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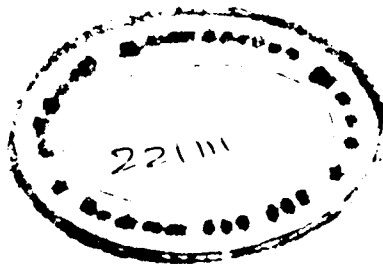
April—Sept. 1858.

1. *Vocabulary of the Dialect spoken by the KOTAS on the NILAGIRI Hills by the Rev. F. METZ.*

I am not aware that any thing has been written about the language of the Kotas who occupy the seven villages on the Hills, called Kotagherry, and must have settled on these mountains at the same period or not long after the time, when the Todas, the so called Aborigines of the Hills, chose them as a pasture for their large herds of Buffalos. It is very probable that the Kotas lived among the Todas or in the neighbourhood of them before their immigration to the Hills, and that they supplied the latter with grain and jewels, in return for which they got all the Buffalos which died, at the time when both tribes inhabited some mountains to the North East of the Hills, and that the Kotas followed their acknowledged masters the Todas, on account of the rich harvest of Buffalo carcases by which they were sure to find always a good subsistence.

The dialects of the Todas and Kotas are so near to each other that both parties can converse with each other in their own language, but when the Badagas came up, they found it necessary to acquire the language of the new settlers, because they were superior both in numbers and civilization.

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What I said formerly of the Toda language, that their singular pronunciation cannot be learned except by living amongst the people, is also true of the Kota dialect. The language of the former with its pectoral low notes, may very often appear to the unaccustomed ear of an European, as if a number of words were only imitations of the lowing of their Buffalos, and the dialect of the latter with its dental pronunciation appears in many instances as if the barking of their numerous half wild dogs had had an influence in forming it. I find it not difficult to speak about religion in the deep, often solemn tone of the Todas, but it seems to me like mockery to imitate the Kota pronunciation. Though none of the Hill tribes are very exact in cleanliness, still the name of Kota is used as a name of abuse, in the sense of filthy, by the Badagas, and Todas notwithstanding the great dependence the latter acknowledge towards them; they are their scavengers, their musicians, their gold and blacksmiths, their potters, their basket makers, &c. Industry in these several branches makes them thriving and independent, and they can force their masters to many things, which they are very unwilling to perform, by refusing to make ploughs and pots &c. for them. If christianity should take root in the other tribes, so that they would no more condescend to pay honour to the Idols made by the Kotas, it will be a great trial for them. At different occasions the Kotas, who never were very favourably inclined towards our preaching, showed their power very plainly and forced some head men of the other tribes, who were friendly towards the missionaries, to compromise with their own better persuasion. The Kotas honour Siva as the supreme god whom they call Kamataraya and in each of their seven villages there is a temple for him as well as for his wife Parvati. There is a tradition that they emigrated from some mountains situated in the present Mysore, which their ancestors knew by the name of Kollimale, on which account the first village they built on the Hills, goes by the same name. In comparing the Toda vocabulary with the Kota words given

below, philologists will not find it difficult to discover the same root in most of their words, but if they had an opportunity to listen to their village quarrels, they would be surprized to find the same words so very differently pronounced by a Kota, from what they are by the mouth of a Toda, in his lonely Mandu. I have endeavoured to select the most common words corresponding to the same words of the Todas which formerly appeared in this journal.

Abaisance (I make)	ಅದ್ಬುದ್ಧಪಿ* <i>addabuddape.</i>
Abandon	ವಿಟ್ಟಿರ್ತವಿ <i>vittirtave.</i>
Abide	ಐಲವಿ <i>ilave.</i>
Abominate	ತಲಿಕಪಿ* <i>talikape,</i> or ಜಿಗ್ಗಪಿ <i>jeggepe.</i>
Abomination	ನಾಚಿಕೆ <i>náchike.</i>
Absorb	ನುಂಗಿಟಿಕಪಿ* <i>nungitikapē.</i>
Absurd	ಪಾಕುರಿ <i>pákuri.</i>
Abundant	ಅಪರ <i>apara.</i>
Accept	ಯಿತ್ತಿಕಪಿ <i>ettikape.</i>
Accommodate	ಪಿರೆ ನಾಸುಪಿ <i>pere isupe.</i>
Account v.	ಲೆಕ್ಕಯಾಸುಪಿ <i>lekkaísupe.</i>
Account n.	ಲೆಕ್ಕನ <i>lekkana.</i>
Accompany (him)	ಅವನೊಡಮೊಗಸಪಿ <i>avanóda hógape.</i>

* I was not quite sure whether I should not substitute ವಿ instead of ಪಿ because the Kota pronunciation is so very indistinct and in many verbs different people pronounce it something like ವಿ.

Accurate	ಸೆರೆ <i>sere.</i>
Accurse	ಶಾಪಿಯುಟ್ಟುಕಪಿ <i>sápe ittukape.</i>
Accuse	ಪಿರಾದಿಪದುದಕಪಿ <i>piryádi padudakape.</i>
Aches, (it)	ಏರ್ಸೊ <i>érso.</i>
Acquire	ಕಲ್ಲುಕಪಿ <i>kallakape.</i>
Adore	ಕೊಂಬುಟ್ಟುಕಪಿ <i>kombittukape.</i>
Advice	ಬುದ್ಧಿ <i>buddi.</i>
Afar	ದೂರ <i>dúra.</i>
Affection	ಗವ <i>gava.</i>
Afraid (I am)	ಅಂಜಿಪಿ <i>anjipe.</i>
Afternoon	ಯೆರುಬುದುವಜಾಮ <i>yérubuduva jáma,</i> (time to loose the oxen from the plough)
Again	ಕಾಕೊಣಿ <i>kákóne.</i>
Age	ಪೆರಯಿ <i>peraye.</i>
Ago	ಪೊನಾರೆ <i>pónáre.</i>
Agree	ಪೊಬ್ಬೊಪಿ <i>vobbope.</i>
Air	ಕಾಕೆ <i>káte</i> , others pronounce it ಕಾಟಿ <i>káte</i> , which I think is more correct.
Alas	ಅವವಾ <i>avavá.</i>
Alms	ದರ್ಮ <i>darme.</i>
Alike	ಸಂಮಾಯಿಪಿ <i>sammáyipe.</i>
All	ಯೆಲ್ಲಮೆ <i>yellame.</i>
Anecdote	ಪಾಟಿ <i>páte.</i>

Alone	ಪೊಜ್ಜಾಲೆ <i>rojja!e.</i>
Amputate	ವಿರಿಕಪಿ <i>érikape.</i>
Anger	ಕೊಪೆ <i>kópe</i> , ಕೊಪಮೆ <i>kópame.</i>
Angry (I am)	ಯೆನಾಗ ಕೊಪಬದ್ದದೆ <i>yenaga kópe baddade</i> , (to me anger has come.)
Anna	ಪಂನಾಮೆ <i>panname.</i>
Ancestor	ಪೆರೈಯನಿ <i>péraiyan.</i>
Another	ಪಿಂನೊದ್ದ <i>pinnodda.</i>
Ant	ಯಿರ್ಬೆ <i>yirbe</i> , White ant ಸಿಪ ತೆ <i>gesale.</i>

B.

Baby	ಮಗ್ಗೆ <i>magge.</i>
Back (n)	ಪಿತ್ತಲೆ <i>pittale.</i>
Backbiting	ಪಿತ್ತಲಾಟ <i>pittaláta.</i>
Backward	ಪಿಬ್ಬಾರೆ <i>pibbare.</i>
Badge	ಗುರ್ತೆ <i>gurte.</i>
Bag	ಜಿರುಮೆ <i>jirume.</i>
Bail (I am)	ಪೆನಾಗಪಿ <i>penágape.</i>
Bald	ಕರ್ಮಂದೆ <i>tarmande.</i>
Bamboo	ವೆದರೆ <i>vedere.</i>
Bat	ಕನಕಪಟ್ಟಿ <i>kanepatte.</i>
Bathe	ನಿರಾಕಾರ್ತುಕಪಿ <i>nirakártukape.</i>
Battle	ಪೊರಾಸ <i>pórasa</i> , ಪೊರಾಟ <i>pórata.</i>
Bark of a tree	ಪೂಳೆ <i>púle.</i>

Bark (verb)	పాక పి parkape.
Barley	గాజ్జి gājje.
Barren	వైదే vaide.
Basket	గిక్కి gikke.
Beat	పుయిక పి puyikape.
Be	పోలి pole.
Bean	అపురే arure.
Bear (noun)	కరచి karade.
Bear (verb)	పోరేక పి porékape.
Beard	పిడి పిడి, మిర mira.
Beast	మిరిగ miriga.
Bee	తేనెగురే ténaguni.
Bee's wax	మెక్కి mekke.
Bedstead	కట్టిలే kattile.
Before	ముందత్ mundal.
Beg	వేసుపి vesupe.
Beggar	పాక పి parkane.
Behead	క్వతలే kwatale, కుయిక పి kuyikape.
Behind	పిబ్బాతే pibbāle.
Believe	నెంబాదోలే nembadolē.
Below	క్యేయి kyēye.
Bellow	పిట్టిగి pillige.
Between	నార్తాతే nartale.

Be it so	లూగోలే ágóte.
Bell	మంజే manne.
Bend	వక్కిసిపి vakkisipe.
Beware of	పోల్లమే నోసేలులోల్ల rollame nóse uló.
Big	దోడ్డుదే doddude.
Bile	పిత్తి pitte.
Bind	కట్టుక పి kattukape.
Bird	పిలే pete.
Bird cage	పిలేగూచి petegúde.
Bite	కదిక పి kadikape.
Bison	దోడ్డేమ్మ doddemme.
Bitter	కజ్జి kajje.
Black	కరే kare.
Blackberry	ముల్లపంజే mullapanne.
Blind	కురుదానీ kurudane.
Bliss	సుక్కమే sukkame.
Blood	నెత్తురు netturn.
Board	పలగి palage.
Bog, swamp	ఏకే eke.
Boat	అరిగిలే arigile.
Born	పిక పి perkape.
Boil (n)	పుంజే punne.
Boils it	పోయిపోయి poyyō.

Bone	ಎಲ್ಲವೆ <i>ellare.</i>
Bottle	ಪೆಟ್ಟಿಗೆ <i>pettige.</i>
Boundary	ಕತ್ತಿ <i>katte.</i>
Bow (a)	ಬಿಲ್ಲೆ <i>bille.</i>
Bowels	ಕೊಡನೆ <i>kodane.</i>
Box	ಪೆಟ್ಟಿಗೆ <i>pettige.</i>
Boy	ಮಗ್ಗೆ <i>magge,</i> ಮಾತಿ <i>mati.</i>
Breast	ಯೆದ್ದೆ <i>yedde,</i> woman's breast ಮೆಲ್ಲೆ <i>melle.</i>
Bracelet	ವಣ್ಣಿ <i>valle.</i>
Bramble	ಕಟ್ಟಿ <i>tappe.</i>
Branch of a tree	ಜಿಲೆ <i>jile.</i>
Brass	ಕಜ್ಜಿ <i>kajje.</i>
Break	ಮುರ್ಸಿಕಾಪಿ <i>mursikape.</i>
Breath	ಜಿವಿಲು <i>jivilu.</i>
Breathlessness	ಉಪ್ಪನೆ <i>uppane.</i>
Breed	ಪೆರ್ಕಿಸಿಪಿ <i>perkisipe.</i>
Bribe	ನಂಜುಮೆ <i>nanjume.</i>
Bring	ತಕಾಪಿ <i>takape.</i>
Brook	ಪೆಯೆ <i>peye.</i>
Brother (elder)	ಅಂಣೆ <i>anne,</i> (younger) ಕೆರಾಣಿ <i>kerale.</i>
Brother-in-law	ಪೆರುದಪ್ಪನೆ <i>perudappane.</i>
Brow	ಕಂಬುವೆ <i>kambure.</i>
Buffalo	ಯಿಮ್ಮೆ <i>yimme.</i>

Build	ಕಟ್ಟುಕಾಪಿ <i>kattukape,</i> ಯೆತ್ತುಕಾಪಿ <i>yettukape.</i>
Burden	ಪೊರೆ <i>porre.</i>
Burn	ಜುತ್ತುಕಾಪಿ <i>juttukape.</i>
Business	ಕೆಕ್ಕೆ <i>keke.</i>
Butter	ವೆಂಫೆ <i>venne.</i>
Buttermilk	ಮಂಜೆ <i>manje.</i>
Butterfly	ಕಪ್ಪುಟಿ <i>kappute.</i>
	C.
Cage	ಗೂಡೆ <i>gude.</i>
Calf	ಕಡೆ <i>kade.</i>
Call	ಉರ್ಕಾಪಿ <i>urkape.</i>
Calumniator	ಜಾಡಿಕಾರನೆ <i>jadikarane.</i>
Camel	ಪೊಟ್ಟಿ <i>potte.</i>
Carriage wheel	ತಿರ್ಗನೆ <i>tirgane.</i>
Cast away	ತೈಲಿಕಾಪಿ <i>tailikape.</i>
Castle	ಕೊಟಿ <i>kote.</i>
Cat	ಪಿಸೆ <i>pise.</i>
Catch	ಪತ್ತಾಕಾಪಿ <i>pattakape.</i>
Centre	ನರ್ತಾಳೆ <i>nartalē.</i>
Chaff	ಪೊಟ್ಟಿ <i>potte.</i>
Chain	ತಕ್ಕಾಳೆ <i>takkale.</i>

* It is very likely that the name of Ootacamund (Toda ಪತಕ ಪಮದ್ದು) "Patakhamaddu" is derived from this root and would literally mean, "Mand of catching," because it was a funeral Mand of the Todas.

Chalk	ಸುನ ಮೆ <i>suname.</i>
Chat	ಮಾನಿಕ ಪೆ <i>mánikape.</i>
Cheap	ಅಗ್ಗು ಮೆ <i>aggume.</i>
Cheat	ಮೋಸು ಮಾಡ್ಕ ಪೆ <i>mósamadkape.</i>
Cheek	ತಾಡೆ <i>tāde.</i>
Child	ಮಗ್ಗೆ <i>magge.</i>
Chin	ಪಿಡೆ <i>pīde.</i>
Claw	ಕೊಲಕೆ <i>kolake.</i>
Clay	ಮಂಜಿ <i>manne.</i>
Clean	ಪಾಸು ಪೆ <i>pāsune.</i>
Cloud	ಕಿಡೆ <i>kīde,</i> ಗಿಡೆ <i>gīde.</i>
Climb	ಪೊರ್ತ ಪೆ <i>portape.</i>
Club	ಕುಂದೆ <i>kunde.</i>
Coal	ಕರಿ <i>kari.</i>
Cobweb	ಜೆಲದಿಗೂಡೆ <i>jeladigūde.</i>
Cocoanut	ತೆಂಗಿನ ಕಾಯ <i>tenginakāyi.</i>
Cold (feverish)	ನಾನ್ಮರ ತೆ <i>nānmarale.</i>
Cold from cold weather	ಕರ್ರವೆ <i>karrave.</i>
Colour	ಸಾಯವೆ <i>sāyave.</i>
Come	ವಾಕ್ಕು <i>vákkena.</i>
Command	ಅಪ್ಪಣೆ <i>appane.</i>
Conjurer	ಪಿಲಿಕಾರ ಪೆ <i>pilikārane.</i>
Companion	ಮಾಳೆ <i>māle.</i>

Comprehend	ಅರ್ಥ ಪೆ <i>arthipe.</i>
Consent	ಅಕಾಪೆ <i>ákape.</i>
Corn, grain	ವತ್ತ ಮೆ <i>vattame.</i>
Corner	ಮೂಲ ಮೆ <i>múlame.</i>
Corpulent	ಬಹು ಪಿಟ್ಟಿಗೆ <i>bahupettige.</i>
Cotton	ಪಂದೆ <i>pande.</i>
Cough	ಕಕ್ಕಿಲು <i>kakkilu.</i>
Count	ಯಿಕ್ಕನ ಕೆಕ್ಕನ <i>yekkana kékena.</i>
Countenance	ಮೊಂಡೆ <i>mónde.</i>
Country	ನಾಡೆ <i>nāde.</i>
Courage	ದೈರ್ಯವೆ <i>dairyave.</i>
Cowries	ಕಾವಡಿ <i>kouvadi.</i>
Cover, hide	ಮುಜ್ಜಿ ಪೆ <i>mujjipe.</i>
Cow	ಅವೆ <i>ave.</i>
Crab	ನೈಲಿ ಪೆ <i>nailine.</i>
Cream	ಮಂಜಿ ವೆಂಗೆ <i>manje venne.</i>
Cripple	ಕುಟ್ಟು ಪೆ <i>kuttane.</i>
Crooked	ಕೊಂಕೆ <i>kónke.</i>
Crow	ಕಾಕೆ <i>kake.</i>
Cry	ಅಿಕಾಪೆ <i>aikape.</i>
Cultivate, plough	ಅಕಾಪೆ <i>akape.</i>
Curse	ಶಾಪಿ ಯಿಟ್ಟುಕ ಪೆ <i>sāpe yittukape.</i>
Cut	ಎರ್ಕಾಪೆ <i>érkape.</i>

D.

Dance (verb)	ಡಾಡ ಕಪಿ <i>adakape.</i>
Dark	ಕತ್ತಲೆ <i>kattale.</i>
Daughter	ಪಿಮ್ಮಣ್ಣಿ <i>pemmagge.</i>
Daughter in law	ಸೋಸಿ <i>sosē.</i>
Day	ನಾಳೆ <i>nāle.</i>
To day	ಯಿಂದೆ <i>yinde.</i>
Day after to morrow	ನಂಗೇಗೆ <i>nangege.</i>
Deaf	ಕಿವಿ ದಣಿ <i>kividane.</i>
Death	ಕಾವೆ <i>lāve.</i>
Debt	ಸಾಲಮೆ <i>sāleme.</i>
Deceive	ಮೋಸಮಾಡ ಕಪಿ <i>mōsamāḍakape.</i>
Deceiver	ಮೋಸಕಾರಣಿ <i>mōsakārane.</i>
Deep	ಉದ್ದುಮೆ <i>uddume.</i>
Demon	ಬಾಟುಮೆ <i>bātume.</i>
Deny	ಯಿಲ್ಲಾದುಮೆ <i>yillādupe.</i>
Depart	ಪೊಗಕಪಿ <i>pógape,</i> ಹೊಗಕಪಿ <i>hógape.</i>
Deride	ನಲ್ಲಿಸಿಕಪಿ <i>nallisikape.</i>
Desert	ವಿಟ್ಟಿರ್ಕಪಿ <i>viṭṭirkape.</i>
Descend	ಎರ್ಕಪಿ <i>erkape.</i>
Desire	ಡಾವಲು <i>ḍālu.</i>
Diarrhoea	ಪಿಟ್ಟಿಗೆ ಹೊಯಿಲೊ <i>piṭṭige hōyilo.</i>
Difference	ಕಡಲುಮೆ <i>kadalume.</i>

Dig	ಅಗ್ಗಪಿ <i>aggape.</i>
Diminish	ಜೆಟ್ಟಿಗಮಾಡ ಕಪಿ <i>jetṭigamāḍakape.</i>
Die	ಕಾಕವೆ <i>taukave</i> or ಕಾಕವೆ <i>tākave.</i>
Dirt	ಮಾಸೆ <i>māse.</i>
Dirty (I make)	ಮಾಸೆ ಕೈಕಪಿ <i>māsekekape.</i>
Dishonour	ಮಾನಕೆಟ್ಟಿಸಿರ್ಕಪಿ <i>mānaketṭisirkape.</i>
Disappear	ಕಡ್ಡಾಡ್ಹೊಗಕಪಿ <i>kaddādhógape.</i>
Dismiss	ಕೈತಿರ್ಕಪಿ <i>kaitirkape.</i>
Dispute	ಹೊಯಿಕಿರ್ಕಪಿ <i>hoyikirkipe.</i>
Ditch	ಗುಯ್ಯಿಮೆ <i>guyyiye.</i>
Divide	ಪಾಲ್ ಕೈಕಪಿ <i>pālkekape.</i>
Dog	ನಾಯಿ <i>nāye.</i>
Door	ಕಾಯಿ <i>tāye.</i>
Drive	ಯಿಕ್ಕಿರ್ಕಪಿ <i>yētkirkape.</i>
Drink	ಉಣಕಪಿ <i>unakape.</i>
Drown	ಮುಯಿಗೊಗಕಪಿ <i>múyigi hógape.</i>
Drop	ಸೊಟ್ಟಿ <i>soṭṭe.</i>
Drum	ಪರ್ರಾ <i>parra.</i>
Drum (verb)	ಪರ್ರಾಹುಯಿಕಪಿ <i>parrahuyikape.</i>
Dry	ವೊನ್ನಕಪಿ <i>vonnakape.</i>
Dull	ಪೊಟ್ಟಿ <i>pottane.</i>
Dung	ಕೊಪಾರುಣಿ <i>kópārune,</i> ಪಿಮ್ಮಿ <i>piye.</i>
Dwarf	ಮೊಂಣಿ <i>monṇina.</i>

E.

Eagle, vulture	నామిపొధకారానా <i>nāyepodhakārana.</i>
Ear	కేవి <i>kévi.</i>
Earth, ground	బుయిమి <i>buyimi.</i>
Echo	వోజే <i>vóje.</i>
Eat	తినికపి <i>tinikape.</i>
Eclipse	గిరగా <i>girana.</i>
Egg	మొట్టె <i>mottle.</i>
Elegant	పాసానె <i>pásane.</i>
Eight	యెట్టె <i>yetle.</i>
Eighteen	పావెట్టి <i>pavenette.</i>
Eighty	యెంబట్ట <i>yembattu.</i>
Enemy	హగ్గెగారానె <i>haggegárane.</i>
Enough	సాకా <i>sákā.</i>
Elbow	మొగ్గైయి <i>moggaiye.</i>
Elephant	అనే <i>áne.</i>
Elk	మావె <i>máve.</i>
Embrace	త్యబ్బిసిపి <i>tyabbisipe.</i>
Empire	సిమి <i>sime.</i>
Equal	సేరె <i>sere.</i>
Ever	యెందుగు <i>yendugu.</i>
Excrement	పియి <i>piye.</i>
Expel	కైతిరకపి <i>kaitirkape.</i>

Expenditure

సంతెకు *santeku.*

Eye

కంఫే *kanne.*

Enchanter

అదికారానె *udikārane.*

End (verb)

కెసెత్తొకపి *kesethókape.*

Enter

వోల్పొగపి *volpógape.*

Envy

హొట్టెకిచ్చి *hottetikichche.*

Error

తప్పి *tappe.*

Evening

కత్తె *kattale.*

Every.

యెల్లామె *yelláme.*

F.

Fall

విదుదుహొగపి *viduduhógape.*

Face

మోండ్ *mónde.*

Falsehood

కించే *kinde.*

Family

కుటుంబి *kuṭumbe.*

Faith

నాంబికి *nambike.*

Fat

వాలునె *válune.*

Far

దూర *dúra,* దూరుమె *dúrumē.*

Farmer

వొక్కలిగనె *vokkaligane.*

Funeral

తావె *táve.*

Fur

కొగ్గి *kóge.*

Fort

అనె *áne.*

G.

Gain

లాబె *lábe.*

Gall	ಪಿಲೆ <i>pille</i> .
Gallows	ಕುಕಮರ ವೆ <i>túkamarave</i> .
Garlic	ಉಳಿ <i>uli</i> .
Gather	ಕುಟಕಪಿ <i>kútakape</i> .
Gato	ಬಾಲೆ <i>bále</i> .
Ghee	ನೈಯೆ <i>naiye</i> .
Ghost	ಬಾಕೆ <i>búte</i> .
Giant	ಅರ್ಕಾಸೆ <i>arkáse</i> .
Girl	ಪಿಮ್ಮಗ್ಗೆ <i>pemmagge</i> .
Give	ಕೊಡುಕಪಿ <i>koḍukape</i> , ತಕಪಿ <i>takape</i> .
Go.	ಹೊಗಪಿ <i>hógape</i> .
Gloworm	ಮಿನೆ <i>mine</i> .
Goat	ಅಡೆ <i>áde</i> .
God	ದೇವರೆ <i>dévere</i> .
Gold	ಪೊಂಗೆ <i>ponne</i> .
Goldsmith	ವಿಲಿಗನ <i>veligesana</i> .
Good	ವೊಲ್ಲೆ <i>vollede</i> .
Gooseberry	ತಾತಪಂಗೆ <i>tautepanne</i> .
Grain	ವತ್ತಮೆ <i>vattame</i> .
Grandfather	ಪೆರಾಳೆ <i>perále</i> .
Grandmother	ಪೆರವ್ವೆ <i>peravve</i> .
Grandson	ಮಮ್ಮಗ್ಗೆ <i>mammagge</i> .
Grass	ಪುಲೆ <i>pulle</i> .

Grasshopper	ಮಿಟಿಲೆ <i>mitile</i> .
Gray	ನರೆ <i>nare</i> .
Great	ದೊಡ್ಡೆ <i>dodde</i> .
Green	ಪಚೆ <i>pache</i> .
Grief	ದುಕ್ಕ <i>dukka</i> .
Grind	ಬಿಸುಡ್ಡವಕೆ <i>bisuddavakena</i> .
Grinding stone	ಕಲ್ಲೋಲೆ <i>kallóle</i> .
Groan	ನರಗಿಯುಡ್ಡೋಲೆ <i>naragiyuddóle</i> .
Ground	ನೆಲ್ಲಮೆ <i>nellume</i> .

H.

Hail	ಅರಗಲ್ಲಮಾಯೆ <i>aragallamyáye</i> .
Hair	ಮಿರೆ <i>mi-re</i> .
Half	ಅಡುಮೆ <i>adume</i> .
Hand	ಕೈಯೆ <i>kaiye</i> .
Hard	ಕಲ್ಲಕಪಿ <i>kallakajeko</i> .
Hair	ಮೊಳಮೆ <i>molame</i> .
Harlot	ಮಾಳಿಮಗ್ಗೆ <i>malémagge</i> .
Hate	ಪಗ್ಗೆವಜಾಯಿಟ್ಟುಕಪಿ <i>paggevajayittukape</i> .
Hatred	ಪಗ್ಗೆ <i>pagge</i> .
Halt	ಕುಟ್ಟಾರುಡ್ಡವಕಪಿ <i>kuttharuddavakape</i> .
Hammer	ತಪುಟಿ <i>taputige</i> .
Handle	ಹಾವೆ <i>have</i> .
Hang (oneself)	ನಿಗಂದಕಾಕಪಿ <i>niḡandakakape</i> .

Hang (another)	ತುಕ ಪಿ <i>túkape.</i>
Hatchet	ಯಿರ್ರಾಣಿ <i>yirvale.</i>
Haughty	ಮೆಟಿ <i>méte.</i>
Hawknose	ಪಥುಮಾಕೆ <i>pathumúke.</i>
Head	ಮಂದೆ <i>mande.</i>
Hearken	ಕೆಳಕ ಪಿ <i>kélakape.</i>
Heart	ಗೆಂದೆ <i>gende.</i>
Heat	ವಿಳೆ <i>vile.</i>
He	ಅವನೆ <i>avane.</i>
Heap	ಗುಜಾಣಿ <i>gújale.</i>
Heavy	ವಾರಮೆ <i>várame.</i>
Here	ಯಿಯಯಿ <i>yiyayi</i> (ಯಿಲ್ಲೆ) <i>yille.</i>
Hew	ಏರ್ಕಾಕ ಪಿ <i>érkape.</i>
Herb	ಸೊಪ್ಪೆ <i>soppe.</i>
Hiccup	ಹಿಕ್ಕೊಟಿ <i>hikkote.</i>
Hide (reflex)	ವೊಲಾಕಾಕ ಪಿ <i>volasakave.</i>
Hide	ಪುರ್ಕಾಕ ಪಿ <i>púrkape.</i>
Hill	ದಿಟ್ಟೆ <i>ditte.</i>
Hog	ಪಜ್ಜೆ <i>pajje.</i>
Hoof	ಕೊಲಾಕೆ <i>kolake.</i>
Hook	ಕೊಂಕೆ <i>konke.</i>
Hold	ಪದ್ಧಕ ಪಿ <i>paddhakape.</i>
Honey	ಕೆಳನೆ <i>kéne.</i>

Honour	ಮಾನೆ <i>máne.</i>
Horn	ಕೊಂಬೆ <i>kombe.</i>
Horse	ಕುದುರೆ <i>kudure.</i>
Horsegram	ಪುರುಲಿ <i>puruli.</i>
Hot	ವೆದ್ದೆ <i>védde.</i>
House	ಪೈಯಿ <i>paiye.</i>
How	ಯಿನ್ನೆನಾಮೆ <i>yénénáme.</i>
Howl	ಪಾರ್ಕಾಕ ಪಿ <i>párkape.</i>
Hungry	ಪೆಟ್ಟಿಪೊಣೆ <i>pettíhóse.</i>
Hundred	ನೂರೆ <i>núre.</i>
Hunt	ವೆಟಾಹೊಗಾಕ ಪಿ <i>vétahógape.</i>
Husband	ವಾಣಿ <i>á!e.</i>
Humbug	ಪಿತ್ತಲಾಟಿ <i>pittalá!e.</i>
I.	
I	ವಾಣಿ <i>áne.</i>
Ibex	ಕಲ್ಲಾಡೆ <i>kallá!e.</i>
Ice	ಪೈನು <i>painu.</i>
Idle	ಮೊಡಾ, ಸೊಮಾರೆ <i>móda, sómáre.</i>
Ichneumon	ಕಿರಿ <i>kiri.</i>
If	ಮೆಲೆ <i>méle.</i>
Illness	ಸೊವೆ <i>sóve.</i>
Impede	ಅಡಿಗಾಕ ಪಿ <i>adigikape.</i>
Impotent	ವಾರಾಡಾಣೆ <i>varaddá!e.</i>

Improper	ಸೆರೆಯಿಲ್ಲ <i>sereyilla.</i>
Improve	ವೊಲ್ಲ ಮೊಳೆ <i>vollamoḷe.</i>
Impure	ಮಾನೆಕೊ <i>máseko.</i>
Incense	ದೂಪಿ <i>dúpe,</i>
Increase	ದೊಡ್ಡ ಾಕ ಪಿ <i>doddalákape.</i>
Indecent	ಮಾನಕಟ್ಟವನ <i>mánakettavana.</i>
Inflammation	ಜಿಗ್ಗೆ <i>jegge.</i>
Infant, female	ಪಿಂಮಗ್ಗೆ <i>pemmagge.</i>
Infant, male	ಗಂದೆಮಗ್ಗೆ <i>gandemagge.</i>
Informer	ಮೊರೆಕಾರನೆ <i>morekárane.</i>
Insufficient	ಯೆಡ <i>yeda.</i>
Ink	ಕರಿ <i>kari.</i>
Insensible	ನೆನವಿಲ್ಲ <i>nenavilla.</i>
Insane	ಬಾತವಜಿಕೊ <i>bátavajiko.</i>
Interest	ವಜ್ಜಿ <i>vajje.</i>
Ire	ಕೊಳಪಮೆ <i>kólpame.</i>
Iron	ಯಿಬ್ಬಿ <i>yibbe.</i>
Itch	ಕುರಿವೆ <i>kúrive.</i>
Iris (of the eye)	ಕಂಞೆಮಗ್ಗೆ <i>kannemagge.</i>
J.	
Jackal	ನರಿ <i>nari.</i>
Jackfruit	ಪಳ ಪಂಞೆಮೆ <i>palapanneme.</i>
Jest	ನಲ್ಲಿಕ ಪಿ <i>nallikape.</i>

Join	ಕೂಟಕ ಪಿ <i>kúṭakape.</i>
Journey	ಪಯಣ <i>payana.</i>
Joy	ಸಂತೋಷ <i>santósa.</i>
Jug	ಕೊಡಮೆ <i>koḍame.</i>
Juice	ನೀರಿ <i>níre.</i>
Jump	ಪಾರ್ಕ ಪಿ <i>párkape.</i>
Justice	ನಾಯಮೆ <i>náyame.</i>
K.	
Keep	ಕಾಪಾದ ಕ ಪಿ <i>kápádakape.</i>
Key	ಬಿಗಡಕೈ <i>bígadakai.</i>
Kick	ಕೊಕ್ಕ ಪಿ <i>vokkape.</i>
Kill	ತಾವಿಷಯಕ ಪಿ <i>tauvershayikape.</i>
Kind (noun)	ಮಾದರೆ <i>mádare.</i>
Kindness	ದಯೆ <i>daye.</i>
Kindred	ನೆಟ್ಟನೆ <i>nettane.</i>
King	ದೊರೆ <i>dore.</i>
Kiss	ಮುಂಗಿಚಾರಿಕೆ ಪಿ <i>múngeshákipe.</i>
Knee	ಮೊಗ್ಗಾಲೆ <i>moggále.</i>
Kneel	ಮೊಗ್ಗಾಲಾರ್ಕ ಪಿ <i>moggálárkape.</i>
Knock	ಕೊಡ್ಡ ಕ ಕೊಟುಕ ಪಿ <i>koḍgul koṭukape.</i>
Know	ಅರ್ಸಿಪಿ <i>arsipe.</i>
Knife	ಜುರಿ <i>júri.</i>

L.

Ladder	యీనిలు yénilu.
Lake	కేరే kére.
Language	బాసే bāse.
Late	తదేవాంబు tadevāyi.
Lead	రిగలు rīgalu.
Leap	పాకాపి párkape.
Leaf	యీలే yele.
Leather	తొలే tōle.
Leave	చిట్టెద్ద యోగపి bittuddahógape.
Leech	యిపువే yipuve.
Left	యీదే yedde.
Leg	కాలి káli.
Lemon	ఎత్తుమిట్టె yelmichche.
Leopard	కిరబాసి kirbāsi.
Leprosy	దొడ్డ-దొడ్డ doddarōga.
Liar	సుల్లగారాసి sullugārāsi.
Lie down	వొకాపి vorkape.
Life	జీవే jīve.
Lift up	తూకాపి tūkape.
Like	సురుమే sunume.
Limit	కట్టె kätte.
Lip	తూక తూక tūsa.

Listen	వొరటికేన వరతికేన vóratikēna.
Little	కుంక kunna.
Lizard	వొగ్గా vōga.
Load	పిర్రే perre.
Lock	బిగే bige.
Long	లుద్దుమే uddume.
Look	నొదకాపి nōdakape.
Loosen	బిడుకాపి bidukape.
Loud	వొల్లం vollām.
Love (I)	గవవజుపి gavavajupe.
Lust	అవేలు ávelu.
Labour, (I)	గిరే వే gítave.

M.

Mad	బూకాపి బుకాపి búpapejavāna.
Make	కేకాపి kēkape.
Malediction	కాపి kape.
Malice (I have)	కోట్టెకిచ్చుకేకాపి kōṭṭekichchukēkape.
Man	మనిషాన manisāna, అలా అలా.
Mango	మాన్డం మోహం mōhāṁ.
Many	అపరాపి aparāsi.
Marry	పెట్టెకొకాపి pēṭṭekōlakape.
Marsh, swamp	వీచి vīchi.
Mat	మాదారి mādarī.

Matter	ಗಿವೆ <i>give.</i>
Meat	ಮೀಸೆ <i>bóte.</i>
Medicine	ಮದ್ದೆ <i>maddē.</i>
Meet	ಮಾಧಾರೆವದ್ದಕಾಡ್ಕಪಿ <i>álárevaddakúdkape.</i>
Melt	ಕರ್ಗಸಕಪಿ <i>kargasakape.</i>
Milk	ಪಾತೆ <i>pále.</i>
Milk (verb)	ಕರ್ರಕಪಿ <i>karrakape.</i>
Miscarry	ಮಗ್ಗಿರಿಕ ಕೊ <i>maggevitako.</i>
Mist	ಮಂಜೆ <i>manje.</i>
Mind	ಮನಸೆ <i>manase.</i>
Mind (verb)	ಉನಿಸಪಿ <i>unisape.</i>
Miser	ಕರಿಗಾರತಿ <i>karigárane.</i>
Mock	ಕೊಂಸಕಪಿ <i>komsakape.</i>
Mocking	ಗೇಲಿ <i>géli.</i>
Money	ಪಾಂ <i>panam.</i>
Moment	ಜೆನಹೊತ್ತಿಗೆ <i>jenanhottige.</i>
Monkey	ಕೊರ <i>kóra.</i>
Moon	ತಿಗ್ಗಲೆ <i>tiggale.</i>
Month	ಪೆರೆ <i>perre.</i>
Morning	ವೆಳಕತೆ <i>velatále.</i>
Morrow (to)	ನಾಳಕೆ <i>nálake.</i>
Mother	ಅವ್ವೆ <i>avve.</i>
Motherless	ತವರಿ <i>tavari.</i>

Mourn	ಮಂದೆಕೊಟಿಕ್ಕುಕಪಿ <i>mandekútiai-kape.</i> (Literally I join the head to another and weep.)
Mouse	ವಿಜೆ <i>éje.</i>
Mouth	ವಾಯಿ <i>váye.</i>
Muscle	ನೆರವೆ <i>nerbe.</i>
Mount, ascend	ಪತ್ತಕಪಿ <i>pattakape.</i>
Mountain	ಬೆಟ್ಟಮೆ <i>bettume.</i>
Must	ವೇತು <i>vétu,</i> must not ವೇದೆ <i>réde.</i>
Mute	ಪೆಮಿ <i>péme.</i>
	N.
Nail	ಊರೆ <i>úre.</i>
Naked	ವೆರುಯಿಪಿ <i>veruyipi.</i>
Name	ಪೆರೆ <i>pére.</i>
Narrative	ಪಾತೆ <i>palhe.</i>
Nation	ಕೊಲ್ಲಮೆ <i>kollame.</i>
Naught	ಯೆನುಮಿಲ್ಲ <i>yénnumilla.</i>
Navel	ಬುಕ್ಕವೆ <i>bukkave.</i>
Near	ವೊತ್ತಲೆ <i>vottale.</i>
Neat	ಪಾಪತಿ <i>pápato.</i>
Neck	ಕರ್ರಕತೆ <i>kartale.</i>
Needle	ಕಾನೆ <i>táse.</i>
Neighbour	ಗೊಡಾವೈಯಿ <i>gódavaiye.</i>
Nest	ಗೂಡೆ <i>gúde.</i>

Never	యేనాఁకురిల్ల yénalukilla.
New	పుడు pudhu.
News	సుద్ది sudde.
Nick name	పొర్రపేర porrapéra.
Night	కత్తలె kattale.
Nine	వొరబాదె vorabade.
Nineteen	హదోంబట్ట hadombattu.
Ninety	తొంబట్టె tombatte.
Noise	కద్దుమె saddume.
Noon	మద్యేనె madaine,
North	వాదగి vadage.
Nose	మూకే múke.
Nostrils	మూకనుంఁతే múkasunte.
No	యిల్ల yilla.
Nothing	యేనిల్లమె yénillame.
Nourish	పాకపి pákape.
Now	యిన్నె yinne.
	O.
Oath (I make)	సత్యకేకపి satyakékape.
Ocean	సాండురు saundururu.
Oil	యింజే yenne.
Old	పేరై paira.
Omen	సామె saume, జామె jaume.

One	వొదె vodde.
Onion	యిరుళి yiruli.
Open	తెర్రకపి terrakape.
Once	వొరుట్టె vorutte.
Orient	మూదె múde.
Order to	యేవలుయిట్టపి yévalu yittape.
Other	యింసొంచె yinnonde.
Outside	పొర్రంజె porranje.
Over	మేకే méke.
Owl	గుంపసి gummane.
Ox	యిత్తే yette.
	P.
Pain	లుసు F ursu.
Palace	అరమసి aramane.
Palate	కిర్రనలగి kirranalage.
Paper	కాగజి kágaje.
Paper	నింగల్ పంఞం ningalpannam.
Part	పాలుమె pálume.
Passion	కోపమె kópame.
Path	బాధారే álare.
Pawn	అదవైయి adavaiye.
Peaceful	లుగ్గన ulistana.
Peacock	మిలే mīle.

Pearl	ಮುತ್ರೆ <i>mutte.</i>
Pen	ಪೆಕೆ <i>peke.</i>
Penis	ಬಿಡೆ <i>bide.</i>
Pepper	ಮೊಳೆ <i>molagu.</i>
Perspiration	ಉರೆ <i>ure.</i>
Perish	ಕೆಟ್ಟಾಗುವೆ <i>kettigape.</i>
Piece	ತುಂಡುಮೆ <i>tundume.</i>
Pig	ಪಜ್ಜೆ <i>pajje.</i>
Pilfer	ಕಲ್ಲಕುವೆ <i>kallakape.</i>
Pinch (to)	ನಿಲ್ಲಕುವೆ <i>nillakape.</i>
Pipe	ಬುಗುರಿ <i>buguri.</i>
Piss	ಮೊಳೆ ಟ್ಪುಕುವೆ <i>molattukape.</i>
Pit	ಕುಯ್ಯೆ <i>kuyye.</i>
Place	ಯೆಡಮೆ <i>yedame.</i>
Plantain	ಬಾಯ್ಲೆಹಂಫೆ <i>báyeħanne.</i>
Play	ಟಾಟ <i>áta.</i>
Play to	ಟಾಟಕುವೆ <i>átakape.</i>
Plenty	ಅಪರಂ <i>aparam.</i>
Pledge (I)	ಪೆಂಟಾಗುವೆ <i>pemágape.</i>
Plough	ನೆಲೆಗೆ <i>nélege.</i>
Plough (verb)	ಉಕ್ಕುವೆ <i>uvakkave.</i>
Pocket	ಕೊಂಡಿಲೆ <i>kóndile.</i>
Point out	ಕಾಣುವೆ <i>katkape.</i>

Poison	ನಂಜು <i>nanju.</i>
Pond	ಕೆರೆ <i>kére.</i>
Poor	ವಡವನಿ <i>radavane.</i>
Potter	ಕೊಂಬಾರನ್ <i>kombáren.</i>
Porcupine	ಪಿಪಾಜೆ <i>pipajje.</i>
Pour	ಅಟ್ಟುಕುವೆ <i>attukape.</i>
Portion	ಪಾಲಮೆ <i>pálame.</i>
Post to	ನಿಲ್ಲಕುವೆ <i>nillakirikape.</i>
Prepare	ವೊಡ್ಡಗುರ್ಕುವೆ <i>voddagurkape.</i>
Pride	ಮೆಟಿ <i>méte.</i>
Pray	ಪರ್ಧಕುವೆ <i>pardhakape.</i>
Property	ಅದಾರ <i>ádára.</i>
Prostrate	ಅಡಮಿಟ್ಟೆ <i>adamiṭken.</i>
Proud	ಮೆಟಿಗಾರ <i>méteğára.</i>
Prove	ರುಜಕುವೆ <i>rujakékape.</i>
Pulse	ನಾಟೆ <i>náte.</i>
Purchase	ವೆಲೆಗಯಿಟ್ಟುವೆ <i>velegayettakape.</i>
Purge	ಪೆಟ್ಟೊಯಿಲೊ <i>petteħoyito.</i>
Purse	ಕೈಜಿರುಮೆ <i>kaijitrume.</i>
Push	ವಾಬಕುವೆ <i>vabakékape.</i>
Putrid	ಕಿಡ್ಡೊಜೆ <i>kiddóje.</i>
	Q.
Quake	ನಡೆಗೆ <i>nadigépe.</i>

Quick	ತೈದ ತೈದ, ತರ್ರವರ ತರ್ರವರ.
Quench, spoil	ಕೆಟ್ಟಕಪಿ kettiskape.
Quite	ಯೆಲ್ಲಮೆ yellame.

R.

Rage (verb)	ಕೊಪಮ್ಮದಕಪಿ kópammādakape.
Rain	ಮ್ಯಾಯೆ myāye.
Rain (verb)	ಮ್ಯಾಯೆಹುಸೊ myāyehuso.
Rainbow	ಕೊಕಂಗೂಲಿ korangūle.
Raise	ಯೆತ್ತಕಪಿ yettakape.
Raspberry	ಮುಲ್ಲುಪಿಲ್ಲಿ mullupille.
Recite	ಯಿನ್ನಂದಾಪೆತುರತಾಕಪಿ yinnondapétupartakape.

Recollection	ನೆಪ್ಪು neppu.
Run	ವೊಡಕಪಿ vōdakape.
Rat	ವಿಜಿ éje.
Razor	ತಲವಾಲ talavāla.
Reconcile	ವೊಂದಕ್ಕಿರೆನ vōdakkītena.
Red	ಕೆಪ್ಪಿ kappe.
Refuse	ವೆದನ್ನಕಪಿ vēdannukape.
Regulate	ಸೆರಿಗಿಕೆನ serigikēna.
Release	ವಿಟ್ಟಿಕ್ಕೆನ vittikkēna.
Require	ವೆಕೆಂದಹಾರಿಕೆನ vēkendahartikēna.
Rend, tear	ಕಿಕ್ಕಪಿ kikkape.

Rhododendron	ವಿಲಿಮರಮೆ vilimarame.
Rheumatism	ಜನಿ jani.
Rib	ಕರ್ಸಿಬೆ karsibe.
Riches	ದೊಡ್ಡವದಕೆ dōddavaduke.
Right	ಸೆರಿ seri.
Right hand	ವಲಕ್ಕೈ valakai.
Ring	ಮೊದಾರಂ mōdāram.
Rise	ಮೆಕ್ಕಿಕಪಿ mēkikape.
River	ಪೆಯೆ péye.
Road	ಅಲಾರೆ alāre, ಅದಾರೆ aidāre.
Roar	ಅರ್ಕಪಿ ārkape.
Rock	ಎರೆ erre.
Roof	ಪನಿಮೆಲೆ panimele.
Root	ವೆರೆ vére.
Rope of buffalo hide	ಮಿಲ್ಲಿ milli.
Rope of hemp	ನಾರೆ nāre.
Rose	ಗಂಜೆಗುಲ್ಲೆಹಾವೆ ganjēgullēhāve.
Rotten	ಕಿಡ್ಡೆಕೊ kiddeko.
Rub	ಉದ್ದಕ್ಕಪಿ uddaskape.
Rubbish	ಪಬ್ಬೆ pabbe.
Ruminant, 3rd person	ಮೆಕಾಸಕೊ mēkāsako.
Run away	ವೊಕ್ಕೋಗಪಿ vōshōgape.
Rust	ಕಿಲುಂಬು kilumbu.

Rusty (it is)	ಕಿಲುಂಬುಪಜ್ಜಿಕೊ <i>kilumbupajjiko.</i>
	S.
Sack	ಜಿರುಮೆ <i>jirume.</i>
Salep plant	ನೈಗಾಲ್ಸು <i>naigaulsu.</i>
Saliva	ಯೆಂಜಿಲೆ <i>yenjele.</i>
Salt	ಉಪ್ಪಿ <i>uppe.</i>
Salute	ಕೊಂಬುಟ್ಟುಕ ಪಿ <i>kombuttukape.</i>
Sand	ಮಗಾಲೆ <i>manale.</i>
Saturday	ತೈನಿ <i>taine.</i>
Satisfied (not hungry)	ಪಿಟ್ಟಿಲಿವೆಕೊ <i>pattileveku.</i>
Sauce	ಉದ್ದುಕೆ <i>udduke.</i>
Scatter	ವಿರಿಟ್ಟುಕ ಪಿ <i>virittakape.</i>
Scratch	ಯೆಟ್ಟುಕ ಪಿ <i>yettakape.</i>
Scent	ಗಮುಲೆ <i>gamule.</i>
Scent (impers)	ಗಮುಲೈಕೊ <i>gamulaike.</i>
Scorpion	ಜೈಲೆ <i>jale.</i>
Skull	ಮಂಡೋರೆ <i>mandore.</i>
Seal	ಮುದರೆ <i>mudare.</i>
See	ನೊಟಕ ಪಿ <i>notkape.</i>
Sell	ಮಾರಕ ಪಿ <i>markape.</i>
Seize	ಪಟ್ಟಕ ಪಿ <i>pattakape.</i>
Send	ಕ್ಯೇಫಕ ಪಿ <i>kyefkape.</i>
Set (the sun sets)	ಪೊತ್ತಮಾರ್ಕಕೊ <i>pottumarkako.</i>

Seven	ಯಿಲ್ಲೆ <i>yelle.</i>
Seventeen	ಪತ್ತಿನೆಲೆ <i>pattinèle.</i>
Seventy	ಯಿಲ್ವಾಟ್ಟೆ <i>yelvatte.</i>
Sew	ಕುಟ್ಟಕ ಪಿ <i>kuttakape.</i>
Shadow	ನಿರಾಲೆ <i>nerale.</i>
Shake	ಅಲುಕ ಪಿ <i>alukape.</i>
Shame	ನಾನಮೆ <i>naname.</i>
Shameless	ನಾನಮಿಲ್ಲೆ <i>nanamilla.</i>
Shave	ಮಾನಿಕ ಪಿ <i>manikape.</i>
She	ಅವಳೆ <i>avale.</i>
Shell	ಕಂಕೆ <i>sanke.</i>
Ship	ಕಬಾಲ್ <i>kabál.</i>
Short	ಮೋಡೆ <i>mode.</i>
Shoulder	ಮೂಡೆ <i>múde.</i>
Show	ಕಾಟಕ ಪಿ <i>kátkape,</i> ಕೊರ್ಕ ಪಿ <i>tórkape.</i>
Shrub	ದಬ್ಬಿ <i>dabbe.</i>
Shut	ಅಡಕ ಪಿ <i>adape.</i>
Sick	ಹರುಸಮಿಲ್ಲೆ <i>harusamilla.</i>
Sickle	ಕಂಕಟ್ಟಿ <i>kankatti.</i>
Side	ವಾಕುರೆ <i>vakure.</i>
Sigh	ನಾರಿಕ ಪಿ <i>narikape.</i>
Sight	ನೊಟುಮೆ <i>notume.</i>
Sign	ಗುರುತೆ <i>gurute.</i>

Silent (I am)	ಪಕ್ಕಿಕ ಪಿ pakkikape.
Silver	ವೆಳಿ veli.
Sin	ಪಾಪುಮೆ pāpume.
Single	ಶೊಣ್ಣೆ ಖಾಳಿ rojje ālc.
Sister	ಅಕ್ಕನೆ akkane, ಕೆರ್ಡಾಸೆ kerdāse.
Six	ಖಾರು āru.
Sixteen	ಪದಿನಾರು padināru.
Sixty	ಖಾರ್ವೆ ಶ್ರೀ arcatte.
Skin	ಶೋಳಿ tōle.
Sky	ವಾನುಮೆ vānume.
Slay	ತಾವುಕ ಪಿ taurikape.
Sleep	ವೊರ್ಕ ಪಿ vorrakape.
Slide, slip	ಜಾರವೈ ಪಿ jāravaipe.
Slippery	ಜಾರಿಲು jārilu.
Slope	ವಾಗರೆ vāgare.
Slow	ಪೆಮೆಂ ಪೆಮೆಂ pémém.
Small	ಕುನ್ನಡು kunnadu.
Smarts, it	ವೆರ್ಸೊ érso.
Smell (good)	ಶೊಲ್ಲೆಗಮುಲೆ vollegamule.
Smell (bad)	ನಾರೊ nāro, ಜಿಡಿವೊತ್ತೊ jidivotto.
Smile	ಕಾರ್ಡ ಪಿ kárdhape.
Smoke	ಪೊಕೆ poke.
Snake	ಪಾಬೆ pábe.

Sneeze	ತಿಪುಪಿ tipupe.
Snore	ಕುರ್ತ ಪಿ kurtape.
So	ಯಿಂಗೆ ingai, ಅಂಗೈ angai.
Son	ಮಗ್ಗೆ magge.
Sorcerer	ಬಲಿಕಾರ ಪಿ bilikārane.
Sorcery (the Curumba practices)	ಕವಡೆ ಶೋಡಿಸಿರ್ಕ ಕೊ kavade rōdesirkako.
Soul	ಉಸ್ಸುರೆ ussure.
Soil	ಬುಯಿಮಿ buyimi.
Sour	ಪುಜ್ಜಿ pujji.
Sorry (I am)	ದುಕಮ ಪಿ dukamāpe.
South	ತೆಕ್ಕೆ tekke.
Sow	ವಿತ್ತುಕ ಪಿ vittukape.
Speak	ಮಾನಿಕ ಪಿ manikape.
Spear	ಯಿಜ್ಜೆ yijje.
Spend	ವೆಚ್ಚಗಿಕ ಪಿ vechchagikape.
Speech	ಪರ್ಸಂಗುಮೆ parsangume.
Spine	ಬಿವೆ bive.
Spittle	ಯಿಂಜಲೆ yenjale.
Spit	ಉಲ್ಲುಪಿ ullupe.
Spider	ಜೆಡ್ಡೆ jēdde.
Spoil	ಕೆಟ್ಟಕ ಪಿ kettisakape.
Spot	ಯೆಡಮೆ yedame.

Staff	కాశి tassē.
Stand	నిల్లకాపి nillukape.
Star	మిన్నె mine.
Spread	పాతకాపి partakape.
Sprinkle	సోట్టకాపి sotlakape.
Squeeze	హిందికాపి hindikape.
Starve	పెట్టిగి ఏలూ peṭṭige ēla.
Steal	కాల్లకాపి kallakape.
Steel	అక్కి ukko.
Steep	అల్లి alle.
Stench	జిడి jidi.
Stink	జిడివిట్టికెన్ jidivittiken.
Step (noun)	కాట్టె kaṭṭe.
Sting	కాడ్లకాపి kaḍlakape.
Stool (to go to)	పిట్టాల్‌హోగాపి pītātālhōgape.
Stop	అడ్డగడ్డకాపి addagaddakape.
Storm	కాటి kate.
Straw	పుల్లి pulle.
Stream	పయి paye.
Strike	పయికాపి payikape.
Spring	నల్లె nalle.
Strong (man)	అడ్డగూరన్ addagūran.
Stupid (it)	అబ్బి abbi.

Sugar	కల్లెనే kallene.
Sun	పోర్తే porte.
Sunday	అసవారము āsavārame.
Sure	నెల్లమే nellame.
Swallow	నుంగివిట్టిక పి nungivittikape.
Swamp	ఏకే ēke.
Sweat	అరే ure.
Sweep	వోష్కాపి voskape.
Sweet	సైవే saive.
Swell	వాటో vāto.
T.	
Tail	వాలుము vālumo.
Take	వేరకాపి vērkape.
Tall	అడ్డు uddu.
Talk	మానికాపి mānikape.
Tamarind	నబ్బులి nabbuli.
Tax	కేందవనము kēndavanamu.
కాజానా kajāna.	
Thatch	పుల్లెముచ్చక పి pullemuchchukape.
Tempest	కాటి kate.
Ten	పాట్టి patte.
Thirst	అర్పు arpu.
There	అల్లి alli.

Thief	ಕಲ್ಲನೆ ಕಲ್ಲನೆ kallane.
Thirteen	ಪದಮೂದೆ padimúde.
Thirty	ಮೂವತ್ತೆ mívatte.
Tie	ಕಟ್ಟಕಪಿ kattakape.
Thorn	ಮುಳ್ಳೆ mulle.
Thistle	ನೆಗ್ಗೆ negge.
Thread	ನುಲೆ núle.
Three	ಮೂದೆ múde.
Thumb	ಬೆರಟವರಳು bebetvarálu.
Thunder	ಗುಡುಕು gudiku.
Thunders, it	ಗುಡುಕು ಗುಡುಕು guḍuko.
Time	ಕಾಲಮೆ kálame.
Tiger	ಪುಜ್ಜೆ pujje.
Tinder	ತುಡೆ túde.
Tobacco	ಪೊಕೆ poke.
Token	ಕುರ್ಪೆ kurpe.
Tongue	ನಾಲಗೆ nálage.
Tooth	ಪಲ್ಲಿ palle.
Touch	ಮುಟ್ಟಕಪಿ muttakape.
Town	ಪಟ್ಟಣವೆ pattanave.
Transgression	ತಪ್ಪೆ tappa.
Trap	ಗುಡೆ gúde.
Treasure	ಬೊಕುಸಮೆ bokusame.

Tree	ಮರಮೆ maramé.
Tremble	ನಡೆಗಿರಕಪಿ nadegirkape.
True	ನೆಲ್ಲಿ nelle.
Trust	ನಂಬಿಕಪಿ nambikape.
Truth	ಸತ್ಯ satya.
Tumble	ವಿದಿಧೋಗಪಿ vididhógape.
Turban	ಮಂದೆಪೆರಿ mandepéri.
Tusk	ಪಲ್ಲಿ palle.
Turn	ತಿರಿಗಿರಕಪಿ tirigikape.
Twelve	ಪಂಪ್ಪೆನೆ pannaide.
Twenty	ಯಾವಾಧೆ yivádhe.
Twig	ಜಿಲೆ jile.
Twilight	ನಡುಜಾಮ nadujáma.
Twin	ಅವಿಲಮಗ್ಗೆ avilemagge.
Twinkle	ಕಣ್ಣುಗೊಟ್ಟಕಪಿ kannuhottakape.
U.	
Udder	ಮೆಳ್ಳೆ meḷe.
Ulcer	ಪುಣ್ಣು punnu.
Umbrella	ಕೆಡೆ keḍe.
Uncertain	ನೆಲ್ಲಮಿಲ್ಲಿ nellamilla.
Uncle	ಕೆರಲಾಯ್ ಕೆರಲಾಯ್ keralaiyaṅṅ.
	ತಲ್ಲಲಾಯ್ ತಲ್ಲಲಾಯ್ tallálaiyana.
Under	ಕೈಯೆ kyíye.

Up	ಮೈಕೆ <i>méke.</i>
Urine	ಮೊಳ್ ನೈರ <i>molnira.</i>
Understand	ಅರ್ಕು-ಪಿ <i>arkupe.</i>
Unjust	ನಾಯಮಿಲ್ಲಿ <i>náyamilla.</i>
Urge	ಬಲಮುತ್ತಗಿಕಪಿ <i>balumuttagikape.</i>

V.

Value	ವೆಲ್ಲೆ <i>velle.</i>
Vegetable	ಸೊಪ್ಪಿ <i>soppe.</i>
Venereal	ತುರ್ಕಾಫಂಫೆ <i>turkapphanne.</i>
Vertex	ಮಂದೆಕೊಟಿ <i>mandekóte.</i>
Vial	ಪೆಟ್ಟಿಗೆ <i>pettíge.</i>
View	ನೊಟಮೆ <i>nótame.</i>
Violence	ಬಲಮುತ್ತ <i>balamutta.</i>
Voice	ದೈನೆ <i>daine.</i>
Vomit	ಕಾರ್ಕಪಿ <i>kárkape.</i>
Village	ಪಟ್ಟಿ <i>patti.</i>

W.

Wait	ಕಾತ್ ಕಪಿ <i>kátkape.</i>
Walk	ನಡೆಕಪಿ <i>nadekape.</i>
Wall	ಗೋಡೆ <i>góde.</i>
Want, famine	ಪಂಜಮೆ <i>panjame.</i>
Want (I)	ಯೆನಾಗುವೆಕು <i>yenaguvéku.</i>
War	ಪೊರಾಟ <i>póráta.</i>

Warm	ವೈವೈಯೆಕೈಕಪಿ <i>vévaiyekékape.</i>
Wart	ಜಟ್ಟಿ <i>jattu.</i>
Wash	ತೊಯಿಸ್ತಪಿ <i>tóyiskape.</i>
Waste	ಕೆಟ್ಟಿಸ್ತಪಿ <i>kettiskape.</i>
Water	ನೈರೆ <i>níre.</i>
Wax	ಮೆಕ್ಕೆ <i>mekke.</i>
Way	ಮಾಧಾರೆ <i>aláre.</i>
Weak	ಸಮ್ಮತ್ತಿಲ್ಲಿ <i>sammattilla.</i>
Wear	ಬೆವುಕಪಿ <i>bévukape.</i>
Wealth	ಅದಾರ <i>adára.</i>
Wed	ಪೆತುಕೊಲಕಪಿ <i>pétukolakape.</i>
Week	ಎಟ್ಟುನಾಳೆ <i>eṭṭunále.</i>
Weigh	ತುಕಪಿ <i>túkape.</i>
Well	ವಾವಿ <i>vávi.</i>
Well, good	ವೊಲ್ಲೆದ <i>volledu.</i>
West	ಮಾರ ತಿ <i>márale.</i>
When	ಯೆಗೊಳ <i>yégola.</i>
What	ಯೆನೆ <i>yéne.</i>
Wet	ನಾಂದೆ <i>nánde.</i>
Wheat	ಗೊಡುಂಬಿ <i>gódumbi.</i>
Whistle	ವಿಲ್ತಿಕಪಿ <i>viltikape.</i>
Where	ಯೆಲ್ಲಿ <i>yelle,</i> ಯೆಮೆ <i>yéye.</i>
Whip	ಜಿಲುಕೆ <i>jiluke.</i>

Whiskers	ಕಾಡೆಮ್ಯನೆ <i>tádemise.</i>
White	ವೆಳ್ ಪಿ <i>velape.</i>
Who	ಯಾರೆ <i>yáre.</i>
Whore	ಸೂಳೆಮಗ್ಗೆ <i>súlemagge.</i>
Wide	ಅಗುಲುಮೆ <i>agulumé.</i>
Widow	ಮುದೆಗ್ಗೆದೆ <i>mudegégde.</i>
Widower	ಮುಂದಿ <i>mundine.</i>
Wife	ಪಿಟಿ <i>péte.</i>
Willow	ವೈಗಮರ ಮೆ <i>vaigemaramé.</i>
Wind	ಕಾಟ <i>káta.</i>
Wipe	ವರ್ರಸಿಪಿ <i>varrasipe.</i>
Wilderness	ಕಾಡೆ <i>káde.</i>
Wing	ಪಿಕ್ಕಿ <i>peke.</i>
Wink (I)	ಕೈನಗಿಗುಪಿ <i>kaisanigisupe.</i>
Witchcraft	ಪಿಲಿ <i>pili.</i>
Wish	ಅವಾಕೆ <i>ávale.</i>
With	ಸಂಗಡ <i>sangada.</i>
Wither	ವೊಳಲಿಜೊಗ್ಗಪಿ <i>vonagihógape.</i>
Within	ವೊಳಿ <i>vole.</i>
Witness	ಸಾಕಿಸು ಮೆ <i>sákisame.</i>
Woman	ಪಿಮ್ಮಗ್ಗೆ <i>pemmagge.</i>
Wood, forest	ಕೈಳಿ <i>kéle.</i>
Word	ಮಾತೆ <i>máte.</i>

Work (I)	ಕೈಕಿಕ್ಕಪಿ <i>kékkape.</i>
Worm	ಪುವೆ <i>púve.</i>
	Y.
Yawn	ಅವಾಕೆವಿಟ್ಟುಪಿ <i>ávavé vittupe.</i>
Year	ವರ್ಷಮೆ <i>varshame.</i>
Yes	ಹೂಡೆ <i>húde.</i>
Yesterday	ನಿಯರೆ <i>nigare.</i>
Yield	ವೊಟ್ಟುಕಪಿ <i>vobbakape.</i>
Yoke	ನೊನೆ <i>nóne.</i>
Young	ಜಾವಾತಿ <i>jauváne.</i>

The letter *aa* placed under other letters, for instance *ಅಕಪಿ*, has a sound peculiar to the Hill tribes, something like *ya* in tamil, but not exactly so. It will be observed how many words terminate in *é* (ವಿ). The frequent occurrence of this vowel, which the Kotas utter in a nasal pronunciation, makes their language any thing but agreeable to the ear.

OCCUPATION OF THE HILL TRIBES.

Nearly the whole life of a Toda is spent in idleness. Except milking the Buffaloes and making ghee from the produce of their herds, no real work is done by the Todas. Even the milk business is to the greater part

performed by one man in each village, whom they call the Pālicārpāl, and who alone is allowed to go into the dairy, which is considered a kind of sanctum in each Mand. In the harvest time the men go about in all the Badaga villages, and raise their tax in grain, which they call *gūdu*, and to which, the Badagas believe, they have, as the lords of the soil, a certain right, but I have been witness a great many times when it was only by the greatest force that the Todas could get something from their tenants. And if the Badagas were not afraid of their enchantment, they certainly often would refuse to supply the lazy fellows, whom they call Pitchekārar, with the means of their subsistence. Also the Toda women are as lazy as their husbands, and except preparing the meal for the family, do nothing at all. They sometimes during the absence of their husbands sit for hours together, talking and laughing, and curling their hair.

Though the Badagas also do not know much of the value of time, still they cultivate their ground, and in the sowing and weeding season expose themselves to the inclemency of the weather very much, and I have no doubt if they were more industrious, they could easily supply themselves with grain enough to live upon, but as this is not the case, a very large quantity of *Rāgy* comes up from the low country every week, which the Badagas buy and consume. The Badaga women are very industrious, and not for an hour they can be seen idle. If there is no work in the field, they bring firewood to the house, or do something else for the benefit of the family. Chiefly on this account a youth has to give a very large dowry for his wife, sometimes 150 and 200 Rs. because he knows her usefulness. Also they have more modesty, and are not so forward as the Toda women, at least not towards strangers. The Government tax, which the Badagas pay for their land and buffaloes, is comparatively high

but for a little bribery the Kanaka or village Accountant can always manage it to make it a little lower.

The productions of the soil are the following:—

1. Nilgherry wheat and Nilgherry barley.

2. European wheat and European barley introduced by Mr. Sullivan. Barley has degenerated very much; and for the last years, the Badagas preferred their own, because they had a better harvest of it. Formerly it was the contrary, and also this year having had plenty of rain, the *Dorre gānje* i. e. Gentleman's barley looks beautifully.

[Vetches and oats were also introduced by Mr. Sullivan, but the natives did not make any use of it.]

3. The most common grain is what the natives call *Korrali*, which is a very rough kind of millet, and grows in the colder districts Kundenād, and Mekanād, where the other finer grains do not grow. As they cultivate the same piece of ground, only every 3d or 4th year, it grows very well without manure except the bushes, which are cut down and burnt.

4. *Sāmé* (*panicum miliare*) which is considered the best kind of the several small grains of the Hills. If grows in the warmer districts, it must have richer soil than *Korrali*.

5. *Ténny* or *Navoney* (*panicum italicum*) which also grows only in warm places. It is considered indigestible, on which account only a small quantity is cultivated and always eaten mixed with some other grain.

6. *Varagu* (*paspalum frumentaceum*) which grows only on the slopes of the Hills in feverish places, and requires, it seems, a warmer climate than the Hill plateau affords.

7. *Ragi* (*cynosurus corocana*) grows also only in places where the cold monsoon wind cannot come to. This grain the natives say will remain good for 30 years if it is kept in dry places.

8. A kind of pea (*cicer arietinum*) generally sown when the *Ragi* is cut down.

9. *Manalige* (a kind of lentil) used for currystuff.

10. *Meté* (*trigonella fœnum græcum*) sold to the low country merchants.

11. Onions and garlic very small but of a fine flavour. They are generally sold to merchants, who come up from Coimbatour, and carry large quantities down on bullocks.

12. Opium of a very good kind, the curse for many of the inhabitants of the Hills, who use it first as medicine against any disease they are troubled with, and then get incurable opium eaters. Many of the Kotas boil the shells of the poppy to get a stupifying beverage from them.

13. *Pasambu* (*calamus aromaticus*) is not cultivated but grows nearly in every swamp, and is sold to the Coimbatour merchants.

II. *On the Geological age of the Sandstones containing Fossil Wood, at Trivictory, near Pondicherry.* By H. F. BLANFORD, of the Geological Survey of India.

THE sandstones occurring at the village of Trivictory near Pondicherry have long been known to Indian Geologists from their containing in considerable quantity the silicified remains of the stems of trees. These beds were first brought to public notice, by the late Mr. Kaye, of the Madras Civil Service, in his paper on the Geology of the Country around Pondicherry, published in Vol. Part of the 6th Transactions of the Geological Society of London. In the same paper are also described certain other sandstones occurring at the village of Verdoor Valudayur, four miles South East of Trivictory, and a large series of fossils collected from these rocks, by Mr. Kaye, and Mr. Brooke Cunliffe, were sent home and described, by the late Professor Edward Forbes, in the admirable Monograph which accompanies Mr. Kaye's paper. From these fossils Professor Forbes determined the Verdoor sandstones to be of cretaceous age, and he stated his opinion that they were about equal with the lower cretaceous or Neocomian rocks of Europe. The age of the Trivictory sandstones however still remained doubtful, and no decided opinion was enunciated on the subject, until in the course of last year, Mr. Adolphe Schlagentweit published in the Journal of the Asiatic Society of Bengal,* his "Report on the Progress of the Magnetic Survey, &c. from November 1855 to April 1856."

In this Report Mr. Schlagentweit having described the great series of sandstones and plant-bearing beds throughout Central India and portions of Bengal, and assuming the Trivictory sandstones to be of the same age, says:—"With reference to the difficult question of the age of the sandstone formation, it is worth mentioning that I have seen the sandstone with fossil trees clearly overlaid by the cretaceous strata, the Pondicherry district, so that it cannot be younger than Jurassic," and further on:—"The cretaceous strata seem to have been quite undisturbed; they rest horizontally upon the oolitic sandstones of Trivictory, and upon the crystalline schists in other localities," and as these sandstones coin-

* No. 11 for 1857.

cided with an opinion on the age of the sandstones of Central India previously put forward, by Mr. Hislop,* the question seemed so far decided, viz. that the Trivictory sandstones were older than the cretaceous epoch and in all probability Jurassic.

In December last, the Madras party of the Geological Survey of India, commenced the detailed survey of the South Arcot and Trichinopoly Districts, and proceeded in the first place to examine the relations of the Trivictory and Verdoor sandstones in order to gain a distinct knowledge of their relative superposition before tracing out those rocks into other portions of the district. This portion of the work has been now completed, and the result is that the relative superposition of the beds in question proves to be precisely the reverse of that which Mr. Schlagentweit imagined to be the case. As this is a subject of somewhat critical distinction, and will in all probability prove of great importance to the true comprehension of the geology of a large portion of India, it is advisable to state in some detail the grounds upon which the above determination has been arrived at.

Immediately to the east of the village of Trivictory and stretching thence for a distance, of about half a mile in the direction of Verdoor and Pondicherry, are a series of small irregular sandstone bluffs much eroded by the denuding action of fresh water, and forming a prominent and striking feature in the surrounding landscape. On near inspection these bluffs are seen to be composed of coarse sandstones much false-bedded and irregularly banded with brilliant tints of lilac, orange, pink, white, &c.; they are rarely conglomeritic, considerable quantities of silicified wood are scattered over the surface of the ground, and here and there large masses of the same are seen protruding from the sandstone *in situ*. The sandstones are of no great thickness, for so far as can be judged they appear to be nearly horizontal and on their western boundary or towards the village of Trivictory, are seen in several places resting immediately on the crystalline rocks, which everywhere form the bottom rock of the country. The small bluff which bounds this elevated patch of sandstones, is very conspicuous both in its west-

* Quarterly Journal Geological Society of London, Vol. XI. p. 457.

ern and eastern limits in the neighbourhood of Trivictory, but to the north it dies away gradually, and the sandstones themselves disappear beneath a thick covering of soil, and are only occasionally visible when laid bare in the beds of the small water-courses. A thick deposit of sandy soil laps in a similar manner, round the foot of the eastern bluffs and conceals the underlying rock, except in the immediate neighbourhood of the river, where gneiss is seen *in situ*, and from its position, is evidently cropping out from beneath the sandstones. Cretaceous rocks resembling those at Verdoor are nowhere seen in contact with these beds except that at one point an isolated block of yellow sandstone containing cretaceous fossils, which from its appearance, I judge to have been recently dug up, from the soil on the spot on which it rests, is seen at what appears to be the boundary of the sandstones. No cretaceous rocks whatever are here seen in place.

There is great reason to believe, judging from the color and appearance of the soil* that from Trivictory, the true-bearing sandstones extend for some distance to the East and occupy a portion of the cretaceous rocks, as shown in the accompanying map and section, but as in the absence of any sections on any rock whatever seen *in situ* over this tract of country, it is impossible to prove the fact, we must seek elsewhere for reliable proofs of superposition, and to do this, we pass to the country between Verdoor and Pondicherry.

About two miles N. W. of Pondicherry, the Madras road ascends and passes for about three miles over a tract of elevated country, characterised by a red sandy soil, from beneath which a lateritic gravel is dug in places to metal the road. This elevated tract extends from the south east corner of the great Ootary tank, four miles west of Pondicherry to the village of Mundakuppam on the coast 10 miles north of Pondicherry and along the greater part of its boundary is terminated by a small escarpment of about 20 feet average elevation. The streams which carry off the drainage of this little plateau have cut deeply into the rocks bounding it at several places along the escarpment, and expose a variety of gneiss and

* This character, vague and unreliable as it may appear, has been found to be an excellent indication of the presence of certain rocks throughout the district.

stones and conglomerates, sometimes of a deep red color, at others mottled and banded with various colors, and containing occasionally, although rarely, large unrolled fragments of silicified wood precisely similar to those found at Trivicary.

To the east of the Oosatary tank the sandstones are especially well exposed in the *gullies* cut by several small streams flowing down to the tank, and may be seen at several places, resting on finely grained soft yellow sandstones which contain in some places a few very imperfect but recognizable cretaceous fossils and are proved to be the upper beds (as here seen) of the cretaceous series. It is therefore beyond the remnant of a doubt that the coarse sandstones of Pondicherry, are newer than the cretaceous beds.*

The next step in the investigation is to trace out the identity of these beds, and the coarse grits at Trivicary. In ascertaining this point the greatest care has been exercised, and the two areas were repeatedly and alternately visited in order to compare thoroughly the two series. The results of this investigation are:—

1st. The sandstones at Trivicary, and those at the Oosatary tank present precisely the same lithologic characters. They are both very coarse ferruginous grits containing minute particles of what appears to be kaolin interspersed with the grains of sand and giving them a white speckled appearance. In both localities, they are very variable in color, but the most characteristic varieties both at Trivicary and the tank are variegated, with irregular bands of lilac, pink, and yellow, frequently very brilliant in color. They are both occasionally somewhat conglomeritic especially towards the bottom, and in their false bedding, their irregular segregation and all lithological characteristics, they are quite undistinguishable.

2nd. The Trivicary grits contain fossil wood in great quantity, while the Oosatary beds contain it only very sparingly, but it is in both places apparently identical, and in both cases perfectly silicified and unrolled. Moreover, that the abundance of fossil wood is a very local character, is proved by the fact, that in the evident extension of the Trivicary sandstones to the North, the fossil wood

* The extension of these sandstones to the south of Cuddalore is seen in many places resting on the cretaceous rocks very unconformably. At Verdachellum they rest on the lowest beds of the cretaceous series whereas 20 miles to the south of this, they are seen resting on beds about 3,000 feet up in the same series.

seems entirely to disappear, at the distance of about 2 miles, whereas the Oosatary beds are 8 miles distant.

3rd. Both at Trivicary and towards the coast, the sandstones form an elevated tract bounded by a small escarpment, more or less perfect. The similar developments of grits to the southward, such as those occurring at Cuddalore in the Capper Hill, and at numerous other places since visited, by the Survey are all similarly characterized. Indeed, the continuity of the Oosatary beds and those of the Capper Hill, has only been destroyed by the breaching action of the Panar and Arianacupom rivers, and the interspace is now occupied by the alluvium deposited by these rivers.

4th. Whenever throughout the district, the bottom beds of the cretaceous series have been seen, they rest immediately on the gneiss, whereas, as has been mentioned in the note p—the southern extension of the Oosatary beds rests very unconformably on the cretaceous rocks, so much so that it is easy to be comprehended, that at Trivicary they should overlap these latter, and rest also on the gneiss.

5th. From these results which have been verified by repeated examination, the only legitimate conclusion that can be drawn, although in distinct opposition to Mr. Schlagentweit's statement, is:—*that the Trivicary sandstones are identical with those of Oosatary, therefore newer than the cretaceous beds and unconformable to them*, the cretaceous rocks having been upheaved and denuded partially only at the Oosatary tank and other places, entirely at Trivicary, previous to the deposition of the tree-bearing sandstone. That Schlagentweit should have been mistaken, in his reading of the Geology of Trivicary is no more than might have happened to any one who made so very cursory an inspection of this rather difficult district as that gentleman, for it will be observed from Mr. Schlagentweit's report that in the space of one fortnight, viz. from the 24th April to the 10th March, he visited the whole of the country between Madras and Trichinopoly, and travelled thence to the Neilgherry Hills, a distance altogether of 370 miles. It is however exceedingly to be regretted that any man of acknowledged scientific attainments should make so decided a statement as that quoted from Mr. Schlagentweit's paper, especially on a point of really critical im-

portance such as the present is, unless he has fully and carefully satisfied himself of its absolute certainty. A statement so distinct as Mr. Schlagentweit's would never be questioned by any one, who had never visited the locality referred to, and how much false reasoning it may give rise to, may be seen by perusing Mr. Schlagentweit's own paper, wherein from the single observation at Trivictory, the author rests his inference of the age of the great sandstone and plant-bearing series of central India and Bengal.

It is difficult to imagine what Mr. Schlagentweit could have been thinking of that could lead him to make so positive a statement as that quoted; the cretaceous rocks, especially those of Pondicherry, differ so markedly in appearance from the tree-bearing sandstones that it is scarcely to be supposed that Mr. Schlagentweit mistook any of the upper beds of the tree-bearing grits for cretaceous rocks, and yet this seems the only possible explanation of the error, for the contour of the ground, and the dip of the beds, so far as can be made out, would rather point to a different conclusion. As Mr. Schlagentweit has however promised a detailed account of his Geological observations in India, he may possibly be able to throw some light on the cause of his mistake.

POSTSCRIPT.—The above paper was written in camp shortly after the survey of the country of which it treats, and where I had but very few works of reference at hand. I was thus unaware of a fact, which I have now great pleasure in acknowledging, viz., that the true order of superposition of the Trivictory sandstones with reference to the cretaceous rocks of Verdoor was fully known to Captain Newbold, who published his notes respecting these rocks in the Asiatic Society's Journal, Vol. XIV, and subsequently in his paper on the Geology of India, published in Vol. IX of the *Calcutta Review*, stated his views on this subject very clearly. I deem myself fortunate that an accidental delay in the publication of my paper has afforded me an opportunity of supplying a grave omission, and of doing an act of justice to one of the most philosophical and energetic of that noble band of investigators who have been the voluntary pioneers of Science in India.

III. *Notes Antiquarian and Mythical.* By M. J. WALHOUSE, Esq., C. S.

I.

THE worship paid to rough stones is a curious and widely spread feature in the ancient religions, and in the majority of its phases appears to have been connected with that phallic or lingam worship, which now confined to India, prevailed in early times throughout Southern and Western Asia, and even penetrated into Europe. It is the object of this notice to bring together some of the more remarkable indications of its existence; though in such an attempt there is always the danger of repeating what has been before presented in the many scientific publications of the day, possibly in this very Journal. None however can pretend to be acquainted with all that is, and has been published, on any particular subject, for the rest "*percant malè qui ante nos nostra dixerunt.*"

The shape in which the reproductive power is popularly typified in this country is well known; from the rude elongated stone set up under every green tree, to the massive cylinders of hewn rock, black with oil, in their celled shrines, in the *temenos* of some ancient pagoda. There is a conspicuous instance at a remarkable point where the Cauvery after running 50 miles through an almost untrodden wilderness of hills and jungle eastward from the Falls of Sivasamudram, turns south on its way to the rice-fields of Tanjore. At the bend the river spreads into a broad expanse, the banks level with the water, and from the middle of the flood a column, apparently of white smoke arises and drifts away upon the wind. This remarkable appearance is due to some deep hidden chasm into which the water falls and sends up a cloud of spray-mist: but standing, as one does, on a level with the water, no rocks or cleft are visible, and the wreath of vapour ascends, precisely like smoke, from the seemingly unbroken bosom of the stream. This spot is called—a Canarese dialect prevailing there—Hogênakallu (smoke-rock) and immediately opposite it on the eastern bank stands a hoary old pagoda round whose inner enclo-

sure is arranged a long line of 10 or 12 huge lingam stones, each in its separate cell.

Returning to the vestiges of lingam worship in very ancient times, evidence is not wanting of its prevalence under its worst aspect in Phœnicia—the scriptural Canaan—from whence it crept into Palestine itself, nay, as Mitchell has shown with the highest probability into the very Temple of Jehovah. In the account in Kings and Chronicles of the idolatries introduced by the wicked King Manasseh, he is said to have “set a carved image, the idol which he had made, in the house of God,” and “a graven image of the grove that he had made in the house,” &c. In the words rendered “carved images” the learned Bate and Porkhurst both unite in seeing an idol dedicated to licentious rites, the same with that image stigmatised as “provoking to jealousy” which Ezekiel saw defiling the gate of the altar, and closely connected with that idol the setting up of which induced Asa to depose the queen-mother Maachah. The nature of the idols as not directly mentioned, the Scriptures preserving a marked silence on this point throughout their record of the abominations introduced by the idolatrous Jewish monarchs, but may be at once inferred when it is known that the radical letters of the name of the idol set up by Maachah present the identical word *phallus*, which, without meaning in Greek, becomes plain enough when referred to its Hebrew derivation. The punishment inflicted by the righteous Asa on his own mother shows his sense of her enormity, and the haste made by Manasseh to remove that particular image from the house of God, when chastisement befell him, manifests the deep guilt of its introduction there.

In the second or Mosaic covenant, under which the Jewish polity was finally consolidated, it is written “Thou shalt not plant thee a grove of any trees near unto the altar of the Lord thy God, which thou shalt make thee: neither shalt thou set thee up any image (pillar) which the Lord thy God hateth.” (Deut. xvi, 21, 22.) Elsewhere in the first or Divine covenant, and throughout the Prophets, the erection of “groves” and “statues” is undeviatingly denounced as the most offensive form of Canaanitish idolatries. When in addition to the “graven image of the grove” set up by

Manasseh, we recal Josiah’s “bringing out the grove from the house of the Lord without Jerusalem, unto the brook Kidron, and stamping it small to powder,” it is plain that in these and several other passages, to be intelligible, some other meaning must be attached to the word rendered “grove.” That word in the original is Ashera, and Gesenius thinks that wherever it occurs it signifies an idol, though Porkhurst from the expression ‘plant’ and ‘trees’ is of opinion that in the above quoted prohibition at least a grove must be meant. As has been observed, however, the word translated *trees* is a noun singular, and the command may be understood as forbidding to set up an Ashera of any kind of wood (compare Isaiah xlv, 14 to 19.) The Asherim were nearly always connected with certain pillars, mistranslated statues in the authorised version; it is not necessary to go into the evidence for believing these pillars to have been of a most abominable character, heightened probably by a revolting addition; it is enough to point out that the setting up of the Asherim or the pillars, usually the two together, is invariably denounced as the deadliest crime of the apostate Kings, whether of Israel or Judah. Against them the indignation of the Prophets burnt hottest, and the express commands to break and hew them down marked them as the particular objects of divine wrath. (Exod. xxxiv. 13. Deut. vii. 5.) On the nature and worship of these pillars and the Ashera idol there is no direct testimony, but when we find Herodotus declining to enter into particulars of the rites of the country from whence they were derived on account of the pain and loathing it would cause him, and call to mind some of the Jewish laws directed against the practices of the Canaanitish temples, it is easy to conjecture the reason of the guarded silence maintained by Scripture on the point. Enough that there are good grounds to conclude that the Ashera rites included lingam worship in its grossest form and with its most polluting ceremonies. The very tradition has now disappeared from that land, whereas there is weighty reason to think, it profaned in its worst shape the very house of God; so too may it pass away from the regions where it lingers latest.

In succeeding times the signification of the lingam emblem appears to have become forgotten or obscured, as in some degree it VOL. XX. O. S. VOL. IV. N. 3.

is in India.* Tacitus in his Histories (II. 3) describing the temple of Venus in Cyprus says, "the image of the goddess is not in human shape, but an elongated circumference, broader at base and tapering in girth upwards: its meaning obscure." And Maximus Tyrius in his 38th Essay writes "The Paphions adore Aphrodite, but her image you could liken to nothing but a white pyramid." Taken in connection with aphrodisiac worship what could these have been but lingams? Herodian in his 5th book thus describes the image of the Sun at Emesa, called by the Phœnicians *Elaïagabâlom*, and worshipped not only by them but by the neighbouring kings and satraps. "It has no form of a statue, but is a very large stone, round at bottom, and tapering sharply conelike, its colour black; it is said to have fallen from the sky, and to be an unformed image of the sun." Probably a meteorite, uniting both solar and phallic worship—rites, as could be largely shown, almost necessarily running into one another. In other instances when we find Lucian in his *Pseudomantis* saying of a religious fanatic "that if he should anywhere see a stone anointed with oil or crowned with flowers, he would straight fall down and worship it for a long time, beseeching good luck of it," and Theophrastus in his characteristics of a superstitious man describing him "on passing by an anointed stone in the cross-roads, as taking oil from a little flask, falling on his knees and adoring it," we have only to walk along any Indian road to perceive the kind of stones referred to, anointed and garlanded the same as those of classic days.† The stone said to have been devoured by Saturn in mistake for Jupiter and relat-

* It is noteworthy that whereas in India the *lingam* assumes a conventional and inoffensive shape; the *phallus* in Asia Minor and the antique world generally was in the grossest and most objectionable form. Hence though the latter was familiar to the ancients, the former when it occurred was misunderstood by or unintelligible to them. It should not be overlooked that the phallic type in its most exaggerated form, was especially connected with Bacchus as conqueror of India. Witness the two colossal phalli, each 300 fathoms high, placed by Bacchus in the vestibule of the great Syrian temple, after his return from his Indian expedition. (Lucian, de Syria Deâ.)—In that most prodigious of recorded processions, the great Bacchic pomp celebrated by Ptolemy of Alexandria, we read of a golden phallus 120 cubits high, crowned by a bright golden star 6 feet round. (Athenæus, Lib. V.)

† A friend writes that in the Kunawur Province and high Himalayan villages a stone is set up as a pillar in the fields, its centre and top smeared with white wash, and the top marked with five finger-marks of red ochre; on this flowers are offered for the prosperity of the field. So too in Southern India the white-washed splinter of stone, tipped with red, may everywhere be seen placed under a tree in fields or gardens, crowned with a few flowers.

ed by Pausanias to be placed in the temple at Delphi, and anointed daily with oil, seems very like a lingam. The practice of anointing stones with oil dates from the days of the patriarchs, and is no doubt the cause why in most instances sacred stones are described as black. Porphyry informs us that the Deity was represented as a black stone as being of obscure and inscrutable nature. The ancient Arabians, says Maximus Tyrius in the above cited Essay, "Worship I know not whom, but the image I saw was a quadrangular stone," from Suidas we further learn it was black, and is evidently the same meteoric stone now preserved in the Caaba at Mecca.‡ The chief idol of the Germanic tribes, the Hermansaul, appears to have been at first a tall black stone. In Gladwin's *Clyeen Akbari* is mentioned a pillar of black stone, octagonal, and 50 cubits high before the gate of the Temple of the Sun at Jaganath. A good Mussulman must needs be a bad mythologist, but it is hard to conjecture what could have led the Emperor to see a sun-temple at Jaganath. Hindu fanes do not readily change, and nothing of the sort can be gathered from an account of Puri and Jaganath published some years ago in English by an intelligent native. Were it so, there would be a remarkable coincidence between this and the Phœnician sun-pillar the *Elaïagabâlom*. Captain Hamilton, apparently referring to the same object, describes an idol at Jaganath as a huge black pyramidal stone, (it must exist there now, qu. how is it regarded?) Similar was the-Siamese *Sommonocodom*. In Masson's *Travels* the idol of the mysterious *Sia-posh* of Central Asia is affirmed to be "an erect image of black or dark coloured stone the size of a man." The aboriginal tribes of Rajmahal worship a black stone in an enclosure.

The foregoing instances give evidence of the wide diffusion in ancient as well as in recent times of a black stone worship in which the symbol, nearly always of a peculiar shape, appears to have been, more or less openly, an emblem of reproduction. In some cases the signification may have become obscured, but that

‡ Hardly less remarkable have been the fortunes of another black stone, that on which the King of Ireland was crowned, called the *Stone of Destiny*; if the coronation was auspicious it emitted a clear sound. This paradiad or national talisman, was afterwards brought to Scone, and thence carried to Westminster, and placed under one old coronation chair, where it still remains.

such was generally the original meaning can be as little doubtful as that the May-day dances and poles in England are a relict of the phallic rites of Pagan times. Setting aside the Druidical upright stones, generally sepulchral, and the figured or scripted stones, so perplexing to antiquaries in Scotland and elsewhere, there seems to have been a tendency in primæval races to deify mere rough stones or at least to choose them as symbols of their gods. Even in the sacred writings Jehovah is emphatically called the Stone of Israel—the Rock, (Gen. xlix. 24, Deut. xxxii. 4, 30, 31,) and Jacob called the stone he erected at Shalem El elohe Israel—the God of Israel, (compare Exod. xvii. 15,) but these plainly referred to the idea of strength and steadfastness. The Alexandrine Chronicle relates that the Assyrians first set up a rude pillar and worshipped it as a god, and Pausanias, expressly affirms that in the most ancient times amongst the Greeks rough stones (*ἀργεῖς λίθοι*) were revered instead of images. The same author mentions that Hercules was represented at Hyetta by a rude stone according to ancient usage. So was Juno at Samos, and even the Graces at Orchemenos. The ancient Laplanders worshipped rough stones, called Seitch, and the adoration paid to the same objects formed a principal feature in the religion of the Arabians before Mahommed. Eusebius says the Earth was symbolised by a cylindrical stone, and Mr. Masson reports that in the temple dedicated to the goddess at the foot of the Kah Assa Mahi (Hill of the Great Mother, i. e. Nature,—“Magna Mater.”) Near Cabul “a huge stone is the object of adoration.” Michelet sees traces of stone-worship in France in the numerous towns bearing the name of Pierre Fiche, i. e. a rough unwrought stone simply fixed in the ground like a post.

It is not easy to penetrate the idea that led so many people in such various countries, periods and stages of development, to select rude stones, rather than other natural objects as emblems of their religious conceptions. The sentiment is conceivable that deified the sun, the heavenly bodies, the cow, rivers, &c. and a striking aerolite might here and there rivet the awe and worship of the surrounding tribes, but it is not so clear why common shapeless stones should so generally have been elevated to divine honours.

Possibly a remnant of the old chaotic fetish worship of half-conscious man; then as the mind opens, the first abstract idea that develops itself in primæval races is of that reproductive energy of Nature which, more or less veiled, is the ultimate idea and principle underlying all heathen systems and deities. And of this the earliest and rudest expression would be some form of the lingam, most readily typified by the stones scattered around. But the whole assumption may be questioned, and is beset with difficulty and incoherencies.

II.

In the Reverend W. Taylor's "Oriental Historical Manuscripts" Vol. I. pp. 112-114, there is an account from an old Tamil Chronicle of a contest held between the Samanal or Buddhists and the Brahmins, in which both parties submit their respective claims to orthodoxy to this ordeal, viz., that each writing a prayer or charm upon palm leaves, and casting the same into a river, that side whose leaves should ascend against the stream should be declared to hold the true faith. Upon trial every leaf of the Samanals was carried down with the stream, and those of the Brahmins alone ascended. The former, 8,000 in number, notwithstanding the miracle, refusing to be convinced or accept the Saiva faith, "with obstinate prejudice" (saith the Brahmin chronicler) "put themselves on the impaling stakes," the penalty previously agreed upon for the losing party. Mr. Taylor in his notes at pages 182-183, states that the impalement of this army of martyrs is unquestionably a historical fact, and commemorated to this day by a mimic representation. He is further of opinion that Buddhists, Samanals, and Jainas are terms denoting substantially the same sect. It is upon the name Samanal (*சமனல்*) that a few remarks occur. Adverting to Sarmana Cardama, the son of Mahiman, a form of Siva, identified with Gantama or Buddha, and the same with the Siamese Sommono Kodom, Mr. Taylor conjectures Sommono and Sarmana to be the origin of the term Samanals, and dialective variations of Sarvamanu, an universal or very illustrious sage. Porphyry makes particular mention in his work *De Abstinentiâ* (Lib. iv. cap. 17) of a sect called Samandans, who appear to have been great travellers and proselytisers, and to have had a kind of

monastic discipline. Faber has this passage. "Both Cyril and Clemens Alexandrinus agree in telling us that the Samandans were the sacerdotal order both in Bactria and Persia; but the Samandans were the priests of Saman or Buddha, and it is well known that the sacerdotal class of Bactria and Persia were the Magi: therefore the Samandans and the Magi must have been the same, and consequently Buddha, or Maga, or Saman must have been venerated in those regions." Pagan Idolatry, B. iv. chap. 5. To this conclusion (so notably Faberian in hunting a verbal resemblance) that the Magi and Buddhists were the same, few would probably now assent. With equal reason might it be asserted that the rude Shaman priests and tumultuous Shamanite ceremonies of Northern Asia, which have been shown by Mr. Caldwell, not merely to resemble, but to be absolutely identical with, the popular devil-worship of the rural Tamil castes, are the same with the philosophic Samanal Buddhists. But with respect to the names Samanal, Saman, the following passage from M. Adolphe Pictet on the Cabiri may be adduced, carefully abstaining however from entering far into a subject so obscured by mysticism. "He in whom this (the Cabiric) system finds its unity is Samhan, the judge of souls, who punishes them by sending them back on the earth or to hell. He is Master of Death, on the eve of the 1st November he judges the souls of those who had died in the preceding year: that day still goes by the name of Samhan's night. Samhan is the centre of the association of the Cabiri: *sam, sum, cum*, imply union in a multitude of languages."* Turning to Rottler's Tamil Dictionary we find *sub voce* "Saman, the regent of death, same as Yama," and Sami or Avhat is the deified sage or god of the Samanar or Buddhists. This coincidence, functional as well as verbal, is almost too strong to be accidental. No theory even has sought to establish any connection between the mysterious worship of "the great gods of Samothrace," and the Buddhistic system. If, however, Pictet and also Schelling be right, in interpreting the Cabiric theology as a worship of the primal powers of nature, ascending

* The derivation from "sam" union, certainly seems preferable to Mr. Taylor's derivation from Sommono (unless that too be from the same root.) It is noticeable that in the account of the contest the name of the Brahman (in truth Siva in disguise) who defeated the Samanal is Sampanton, i. e. "agreement," upon which meaning of the name there is an equivocal in the original story.

through a series of stages and developments up to the great central creative unity, and so the reverse of a system of emanations, it includes one main point of agreement with Buddhism, a capital distinction between which and Brahmanism is, that whereas the latter is always inclined to the idea of avatars or divinities descending and becoming visible in earthly forms, so Buddhism contrariwise elevates its sages and heroes through successive ascending states to one of identification with pure deity. Buddhism too has always been an eminently migratory creed; Porphyry notices the wandering propensities of its professors, and in this it again coincides with the Cabiric divinities, Hercules, Jason, Ceneas, Dido, and other mythical personages, all notable wanderers of old. Here are lesser likenesses, besides that crowning one of identity of name and function between the heads of the respective systems. All may be mistake; but when one recalls the unexpected agreements, strange coincidences, and unaccountable correspondences with various Buddhist peculiarities, that sometimes essential, sometimes trivial, crop out in so many far separated countries, creeds, and ages, one is almost disposed to listen to those keen partizans who would extend the sway of Buddha from uttermost east to farthest west—to Britain and Ireland; not scrupling to claim even Stonehenge as a Buddhist temple. Shadowy glimpses in "the dim backward and abyss of time" of a period in unrecorded antiquity when Buddhism formed a vast, primitive, universally prevailing system, into which, at or after the historic epoch, Brahmanism in the east and manifold mythological religions in the west, broke and eventually overthrew. Fading for ever from the western world, in which the vestiges of its predominance only perplex, re-appearing at times in India, always to be subdued, but lingering in some of the adjacent countries, the antique faith in its unapproached strongholds of the remotest east, still counts its myriads of followers, outnumbering those of any other creed. One is sometimes tempted to speculations like those, were there any solid basis to build them on.

III.

Analogies have been traced between Asiatic mythologies and the religion established in ancient Scandinavia by Odin, who is

supposed by some to have led his Asen—Asian or Scythian hordes—from the regions between the Euxine and Caspian to Northern Europe, but the Chinese mythology has generally appeared to stand alone and unconnected. There is, however, one striking myth common to Scandinavian and Chinese traditions. According to the Woo-yun-leih-nien-ke, as given in Gutzlaff's "China Opened," Vol. I. p. 299, "an original ethereal principle by its vapour impregnated matter, so as to produce Heaven and Earth, and the Yong and Yin, and having become pregnant, Pivankoo the first of this race was born, when he died the hair of his body was metamorphosed into wind and clouds, his voice into thunder, his left eye became the sun, the right the moon, the various members of his body the four poles and five high mountains, his blood and fluids rivers and streams: his sinews and arteries were changed into land, the hair into stars, the teeth and bones into minerals, and the vermin adhering to the body were transformed into men." This myth is identical with the story in the Edda of the giant Ymir, a personification of chaos or unformed primal matter who was born from the living drops that were formed from the melting of the icy vapours exhaled from the abyss. Whilst he slept a man and a woman sprang from an extraordinary sweat under his left arm. Odin and his brethren slew him, and formed the universe from his body precisely as in the Chinese legend: his skull became the vault of heaven, his brains were tossed up and became the clouds, his teeth and bones formed the rocks and hills, his blood and juices the sea and rivers, his flesh the earth, &c. It is remarkable that so peculiar a myth should appear in the cosmogonies of such very widely separated and dissimilar countries as China and Scandinavia, exactly corresponding in both, and apparently peculiar to them.

IV.

In Herr von Werne's adventurous voyage up the White Nile, the furthest region he attained was the country of the Bori in 4° North latitude; he describes it as inhabited by "an exceedingly numerous nation of tall and powerful build, the men six and a half to seven French feet in height, equal to 7 and 7½ English feet,—colossal figures, admirably proportioned and magnificently limbed. black, but with nothing of the usual Negro character in their

features." Rumours of this giant race have floated down from the remotest times. They are the famous Ethiopians most blameless of mortals, whose banquets, as Homer reports, were graced by the presence of the Olympian gods themselves, and who five centuries after were spoken of by Herodotus as "the tallest and most beautiful of the human race." They were the "mighty men," and "Sabæans, men of stature" of the Hebrew prophets, and it was their king Zerah who marched against Solomon's great-grandson Asa with a thousand thousand men and three hundred chariots.* Later still Agatharchides, and after him Diodorus Siculus, speak of them under the same appellation as that used by the German explorer of the present day, namely, the Megabari—so unchangeable are primitive names. Scripture and ancient authors abound with testimonies to the power, civilization, and commerce of the Ethiopians who founded Meroë, and dwelt in the countries about the upper streams of the Nile, and who, as Egyptian arts and civilization certainly descended the Nile-valley, may perhaps have been the progenitors of the wonderful monarchy of the Pharaohs. The origin of this people which in the remotest ages developed arts and commerce in the heart of Africa, whither we are only now beginning to penetrate, has awakened much speculation, and there has been pointed to as their probable cradle. Herodotus favours the story of their Indian origin, and there are a few traditional testimonies to it, which, though not conclusive, may be brought forward in the absence of more weighty proof, and have also been not generally noticed. In the life of that philosophical character Apollonius Tymanus, a book of little authority or value, except as a repository of travellers' stories and legends current in antiquity, the philosopher, after reaching India, and when conversing with the Brahmins, is told the following story by Jarchas, their chief. "There was a time when the Ethiopians inhabited those regions, far in truth they are an ancient race, but Ethiopia was then unknown. Egypt then commenced at Meroë and the Cataracts and terminated at the mouth of the Nile. At that time the Ethiopians dwelt in those countries under the rule of king Ganges; the earth was fruitful, and they were in favour with the gods. But they mur-

dered the aforesaid king, after which they were held impure by the other Indians, and the earth refused to let them abide longer in these regions, for she destroyed all seeds that were sown, refused nourishment to the flocks and cattle, caused abortions, and if a town was commenced, she sank and overthrew the houses. Moreover the shade of Ganges followed them whithersoever they went, driving them in terror, and they were not freed from this curse till they had buried his murderers alive. Now Ganges was ten cubits tall, and the goodliest man ever seen, and the son of the river Ganges. Wherefore as his father would sometimes inundate India, he turned his course towards the Red Sea and caused him to become propitious to the land of India. Hence the earth returned him abundance when he was alive but avenged his murder. He built 60 cities, the most splendid in the country, and also drove back the Scythians, who had marched an army over the Caucasus into these regions; and he buried seven adamantine swords in the ground to the end that no danger or panic should ever invade this country." This seems a very Indian legend; its very indistinctness smacks of a Hindu origin. Some great religious feud and consequent emigration* may be veiled by it. The great stature of Ganges should not be lost sight of in connection with the national tallness of the Ethiopians, ancient and modern: the legend also contains one of the few direct allusions to a Scythian invasion of India. Again

* The Puranas have a tradition of the migration of Charma or Ham, with his family and followers, driven from his country by the rage of Noah; that having quitted their own land they arrived after a toilsome journey on the banks of the Nile. Where by command of the goddess Padma Devi, Charma and his associates erected a pyramid in her honour. There is another migration spoken of in the Puranas, the result of a general war between the worshippers of Vishnu and Iswara, under which names water and fire were respectively typified (in Ireland Osar—Ishwara was the god who kindles fire). This is said to have commenced in India in the earliest ages, and thence to have spread over the whole world. In this struggle the Yojinjes—Earth-born—were worsted and by the direct interposition of the deity whose worship they opposed, were compelled to quit the country. These also took refuge in Egypt carrying with them the ground-work of the Egyptian scheme of mythology."—*Fraser's Magazine*, No. 287, p. 323.

The Arabs themselves call their numerals "Aindi"—Indian. The story of the Sepoys, who prostrated themselves at the sight of the gods of Egypt, is well known. This cobra de capello with expanded hood, peculiar to India, abounds as a mortuary emblem in the tombs called Biban ul Muluk near Thebes, and in the temple at Dendera. "Abi, Awa, Galla, Nil, are African words derived from an Asiatic language." "The Shoon women tattoo their foreheads with a Gees letter (in which I am told is an ancient Egyptian symbol of the unity of the deity)" Johnson's Travels. Is it not the Hindu trident-shaped Vishnu caste-mark reversed? Sampe is an African and also Indian name of a village at this day.

subsequently in the same book the young man Nilus informs Apollonius that he had heard from his father, who was captain of the ship which the Egyptians had used to send to India, "that the Ethiopians were Indian colonists, and retained their forefather's discipline and the memory of their ancient origin." It is noteworthy too that in Syncellus' list of the Egyptian dynasties, the 8th, 9th, 10th and 11th kings of the 18th dynasty are given as a dynasty of the Ethiopian kings from the river Indus. The above references show how familiar the idea of a connection between Africa and India was in antiquity, and the general belief that India was the cradle of Ethiopian and Egyptian civilization more recently, especially since the Nineveh discoveries, Assyria seems to be preferred, but as yet without the same balance of probability. Returning for a moment to Apollonius, it is mentioned in his life that he met a man who had been wandering for 7 months amongst the mountains in the country of the Gymnosophists without obtaining absolution for a murder he had committed. The man killed by him was a descendant of the Egyptian Thamus, who had formerly laid waste the country of the Gymnosophists, because they had resisted him in introducing novelties. Can this Thamus be the Tamovatsa spoken of in the Hindu legend, and supposed by Lieutenant Wilford to be the conqueror of the Manokhonian King Timaus.

V.

The antiquity of the Eastern salutation salaam is shown by an epitaph of Meleager to be found at page 37 of Brunck's *Analecta*, Vol. I. The inscription addresses the passer-by, and concludes thus,

If thou art a Syrian say Selom, but if a Phœnician
Say Andonis, if a Greek Xaïpe.

In the Anthology "selom" is with great probability corrected into salani (σαλαμ), and no doubt allied with the Hebrew selah. "Andonis" is printed (with an asterisk) Naidos, but, like all punie words, is quite uncertain.

VI.

When divine Spenser sings

"Of God's high praise, and of his sweet love's teen"

the modern reader who frequently finds the last word in the Faery Queen and in the poetry of that epoch, on referring to the glossary, Vol. XX. O. S. Vol. IV. N. S.

short; peduncles 1-3 axillary, about half the length of the leaves, pubescent on one side, reflexed in fruit; upper sepals small, lateral ones linear, spur curved, gibbous, inner of compound petals? ligulate and completely hid in the spur, lower one large spreading; capsule glabrous, gibbous at centre containing about 12 black shining seeds—(flowers pink, stems red. There is a variety also with white flowers and colorless stems.) Teak forests 2 to 3000 feet, very abundant.

N. B.—This is a very curious species. I do not know whether to consider the long ligulate process which is entirely hid in the spur as one of the petals, or as only an appendage as in *T. viscosa* and *Anamallayensis*, vide fig. 7 and 8; in this species, however, there appears to be only 1 petal, so I am inclined to think that the ligulate process is the inner or lower petal, and the large spreading the lateral one; it has quite an antheriferous look at its apex.

7. *Impatiens viscosa*.—Erect, branched, leaves opposite ovate, long petioled, with a few harsh hairs on the nerves above, pale, and glabrous beneath, incurved bristly serrate; peduncles as long to much longer than the leaves, viscid, bearing 6-12 flowers towards the apex; lateral sepals ovate, lower one with a curved gibbous spur (in form the same as in *ligulata*) lateral of compound petals very small, lower one large; a ligulate process at the conjunction of the petals, which is hid in the lower sepal—capsule ovate, seeds numerous, matted with hair when immature, when ripe echinate. (Flowers small pink.) 3 to 5000 feet, generally only 5 or 6 inches high—in rich soil it is sometimes more than a foot high.

8. *Impatiens Anamallayensis*.—Erect, with sometimes small branches from the axils of the lower leaves, leaves opposite, long petioled, ovate, above a few hairs on the nerves, beneath pale, glabrous; (leaves of the branches alternate) peduncles axillary from nearly as long to much longer than the leaves, bearing 6-8 flowers, towards the apex, on longish pedicels, lateral of the compound petals small, lower one deeply 2 lobed, a claw at the conjunction of the petals, spur very short, straight: capsule ovate, mucronate, glabrous; seeds very hairy. (Flowers small pink.) Streams and moist places, 5 to 7000 feet.

9. *Impatiens verrucosa*.—Root bulbous, leaves radical, ovate to cordate, incurved bristly serrate, above a few hairs, below glabrous: scape 2-3 times longer than the leaves, 5-6 flowered at apex, pedicels long; upper sepals broad, vaulted over the staminal column, lateral ones small ovate; upper of compound petals large and spreading, lower deeply 2 lobed, petals with a batch of warts on their upper surface, spur nearly twice the length of flowers curved, capsule glabrous. (Flowers lilac.) Beds of streams, 7000 feet.

10. *Impatiens crenata*.—Bulbous, leaves radical, short petioled, round cordate very obtusely crenated with a bristle on each crenature, shaggy hairs on the nerves above, beneath glabrous, scape much longer than leaves, 2-3 flowered at apex, pedicels short, bracts ovate-oblong; lateral sepals small ovate, upper sepal vaulted over staminal column, margin crenated, lower sepal with a short obtuse spur, lower of compound petals deeply 2 lobed, a dense tuft of hairs on the inner surface of the petals; capsule glabrous, tapering at both ends. (Flowers white with the tuft of hairs blue.) On rocks 5000 feet—nearly allied to the next species but I think quite distinct.

11. *Impatiens Akka*.—Bulbous, leaves radical, orbicular-reniform, with cordate base, distinctly crenated, petioles longer than the leaves, scapes very long, 5-6 flowered at apex, bracts boat-shaped, lateral sepals small ovate, upper ones vaulted over the stamens, lateral of compound petals large spreading, lower deeply 2 lobed, hairy on their inner surface; lower sepal boat-shaped with a small knot-like spur, capsule oblong shining. (Flowers pure white, large.) Very abundant on rocks on the Akka mountains, 7 to 8000 feet.

12. *Impatiens tenuis*.—Bulbous, leaves radical, long petioled cordate-ovate, with lobes at the base very deep, bluntly crenated, long weak hairs on the nerves above, pale and glabrous beneath, scapes much longer than the leaves, 5-6 flowered, bracts ovate; upper sepals vaulted over the stamens; petals hairy on their inner surface, lower one deeply 2 lobed; spur short blunt and slightly bent back; capsule glabrous. (Flowers small, pink.) On rocks below falls, and in dark corners; rare, 5 to 7000 feet.

13. *Impatiens gracilis*.—Bulbous, with numerous shoots bear-

discovers that "teen" means grief, sorrow, distress. This word, though unnoticed in Mr. Caldwell's admirable Comparative Dravidian Grammar, is identical with the Tamil *Seer teen*, bearing precisely the same signification. The occurrence of the very same word in old English and old Tamil, for in both languages it is archaic, and dropt out of popular use, is something remarkable, as it is not an imitative word, and apparently referable to no common root.

IV. *The Genus Impatiens*.—Description of New Species from the Anamallay Hills. By Lieut. R. H. BADDELEY.

1. *Impatiens parvifolia*.—Herbaceous, sub-erect, branched, glabrous, leaves alternate, minute, cuneate, deeply serrated on the upper half, peduncles axillary, solitary 5-6 times longer than the leaves, with a small bract towards the apex, erect in flower, much reflexed in fruit, upper sepals small and slightly vaulted over the staminal crown, lateral ones small and pointing upwards, lower one boat-shaped without a spur, upper of compound petals, small, lower large spreading (flowers white, upper petals tinged with pink). A very curious species, with very minute leaves, it quite covers large masses of rock towards the summit of the Akka mountain at about 8000 feet elevation.

2. *Impatiens parasitica*.—Stems very succulent, often moniliform, throwing out roots, leaves crowded at the apex of stem, glabrous, long-petioled, ovate, acute, crenate, serrate with incurved bristles; peduncles axillary, short, bearing 2 (rarely 1) very long pedicels; upper sepals with a foliaceous crest, lateral ones linear, acute, lower one saccate with spur-like point; upper of compound petals much smaller than the lower one, both hid in the saccate sepal—capsule glabrous, ovate, gibbous: seeds numerous, small. On trees, from 5000 to 6500 feet; (upper sepals and petals green, saccate sepal dark red,) the flowers vary in size.

3. *Impatiens Tangachee*.—Herbaceous, sub-procumbent, glabrous, leaves alternate, sub-verticelled, acuminate, deeply ser-

rated; peduncles axillary, 2-3 times longer than leaves, 4-8 flowered towards apex; bracts large boat-shaped; pedicels erect in flower, slightly reflexed in fruit, upper sepals large, lateral ones ovate pointed, spur long tapering, lateral of compound petals, about half the size of the lower ones, with a mucro, capsule smooth, gibbous, seeds numerous, very small (flowers pink.) In beds of streams below the Tangachee mally, 5500 feet.

4. *Impatiens elegans*.—Herbaceous, erect, often throwing out roots from the joints, somewhat branched; leaves alternate, on very long petioles, ovate, acuminate, crenate with incurved bristles, above a few rigid hairs on the nerves, beneath pale glabrous, peduncles axillary shorter than petiole, 3 (rarely 4-5) flowered at apex, bracts ovate-lanceolate, acuminate; upper sepals broad, ovate, flat, with a green ridge at their back; lateral ones ovate with a green ridge ending in an acumen; lower one boat-shaped without a spur; upper of compound petals very small incurved and vaulted over the staminal crown, lower ones large spreading; capsule glabrous, seeds hairy—(flowers pale rose with a dark eye) the flowers are much larger at the higher elevations at which the plant grows. Banks of streams 2500 to 4500 feet, a very elegant species.

5. *Impatiens Wightiana*.—Suffrutescent, erect, branched; leaves alternate, narrow-lanceolate, acuminate, incurved, bristly serrate, above a few hairs on the nerves, below glabrous; petioles very long, with long pedicelled glands at their apex; peduncles axillary, solitary a little longer than petioles, racemed nearly their whole length; upper sepals with a green ridge at their back, lateral ones small, lower one ventricose with a short incurved spur; upper of compound petal very small, lower ones very long and narrow, pedicels in fruit horizontal, bracts small ovate. Capsule with about 5 seeds, seeds slightly hairy. (Flowers white with the upper sepals and lateral petals speckled with pink.) Banks of the Torcadob river, 4500 feet.

6. *Impatiens ligulata*.—Erect, herbaceous, much branched, stems glabrous—leaves opposite, linear, lanceolate, mucronate, often slightly cordate at base, remotely bristle toothed, above minute harsh pubescence, below glabrous and glaucous, petioles very

ing minute leaves; leaves radical, oval to suborbicular with cordate base, 7 nerved, glabrous; pale beneath, with very small bristly serratures, petioles very long, scape much longer than leaves, flowers numerous, long pedicelled; bracts ovate, acuminate; upper sepals vaulted over the stamina, lateral ones small; lower of compound petals broad cuneate, larger than the lateral one, entire; spur curved tapering, nearly twice the length of the flower. (Flowers large, pale lilac.) In streama, 5000 feet. This is the only one that I have met with radical leaves and an entire lower petal.

Synopsis of the Peninsular species of the Genus Impatiens.

LEAVES ALTERNATE.

LOCALITIES.

Peduncles axillary, 1 flowered.

Lower sepal spurless.

Pedicels and sepals covered

with rusty pubescence *I. scabriuscula*.

Sepals glabrous, flowers minute. *I. pendula*.

Leaves minute, peduncles very

long *I. parvifolia* ... Anamallay Hills,

Lower sepal spurred. [8000 feet.]

Suffruticose.

Lateral sepals and spur very

hairy, upper of compound

petals the largest. *I. Muirsonii* ... Nalgherry Hills,

Lores of compound petals overlapping each other, upper

sepals emarginate at their

conjunction *I. albida* Courtallum, Pulney

Hills, 4500 feet.

Petioles bearing hooked glands,

upper sepals larger than petals

..... *I. floribunda* ... Shevagherry Hills.

Herbaceous.

Spur hairy, double the length

of petals *I. dasysperma* ... Pulney Hills, Ana-

mallay, Courtallum 3 to 4000 ft.

Upper sepals and capsule tomentose *I. Balsamina* ... Plains Malabar, Anamallay, &c.

Lower of compound petals narrow cuspidate *I. cuspidata* ... Nalgherries, Kota-gherry.

Spur straight, shorter than flowers, capsule pubescent. *I. Mysorensis* ... Mysore.

Peduncles very short bearing 2 (rarely 1) long pedicels.

Lateral sepals, large pendulous *I. auriculata* ... Courtallum on trees.

Lateral sepals small.

Upper of compound petals concealed under sepal *I. viridiflora* ...

Compound petals both concealed in saccate sepal *I. parvifolia* ... Anamallay on trees, 5 to 6000 feet.

Peduncles bearing several pedicels towards apex.

Herbaceous.

Peduncles viscid.

Spur long, tapering, flowers large *I. viscida* ... Pulney Hills, 7000

Spur short, flowers small *I. Gonghi* ... Nalgherries (Pydarah.)

Peduncles not viscid.

Spur ventricose, hooked *I. uncinata* ... Courtallum.

Spur small, incurved *I. campanulata* ... Palney and Anamallay, 4 to 7000 feet.

Spur long tapering, upper of compd. petals with a mucro. *I. Tungdohes* ... Anamallay, 5500

Upper of compound petals very small incurved and vaulted over staminal column.

Spur longer than petals, incurved *I. cordata* ... Shevagherry Hills.

Spur none *I. elegans* ... Anamallay, 2500 to 4500 feet.

Suffruticose.

Spur very long tapering, conical, flowers very large *I. grandis* . . . Courtallum, Shevagherries 4000 ft.

Spur longer than flowers, lower of compound petals pointed downwards *I. fruticosa* . . . Neilgherries (Coonoor.)
Parasitic on trees or on rocks, lower sepal saccate with spur like point *I. Jerdonia* . . . Neilgherries (Sisparah ghat.)

Peduncles racemed nearly their whole length.

Upper sepals shorter than the lateral ones, spur long tapering *I. maculata* . . . Anamallay 4500, Neilgherries.

Upper sepals much larger than the lateral ones, spur with swollen point *I. phanicea* . . . Pulnies 7000 feet.

Lower petal narrow and very long, spur very small *I. Wightiana* . . . Anamallay 4500 ft.

LEAVES OPPOSITE.

Peduncles axillary 1 flowered.

Lower sepal without a spur.

Pedicels pubescent, gibbous [camund.
sepal glabrous *I. inconspicua* . . . Neilgherries (Oota-

Pedicels and saccate sepal vil-
lous, flowers large *I. rufescens* . . . Neilgherries (Oota-

Pedicels and saccate sepal gla-
brous, flowers minute *I. filiformis* . . . Anamallay 8 to
8000 feet.

Lower sepal cucullate with spur like point.

Flowers very transparent, pedicels not $\frac{1}{2}$ length of leaves. *I. oppositifolia* . . . Anamallay 3500 to
to 5000 ft. Paul-
ghat jungles.

