae kaebili jētakhaṭ ek kiri 49 yak isā sāl ekaḍmanā ek patak isā kaebili doḷos janakhaṭ ek aḍmanā baegin sāl isā mek 50 naṭ jiwel de pā baegin isā Nawaguṇa mahasaēyehi isā Naēṭewiya mahasaēyehi isā Aembulu dāgehi isā 51 saē gowuwan tun janakhaṭ eknaṭ de pā baegin isā me weherae uḍgalae yaṭgalae Aetweherae piḷiba 52 d dāgab aēy haemaendae dāgae raknānaṭ Damiyen ek baegin wasag diyae yutu isā dāgehi isā piḷimage 53 hi isā baṭgehi isā mehekarana minisun isā piḷi isā poronā kasu isā hiskol isā apulana rada 54 wun de janakhu isā meknaṭ Mangulaewae tun kiriya isā me weherae bad tuwāk gam bimhi mang mahawa 55 r kulī melāṭ sime weheraṭ me ninda koṭ gatae yutu isā manggi wa piyagi wa no wadnā koṭ isā kanae waewae 56 diyawan tāk tanhi pere Daemel kalae pere sirit diya bedum me weheraṭ me gatae yutu isā me weherhi 57 bad tuwāk gam bim kawarupariyāyen ukas pamaṇu no diyae yutu isā gatu wan ranae no himi koṭ wehe 58 raṭ me nawatā gatae yutu isā dunuwan desyawanu koṭ me niyaemin tubū me sirit no ikmae waēṭiyae yutu.

## TRANSLATION.

## TEXT A.

He who having been born unto King Abhaya Salamewan, an eminent Kshatriya, who is descended from an unbroken line of kings of the Ikshwāku family which is the pinnacle of the glorious Kshatriya caste, in the womb of the Queen Gon, descended from the same caste, having enjoyed the power of aēpā with great glory and having according to succession become King, irradiates the island of Lanka by his splendour, His Majesty Siri Sang Boy Abhaya in the sixteenth year after he raised the royal umbrella on the tenth day in the bright half of the month Wap, having assembled the lords of the great Bhikshu congregation dwelling in the wihāras of Caityagiri and Abhayagiri, being pleased with those rules which his royal brother formerly established at Caityagiriwihāra as well as with the rules of Abhayagiriwihāra, in order to establish the same rule for this wihāra in concurrence with those concerned in the matter, this rule together with a comment has been established for the lords of the great Bhikshu congregation who dwell in this wihāra as well as for the officers and for the slaves, for their duties as well as for receipts and expenditures.

The priests residing in this temple having risen early in the morning, having reflected on the four preservative principles, having cleaned their teeth, having covered themselves with the cloth according to the prescript in the Sikakaraṇṇi, having come to the dining hall of the Aetwihāra, having observed *Met* and *Pirit* shall partake of gruel and rice. They shall give at the proper time prescribed by the physicians the food to those priests which are sick and cannot attend at the dining hall. Those priests of this wihāra which read the Winayapitāka shall receive five

farms together with food and raiment, those who read the Suttapitaka seven farms, those who read the Abhidhammapitaka twelve farms.

When donations are made to the priesthood as a whole they shall not be appropriated to single individuals.

All the villages and lands belonging to the temple except those which are given as a living to a private individual, shall not be enjoyed (by the priesthood) separately.

The workmen if not reprimanded or dismissed by the whole priesthood shall not be reprimanded or dismissed by a single priest.

The priests living in this wihāra shall not enjoy except\* in a proper way paddy fields and orchards belonging to the Aetwihāra. In a place not belonging to the Aetwihāra they shall not expend them. The priests who transgress these rules shall not live in the temple. The priests who supervise the nikāyas and the superintendents of the wihāra and the eldest of the villages, the ākaemiya and pasakkaemiya, the writers of the wihāra and the writers of the accounts including the receiver of revenue, all these persons shall be under the control of the Abhayagiri community residing at Aetwihāra according to the rule established by the Tamils and who will conduct the internal and external services in unity and concord; workmen who are fit for internal and external revenues and expenses shall be appointed by the whole body of the karmasthānas having taken in bail house holders that are able to give..... The priests residing in this temple shall not be taken to work in dependency but shall be left free, the working people shall also be left free after what was due from them has been recovered, the workmen of the principal karaṇḍa and of the karmasthāna shall be put to the field-work and the workmen of the dāgoba to the dāgoba.

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\* I substitute mut after pariyāya.

The working people belonging to this wihāra except those which have gone on wihāra service to a distance, those who have to work on the embankment at their respective places, those who have to attend at the place where rice is issued and at the place where rice and gruel is prepared in the morning shall not be less than three at each place.

Anything belonging to the Aetwihāra dāgoba shall not be given away, nor shall anything be purchased from the servants.

The people bound to work shall not undertake work on their own account and shall not be given away to work.

The officers of the Aetwihāra shall take care of the payala (?) given from Damgamiya for the repair of the Katumahāsaēya and shall execute the repair of the dāgoba; they shall take care of the two kiriyas given from Aelgamiya for the preservation of the Kiribaṇḍ pawu dāgoba.

The dāgoba and the house of the great stone image and the Mahāboge and the Naginda, the house of the princess Miṇināl, the Katumahāsaēya, the Kiribaṇḍ pawu dāgoba, the dāgoba of Aetwihāra situated on the upper hill and on the lower hill, the offerings collected at all these places together with one hundred kalandas of gold from the Aetwihāra and ten yālas paddy shall be annually expended for repairing the dāgobas of this temple and the other edifices.

Those who supply rosin and incense to the two villages Gutaē and Karandaē attached to the *dāgē* and the *pilimage* having established a fine and having seized (?) the rebellious shall take these to the wihāra.

One-third of Gasagaesiya at Kiribaṇḍ pawu and the income of the priesthood in this place (?) the tank of Minerī, the upper and lower tank at Lahiniya pawu and the income of the priesthood there, the ground around the tank of Pahanaēwila and Porodent pokuṇa, what is derived from these places may be appropriated to the wihāra.

Land fees shall be taken as a matter of course from the people living on wihâra ground, except the wihâra slaves and the working people.

Those who having got the yellow robes as a sign, do selling and other things not proper to their dress and destroy life shall not be permitted to dwell round the mount.

None but proper servants shall be employed for the wihâra.

Villages and lands belonging to this temple shall not be given for.....except to those who work at the upkeep of the same.

No extra labour shall be exacted on the poya and other festivals beyond three days.

Except the dunuwak given as living to the working people and to the slaves, no paddy fields or orchards belonging to the Aetwihâra shall be given away as a pledge or.....

Except the raw rice which the dependents of the wihâra must furnish according to the ancient custom, no victuals shall be taken from the inhabitants; fees shall not be exacted from the cultivators, nor shall their cattle be seized by the domestics to labour their own fields.

Lands belonging to the cultivators by the right of inheritance should not be seized without a reason. Damage shall not be done to the gardens, trees and shrubs shall not be cut down.

In all the villages and lands belonging to this temple, neither palm trees, nor tamarinds, nor any other fruit tree shall be felled except with the consent of the tenants. If any fault be committed by any of the cultivators the adequate fine shall be assessed according to the usage, and instead thereof the delinquent shall be directed to work at the tank in making an excavation sixteen cubits in circumference and one cubit deep. If he refuses to work the assessed fine shall be levied.

In the villages and lands belonging to this wihāra after having paid the wages to those who have to receive them, the rest shall be entered in five books with the consent of the tenants, so that they may be under inspection.

The daily expenditure on account of the mahāpātra and the hired servants and the repairs shall be written in books and accounts kept at the store room with the consent of the owner. Every month these accounts shall be collected into one account and at the end of each year the twelve months accounts shall be formed into one register to be produced before the assembled priests and there disposed of. Servants who infringe these rules shall be fined and dismissed the service.

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## TRANSLATION.

### TEXT B.

To the priests who have the superintendence of the nikāyas daily one naeli of rice, to that who preaches the bana at the wass season, one kalanda and four akas of gold and for the bana at the conclusion of the wass a like quantity.

For the eldest of the village five kiriyas as wages and daily one naeliya of rice, fifteen kalandas yearly for white washing and supplying flowers. The cook, the wihāra writer, the revenue writer, the receiver of revenue and the principal attendant shall have five kiriyas each, the chief workman one kiriya two payas and two admanas of rice, a number of watchmen (?) two payas and one admana of rice, the manager of the festivals one kiriya and a farm in Damiya, yearly three kalandas and two akas for whitewashing and supplying flowers,



One who prepares medicine one kiriya and a farm in Damiya, one kalanda for clothes at the great buddhist festival called Somnas. To a plaisterer one paya and two patas of rice, to one who throws away dead flowers and to a workman born on the ground of the king one kiriya and two pādas each and two aḍmanas of rice, to a masker two payas and one aḍmana two patas of rice, to one who spreads cloth to the ceiling two payas and a farm from Damiya, for clothes at the great buddhist festival Ruwanasun one kalanda, for one who spreads cloth to the walls two payas and a farm from Damiya, for a whitewasher two payas and one aḍmana, one pata of rice, for twelve painters two pādas each and a farm from Damiya, to four goldsmiths (?) one aḍmana each and two pādas of rice as wages.

The priests residing in this temple having procured garments each who has received garments should distribute such to the working people who are in want of them.

To each of the two receivers of revenue two payas with one aḍmana, one pata of rice, to a warder of the granary two payas and one aḍmana, two patas of rice, to a watchman of the granary two payas and one aḍmana of rice, to the jeṭmawa one paya and one aḍmana, two patas of rice, to the superintendent of the dining hall one paya and one aḍmana, two patas of rice, to an overseer of slaves two payas, to twenty-four slaves one pāda each and yearly one kalanda for cloths; to a workman born on the ground of the priests one kiriya and one aḍmana of rice, to twelve cooking servants one kiriya, two pādas each from the village Palolagama, to the principal cook one aḍmana, one pata of rice, to a servant who brings firewood and cooks three aḍmanas of rice, to those who do not cook but bring firewood and go on errands two aḍmanas each, to one who cooks on the supplied firewood one aḍmana of rice, to the chief thatcher two payas and one aḍmana, one pata of rice, to eleven thatchers each two pādas and one aḍmana of rice, to five potters who

furnish daily five chatties (?) one kiriya each, to a pâtra manufacturer who supplies every month ten pâtras and ten waterpots two kiriyas and two admanas of rice, to the person who furnishes a waterstrainer monthly one kiriya two payas, to a physician one paeliya ..... and a farm from Damiya, to a surgeon two payas and a farm from Damiya, to a flower gardner one kiriya, two payas and a farm from Damiya, to an astrologer two kiriyas and a farm from Damiya, to a barber one kiriya and a farm from Damiya, to the receiver of dues of the dâge, to the overseer of the tenantry, to the writer of the revenue and to the three superintendents of works the village of Karandaêgam as wages, to those who supply rosin and incense four farms from Damiya, to those who supply wicks and oil to the dâge a payala from this village, to the two persons who supply white lotus and flowers for offerings to the dâge two kiriyas from this village and a farm from Damiya each, to a keeper of lotus flowers who supplies monthly 120 flowers two kiriyas from Sapugamiya, to a painter 2 kiriyas, to a warder of the dâge one naeliya.

To the six persons who supply rosin and incense to the Mahabuduge, to the preacher of bana, to the schoolmaster and six devotees the village Gutêgam, to the one who supplies flowers to the Mahabuduge two payas from this village and a farm from Damiya, to those who supply rosin to this village two farms from Damiya, to the person officiating at the shrine of that great stone image and to one who supplies kamas two pâdas each and one admana two patas of rice.

To the person who supplies oil to the dâge at the Budibisowa one poṭa, to the person who strains water one tuḷula and the same for the Pilimage, to the writer of the karmasthâna one kiriya, two payas and two admanas of rice. To the chief carpenter at the Boṇḍwihâra, to the two master carpenters, to eight stone cutters, and two braziers the village Wadudewaêgam, to the two wood cutters one kiriya

each, to the two goldsmiths three *kiriyas* each, to the two blacksmiths one *kiriya* each, to the limeburners the village *Sunuboldewaêgam*, to the six carters the village *Dunumugam*, to the superintendent of the repairs one *kiriya* and one *aḍmana*, one pata of rice, to twelve labourers one *aḍmana* of rice and two *pādas* as wages.

To the warders of the *Nawaguna Mahasaêya*, the *Naetewiya Mahasaêya* and *Aembuludâgoba* two *pādas* each, to the warders of the different *dâgobas* belonging to the *Aetwihâra* on the upper and on the lower hill a farm from *Damiya* each. The people working at the *dâge*, at the pilimage and at the dining hall, the two washermen that wash the clothes, the vestments and the bed linen, shall get three *kiriyas* from *Magulwaewa*. In the villages and lands belonging to this temple the roads and high roads .....shall be taken, wanderers and pilgrims shall not enter. So much water as is in the tank shall be distributed to the *wihâra* lands in the manner formerly regulated by the Tamils. None of the lands belonging to this temple shall be given away as a pledge, those who have thus gotten any thereof shall give it back to the temple. To ensure prosperity to the institution these regulations shall be strictly obeyed.

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## G L O S S A R Y .

*Aka* = *Pâli akkha*, 'the seed of the *Terminalia Bellerica*' used as a weight  
B. 1, 7. comp. Rhys Davids, 'ancient coins and measures of Ceylon,' p. 14.

*Ata* 'eight' B. 45.

*Aḍmana*, 'a measure of capacity' B. 5. Rhys Davids, l. 1. p. 20.

*Atwatu* 'account' A. 56. composed from *at* = *hasta* and *watu* = *wastu*  
comp. *atapattu lekam* in O' Doyly sketch of the constitution  
of the Kandyan kingdom, *Asiat. Res.* III, 202,

- Atsamu* in *karaṇḍu atsamu* 'receiver of revenue' A. 21, B. 4, 16, 33.  
composed from *at* 'hand' and *samu* from the root *sam* Samskrit  
*gam*, Greek *kamno*, which root seems not to be used in Pāli.
- Aniyā* 'damage' A. 49 a verbo *aninawā*.
- Anuru* = *anurūpa* A. 42.
- Anoba* 'outside' A. 27, 30.
- Apulana* B. 53 a verbo *apulanawā* 'to wash.'
- Abahay* A. 1. = *Abhaya*, generally called *Baya* as *Bhayaśiwa*, Mah. 41, 69,  
Bayawaew in the inscription taken from *Bassawakuḷam* to the  
Colombo Museum, see my report No. XXV. p. 4. *Abhayagiri* is  
called *Bagiri* in mod. Sinh.
- Abaedi* 'not connected' A. 19 root *bandh*.
- Aya* 'taxes' A. 22, 52.
- Arak* = *ârakshâ* 'preservation' A. 9, 32, 33.
- Arub* = *ârâma* 'garden' A. 18, 46.
- Awata* 'hole' = *âwâṭa* A. 52. mod. Sinh. *wala*.
- Awasa* A. 15 = *âwâsa* 'dwelling' comp. Nâm 259.
- Awasan* A. 57 = *awasâna* 'end.'
- Awud* A. 11. 'having come' past participle of *enawā* modern *aewit*.
- Akaemiya* = *âdikarmika* 'principal workman' A. 20 B. 3.
- Awū* = \* *âbhūta* 'belonging' A. 15, 50, 53.
- Ikut* = *atikrânta* A. 19, 58.
- Ikmae* = *atikrântum* B. 58.
- Ipaedae* a verbo *upadinawā* A. 2.
- Iyae* 'to go' Vi. A. 11.
- Isirae* a verbo *isirenawā* = *utsrij* A. 19.
- Ukas* 'pledge' A. 46. B. 57. comp. Nâm 231 = Pāli *okāsa*.
- Usab* = Pāli *usabha* 'bull' A. 1.
- Uḍaesi* A. 39 and *udgalae* A. 34, 'the upper tank' and 'the upper hill'  
Pāli *uḍḍha-aesi* stands for *waesi* = *wawisara*.
- Unu* 'less' A. 28 Pāli *ūna*.
- Upaēni* B. 9, 21 = *uppanna* 'born' comp. mod. *uppaenna wenawā*.
- Ulu* = Skt. *iṣṭikā* 'tiles' B. 45.
- Ekak* A. 38.
- Ekkenek* 'each' B. 16.
- Ekkasa* = Skt. *ekaṣas* 'one by one' A. 16.
- Enwā* a verbo *enawā* A. 58.
- Eme* A. 2.
- Okâwas* A. 1. = *Ikshwâkuwamça*.
- Otamana*? A. 56 *otu* is according to O' Doyly p. 252, a portion of the  
crop equal to the extent sown.
- Onâtaenae* A. 27 'at their respective places of duty.' I think *ona* is the  
same as the modern *onae* but I am doubtful about its etymology
- Onâmal* 'flowers for offerings' B. 25.

- Oḷkaemiya* 'masker' B. 10 comp. Upham 'Sacred and Historical books of Ceylon' III, 350.
- Aetwehera* = Hatthiwihâra comp. Aetkus and Aetkanda Mah. II. 38, 82.
- Aeka* = anka A. 51, Nām. 230.
- Aeta* A. 51 = asti used in a conditional sense like the modern aettam 'if there is.'
- Aetuḷ* = antara A. 21, 22.
- Aepa* 'bail security' A. 24.
- Aēpa* A. 2 = adhipati translated mechanically into Pāli ādipādo for inst. Mah. 50, 25.
- Aedura* = ācārya B. 39, 44.
- Aembula* dāgaeb = Ambilla ° comp. Ambillapadara Mah. II. 49.
- Aelgamiya* A. 32 = Sālig ° comp. Sāligiri Mah. II. 372.
- Aeli* 'painter' B. 13 = āleyaka Skt. ālekhaka.
- Aēy* = ādi.
- Kaṭu* B. 46 = kaṇṭaka 'thorns' Abhid. 366. or = kāshtam 'stick' comp. kaṭunnaru = kaṭṭhantanagara Mah. 51, 73.
- Kaṭae* Vkrī A. 8 comp. J. C. A. S. 1879 p. 39.
- Kaṇḍa* A. 12 = Skt. kāṇḍa mod. Singh. kaenda = yāgu.
- Kaṇae* B. 55 = Skt. skhanna 'embankment.'
- Katu* mahasaēy A. 31 = kratu ° or more probably a mistake for Kaṭu ° = kaṇṭaka ° Mah. 49, 23.
- Kam* = Skt. Karma A. 23, 31.
- Kabuḷ* A. 52 = kavala ? comp. below kaebili.
- Kamtaen* A. 22, 24, 50 = karmasthāna 'tenant.'
- Kamas* B. 41 = Kalmasha 'dirt' ?
- Kambur* B. 47 = Pāli kammāra.
- Karuṇa* A. 25 = kāraṇa.
- Karaṇḍa* 'revenue' A. 21, B. 4.
- Karaṇḍaēgam* A. 37 = Karaṇḍādigāma comp. Mahādipariwena Mah. 50, 67.
- Karanuwana* A. 42 irregular participle of Vkrī.
- Karay* A. 57 Gerund of Vkrī.
- Karuwa* A. 47 = kāraka.
- Kalae* loc. of kāla B. 56.
- Kala* = kṛita A. 14, 51.
- Kalanda* A. 35 B. 1 = dharāṇa = 8 akkhas, Rhys Davids l. l. p. 14.
- Kasa* B. 53 and kaha A. 42 = kashāya comp. Sid. Sang. 32.
- Kiya* = kriya A. 42.
- Kiyi* A. 12 Gerund from Vkrī. Sid. Sang. 57.
- Kirbaṇḍ* pawu A. 32, 34 perhaps = Giribhaṇḍa Mah. II. 79 with hardening of g to k as in kubara = gambhīra.
- Kīriya* A. 32 B. 2 = Pāli karīsa a measure of extent comp. Rhys Davids l. l. p. 18.

*Kirakirū* A. 51, 52.

*Kisae* = Skt. kṛitya loc. A. 10.

*Kuḍi* = kuṭimbin 'proprietor' A. 24, 41.

*Kumbu* = kumbha B. 28.

*Kumbal* = kumbhakāra B. 27, 28.

*Kumbura* = gambhīra A. 18, 46.

*Kula* 'family' A. 1.

*Kulī* 'wages' A. 39 B. 55.

*Kusae* Skt. kukshi 'womb' loc. A. 2.

*Koṭ* = kṛitwā A. 22.

• *Koṭa* = Pāli koṭṭha 'granary' Abhid. 862.

*Kot* = kunta 'pinnacle' A. 1.

*Kondaṇḍa* A. 37 'punishment' comp. Prākṛit kodaṇḍima or koḍaṇḍima in Bhadrabāhus kalpasūtra ed. Jacobi p. 58.

*Koḷ* 'shrubs' A. 50 mod. Singh. kola. Here as in the following word I am unable to say whether l or ḷ is the original.

*Kol* 'clothes' B. 53 comp. kola Nām 173.

*Kacpiyae* A. 50 a verbo kapanawā comp. J. C. A. S., 1879, p. 21.

*Kacta* = kshatriya A. 1

*Kaemi* = karmika passim.

*Kaeraewu* A. 48, kaeraewiyae A. 33, 37, kaerae A. 46 and kaeraeyehi A. 44 all derived from Vkrī.

*Kaeḷi* B. 48 = Skt. kavala share comp. Nām 39.

*Gatae* A. 30, 41 from Vgrih. gatuwān = grīhātawān B. 57.

*Gaṇajeta* B. 33. 'superintendent of a gaṇa.'

*Gannak* 'a number' B. 5 = Pāli gaṇa or gaṇanam.

*Ganna* A. 28 B. 42 from Vgrih.

*Gam* A. 50 gaemin B. 28 = grāma 'village.'

*Gamanwar* B. 24 plural of gamana 'errand.'

*Gas* 'trees' A. 50. = Pāli gaccha Abhid. 540.

*Gasagaesiya* A. 38 'name of a village.'

*Gilan* A. 11 = Skt. glāna.

*Gutal* A. 37, B. 39, 'name of a village.'

*Genae* A. 25, 31, 58 from Vgrih comp. J. C. A. S. 1879. p. 39.

*Gon* A. 2, proper name.

*Gon* 'oxen' A. 48, Plural of go.

*Cowikam* A. 48 'labour' from gowiyā 'husbandman' and karma.

*Gowuwa* = gopaka B. 37, 51.

*Gacm* A. 37 B. 28 S. above gain.

*Gacmburu* A. 52 = gambhīra.

*Gacella* B. 48 'carter' derived from Skt. gantrī.

*Ḥana* A. 28 B. 16 Skt. tatsama Sinh. dena.

*Jiwel* 'wages' A. 45, 53, Sinh. diwel from Vjīv.

*Jetu* Skt. jyeshṭha, A. 20 B. 2, 33.

- Jeṭmawu* B. 19, from the former and mawu from (ni) mawanawâ which see for jeṭa comp. sūdeṭa 'cook' Sid. Sang. 50.
- Tanhi* = Skt. sthâna loc. A. 19.
- Tal* A. 50 'palmyra tree' Nâm. 136 = Pâli tâla.
- Talola* B. 22 name of a village.
- Tâk* A. 53.
- Tibiyae* A. 25, tubû A. 10 from the Skt. sthâpayati.
- Tisaḥ* B. 30 = tṛitīya 'the third part' ?
- Tun* = trīṇi A. 28.
- Tumâ* = âtmâ A. 3, 30, tumanâḥ A. 30, 48.
- Tuṭulak* B. 43, comp. tulâ Abhid. 481, At Nâm. 171 tululu is given as 'carpet,' but I am doubtful whether this can be the meaning here.
- Tuwâk* A. 15, 18 'as for as.'
- Tek* 'a like quantity,' B. 2.
- Tela* 'oil' B. 35, 42.
- Taen* A. 26 taenae A. 28 = Skt. sthâna, comp. above tanhi.
- Damiya* B. 6 name of a village.
- Damiṇa* B. 38, 39 'devotee.'
- Damgamiya* A. 31 = Dhammagâma.
- Daṇḍ* A. 37, 51 'punishment.'
- Dar* 'firewood' = dâru B. 23, 24.
- Dawaspatâ* 'daily' A. 55, B. 1.
- Dahawût* A. 16 *daehaeṭiyae* from Vhâ, with reduplication jahâti.
- Dasa* 'ten' B. 28.
- Dasa* = dâsa 'slave' A. 41, 45.
- Dâge* = dhâtugṛiha A. 26.
- Dagaeb* = dhâtugarbha B. 50.
- Dawar* 'days' A. 44, plur. of dâ = diwasa.
- Diyae* 'to give' from Vdâ. A. 8, 30.
- Diya* = udaka 'water' B. 56, in older inscriptions daka.
- Dunu* A. 45, 53, *dun* A. 31, *duna* A. 51 = Pâli dinna 'given.'
- Dunuwan* B. 58, most probably corresponds to Skt. dattawân 'having given.'
- Dum* = dhûma A. 37, B. 34.
- Dena* 'giving' A. 47, B. 27 *denu* A. 24.
- Demel* B. 56 and Demuḷin A. 22 = Pâli Dâmiḷa, Skt. Drâviḍa.
- Dew* A. 2 = deva.
- Dewdû* = dewaduhitâ A. 31 comp. Sid. Sang. 24.
- Pesyawanu* B. 58. ?
- Dacya* = dravya A. 25.
- Daehiṭ* = dantakâshtâ 'tooth-cleaner' comp. daehaeṭi Abhid. 442, mod. Sinh. daewiṭu.
- Nakay* A. 22 and *naka* A. 20, B. 1 = nikâya.

*Nayinda* = nâgendra A. 33, comp. Mah. 53, 36.

*Nawam* = nawakarma A. 31, 32, 55, B. 48.

*Nawaguna* B. 50, name of a temple.

*Nawaeri* B. 14, difficult to explain, perhaps connected with Pâli nâlindhamo, 'goldsmith.'

*Nawak* B. 13 = snâpaka 'washer.'

*Nija*—*Nija* A. 6, seems to be a copulative part.

*Ninda* B. 55, 'exclusive possession.' Nindagâma is according to O' Doyly, 'a village which for the time being is the entire property of the grantee.'

*Nibad* = nibaddha A. 15.

*Nimaway* A. 10, and nimaewiyae A. 58, from nimawanawâ 'to complete.'

*Niya* B. 30. ?

*Niyam* B. 2, 58 = nigama Nâm. 96.

*Nisi* A. 24, 41, and nisiya A. 7 = Pâli nissita comp. J. C. A. S. 1879, p. 39.

*Nel* 'lotus' B. 36 = nalina Abhid. 685 Sinh. nelum.

*Naekæti* 'astronomer' B. 40, Sid. Sang. 57.

*Naengû* B. 24, 25, naengî A. 9 and nangâ B. 23, all from Vlangh.

*Naepiya* = snâpita 'barber' B. 32.

*Næliya* B. 2, 3 = nâli, a measure of capacity comp. Rhys Davids l. l. p. 18.

*Næsiû* A. 23 a verbo nasanaawâ.

*Pak* = paksha A. 4.

*Pak* 'cooking' B. 23, 25, crude form used as a participle.

*Paṇḍura* = paṇṇakâra A. 47 'tribute.'

*Pani* = prâṇâtipâti 'killing' A. 42.

*Pata* \* B. 9, 17, Pâli pattha = nâli Rhys Davids, l. l. p. 8.

*Pata* A. 36, 56, J. C. A. S. 1879, p. 29.

*Pamaṇu* = pramâṇa A. 46, B. 57.

*Paya* a measure of extent, Rhys Davids, l. l. p. 20.

*Payala* A. 31, B. 31, composed from pas 'five' and yala.

*Parahana* B. 43 and paeraehaen B. 29 = parisâwana 'waterstrainer' comp. paeraehaer = parihâra in the Mahâkalattaewa inscr. J. C. A. S. 1879 p. 31.

*Parapuren* A. 1, 48, later paramparâwen 'in due succession.'

*Pariyaya* A. 18, B. 59.

*Palavuk* 'fruit tree' A. 50 = phalavṛksha.

*Parwu* = parwata A. 32, B. 12.

*Pawara* conclusion a verbo pawarapawâ (?) B. 2, comp. Nâm. 235.

*Pas* = panca A. 54.

*Pasa* = paksha A. 14 comp. above pak.

\* It first occurs in the inscription at Habaranæ. J. C. A. S., 1879, p. 5.



*Pasak* = pratyeka (?) A. 15, 21, 54, B. 4, *pasakin* A. 26 and *pasaekar* A. 29.

*Pasakkaemiya* A. 21 opp. to *ākaemiya*.

*Pasos* = pratyūsha A. 9.

*Pahanaēwil* A. 40, the tank that is now called Padiwil in the North-Central Province. I first met with this name in an inscription from Nettukanda dated about the 4th century, A.D. There it is called Padiwawi, and this seems to be the oldest form we can reach. Afterwards we find it mentioned in the Galpota (Goldschmidt's Report XI. p. 13) and in Niççanka Malla's inscription on the four pillars at Polonnaruwa (Journal Royal Asiatic Society, 1874 p. 164), where it is called Padī (or Padī with cerebral ḍ); this form also occurs at Mah. 79, 34. Emerson Tenent II. 507 calls it Pahadewila which agrees more with the form we have now before us, but I think none of them is very ancient. Padī is most probably the correct writing corresponding to Skt. paṭī. Here as in Mañuwaesara (see below), King Mahinda wanting to give the tank a name older than it was at his time coined a form which never existed in reality.

*Pahayamin* = prabhāyamāna A. 3.

*Pahawaesi* B. 26, 'keeper of the palace' pahā = praśāda.

*Paḷa* A. 57 'having published' comp. palakaraṇawā = prakāṣa° Sid. Sang. 34.

*Pa* B. 20, 28 = pātra.

*Paṭṭa* A. 44, 46.

*Pijñiwat* A. 35. Vpūj. comp. pidū J. C. A. S. 1879 p. 44.

*Piṭṭasama* B. 9. most probably = Pāli pukkusa 'scavenger' comp. Upham. l. l. p. 348.

*Piṇḍa* 'food' A. 12.

*Piyagiya* = padagata 'pilgrim' B. 55. comp. my Report xxv. p. 5.

*Piyana* = pidhāna 'cover, roof' B. 11, 12.

*Pirikapa* 'in general' A. 14.

*Pirit* = parittā A. 11. S. Hardy, Eastern Monachism p. 240.

*Pirivahanna* 'superintendent, overseer' A. 20 B. 5. comp. the inscr. from Bassawakulam my Report xxv. p. 4.

*Piriheḷa* A. 15. a verbo parihāyati mod. pirihenawā comp. pirihelima 'disgrace' Nām. 62.

*Pirūḷ* A. 29 = pirulu 'answer'?

*Piṭṭi* B. 8, 21 = paṭikā 'clothes.'

*Piṭṭibada* A. 18, 24, 29. B. 22 = patibaddha.

*Piṭṭimage* A. 33, 37. B. 41 = paṭimāghara.

*Piṭṭiwelā* A. 2 = paṭipāṭi 'succession' loc.

*Pisana* B. 22 and pisae B. 24 from Vpac. 'to cook.'

*Pugul* = puggala 'individual' A. 17.

*Pun* = pūrṇa A. 4.

*Puhunḍaweda* B. 30, 'apprentice physician,' comp. puhunukaranawâ 'to study.'

*Pūṇa* B. 41.

*Pera* = pūrva A. 47.

*Perawaru* 'morning' A. 28 = pūrvavâra.

*Ṭereḷi* 'disturbance' A. 38. comp. Niççanka Malla's inscr. at Polonnaruwa l. 48. Journal R. A. S. 1874 p. 163.

*Perewae* A. 10, 'having dressed' a verbo pārupati = Skt. prāvṛi, from which is also derived porōnaya 'cloth' B. 53.

*Perewaeliya* B. 11, 12. pere is contracted from pehera = pesakâra 'weaver' (Clough) comp Upham l. l. p. 339. waeliya is difficult to explain, perhaps it is only another form of welanda = waṇij.

*Pokuni* A. 40 = pushkariṇi 'tank.'

*Pot* = pustaka 'book.' A. 54.

*Porodeni* A. 40 perhaps = paraçudroṇi, but I cannot identify the place.

*Poṭa* B. 42. None of the significations given to this word in Clough seems to agree with the context.

*Ṭorōnaya* B. 53, from parupati, see above perewae.

*Poho* = uposhata A. 44.

*Paeraehaena* B. 29 = parisâwana 'water strainer' mod. perahana.

*Paeliya* B. 30, measure of extent, Rhys Davids l. l. p. 18.

*Bat* = bhakta 'boiled rice' A. 28 and *batge*, 'the house where rice is distributed,' B. 19.

*Baṭ* A. 1 = bhrasṭa 'descended' Vbhramç mod. bahinawâ.

*Baṇ* B. 38, *baṇae* B. 1, and *baṇae* B. 2 = bhaṇa.

*Bad* = baddha 'bound' A. 15, 44.

*Balana* A. 20, *bala* A. 31 a verbo balanawâ = awalok.

*Bidam* A. 13 = abhidhamma.

*Bim* A. 40 = bhūmi.

*Bili* A. 9 = balawat, used in the sense of 'very' comp. bilî 'a powerful person' Sid. Sang. 57.

*Bili* 'raw' A. 47, comp. bilîmas, Nâm. 85.

*Bisowa* B. 42 = abhiseka 'inauguration.'

*Bisew* A. 2, 'queen' mod. biso same derivation as the foregoing.

*Budi* = Buddha B. 42.

*Beda* B. 16 and *bedum* B. 56 a verbo bedanawâ Vbhid.

*Bonḍ* B. 44, most probably = bhaṇḍika, comp. bhaṇḍikapariweṇa, Mah. 52, 58.

*Bol* = busa Pâli bhusa 'chaff' Abhid. 453.

*Baegin* = bhâgena A. 52, B. 4, Childer's Notes II. 140.

*Baendae* A. 44 from Vbandh see above bad.

*Baelae* A. 38 from balanawâ, ḷ is a mistake for L.

*Baesae* A. 11 from Vbhramç, see above baṭ.

*Bacbaeri* = bāhira 'external' A. 22.

*Baé* = bhrâtâ 'brother' A. 5.

*Mang* = mār̥ga B. 54, and *manggi* B. 55 = mār̥gagata 'wanderer.'

*Mangul* A. 33 = mangala.

*Mangulaewa* B. 54 = magulwaewa.

*Maṇuwaēsara* A. 39 = maṇuwāpisara 'the tank of Miṇeri.' It is called maṇihîra in the Mahawanso I, 237, where its construction by king Mahāsena is recorded. This means 'pearl necklace,' the same as maṇimekhala, Mah. II. 95. In the inscriptions it is generally called miṇihoru as for instance in Niṣṣanka Malla's inscription at the Rankot Dāgoba, J. C. A. S. 1879, p. 41. Maṇuwaēsara as well as Pahanaēwila above seems to be an invention of king Mahinda.

*Maṇḍowuwa* B. 31 = maṇḍāpaka 'florist.'

*Mal* = mālā 'flower,' B. 3.

*Malas* 'incense,' A. 38, B. 34 = mālātî 'jasmine.'

*Mas* 'month' A. 4, 56.

*Mahapā* = mahāpātra, A. 54.

*Mahabudunge* B. 38, 39 = mahābuddhaghara.

*Mahaboyge* A. 33 = mahābodhighara Mah. 53, 10, 'the house of the great Bo-tree.'

*Mahawar* = mahāpāra 'highroad,' B. 54.

*Miṇināl* A. 33 = manushyanātha (?). The second part nāl occurs as a female name also in the Mahākalattaewa inscription, and at Mah. 50, 9.

*Minir* = maṇikāra 'goldsmith,' B. 46.

*Minḍi* 'slave' B. 20.

*Minisun* A. 30 = Acc. pl. of minihā.

*Milae* 'money' B. 3 = mū'a Abhid. 471, Gutt. 134.

*Miwan* A. 50 = madhūka Abhid. 554. 'Kassia lati folia.'

*Mut* = mukta A. 16, 41.

*Mundu* = mūrdhā 'principal, chief' A. 25, 56.

*Menehi* loc. of manas A. 10.

*Met* = maitrî A. 11.

*Mehe* 'work' A. 25, 30, 58, Nām 182.

*Mela* B. 55 = Pali melaka Abhid. 769.

*Maṭṭipata* 'earthen bowl' B. 8 = Pāli mattikāpatta.

*Maenda* = madhya A. 58.

*Yataesi* A. 39 and *Yatgala* A. 34 = adhaṣṭāt aesi and adhaṣṭāt gala opposite to uḍaesi and uḍgala (above.)

*Yala* B. 27 = salā chatty.

*Yahala* A. 36, yāla a measure of extent, Rhys. Davids I. l. p. 20.

*Yahana* A. 11 from Vsah with irregular change of s to y com. yahapat sukha.

*Yutu* = yukta A. 23.

*Rakna* from *Vraksh* B. 37.

*Raj* = *rājā* A. 1.

*Raṭa* = *rāṣṭra* A. 47.

*Ran* = *hiranya* 'gold' A. 35. B. 1 *ranæ* B. 57.

*Riyan* A. 52, 'cubit' = Pāli *īatanam* Skt. *ratni*.

*Ruwanasun* B. 12. most probably a mistake for *Ruwanasut*.

*Ruswa* A. 6 = *rucitwā*.

*Raekinaṭwa* B. 17. = *rakkhanaka* Mah. 1, 269.

*Raekiya* B. 18 = *rakkhaka*.

*Raejna* 'queen' A. 2.

*Labanu* A. 8, 40 and *ladu* B. 16. 37. a verbo *labanawā*.

*Lahāg* = *ṣālāka* A. 10 comp. Mah. 45. 43, Sid. Sang. 14.

*Lahiniya* pawu A. 39 later *Lihiniya* as is *Saela* *Lihiniya*.

*Liyaewiyae* 'to write' A. 54.

*Leya* A. 21 'writer' = *lekha* later *laēnan* in the *Mahākāl* inscr. J. C. A. S. 1879, p. 27.

*Leṭoru* B. 43 = *lekhadhāraka*.

*Lekam* = *lekhakarma* A. 25, 57.

*Laedi* B. 19.

*Laengū* from *Vlangh* A. 4. J. C. A. S. 1879 p. 35.

*Wak* = *paksha* A. 45, 53.

*Waṭhi* A. 40 and *waṭae* A. 43 loc. of *waṭ* = *waṭṭa* 'round' from *Vvṛit*.

*Waṭ* B. 14 in *waṭnāwaeri* and B. 20 in *waṭmiṇḍi* = *waetum* 'wages' see below. *waṭaway* A. 56.

*Wajarana* B. 38. *wajarat* A. 16. and *waṭjaeriyae* A. 17 from *avadhāreti* mod. Singh. *wadāraṇawā*.

*Waḍu* B. 44 = *wardhakin* 'carpenter.'

*Watsika* B. 7 'medical plant' comp. *watsika* Pāli *wassikā*.

*Wat*—*wat* 'either-or' comp. J. C. A. S. 1879 p. 29.

*Watup* 'garden' A. 49, perhaps = *watumā* Skt. *vartman*.

*Wadna* B. 55. from *wadinawā* 'to enter' (S. introduction.)

*Wana* = *winaya* A. 12.

*Wap* A. 4 'September-October,' the 'sowing month.'

*War* 'monastery' B. 33, 34, 40 comp. J. C. A. S. 1879 p. 24.

*Waraj* A. 51 = *aparādha* 'fault.'

*Waḷandat* a verbo *walandanawā* 'to eat.'

*Walakiyana* 'reading' A. 12, 13.

*Wiya* = *vyaya* A. 23 comp. *awiya* Sid. Sang. 20,

*Wikiya* 'selling.'

*Wikiṇij* from *vikrī* comp. Sinh. *wikīṇṣma*. The *j* at the end is most probably a mistake for *y*.

*Wiyarwā* A. 55. 'expenditure' comp. mod. Sinh. *wiyadama*.

*Wisiyae* A. 20, 43 'to enter' from *Vviṣ* or from *Vvas*. 'to dwell' comp. *wisima* 'dwelling.'

- Wil* A. 40 'tank' Nâm. 89 Skt. vila 'cave.'  
*Wiwaruṇa* A. 8, = vivaraṇam 'comment.'  
*Wi* = vñhi A. 36.  
*Weda* = Skt. vaidya Pâli vejja A, 11, B. 30.  
*Wesa* 'dress' A. 42.  
*Wehera* = vihâra A. 27.  
*Was* A, 11 Gerund of wenawâ = bhûtvâ.  
*Waejaërma* B. 20, see above wajârana.  
*Wast* 'lamp' B. 35 A. 49 = Pâli vaṭṭi.  
*Waeṭena* A. 49. waeṭiyae ib. and B. 58 a verbo waeṭenawâ Vpat. From this seems to be derived also  
*Waeṭum* = waeṭup 'wages' A. 47. Nâm. 209 Gutt. 176 comp., however, Pâli vutti Abhid. 455.  
*Wædi* A. 22 = vñiddhi.  
*Wædae* A. 49 from wadinawâ?  
*Wælaendiyae* A. 46 see above waḷandat.  
*Wæliya* see above perewæliya.  
*Wæw* = vâpi A. 52, B. 55.  
*Wǣsara* = vâpisara J. C. A. S. 1879, p. 8.  
*Wǣsae* 'living' from Vvas A. 12.  
*Sa* 'six' B. 38.  
*Sangwæli* B. 21, A. 39 = sanghawâlukâ 'ground of the priesthood.'  
*Sat* = chattra A. 3.  
*Satarak* 'four' B. 34.  
*San* = sanjûâ, A. 42.  
*Sanin* A. 56.  
*Sand* = candra, A. 4.  
*Sam* A. 37, B. 38, 40, see above *atsam*.  
*Sapugamiya* = campakag<sup>o</sup> B. 37.  
*Samajaḷy* = samjâta, A. 2.  
*Salamewan* = ṣilâmeghavarṇa, A. 1.  
*Sal* 'time' A. 9, Nâm. 35 = kṣhaṇa (?).  
*Sal* stone = ṣilâ, B. 41.  
*Salusat* A. 44 (?).  
*Sala* B. 22, 23 'servant.'  
*Sâl* = ṣâlî 'rice' A. 28, 47.  
*Saha* A. 22, 28, B. 16, from Vsah.  
*Sikakarani* A. 10 = ṣikshâkarani.  
*Siṭi* A. 27, 29 and siṭae A. 3, a verbo siṭinawâ mod. hiṭinawa comp. Sid. Sang. 57.  
*Sittara* B. 37 = citrakara 'painter' comp. Sid. Sang. 23.  
*Sirit* = caritra, A. 6, 19.  
*Sirwaḍu* B. 45 comp. from sir = churikâ (Mah. 44, 111, Nâm. 206) and waḍu = wardhakin.

*Siri* = çrî, A. 1.

*Siya* 'four' A. 9., generally siwu, J. C. A. S., 1879, p. 43.

*Siwur* = cîwara A. 10, B. 16.

*Sima* B. 55, boundary ?

*Suta* A. 13 = sûtra.

*Sunu* = cuṇṇa B. 47, Nâm. 200, mod. hunu.

*Sûwisi* = caturvimṣati, B. 20.

*Senen* B. 30, senâya, B. 44 ?

*Setuwam* = çvetakarma, B. 3, 7.

*Seyin* A. 41, instr. of sé = châyâ.

*Seygiri* = caityagiri A. 6, see Intro.

*Seswar* A. 45 'the rest.'

*Somnas* B. 8 = somanassa, a buddhist festival.

*Soloswana* A. 4 'the sixteenth.'

*Sowas* A. 41 'land fees.'

*Saendae* loc. of sanda = kshaṇa, A. 12.

*Saemaenga* A. 16, 22, 54,

*Saeraeya* B. 5 'watchman' ?

*Sae* = caitya, B. 51.

*Hambu* = âcâma 'scum of boiled rice' A. 11, 28, comp. Hambugallaka, Mah. 205.

*Hawurudu* = samvatsara, A. 4, 36.

*Has* = çasya, A. 26, 47.

*Hindae* A. 22, and hun A. 41, a verbo innawâ Vsad.

*Himiyan* A. 11 = swâmi, old hami, J. C. A. S. 1879, p. 18.

*His* B 53 (?).

*Het* A. 49 = hetu 'reason' ?

*Helmal* 'white lotus' B. 35 Nâm. 91.

*Hendae* = âchâdana 'covering' A. 10 Kusa Jâtaka 51.

*Haemaendae* B. 52 'sweeping' = âmârjana Nâm. 233.

*Haeriyae* A. 25, 58, a verbo harinawâ 'to dismiss.'

*Haemae* A. 36, contracted from haêruma or saêruma = sarva 'all.'

A PAPER  
ON THE VEDIC AND BUDDHISTIC POLITIES,

BY

M. M. KÜNTÉ, M.A.

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(Read at the General Meeting, October 11, 1879.)

INDIA is at present generally under the influence of a polity, social and religious, which is characterised as Brahmanic. It is the result of two earlier polities, the Vedic and the Buddhistic, an historical outline of which, while answering the purposes of this paper, will incidentally, I venture to think, throw some light on the great doctrine of *Nirvana*, which has a peculiar interest for the people of Ceylon. I shall begin from the great Aryan invasion, because if we would understand a polity in its fulness, we must be prepared to examine the conditions of its origin, the circumstances under which it developed itself, and the character of the nation on which its influence was brought to bear. I proceed to sketch the history of the Vedic and Buddhistic polities.

It is now established that the Zendic and Vedic Aryas lived in the Valley of the Oxus and the Jaxartes. Many Aryan tribes had already left their homes and migrated towards the West. In Russia, for instance, the Schlaavs of the present day are the Vedic *Salveyas*, the Lithuanians are the Zendic *Rithvans*, or the Vedic *Atharvans*. The Hellenes delighted in the name of the Aryas, as the Hellespont is simply another form of *Arya-path*. The German word *Herr* is the Vedic *Arya*, as is the English *Sir*. All the

Teutonic and the Schlaavonic tribes had the same religions, social and political institutions, as the Vedic and the Zendic Aryas,—the Vedic Aryas being the ancestors of the Brahmanical castes of modern India, and the Zendic Aryas being the ancestors of the Parsis or Zoroastrians.

About at least 4,000 years ago, the Vedic Aryas waged war with the Zendic Aryas. Mr. Wallace, in his history of Russia, describes a social phenomenon on the shores of the Caspian sea, which throws much light on the probable cause of the internecine war between the Zendic and the Vedic Aryas. They, the Zendic Aryas, had taken to agricultural pursuits, and had learnt the peaceful arts. The Vedic Aryas, on the contrary, were still rude and nomadic. The former were averse to hunting expeditions and change of abode, and were, therefore, characterised by their adventurous brethren as clinging to their homes (*asuras*): the latter were known as warlike or bright (*devas*). This was fraught with very important consequences to India, for the Vedic Aryas were compelled to leave their abodes in the Valley of the Oxus, and the Jaxartes, and to turn towards India. The different class of the Vedic Aryas marched *en masse*, each under its own leader, with their cattle, slaves, servants, artisans and traders. The Vedic polity as originated by this invasion, is divisible into three periods. During the first period, the Aryan leaders, such as Vasishtha and Vishvamithra occupied, the fertile valley of the Indus and its five tributaries, and colonised Sindha. Every Aryan leader was a bard, priest, and warrior. He stimulated the energies of his clansmen, elevated their religious feelings, gave them counsel and headed them in military expeditions. The hymns which Vishvamithra sings on the banks of the Indus, when he seeks to cross it after having travelled through mountain passes, which even now oppose serious obstacles to armies, though aided by organised skill, have come down to us, in all their richness. Enthusiastic, and fully deter-



mined on finding a settlement for his clansmen, he poured forth his feelings in strains so pure, so hopeful and melodious, that they fascinate us even at this distance of time. The Aryas in the Punjab had no caste, nor the feeling of that exclusion, which characterises the modern Brahmans. All that is stated is, that if an Aryan youth failed to give satisfaction to the assembly of elders, he was obliged to become a cultivator of land, and to handle the plough. The habits of the Aryas of this period were simple. Their ambition was to secure a habitation on the banks of a river, where they could obtain sufficient food for themselves, and pasturage for their cattle. Influenced by warm feelings, stubborn resolutions, and that condition of the intellect which results from new discoveries—discoveries which enlarge the mind and give tone to it, filling the imagination with sanguine hopes and begetting a desire to explore still further, and to undertake more hazardous adventures—some of the Aryas pressed forwards and penetrated the desert of Rajapootana, while others ascended the Himálayas, and discovered the fountain springs of the Jumna and the Ganges. The Aryas at this time were particularly spiritual in their aspirations. They attributed their success in war and in the exploration of new countries to the special providence of their gods.

In process of time, the Aryans are found to have established several petty kingdoms in the valleys of the Jumna and the Ganges, and there exist ample materials at the present day to give us a fair idea of the condition of those times. A sort of chivalry was developed. Luxury and enjoyment became the order of the day. Carpets inlaid with gold and fringed with embroidery were spread. Some bards sang the praises of warrior-chiefs, others of the munificence of princes. Elaborate sacrifices were performed, the completeness of which was thought to be marred unless a host of priests was called in to officiate, so as to add solemnity to the occasion. Many were the bullocks

slaughtered, and much was the *soma-juice* drunk. Often warriors would parade their retinue to the delight of the public, who were proud of themselves and their chiefs. There were pavilions too, raising high their jewelled domes, proclaiming the splendour and magnificence of their respective lords. Amidst all this bravery, we see too, in illustration of women's rights in the extreme, an Aryan maiden, trip to the front, and declare to the multitude of love-struck youths, that she is ready to accept in marriage the handsomest and most martial of them. During this period, the second in the history of the Vedic polity, simplicity of character and earnestness of purpose gave way to ostentation and vanity. Yet, the sedate and sober of the Aryans withdrew themselves from all this voluptuous luxury, and cultivated religion and literature. Thus arose the distinction between the priestly and the warrior classes, the *Brahmanas* and the *Ksatriyas*, but all alike were impressed with their own importance, and consciously or unconsciously became affected with the spirit of exclusiveness.

During the third period of the Vedic polity, literature had taken a great hold of the public mind. Repelled by the luxury and voluptuousness of their kings and soldiers, the Aryas now engaged themselves in the solution of problems, which the mighty rivers, stupendous mountains, and other natural phenomena of the land they occupied, necessarily proposed to them; problems of the origin of the world, and the destiny of man. They established schools throughout the country, and all the most distinguished authors of the Vedic polity belonged to this period. Grammar, philology rhetoric, logic, mathematics, metaphysics, astronomy and a variety of other sciences were assiduously cultivated, nor were the useful arts forgotten. It was the Augustan era of the Vedic polity. Men like Kātyāyana, and ladies like Maitreyī were never tired of discoursing on the most abstruse questions of philosophy.

It is at this period, too, that we observe on the scene Aryas of mixed blood. Notwithstanding their spirit of extreme exclusiveness, the Aryas contracted alliances with special families of the non-Aryan race. Some of the great heroes of the *Mahabharata* for instance, are of mixed blood. But the bearing of the Aryans towards the mass of non-Aryans generally remained unchanged, was haughty and supercilious. The Aryas condemned everything that was not Aryan. The Aryan gods, they believed, were the most powerful, the Aryan institutions the best, the Aryan race the handsomest, the most intellectual. The non-Arya was swarthy, superstitious, ignorant. That was the feeling prevalent in this period, not merely in the Aryan court, bazaar or shop, but throughout their literature. The non-Arya struggled hard to maintain his self respect, and sought admission into the school-room, the court and the sacrificial ceremonies, but was repelled and despised. His lands were snatched away from him on frivolous grounds, his towns plundered, his priests thrown before wolves. Insulted everywhere, scoffed at when engaged in religious service, ridiculed, reminded of their inferiority and always characterised as black barbarians, the non-Aryans harboured in their minds a feeling of deep resentment and sullen hatred. Their hearts were overburdened with sorrow, shame and despair and strange undefined notions of a pessimistic view of life were beginning to dawn on them. "Oh, why," they asked, "had a merciful Providence driven them to this state. Surely he could not be just." It was at this crisis that Gautama Buddha arrested the floating beliefs of the times and in language instinct with feeling, formulated the doctrine which bears the name of *Nirvana*. He said that they, the fallen non-Aryas, and such of the Aryans themselves as were disgusted with the pomp, vanity and exclusiveness of their own race, had missed the true path to happiness. Happiness lay not in conquest, not in aspi-

rations which involved the misery of others, not in glory a vain show, not in Aryan institutions nor in the attempt to crush them, but in the control of our own minds. Repose and peace of mind was the great key to happiness. Buddha Gautama shewed the utter vanity of human aspirations. He shewed that a man, a part of nature, must go on with the stream of nature. There was no altering its course. Outward circumstances were too powerful to resist. "Why then, my brethren," he said, "are you unhappy at the thought that the Aryas have invaded India and have taken possession of your lands and houses? Why do you make yourselves miserable about the loss of social or political status? Can you not rise above these things. If you cannot secure happiness from without you, secure it from within you." This was what Gautama preached. It was indeed a startling discovery. Thousands of non-Aryas, and even Aryas abandoned their homes for the solitude of the forest, and congregating there, wept for joy at the grand vista opened to their view. Oh, said they, the great Gautama had given them the happiness which had so long eluded their grasp. They had simply to curb their desires, their passions, their thirst for distinction. So they sang and wept by turns, crying "happiness we have at last got. Gautama Buddha has given it to us."

This was the first period of the Buddhistic polity. The simplicity of its character was gradually effaced as the Buddhists grew in prosperity. Rendered bold by the host of followers who espoused their cause, Buddhist missionaries travelled from place to place inculcating the tenets of their religion. They codified the sayings of Buddha and in their endeavour to explain the mysticism and generalities incidental to the utterances of every great teacher of mankind, soon developed a metaphysical theory, the chief exponent of which was Nagârjuna. We have now come to the second period of the Buddhistic polity. Fervid in his eloquence,

humorously sedate in his manner, and possessed of great tact, Nagārjuna was eminently successful in his work of proselytism. Brahmins quailed before him. Princes adopted the new creed, and raised triumphal pillars. In a word, the Buddhistic platform was recognised throughout the country. But prosperity was followed by arrogance and degeneracy. The monks and nuns of Buddhism set themselves up as being free from the dangers and sins of this life and pretended to perform miracles. They thought themselves emancipated even while alive, and strange legends descriptive of their powers and prowess were written and expounded before the people. It was during this period, the third in the history of the Buddhistic polity, that its missionaries came to Ceylon.

I have now prepared the ground for a contrast between the Vedic and the Buddhistic polities. They cannot be compared, because they are essentially different. The Vedic Arya believed in himself and in his energy. He thought he could control nature and make it subservient to him, that he was the lord of all the lower animals, and that, just as his gods revelled in the sacrifices offered to them, so he ought to revel in every thing on earth that served his own wants. His *vedas* were his comfort and his God, his protector in peace and war. His Gods, were immortal and unspeakably happy. His own soul was immortal and capable of perpetual happiness. Life by itself was to him a state of happiness, and even after life there was happiness in store for him. In fact, heaven and happiness were the watchwords of the Vedic polity. But to the Buddhist, all this was unmeaning. He thought nothing of himself or his powers, but felt himself to be an infinitesimal portion of nature, which worked spontaneously evolving itself by means of an innate formative power, so much so that neither man's energy, nor his intellect could alter his surroundings to the slightest degree. There was no god for him, nor

happiness. Turn where he would, he found misery in his life, caused by conflicting passions and desires, the objects of which were at once transient and misleading. A calm and repose of mind, desireless, passionless, forgetful of self, was the *summum bonum* of life, the *Nirvana* of the Buddhistic polity.

But in fixing the exact meaning of *Nirvana*, it is important to bear in mind the fluctuations which it has undergone with the shifting history of the polity which gave birth to it. The difficulty and the angry disputes which this term has raised among modern *Savants* would have been avoided to a considerable degree, had they not lost sight of the fact that harmony could not be expected in a voluminous literature composed of the writings of different authors, living at different and remote periods. We must, therefore, be prepared to find various shades of meaning attached to the word *Nirvana*. This is really so, for in the first period, *Nirvana* merely meant emancipation from misery, resulting in a condition of bliss. There was a great deal of indefiniteness about the idea, which afforded much scope for refinement, and accordingly, during the second period metaphysical niceties came into being. *Nirvana* was defined to be that happiness which arises from an absence of sorrow. There was no positive happiness to be obtained. *Nirvana* was, therefore, a condition which necessarily followed the cessation of births or the transmigration of the soul. In the third period, *Nirvana* was interpreted to be the annihilation of the soul.

I now conclude my paper, but I cannot do so without referring to the present state of India and Ceylon. The action and reaction of the Vedic and Buddhistic polities on each other resulted in the Brahmanical polity of the present day. That is the polity which now stands face to face with European civilisation. The question now is, how may this civilisation, many-sided and noble—higher than any our

ancestors had known—be adapted to the conditions of the country? How is the civilisation of Europe to work its way into the hearts of millions of Hindus and Sinhalese strong in their views of life and in their religious principles, without exciting their opposition or injuring their feelings? What is to be the attitude of these masses towards it. These are the questions of the day which commend themselves to the statesman. I shall only remark that the history of the struggle between the Vedic and the Buddhistic politics furnishes many a lesson which it would be well for us to remember.

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## CUSTOMS AND CEREMONIES CONNECTED WITH PADDI CULTIVATION.

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As considerable attention has been recently directed to paddy cultivation, I propose to give a brief description of the customs and ceremonies used in the Kégalla district, which may be interesting for comparison with those of other districts.

As agriculture forms the chief employment and even amusement of the villagers, we may expect to find it treated as a very serious matter, and one involving much superstition.

The yaksayo or evil spirits are supposed to be not only malicious but even covetous, and, therefore, the grain must be protected from harm whilst growing, and secured from theft by them when matured.

I shall give some account of the ceremonies connected with each stage of the growing and thrashing so far as I have been able to procure information from intelligent headmen and the kachchéri records.

The most important persons in the village to whom the cultivators look are the astrologer (neket rala) and kapurala, who is the lay-priest of a Dewale. When a cultivator intends to begin his work he has first of all to discover a lucky hour for doing so, and he goes with a gift of forty betel leaves and a fanam to the astrologer who then fixes an auspicious time.

The channels for irrigation and jungle overhanging the field having been cleared and cut away buffalos with clappers of bamboo (sokaḍa) tied round their necks are tethered for the next day's work, which is the first plough-



ing (binnegama). The dams are then cut and water is introduced through the openings (wakkaḍawal), and the ground is left to soak for 18 days when the second ploughing (dehiya) takes place. The dams are then repaired and sloped with mud, and the seed paddi is prepared in the following way. The seed is placed in a copper or earthen vessel, and kept for 60 peyas in the water (about 20 hours), and is then spread on the ground, and haberala leaves are placed under and over it and weights are placed above.

The germinated seeds are then carefully separated (yaṅkaranawá) sprinkled with water, and sown in about ten days. Meantime the astrologer (neket ralá) is consulted for a lucky day and hour in which to sow, and on its being fixed a little seed-paddi with a saffron and ginger plant and a cocoanut flower are placed on a mud-ball on a dam to appease the tutelary deity. Then the third ploughing (eḍduma or wakhíya) takes place. The last named ceremony is called bittara wadanawá. The mud is now levelled with a large hoard (póruwa) dragged on its edge by buffalos, and by smaller hoards (atpóru) worked by meñ. When the mud is as level as glass and about two feet deep, the germinated seed is scattered over it. Ten days afterwards water is admitted to a certain height (isnambandinawá). If watered sooner the seeds are liable to be eaten and destroyed by the crabs (kakkuṭṭo) which inhabit the dams. Creepers of a poisonous plant (niyagalá) are sometimes put in the water to kill the insects which prey on the roots. Ashes and sand, charmed in secret, are also thrown into the field to kill these insects (gópannuwó).

One or two months now elapse, and the women's work of weeding, thinning and transplanting comes on, and they beguile the labour by a pleasantly sounding but monotonous chant.

Before the blossom has set if the crop appears likely to be a very good one, it must be protected from the evil eye

and evil mouth (ęswaha kaṭawaha). To ensure this a ceremony (called garayakuṇ natanawá) is performed. The devil-dancer goes at night to the field where a small platform has been erected for him, and dressed in all his hideous array and clashing his bangles dances on the platform before the admiring villagers who sit there all night with lights and burning gums, the smell of which are supposed to be peculiarly grateful to the yaksayo.

When the blossom has well set many ceremonies are used to prevent the attacks of flies and insects. Seven kinds of charms are used by the kapurala who specially invoked the aid of Abimána Dewatáwa "the Lord of Flies." He is said to have been the Triptolemus of Ceylon and reigned under the name Upatissanam Amáptayá, and after teaching agriculture in the next stage of existence became Ahimána Dewatáwa. Offerings are made to him and to Kohomba Yakup. Four posts are erected in the field and a kind of basket ornamented with flowers, ironwood twigs, &c., is set up. Three measures (lahas) and three handfulls of rice are pounded, and cakes cooked with curry, and new oil are prepared. It is essential that these things should be untasted by anyone. They are tied in a bundle covered with a red cloth and carried on a pole between two men round the field. The Kapurala follows beating a kind of bason (taliya) and blowing a chank shell (hakgediya). The offering is then placed on the platform in the receptacle (meṣsa) and is eaten by the Kapurala and his two assistants.

If all these charms are unsuccessful the Kapurala and astrologer save their credit by informing the villagers that the failure is not owing to weakness in the incantation but to the sins committed by the cultivators in a former state of existence (jāti kerapu paw), which have angered the Gods. We will, however, assume that the Kapurala has been successful, and that the crop duly ripens, and is fit for reaping.

A lucky hour is selected as before and the reapers bathe, put on clean cloths, eat milk-rice, and at the appointed hour one goes and bows down nine times to the ears of corn, cuts a handful and selects three ears which are wrapped in three bo or Kaduru leaves and are carried on his head to the (kamata) threshing floor. If the ceremonies succeeding are not most carefully observed, all the labour will be fruitless as the yaksayo will carry off the grain and spirit it away! A hole is dug in the threshing floor and the three ears all buried in it and a peculiar round stone (aruk gala) is placed over them. The crop is then reaped with joyous shouts and stacked on the dams of the field. A seer of well cleaned ashes is brought to the threshing floor and curious figures are drawn with ashes on the ground. I annex a diagram (No. I.) shewing these figures. (Aluhaṇwadanawá.) Then a shell, a king cocoanut, a small bunch of ripe arecanuts, a piece of iron, a piece of margosa wood plant with charms drawn on it, a leaf of tolabo and of hiressa, and a handful of grain are placed on the round stone. Women then carry in three sheaves and after laying them down all the other sheaves are brought in.

These charms are designed to prevent the grain being stolen by the yaksayo and if duly performed will cause even increase of yield in threshing. But the most potent charm of all is that of the fortunate possessor of a jackal's horn! (narianga). The lucky finder of this rare appendage (said to be only half an inch long) can procure a hundred fold or more above what he has actually reaped if he buries the horn in the threshing floor and if he carries it about with him it acts like Fortunatus's cap and he succeeds in all his cases in Court and in all his projects!

When the paddy is winnowed (bētapahinawa) a line is drawn with ashes and a twisted straw rope round the heap of paddy.

When the threshed grain has been winnowed the owner proceeds to measure it (yallanawá) after bowing

down nine times. One measure (laha) called the akyala is given to the kapurala in the names of Pattini and Kataragam Deviyo and Kohomba Yakun, and small quantities are given to the village washer-man, blacksmith, potter and astrologer or tom-tom beater. Then at a lucky hour the grain is removed to the granary (bissa).

The last ceremony performed is call the Alutbatmangalaya, or "new rice festival," a kind of "harvest home." Before any of the new rice is used, a little paddi is pounded by the women, cooked, and then carried as an offering in the name of Buddha to the Viháré.

I have omitted to mention one of the most curious of the customs observed at the harvesting and threshing-floor. It is considered desirable that the yaksayo should be kept as much as possible in ignorance of what is going on and that no opportunity should be given them of taking advantage of what someone may have said. Consequently they will not "call a spade,—a spade," but will call it something else and a peculiar conventional and euphemistic language is spoken. For instance they use the word "bēta" for "wi" = paddi, for "kanawa" (to eat) they say "bandinawa," for "yanawa" (to go) they say "pura-wanawa." A man will not use the word "take" lest the yak should consider it a permission and steal the paddi! I annex a list (No. II.) of these conventional words given to me by Eknēligoda Ratémahatmayá of Three Kóralés, which will, I doubt not, be interesting. My limits and the short time at my disposal at present do not permit me more than briefly to describe these customs and I leave for some other occasion the interesting questions of their origin and connection with the folk lore of other peoples.

I hope the derivation of these words may be shown by some competent person as in them traces of survival of older religions and language may be found and these linger longest in semi-religious rites as we see in many familiar

customs of the Teutons and Celts and in allusions which might be illustrated from the Georgics and song of the Frates Arvales in Italy. I think this idea that the evil spirit should not be allowed to hear or understand what is said is analogous to the belief among the Irish peasants that "the Devil does not understand Latin," and that it was on that account the service of the Roman Catholic Church is continued in that language! A statement which I have myself frequently heard in the west of Ireland.

The practice which obtains there of carrying fire round the fields on St. John's day—evidently a relic of fire-worship—is not uncommon here and is avowedly used for the protection of the crop against malicious faeries ("the good people") who correspond in many respects to our yaksayo.

R. W. IEVERS.



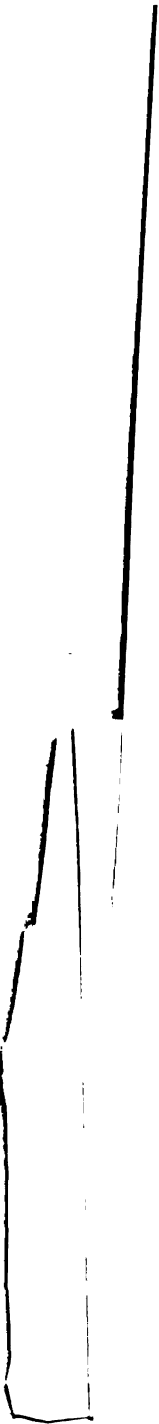
## I.

*Diagram referred to.*

- |                                 |     |                           |
|---------------------------------|-----|---------------------------|
| 1. සිරිපතුල                     | ... | The foot print of Buddha. |
| 2. චන්ද්‍රමඬලේ                  | ... | The moon.                 |
| 3. සූර්යමඬලේ                    | ... | The sun.                  |
| 4. හගෙඬිඬ                       | ... | A chank-shell.            |
| 5. බැතපානිනකුලල                 | ... | A winnowing fan.          |
| 6. බැතමනිනලාහ                   | ... | A laha measure.           |
| 7. කොලුවකරනලකුණු දූතන           | ... | A forked stick.           |
| 8. බැතඑකතුකරනගොසිපෝරුව          | ... | A rake.                   |
| 9. බැතවල කටුව අහක්කරන කටුමානඅතන | ... | A brush of thorns.        |
| 10. බැත අතුගාන බෝලතන            | ... | Do. made of pamba.        |

## II.

Conventional word.	Equivalent.	Conventional word.	Equivalent.
බැරැක්ද	... කොයියනවාද	බිත්ලියන	... පදුල
ලෙසවනවා	... එනවා යනවා	අතුරනෙන්	... පැදුර
වැඩවිදිනවා	... කනවා	කටුවන	... පෙවිවිය
උදවිකරනවා	... උයනවා	දුරනෙන්	... මල
බැත	... වි	වතුඅඬුබරුවා	... හරක්
ගොසියාව	... ලාහ	අම්බරුවා	... ගෝනා
යතුර	... කුලල	හතරයා	... උරා
කළුගෙඩිය	... වලද	මහබෝලා	... අලියා
අත්බරුව	... අතලොසස	බිත්පහුර	... කුකුලා
මානපය	... හැඳු	කළුබරුවන්	... අවු
පැහියන්	... හාල්	හිතබරුවන්	... කුරහන්
පුබබරුවන්	... බත්	බිත්තනුරු	... බතල
කහවවා	... පුවක්	රහන්යා	... හකුරු
කටුවන්	... සුහු	කහවමල්	... කෙසෙල්කැං
ලියනනාකටුව	... දූ තැනන	දිසිපිටිනා	... කැවුන්
උහන්	... පොල්	කළුගෙඩියා	... වදුර
මිරියා	... එකු	කැස්ගහනා	... රිලවා
රබෙබාඬයා	... වැලිවුවා	වඩුදියවර	... තෙල්
උහන්බානවා	... විකොටනවා	රතනා	... ගිණුර
දූඩියාව	... අවිව	කන්ගොටුවා	... හාවා
පිලිබරියන්	... කුරියන්	ගොසිපෝරුව	... කකුල
කහවන්බාවා	... කිලිලනා	ගොන්පස්බානවා	... හරක්රෙනවා







## GRAMINEÆ OR GRASSES

## INDIGENOUS TO; OR GROWING IN CEYLON,

*As given in the Enumeratio Plantarum Zeylanicæ, pp. 356 to 376  
and Addenda, with notes on them, especially those  
useful as fodder plants or otherwise, by*

W. FERGUSON, F.L.S..

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*(Read at the General Meeting, September XI, 1879.)*

1. *Leersia hexandra* Sw. Layoo, Sin. This is a long straggling plant growing in edges of drains or water, very common in the Western Province. Dwarf plants of it with longer spicules found by me near Gregory's Lake, Nuwera Eliya.

2. *Hygroryza aristata*, N. ab Es. *Potamochoa Retzii*, Griffith; *Leersia aristata*, Rox. This is a remarkable plant found floating on the surface or growing in the edges of fields covered with water. The sheaths of the leaves are much swollen and separated from the stems. Several much divided roots issue from the submerged joints. I have watched this plant for the last thirty years, but never found it in flower. It seems to flower freely in the hill regions. Cattle are said by Roxburgh to be fond of it.

3. *Oryza sativa*, Lin. Ooru-Wee. The wild indigenous form. Nillu, Tamil, for the cultivated Rice. Of the cultivated Rice no less than 160 varieties are given in Moon's Catalogue at page 26-9, of which 66 are hill Paddy, or such as can be grown out of water, and in a list of 215 given in the Sinhalese Catalogue in Moon, 74 can be cultivated as hill or dry

Paddy, the name for Rice in the husk. The indigenous Rice is quite common growing in water, and is remarkable for its long rough awns, which make it difficult to dry specimens, as these awns induce them to creep out of the paper when it is moved. Roxburgh remarks :—" I never saw nor heard of an East Indian farmer manuring in the smallest degree a rice field; yet these fields have, for probably thousands of years, continued to yield annually a large crop of rice, on which an average of thirty to sixty fold; even eighty or a hundred has been known." This refers to Samulcota, in the Madras Presidency. I fear that thirty fold is nearer the average yield in Ceylon. Besides the rice grown in Ceylon, we import about 5,900,000 bushels per annum from Southern India and elsewhere, valued at £1,700,00—and which yield a revenue of £150,000. Rice and its straw are too well known in Ceylon to require further remarks. It is not believed that Ceylon ever grew enough rice to support its population, and that time out of mind it had, as now, to depend on India for a supply.

4. *Leptaspis urceolata*, Br. and Benn-L, Zeylanica, N. ab Es. This is a remarkable grass with broad leaves and large panicles, found common in the Forest called Kahatudua at Porey about 12 miles from Colombo.

5. *Leptaspis cochleata*, Thw. En. p. 357. Forests of the Central Province.

6. *Coix gigantea*, Koen. Ms. Rox. fl. ind. 3, p. 570. Kirindi Maana, Sinhalese. This is the species found in Ceylon, and hitherto confounded with the *C. Lachryma*, Linn, Job's tears, but Mr. Morris discovered that the latter is scarcely indigenous in Ceylon.—This is a tall coarse grass but is freely eaten by cattle.

7. *Chionachne Koengii*, Thw. *C. barbata*, Br. and Benn, *Coix Koengii*, Spr. *Coix barbata*, Rox. *C. arundinacea*, Konig. Found in the Central Province. The grass is of a coarse nature, and cattle do not eat it. Rox.

8. *Paspalum scrobiculatum*, Linn. P. Kora, Willd. P. orbiculare, Forst. Amu, Sin. Waragu, Tamil,—Of the cultivated plant there are five varieties having distinct Sinhalese names, one of which the *Mat-Amu*, means *inebriating*; and the water in which it is boiled is no doubt poisonous.—Amongst the very few species of grasses which are said to be poisonous this one is named by several Indian writers.—Ainslie in his *Materia Medica of Hindustan*, 1813, p. 220, has the following on this grain:—This small, valuable grain tastes something like rice, and is prepared in the same way by the Indians. There is a variety of it called *Serraku Warugu* in Tamil, which if not dressed in a particular manner, is said to produce vertigo, nausea, and other unpleasant symptoms.—Dr. D. White, of Bombay writes me, that this variety in Guzerathi is called *Menya*, which he naturally supposes, is taken from the Sanscrit word *Mana*, signifying “causing phrenzy.” Grown in the hill-lands of the Konkun especially the variety called *Hurruk*, which is narcotic, and often produces temporary insanity and spasms, &c. Large numbers may be occasionally seen thus affected. Graham and Dalziel in *Bombay Flora*.

In its wild state this is a common grass in Ceylon from the sea shore to Nuwara Eliya, and varies much in size and appearance. Cattle are very fond of it whether green or dry.

9. *Paspalum conjugatum*, Berg. This is the broad-leaved savannah grass, or sour grass of Barbadoes, and is supposed to have been introduced to Ceylon as a useful fodder. It is a creeping grass and spreads very rapidly, frequently taking the place of other grasses and killing them.

10. *Paspalum Royleanum*, N. ab. Es. Mss. This is a small erect grass said to be common on the borders of paddy fields.

11. *Paspalum filiculme*, N. ab. Es. Mss. P. *bifarium*? Edgew. in *Jl. As. sty. Bengal*, 1852, p. 178, *Milium*

filiforme, Rox. fl. ind. 1. p. 314. This is a small creeping densely cespitose grass, forming large portions of the sward about Colombo. When not in flower, it creeps close to the ground and helps much to bind the soil. When in flower, the two to three divided panicles rise from one to several inches in height, and give a beautiful slate or bluish color to the spots in which it grows.

12. *Paspalum* sp. C. P. 3,976. This is a small hairy grass, found by me in different parts of Dimbula in April 1879, and taken by me to be a form of *Panicum sanguinale* Linn. which it much resembles, but it appears to be a species of *Paspalum* not yet worked out.

13. *Eriochloa annulata*, Kunth, *Milium ramosum*, Rox. A common grass near Colombo. Cattle do not seem to care for it.

14. *Panicum sanguinale*, Linn.—*P. australe* Spr. *P. Ægyptiacum*, Retz. This is one of the most abundant grasses in the island, and is perhaps one of the most variable in size and appearance. Cattle are fond of it, and it forms one of our common pasture grasses.

15. *Panicum corymbosum*, Rox. Fl. ind. 1, p. 292. *Paspalum corymbosum*, Kth, En. p. 48. I know this only from a dried specimen. Roxburgh found it only in the vallies amongst the Circar mountains, and was said to grow to a large size in standing sweet waters.

16. *Panicum ciliare*, Retz, Rox. 1, p. 290. I have not collected this grass. It delights most in newly laid down pasture ground. Small plants on a poor soil have much the appearance of *Agrostis radiata*. Cattle are very fond of it. Rox.

17. *Panicum Wallichianum*, Nees in Wigh. Herb. ind. Orient. Said to be found in the more elevated parts of the Central Province. I have not collected this grass.

18. *Panicum Helopus*, Trin. *Urochloa pubesceus* Kth. I know this grass only from plants which evidently sprung

up in Colombo from seeds thrown out in the sweepings from the Bazaars. It is a very remarkable plant, and cannot be confounded with any other species.

19. *Panicum Javanicum*, Poir. *Urochloa panicoides*, Beauv. A very common grass in rich damp soil near Colombo, and greedily eaten by cattle.

20. *Panicum semialatum*, R. Br. *Urochloa semialata*, Kth. This seems to be a common grass in some of the Patnas in the higher districts. My specimens, some of which are fully three feet in height, are from West Vedahetta.

21. *Panicum cimicinum*, Retz. *Urochloa cimicina*, Kth. This is a very common grass, but does not seem to be relished by cattle.

22. *Panicum Burmanni*, Retz. *Oplismenus Burmanni*, Beauv. This is the Pagister grass, and Scotch grass of the West Indies.

Writing about Jamaica, Loudon in his *Encyclopædia of Agri.* alludes to this grass as follows:—The island abounds also with different kinds of grass, of excellent quality, the artificial grass called Scot's Grass (*Panicum hirtellum*, fig 199, a. p. 195) grows spontaneously in most of the swamps and morasses of the West Indies; and it is so productive, that a single acre of it will maintain five horses for a whole year.

23. *Panicum compositum*, Linn! No. 42. Fl. Zeyl. and Herb. Herm. ! *Oplismenus compositus*, R. and S. This is one of the few grasses collected in Ceylon by Paul Hermann in 1660-7, and described by Lineus in the *Flora Zeylanica* as above. The specimens which I examined in 1857 are in page 45 of the 3rd volume of Hermann's *Herbarium*. Judging from the descriptions I should think that *Panicum lanceolatum*, and *P. aristatum*, Retz. are no other than this species. This is one of the most common grasses in the edges of jungle, and varies much in size and appearance. Specimens of a large, smooth, grass collected by me in Dimbula, and to which Dr. Thwaites has attach-

ed the C. P. 913, is so very different from our Colombo specimens of this grass, that I should imagine they were distinct species. Roxburgh says cattle are not fond of it. A variegated form of this grass is cultivated in Colombo.

24. *Panicum Crus-galli*, Linn. *P. stagninum* Kon. *P. colonum*, Linn. This is a very abundant, very variable grass, as to size and appearance. Specimens of the large *Crus-galli* form spring up from seeds thrown out from the Bazaars and become large tufted plants quite different in appearance from the small wild *P. Colonum*.

The large form is cultivated as one of the Millets or fine grains. Cattle are fond of this grass.

25. *Panicum fluitans*, Retz, as its name indicates, is often found floating on water, but it also affects the edges of ditches, canals, and sheets of water. Cattle are fond of it.

26. *Panicum brizoides*, Linn, *P. flavidum* Retz. This is a very common grass with long wiry culms. Cattle are not fond of it.

27. *Panicum eruciforme*, Sibth. My specimens of this plant were obtained near Colombo, and as far as I know grew up from Indian seeds thrown out from the sweepings of the Bazaars.

28. *Panicum distachyum*, Linn, this is a very common and very abundant grass. It varies in size and in the number of spikes according to the soil in which it grows. Cattle are fond of it.

29. *Panicum prostratum*, Lam. Very common in the Western Province. Cattle are fond of it.

30. *Panicum coccospermum*, Steudel, *P. vestitum*, N. ab Es. Said to grow in the Central Province up to 6,000 feet. I have not collected this grass.

31. *Panicum uncinatum*, Raddi, *Echinolæna polystachya*, H. and K. This is a small creeping grass common in the Central Province in damp shady places. My specimens

are from West Vedehettie. This grass is easily distinguished from all our other *Panicums* by its prickly fruits.

32. *Panicum ovalifolium*, Poir Encycl. suppl. 1, 279. *Panicum arborescens*, Lin. in Fl. Zeyl. No. 43, and Herb. Herm! Sp. pl. 3rd, ed. 1., p. 87. This is one of our most common and most abundant grasses, and its history is somewhat remarkable. It is generally a low creeping plant forming a large portion of the sward grass near Colombo, but when growing in Jungle, and amongst other plants, its culms may be seen from two to three feet long, but it has no right whatever to the trivial name of *arborescens* given to it by Linneus, and his remarks, "altitudine certat cum alticimus arboribus" are certainly not applicable to the specimens in Hermann's Herbarium. The specimens in vol. 2, p. 43, and referred to by Linneus in his observations on No. 43 of the Fl. Zeyl. are for the *Isachne australis*, R. Br. which has a history of its own.

Roxburgh's description of the *Panicum brevifolium*, in Fl. ind. 1., p. 306, agrees so well for *P. ovalifolium* in every particular that I think there can be no doubt of their identity, but whether *P. brevifolium*, L. is distinct, I do not know. In his identification of the grasses of Linneus's Herbarium, now in the possession of the Linnean Society of London, Major General Sir William Munro, has the following remarks on this species. 19. *P. arborescens* is *P. notatum*, Retz. obs. iv. 18. and is very different from the *arborescens* of Fl. Zeyl. 43. of which there is a specimen in Hermann's Herb, and is probably *P. patens*. On the same sheet in Linneus's Herb. are some portions of a species of *Arundinaria*, which may have been the origin of *arborescens*. In his monograph of the *Bambusaceæ* in the Trans. Lin. Sty. vol. xxvi., pp. 22-3. are the following remarks on *Arundinaria glaucescens*, P. de B. for which *P. arborescens*, Lin. is quoted as a synonym. (and which at p. 90. he says is identical with the small Chinese Bamboo so common in

Ceylon, the *Bambusa-nana*, Rox.) "*Panicum arborescens*, Lin. Herb. quoted by Nees as a synonym, is a decided species of *Panicum*, the same as *P. notatum*, Retz; but attached to the specimens in Linneus's Herb. is a small piece of *Phyllostachys bambusoides*. Fl. Zeyl. 43, also quoted by Nees, is *Panicum ovalifolium*, Poir. Thw. C. P. 889!" so that the materials for the *P. arborescens* are now finally assigned to their proper places.

33. *Panicum trigonum*, Retz. *P. radicans* Retz. *P. pilipes*, N. ab. Es. This is a very abundant grass from the sea shore up to several thousand feet elevation.

In poor sandy soil near Colombo it is a very small grass, and with Nos. 32 and 47 forms the principal part of the fodder, collected by the grass women for horses in the Cinnamon Gardens. In Colombo flowers and fruits are found on specimens only one or two inches in length, whilst up in the shady vallies of the mountains specimens 2 to 3 feet in height are to be had. Dr. Thwaites' remarks on this grass are:—"An extremely variable species as regards its size and hairness. All the forms have the flat callous spot at the apex of the inferior palea of the fertile flower." He has no less than six C. P. numbers for this grass, proving that it is perhaps the most variable grass in Ceylon, next to *Spodiopogon obliquivalvis*.

34. *Panicum Petiverii*, Trin. This grass was found by Gardner at Dambool. Sir W. Munro in Lin. Jl. 6, p. 39, says that it is closely allied to a form of *P. distachyum*, Linn.

35. *Panicum Gardneri*, Thw. Respecting this grass Dr. Thwaites remarks that it bears a great resemblance to *Isachne Walkeri*, W. et. A., but is quite distinct from it. The much larger spikelets of the present distinguish it at once from *P. montanum*, Rox.

36. *Panicum montanum*, Rox. Fl. ind. 1., p. 313. *P. Courtallense*, N. ab. Es. *P. echroum*, Steud. Dr. Thwaites gives "the Central Province, not very common" for this



grass. It is quite common in jungle at Kadduwella, Hangwella, and other parts of the Western Province, and is remarkable for its large open panicle and the height to which it grows when supported.

37. *Panicum antidotale*, Retz. Kirimisastru, Sinhalese. This is a small plant and often cultivated by the natives for medicine.

38. *Panicum plicatum*, Lam. *P. Nepalense*, Spr. *P. plicatum*, *P. nervosum*, and *P. costatum*, Rox. fl. ind. 1., p.p. 311-12. This is a very remarkable grass with large broad leaves a good deal like those used by the Chinese to pack their Tea in. Roxburgh's species above are given as three distinct ones in Walper's *Annales* vol. 6., p.p. 944-7. The first was introduced to the Botanic Gardens at Calcutta from Sumatra, the second from Nepaul, and the third from Mauritius. "It is of too coarse a nature for cattle, but its foliage makes it ornamental in the shrubbery, or flower border." Rox.

39. *P. miliaceum*, Linn. Rox. l. c. p. 310. *P. miliare*, Lam. Rox. l. c. p. 309. Wal-meneri, and Meneri of the Sinhalese. The wild form of this grass is not uncommon, and is a low spreading plant. The other is extensively cultivated by the natives as a Millet or fine grain.

40. *Panicum psilopodium*, Trin. *P. virgatum*, Rox, *P. ramosum*, Koenig. Cultivated by the Sinhalese and also called Mineri. The cultivated forms of these two species often spring up in the debris collected from the Colombo Bazaars.

41. *Panicum repens*, *P. arénarium*, Brotero, Linn *P. ischæmoides*, Retz. *Ætora-tana*, Sinhalese. This is one of the most common grasses in the island, and highly valued as fodder for cattle, large quantities of it brought into and sold in Colombo. It is indigenous to Europe, Africa, Asia and America, and in Ceylon grows equally well in the dry

sandy soil as it does in marshes, or water. Its long creeping underground stems enabling it to endure the hot dry weather. It is one of the most difficult plants to get rid of once it establishes itself in any locality, and in this respect resembles the *Triticum repens* of Europe. It is found from the sea coast up to Nuwera Eliya, and is a common weed on some coffee estates. It is so like the *Panicum paludosum*, Rox. in several respects that the two were confounded and mixed up in Dr. Thwaites Herbarium under the C. P. No. 883. I was the means of enabling Mr. Morris to prove their distinctness, and the *P. paludosum*, Rox. is now C. P. No. 4020, see the next one.

42. *Panicum paludosum*, Rox. fl-ind 1. P. 307. *Andropogon squarrosus*, Kœing? C. P. 4020. This is a common grass growing on the edges of lakes, drains or inundated fields, or in water and often floating. I also mixed up this grass with *P. repens*, but the following remarks by Dr. Roxburgh on *Andropogon muricatus* Retz, or the Cus-Cus grass gave me the hint which enabled me to separate them. "Dr. Kœing was too accurate a Botanist to describe this very conspicuous plant under two names, vizt. *A. squarrosus* Linn. sp. pl. Willd. iv. 908, and *A. muricatus*; the former is evidently a very different species and found by him in Ceylon floating on pools of water; whereas *A. muricatus* (which I formerly called *A. aromaticus*) is always rigidly erect whether growing in water, or on dry land. Its roots are delightfully aromatic, as mentioned by Kœnig himself, and by Sir William Jones, particularly when moistened with water. I am inclined to think Kœnig's *A. squarrosus* is my *Panicum paludosum*; a species with thick spongy culms which is generally found swimming on pools of sweet waters Rox. l. c. p. p. 266-7.

Roxburgh states that the *P. paludosum* is of a coarse nature and that cattle are not fond of it, but it is eaten greedily by them, and a supply of specimens collected by

me for the Peradeniya Gardens was eaten during the night by a stray bullock.

43. *Panicum humile*, N. ab. Es. This is a small delicate grass growing in dense tufts. Cattle do not seem to care for it.

44. *Panicum leptochloa*, N. ab. Es. This is a tall coarse grass growing generally in damp places and on the sides of ditches. Cattle do not seem to care for it.

45. *Panicum nodosum*, Kth. P. Arnottianum, N. ab. Es. *Poa Malabarica*, Linn. sp. 1, p. 100. "Culmo repente," but not of Burm. fl-ind, t. 11, fig. 2, which is *Centotheca lappacea*, an erect and very different grass.

This is a very abundant and variable grass. In poor soil it is a very small slender grass, but in jungle and when supported, it grows to several feet in length. I am indebted to General Sir William Munro's notes on the identification of the grasses in Linneus's Herbarium Lin. J1. 6, p. 43, for the fact that this is the *Poa Malabarica* of Linneus, who says that the reference to Rheede's Hort. Mal. (by whom?) 12 t. 45 ? is correct and a very good drawing.

46. *Panicum stenostachym*, Thw. En. Plant. Zeyl. p. 436. This grass was collected at Trincomalie by the late Rev. S. O. Glenie, and is said to be densely cespitose, with culms 2 to 4 feet long, the lower joints rooting, panicles 4 to 8 inches long, and the spicules  $1\frac{1}{2}$  line long.

47. *Panicum curvatum*, Linn. but not of Roxburgh. This with Nos. 32 and 33 form a large portion of the grasses collected by the grass women for horses near Colombo. It is a small delicate grass, and easily recognised by the curved upper glume, which is saccate at the base.

48. *Panicum auritum*, Presl. This is a very common grass on the sides of drains and in damp places, climbing up to a height of 10 to 12 feet when supported.

49. *Panicum Myurus*, Lam. P. serrulatum, Rox. l. c. p. 307. This is a very large grass found in the edges of

canals or growing in the water with large swollen culms, and light green foliage. Cattle are fond of it. It is one of the grasses which rapidly spreads over shallow bits of water and helps to choke them up.

50. *Panicum interruptum*, Willd. *P. inundatum*, Kunth? *P. curvatum*? Rox. l. c. 286. A large grass clothing the margins of tanks, canals, &c. The parts under water swollen and thick. Cattle eat it. It often floats and forms small islands where it grows.

51. *Panicum Indicum* Linn. *P. angustum*, Trin. *P. contractum*, N. ab Es. This is a very common and very variable grass according to its place of growth, either on dry ground or on wet fields. It does not seem to be a favorite food of cattle.

52. *Panicum asperum*, Wight. This grass was first added to the Ceylon Flora by the late Rev. S. O. Glenie who found it at Trincomalie. It is quite a common and abundant grass found generally floating on water in various parts near Colombo and its neighbourhood.

53. *Panicum sordidum*, Thwaites En. Pl. Zeyl. 443 *Chamœraphis depauperata*, N. ab Es. This grass was first found in Ceylon by myself floating on the surface of water in the same localities as the last, and a good deal like it in several respects, but the flower spikes of this one are of a sordid red colour, and the plant altogether is a smaller one than the above. Cattle eat both these species.

54. *Panicum glaucum*, Linn. *Setaria glauca* Beauv. Kaulu, Sinhalese. This is a very common grass all over the island.

55. *Panicum intermedium*, Roth. *Setaria intermedia*, R. & S. Not uncommon in damp, shady places. Thwaites.

56. *Panicum verticillatum*, Linn. *Setaria verticillata*, Beauv: South of the island apparently not very common.

57. *Panicum Italicum*, Linn. *Setaria Italica*, Beauv: *P. germanicum*, Roth. *Setaria*, Beauv: Tanna Hâl, S. Tenny. Tamil. This is one of the dry or fine grains very much

cultivated in India and in Ceylon. It is considered by the natives one of the most delicious of cultivated grains. The Brahmins, indeed all classes of the natives esteem it and use the seeds for cakes, porridge, &c. It is good for pastry, scarcely inferior, says Ainslie, to wheat, and when boiled with milk, makes a pleasant light diet for invalids." Drury. Produce about fifty fold, Rox.

58. *Panicum jumentorum*, Pers. *P. altissimum*, Brouss. *P. confusum*, Trin. *P. læve*. Lam. *P. maximum*, Jacq. *P. polygamum*, Sw. This is the famous *Guinea Grass* so well known in the West Indies, in India and Ceylon. It is the *Rata* (foreign) *Tana* of the Sinhalese. When and by whom it was introduced to Ceylon I find no record, though it is probable there may be one in the Royal Gardens at Peradeniya. It was grown in Ceylon in Moon's time, 1824, at any rate. The late Dr. Gardner introduced what he supposed to be a new fodder grass to Ceylon, but in 1843 or 4, he gave a full description of it in the *Ceylon Observer*, proving that it was identical with the *Guinea Grass*. It was introduced to Jamaica about 1744, from the coast of Guinea. The following is an extract from Lunan's *Hortus Jamaicensis*:—

This most valuable grass is a native of Africa, and was introduced into the island many years ago by the merest accident. Mr. John Ellis got some birds from the coast of Guinea, and with them some seeds for their support; the birds dying soon after, the seeds were thrown out of doors as useless. From these seeds grew some luxuriant grass, which attracted Mr. Ellis's notice, and he had a horse and a cow brought where it was, when both of them greedily eat of it. It was then transplanted into a garden and gradually cultivated, until it has become one of the most lucrative and useful plants in Jamaica. It agrees with almost every soil and situation, and has rendered many rocky and otherwise barren spots of Jamaica very valuable, as affording support

to herds of cattle and horses. The growth of this grass is quick, for in wet weather, and in a favourable situation, it may be cut once in a fortnight. It resists dry weather for a considerable time, and even, when parched up, the slightest shower will revive it. It rises from five to eight feet high. When of proper strength it is a very excellent food for horses and cattle, which, when considerably lean and reduced, will be restored to flesh and fatness in two or three months by feeding upon it.

There can be no doubt that the Guinea Grass, and what is most erroneously called in Ceylon *Mauritius Grass*, are the two most valuable fodder plants growing in Ceylon.—I have seen the Guinea Grass grow in what seems to be the pure white sand of the Cinnamon Gardens near Colombo, to a height of 6 to 8 feet, and if well manured and kept free of weeds, it will in rainy weather give a very fair crop monthly. It grows freely up to an elevation of 5000 to 6000 feet on the Coffee estates, but though a valuable fodder grass at these elevations, it does not grow to such a height as it does at lower elevations. It is extensively planted along the edges of foot and bridle paths on Coffee estates, but Mr. Morris gave his opinion against this practice, as the grass is supposed to harbour the mycelium of the Coffee leaf fungus.

59. *Panicum barbinode* Trin. Sp. Gr. 3 t. 318. *P. sarmentosum*, Rox. fl-ind. 1. p. 308. This is the grass so well known, but very erroneously, as *Mauritius Grass*. It is not given in Bojer's *Hortus Mauritianus* dated 1837, and Moon does not give it a place in his *Catalogue* dated 1824. By whom and when introduced to Ceylon I do not know.—It has been a well known fodder grass for several years past, grown in ravines and on the sides of streams in Coffee estates, but in Colombo the cultivation and supply of this grass were nearly confined to the Firm of Wilson Ritchie, & Co., until their failure some years ago, when the natives,

Tamil and Sinhalese began to cultivate it extensively and now supply Colombo with this most useful grass. Unlike the Guinea Grass, this one grows best in swampy or low grounds, but which must be well drained and manured to produce good crops. The owners of Mauritius Grass fields near Colombo send their carts into town and carry out a large portion of its scavenging refuse as manure for this grass, and a very considerable trade is carried on by the sale of this and Guinea Grass in Colombo.

Trinius gives Brazil as its native place, but as far as I know Roxburgh's description is the first given of this grass, and that it originally came to the Botanical Gardens at Calcutta from Sumatra upwards of seventy years ago there can be no doubt, though I notice that it is referred to by one Botanist as a native of Behar and mountains of Parasnath. That it has spread from the Calcutta gardens to the various places in which it is now cultivated is very likely. Roxborough's account of its introduction is as follows:—A native of Sumatra, and from thence introduced by Dr. Charles Campbell into the Botanic Garden in 1804, where it grows luxuriantly and blossoms throughout the year.

60. *Pencillaria spicata*, Willd. *P. cylindrica*, R. and S. *Panicum spicatum*, and *P. involucratum*, Rox. fl. ind. 1 p. p. 283 and 284. *Holcus spicatus*, Lin. Kambam Pilloo, Kambu, Tamil, Bajreeth, Hind. Introduced from India to Ceylon many years ago. This plant is extensively cultivated in various parts of India and Egypt, and is said to be the staff of life in the Deccan, Kandeish and Gujarat. It is grown by the Tamils in Ceylon and springs up in rubbish heaps about Colombo. Its grain is so like Canary seed, that it is sold as such, and small birds seem to thrive on it. The late Dr. Elliott used it in feeding Carrier Pigeons, so successfully employed in carrying news from Galle to Colombo for many years before the telegraph was introduced. Cattle are fond of the straw.

61. *Ichnanthus pallens*, Munro. *Panicum pallens*, Sw. Found at Deltotte in the Central Province, at an elevation of 4000 feet. It is found in Jamaica, St. Domingo, Brazil, and Mexico. It is very like some of our small creeping *Panicums*.

62. *Stenotaphrum complanatum*, Schrank, *Rottbællia complanata*, Sw. *Panicum dimidiatum*, Linn. Rox, Fl. Ind. i. p. 287. General Sir W. Munro states that the Linnean plant is *Stenotaphrum Americanum*, Schrank, the specimen being from India. I think it most likely that only one species of this genus exists, though very widely distributed. Mr. Moore, of the Sydney Botanic Gardens, told me that this was the *Kangaru Grass* of Australia, but that is generally given as the *Anthistiria australis*, and now said to be identical with the *A. ciliata* Retz. The *Stenotaphrum* is a very common grass near Colombo covering moist banks and sometimes forming the entire sward of lands on the banks of rivers and under the shade of coconut and other trees. It is an excellent fodder grass and cattle are fond of it.

63. *Isachne Walkeri*, W. et. A. This is a tall coarse grass, very common in the forests from Dimbulla up to Nuwera Eliya, and not unlike *Panicum Gardneri*, Thw.

64. *Isachne australis*, R. Br. *Isachne meneritana*, Poir, R. Br. founded on the specimen collected by Paul Hermann in Ceylon in 1660-7 and given as *Meneritana* in his *Mus-Zeyl*. p. 34. and *Herb.* 2. p. 43. and referred to by Linneus in his *Flora Zeylanica* No. 43 under *observations*. It is the *I. miliacea*, Rottbœl, *Panicum atrovirens*, Trin. *P. antipodium*, Spr. *P. violaceum*, Klein. &c., &c. This is one of the most abundant grasses in damp swampy places and often immersed in water in Ceylon, and apparently very widely dispersed in other parts of the world.

The Sinhalese name *meneri* is given for the cultivated forms of *Panicum miliaceum*, Lin. *P. miliare*, Lam, and *P. psilopodium* Trin. and I have no doubt that the specimens



of *Isachne australis* collected by Herman were called *Meneri* by mistake. The *Isachne* itself has no name in Sinhalese that I am aware of.—The reference to Plukenet's t. 189. fig. 4. for *Panicum brevifolium* by Linneus, is erroneous, as it is for the *Isachne australis*. Genl. Munro.

65. *Isachne multiflora*, Thw. En. p. 361 C. P. 3671, given as var B. of the above is so very different in many respects that I believe it is a distinct species.—I found it in April, 1879, growing in dense tufts, with rigid wiry culms, in streams and close to water in Dimbula. It is a tall rigid grass, and so like *Panicum Leptochloa* that I thought it was a mountain form of the latter.

66. *Isachne Kunthiana*, W. et. A. This is a very abundant plant in swampy ground in the higher elevations, and varies a good deal.

67. *Isachne pulchella*, Roth. Nov. Sp. p. 58. *Panicum Malaccense*, Trin. *Grayia elegans*, N. ab. Es. This is not uncommon in small streams, and in damp ground near Colombo and several parts of the Western Province.

68. *Spinifex squarrosus*, Lin. *Maha Rawana Ræwula*, Sin. *Stipa Spinifex*, Lin. This is one of our most remarkable grasses forming in some places belts along the sea shore several miles in length. It is a truly littoral plant and an excellent sand binding one. When burnt it makes a crackling noise like salt when thrown in the fire. When the seed is ripe, the large spherical head of the seed bearing plant is detached and blown about the sands by the wind, and is supposed to illustrate in a remarkable manner "the rolling thing before the whirlwind" of Isaiah xvii. 13, and the wheel before the wind of Psalm lxxxiii. 13. The following remarks on this plant occur in Emerson Tennent's *History of Ceylon*, vol. 1., pp. 48-9.

Another plant which performs an important function in the fertilisation of these arid formations, is the *Spinifex squarrosus*, the "water pink," as it is sometimes called by

Europeans. The seeds of this plant are contained in a circular head, composed of a series of spinelike divisions, which radiate from the stalk in all directions making the diameter of the whole about eight to nine inches. When the seeds are mature, and ready for dispersion, these heads become detached from the plant, and are carried by the wind with great velocity along the sands, over the surface of which they are impelled on their elastic spines. One of these balls may be followed by the eye for miles as it hurries along the level shore, dropping its seeds as it rolls, which speedily germinate and strike root where they fall. The globular beads are so buoyant as to float lightly on the water, and the uppermost spines acting as sails, they are thus carried across narrow estuaries to continue the process of embanking on newly formed sand bars. Such an organisation irresistibly suggests the wonderful means ordained by Providence to spread this valuable plant along the barren beach to which no seed-devouring bird ever resorts; and even the unobservant natives, struck by its singular utility in resisting the encroachments of the sea, have recorded their admiration by conferring on it the name of *Maha Rawana Ræwula*, "the great beard of Rawana or Rama."

69. *Thouarea sarmentosa*, Pers. This is a singular grass found on the sea coast near Colombo, Tangalla and other parts of Ceylon. The ripe fruits bear some resemblance to the seeds of the Bengal Gram, *Cicer arietinum*, and like those of the Earth Nut, *Arachis hypogea*, are forced under ground to enable them to ripen.

70. *Trachys mucronata*, Pers. *Cenchrus muricatus*, Lin. *Panicum Squarrosum*, Retz. *P. dimidiatum*, Burm. Ind. t. 8. fig. 3. A native of dry sandy ground near the sea. Found by Gardner at Jaffna. Specimens sent to me from Chilaw on the Western coast.

71. *Lappago racemosa*, Willd. *L. biflora*, Rox. fl. ind. i p. 281. Found at Trincomalie by the late Rev. S.

**O. Glenie.** It has a wide distribution, being found in Southern Europe, the Caucasus, India, Barbary, Jamaica, St. Domingo, Brazil, Mexico, and Senegambia. The flowers are lanceolate, echinated on the back or outside, diverging on all sides round the rachis, the strong hooked bristles pointing in five different directions.

72. *Arundinella nervosa*, N. ab. Es. *A. agrostoides*, Trin. *Holcus nervosus*, Rox. Fl. Ind. 1 p. 318. This is a very common grass in the Patnas in the higher ranges, but I do not think cattle care for it, though when cut and dry amongst other grasses it forms a good fodder. The panicles are large, open, and very like some of the *Panicums*.

73. *Arundinella villosa*, W. et. A. This a very abundant grass in Patnas in most parts of the interior, especially from Dimbula to Nuwara Eliya. Specimens from two to three feet in height were sent to me by Mr. F. A. Lloyd from Vedahette West. Most unlike the above in outward appearance. This has a dense compact hairy panicle, and is not unlike *Polypogon littoralis* to a certain extent.

74. *Arundinella avenacea*, Munro MSS. This is a small delicate grass of a slender creeping habit and very different in appearance from either of the other two. Found in the Saffragam district at no great elevation.

75. *Garnotia stricta*, Brongn. *Berghausia mutica*, Munro. Found by me in swampy ground at St. George, Dimbula, and at Nuwara Eliya common. When out of flower it is very like the common *Illook*, *Imperata arundinacea*, and like it is much used for thatching.

76. *Garnotia scoparia*, Thw. *Berghausia scoparia*, Munro. This is an erect rigid tall grass, the culms of which are not unlike those of *Esparto* so much used in England for the manufacture of paper. This grass is remarkable for growing only in crevices of rocky hills, or in the merest bits of earth on the face of rocks in different parts of the Western Province. Found in abundance on

Mabima Kande, about 10 miles from Colombo on the right bank of the Kelani river, and at the group of Estates being cleared for Libirian Coffee on the banks of the Kalu Ganga, 7 or 8 miles up the river from Kalutara.

77. *Garnotia fuscata*, Thw. En. p. 363. Found in Saffragam District at an elevation of 4,000 feet. I have not seen a specimen of this grass.

78. *Garnotia Courtallensis*, Thw. *Miquelia Courtallensis*, Arn. A small delicate grass collected at Abbotsford in Dimbula.

79. *Garnotia micrantha*, Thw. En. p. 363. Specimens collected by me of this grass several years ago, are thus named by Dr. Thwaites, but I regret, that I have no record of the places where my specimens were collected, Dr. T. remarks on this grass: "In general appearance very like *G. adscendens*, Munro, but the spikelets of the present plant are much smaller, and with scarcely a trace of the circle of hairs at their base."

80. *Garnotia patula*, Munro. C. P. 3967. This grass was evidently discovered in Ceylon by Mr. Beckett, and named by Dr. Thwaites, *Andropogon Beckettii*. The C. P. No. 3967 indicates that this one added 108 to the last one given in the Ennumeratio. My specimens of it are from the Peradeniya Herbarium.

81. *Oropetium Thomæum*. Trin. *Rotbœllia Thomæa*, Willd. Rox. Pl. Cor. II., t. 133., Fl. Ind. I., p. 357. The habitat given for this plant in Enum. is Bentenne Tank, Gardner. Moon gives Colombo, but I think he must have confounded it with *Stenotaphrum* or some other plant. It is a very small grass only from one to two inches in height and generally found growing on old walls.

82. *Hemarthria compressa*, R. Br. *Rotbœllia compressa*, Linn, Rox. Pl. Cor. II. t. 156 Fl. Ind. I. p. 354. This is a very common grass growing in swampy places and on borders of streams, lakes, &c. Native of Australia, the

Cape of Good Hope, and India. Roxburgh states that it grows from 5 to 20 feet in length. It is eaten by cattle but is not valued as a fodder grass.

83. *Mnesithea lœvis*, Kth. *Rottbœllia lœvis*, Retz. said to grow in the hotter parts of the island, but I have not seen it.

84. *Rottbœllia exaltata*, Linn, Rox. Pl. Cor. ii., t. 157, Fl. Ind. i. p. 354. This is a tall wiry grass from 6 to 10 feet in height and throwing out root supports from the lower parts of the culms like *Sorghum*, the new fodder grass, *Reana luxurians*, and other plants, such as the Mangroves, *Pandanus*, &c. It is too coarse to be a good fodder grass.

85. *Rottbœllia nigresceus*, Thw. En. p. 364. I found this plant in the edges of forest in Abbotsford, at an elevation of 5,000 to 6,000 feet in April 1879. At this elevation it is a small compressed plant, and seems to be eaten by wild animals.

86. *Manisurus granularis*. Sw. Rox. Pl. Cor. ii. t. 118., Fl. Ind. i. p. 352. Said to be common in the warmer parts of the island, but not collected by me.

87. *Apluda aristata*, Linn. Rox. Fl. Ind. i. p. 324. A common grass in several parts of the island and when cut and dried amongst other grasses a good fodder. Said to be a pretty plant when grown in a pot resembling a diminutive Bamboo, about a foot and a half high. Ferminger.

88. *Ischœmum muticum*. Linn. I. involutum, Labill. This is a very common grass near Colombo. It is very common in damp sward near the shores of the lake, and in such places it is a low creeping plant not rising above an inch or two from the ground, but its white stoloniferous underground stems spread much under ground. In the jungle where it gets support it is a tall coarse grass and in such places it grows to a length of several feet. It is at once distinguishable from the other species of this genus by its

white flowers. Large quantities of this grass are collected by the grass women for horse food in Colombo, but it is a coarse fodder.

89. *Ischæmum rugosum*, Salisb. *I. segetum* Trin. *Andropogon Tong-dong*. Steud. *I. rugosum*? Rox. Fl. Ind. 1. p. 320. I do not know this plant as distinct from the next species.

90. *Ischæmum barbatum*, Retz. *I. aristatum*, Houtt. *Meoschium barbatum*, Beauv. *Meoschium lodiculare*, N. ab. Es. *M. Neesianum*, Arn. et. *M. Meyenianum*, N. ab. Es. *M. monastachys*, W. et A.

"*I. aristatum*, L! is what is generally called *I. barbatum*, one specimen is *Spodiopogon obliquivalvis*, Nees" Genl. Sir W. Munro on the grasses in the Linnean Herbarium Jl. Lin. Soty, 6. p. 54. For remarks on *I. aristatum*, Burm. Fl. Ind. p. 221 t. 21. f. 3. See notes on *Spodiopogon*, No. 96. This grass is a very common and abundant one, and very variable in size and appearance in various parts of Ceylon. In dry exposed places it is a small erect plant with the spikes so united that they look like a single cylindric one, and are from one to one and a half inch long, but in rich swampy soil and when supported by other plants it grows to a height of several feet with luxuriant foliage and flower spikes several inches in length. "A coarser plant than the preceding, with the sessile spiculæ narrower in proportion to their length, and less regularly rugose. The two are, however, closely allied." Thw.

91. *Ischæmum semisagittatum*, Rox. Fl. Ind. 1, p. 320. I received specimens of this grass several years ago from Mr. Beckett and Dr. Thwaites, collected on the Wattakellie Hill and in Ambagamuwa, and have since collected it in various parts of Dimbula, up to between 5,000 and 6,000 feet.

92. *Ischæmum conjugatum*, Rox. Fl. Ind. 1 p. 321. *Andropogon cordatifolius*, Steud. This beautiful grass was found by me growing on debris thrown out from the Bazaars

in Colombo several years ago, and as I have not found it since, I conclude that it is not a native of Ceylon.

93. *Ischæmum falcatum*, N. ab Es. *Andropogon falcatus*, Steud C. P. 3322. This is a very common grass near Colombo and with its curved single spike looks so different from all the above species in outward appearance that it is difficult to believe they are congeneric.

94. *Ischæmum pectinatum*, Trin. C. P. 3848. Found at Trincomalie by the late Rev. S. O. Glenie. A good deal like the last one, but the spikes very much longer.

95. *Ischæmum nervosum*. *Hologamium nervosum*, N. ab Es. *Andropogon nervosus*, Rottb. *Andropogon striatus*, Klein? Found at Udu Pusselava at an elevation of 3,000 to 4,000 feet.

96. *Spodiopogon obliquivalvis*, N. ab. Es. in Pl. Meyen 185; Benth. Fl. Hongk. p. 426 cum syn. *Andropogon malacophyllus*, Hochs.; Steud. Synops, Gram. p. 372 A. Macræi, Steud. l. c. p. 377 cum. syn. A. Blumei et A. bifidus, Steud. l. c. p. 373. An *Ischæmum geniculatum*, et I. tenellum, Rox. Fl. Ind. 1. pp. 322, 323? C. P. 875, 3235, 3168, 3167.

Hab. Common throughout the island. A very variable plant, and the extreme forms of it very different in appearance, but, from the examination of a large number of specimens, I feel satisfied they may be safely arranged under one specific name. The larger hairy form occurs at a considerable elevation on the hills. I have copied all the above particulars respecting this grass verbatim from the En. Pl. Zeyl. p. 365. One form of this grass reserved in fields and under the shade of Cocoanut trees in and near Colombo, and extensively brought into town as fodder for cattle, is well known as the Rat-tana, literally red grass, of the Sinhalese. This grass, the *Ætora* (*Panicum repens*, Lin.), Guinea, and Mauritius grasses, are the four grasses sold separately in cart loads as fodder grasses in Colombo, and perhaps the

best known to the natives. I am quite familiar with several forms of this grass from the dry sand of the Cinnamon Gardens in Colombo up to an elevation of 6,000 feet in the plain of Nuwara Eliya, and if all these are one species it may be considered one of the most protean of grasses in existence as far as I know. I shall offer a few remarks separately on some of the forms known to me in case they may be found useful hereafter, in grouping them or perhaps separating them into marked forms or sub-species.

a. This is a long straggling grass found amongst the Cinnamon in Colombo, with long narrow leaves covered with whitish hair, and having very long peduncles to the flower spikes. This grass is collected in large quantities by the grass women for horse food in Colombo. It is very unlike some of the other forms of this grass. Referring to specimens of this form and the species in general, Mr. Morris made the following very appropriate remarks:— A very hairy variety of *Spodiopogon obliquivalis* N. ab. E. we had no specimens so hairy, but the characters are entirely those of the species. If you notice on the inner face of the spikes, the pedicel of the upper spikelet and rachis being angular form an obtuse sinus giving the appearance of a little circular perforation. This is a very good character and well seen especially in dried specimens. Your scendant plant is no doubt this. Is the *Ischæmum aristatum* in Burun Fl. Ind. t. 21\* f. 3. this grass?

b. Specimens of this form collected in Nuwara Eliya in April 1879, and marked by Dr. Thwaites C. P. 3167 is a stiff rigid grass with very thick spikes and hairy spikelets.

c. This is the C. P. 3168, and is a remarkable form with long creeping culms sending out long roots from the joints, and having very distinct petioles, sometimes 1 to 2 inches in length. It affects damp shady places from the coast up to the Kandyan country, and is very seldom found in flower. It is an excellent and abundant fodder. Dr.



Thwaites thinks that in this case the petiole is a mere contraction of a portion of the leaf, and I am convinced this is the case. On a grass described by Dalzell in the Bombay Flora as *Andropogon petiolatus*, the petioles of which are four inches long, he has these remarks:—A remarkable grass, the existence of a distinct petiole being extremely unusual in grasses.

97. *Spodiopogon rivalis*, Thw. MSS. C. P. 3871 Matella East. Beckett. The C. P. numbers in the *Enumeratio* ended with 3859, so that this plant has not that I am aware of been described. The only specimen before me is a coarse grass compared with the above species, and has a couple of twin spikes on it.

98. *Apocopis Wightii*, N. ab. Es. MSS. *Andropogon Courtallumensis*, Steud Synops. Gram. p. 377, C. P. 401.

Hab. Galagama in the Central Province, at an elevation of 3000 to 4000 feet. En. Pl. Zeyl. p. 365. Abundant in the Circular Walk, Colombo, in flower in November 1878. In Genl. Sir W. Munro's article on the identification of the grasses in Linneus's Herbarium occurs the following note on the *Andropogon distachyus* Lin:—"5. *A. distachyon* is *Apocopis Wightii*, Nees ab Esenb. Smith has written Ask Thunberg if this be Burser's plant?" I suppose this has misled others and hence a very different plant from Linneus's original specimen is now called *Androp. distachyus*." In the *Spicilegium Floræ Maroccanæ*, by John Ball, Esq., F. R. S. &c. in the 13th vol. of the Lin. Jl. of Botany p. 735, the *And. distachyon* is given as *Pollinia distachya*, Spreng. and the question now remains to be decided whether the specimen in Linneus's Herbarium is as far as I know a purely Indian and Ceylon plant, or one found in Southern Europe and in Morocco. Judging from the books to which I can refer I am under the impression that Genl. Sir W. Munro's identification is not the correct one, but I have referred the matter with specimens of the Ceylon plant to both these

gentlemen, and hope to have their reply shortly on this very interesting Botanical subject. In a letter from Mr. Ball dated 17th Nov. 1879, he explains that he was returning to the continent in a few days after he had written to me and had not the time to make a careful examination of my specimens but adds :—" Of one thing I feel quite certain viz. that the plant which you send me as *Apocopis Wightii*, N. ab. E. is a totally different species from the plant of the Mediterranean region universally known to continental botanists as *Pollinia distachya*, Spr. and believed to be *Andropogon distachyon* of Linneus. The tribe of *Andropogonæ* is not widely developed in the Mediterranean region with which I am chiefly acquainted, and I should not like to hazard an opinion as to the value of *Apocopis* as a generic group but I am sure that your *A. Wightii* is quite distinct from any plant of the Mediterranean region known to me. \* \* I forward your letter to Sir W. Munro, whatever may be the plant in the Linn. Herbarium I feel assured that the description in the *Species Plantarum* refers to the Mediterranean *Pollinia distachya*, though it is quite possible that Burser's plant was *Andropogon Allionii*.

99. *Apocopis Beckettii*, Thw. MSS. C. P. 3959. A smaller grass than the above, where found by Mr. Beckett is not recorded on the specimen.

100. *Pogonatherum saccharoideum*, Beauv. *P. crinitum*, Trin. *P. refractum*, N. ab. E. *Pollinia monandra*, Spr. *Andropogon monandrus*, Rox. fl. ind. i. p. 260. This is a very common small grass growing in tufts, and generally found on the steep faces of cuttings in various parts of the Western and Central Provinces. It is a small handsome plant with terminal spikes of golden colored flowers with long bristly awns.

101. *Chrysopogon aciculatus*, Trin. *Tutteri*, or *Rat-Tutteri*, Sinhalese. *Andropogon acicularis*, Retz. Rox. fl. ind. i. p. 262. This is a very common grass in Ceylon,

India, China &c. It is one of the greatest pests on road sides in Colombo and most difficult to get rid of. Cattle never touch it that I am aware of. Its seeds are exceedingly troublesome to those who walk where it grows, as they stick in the stockings and produce a disagreeable itching. There is a story told about the late Sir Emerson Tennent having come in from a walk in Kandy covered with this grass, and on asking a Modliar what it was, got in reply "Oh only Tutteri Sir"! The Knight mistaking the information for bad English, indignantly replied "only two or three! millions"! *Heteropogon hirtus*, and *Aristida cærulescens*, are also very troublesome to sportsmen or others who have to walk through them as they stick in their clothes and with their rough bristles create considerable irritation.

102. *Chrysopogon Wightianus*, Thw. *Andropogon Wightianus*, Steud. C. P. 3248. This is a very coarse grass covered with equitant leaves on the lower parts of the culms. The seeds are a good deal like those of oats.

103. *Chrysopogon leucantha*, Thw. C. P. 2954. This grass is given only as a variety of the foregoing, by Dr. Thwaites who suggests that it is a distinct species. It is very different from the other in many respects.

104. *Chrysopogon Zeylanicus*, Thw. *Raphis Zeylanica* N. ab. E. *Andropogon Zeylanicus*, Steud. This is a tall coarse grass very common in the patnas at Nuwara Eliya, and in various parts of Dimbula. It is rarely eaten by cattle.

105. *Anthisteria ciliata*, Retz. C. P. 3257. This is a very abundant grass in many parts of Ceylon, but especially in the patnas in Upper Dimbulla, in many of which it is the principal grass, and is often cut and dried for fodder for cattle. This was especially done by Mr. William Smith on the patnas near the group of estates at Mattakellie. It is perhaps in this respect the best substitute for hay of all the grasses found in Ceylon. Several years ago large quantities

of this grass used to come from Bombay with batches of horses for sale. In the Bombay Flora, Dalzell states that this species, and *A. cymbaria*, Rox. are generally found together in the same field; and that they form the greater part of the best specimens of hay in the country, whilst he thought that the *A. ciliatus*, which is also a native of South Africa, differed scarcely, if at all, from the famous Kangaroo Grass of New Holland, the *A. australis* of Brown. I notice that Mr. Morris refers to the *A. australis* having been introduced to Ceylon as a distinct species from *A. ciliata*, but the following extract from Baron Ferd. Von Mueller's Introduction to the Botanic Teachings of the Schools of Victoria, p. 125, show that this eminent Botanist considers the Kangaroo Grass identical with *A. ciliata*:—"Every one is acquainted with our Kangaroo Grass (*Anthistiria ciliata*), long known before Australia became colonised in South Asia, and all Africa. Why the younger Linne should have connected the flower-festival of Bacchus with this plant, if really the name was changed from *Authesteria*, is difficult to conceive."

106. *Anthistiria arguens*, Willd. *Stipa arguens*, Linn. This grass is figured and described in Rumphius's *Herb. Amb.* vol. 6, p. 15 t. 6, fig. 1. Dr. Thwaites gives it as var. *B. major* of *A. ciliata*, and Sir W. Munro in *Lin. Jl.* 6, p. 47, gives it as equal to the same plant, but it is altogether such a tall, coarse grass, and so different in its inflorescence that I give it as distinct. This grass is found on the banks of streams and near water, and is often from 6 to 8 feet in height, and so coarse that cattle seldom touch it.

107. *Anthisteria tremula*, N. ab. Es. *Anthoxanthum avenaceum*, Retz.? Moon's *Cat. Ceylon Plants*, p. 4. *Pini-baru-tana*, Sinhalese. This is a very abundant grass in parts of the Western Province, especially near Kalutara, and in other parts of the Island. It is very like oats, *Avena sativa*, at some distance, and with its nodding masses of

very hairy flowers is quite a remarkable grass, abundant in fields and in the limits of rice fields. I do not see that any modern Botanist has identified Retzius' plant given above, but have no doubt that Moon meant this plant, for which the Sinhalese name is invariably given correctly for it. Cattle do not seem to care for it.

108. *Anthistiria cymbaria*, Rox. fl. ind. 1, p. 251, *Andropogon cymbarius*, Linn. Kara-wata-mana, Sinhalese. En. plant Zeyl. 436. C. P. 3808. This grass was found in Uva by Moon, and in Matella East by Dr. Thwaites. I have seen only a dried specimen of this grass and judging by its appearance and from Roxburgh's description of it, I should imagine that cattle are not fond of it, and that it was not this species, but *A. tremula*, or some other that is referred to in the Bombay Flora as being mixed with *A. ciliata* in the same field and of which hay is made.

109. *Anthistiria fasciculata*, Thw. En. p. 366, C. P. 940. Found in the Badulla district up to 3000 feet, by Dr. Thwaites. I know this only from a dried specimen which in general appearance is very unlike the other species of this genus. The long, hairy, golden colored awns as of the flowers of this plant are very peculiar.

110. *Anthistiria heteroclita*, Rox. fl. ind. 1, p. 249. *Andropogon heteroclitus*, N. ab. Es. This is a very abundant, small creeping grass, and generally densely cespitose, found in the patnas in various parts of Dimbula and Hantane districts, forming the under growth of the tall, coarse grasses in these, or forming the entire covering of open ground. On the road side from Oodewelle, and Hantane estates to Kandy, this is an abundant grass and creeps to an extent of two feet occasionally. It is evidently an excellent fodder in a green or dried state.

111. *Andropogon Halepensis*, Sibth. I found what I take to be this grass several years ago growing near the Colombo Kachcheri in debris thrown out from the Colombo

Bazaars, and some months ago I found it in abundance on the banks of the Haragam Oya about eight miles from Kandy. Some roots brought to Colombo are now, February, 1880, growing in my garden, and are from eight to ten feet in height with large open panicles, a good deal like some varieties of the *Holcus saccharatus*, L. to which it is no doubt closely allied. I have not tried it as a fodder grass, but should imagine that it is quite equal to the *Euchlœna* (Reana) *luxurians*, *Androscepiæ gigantea*, or any of the other gigantic grasses introduced to the island and so highly recommended as fodder plants. The *A. Halepensis*, is indigenous to Southern Europe, Syria, Cuba, and Northern Africa, and is cultivated in Brazils and Australia. In Mr. Ball's *Flora of Marocca*, Lin. J1. vol. 16, p. 734, he gives this plant a place under *Sorghum Halepense*, Persoon. It appears there are awned and unawned varieties of this plant.

112. *Andropogon tropicus*, Spreng. *Holcus fulvus*, R. Br. I know this only from a dried specimen, found in the Badulla District by Dr. Thwaites.

113. *Andropogon venustus*, Thw. En. Pl. Zeyl. p. 367. C. P. 2875. Found by Dr. Thwaites at Rambodde at 4000 feet. This large grass vieing with the Mana grass almost in height, I found in Nuwara Eliya at the junction of Gregory's new road and the old one round the plain at the east end, and in different parts of Dimbula. As a rule European grasses have failed in Ceylon as fodder plants, but it would be well worth trying this grass and others found indigenous at such high elevations in Ceylon, as fodder plants in Europe.

114. *Andropogon Martini*, Thw. En. Pl. Zeyl. p. 367, for this name only, not of Roxburgh or others. Mana, Sinhalese. I refer here to the best known and most remarkable grass in Ceylon, which covers thousands of acres of the patnas of the interior of the island up to 5000 feet altitude, and which are supposed to have resisted the encroachment

of the forests upon them time out of mind. The Rev. Mr. Abbey, the late Mr. Neitner and others have written fully on these patnas, and their soil. In the open exposed patnas it grows to a height of 6 to 7 feet, but in moist shaded places and amongst trees and small clumps of jungle it grows tall enough to conceal elephants. It is used extensively as thatch for coolie lines and other buildings where to be had, and for this purpose and for litter for cattle is grown on some estates. It is grown in several portions of the Western Province on the embankments of ditches as a sort of fence. Cattle eat this grass when it is young, and for this purpose the patnas on which the natives graze their cattle are annually burnt, but the milk, butter, and even the flesh of cattle fed on it have a peculiar aromatic flavor. The following remarks by General Martin who sent Dr. Roxburgh the grass from Balaghaut named after him is applicable to our Ceylon one, if the grasses are not the same species. "I took particular notice of a sort of long grass which the cattle were voraciously fond of, which is of so strong an aromatic and pungent taste, that the flesh of the animals, as also the milk and the butter, have a very strong scent of it." I keep this separate in the meantime from the Citronella Grass, and what is called Lemon Grass in Ceylon.

115. *Andropogon Nardus*, Lin. *A. flexuosus*, Nees. *A. coloratus*, Nees. *A. Iwarncusa*, Rox. (in part) ? No. 277, with a colored figure of the "Medicinal plants, &c." by Robert Bentley, F.L.S., and Henry Trimen, M.B., F.L.S., &c. This is the Poëngirimana, or the aromatic mana of the Sinhalese, Moon's Catalogue, Ceylon Plants, pt. 1, p. 72, where it is given as found in Uva, and confounded with *A. Schœnanthus*. I never saw this grass in a wild state. It is largely cultivated near Galle and other parts of the island for the manufacture of Citronella Oil. This grass is so very different in color and general appearance when growing, that I keep it separate from the wild mana grass, of which

it is said to be only a cultivated variety. I examined in 1857 the specimen collected by Paul Hermann in Ceylon in 1660-7, and which is in page 66 of volume two, of his Ceylon Plants in the British Museum, and described by Linnaus in his *Flora Zeylanica* No. 45, p. 18, under *Lagurus*. Full particulars of this grass are given by Bentley and Trimen in the above work, the plate in which is said to be the first figure given of it. Hermann's specimen has the native name Pængirimā in Sinhalese characters, so that I suppose it is the cultivated plant and not the wild one. From Bentley and Trimen's work, I quote the following remarks on the Citronella plant :—"Plants have been grown at Kew for many years, but there is no record as to the source whence they were derived. The cultivated plant from which our drawing was made is very much more lax than in the typical specimens in Hermann's Herbarium (now in the British Museum) upon which Linnus founded the species, and the awns are much longer; indeed in this and other specimens the awns are entirely included within the glumes; but both of these characters are variable. Thwaites' specimens (of the Mana? W. F.) being intermediate between the Kew and Hermann's plants in each particular."

"The best characters for distinguishing *A. Nardus* from allied species, according to General Munro, to whose notes—the result of great research and kindly placed at our disposal—we are much indebted, are to be found in its rufous color, short spikes and narrow leaves."

116. *Andropogon citrass*, D. C., *A. Schænanthus*, Wall Pl. As. Rar. iii. tab. 280. Rox, Fl. Ind. 1. p. 278 ad. Wallich 1820, for the observations but not for the diagnosis. Lin. Fl. Zeyl. No. 465. This is the Lemon grass cultivated in Ceylon and in other places and from which the Lemon Grass Oil is made. It is the Sireh of the Malays from whence no doubt we have the Sera of the Sinhalese.—The centres of the leaf buds of this plant are sold in every



Bazaar in Ceylon and are universally used in curries to give them a flavor. I have no doubt that this plant was introduced by the Malays to Ceylon, and I believe it to be the plant figured and described by Rumphius in his *Herbarium Amboinense*, vol. 6, tab. 6, fig. 2, but not that I am aware of referred to by any author on the *Andropogons*. About twenty years ago Mrs. Winter, Junr., of Baddegama, near Galle, sent me a specimen in flower of this grass, and informed me that it was the first flowers that had been seen of it for about twenty years. I sent a portion of this to Sir W. Munro, who took a great deal of trouble in comparing the specimen with that of Hermann above referred to, and the result of his notes indicated that the citronella plant was a cultivated form, and the Lemon Grass a more highly cultivated form of the Mana Grass. It will be seen that he has since changed his views on this species. After several years' careful cultivation of the Lemon Grass in the Circular Walk, several plants of it flowered in January, 1878, from which I secured good specimens. This grass very rarely flowers. Bently and Trimen say that the Lemon Grass is less known than the Ginger Grass of North and Central India, and that the former has more glaucous leaves than the latter. I have interesting communications on the Lemon Grass from the late Sir W. Hooker and Mr. Daniel Hanbury, the eminent Pharmacist.

I here refer to the Ginger Grass or Rusa Grass. In a note by General Sir W. Munro in p. 660 of the *Pharmacographia* by Flückiger and Hanbury. The following are given as the names of this plant. *Andropogon Schoenanthus*, Linn. *Ventenat*, *Jardin de Cels*. 1803, tab. 89; *A. Martini*, *Rox. Fl. Ind.* 1 (1820) 280; *A. pachnodes*, *Trinius*, *Species Graminum*, iii. (1836) tab. 327; *A. Calamus Aromaticus*, *Royle Illustrations of Botany of Himalayas*, 1839, t. 97. This grass is not grown in Ceylon that I am aware of. Its leaves are rounded or cordate at the base.

“There is still great confusion amongst the species of *Andropogon* affording grass oils. *A. Schænanthus*, Linn. The Ginger Grass of North Central India, is the best known and is the most widely distributed. This is the true *A. Martini*, Rox. and *A. Pachnodes*, Trin. \* \* It is cultivated in Bombay and also in Jamaica and Mauritius, and is not uncommon in gardens throughout the tropics.” Bentley and Trimen.

117. *Andropogon versicolor*, N. ab. Es. This is found in the more elevated parts of the Central Province and is very common at Wilson’s Bungalow. Specimens grown in Colombo had a light green color, and when bruised in a fresh state had a strong smell of Anise.

“The inflorescence of this species has, when crushed, a rather agreeable odour. The essential oil appears to be situated principally at the base of the spikelets.” Thw. En. p. 367. It may be called the Anise scented grass.

118. *Andropogon distans*, N. ab. Es. Found in Nuwara Eliya. I know this plant only from a dried specimen. It is not unlike the next one in some respects.

119. *Andropogon lividus*, Thw. En. Pl. p. 367, C. P. 953. I found this plant in good flower at Nuwara Eliya in April, 1879. It is remarkable from its livid color. Cattle seemed to eat it. This is the C. P. 953, and in a dried state is a good deal like the next one.

120. *Andropogon polytychos*, Steud. C. P. 32. Found by Dr. Thwaites on Pedurotalagala at an elevation of 7,000 feet. My specimens are from the Nuwara Eliya plains not far from Baker’s Farm, close to the road. In a dried state it is very like No. 119.

121. *Andropogon pertusus*, Willd. Sp. Pl. iv., p. 922; Rox. Fl. Ind. 1, p. 258, C. P. 951. Thw. En. p. 437. *Holcus pertusus*, Kön. Linn. Mant. 301. This is a very common grass from the sea coast up to 2,000 to 3,000 feet elevation. It is an excellent fodder grass either in a green

or dry state and cattle are very fond of it. It is a common grass about Colombo. It creeps near the root but has culms from one to two feet high and three to twelve digitate spikes of flowers. It can at once be distinguished from the other species of this genus by a remarkable pit on the back of the calyx of the hermaphrodite flower.

122. *Andropogon fascicularis*, Rox. Fl. Ind. 1. p. 265. An *A. punctatus*, Rox. lc. 264? C. P. 411. Thw. En. p. 437. I know this grass only from dried specimens received from Dr. Thwaites and Mr. Morris, Dr. T. mixed Nos. 121 and 122 at p. 367 of the En. but afterwards separated them as above. They are very distinct grasses. Roxburgh says that the "exterior valves of the calyces of both hermaphrodite and neuter flowers" of his *A. punctatus*, are pitted, but I have not observed these pits on the Ceylon plant.

123. *Andropogon scandens*, Rox. Fl. Ind. 1. p. 258. C. P. 3258. I found what agrees with the C. P. No. on banks of the Haragam River in company with No. 110, *A. Halepensis*, and it is now March, 1880, growing very luxuriantly and in full flower in my garden in Colombo. The young culms are from 6 to 8 feet in height, and have no sign of roots from their joints, and are very nearly erect but the older culms are weak and straggling, and send out long roots from their joints. Roxburgh's description of the *A. Ischæmum* in Fl. Ind. 1. c. pp. 259 and 264 in respect to the habit of sending out fascicled spiked flowers from the axils of the upper leaves agree for this plant in this respect. Roxburgh says that it is a coarse grass and that cattle are not fond of it, whilst Dalzell and Gibson in the Bombay Flora say it is common in the Deccan, native name Marwail, and is sold as fodder. The dried specimens are a good deal like those of No. 131 *Pollinia tristachya*.

124. *Andropogon lancifolius*, Trin. *Batratherum molle*, N. ab Es. Found in Badulla. I know this only

from a dried specimen. It is a very small grass and in habit somewhat like No. 109. *Anthistiira heteroclita*.

125. *Andropogon rudis*, Steud, *Batratherum rude*. N. ab. Es. I found this in abundance in January, 1880, just where the bridle path leaves the Oodewella road towards Kittoolamoola, and very like a species of *Ischænum* when growing. It is most difficult to dry it, as the flowers fall to pieces.

126. *Andropogon muricatus*, Retz. *Anatherum muricatum*, Beauv. *Vetiveria odorata*, Virey. This is the famous Cus Cus, the Vettie vair of the Tamils, and the Sæwandara of the Sinhalese. This is a very common grass in many parts of Ceylon, but I have never seen it truly wild. I do not think cattle ever touch it. It is most difficult to keep flowering specimens of this grass in paper unless they are fastened down, as their rough spiculæ catch the paper every time they are touched, and the specimens thus protrude from their paper covers.

“The roots of this grass, when dry, and then gently moistened emit a pleasant kind of fragrance, they are employed to make large fans commonly called *Vissaries* and also screens which are placed before windows and doors, which being kept moist during the hot winds render the air that passes through them, both cool and fragrant Rox. Fl. Ind. 1. p. 266. Small fans also are made of the roots, and these dried and put into Almyrahs are useful in many respects “Inscriptions on copper-plates lately discovered in the district of Etawah, South east of Agra, and dating from A. D. 1103 to 1174 record grants of villages to Brahamins by the Kings of Kananj, and enumerate the imposts that were to be levied. These include taxes on mines, salt pits, and the trade in precious metals, also on Mahwah (*Bassia*) and Mango trees, and on Cuscus grass” Pro. Asiat. Sty. of Bengal Augt. 1873, p. 161.

127. *Andropogon Zeylanicus*, Arn. *A. pseudograya*, Steud. *A. semiberbis*, N. ab. Es, Dr. Thwaites gives the

habitat of this grass at an elevation of 3000 to 4000 feet in the Central Province. It is one of the most common grasses in large patches of the sandy Cinnamon Gardens in Colombo, and is a tall, brown, wiry looking grass of no value for any thing that I am aware of.

128. *Andropogon triticeus*, R. Br. Prod. 1. p. 201. *Heteropogon insignis*, Thw. En. Pl. Zeyl, p. 437. C. P. 3804. Mahninggalla, Matella East. It is a native of Australia, and the Moluccas also.

129. *Heteropogon hirtus*, Pers. *Andropogon contortus*, Linn. Ee-tana, Sinhalese. This is a common grass, and its long twisted awns are troublesome to those who come in contact with it. Cattle do not touch it. *Anthistiria fasciculata*, Thw. and And. *polystachyus*, Rox. Fl. Ind. 1. p. 261. seem to be closely allied to this species in respect to the very long peculiar and twisted awns, and in other respects.

130. *Heteropogon concinnus*, Thw. En. Pl. Zeyl. p. 368, C. P. 3556. Found at Bibili in the Badulla District at no great elevation. I have not seen a specimen of this grass. "Without a careful examination, this might easily be taken for a species of *Apocopis*" Thwaites l. c.

131. *Pollinia tristachya*, Thw. En. p. 368. *Andropogon tristachyos*, Rox. Fl. Ind. 1. p. 256. *Saccharum tristachyum*, Steud. C. P. 995. I found the form for this C. P. No. in the Patnas near Mt. Vernon in Dimbula, and at Kattaboola in Kotmalie, and very fine specimens of it in the Patnas on the upper portion of the Hantane Estate close to the road. It is a beautiful grass when growing in dense tufts, and the inflorescence is not unlike that of *Andropogon scandens*. It has generally from 3 to 6 spikes on it, from 3 to 4 inches in length, and is very different from the small plant with only two spikes to the panicle. This latter is the C. P. 949 not found by me. Dr. Thwaites says it occurs at the greatest elevations, and in wet peaty soil.

132. *Pollinia Cumingii*, N. ab. Es. *Andropogon areo-fulvus*, Steud, An. *A. aureo villosus*, Steud, This beautiful grass with its golden colored spikes. was found by me at Nuwara Eliya, and in the Patnas at St. George in Dimbula and other places.

133. *Pollinia Wallichiana*, N. ab. Es. This is a long scandent grass, very like some forms of *Andropogon* near *A. pertusus*, and very unlike the other two species. It sends out long roots from the bent joints. Found by me in the edges of jungle between Kittalamoola and Dunally and close to Kandy on the Hantane road.

134. *Dimeria ornithopoda*, Trin. *D. gracilis*, N. ab. Es. *D. fuscescens*, Trin. *Pterygostachium lehmanni*, N. ab. Es. Of this very variable grass four marked varieties, with five C. P. numbers are given by Dr. Thwaites, some of which are found from Colombo up to Nuwara Eliya and the Horton Plains at an elevation of 6,000 to 7,000 feet. The leaves of some are very hairy and others quite smooth. "An extremely variable plant, but all the forms enumerated above appear to me certainly to belong to one species." Thwaites p. 369. Some forms of this grow in great plenty along the road sides in the Cinnamon Gardens, Colombo, and have a peculiar withered look in consequence of their light brown inflorescence. They are also common in neglected fields, and are never touched by cattle that I am aware of.

135. *Dimeria pilosissima*, Trin. *Haplachne pilosissima*, Pr. Like the above it differs in the amount of pubescence, and in the size of the spikelets.

136. *Dimeria pusilla*, Thw. En. 369, C. P. 959. Found by the late Dr. Gardner at Kokotoduwa, and a variety b. called *D. pallida*, C. P. 3,965, are both small plants of no interest except in a Botanical point of view.

137. *Dimeria laxiuscula*, Thw. MSS. C. P. 3863. No description of this plant has been given that I am aware of Cattle do not seem to eat any of these grasses.

(To be continued.)









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