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SMITHSONIAN

CONTRIBUTIONS TO KNOWLEDGE.

VOL. X.



EVERY MAN IS A VALUABLE MEMBER OF SOCIETY, WHO, BY HIS OBSERVATIONS, RESEARCHES, AND EXPERIMENTS, PROCURES
KNOWLEDGE FOR MEN.—SMITHSON.

CITY OF WASHINGTON:
PUBLISHED BY THE SMITHSONIAN INSTITUTION.

MDCCCLVIII.



X

ADVERTISEMENT.

THIS volume forms the tenth of a series, composed of original memoirs on different branches of knowledge, published at the expense, and under the direction, of the Smithsonian Institution. The publication of this series forms part of a general plan adopted for carrying into effect the benevolent intentions of JAMES SMITHSON, Esq., of England. This gentleman left his property in trust to the United States of America, to found, at Washington, an institution which should bear his own name, and have for its objects the "*increase and diffusion of knowledge among men.*" This trust was accepted by the Government of the United States, and an Act of Congress was passed August 10, 1846, constituting the President and the other principal executive officers of the general government, the Chief Justice of the Supreme Court, the Mayor of Washington, and such other persons as they might elect honorary members, an establishment under the name of the "SMITHSONIAN INSTITUTION FOR THE INCREASE AND DIFFUSION OF KNOWLEDGE AMONG MEN." The members and honorary members of this establishment are to hold stated and special meetings for the supervision of the affairs of the Institution, and for the advice and instruction of a Board of Regents, to whom the financial and other affairs are entrusted.

The Board of Regents consists of three members *ex officio* of the establishment, namely, the Vice-President of the United States, the Chief Justice of the Supreme Court, and the Mayor of Washington, together with twelve other members, three of whom are appointed by the Senate from its own body, three by the House of Representatives from its members, and six persons appointed by a joint resolution of both houses. To this Board is given the power of electing a Secretary and other officers, for conducting the active operations of the Institution.

To carry into effect the purposes of the testator, the plan of organization should evidently embrace two objects: one, the increase of knowledge by the addition of new truths to the existing stock; the other, the diffusion of knowledge, thus increased, among men. No restriction is made in favor of any kind of knowledge; and, hence, each branch is entitled to, and should receive, a share of attention.

The Act of Congress, establishing the Institution, directs, as a part of the plan of organization, the formation of a Library, a Museum, and a Gallery of Art, together with provisions for physical research and popular lectures, while it leaves to the Regents the power of adopting such other parts of an organization as they may deem best suited to promote the objects of the bequest.

After much deliberation, the Regents resolved to divide the annual income into two equal parts—one part to be devoted to the increase and diffusion of knowledge by means of original research and publications—the other half of the income to be applied in accordance with the requirements of the Act of Congress, to the gradual formation of a Library, a Museum, and a Gallery of Art.

The following are the details of the parts of the general plan of organization provisionally adopted at the meeting of the Regents, Dec. 8, 1847.

DETAILS OF THE FIRST PART OF THE PLAN.

I. TO INCREASE KNOWLEDGE.—*It is proposed to stimulate research, by offering rewards for original memoirs on all subjects of investigation.*

1. The memoirs thus obtained, to be published in a series of volumes, in a quarto form, and entitled “Smithsonian Contributions to Knowledge.”

2. No memoir, on subjects of physical science, to be accepted for publication, which does not furnish a positive addition to human knowledge, resting on original research; and all unverified speculations to be rejected.

3. Each memoir presented to the Institution, to be submitted for examination to a commission of persons of reputation for learning in the branch to which the memoir pertains; and to be accepted for publication only in case the report of this commission is favorable.

4. The commission to be chosen by the officers of the Institution, and the name of the author, as far as practicable, concealed, unless a favorable decision be made.

5. The volumes of the memoirs to be exchanged for the Transactions of literary and scientific societies, and copies to be given to all the colleges, and principal libraries, in this country. One part of the remaining copies may be offered for sale; and the other carefully preserved, to form complete sets of the work, to supply the demand from new institutions.

6. An abstract, or popular account, of the contents of these memoirs to be given to the public, through the annual report of the Regents to Congress.

II. TO INCREASE KNOWLEDGE.—*It is also proposed to appropriate a portion of the income, annually, to special objects of research, under the direction of suitable persons.*

1. The objects, and the amount appropriated, to be recommended by counsellors of the Institution.

2. Appropriations in different years to different objects; so that, in course of time, each branch of knowledge may receive a share.

3. The results obtained from these appropriations to be published, with the memoirs before mentioned, in the volumes of the Smithsonian Contributions to Knowledge.

4. Examples of objects for which appropriations may be made:—

(1.) System of extended meteorological observations for solving the problem of American storms.

(2.) Explorations in descriptive natural history, and geological, mathematical, and topographical surveys, to collect materials for the formation of a Physical Atlas of the United States.

(3.) Solution of experimental problems, such as a new determination of the weight of the earth, of the velocity of electricity, and of light; chemical analyses of soils and plants; collection and publication of articles of science, accumulated in the offices of Government.

(4.) Institution of statistical inquiries with reference to physical, moral, and political subjects.

(5.) Historical researches, and accurate surveys of places celebrated in American history.

(6.) Ethnological researches, particularly with reference to the different races of men in North America; also explorations, and accurate surveys, of the mounds and other remains of the ancient people of our country.

I. TO DIFFUSE KNOWLEDGE.—*It is proposed to publish a series of reports, giving an account of the new discoveries in science, and of the changes made from year to year in all branches of knowledge not strictly professional.*

1. Some of these reports may be published annually, others at longer intervals, as the income of the Institution or the changes in the branches of knowledge may indicate.

2. The reports are to be prepared by collaborators, eminent in the different branches of knowledge.

3. Each collaborator to be furnished with the journals and publications, domestic and foreign, necessary to the compilation of his report; to be paid a certain sum for his labors, and to be named on the title-page of the report.

4. The reports to be published in separate parts, so that persons interested in a particular branch, can procure the parts relating to it, without purchasing the whole.

5. These reports may be presented to Congress, for partial distribution, the remaining copies to be given to literary and scientific institutions, and sold to individuals for a moderate price.

The following are some of the subjects which may be embraced in the reports:—

I. PHYSICAL CLASS.

1. Physics, including astronomy, natural philosophy, chemistry, and meteorology.
2. Natural history, including botany, zoology, geology, &c.
3. Agriculture.
4. Application of science to arts.

II. MORAL AND POLITICAL CLASS.

5. Ethnology, including particular history, comparative philology, antiquities, &c.
6. Statistics and political economy.
7. Mental and moral philosophy.
8. A survey of the political events of the world; penal reform, &c.

III. LITERATURE AND THE FINE ARTS.

9. Modern literature.
10. The fine arts, and their application to the useful arts.
11. Bibliography.
12. Obituary notices of distinguished individuals.

II. TO DIFFUSE KNOWLEDGE.—*It is proposed to publish occasionally separate treatises on subjects of general interest.*

1. These treatises may occasionally consist of valuable memoirs translated from foreign languages, or of articles prepared under the direction of the Institution, or procured by offering premiums for the best exposition of a given subject.

2. The treatises to be submitted to a commission of competent judges, previous to their publication.

DETAILS OF THE SECOND PART OF THE PLAN OF ORGANIZATION.

This part contemplates the formation of a Library, a Museum, and a Gallery of Art.

1. To carry out the plan before described, a library will be required, consisting, 1st, of a complete collection of the transactions and proceedings of all the learned societies in the world; 2d, of the more important current periodical publications, and other works necessary in preparing the periodical reports.

2. The Institution should make special collections, particularly of objects to verify its own publications. Also a collection of instruments of research in all branches of experimental science.

3. With reference to the collection of books, other than those mentioned above, catalogues of all the different libraries in the United States should be procured, in order that the valuable books first purchased may be such as are not to be found elsewhere in the United States.

4. Also catalogues of memoirs, and of books in foreign libraries, and other materials, should be collected, for rendering the Institution a centre of bibliographical knowledge, whence the student may be directed to any work which he may require.

5. It is believed that the collections in natural history will increase by donation, as rapidly as the income of the Institution can make provision for their reception; and, therefore, it will seldom be necessary to purchase any article of this kind.

6. Attempts should be made to procure for the gallery of art, casts of the most celebrated articles of ancient and modern sculpture.

7. The arts may be encouraged by providing a room, free of expense, for the exhibition of the objects of the Art-Union, and other similar societies.

8. A small appropriation should annually be made for models of antiquity, such as those of the remains of ancient temples, &c.

9. The Secretary and his assistants, during the session of Congress, will be required to illustrate new discoveries in science, and to exhibit new objects of art; distinguished individuals should also be invited to give lectures on subjects of general interest.

In accordance with the rules adopted in the programme of organization, each memoir in this volume has been favorably reported on by a Commission appointed

for its examination. It is however impossible, in most cases, to verify the statements of an author; and, therefore, neither the Commission nor the Institution can be responsible for more than the general character of a memoir.

The following rules have been adopted for the distribution of the quarto volumes of the Smithsonian Contributions:—

1. They are to be presented to all learned societies which publish Transactions, and give copies of these, in exchange, to the Institution.
2. Also, to all foreign libraries of the first class, provided they give in exchange their catalogues or other publications, or an equivalent from their duplicate volumes.
3. To all the colleges in actual operation in this country, provided they furnish, in return, meteorological observations, catalogues of their libraries and of their students, and all other publications issued by them relative to their organization and history.
4. To all States and Territories, provided there be given, in return, copies of all documents published under their authority.
5. To all incorporated public libraries in this country, not included in any of the foregoing classes, now containing more than 7000 volumes; and to smaller libraries, where a whole State or large district would be otherwise unsupplied.

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(* Deceased)

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¹ Each memoir is separately pagged and indexed.

SMITHSONIAN CONTRIBUTIONS TO KNOWLEDGE

NEREIS

BOREALI-AMERICANA :

OR,

CONTRIBUTIONS TO THE HISTORY OF THE MARINE ALGÆ
OF NORTH AMERICA.

BY

WILLIAM HENRY HARVEY, M.D., M.R.I.A., F.L.S.,

PROFESSOR OF BOTANY IN THE UNIVERSITY OF DUBLIN; HONORARY MEMBER OF THE ACADEMY OF NATURAL HISTORY, NEW YORK, ETC., ETC.

PART III.—CHLOROSPERMEÆ.

(ACCEPTED FOR PUBLICATION, SEPTEMBER, 1857.)

COMMISSION
TO WHICH THIS PAPER HAS BEEN REFERRED

DR. JOHN TORREY,
DR. ASA GRAY.

JOSEPH HENRY,
Secretary S. I.

SUB-CLASS III.

CHLOROSPERMEÆ, OR GREEN ALGÆ.

DIAGNOSIS. *Plants* almost always grass green ; rarely olivaceous, or lurid purple, still more rarely red. *Propagation* either by simple cell-division ; by the transformation of the colouring matter of the cells of the whole frond, or of some of the cells, into *zoospores* ; or rarely by ordinary *spores* developed in proper spore-cases. *Antheridia*, containing spermatozoids, have been observed in some. *Marine, or living in fresh-water streams, ponds, and ditches, or in damp situations.*

It is difficult, in a few words, to give such a diagnostic character of the Algæ included in this sub-class as shall comprise all the exceptional cases. The general *idea* of the group is that it shall contain Algæ of a herbaceous or grass green colour, propagated by zoospores, or by the transformation of some considerable portion of the whole of the endochrome into spores, without these spores being developed within proper spore-cases, distinct from the ordinary cells of the frond. In the great majority of these plants both characters are found ; but some few genera and species which agree with the rest in the dispersed fructification, or in being propagated by zoospores, are of a purple or red colour, thereby approaching the Rhodosperms in appearance ; while others are olivaceous, and thus seem to approach the Melanosperms. It does not appear to be desirable, for the mere variation in colour, to separate plants which are in other respects so closely allied as are the *Porphyra* to the *Ulee*, or the red *Palmellaceæ* to those of a green colour. It would be necessary, were we to remove these aberrant genera and species to the Rhodosperms, to construct special Orders to receive them, nor could we place these new Orders in the series of Orders as at present constructed ; but must establish for them a new division of the sub-class, which would be characterised by the absence of cystocarpic fruit and of tetraspores ; that is to say, by the absence of the fructification common to the whole of this sub-class. Thus it would appear that these purpurascant Algæ are more removed from *true* Rhodosperms, notwithstanding the red colour of their spores, than from Chlorosperms ; and consequently we retain them in this division. A graver anomaly, as it appears to me, occurs in the genera which produce *spores* of the ordinary character (not *zoospores*) contained within proper cysts. These have been removed by Endlicher and others to the Melanospermic sub-class ; and certainly they show a considerable approach to that group. But on the other hand, in the characters of their vegetation, in the structure, habit, colour, and general aspect of the frond they are so closely united to true Chlorosperms, that I am unwilling to separate them ; particularly as they do not seem to be equally nearly related to true Melanospermeæ. These exceptional genera were formerly included in *Siphonææ*, and are in this work separated under the name *Dasypleudææ*.

The Chlorosperms are decidedly the lowest or simplest in structure not only of the Algae, but of all plants. A very considerable number of them have the frond composed of a single utricle or cell, and all cell-division in such plants issues in the production of new unicellular fronds. The Orders *Diatomaceae* and *Desmidiaceae*, of which some hundreds of genera, and perhaps thousands of species are now known to Botanists, are of this character. In the whole of these, the frond consists of what may be called a bivalve cell; the primordial utricle being single while the cellular envelope is divided into two halves by a medial line. When such a cell is about to be multiplied by dividing into two, the two halves of the old cell remain unchanged, and a new growth of two new half-cells originates at each side, along the medial line. While this growth is going on, the old half-cells are gently pushed asunder, and when it is completed, a separation takes place, and two new fronds float apart, each of them composed of an old half-cell and a new growth which gradually acquires all the characters of the opposing valve. But the unicellular structure is not confined to such minute *atoms* as the *Diatomaceae*, or such imperfect organisms as the *Protococcus* and its allies. Many of the larger Chlorosperms are essentially unicellular, and in some of these the vegetable cell is found of very much larger size than in any other plants. In *Codium*, *Vaucheria*, and *Bryopsis* single cylindrical cells may be obtained several inches in length, and frequently of considerable diameter. In *Valoniæ*, saccate cells sometimes as large as a walnut and often as large as a hazel nut, are found. *Botrydium*, a little siphonaceous Alga common on damp ground in Europe, exhibits within the compass of a single branching cell all the ordinary organs of a compound vegetable, as much specialized as is possible within such narrow limits: thus, it has a descending axis or root, an ascending axis or stem, and a vesicular body, within which its spores are developed. In *Characera*, however, if the frond in that genus be really constructed by the evolution of a single cell, we have the vegetable cell assuming its highest development and attaining gigantic size. These unicellular (?) fronds are sometimes two feet in length, and excessively branched; with specialized root, stem, branches, and leaves.

The ordinary fructification of the Chlorospermæ consists of *zoospores*, or spores endowed with ciliary motion, which have already been spoken of in the General Introduction, (Part I. pp. 13-14). These are usually of very minute size, and are formed within the cells of the frond, by the transmutations of the whole cell-contents. Myriads of moving granules are thus evolved, each of which is pointed at one end, and there furnished with two or four vibratile hairs, which act like oars, and drive the granule through the water. In one instance (*Hydrodictyon*) the zoospores, whilst still retained within the walls of the mother-cell, arrange themselves into a young frond, which issues from the cell perfect in all its parts. But usually they are dispersed in the water, and swim about until they commence germination. In some cases, a solitary zoospore and that of large size, clothed all over its surface with cilia, is formed from the mass of endochrome of the parent-cell. And often, as in *Zygmenæ* and its allies, the spore is the result of the union of the matter of two cells.

Among the more interesting observations recently made on the development of these Algae, Pringsheim's memoirs on the fertilization of their spores by means of spermatozooids are specially worthy of notice. Male organs of unquestionable character have

now been discovered in several, leading to the inference that they exist in all. In some cases the spermatozoids are directly formed within the cells of the frond, from which they are dispersed in the water, and find their way to the enlarged cell in which the nucleus of the future spore, or rather *sporangium*, is contained, and which they penetrate, and effect the fertilization of the contents. In other cases there are formed within the cells of the frond and emitted into the water, solitary male-producing bodies resembling zoospores in form, but of smaller size, to which Pringsheim gives the name *androspores*. These *androspores*, after swimming freely for some time, like the zoospores, affix themselves (in *Eelopenium*) to the surface of the enlarged cell containing the female nucleus, or in its immediate neighborhood; and then develop into minute frondlets, consisting of two or three cells, the lowest of which contains endochrome, and acts as a mother-cell, while the uppermost becomes an *antheridium* in which spermatozoids are formed. After a time both the female-cell and the antheridium open at the summit; the spermatozoid is liberated and enters the aperture of the ovarian cell and fertilizes the enclosed nucleus; from which there results the large, immoveable spore characteristic of the genus. The whole process is described and its various stages elaborately figured in Pringsheim's memoir, republished in a French translation in *An. Sc. Nat.* 4th ser., vol. 5, p. 250, t. 15, to which I must refer for a fuller account. A previous memoir by the same author in *An. Sc. Nat.*, vol. 3, describes the fertilization of the spores of *Vaucheria* by an analogous process. Various memoirs have also recently appeared by Thuret, and by Derbes and Soliere, describing the process of the fertilization of the spores, and the development of the frond in other classes of the Algae; and from the large number of species which have been investigated by these excellent observers, we may perhaps be warranted in drawing the general inference, that a process of fertilization, by two opposing sexes, exists in all the Algae. It certainly exists in the Melanosperms, Rhodosperms, and in many of the inferior Chlorosperms. There is much variety, however, in the appearance of the *antheridia* in different classes; in some no spermatozoids have yet been discovered, in others they are of considerable size, and very active and well formed. In some cases each spore is separately fertilized; in others it is a body which afterwards develops spores. One important observation has been made by Pringsheim which is specially interesting from its bearing on the disputed question of the origin of the embryonic vesicle in the higher plants, namely, that in no instance has he observed any growth to proceed from the spermatozoid, but that its function seems to have been performed when its contents have mixed with those of the nucleus; the spermatozoid itself being wholly absorbed and dissolved in the mass.

Much still remains to be done in tracing the development of these Algae, more especially in studying the transformations which many of them undergo. Very many have two or three different modes of re-producing the species, as by self-division, by zoospores or gemmae, and by properly fertilized spores; and the individuals resulting from these various modes of growth are not always similar. Thus there is in many an "alternation of generations," to be studied, such as has been noticed among lower animals; and probably when the subject has been properly worked out, a large number, not only of species, but of genera, especially among the fresh water kinds, must be erased from our lists. It now appears probable to Pringsheim that many of the minute

unicellular Algae of Braun are the male organs or *androspores* of other Algae. I think it can hardly be questioned that multitudes of the Palmelloid forms are either spores or imperfectly developed fronds; and the same is probable of many Confervoids. As yet the subject, except in a few able hands, has been confused rather than rendered more clear by the labour bestowed by authors upon it. There has been too great an anxiety to establish new genera and species, without due regard being had to circumstances of growth and development; and the unfortunate student who now attempts to study the fresh water Algae is oppressed by an accumulating mass of bad species and genera, which all have to be in some degree mastered before he can make *clean work*. Add to this, that in the present state of our knowledge it is absolutely necessary, in most instances, to have the living plant at hand, and it will be understood what a difficult task it must be to give a good account of the Chlorospermatus series of the Algae.

No one can be more sensible than I am myself of the very imperfect nature of the sketch attempted in the present memoir. I write at a distance from my subject, and have rarely had more than dried specimens to examine. Though many of them were personally collected by myself in 1850, when travelling in America, on very few have I preserved notes taken from the recent plant. This is perhaps of less account among the marine kinds, which formed the staple of my personal collections, for the marine species recover their characters on re-immersion much more perfectly than the fresh water kinds. But the want of living specimens has seriously barred my attempts to describe the fresh water species, with the exception of such easily preserved kinds as *Hydrodictyon*, *Batrachospermum*, *Lenonea*, *Petalonema*, &c. The Zygnemaceae, of which I have received several, and which are probably numerous in America, so completely lose their distinctive characters in drying, that I have been forced to omit them altogether. So also it has happened with the species of *Oscillatoria*, and of the Confervoid Algae generally. I must therefore leave the task of describing the fresh water Algae of America to other hands; to some one living among them, and having eyes fully open to the difficulties of his task, and zeal and ability to work it faithfully. And here I cannot omit a slight tribute to the memory of one in whom were combined in no common degree the qualifications which make an able naturalist, and who, had he lived, would probably have taken up the broken thread.

I allude to the late Professor J. W. BAILEY of Westpoint, one of the earliest explorers of American Algae, and whose very able memoirs on the *Diatomaceae* have won for him an imperishable name in the annals of science. To me his loss is more personal than to most of his botanical friends, for from the hour we first met there grew up between us a warm friendship which death has interrupted, but which I trust it has not ended. He it was who first suggested to me a Memoir on the American Algae; he arranged with the Smithsonian Institute the terms of its publication; he supplied me with a multitude of specimens; and to his influence I owe the assistance I have received from many American algologists who looked up to him for direction in their studies. He was, as far as the Algae are concerned, my chief American referee, to whom I could apply when seeking information on local matters, connected with this branch of study. With him I constantly associated my work, and to his approbation I looked forward as

the most grateful reward of my labours ; and now that he is removed, my interest in the work has sensibly flagged, and I am not sorry that it is brought to a conclusion.

Since the previous part was issued, two other of my correspondents have been numbered with the dead—Professor Tuomey of Alabama, and Dr. Blodgett of Key West, to both of whom I was indebted for very valuable contributions of specimens. Many of these have been noticed in the two former parts, and several more will be found described in the present. It has given me a melancholy pleasure to perpetuate the memory of the assistance I obtained from these gentlemen, by giving their names to the only new genera described in the present part.

Whilst thus I have to deplore the loss of a dear friend, and of two of my most valued correspondents, I have to acknowledge obligations to two new contributors of specimens, Mr. SAMUEL ASHMEAD of Philadelphia, and Mr. A. D. FRYE of New York. From Mr. Ashmead I have received a collection of the Algae of New Jersey, and a very interesting series of those of Key West, including some new species ; the most remarkable of which are a new *Caulerpa*, and a new and very beautiful *Dasya*. To Mr. FRYE I have to return my thanks for a collection of the Algae of California, very well prepared, communicated to me through Professor Henry in 1854 ; and to this gentleman I also owe an apology for not having mentioned his name in a previous notice of Californian Algae, which were sent to me by Captain Pike of New York in 1852, and which I supposed had been collected by him. A letter addressed by Mr. Frye to Professor Henry, and forwarded to me since the publication of the notice referred to, informs me that the packet of Californian Algae attributed to Captain N. Pike was collected by Mr. Frye, and indeed formed part of a fasciculus exhibited by Mrs. Frye at the American Institute in 1851, and for which she obtained a gold medal. There were several other exhibitors at the fair, but Mrs. Frye's were considered the most rare. "After the close of the fair," says Mr. Frye, "I furnished Mr. Pike with a large number of specimens which I collected in California. He professed to send them to Professor Harvey of Dublin, stating to me that he would send them in my name, and that I should be credited for them in Professor Harvey's work. In looking over the work I found Professor Harvey received a collection of Californian Algae, and they were credited to Captain Pike. I was told by Mr. Pike and other algologists in New York that mine was the only collection they had ever seen or heard of from the Pacific, and I had made the first collection in California. This, I think, after making much enquiry is correct, as I cannot find that there has as yet been any brought from thence except mine, which I collected with my own hands. I exhibited them to the ladies where I was then boarding, at Jones's Hotel in San Francisco : they afterwards borrowed them to show at their parties, and sent a gentleman, Mr. W. Ball, to purchase 20 specimens for 20 dollars—which I furnished to them, and also spent several days in teaching him how to collect and prepare them. I should be glad if Professor Harvey could know the facts, as I think he would be glad to give me credit for the specimens." Justice to Mr. Frye compels me to give these facts as much publicity as my former erroneous notice has obtained. The plants were sent to me by Captain Pike, without mentioning any other person, and I naturally supposed they had been collected by himself. Nor did I hear of Mr. Frye as a collector of Algae, until his letter, quoted above, was received on my return from

Australia in 1856. I now take the earliest opportunity of acknowledging the merit of his package, and trust that he will acquit me of any intentional suppression.

Should I be favoured with any further donations of specimens from America, I trust that I may be correctly informed of the circumstances under which they were obtained. Justice shall then be fully done to the merits of the collectors. The Algae of the Pacific coast have as yet been very imperfectly explored, and probably many curious and beautiful species, still unknown to botanists, remain to reward the future exertions of Californian collectors. Possibly, in the collections of those Californian ladies and gentlemen mentioned by Mr. Frye, new species remain undescribed and unrecorded; and should these remarks meet the eye of any one possessed of such things, and who may wish to see them duly published, I shall be glad to receive and acknowledge all contributions of Algae if sent to me through Professor Henry or Professor Asa Gray: and the donors may rest assured that all such communications will be faithfully acknowledged.

W. H. H.

TRINITY COLLEGE, DUBLIN.

1 Dec. 1857.

SYNOPSIS OF THE ORDERS OF CHLOROSPERMEÆ.

1. SIPHONÆÆ. *Rooting* or basifixed. *Frond* simple or compound, formed either of a single, filiform, branching cell, or of many such cells united together in a spongy frond. (*Marine or fresh-water.*)
2. DASYCLADÆÆ. *Rooting*. *Fronds* consisting of a simple or branched inarticulate axial thread, whorled with articulated ramelli. *Spores* spherical, developed in proper fruit-cells. (*Marine.*)
3. VALONIACÆÆ. *Rooting*. *Fronds* polymorphous, formed of large vesicated cells, filled with watery endochrome. (*Marine.*)
4. ULVACÆÆ. *Basified*. *Fronds* tubular or flat, membranous, formed of minute quadrate cells. (*Marine or in fresh water.*)
5. BATRACHOSPERMEÆ. *Basified*. *Fronds* filiform; the axis inarticulate, composed of minute cylindrical or polygonal cells, naked, or whorled with articulated ramelli. *Spores* in moniliform strings, naked. (*In fresh water.*)
6. CONFERVACÆÆ. *Basified* or floating. *Fronds* filamentous, articulated. *Endochrome* diffused. *Zoospores* minute, formed in all the cells. (*Marine or in fresh water.*)
7. ZYGNEMACÆÆ. *Floating*. *Fronds* filamentous, articulated. *Endochrome* of some definite figure. *Zoospores* large, formed by the union of two endochromes (of different cells), or by the bisection of a single endochrome. (*In fresh water.*)
8. HYDROICTYÆÆ. *Floating*. *Frond* forming a net-work with polygonal meshes: each side of the mesh formed of a single cell. *Viviparous*. (*In fresh water.*)
9. OSCILLATORIACÆÆ. *Basified* or free. *Frond* formed of subsimple filaments, having a membranous inarticulate tubular sheath, enclosing an annulated medulla, composed of very short, lenticular, cellulæ.
10. NOSTOCHINÆÆ. *Basified* or free. *Fronds* consisting of moniliform jelly-coated threads, free or enclosed in a gelatinous matrix.
11. DESMIDIACÆÆ.* Microscopic, unicellular, green; wall of the cell membranous: growth by semisection of the cell, and the evolutions of two new half-cells at the medial line.
12. DIATOMACÆÆ.* Microscopic, unicellular, yellow-brown: wall of the cell silicious: growth and fructification as in the preceding Order.
13. PALMELLACÆÆ. *Cells* globose, or ellipsoidal, free, or lying in a gelatinous matrix, not forming either threads or membranes. *Propagation* by division of the endochrome.

* These Orders are not included in the present work. The North American species have been ably worked out by the late Professor J. W. Bailey of Westpoint, whose numerous memoirs on the subject have a world-wide reputation. The species are all of microscopic size, and some of them, from their extreme minuteness, and the delicate sculpturing on their cell walls, form admirable *test-objects* for microscopes.

ORDER I.—SIPHONACEÆ.

Siphonææ and *Caulerpeæ*, *Grev. Alg. Brit.* p. 183. *J. Ag. Alg. Medit.* p. 17. *Endl. 3rd Suppl.* p. 16. *Dne. Class.* p. 32; (also *Halymedeæ*, *Dne.*) *Lindl. Veg. Kingd.* p. 18, and *Vaucheriæ*, in part, p. 22. *Vaucheriæ*, *Caulerpeæ*, *Codiææ* (in part), *Kütz. Sp. Alg.* pp. 486, 494, 500.

DIAGNOSIS. Green, marine or fresh water Algæ, naked or coated with carbonate of lime, composed either of a single, filiform, branching cell, or of many such cells united together into a spongelike frond.

NATURAL CHARACTER. *Root*, where it is developed, formed of many branching fibres interwoven together and entangled; sometimes penetrating deeply into the sand in which the plant grows, and attaching itself to the separate grains of sand, which serve further to consolidate the mass of fibres. *Frond* very variable in appearance, and differing much in complexity of structure, but always formed of very long, branching, inarticulate filaments, which arise from the continued growth and evolution of a single, undivided cell. In the genera of simplest structure, such as *Bryopsis* and *Vaucheria*, the frond consists of a single branching filamentous cell, with a thin, membranous, hyaline cell-wall; its cavity being filled with a granular semifluid colouring matter or endochrome, which may be wholly discharged if the tube be wounded and slightly pressed. In *Bryopsis* the unicellular fronds stand apart from each other, though many often rise nearly from the same base. In *Vaucheria* several such fronds are interwoven together at the base, but remain distinct in their upper branches. In *Chlorodesmis* there is a further union of many such threads, whose lower portion unite together to form an evident stipes or trunk, which is crowned with a pencil of free filaments; the whole frond resembling a little tree. This habit, however, is not so obvious in the American species as it is in *Ch. comosa*, the first described species of the genus. Again, in *Codium*, we find a structure essentially the same as in *Vaucheria* and *Chlorodesmis*, but the union of the filaments is still more intimate. To the naked eye, the species of *Codium* resemble green sponges or pieces of green cloth or velvet, having a perfectly definite outline and closely interwoven substance, and it is only when we tear or cut them asunder under the microscope that we perceive their true structure. We then find that all the central part of the substance of the frond is composed of innumerable interwoven, longitudinal branching cells, and that the velvety pile which constitutes the surface is formed of the tips of excurrent branches of the axial cells, lying close together and presenting only their extremities to the eye. In all

these genera the component filaments remain in the ordinary state of cellular tissue, having their membranous walls composed of cellulose, and filled with endochrome. The only further change which the plants of this group exhibit in structure consists in a secretion of carbonate of lime, which in several genera is found coating the external surface of the cells: and sometimes, as in *Halimeda* and some species of *Udotea*, surrounding the cells in such abundance as to cover the whole frond with a smooth coat of plaister, and obliterate all appearance of filaments. In such cases it is necessary, in order to see the structure, to macerate a portion of the frond in hydrochloric acid, until the lime be removed. When so treated, the component cells may be extracted and will be found to be of similar nature to those of *Codium* or *Bryopsis*. Indeed through some species, such as *Udotea membranacea*, there is an almost direct passage into *Codium*.

A more compound structure exists, as will be afterwards more fully described, in the sub-order *Caulerpeæ*, where from the inner face of the cell-wall innumerable branching and anastomosing processes issue, and fill up the cavity of the cell with a spongy, filamentous substance, unlike any structure noticed within the cavity of any other vegetable cells; so far as I am aware. On this remarkable character several authors propose to separate these plants into a distinct Order, and to this proceeding my only objection is that it appears to be an unnecessary multiplication of Orders.

The fructification of these Algæ has been observed in several but not in all, and presents some modifications in the different genera. In some, as in *Bryopsis*, the whole substance of the endochrome in fruiting specimens is changed into minute *zoospores*, which when emitted from the parent have an apparent voluntary movement like that of infusoria; swimming backwards and forwards by means of retractile cilia, which only disappear when the zoospore finds a point of fixture, and commences to germinate. In others, as in *Codium*, similar zoospores are developed within special encysted fruit-cells or vesicles, called by Agardh *coniocystes*, which arise from the branches and are divided by a diaphragm from the branch on which they are formed. In others, as in *Vaucheria*, zoospores of a higher development are formed within similar cysts; and in this genus the cyst (or ovary) is accompanied by a well formed *antheridium*.

The process of fertilization of the spore in *Vaucheria* has recently been ably investigated by Pringsheim, a French translation of whose memoir on the subject will be found in Ann. Sc. Nat. Ser. IV. vol. 3, p. 363. The existence of two organs in *Vaucheria*, one of which was supposed to be an antheridium, had been noticed originally by Vaucher half a century ago, and they have passed under the eyes of succeeding observers; but no one appears to have actually watched the process of fertilization until it was discovered and published by Pringsheim in 1855. I shall merely give an abstract of the process, referring for full particulars, illustrated by beautifully executed figures, to the above quoted memoir. The *anther* or *corniculum* in *Vaucheria* consists of a small, cylindrical spirally curved or helicoid process rising from one of the branches of the frond, and at first not differing from an ordinary branchlet except in size. But gradually a change takes place in its contents, at first manifested by a loss of colour in the matter filling the upper portion of the young antheridium. Then a diaphragm is formed, which walls off the portion toward the extremity of the antheridium from the

lower half, which retains its union with the branch : and now the change is complete. The anther thus formed consists of an isolated, curved, cylindrical, nearly colourless but not empty cell, supported on a pedicle of variable length and curvature. In the anther-cell spermatozoids are gradually evolved out of the contained matter, and are at maturity emitted through an opening at the summit of the cell. So much for the structure of the anther. The *sporangium*, or female organ, is placed on the branch close to the *antheridium*, and like it, at first consists of a papilla, or minute ramulus rising from the branch. It does not, however, lengthen into a cylinder, but assumes an ovoid form; its contents become dense and granular; a diaphragm separating it from the branch is formed across its base, and thus it becomes a separate egg-shaped cellule, sessile on the branch from which it has been formed. A beak-like attenuation, directed toward the adjacent antheridium, is now formed, and becomes at length perforated. At the same time the antheridium, having curled round, directs its extremity toward the sporangium : its summit opens, and the enclosed spermatozoids are discharged into the water, close to the orifice of the sporangium, which they enter and effect the fertilization of the matter aggregated within. A cell-wall is then formed round the fertilized substance, which thus becomes a spore, which gradually ripens and is detached on the bursting or decay of the membranous cyst within which it was formed. In its process toward ripening it loses its green colour, and at length becomes nearly colourless, except for one or more brown masses which it contains. In this state it remains, often for a considerable time, till germination takes place, when it suddenly resumes its green, and then elongates into a tubular cell, which assumes the form and ramification of the parent plant.

This Order is dispersed, under one or other of its forms, over most parts of the world, and its species are found either in the sea, in fresh water, or occasionally on damp soil : some species of *Faucheria* and the curious little *Botrydium* being terrestrial. The geographical range of several species is very extensive. *Codium tomentosum* and *Bryopsis plumosa* are common to the Northern and Southern Oceans and to the Eastern and Western Hemispheres, and are both found in the warmest parts of the tropical seas, as well as in high latitudes of the temperate zones. *Caulerpa* is specially characteristic of the tropical ocean, where its species are numerous, some of the more common kinds forming the principal algaoid covering of rocks or sands in shallow water. Some of its species are widely scattered, and others apparently limited to a few spots. Several of the fossil algaoid plants appear to have been *Caulerpe*, and the fossil figured by Brongniart (*tab. 9, bis, fig. 1*), under the name "*Fucoides hypnoides*," bears a very striking resemblance to *Caulerpa hypnoides* of the Australian coast.

SYNOPSIS OF THE NORTH AMERICAN GENERA.

Sub-order I. CAULERPEÆ. *Frond* with prostrate, rooting, primary stems (*sarculi*), and erect branches, membranous, unicellular; cell within filled with a network of branching fibrils.

I. CAULERPA.

Sub-order II. CODIÆ. *Fron*d uni- or pluri-cellular. *Cells* filled with granular endochrome (without internal fibrous network).

* *More or less coated with carbonate of lime.*

II. HALIMEDA. *Fron*d branching, articulate ; the joints flattened.

III. UDOTEÆ. *Fron*d stipitate, fan-shaped, simple or cleft.

** *Destitute of carbonate of lime, soft and flaccid.*

IV. CODIUM. *Fron*d spongelike, of definite form, composed of closely interwoven, irregularly branching filaments.

V. CHLORODESMIS. *Fron*d stipitate (or sessile), pencil-shaped, composed of dichotomous filaments, interwoven at base, and free in their upper portion.

VI. VACCHERIA. *Filaments* numerous, tufted and somewhat matted at base, free above, irregularly branched.

VII. BRYOPSIS. *Filaments* free, tufted or solitary, pinnately branched.

I. CAULERPA, Lamour.

*Fron*d consisting of prostrate *surculi*, rooting from their lower surface, and throwing up erect branches (or secondary fronds) of various shapes. *Substance* horny-membranous, destitute of calcareous matter. *Structure* unicellular, the cell (or *frond*) continuous, strengthened internally by a spongy network of anastomosing filaments, and filled with semi-fluid grumous matter. *Fructification* unknown.

The genus *Caulerpa* was founded by Lamouroux in 1810, and referred by him to his family of Ulvaceæ, though with doubt ; for he seems to have thought the structure of these plants so anomalous that he hesitates to pronounce them vegetables, notwithstanding their strictly vegetable form, immobility, and green colour. He had not, however, made himself master of their real structure, for he describes the frond as "consisting of an epidermis, and a cellular tissue consisting of cells so small that it has been impossible to determine their form" (*Ess.* p. 67). Turner appears to have been the first author who noticed the fibrous spongelike network which fills up the cavity of the membranous frond. This he describes under his *Fucus hypnoides*, but in terms which show that he supposed this structure peculiar to that species. To Dr. Montagne we owe the first and best account of the structure of the *Caulerpe*. This able algologist, in a paper read before the French Institute in 1837 and published in *An. Se. Nat.* for March, 1838, has given a full history of the genus, both as to its organization and what he believed to be its fructification. To this memoir I refer the reader who wishes for full information of all that was then known of these plants, and shall content myself in this place with briefly describing their habit, structure, and geographical distribution.

The character seized on by Lamouroux as essential to a definition of the genus, and happily indicated by him in the name *Caulerpa* (derived from *χαυλος*, a stem, and *ἔρπω*, to creep) consists in the prostrate, primary stems or *surreuli* in which the frond originates, and which are furnished at intervals throughout their length with branching and fibrous roots that penetrate deeply into the sand in which the plant vegetates, or attach themselves firmly to the rock in such species as grow on rocks and corals. These roots are fibrous prolongations of the under surface of the prostrate stems, and are probably, notwithstanding their great development, chiefly useful for fixing the plant in its position. From the upper side of the surreuli rise erect branches or secondary fronds, which are very various in form, and are either sessile or supported on stalks or *stipites* of greater or less length. Some recent writers on these plants have proposed to divide the genus into several, assigning to them characters taken from the form and ramification of the branches; and those who wish to know what can be done in this way may consult a memoir by Count Trevisan in the 22nd vol. of Schlechtendahl's *Linnaea*, where subdivision is pushed to an extreme. I have not adopted these views of arrangement, being unwilling to break up what appears a natural assemblage, and thus needlessly to multiply generic names. By employing artificial characters it is very easy to split up any genus of several species, but unless the number of species included in a genus be inconveniently large, it seems undesirable to do so. The genus *Caulerpa*, as defined by Lamouroux, includes about fifty species which agree in all essential characters of structure and development. The differences among them are obviously of a very minor character, and though proper enough for the definition of sections, are we think of too trivial a nature to afford stable generic diagnoses. For instance, let us take one of the proposed new genera, *Corradoria*, which differs from another, *Chaevinia*, merely in having bifarious instead of multifarious leaves or ramenta. But the feebleness of this character is shown by several species which are imperfectly bifarious; so that bifarious and tri- or multifarious ramenta may occasionally be found on one and the same specimen. *C. cupressoides* of the North American coast has ramenta sometimes bifarious, sometimes trifarious; and *C. falcifolia* of the tropical Pacific, which is normally bifarious, is frequently quadrifarious on part of the same individual.

In all the North American species the ramenta are confined to the upright branches or secondary fronds, and the surreuli are smooth and glossy except in *C. lycopodium*, where both the surreuli and the stalks of the fronds are densely clothed with branching, woolly hairs. In several Australian and some Pacific species the surreuli are equally ramentiferous with the fronds, though the ramenta they bear are often of a different shape. The forms and ramifications of the upright fronds are much varied. In our *C. prolifera*, the type of Kützing's genus *Phylloperpa*, we have an example of membranous, expanded, leaflike, simple fronds, perfectly entire at the margin; in *C. denticulata* and *C. scalpelliformis* there are similarly flattened fronds, but deeply pinnatifid; in *C. mexicana* the marginal incisions are so deep that the frond becomes pinnate, and thus we are led, by easy transitions, to *C. tarifolia* and *C. plumaris* where the pinnate character is perfectly developed. Again, in *C. falcifolia*, Bail. & Harv. there is a passage from the species with pinnate fronds to those having filiform ramenta imbricated on all sides; for, as already mentioned, the ramenta on some of the fronds are strictly

distichous, and on others tristichous or quadrifarious. A further step brings us to *C. Selago*, *C. Lycopodium*, and their allies, in which the branches are thickly set with imbricating ramenta; and the highest development of this type is reached in *C. obscura*, *C. Muelleri*, and *C. hypnoides*, where pinnate and imbricated characters are combined. Another group of species, like our *C. paspaloides*, is characterised by having pinnate or multifid ramenta; and in another, the ramenta are baglike, either round, pyriform, or topshaped. Of this type we have an American example in *C. clavigera*, one of the most widely dispersed and most variable of the species. By depressing the apex of a baglike ramentum it becomes top-shaped, and by farther depression peltate, and this form distinguishes *C. chemnitzia* and *C. peltata*; and again, peltate ramenta becomes perfoliate in *C. nummularia* and *C. stellata* by the development of young ramenta from the centre of the discs. In such species as *C. ericifolia* and *C. eupressoides* the gradual evolution of ramenta from mere prominent points of the frond is illustrated; and such species lead us to *C. Freyinetii* where the ramenta remain in this rudimentary condition. And thus we are conducted, by almost insensible gradations, through a considerable number of forms, back to those from which we started, and which had naked fronds destitute of ramenta or marginal incisions. And so, after a survey of all the species, we become more reconciled to the generic group as limited by Lamouroux, than if we had merely compared together such extreme forms as *C. prolifera* and *C. paspaloides*.

We have already said that the structure of all these plants is essentially the same. It remains to describe more particularly what that structure is. I am not aware that any observer has yet noted the early development of the frond, nor is the mode of reproduction as yet clearly made out. The spores are presumed to be similar to those of *Bryopsis*, and to be formed in any portion of the grumous matter that fills the frond, and most probably from that of the ramenta. When we take a fully formed frond, distinguishable into creeping stem, roots, upright branches and ramenta, we find that it is every where coated or encased in a homogeneous, hyaline, tough membrane destitute of further structure than this; that it may be seen in the thicker parts to be composed of several layers of cellulose, equally deposited one within another, as in the wood-cells of higher plants. There is no *septum* throughout the plant, and no appearance of cellular structure in the membrane of the walls. The frond, with all its ramifications, is strictly "*continuous*," forming a closed sac; and so far as we know it is formed by the evolution of a single cell, extending itself indefinitely without cell-division, and showing in excess the same structure as we find in a minor degree in such plants as *Botrydium*, *Bryopsis* and the like. This closed sac, frond or cell, in *Caulerpa*, is filled as in *Bryopsis*, with a semi-fluid, semi-gelatinous, bright-green endochrome containing starch-grains mixed with what seem to be oily particles, and obviously highly organized, but its chemical composition remains to be examined. Most probably it is highly nitrogenous, for it bears considerable resemblance in substance to the glairy semi-fluid of many sponges; and hence probably the reason of Lamouroux's supposition that these plants were of a semi-animal nature. If the structure of *Caulerpa* were merely what we have described, a closed membrane filled with grumous matter, it would not essentially differ from that of *Codium* and *Bryopsis*.

But there is found in *Caulerpa* a supplementary structure of a very peculiar and curious kind, which has induced several systematic writers to separate this genus, as the type of a family distinct from the other Siphonaceæ. An unwillingness needlessly to multiply families, and a belief that *synthesis*, much more than *analysis*, ought to be the study of a system framer, has prevented my adopting these views. The structure alluded to is this: from the inner face of the wall of the membrane covering the frond there issue innumerable, cylindrical, filamentous processes, which seem to be merely internal extensions of the cell walls, and not new cells. These branch and anastomose together into a kind of spongy net-work that fills the whole cavity of the frond, and is bathed and its fibres keep apart by the grumous fluid. This spongy net-work may be regarded as the proper frame-work of the plant, intended to give strength and unity to all parts of the frond. The filaments appear to be tubular, but are empty and colourless. This peculiar modification of structure is so like that of a sponge, that we may almost regard a *Caulerpa* as a vegetable sponge enclosed in a membranous epidermis.

The genus *Caulerpa* is eminently characteristic of the tropical and subtropical oceans and seas of both hemispheres. Very few species extend far into the temperate zone. The most northern are found in the Mediterranean Sea; and the most southern on the shores of New Zealand. Many species exist on the southern coast of Australia, in lat. 35° or 36°; but the greater number are found within 35° of the equator. They inhabit the littoral zone, from near high-water to low-water marks; and some extend into the laminarian zone, or even to that of the Nullipores. Their favorite locality is on hard sand, or on sand-covered rocks; and in the crevices of coral on the coral reefs, and more particularly in hollows left on the surface of the reef, where the corals have ceased to grow. Most of the American species grow within tide marks, but are not luxuriant except at low-water mark, or a little below it. *C. clarifera* commences to grow nearly at high water mark, and is continued throughout the whole littoral zone and into the laminarian. It consequently varies greatly in size and in general aspect, and accordingly appears under several names in botanical works; but these "book-species," however distinct they may look in the herbarium, cannot be recognized on the shore, where all the forms gradually blend together. Some of the species are very local. Others are found in both hemispheres, and in the Atlantic and Pacific Oceans. Of the North American species *C. plumaris*, *C. clarifera*, *C. ericifolia* and *C. cupressoides* are the most widely dispersed, being found in all tropical waters; *C. prolifera* is found in the Mediterranean Sea; *C. paspaloides* on the coast of Brazil, while *C. Ashmeadii* and *C. lycopodium*, so far as is yet known, are peculiar to the Keys of Florida. *C. mericana* very closely resembles *C. asplenoides*, Grev. a native of the Indian Sea, and it is questionable whether these are distinct; and *C. lycopodium* also is nearly allied to *C. selago*, a native of the Red Sea, but appears to be essentially characterised by its woolly stems. The Red Sea, the Persian Gulf, the shores of tropical Asia and those of New Holland, with the coral reefs of the Pacific furnish many local species, some exceedingly curious and beautiful. Several species are eaten by the natives of the Pacific archipelagoes; and all furnish a favourite food to the turtle, whose green fat they serve to nourish.

We shall distribute the nine American species into three sections, characterised as follows :—

Sect. 1. PHYLLERPA. Kütz : *Fronds* plano-compressed, or flat, leaflike, very entire.

1. CAULERPA *prolifera*, Lamour.; surculi naked, glabrous ; fronds erect, petiolate, flat, leaflike, nerveless, entire, tongue-shaped, rarely once forked, proliferous from the disc or apex. *Lamour. Ess. p. 67. Ag. Sp. Alg. 1, p. 444. Trevis. in Linn. vol. 22, p. 129. Phyllerpa prolifera, Kütz. Sp. Alg. p. 494. Fucus Ophioglossum, Web. and Mohr. Turn. Hist. t. 58. (TAB. XXXVIII. B.)*

HAB. Keys of Florida, on submarine sands. Key West, W. H. H., No. 95. Mr. Ashmead. Soldier's Key, Professor Taomey, No. 83 in part. (v. v.)

Surculi prostrate, throwing out from their under surface branching and fibrilliferous roots, simple or branched, twice as thick as hog's bristle, glabrous, glossy, cylindrical, shrinking, and longitudinally channelled when dry. *Fronds* stipitate, the *stipes* filiform, from a quarter-inch to an inch in length, of equal diameter with the surculi, compressed at the apex, and gradually passing into the base of the oblong or obovate, tongue-shaped obtuse lamina. The *frond* or lamina is flat and leaflike, two to four inches long, from half to three-quarter inch wide, either quite simple or once forked, with a perfectly entire flat margin. Occasionally similar stipitate fronds spring proliferously from any point of the disc or from the base or apex, especially if the latter has been wounded. The *substance* is membranaceous, somewhat horny and translucent, with a very glossy surface when dry. The *colour* is a full grass-green, becoming oil-green and variously tinged with yellow in a dried state. It does not adhere to paper in drying.

This species is rather rare at Key West. My specimens were picked up on the beach, after a southerly gale in the month of February. They closely correspond with specimens from the Mediterranean Sea, where, as well as in the subtropical Atlantic, this plant is not uncommon. *C. prolifera* has a very different habit from the other American species, but is closely related to the Australian *C. parvifolia*, and to *C. anceps* from the coral reefs of the Pacific. It appears to be still more closely akin to *C. costata*, Kütz. a Mediterranean species unknown to me, and said to differ in having a semi-nerved lamina.

PLATE XXXVIII. B. *Fig. 1. CAULERPA prolifera ; the natural size.*

SECT. 2. PTLERPA. *Fronds* plano-compressed, inciso-serrate, pinnatifid or pinnate.

2. CAULERPA *Mexicana*, Sond. ; surculi naked, glabrous ; fronds erect, sessile, pinnato-pinnatifid ; rachis (broad), plano-compressed ; pinnae opposite, vertically

flattened, two-edged, oblongo-falcate, mucronulate, scarcely constricted at base, their margin entire. *Sonder in Kütz. Sp. Alg. p. 496. (TAB. XXXVII. A.)*

HAB. Keys of Florida, on submarine sands and sand covered rocks. Key West, *W. H. H. (No. 94.) Professor Tuomey, No. 72. Mr. Ashmead. (v. v.)*

Sureuli prostrate, extensively creeping, rooting from their under surface, branched, twice as thick as hog's bristle, glabrous, glossy, longitudinally furrowed when dry. *Fronde* springing from the upper surface of the *sureuli*, nearly sessile, or on very short stipites, broadly linear (in outline), 4-6 inches long, $\frac{1}{4}$ - $\frac{1}{2}$ inch wide, either simple or with one or two branches, pinnate or rather very deeply pinnatifid, from just above the base to the bifid or emarginate extremity. *Rachis* plano-compressed, from one to two lines wide, somewhat thick and fleshy when recent, horny and longitudinally rugulose when dry, closely set throughout with the opposite, distichous pinnae. *Pinna* from two to four times as long as broad, patent, the lower ones somewhat ovate, the upper gradually more and more oblong and incurvo-falcate, vertically flattened, two edged, mucronulate, entire; the margin quite free from denticulations. *Substance* when dry horny, membranaceous and glossy, semi-transparent. *Colour* a brilliant grass green, variously tinged with yellow, and becoming slightly olivaceous when dry.

This beautiful plant abounds at Key West, particularly under the bridge, where it forms widely spreading patches. Sonder's specimens were sent from Mexico, but the exact locality is not given. It is nearly related on the one hand to *C. denticulata*, *Duc.* from the Red Sea; and on the other to *C. asplenoides*, *Grev.* (in *An. Nat. Hist. vol. 12. tab. 1. f. 1.*) a native of the East Indies, if indeed that species be really different. It also bears much resemblance to *C. taxifolia*, *Ag.*, but the pinnae are broader, more sharply two-edged, and distinctly mucronulate.

PLATE XXXVII. A. *Fig. 1.* CAULERPA *Mexicana*; the natural size. *Fig. 2.* a pair of pinnae, magnified.

3. CAULERPA *plummaris*, *Ag.*; *sureuli* naked, glabrous; fronds erect, subsessile, distichously pectinato-pinnate; rachis (narrow) filiform; pinnae opposite, slender, filiform, setaceous, incurved, or subfalcate, either acute or sub-obtuse. *Alg. Sp. Alg. 1. p. 436. Kütz. Sp. Alg. p. 496. Bory, Voy. Coq. tab. 22, f. 4. Corraloria plummaris, Trevis. in Linn. 22, p. 133. Fucus taxifolius, Turn. t. 54 (excl. syn.) Fucus plummaris, Forsk. (TAB. XXXVIII. C.)*

Hab. Sandy shores, on the Florida Keys. Key West, *W. H. H., Professor Tuomey, Mr. Ashmead, (v. v.)*

Sureuli prostrate, rooting from the under surface, a line or more in diameter, branched, glabrous, glossy, collapsing, and becoming longitudinally furrowed when dry. *Fronde* numerous, rising from the upper side of the *sureuli*, erect, simple or with one or two

branches, scarcely stipitate or sessile, linear (in outline), 2-6 inches long, less than half an inch wide, pectinato-pinnate from a short distance above the base to the extremity. *Rachis* filiform, scarcely thicker than hog's bristle, closely set with pinnae. *Pinnæ* opposite, sometimes a little obliquely inserted, setaceous, 2-3 lines long, rarely straight, generally more or less incurved or falcate, their apices sometimes very acute, ending in a sharp mucro, sometimes bluntish. *Substance* when dry horny and semitranslucent. *Colour* a deep and rather dark green, the tips of the pinnae often yellowish or orange.

A native of the tropics generally, both of the eastern and western hemisphere; occasionally straggling into the warmer parts of the temperate zone. It varies much in the diameter of the surculi, and somewhat in the length of the pinnae, but is easily recognised by the closely pectinate fronds, which resemble small green feathers. The specimens from Key West are peculiarly robust, and if compared with some slender varieties from the Pacific, might pass for different. But at Vavau, in the Friendly Islands, where this plant is common, I collected specimens both of the robust and slender form.

Plate XXXVIII. C. Fig. 1. *CAULERPA plumaris*, the natural size. Fig. 2, a pinna, magnified.

4. *CAULERPA Ashmeadii*; surculi naked, glabrous; fronds erect, shortly stipitate, distichously pectinato-pinnate; rachis subcompressed; pinnae opposite (or suboblique), erecto-patent, straight, linear, somewhat incrassated at the very obtuse extremity. (Tab. XXXVIII. A.)

Hab. Key West, rare. W. H. H., Samuel Ashmead, Esq. (v. v.)

Surculi prostrate, distantly rooting, one or two lines in diameter, glabrous and glossy, collapsing, and mostly channelled when dry. *Fronds* scattered, rising from the upper side of the surculi, erect, each furnished with a stipes from half an inch to upwards of an inch in length, and closely pectinato-pinnate throughout. Each frond, pinna included, is about an inch in breadth, and from four to six inches in length. The *pinnae* are half a line in diameter, three-fourths of an inch long, terete, and nearly linear, but more or less thickened towards the extremity, which is very obtuse, without trace of mucro or acumination. The substance when dry is horny and semi-transparent. The colour, when recent, is grass green, but in drying it turns to olive.

The roots, Mr. Ashmead remarks, penetrate so deeply, and fix themselves so firmly in the hard sand, that it is with difficulty obtained, except in fragments. I regard the present as a distinctly marked new species, and have much pleasure in inscribing it to Mr. Samuel Ashmead of Philadelphia, a gentleman who has already made some interesting discoveries among the Algae at Key West, and from whom many more may be expected. It is a much larger and stronger growing plant than *C. plumaris*, and remarkable for the very obtuse and almost club-shaped ends of the nearly straight pinnae.

Plate XXXVIII. A. Fig. 1, *CAULERPA Ashmeadii*, the natural size. Fig. 2, a pinna, magnified.

SECT. 3. CHAUVINIA, Bory ; *Fronds* terete, simple or branched, set with tri-multifarious, leaflike, saccate, or thornlike ramuli (*ramenta*).

5. CAULERPA *clarifera*, Ag. ; *surenli* naked, glabrous, robust ; fronds erect, simple, short or elongate, more or less densely set on all sides with scattered, club-shaped, pyriform, or nearly top-shaped ramenta. *Ag. Syst.* 1. p. 437. *Chauvinia clarifera*, Kütz. *Sp. Alg.* p. 498. *Ahufeldtia racemosa*, A. Lamourouxii, and A. *uvifera*, Trevis. l. c. pp. 141-142. *Fucus clarifer*, Turn. *Hist.* t. 57. *F. Lamourouxii*, Turn. t. 229. *F. uvifer*, Turn. t. 230.

HAB. Sand covered rocks, about low-water mark, and at a greater depth. Key West and Sand Key, W. H. H., *Professor Tuomey* ; Couch Key and Key Biscayne, *Professor Tuomey* (v. v.)

Surenli robust, glabrous, glossy, one or two lines in diameter, spreading in dense mats, copiously supplied on the under surface with dense, excessively divided, fibrous, and deeply penetrating roots. *Fronds* erect, crowded, varying very much in length, according to the depth of water at which the plant grows, and from other circumstances affecting its luxuriance. Sometimes the erect portion of the frond is scarcely an inch in length, sometimes it is six, eight, or even ten inches long. It varies also in diameter from half a line to a line or more, and is more or less densely set on all sides with scattered, incrassated, very obtuse saccate ramenta. In the variety called *Lamourouxii* these ramenta are inserted in a distant spiral so as to look almost distichous ; in other varieties, and especially in that called *uvifer*, they are densely crowded and inbricated, like grapes in a cluster. Numerous intermediate forms connect these extreme ones. The shape of the ramenta is also very variable. When young, they are simply clavate ; but with advancing age they become more and more swollen at the ends, and at length are pear-shaped, or, in some stunted specimens, top-shaped. Stunted specimens somewhat resemble *C. sedoides*, and have been mistaken for that species, which, however, differs in several respects.

This plant is common to the tropics of both hemispheres, and is particularly abundant on the coral reefs of the Pacific, where it puts on many different forms, and varies much in luxuriance. It is one of the species eaten as a salad by the natives, and some of the European residents, of the Friendly and Feejee Islands, who call it *Linnu* (Lee-moo). I cannot consent to separate specifically the forms figured by Turner, and above indicated as varieties. I fear also that *C. oligophylla*, Mont., if I rightly understand that species, must be regarded as an extreme form, nearly destitute of ramenta. I gathered what I take to be Montagne's plant at Vavan, in the Friendly Islands, where its peculiarities seemed to arise from the circumstances of its habitat, which was in a very rapid tide-stream between two islets.

6. CAULERPA *Lycopodium* ; *surenli* and stipites of the fronds tomentose with brand-

ing hairs ; fronds erect, stipitate, scattered, simple or slightly branched, densely set on all sides with imbricated, erect, setaceous, acute, or mucronulate ramenta. (TAB. XXXVII. B.)

Hab. On sand-covered rocks at Key West, abundant, *W.H.H.* (v.v.)

Sureuli prostrate, widely creeping and rooting from the lower side, everywhere densely clothed with woolly, branching hairs, which are slightly viscid and collect particles of sand ; the whole mass of *sureuli* forming a dense mat. *Fronds* rather distantly scattered, erect, stipitate. *Stipes* 1-2 inches long, filiform, tomentose, the hairs branching. *Fron*d simple, or rarely once-forked, two to four or six inches long, very densely beset on all sides with slender, setaceous, erect, incurved, imbricated, acute, or mucronulate simple ramenta, which are two or three lines long, and nearly of capillary diameter. *Substance* somewhat horny when dry. *Colour*, a deep and rather a dull green, paler in the *sureuli* and *stipes*.

I had at first taken this plant for *Caulerpa Selago*, but Turner expressly says of that species that the creeping stems or *sureuli* are "smooth, shrinking, and wrinkled when dry ;" whereas in our Key West plant they are everywhere densely clothed with branching, woolly hairs. His figure (*Hist. Fuc. t. 55*) also represents the fronds as sessile, or ramuliferous to the very base. With no other species can the present be confounded. *C. Selago* is a native of the Red Sea. Two Australian species, *C. Brownei* and *C. furcifolia*, have been sometimes confounded with it, but in both of these the *sureuli* are clothed with ramuli resembling those of the erect branches.

PLATE XXXVII. B. *Fig. 1.* CAULERPA *Lycepodium*, the natural size. *Fig. 2.* whorled ramenta in situ. *Fig. 3.* a ramentum, detached. *Fig. 4.* portion of the woolly stipes. *Fig. 5.* branching hairs from the same. The latter figures more or less magnified.

7. CAULERPA *ericifolia*, Ag. ; *sureuli* robust, naked and glabrous ; frond shortly stipitate, irregularly much branched ; branches scattered, repeatedly divided, clothed on all sides with short, ellipsoidal, succulent, mucronulate, erecto-patent ramenta, set in 3, 4, or 5 ranks. *Ag. Sp. Alg. 1, p. 442.* *Chaurinia ericifolia*, Kütz. *Sp. Alg. p. 497.* *Travis. l. c. p. 137.* *Fucus ericifolius*, *Turn. Hist. t. 56.* (TAB. XXXIX. A).

HAB. Key West, *W. H. H.* Conch Key, *Prof. Tuomey.* (v. v.)

Sureuli prostrate, robust, as thick as crow quill or thicker, branched, extensively creeping, glabrous, glossy, shrinking and deeply channelled longitudinally when dry, rooting from the under surface ; the roots distant and very long, branched and fibriliferous. *Fron*ds erect, scattered, with short, simple or forked stipites, much and irregularly branched ; branches scattered, once, twice, or thrice compounded, very erect, as are also all their lesser divisions, all the angles being close and acute ; ramenta densely set, tri-, quadri-, or quinquetarious, short, somewhat intricated, the lowermost

reduced to mamillaform tubercles, the upper more perfectly formed, ellipsoidal, sacklike, and mucronulate. The branch, including its ramenta, is not more than a line in diameter. The substance is rather rigid, and is horny when dry. The colour is dull green, inclining to olivaceous.

I have much doubt whether this plant, which was originally described and figured by Turner, be permanently distinct from the following, of which it has very much the habit, but from which it differs, at least in typical specimens, by the more numerous rows of the ramenta and their more ellipsoidal shape. Specimens however vary in both these respects, and I could be well content to unite both forms under one specific name.

PLATE XXXIX. A. *Fig. 1.* CAULERPA *ericifolia*, the *natural* size. *Fig. 2.* small fragment of a branch with its ramenta. *Fig. 3.* a ramentum; the latter figures *magnified*.

8. CAULERPA *cupressoides*, Ag.; surnuli robust, naked and glabrous; frond shortly stipitate, irregularly much branched; branches scattered, once or twice compounded, set with short, conoidal, mucronate, sub-bifarious or bifarious ramenta. *Ag. Sp. Alg.* 1. p. 441. *Chauvinia cupressoides*, Kütz. *Sp. Alg.* p. 497. *Treviſ. l. c.* p. 137. *Fucus cupressoides*, *Eſper. t.* 161. *Turn. Hiſt. t.* 195. (TAB. XXXIX. B.)

HAB. Key West, with the preceding. *Prof. Tuomey.* (v. v.)

Except in the less imbricated, di-tristichous, and shorter ramenta, this species does not differ from *C. ericifolia*. But these characters are variable. If the two species be united, the name *cupressoides*, as the older, must be preserved. Both forms are natives of the West Indies, and of the Pacific Ocean. *C. ericifolia* was first brought from Bermuda; and *C. cupressoides* from St. Croix.

PLATE XXXIX. B., *Fig. 1.* CAULERPA *cupressoides*, the *natural* size. *Fig. 2.* apex of a branch with tristichous ramenta. *Fig. 3.* portion of another branch with distichous ramenta. *Fig. 4.* a ramentum; the latter figures *magnified*.

9. CAULERPA *paspaloides*, Bory.; surnuli robust, naked and glabrous; fronds with a long naked stipe, flabellately branched, the branches once or twice forked, or simple, fastigiate, densely beset in 3 or 4 ranks, with plumose, patent or recurved ramenta: ramenta sub-bipinnate, pinnae opposite turned to one side, subulate or mucronulate, mostly pectinated with similar mucronulate pinnules on their inferior sides. *Chauvinia paspaloides*, Bory, *Coq. p.* 205, *tab.* 23, *fig.* 1. Kütz. *Sp. Alg.* p. 500. *Treviſ. in Lin.* 22, p. 137. *Caulerpa Wardemannii*, *Harr. MS.*—Var. β : ramenta simply pinnate, the pinnae very long and straight, destitute of pinnules.

HAB. Key West, abundantly. *Dr. Wardemann, W. H. H., Prof. Tuomey. Mr.*

Ashmead. Couch Key and Key Biscayne, *Prof. Tuomey*.—Var. β cast ashore at Key West. *W. H. H.* (v. v.)

Sureuli prostrate, robust, sometimes nearly as thick as a goose's-quill, sometimes as a crow-quill, glabrous, glossy, shrinking much in drying and becoming longitudinally furrowed, vaguely branched, rooting at intervals of one or two inches; the root long, branched, and fibrilliferous. *Fronde*s rising from the upper surface of the sureuli, scattered, on long, glabrous, naked stipites, flabelliform in outline, pedate or digitate, the branches spreading, simple or forked, fastigate, densely set throughout with imbricated, four or five-ranked ramenta. *Ramenta* one to four lines long, varying much in length and somewhat in ramulification on different specimens. Normally they are patent or recurved and sub-bipinnate, or pinnate with pectiniform pinnules; that is, the ramentum is oppositely pinnate, the pinnae closely set, straight, subulate, or filiform, mucronulate, and furnished along one (the lower) side with unilateral ramuli of similar form. In different specimens the number and development of the processes of the pinnae vary; sometimes they are 5 or 6, and of considerable length; sometimes but 2 or 3, and these very short. In var. β they are absent altogether, and the ramenta of much greater length than is usual in var. α ; but I have seen specimens so completely intermediate that I dare not make two species of these seemingly different forms, particularly as both occur in the same locality. The normal form has been admirably figured by Bory in the plate above quoted. I fear that *C. phloroides* of that author can only be regarded as a variety of the present species.

H. HALIMEDA. *Lamour.*

Root fibrous, much branched. *Frond* erect, dendroid, branching, articulato-constricted, with flattened internodes (or *articulations*), coated with a smooth calcareous crust, and composed internally of a plexus of longitudinal, sub-parallel, unicellular, branching filaments. (These filaments, which constitute the medullary stratum of the compound frond, are constricted at intervals, and at each constriction emit a pair of opposite, horizontal, di-trichotomous, corymbose ramelli, whose apices cohere together into a false epidermis or periphery.)

The species comprised in this genus were placed by Ellis and Linnæus in the genus *Corallina*, where they remained till 1812, when Lamouroux very properly separated them to form the present group. The resemblance to *Corallina* is merely external. Both genera have jointed fronds, encrusted with calcareous matter, but here the resemblance ceases. The structure, colour, substance and fructification, which determine affinities, are widely different in *Corallina* from what they are in *Halimeda*. In this

latter genus, after the lime has been removed by acid, there remains a plexus of unicellular, branching filaments, filled with green endochrome, and essentially of the same structure and nature as those of *Codium*. In *C. Opuntia* these filaments are easily extracted, and may readily be pulled asunder; in *C. Tuna* they adhere more closely and require to be carefully manipulated. The *Halimeda*, like the *Caulerpa*, are confined to the warmer portions of the globe, and are particularly abundant on coral reefs, in both hemispheres. As many as thirteen species are described by authors, but several appear to have been founded on very insufficient data; and probably they might be reduced by one-half. *C. Opuntia* is the most widely dispersed, being found abundantly in the tropical Atlantic and Pacific, and in the Mediterranean and Red Seas. *C. incrassata* and *C. Tuna* occur in the Pacific as well as in the Atlantic, but are less universally dispersed than *C. Opuntia*. When seen in herbaria the species are frequently bleached white, but all are of a bright grass-green when growing. They are furnished with deeply descending, fibrous, much branched roots, whose capillary rootlets firmly grasp particles of sand, and with them form a solid ball, not easily broken asunder.

1. *HALIMEDA Opuntia*, Lamour.; frond very much branched, diffuse; articulations reniform, flat, obscurely lobed or repando-crenate along the upper margin. *Lamour. Exp. Meth.*, p. 27, t. 20, fig. 6. *Dne. Cor.* p. 90. *Kütz. Phyc. Gen.* t. 43, fig. 2. *Kütz. Sp. Alg.* p. 504. *Corallina Opuntia*, *Ellis and Sol.* p. 110, t. 20, fig. b. *Ellis. Cor.* t. 25, a. (TAB. XL. B.)

HAB. On rocks and in tide-pools, near high water mark, on the Florida Keys. Key West, *W. H. H.*, *Prof. Tuomey.* (v. v.)

Root deeply descending, fibrous, densely compacted into a fusiform mass, 1-2 inches long. *Stems* very numerous from the crown of the root, weak, but supporting each other by their proximity, and thus forming very dense tufts, much and irregularly branched; the branches spreading. *Articulations*, except one or two of the basal ones, which are oblong or cylindrical, broadly reniform, the more normal ones twice as broad as their length, from $\frac{1}{8}$ to more than $\frac{1}{4}$ inch across, flat, rather thin, but much incrustated with calcareous matter, with a more or less evident or obsolete longitudinal ridge through the middle; the superior margin somewhat repando-crenate or lobed. After the calcareous matter of the frond has been removed by acid, a spongy vegetable structure remains, made up of a plexus of slender, longitudinal, unicellular filaments, constricted at intervals, and at the constrictions emitting a pair of opposite, decoumpound, dichotomous, corymboso-fastigate, horizontal ramelli, whose apices cohere together, and form a thin epidermal or periphere stratum of cells, over the surface of the frond. When the surface is viewed vertically, the cohering tips of the ramelli appear like the areoli of a continuous membrane. The substance of the filaments is tough, and they are filled with green matter. No fructification has been observed.

PLATE XL. B. *Fig. 1.* HALIMEDA *Opuntia*, the natural size. *Fig. 2,* portion of the branching, unicellular filaments of which the frond is composed ; *magnified.*

2. HALIMEDA *incrassata*, Lamour. ; fronds solitary, erect, fruticose, somewhat flabelliform, much branched ; articulations thickened, the lowermost compresso-terete, quadrate ; the middle cuneate ; the upper (mostly) compressed, obscurely repando-erenate. *Lam. Exp. Meth. p. 25. Lam. Polyp. p. 307. Dne. Cor. p. 91. Kütz. Sp. Alg. p. 504. Corallina incrassata, Ell. and Sol. p. 111, t. 20, d.—Var. β. monilis ; all the upper branches moniliform, composed of small, roundish, beadlike articulations. H. monilis, Lw. Dne., Kütz., &c. Corallina monilis. Ell. and Sol. p. 110, t. 20, Fig. C.*

HAB. Florida Keys. Key West, W. H. H. (chiefly var. β.). (v. v.)

Root a globose or oblong, bulblike, fibrous mass. *Stems* generally single, with a short, undivided, compressed or subterete *bole* (or *stipe*) composed of two or more incrassated and confluent articulations ; then expanding and divided into numerous branches, which are repeatedly di-, tri-, or polychotomous at short intervals, spreading generally in one place and thus forming a flabelliform frond. In the lower part of the frond the articulations are very thick and almost confluent, a slender line merely defining the limits between each ; they are oblong or quadrate, and more or less cylindrical. The middle articulations are more cuneate and less confluent ; and the upper ones, in typical specimens, are still flatter and somewhat crenato-lobate. In the variety most common at Key West, and which constitutes the *H. monilis* of authors, the upper branches are slender and moniliform, composed of small, globose, or truncate, thick articulations of variable size, and somewhat varying in form, the terminal ones on a branch being frequently cuneate. The structure of the frond is similar to that of *H. Opuntia*.

Both varieties, as indicated above, are excellently figured by Ellis and Solander, and by them and succeeding authors are kept as distinct species. Lamouroux indeed observes (*Pol. flex. p. 307*) that the characters attributed to each are frequently confounded on the same specimen. This I find to be the case in specimens collected at Key West, and I have, therefore, united the two forms under one specific name.

3. HALIMEDA *tridens*, Lamour. ; frond solitary, erect, flabellately branched ; articulations compressed, the lower ones quadrate or oblong ; the middle cuneate ; the upper three lobed or tri-erenate. *Lam. Exp. Meth. p. 27. Pol. Flex. p. 308. Dne. Cor. p. 91. Kütz. Sp. Alg. p. 505. Corallina tridens, Ell. and Sol. p. 109. Tab. 20, fig. a. (TAB. XLIV. C.)*

HAB. Key West, Prof. Tuomey. (v. s.)

Fronds solitary, erect, with a cuneiform stipes composed of several confluent articulations and dividing at the summit into numerous branches, which soon again subdivide in a di-poly-chotomous manner, all the branches lying in one plane, so as to form a flabelliform frond. The articulations are all compressed, the middle ones more or less cuneate; the upper usually tridentate or three-fingered, and frequently bearing articulations from the summit of each lobe. *Colour* rather a bright green. *Calcareous* incrustation thin.

This is nearly related to *H. incrassata*, and perhaps only a variety. But the crust is not so dense, and the distinctly three-lobed upper articulations are characteristic. Ellis's figure correctly represents a small branch.

PLATE XLIV. C. *HALIMEDA tridens*; the natural size.

4. *HALIMEDA tuna*, Lamour.; frond much branched, diffuse, di-trichotomous; articulations flat, thin, very broad, roundish or somewhat reniform, mostly entire; the middle ones sometimes cuneate. *Lamour. Pol. Flœr. p. 309, t. 11, fig. 8. Dne. Cor. p. 91. Kütz. Sp. Alg. p. 504. Corallina Tuna, Ell. and Sol. tab. 20, fig. c. Hal. platydisca, Dne. ? p. 90. (TAB. XL. A.)*

HAB. Key West, W. I. H. Key Biscayne, Prof. Tuomey. (v. v.)

Root deeply descending. *Stipes* scarcely any, consisting of a single, cuneate or flabelliform articulation, which is sometimes more than an inch across, from the upper margin of which spring numerous other articulations, forming the bases of so many irregularly dichotomous branches. The articulations vary much in form and size. Their usual shape is roundish or sub-reniform, and they are from half to $\frac{3}{4}$ inch broad, quite flat, smooth, and thinner than in most species. They are joined together by very much constricted nodes, and are usually broader than their length. In some of my specimens, however, some of the medial articulations are narrow-cuneate or almost clavate. There is less incrustation in this species than in most; the colour is a bright green, and the substance somewhat flexible.

The original *H. Tuna* is a native of the Mediterranean; and possibly the plant now described may be referable to *H. platydisca*, Dne., but some of my Key West specimens so closely resemble what I have received from the Mediterranean, that, habitat apart, I cannot find a character to distinguish them. Others are certainly of larger size, with more discoid articulations. If, however, every slight variation in form and size is to be made the foundation of a new species, and dignified with a special description and name, the number of species to be established would only be limited by the number of specimens examined; for scarcely two are to be found identical at all points.

PLATE XL. A. *HALIMEDA Tuna*, the natural size.

III. UDOTEÆ. *Lamour.*

Root fibrous, much branched. *Frond* erect, stipitate, expanded, flabelliform, more or less incrustated with calcareous matter, concentrically zoned, composed internally of a plexus of longitudinal, subparallel, unicellular, branching filaments. *Sporangia* "lateral, globose." (*Kütz.*).

The genus *Udotea* is intermediate between *Halimeda* and *Codium*, differing from the former in habit and from the latter in having the filiform cells of which it is composed incrustated with carbonate of lime. The amount of incrustation varies much in different species. In *U. flabellata*, which very closely agrees in structure with *Halimeda*, the calcareous matter forms a solid, smooth, and somewhat polished crust, completely concealing the filaments of which the frond is constructed; in *U. conglutinata* the lime forms a thin coat round each individual filament, but does not conceal the filamentous structure of the frond; and in *U. Desfontainesi* there is scarcely any calcareous deposit, and except in habit the plant is almost a *Codium*, in which genus it was placed by Agardh. Ten species of *Udotea* are known, all of them natives of the warmer parts of the sea. Our *U. flabellata* is found in the Indian Ocean, and I have received *U. conglutinata* from Port Natal, S. Africa.

1. *UDOTEÆ flabellata*, Lamour.; stipes simple, short, terete or sub-compressed, expanding into a broadly flabelliform, simple or lobed, wavy, concentrically zoned, smooth frond; the margin either quite entire, undulato-repand, crenate, or deeply lobulate, sometimes proliferous; surface thickly incrustated; concentric zones evident, closely set or sub-distant. *Dne. Cor.* p. 93. *Lamour. Pol. Flæ.* p. 311. *Kütz. Sp. Alg.* p. 502. *Corallina flabellata*, Ell. and Sol. *Cor.* p. 124. tab. 24 (*excellent!*).

HAB. Key West, W. I. I. Abundant between Key West and Cape Florida, *Prof. Thomey.* (v. v.)

Root a fusiform mass of intricately interwoven fibres, one to two inches long. *Stipes* half an inch to an inch long, terete, a quarter-inch or more in diameter, simple, erect, terminating in the broadly emeate or reniform base of the frond. *Frond* sometimes six inches across, but our specimens are mostly smaller, usually broader than its length, more or less emeate at base, the lateral margins prolonged downwards in old fronds, which, therefore, are somewhat reniform; flabellate, either quite entire with a flat margin, or more frequently undulate, lobed at the margin or deeply divided (as Ellis's figure represents) into numerous laciniae, which take the form of the primary frond, and imbricate each other at the edges. The surface is thickly coated with a calcareous crust, and quite smooth; it is marked at short, but very uncertain intervals, with concentric lines or furrows, much more obvious in some specimens than in others, but always to be found. The substance is as thick as calf-skin and leathery to the touch.

The *structure*, after removal of the lime, is seen to consist of closely packed, parallel, longitudinal, unicellular filaments, branching and interlaced together, and emitting toward the surface, or periphery, short, horizontal, rootlike, fastigate, branching processes, of whose cohering apices the surface of the frond is composed. *Colour*, a pale grass green, bleaching to a dirty white.

2. *UDOTEA conglutinata*, Lamour. ; stipes short, simple, smooth, expanding into a broadly flabelliform, simple or lobed, flat, scarcely incrustated, strigose frond, composed of longitudinal, parallel, agglutinated, dichotomous filaments, constricted at the forkings. *Lamour. Pol. Flcr. p. 312. Kütz. Sp. Alg. p. 502. Corallina conglutinata, Ell. and Sol. p. 125, t. 25, fig. 7. Udotæa Pulmetta ? Dne. p. 93. (TAB. XL. C.)*

HAB. Key West, *W. H. II.* (v. v.)

Root deeply descending, long and fibrous. *Stipe* terete or compressed, about half-an-inch to $\frac{3}{4}$ inch long. *Frond* flabelliform, 1-2 inches broad, flat, cuneate or cordate at the base, either entire or somewhat lobed, or irregularly torn, but slightly incrustated with lime ; the filaments of which it is composed being everywhere visible, and giving to the surface a strigose, fibrous appearance. These filaments are longitudinal, parallel, conglutinated together, but readily separable when the lime has been removed by acid. They are dichotomous, constricted at the forkings almost as if jointed, very slender, and destitute of lateral horizontal annuli, or of rooting processes. They more resemble the threads of a *Codium* than of a *Udotæa*, and may almost be compared to those of a *Penicillus*.

I have not seen any authentically named specimen of Solander and Ellis's plant, but have little or no doubt of the correctness of my reference. The strigose or filamentous surface at once distinguishes our plant from *C. flabellata* ; and Solander truly observes, " We can plainly distinguish all the dichotomous branches" (filaments) " of this Coral-line on its surface, which are each of them separately covered with a thin calcareous substance full of pores ; these, by growing so close to one another, become glued or united together by their covering."

PLATE XL. C. *Figs. 1, 2, and 3. UDOTEA conglutinata*, different varieties, the *natural* size. *Fig. 4.* Portions of the branching, unicellular, constricted filaments of which the frond is composed ; *magnified*. *Fig. 5.* Small portions of the same, more highly *magnified*.

IV. CODIUM. *Stackh.*

Frond sponge-like (globular, cylindrical or flat ; simple or branched) composed of a plexus of unicellular, branching filaments, filled with green semifluid endochrome. *Sporangia* lateral, on the ramuli of the filaments (forming the surface of the frond), and containing innumerable zoospores.

The frond in this genus, though it assumes a well-defined shape, characteristic of the particular species, does not form a solid, compact body as in *Udotea*, but consists altogether of innumerable slender, unicellular, branching filaments, inextricably interlaced or woven together. In the centre of the filamentous mass these filaments are threadlike, branching at longish intervals, curled or sinuous, filled with slimy fluid, and only partially supplied with green colouring matter. In the elongated species, as in *C. tomentosum*, these axial filaments take a longitudinal direction ; in the globose ones they radiate from a central point, as in the singular *C. mammillosum* of Australia; and in the incrusting species, like *C. adharens*, they spread horizontally over the surface of the rock on which the plant grows. In all cases they throw out more or less club-shaped ramuli, which spread in a direction vertical with the surface of the frond, and their apices lying close together, but not cohering, constitute the periphery. There is no calcareous incrustation as in *Udotea*, and no false epidermis as in *Halimeda* ; but with these exceptions there is much similarity in structure. The external habit is remarkably varied. In *C. tomentosum*, the type of the genus, and the most widely dispersed species, the frond is somewhat cylindrical, and dichotomously branched ; in a form (or species ?) called *C. elongatum* a similarly branching frond is extravagantly dilated and flattened especially at the axils ; in *C. laminarioides* a stipitate frond suddenly expands into a flat lamina a foot or two across, resembling nothing so much as a piece of green friese-cloth ; in *C. amphibium* a number of minute papilliform branches rise from a flat adherent surface ; and in *C. adharens* there is a flat, clothlike crust, destitute of branches, and indefinitely covering rocks and woodwork. In *C. bursa* the frond is sessile, gradually becoming globose and at length hollow ; and lastly, in *C. mammillosum* the frond is either exactly spherical or egg-shaped, composed of filaments radiating from a central point, and being, so far as known, destitute of any root-like attachment.

The fructification in *Codium* consists of an oblong, ovate *sporangium*, formed of a single cell, separated from the ramulus near the base of which it is developed, by a diaphragm, and containing, at first, a dense, dark-green endochrome, and finally a multitude of *zoospores*. These latter are ovate, of a deep green colour, with a minute "rostrum" at one end, which carries a pair of cilia, that serve as organs of locomotion till the spore becomes fixed and germinates. This fruit is exquisitely figured by Thuret, in his memoirs on the Zoospores of Algae, in *An. Sc. Nat. 3rd Series, Bot. vol. 14, tab. 23*, where a full account of the evolution is given.

1. *Codium tomentosum*, Stack. ; frond linear, dichotomous, cylindrical or compressed. *Ag. Sp. Alg.* 1. p. 542. *Wyatt, Alg. Donn.* No. 35. *Kütz. Sp. Alg.* p. 590. *Harv. Phyc. Brit.* t. 93. *Fucus tomentosus*, *E. Bot.* t. 712. *Turn. Hist.* t. 135.

HAB. Apalachicola, *Captain Pike*. Manatee River, *Mr. Ashmead*. Key West, *W. H. H.* Sitcha, *Ruprecht*. California, *Dr. Coulter*. (Not received from the east coast). (v.v.)

Fronde rising from an expanded, velvety incrustation, solitary, or gregarious, from three inches to one or two feet in length, varying much in diameter, erect, dichotomous, with or without lateral accessory branches. *Branches* cylindrical or compressed, obtuse, clothed with hyaline, spreading, soft, byssoid hairs, which, when the plant is expanded in water, stand out vertically on all sides, and give to the branches the *tomentose* character commemorated in the trivial name. The *axis* is composed of innumerable, interwoven, irregularly branched, slender filaments, from whose sides issue radiating, horizontal, clubshaped ramuli, whose apices, closely placed, but not cohering, form the surface of the spongy frond. To the sides of these ramuli are attached the *sporangia*, which are oval or ovato-lanceolate, and subsessile.

It is a singular fact, (if it be *really* a fact) that this well-known and common species, which is found in every latitude from the Equator to the colder parts of the temperate zone, and nearly to the polar basin, is not a native of the *Eastern* coast of North America. It has not been sent to me by any of my correspondents from any part of the Atlantic coast, except from Florida, at the mouth of the Mexican Gulf. There I have myself gathered it. On the west coast it appears to be abundant, and extends as far north as Sitcha. There is nothing to distinguish Californian specimens from those found in Europe, in Ceylon, in Australia, at the Cape of Good Hope, or at Cape Horn, at all which places it is common.

V. CHLORODESMIS. *Bail. and Harv.*

Frond pencil-form, stipitate or sub-sessile, flaccid, without calcareous incrustation, wholly composed of cylindrical, dichotomous, unicellular filaments filled with dense, vivid-green endochrome. *Stipes*, when present, spongy, formed of interwoven threads.

The genus *Chlorodesmis* was founded by the late lamented Professor Bailey and myself on an alga brought by Captain Wilkes from the Feejee Islands, and which I have since collected abundantly on all the coral reefs which I had the opportunity of visiting in the tropical Pacific, where it forms a very striking object on the extreme outer edge of the reef. This original species—*C. comosa*, Bail. and Harv.—has a distinct, and

often elongate, spongy stipes, and a brushlike habit, not unlike that of a *Penicillus*; and few algologists will question its claim to generic distinction. I am not quite sure that I do well in associating the following species in the same genus; but I know not where else to place it, unless indeed in *Vaucheria*. The specimens, however, appear to be scarcely mature; there is a resemblance in the colour and substance, and the habitat is not dissimilar; and I am willing to think that more advanced specimens might exhibit more of the spongy stipe which forms the most tangible character of this genus. The fruit has not been observed.

1. CHLORODESMIS? *Vaucheriaformis*; stipes obsolete; fronds sessile, comose-penicillate, fastigate, dark-green, composed of innumerable, slender, dichotomous, exceedingly lubricous and subgelatinous, unicellular, cylindrical filaments; apices equal, level-topped, obtuse. (TAB. XL. C.)

HAB. On stones, at Brown's Wharf, Key West, W.H.H. (v. v.)

Stipes obsolete, consisting in a bulbous mass of interlaced, branching fibres, which throw up the erect and free filaments of which the frond is composed. These filaments form dense pencil-like tufts, about an inch high, and perfectly fastigate. They are exceedingly slender, cylindrical, of equal diameter throughout, dichotomous, obtuse, gelatinoso-membranaceous, soft, and very lubricous, and filled with a dense, deep-green endochrome. Each filament is strictly unicellular, without articulation or constriction.

Plate XL. C. *Fig. 1.* CHLORODESMIS *Vaucheriaformis*; the natural size. *Fig. 2.* Portion of one of the branching unicellular filaments. *Fig. 3* and *4*, small portions of the same; the latter figures *magnified*.

VI. VAUCHERIA. D.C.

Fronds densely caespitose, and somewhat interwoven; each consisting of a single, irregularly branched, unicellular cylindrical filament. *Cell-wall* very thin and delicate. *Endochrome* granular. *Sporangia* lateral, on the sides of the branches. *Antheridia* cylindrical, hooked, accompanying the sporangia.

The greater number of species of this genus occur in freshwater ponds, ditches, and streams, and probably several may yet be found in North America. I have received from Mr. H. W. Ravenel of South Carolina a specimen of a *Vaucheria* apparently allied to *V. dichotoma*, but not in a state to be recognised. It was found floating in limestone-waters. Dried specimens of this genus are rarely of any use, as the specific character is generally lost in drying.

VII. BRYOPSIS. *Lamour.*

Root fibrous. *Fronds* tufted, each consisting of a single, erect, branching, unicellular, cylindrical filament; branches and ramuli either imbricated or pinnate. *Cell-wall* firmly membranaceous, glistening. *Endochrome* granular and viscid, at length converted into *zoospores*, which escape through apertures formed in the cell-wall.

This genus consists of several littoral Algae of small size, but among the most elegant of marine plants. They occur in tufts, seldom more than two to four inches in height, and grow either on the rocky margins of clear tide-pools, or epiphytically on other Algae. The frond is affixed to the rock by a slightly developed fibrous radicle, or simply by a disc, and consists of a single cylindrical elongated branching cell, filled with dense, starchy endochrome of a deep green colour, and destitute of any septum or interruption of the cavity throughout the whole length of the tube. The ramification is very generally on a pinnate type; a primary undivided filament emits lateral virgate branches, also quite simple, and these are generally naked in the lower half of their length, and furnished with lateral, distichous or imbricated ramuli in the upper half. In some species, as in *B. Balbisiæ*, there are either no ramuli or very few; in others, as in *B. myura*, the ramuli are exceedingly numerous and densely set. Very many species have been named and described, with more or less care, by authors; but many rest on very uncertain characters, and I fear that several must be regarded as mere varieties of *B. plumosa*, the original and most widely dispersed species. All are remarkable for a glassy lustre, when dry. They retain their colour, if carefully dried, and adhere closely to paper.

1. BRYOPSIS *plumosa*, Lamour.; frond setaceous, decompoundly much branched: the ultimate branches filiform, virgate, naked in their lower half, and more or less plumose-pectinate above; ramuli simple. *Alg. Sp. Alg.* 1. p. 448. *Harc. Phyc. Brit. tab.* 3. *Kütz. Syst. Alg.* p. 493. *Ulea plumosa*, E. Bot. t. 2375.—Var. β , *densa*: branches excessively crowded, the ultimate divisions pinnate near the apex, the pinnæ sometimes secund.—Var. γ *secunda*: tufts matted; fronds irregularly much branched; branches flexuous, many of them naked, others set in the upper half with falcato-reflexed, secund (occasionally bilateral) ramuli. (Tab. XLV. A.) Var. δ : *ramulosa*: branches nearly naked, with a few scattered, secund ramuli. *Bryopsis ramulosa*, Mont. *Hist. Cuba*, p. 16. *Tab. 3. fig. 2.* (Tab. XLV. A.)

HAB. Between tide marks in rock pools. Various localities near New York, common. Charleston, South Carolina, and Key West. Vars. β , γ , and δ , intermixed with the ordinary form at Key West and Sand Key, *W.H.H.* (v. v.)

Root small, scutate, accompanied by lateral, entangled fibres, and sometimes matted.

Fronds 3-6 inches high, setaceous, much branched; normally in a decompound pinnate manner, but very irregularly so. In what we may call typical or normal specimens, the outline of the frond is somewhat pyramidal, the lowest branches being very long and patent, the upper gradually shorter and more erect. In such specimens the branches are sometimes simply, sometimes doubly pinnate; in either case the lower half of the branch or branchlet is bare, the upper plumose, with simple ramuli inserted in nearly distichous order. To describe every variety of ramification different from this, and commonly occurring in this species, would be an endless and useless task; and worse than useless to found new species on such variations. I have endeavoured above to indicate the principal varieties which I have observed among American specimens. The var. *γ secunda* looks very like a distinct species, and had I seen none but carefully selected specimens, possibly I should have so regarded it; but though many specimens may be found strictly conforming to the character assigned, having all their ramuli secund and recurved, others occur, growing intermixed with them, in which the ordinary ramulification is followed. At Key West I collected some specimens which I cannot distinguish from *B. ramulosa*, Mont., and which seem to pass through var. *γ* and other intermediate forms, into ordinary *B. plumosa*. Having received from Dr. Montagne himself an authenticated specimen of his plant, I can speak with more confidence.

Bryopsis plumosa, under one or other of its many forms, is found in most parts of the world, at least within the temperate and tropical zones. In Europe it occurs as far north as the Faroe Islands (lat. 65°). In the Southern Ocean it extends to Cape Horn, and the Falkland Islands, and to New Zealand. The *B. Rose* of the Southern Hemisphere seems to be merely a luxuriant form, and not a distinct species.

Plate XLV. A. *Fig. 1.* *BRYOPSIS plumosa*, var. *γ secunda*; the natural size. *Fig. 2* and *3*, secund and bilateral plumules from the same; *magnified*. *Fig. 4.* *B. plumosa*, var. *δ ramulosa*; the natural size. *Fig. 5*, imperfectly pinnulate branch from the same, *magnified*. *Fig. 6*, apex of a branchlet, more highly magnified.

2. *BRYOPSIS hypnoides*, Lamour.; frond setaceous, decompoundly much branched; branches spreading to all sides; ultimate branches filiform, naked below, beset above with scattered or crowded, irregularly inserted, very slender, byssoid, pinnated ramuli. *Grec. Alg. Brit.* p. 180. *Harc. Phyc. Brit. tab.* 119. *Wyatt, Alg. Dana.* No. 81. *Harc. Man.* p. 146. (quere Lam. *Jour. Bot.* 1809. p. 135?) *B. cupressoides*, Lam. *vide I. Alg.*

HAB. Key West, W.H.H., Dr. Blodgett, Professor Tuomey. (v. v.)

Tufts dense, 4-6 inches high. *Fronds* setaceous, much branched, the branches issuing from all sides of a common stem or central filament, long and virgate, either quite simple, or bearing a second set of similar quadrifarious branches. These branches, as in *B. plumosa*, though sometimes ramulose nearly to the base, are generally naked in

their lower half, and beset with ramuli only above. The ramuli are exceedingly slender, many times more so than the part of the branch from which they spring, and are generally furnished with opposite or scattered, slender pinnules. The colour is a pale yellow green; the substance exceedingly soft and tender.

The figure given in *Phyc. Brit.*, taken from West of Ireland specimens, does not very well represent the Key West plant, which, however, closely resembles specimens from the South Coast of England and coast of Normandy, except that they are rather more luxuriant. This plant is generally of a much paler colour and still softer substance than *B. plumosa*, and is distinguished from the varieties of that plant by its *ramuli* being compound (pinnate), as well as greatly more slender than those of *B. plumosa*.

ORDER II.—DASYCLADEÆ.

Dasycladeæ and Polyphysææ, Kütz. *Phyc. Gen.* p. 311–312. *Valoniææ*, in part. Kütz. *Sp. Alg.* p. 507. *Part of Siphonææ*, Auct. alior.

DIAGNOSIS. Green, marine Algae, naked, or coated with carbonate of lime, having a unicellular simple or branched axis, which is whorled, either throughout its whole length, or near the summit, with articulated ramelli. *Spores* spherical, developed in proper fruit-cells.

NATURAL CHARACTER. *Root* formed of tubular, elongated, branching fibres more or less matted together. *Frond* either simple or branched, essentially consisting of an axis and of ramelli. The *axis* is in all cases a continuous tube, without articulation or septum, running throughout the frond, containing endochrome in a young stage, but very frequently found empty in the mature plant; and is apparently formed by the evolution of a single cell. Its walls are thick, tough, and readily seen, when a cross section is examined under the microscope, to be composed of successive concentric layers of cellulose. At regular intervals, either throughout the whole length of the axis, or in its upper half only, the tube is pierced by a circle of holes, and from these holes there issue whorled, articulated, confervoid ramelli, which appear to discharge the functions of leaves, and are sometimes deciduous, sometimes persistent. In the less complex genera, *Polyphysa* and *Acetabularia*, the ramelli are extremely delicate and fugacious, and are found only on young plants, or during the process of evolution; their position being indicated on plants from which they have fallen, by the circle of holes in which they had been inserted. In *Dasycladus* the ramelli are permanent, and thickly clothe every part of the stem, in whorls sometimes very closely placed, sometimes sub-distant; but there is no connection among the ramelli or between the whorls. In *Neomeris* the structure of the stem and ramelli is very similar to that of *Dasycladus*, with this difference, that the apices of the ramelli cohere to form an investing membrane or epidermis

which completely encases the frond and conceals its filamentous structure. In *Cymopolia*, again, we have a still further advance in structure ; for, not to speak of its calcareous shells, every node of which the branching frond is composed may be compared to the whole frond of a *Dasycladus* or a *Neomeris*. Like them, it is a tubular axis whorled with ramelli ; but these latter are so closely placed together that the whorled character is not obvious, and the branch has the mammillated look of a *Codium*, if its calcareous shell be removed ; or of a piece of honeycomb, if viewed with the shell still remaining.

The *spores* are of large size, and are always formed within proper fruit-cells or sporangia, and, so far as I am aware, are destitute of vibratile cilia, and appear to be formed on a much more perfect type than ordinary zoospores. They have a tough, hyaline, membranous coat, and enclose a mass of dense, dark green or brown endochrome. In *Polyphyssa* and *Acetabularia* the sporangia spring directly from the axial tube ; in *Dasycladus*, *Neomeris*, and *Cymopolia* they are found on the ramelli, and are either special cells, developed in the axils of the ordinary cells (as in *Dasycladus*), or are formed by metamorphose of a division of the ramellus, as in *Cymopolia*.

All the plants of this order, with the exception of *Dasycladus*, secrete carbonate of lime, but in very different proportions. In *Polyphyssa* and *Acetabularia* the calcareous matter exists as a thin varnish to the surface of the stem ; but in *Cymopolia* it forms as complete a shelly envelope as it does in one of the calcareous polypes, and indeed a dead frond in this genus might readily be mistaken for the husk of a zoophyte : its honeycombed pores closely resembling polype-cells.

All the species are natives of the warmer parts of the sea. *Dasycladus* and *Acetabularia* have representative species in the Mediterranean ; and the latter is found also in the tropical Pacific. *Neomeris*, which may probably yet be detected on the Floridan Keys, has species in the West Indies and Pacific Ocean. *Cymopolia* is found in the Carribean Sea, and also at the Canary Islands. *Polyphyssa* was discovered by Dr. R. Brown at King George's Sound, and has recently been found at Port Lincoln, Australia, by Mr. Wilhelm ; and at Swan River, by Mr. George Clifton.

I am very unwilling to multiply families, especially among plants of such low organization as the Chlorospermatus Algæ, and yet I have been in a manner compelled to remove from the *Siphonaceæ* both the little group now described, and the following one (*Valoniaceæ*) ; from the impossibility of devising any diagnostic character which would include the whole. The true *Siphonaceæ* are typically known by being wholly formed of long, tubular branching cells. In the *Dasycladeæ* the axis only is of this character ; the rest of the frond consists, as in *Conferæ*, of strings of short cylindrical cells ; and the *spores* are of a higher type than in *Siphonaceæ*. In *Valoniaceæ* tubular branching cells are found, if at all, only in the root, or in a spongy caudex, while the principal part of the frond is formed of confervoid filaments. They approach *Dasycladeæ* through *Chamodoris*, and possibly Kützinger may be correct in associating them, as he has done in his latest arrangement, with this group ; but, ignorant as we are of their proper fructification, I have not ventured to adopt this course. The habit of the true *Valoniaceæ* is dissimilar, and in none of them do we find the ramelliferous internodes which characterise the present family.

SYNOPSIS OF THE NORTH AMERICAN GENERA.

- I. CYMOPOLIA. *Frond* with a calcareous, branching, articulated shell; the internodes honeycombed; apices emitting pencilled ramelli.
- II. DASYCLADUS. *Frond* soft, unbranched, set throughout with closely placed whorls of trichotomous, horizontal ramelli.
- III. ACETABULARIA. *Frond* with a filiform, incrusting stipes, terminating in a petalate disc formed of radiating fruit-cells (*sporangia*.)

I. CYMOPOLIA. *Lamour.*

Frond filiform, dichotomous; its outer crust (or shell) calcareous, thick, distinctly articulate, the articulations everywhere pierced with pores, and the younger nodes fringed with byssoid, multifid fibrille. *Inner frond* (enclosed in the crustaceous shell) a membranous, continuous branching hollow tube, nodoso-constricted and moniliform, but not septate; the *nodes* when young fibrilliferous, at length bare; the *inter-nodes* whorled with several rows of short, horizontal, 3-4-fid, club-shaped ramelli, which protrude through the pores of the outer crust. *Sporangia* globose, borne on the club-shaped ramelli.

The frond in this genus consists of two distinct and separately organised systems—one mineral, and which wholly disappears when the plant is put into muriatic acid; the other vegetable, of the same texture, substance, and very similar organization to the frond of the following genus (*Dasycladus*); but still more nearly akin to another genus, *Neomeris*, not yet recorded from our shores, but which very probably exists on the Florida reefs, as one of its species is found in the West Indies. For sake of greater clearness, I have, in the above diagnosis, first described the outer crust, or frond, as it appears when lifted from the sea; and then given the characteristics of the vegetable axis which is brought to light when the calcareous envelope has been removed by acid. When the plant is alive, and seen under water, its green colour, and the rich pencils of delicate, bright green byssoid fibres that crown all the growing branches and their divisions, at once suggest its vegetable nature. But when seen dry and dead on the shore, where all these fibres and the green colour disappear, the resemblance to a porous zoophyte is so great, that it is no wonder that this Alga should, until quite recently, have had a place in the animal kingdom. The pores of the crust may easily pass for polype cells, and the enclosed tube has, when dry, an almost horny consistence.

Two species, *C. barbata* and *C. rosarium* are usually kept up, and Kützing has added a third, *C. bibarbata*, but it seems to me that the differences indicated have reference more to the age and state of individual specimens, than to difference of species. The fringing or non-fringing of the apices with fibrillæ surely depends on the state of the specimen. The fibrills are homologues of leaves, and, like leaves, are deciduous when they have performed their functions. I had abundant opportunities of studying the species at Key West, and see no ground for believing that there is more than one as yet known to botanists.

1. *CYMOPLIA barbata*, Lamour. *Cor. Fler.* p. 293, and *C. rosarium*, l. c. p. 294. Kütz., *Sp. Alg.* p. 511. *Corallina barbata*, *Lin. Syst. Nat. Ed. 12*, p. 1305. *Ellis and Sol. Zoop.* p. 112. *Ellis. Cor.* p. 54, t. 25, f. C. *C. rosarium*, *Ellis and Sol. Zoop.* p. 111, t. 21, fig. h. *Sloane, Nat. Hist. Jamaica*, t. 20, fig. 3. *Cymopolia bibarbata*, Kütz. *Phye. Gen.* t. 40, f. 2. Kütz. *Sp. Alg.* p. 510. (TAB. XLI. A.)

HAB. Near low-water mark, under the bridge at Key West. W. H. H. (v. v.)

Fronds tufted, at first simple, till they attain to one or two inches in height, then becoming branched, at first by the development of simple alternate branches. These afterwards fork at their extremities, and throw out lateral branches; and by continual repetitions of this process of division the frond at length becomes much branched in a di-trichotomous but irregular order. The tendency to become dichotomous is greater in the older specimens; the branches in all are fastigate. Every part of the frond, except the young tips of the branches, is invested with a thick calcareous, brittle crust, pierced with innumerable horizontal canals, opening at the surface by pores, arranged in transverse rings, which are so closely placed together that the surface appears as if honeycombed. In these canals of the crust the ramelli of the enclosed vegetable lie hid, the points only of their divisions protruding through the pores, and this only in the younger parts, which then have a green colour. The calcareous crust is regularly articulated at short intervals; the internodes in the main stem and branches are about twice as long as broad, those in the young parts of the frond spheroidal and bead-like. The *nodes* are much contracted throughout, and thus each branch looks like a string of beads. In the older parts the nodes are bare; but in the younger, toward the ends of the growing branches, they emit whorls of extremely delicate, byssoid, di-tri-chotomous or multifid, membranaceous fibrills; and whorls of similar fibrills terminate the young branch itself. The branches in the developing plant are thus penicillate or barbed at the extremity. When a piece of a frond is macerated in acid, so as to remove the calcareous crust, the true frond becomes visible. This we must now describe. It consists of a continuous, tubular axis or filament, seemingly formed of a single, cylindrical, branching cell, which runs through every part of the calcareous covering, and whose growing apices, clothed with byssoid fibres, protrude at the ends of the branches. This filament is nodose, annularly constricted at short intervals, corresponding to the articulations of the crust; but there are no inter-

nal septa. The wall is very thick and tough, and is evidently seen, under the microscope, to be formed of concentric layers, deposited one within another, as in the cell-wall of the *Caulerpæ*. When a transverse section of a branch is examined, the ring of cell-wall appears as if divided into numerous cells, corresponding in number to the ramelli that issue from it; the apparent septa of these supposed cells being placed opposite the insertion of the ramelli. This would suggest a structure not very different from what I have just described; namely, that the axial tube was not a single cell, but a tube formed by the lateral cohesion of a number of small, cylindrical, longitudinal cells, placed in a circle; a structure not very different from what occurs in *Batrachospermum*. After repeated examinations and dissections I am disposed to think that the appearance of cell-division in the wall is deceptive, and that what look like septa are prolongations inwards, through the wall, of the bases of the ramelli. The internodes of the axial filament are beset with very closely placed whorls of horizontal ramelli, each composed of a primary, and 3 or 4 secondary, clavate cells; the primary cell issuing from the substance of the wall of the axial tube, and forming the basal portion of the ramellus; the secondary cells springing from its apex. The primary cell is obconical; the secondary more clavate, and inflated at the point. *Fructification* takes place by the transformation of one of the secondary or terminal cells of the ramellus, which is changed into a spherical *sporangium*, filled (at first) with dense, dark green granular matter, surrounded by a pellucid margin, and raised on a short stalk. Whether it eventually contains *spores* or only *zoospores*, I have not determined; analogy with *Dasycladus* would lead us to the former inference. The *colour* of the frond, when growing, is a pleasant, and rather a full, yellow green; when dry, the calcareous crust fades to a dirty white, and the tufts of byssoid apical fibrills become brown or black, staining the paper to which they adhere.

Ellis's figures, quoted above, are both characteristic; and so also is that in Sloane's Jamaica, though rude and without analysis. Lamouroux strangely misquotes, under his *C. rosarium*, Sloane, Tab. 20, fig. 4, which is a very fair representation, not of a *Cymopolia*, but of *Amphiroa fragilissima*.

PLATE XLI. A. *Fig* 1. *CYMOPOLIA barbata*; the *natural* size. *Fig* 2. Apex of a branch, crowned with its pencil of byssoid fibres. *Fig* 3. Transverse section of a branch, from which the calcareous shell has been removed. *Fig* 4. Small portion of the same, showing a *sporangium* formed from one of the peripheric ramelli. *Fig* 5. Portion of a longitudinal section of a branch, to show the insertion of the horizontal ramelli, and the holes on the inner face of the cell wall. *Fig* 6. Byssoid fibres from the apical pencil. *Fig* 7. Tips of the same; the latter figures more or less highly magnified.

II. DASYCLADUS. *Ag.*

Frond destitute of calcareous crust, soft, and flaccid, cylindrical or club-shaped, unbranched, composed of a tubular, unicellular filiform axis, beset throughout with closely placed whorls of trichotomous, horizontal, articulate ramelli. *Sporangia* globose, affixed to the nodes of the ramelli, and containing, at maturity, very numerous spherical spores.

Small, densely tufted, erect plants, with almost spongy fronds, so densely are the ramelli frequently inserted. Their substance is very soft and flaccid, but tough, and the colour a full dark green. The membrane composing the frond is every where hyaline, and becomes glassy when dry; the colouring matter is viscid and granular as in *Bryopsis*. The genus was founded by Agardh on *D. claviformis*, a common Alga in the Mediterranean; and Meneghini has described a second species from the Adriatic. I now venture to add a third, which I was formerly disposed to consider as identical with *D. claviformis*.

I. DASYCLADUS *occidentalis*; whorls sub-distant; apices of the ramelli very obtuse. (TAB. XLI. B.)

TAB. On rocks between tide marks, on the Florida Keys. Key West, *Dr. Wurde-*
mam, *W. H. H.* Key Biscayne, *Prof. Tuomey*. (v. v.)

Root discoid, throwing out a few clasping fibres. *Fronds* mostly densely tufted, sometimes solitary, 1–2 inches high, clavate, from a line to nearly half-an-inch in diameter (including ramelli) erect, straight or curved, destitute of calcareous incrustation; consisting of a filiform, unbranched, unicellular axis, whorled throughout with densely inserted polychotomous ramelli. The axial filament varies in diameter from the thickness of a human hair to twice the diameter of hog's bristle; it is cylindrical, with a continuous cavity filled with endochrome, and seems to be developed from a single cell. Its wall is very thick, tough, and composed of several distinct layers of cellulose, concentrically deposited. The filament is marked externally, at short intervals, varying in distance in different specimens, with transverse rings or *nodes*, which give an appearance of joints (but there are no internal septa); and immediately above each node from six to twelve horizontal ramelli are inserted in a whorl, and in denuded specimens their places are indicated by a whorl of disc-like scars surmounting the node. The ramelli vary much in length and in density. In some specimens the internodes are so short that the frond seems continuously clothed, like the spongy frond of a *Codium*, from base to apex; the axis being completely concealed by the ramelli. In others the internodes are as much as a line in length, and the whorls appear sub-distant, like those of a *Mysriophyllum*. Sometimes the ramelli are scarcely a line long; in other specimens they are 2–3 lines or more. In all cases they are tri-dichotomous, twice or

thrice compounded and articulated ; being formed of two or three series of nearly cylindrical cells, four to six times longer than broad, filled with dark green slimy endochrome. The terminal cells are very obtuse. *Fructification* is formed at the axils of the ramelli, where two or three supplementary cells are developed and become spherical *sporangia*, by absorbing all the endochrome of the cells from which they spring, and finally that of the whole frond. When ripe, these sporangia are membranous bags, stuffed with innumerable spherical spores. *Colour*, a deep grass-green. *Substance*, soft and somewhat gelatinous.

This species closely resembles, in habit and structure, *D. clavaformis* of the Mediterranean ; but the ramelli, even in the densest specimens, are much more distantly placed than in that plant, and the apices (or terminal cells) of all the American individuals I have examined are perfectly blunt ; not mucronulate, as they are in *D. clavaformis*. If this distinction prove constant, the species will be sufficiently characterised.

PLATE XLI. B. *Fig. 1.* *DASYCLADUS occidentalis* ; the normal form. *Fig. 2.* An attenuated and depauperated variety ; both figures the *natural* size. *Fig. 3.* Transverse section of the frond, showing a whorl of trichotomous ramelli. *Fig. 4.* Portion of a fertile ramellus with *sporangia*. *Fig. 5.* A *sporangium*. *Fig. 6.* *Spores* from the same ; all the latter figures *magnified*.

III. ACETABULARIA. *Lamour.*

Root scutate. *Frond* stipitate, umbrella-shaped, thinly incrustated with calcareous matter. *Stipes* tubular, unicellular, cylindrical, when young emitting whorls of byssoid fibrills at and below the summit ; when mature, crowned with a peltate disc, formed of numerous radiating cuneiform cells. Cells of the disc at first containing granular endochrome, which is afterwards changed into spherical spores.

The two species which are included in this genus are among the most elegant and singular of the Algæ, resembling delicate fungi of the genus *Agaricus*, more nearly than any marine production. This is, however, descriptive only of the fully grown plant, for in the young state, the peltate umbrella which crowns the stipes is not found. In the youngest specimens which I have examined (represented at fig. 2 in our plate) the upper part of the stipe is beset at sub-distant intervals with whorls of extremely slender byssoid fibrills, above the last of which a young disc is commencing to be formed. In older plants these fibrills drop away, and their position is indicated by an annular row of holes, the tube being also swollen at each whorl, so as to appear jointed. There are no septa, however, and the tube is continuous, at least to the base of the young disc. When the disc is further advanced, a dense pencil of fibres springs from its centre, on its upper surface, or from what may be called its *umbo*, and which is

really the growing point of the frond. I regard the disc as being properly a whorl of *sporangia*, united by their edges; each radiating cell constituting a sporangium. The discs, after they have developed spores, are deciduous; and new ones are successively formed, one above the other, as the stipe lengthens.

1. *ACETABULARIA crenulata*, Lamour.; margin of the peltate disc minutely crenulate; the cells apiculate (when young). *Lam. Pol. Flœe. p. 6, Tab. 8, fig. 1. Kütz.. Sp. Alg. p. 510. (TAB. XLII. A.)*

HAB. Rocks and corals, within tide marks, on the Florida reefs. Key West, *W.H.H., Prof. Tuomey* (v. v.)

Root minute, discoid. *Fronde* scattered or tufted, two or three inches high, consisting of a slender, setaceous stipe, thinly coated with carbonate of lime, and bearing at its summit a peltate disc or cup, radiated like an agaric, and formed of clavato-cylindrical cells cohering by their edges, and filled with green endochrome. The stipes, when deprived of its lime by maceration in acid, forms a membranous, cylindrical tube, destitute of markings, slightly enlarged upwards, having near its summit one, two, three, or more (according to age) annular swellings, from which issue whorls of very delicate, polychotomous, byssoid ramelli, and terminating in the first formed disc, from whose centre a pencil of similar byssoid fibres is produced. In further growth, the stipes proceeds through the first disc upwards for a distance of 1-2 lines, where another annulus emits a second whorl of filaments, above which a second disc is formed; and thus, by successive apical growths new discs succeed each other, the older falling off as the younger are formed. In old specimens, therefore, you find the upper part of the stipe furnished with 4-5 or more annuli, marked with scars of the fallen ramelli and discs. In full grown specimens, the peltate disc, or circle of sporangia, is nearly half-an-inch in diameter. At first the matter contained in its cells is fluid and homogeneous. Eventually nuclei are formed in it, and the contents of each cell is converted into numerous globose spores, the whole endochrome being consumed in the process. The cell-wall of the stipe is thick and concentrically striate.

This species very closely resembles *A. Mediterranea*, from which it is distinguished by the minutely crenulate margin of the disc. In *A. Mediterranea* the margin is quite entire.

Plate XLII. A. *Fig. 1.* *ACETABULARIA crenulata*; the natural size. *Fig. 2.* Apex of a young frond, before the development of the peltate disc. *Fig. 3.* A young disc, within which is a pencil of byssoid fibres. *Fig. 4.* A mature disc. *Fig. 5.* Apex of one of the radiant cells, from a young disc in which they are mucronate. *Fig. 6.* One of the radiant cells of a mature disc, converted into a *sporangium*, and full of spores. *Fig. 7.* Spores from the same: all the latter figures magnified.

ORDER III.—VALONIACEÆ.

Valoniææ, in part, Kütz. *Sp. Alg.* p. 597. *Anadyomeneæ*, *Dictyospheriææ*, and part of *Codiææ*, Kütz. l. c. *Siphonææ*, in part, Auct. alior.

DIAGNOSIS. Green marine Algae, naked or encrusted with carbonate of lime, with fibrous roots. *Frond* polymorphous, formed of large vesicated cells filled with watery endochrome; either consisting of a single cell, or of several united into filaments, or into net-works or membranous leaf-like expansions.

NATURAL CHARACTER. *Root* in most cases well developed, and consisting of a plexus of tough fibres, forming a mat, and either penetrating the sand or grasping firmly to the rock or stones on which the plant grows. *Frond* very variable in form, and in complexity of structure. In *Valonia* the whole frond, in some species, consists of a single vesicated cell, which is often of large size, upwards of an inch in length, and three-quarters of an inch in diameter, filled with a thin, watery endochrome. In other species of that genus, several such cells are strung together so as to form confervoid branching filaments. In *Dictyospheria*, a number of large globose cells cohere together in a single stratum, and thus form a tessellated or honey-combed membrane. In *Anadyomene*, the membranous expansion is formed in a different manner, namely, by the lateral cohesion and anastomosis of a branching filament; and in *Microdictyon*, a network is formed in a similar way, the difference from *Anadyomene* being, that the branches of the generating filament stand apart, leaving open spaces between their anastomosing ramuli. A further advance in structure occurs in *Penicillus*, where the frond has a dendroid habit; the trunk of the treelike body being composed of branching, unicellular filaments like those of a *Codium*, and the head of confervoid, articulated filaments like those of *Valonia*. This spongy caudex, or trunk, appears to me to be merely an exaggeration of the rooting processes, common to most plants of the family. A more definite stipes, or true stem, is found in *Chamadoris*, *Apjohnia*, and *Struvea*, the most highly organised genera of the Order, and those which connect it with the *Dasycladææ*. In these the stipe is monosiphonous, and is developed nearly to its full size before any part of the capitulum makes its appearance. In the early stage these plants are not to be known from the simple *Valoniææ*, and like them consist of a single cell rising from a branching root.

In this description of the fronds of the Order I omit the curious plant which will be

found described below under the name *Blodgettia*, because it is not quite certain whether it be properly a member of this series ; or possibly the type of a separate family.

The fructification of none of these plants is satisfactorily known.

All are natives of tropical and sub-tropical latitudes. The Penicilli or *Merman's Shaving Brushes* are characteristic of coral reefs, and are found in the Caribbean Sea, and on the shores of Australia and of the Indian archipelago. *Anadyomene* is common to the Mediterranean Sea, the Gulf of Mexico and the shores of Brazil. *Dictyosphaeria* is tropical and Australian. *Valonia* is found in most western oceans, and ought to occur on the Floridan Keys, though not yet found there. *Microdictyon* is generally a deep water production, lying at the bottom in 5-10 fathoms ; but it sometimes occurs at low water mark. Species of it, all very similar to each other, have been found in the tropics of both hemispheres and in the Mediterranean ; and one is very abundant in Port Jackson, Australia. *Struwa* is confined to the West coast of Australia, and *Apjohnia* to the Southern coast. *Chamaedoris* is Caribbean ; and *Acrocladus*, Næg., a closely allied form, is found in the Mediterranean.

TABLE OF THE NORTH AMERICAN GENERA.

* *Dendroid ; stipitate, crowned with tufted filaments.*

I. CHAMLEDORIS. *Stipes* monosiphonous, annulated ; head very dense.

II. PENICILLUS. *Stipes* formed of innumerable interwoven filaments, spongy ; head brush-like.

** *Confervoid ; densely tufted.*

III. BLODGETTIA. *Fruil* filamentous, articulated, branching, densely tufted.

*** *Membranous, leaf-like.*

IV. ANADYOMENE. *Membrane* erect, flabellately veined ; veins articulated, confervoid, radiating from the base toward the margin.

V. DICTYOSPHAERIA. *Membrane* amorphous, wholly formed of spherical cells lying in a single stratum.

I. CHAMLEDORIS, Mont.

Root much branched. *Fruil* stipitate, dendroid. *Stipes* at first clavate, then cylindrical ; tubular, unicellular, horny-membranous, annularly constricted and corrugated, at length crowned with a dense fascicle of confervoid, much branched, articulate ramelli. *Fruit* unknown.

Young and full grown specimens of the little Alga which constitutes the present genus are so unlike that they might readily pass for different entities. The frond originates in a dense mass of branching, horny-membranous, intricate, rooting fibres, from which spring erect micellular branches, or fronds. These are at first quite simple and naked; but afterwards develop from their summit two or three very closely placed whorls of much branched ramelli, which form a dense, fasciculate capitulum. The frond is then mature and resembles a little tree; or perhaps, more justly, a little mop. The genus was founded by Montagne in 1842, by a separation from *Penicillus*.

1. *CHAMLEDORIS annulata*, Mont. *An. Sc. Nat. Ser. 2, vol. 18, p. 261.* Kütz. *Sp. Alg.* p. 509. *Nesaea annulata*, Lamour. *Pol. Flex.* p. 256. *Corallina peniculum*, Ell. and Sol. *Zoop.* p. 127, *tab. 7, fig. 5-8 and tab. 25, fig. 1.* (TAB. XLII. B.)

HAB. Key West, rare. W. H. H., *Dr. Blodgett.* (v. v.)

Root composed of many branching and clasping, tufted fibres, which issue from the base and lower part of the stipes, and at length form a dense mat. *Fronds* tufted, 2-3 inches high, nearly a line in diameter, tubular, simple, membranaceous or somewhat horny, destitute of calcareous incrustation except in old age, when they are thinly coated toward the base; cylindrical, annularly constricted at short intervals as if jointed, the internodes most apparent on old specimens, when the annular constrictions are deeper. In the young state the frond consists merely of such an annulated tube, formed of a single cell. When this has attained the height of two or three inches, it ceases to grow longer; a septum is formed just below the summit, and a new cell begins there to develop. This second cell is very short, and again divides, once or twice, vertically; so that the original tubular cell (now to be called the *stipe*) is crowned with two or three minute cells, placed one above the other (TAB. XLII. *fig. 3*), the terminal one being attenuated and pointed. These cells remain short and rudimentary, but from their nodes dense whorls of *ramelli* begin to grow (*fig. 4*), which finally constitute a dense, mop-like capitulum. When fully grown the capitulum is an inch or more in diameter, globose, very dense, composed of innumerable, crowded and interwoven, much branched, irregularly dichotomous, articulated filaments. The articulations are cylindrical, constricted at the nodes and many times longer than broad; but variable in length. *Colour*, a bright, grass-green. *Substance*, membranaceous, rather rigid and tough, not adhering to paper in drying. Thin slices of the tube, when examined under the microscope, show concentric lines of growth, as in *Dasycladus*, &c.

This plant is rare at Key West, and none of my specimens are fully grown. It is a native of the West Indian Islands.

PLATE XLII. B. *Fig. 1.* *CHAMLEDORIS annulata*, the natural size. *Fig. 2.* A young, micellular frond, previous to the formation of the capitulum. *Fig. 3.* Apex of a frond in a more advanced stage, showing the newly formed axial cells of the future capitulum. *Fig. 4.* Apex of a still more advanced young frond, with the capitulum beginning to be

formed. *Fig. 5.* Portion of the capitular filament; the latter figures more or less *magnified*.

II. PENICILLUS. *Lamarck.*

Root fibrous, much branched, matted. *Frond* stipitate, dendroid. *Stipes* erect, cylindrical or compressed, incrustated, wholly composed of numerous longitudinal, unicellular branching filaments woven together into a compact spongy mass; and crowned with a dense pencil of confervoid, articulate ramelli, whose branches are either free, or cohere together in fan-shaped laminae, and are invested with a porous pellicle of carbonate of lime.

If Mer-men have beards and shave them, the *Algæ* included in this genus may serve as shaving brushes. The *root* is much branched and its fibres matted together, and generally penetrates deeply into the sand in which the plant grows. The *stipe* is more or less coated with carbonate of lime, and composed of a multitude of closely placed and densely interwoven longitudinal, unicellular filaments, which send off laterally, throughout their length, short, fastigiate, corymbose ramelli, that unite together to form a periphery. Thus far we have a structure closely agreeing with that of a *Codium*. But from the apex of this compact, spongy *stipe* there springs a dense tuft or capitulum, composed of dichotomous, articulated, free filaments; and the whole frond bears a striking resemblance to a shaving brush. The habit is similar to that of *Chamedoris*, from which the spongy, multicellular *stipe* distinguishes it; and to *Chlorodesmis*, which differs in having a capitulum formed of unicellular filaments.

The species naturally arrange themselves in two groups, or sub-genera, which Kützing has separated; a separation which is hardly needed, where the species are so few in number and so closely related in structure.

Sect. 1. HALIGRAPHIUM, Endl. (*Corallocephalus*, Kütz.); branches of the capitulum free.

1. PENICILLUS *dumetosus*, Dne.; *stipes* short, thick, somewhat compressed, velvety; filaments of the capitulum loosely spreading, ultra-setaceous, flaccid, deep-green; their joints cylindrical, many times as long as broad, equal, obtuse, strongly constricted at the nodes. *Dne. Cor. p. 97.* *Nesara dumetosa*, Lamour. *Polyp. p. 259. pl. 8, fig. 3.* *a. B. Corallocephalus dumetosus*, Kütz. *Sp. Alg. p. 506.* (Tab. XLIII. A.)

HAB. Key West and Sand Key, *W.H.H.* Soldier's Key, *Prof. Tuomey.* (v. v.)

Root, a dense mass of fibres deeply sinking in the sand. *Stipes*, 1-3 inches long, half-inch to nearly an inch in thickness, sometimes rather hollow in the centre, more or

less compressed, erect, coated with a velvety scurf, and partially incrustated with calcareous matter ; nearly destitute of lime when young, much incrustated with it in old age. This stipe is composed of innumerable, densely packed, longitudinal, unicellular fibres which closely adhere by lateral branching processes, and are interlaced together. The outer strata of these fibres emit, to form the periphery of the stipe, innumerable short, lateral, horizontal, multifid, fastigate ramelli, whose apices, lying close together, give the velvety appearance to the surface. As long as these longitudinal filaments cohere into a stipe they are unicellular ; but when they become free at the apex of the stipe, they are articulated, or pluricellular ; and a capitulum of confervoid filaments completes the frond. According to the age of the specimen, the filaments of the capitulum are more or less developed ; in young specimens they are less than an inch long ; in older and full-grown ones they vary from 3 to 6 inches. They are densely, but not intricately tufted, thicker than hog's bristle, dichotomous, radiating to all sides, equal and obtuse ; their articulations are cylindrical, and many times longer than broad. The colour is a full, deep green, and they are very thinly incrustated with lime ; the crust pierced with minute pores. The primordial utricle separates readily from the cell-wall, and is firmly membranous.

PLATE XLIII. A *Fig. 1, 2, 3. PENICILLUS dumetosus*, of different ages : the natural sizes. *Fig. 4.* Portion of one of the dichotomous filaments of the capitulum. *Fig. 5.* Small portions of the same, after the calcareous coating has been removed, showing a pitted surface ; the latter figures more or less *highly magnified*.

2. *PENICILLUS capitatus*, Lamk. ; stipes long or short, cylindrical or clavate, terete, incrustated, smooth ; filaments of the globose capitulum densely crowded, fastigate, capillary, rigid, pale green, their joints cylindrical, many times as long as broad, obtuse, constricted at the nodes. *Dne. Cor. p. 97. Nesaea Penicillus, Lamour. Pol. fter. p. 258. Corallina Penicillus, Ell. and Sol. p. 126, tab. 25, fig. 4, 5. Corallocephalus Penicillus, Kütz. Sp. Alg. p. 505. (TAB. XLIII. B.)*

HAB. Key West, *W. H. H., Prof. Tuomey.* (v. v.)

Root very large, two inches long or more, deeply descending, very fibrous and densely matted. *Stipes* from one to four or five inches long, a quarter to a third of an inch in diameter, mostly cylindrical and equal throughout, occasionally compressed and widened upwards, thickly incrustated with calcareous matter, and having a smooth and sometimes a polished surface. *Capitulum* very dense, mostly globose, sometimes oblong and rarely somewhat diffuse, fastigate, one or two inches in diameter, composed of innumerable, curved, densely packed and often entangled, capillary filaments which are encrustated with calcareous matter to an extent that makes them rigid. The structure is similar to that of the preceding species ; and the calcareous incrustation is similarly dotted or pitted. The length of the articulations varies much ; usually

they are many times as long as broad ; but now and then a short, globose articulus is interposed between the two long ones. *Colour*, a pale green.

PLATE XLIII. B. *Figs. 1, 2, 3.* *PENICILLUS capitatus*, different varieties ; the *natural* size. *Fig. 4.* Portion of a dichotomous filament from the capitulum. *Fig. 5.* Small portion of the same, after the lime has been removed ; the latter figures more or less highly *magnified*.

SECT. 2. HALIPSYGMA, Endl. (*Rhipocephalus*, Kütz.) ; branches of the capitulum cohering in flabelliform laminae.

3. *PENICILLUS Phœnix*, Lamk. ; stipes elongate, terete, incrusted, smooth ; capitulum ovoid or oblong, its filaments incrusted, very slender, dichotomous, cohering by their edges into many distinct, flat, cuneate, level-topped, spreading laminae. *Dne. Cor. p. 98. Lamk. An. Mus. 20, p. 299. Corallina Phœnix, Ell. and Sol. p. 126. t. 25, fig. 2-3. Nesaea Phœnix, Lamour, l. c. p. 256. Rhipocephalus Phœnix, Kütz. Sp. Alg. p. 506. (TAB. XLIII. C.)*

HAB. Key West, *W. H. H.* Dredged in $3\frac{1}{2}$ fathoms off Soldier's Key, *Prof. Tuomey.* (v. v.)

Root somewhat fusiform, dense, descending. *Stipes* cylindrical, 1-3 inches long, a quarter inch in diameter, thickly incrusted with calcareous matter, the surface smooth, composed as in the rest of the genus of many slender longitudinal branching and ramelliferous threads. The filaments of the capitulum are thickly incrusted with calcareous matter, and disposed in many flat, cuneate, flabelliform laminae ; their ramifications lying close together, and cohering laterally by means of the incrustation. On removing the carbonate of lime the cohesion of the filaments is destroyed. The articulations are many times longer than broad, cylindrical, and much constricted at the nodes.

PLATE XLIII. C. *Fig. 1.* *PENICILLUS Phœnix*, the *natural* size. *Fig. 2.* Portion of one of the fanlike laminae of the capitulum. *Fig. 3.* Cells from the same, after the removal of the lime ; the latter figures more or less *magnified*.

III. BLODGETTIA, Harv. (n. gen.)

Front caespitose, branching, confervoid, articulate. *Articulations* unicellular, filled with grumous, viscid endochrome ; the cell-wall formed of separable membranes,

the outer of which are hyaline and homogeneous, the innermost traversed by parallel, longitudinal, anastomosing veinlets. *Spores* seriated in moniliform strings, and developed from the veinlets of the inner cell-wall (!)

The highly curious little Alga on which the present genus is founded so closely resembles a *Cladophora* that it will readily pass for one, unless it be very closely examined under a powerful microscope. Indeed so great is the resemblance to a branched *Conferva* that I formerly distributed it to my friends with the manuscript name of *Cladophora cespitosa*, under which it was my intention to have described it in the present work ; nor did I discover my error until I commenced making sketches for the plate now given. I was then first struck by the peculiar opacity of the dissepiments ; and afterwards by what looked like a compound cellular structure in the walls of the cells. On applying a higher power, other characters came out which induced me to dissect one of the articulations, when I discovered the curious structure of the inner membrane or primordial utricle ; in which (as far as I can make out) the spores are developed. To see the structure, as above described, the readiest mode is to proceed as follows. Cut off a portion of one of the long cells which terminate the branches ; place it on the table of a dissecting microscope, moisten it, and you may readily express the viscid endochrome, which generally contains, besides the usual starch and chlorophyll grains, a number of pyramidal crystals ; but these are probably adventitious. When the endochrome has been pressed out, the structure of the inner membrane of the cell-wall may be partially seen ; but to see it clearly, the outer coats must be removed. This may readily be done, either by tearing, with a pair of dissecting needles, or by making a longitudinal section through the cell, when the different coats easily separate, on the section being *tensed* in a drop of water. The outer coat, or coats (for there are *two* or more, though the secondary ones sometimes elude detection, owing to their extreme tenuity) are quite transparent and structureless, as is usually the case in the walls of cellular tissue. But the inner coat offers a peculiarity of structure which I have not noticed in any other Algae, nor have heard of its occurrence in the cells of any other plant. At first sight the membrane seems to be composed of numerous minute, elongated fusiform cellules, not unlike the wood-cells of phanerogamous plants, but totally unlike any algæ-cells known to me. Careful examination has however convinced me that the appearance of cellular structure is deceptive ; and that the membrane itself is homogenous, but traversed by slender filaments or nerves, which anastomose together, forming areolæ which look like cells. These filaments give off *five* ramuli whose apices swell into spores ; and (probably) by repeated cell division produce the strings of roundish *spores*, which are so conspicuous in most of the areolæ. The appearance of the whole membrane with its spores is as if a number of the *asci* of a lichen were placed side by side ; the true structure, however, I need hardly say, is widely different.

The generic name is bestowed as a grateful tribute to the memory of the late DR. BLODGETT of Key West, who had zealously collected and studied the Algae of the reefs where this plant grows, and to whom I am indebted for many specimens of the rarest Alga of the Florida Keys.

1. *BLODGETTIA confervoides*, Harv. (TAB. XLV. C.)

HAB. At Key West, on rocks near low-water mark. *Dr. Wardeman, W. H. H., Prof. Tuomey.* (v. v.)

Fronds filamentous, densely tufted; the tufts spreading extensively, from an inch to an inch and half in height, very dense, pulvinate and fastigate. *Filaments* rigid, not collapsing when removed from the water, about as thick as hog's bristle, sparingly branched, decumbent at base, then ascending, and the tips erect. The main divisions and primary branches are very patent, either arching backwards or quite recurved. They are destitute of branches along their lower or outer side, and more or less furnished with unilateral ramification on the upper; generally with a long excurrent point destitute of ramuli. Often the filament has but a single series of simple, secund ramuli; but in luxuriant specimens there is a second series of similar secund ramuli. *Articulations* variable in length, dark coloured, with opaque dissepiments, and not collapsing when dry, contracted at the nodes, three to six times as long as broad; the terminal cell always very much longer than the rest, and frequently 10-12 times as long as its diameter. *Apices* very blunt. The articulations are filled with dense, viscid endochrome full of large green granules, and frequently containing also prismatical crystals. The membranous cell-wall is divisible into three or more separate membranes, one concentrically placed within the other. The outer are hyaline without obvious structure; but the inner one is reticulated with very slender nervelike fibres, which run longitudinally through the membrane parallel to each other, and are connected by oblique crossbars; so that the surface is divided into narrow, pointed areolæ. The *spores* are seriated in moniliform strings, four or more in each string, and attached to short free veinlets which issue from the veins of the inner cell-wall. The *colour* when recent is a very dark green; when dry it becomes more olivaceous. The substance is very firm, and the plant imperfectly adheres to paper in drying.

PLATE XLV. C. *Fig. 1.* *BLODGETTIA confervoides*; the natural size. *Fig. 2.* Pectinated branch. *Fig. 3.* Apex of the long terminal cell of the branch, the lower portion represented with the outer cell-coats exfoliated. *Fig. 4.* Portion of the membrane of the innermost cell-coat traversed by slender fibres, bearing strings of *spores* (?). *Fig. 5.* One of the moniliform strings, apart. *Fig. 6.* Some of the crystals found in the cells. All the latter figures more or less highly magnified.

IV. ANADYOMENE, Lamour.

Root fibrous. *Fronde* stipitate, membranaceous, leaf-like, flabellately veined; the veins confervoid, radiating from the base to the margin, pedately multifid, excessively branched, and everywhere closely anastomosing. *Fructification* unknown.

The frond in this genus is thin and membranous, and at first view resembles that of an *Ulva*, except that it is traversed everywhere by branching veins. When more closely examined it is easily perceived that the membrane is wholly formed by the anastomosis and lateral cohesion of the branches and ramuli of a much branched, articulated, confervoid filament, composed of large, oblong cylindrical cells; as more fully detailed in the subjoined description. As Professor J. Agardh remarks (*Alg. Medit.* p. 24), it is nearly related to *Valonia*, from which it differs chiefly in the lateral cohesion of the branches of the generating filaments, and to which it bears the same relation that *Codium* does to *Vaucheria*. It is still more nearly related to *Microdictyon*, where the fronds form an open network.

1. *ANADYOMENE flabellata*, Lamour.; frond flattish or undulate, the veins multipar-
tite. *Lamour. Pol. Fluv.* p. 365, *tab.* 14, *fig.* 3. *Bory, Fl. Mor.* t. 41, *fig.* 5, *Kütz.*
Sp. Alg. p. 511. *A. stellata*, *Ag. Sp. Alg.* 1, p. 400. (TAB. XLIV. A.)

HAB. Key West, on tidal rocks, common. *Dr. Wardenman, W.H.H., Prof. Tuomey.*
(v. v.)

Root consisting of a mat of branching, articulate, confervoid filaments, emitting erect branches which develop into flat, flabelliform, membranous fronds. *Fronds* tufted, 1-4 inches long and as much in width, rigidly membranaceous, shortly stipitate; the stipes uni- or pluri-cellular; lamina at first flabelliform and entire, afterwards undulate and more or less deeply lobed at the margin; wholly composed of radiating, multifid, branching, confervoid filaments, whose distichous branches closely cohere throughout, and whose ramuli as constantly anastomose and coalesce. In other words, the membrane is composed of longitudinally seriated, cylindrical cells, several series radiating from the base toward the circumference in a flabellate manner, and dividing and subdividing digitately throughout the whole length of the series; each cell emitting from its summit 5-7 or more similar cells, which in their turn put forth another series, and so on. In this way the frond increases in length. It is widened by the gradual evolution of other cells formed along the sides of contiguous parallel cells in a pinnate order. At first these lateral or transverse cells are very minute and placed opposite each other. They gradually lengthen, anastomose and coalesce, and at length form a reticulated space of a narrow wedge-form between each pair of tubular, longitudinal cells. The cuneate space looks like a membrane, but is really constituted of closely placed, transverse bars, leaving narrow slits between them, as may be readily seen by examining a dried specimen when the substance shrinks. In a moist state, by the swelling of the cells, the slits close up, and the frond appears as if continuously membranous. The tubular, longitudinally seriated cells, or those that form the veins and nerves of the frond, seem to continue to lengthen during the whole growth of the lamina; they are short in young plants, longer in others, and in old plants are many times longer than their diameter. The cell-wall in these cells is thick and tough, and when viewed under a

moderately high magnifying power it appears to be transversely striate. The primordial sac readily separates from the outer cell-wall.

This plant was first noticed in the Mediterranean Sea, where it grows in the fissures of littoral rocks in many places. It occurs also in Brazil, from whence I possess a specimen; and is found generally throughout the West Indian Islands. Our Key West specimens are rarely more than two inches high and about three in breadth. The largest specimen I possess was given me by the late Mr. Menzies, as having been dredged in twenty fathoms in the Gulf of Mexico. This specimen measures six inches across, and its venation offers some peculiarities; which perhaps may lead to its specific separation. In our Key West plants the seriated cells of the principal veins stand apart from each other, or are in single file, leaving wedged-shaped spaces between. In Mr. Menzies' specimen the principal veins are partly unicellular, partly formed of several parallel, closely placed cells, without interspaces. The structure is easily seen, but difficult to describe in intelligible language. Should subsequent observations establish this plant as a species, it may be called *A. Menziesii*.

PLATE XLIV. A. *Fig. 1.* ANADYOMENE *flabellata*, full grown; and *Fig. 2*, a young plant; the *natural* size. *Fig. 3* represents *Fig. 2*, *magnified*, to show the structure of the frond.

V. DICTYOSPILÆRIA. *Dne.*

Root consisting of a few grasping processes. *Frond*, a decumbent, amorphous membrane composed of a single series of vesicated, sub-globose, tough-coated cells, filled with green, fluid endochrome. *Fructification* unknown.

The plant for which this genus was defined by Decaisne was formerly referred to *Valonia*, to which no doubt it is closely allied, but from which it differs by the greater lateral coherence of the cells which compose the frond, and also by the structure of these cells. It is of common occurrence throughout the tropics of both hemispheres. On the coast of Australia a second species is equally common, differing from *D. favulosa* in the frond being never vesicated, and in the component cells being very much smaller, the surface flatter, and the frond having a silky lustre. This I have elsewhere described under the name *D. sericea*.

1. DICTYOSPILÆRIA *favulosa*, *Dne.*; frond at first globose and hollow, afterwards irregularly torn, expanded; the vesicated cells globoso-hexagonal, convex, and very prominent. *Dne. An. Sc. Nat. Ser. 2. vol. 17. p. 328. Kütz. Sp. Alg. p. 512. Valonia favulosa, Ag. Sp. Alg. 1. p. 432. (Tab. XLIV. B).*

HAB. Key West, W.H.H., *Prof. Tuomey*. (No. 103). (v. v.)

Fronds at first globose, like tubers, heaped together, hollow and empty or filled with sea-water, attached to the rock and to each other by a few short, rooting processes; at length irregularly torn, and then forming expanded, cartilaginous, or skinlike coarsely reticulated membranes. The membrane is wholly composed of a single layer of large, globose, or by mutual compression hexagonal cells, which closely cohere by their sides, leaving the convex ends of the cell free, and these form the surface of the membrane, which when dry resembles a piece of fish skin, or a miniature honeycomb. When the cells have been separated, each is seen to be marked at the line of junction by a double row of circular discs. In full grown cells the primordial utricle is easily separable from the outer cell-wall, and contains a green, granular endochrome; from which, by cell-division, four new cells are formed, and thus the frond extends by repeated quadrissection of its component cells. The cell-wall is very tough and semifibrous in texture, more like an animal than a vegetable membrane; and I have seen hairlike processes issue from it internally, analogous perhaps to the fibrous processes of the membrane of *Caulerpa*. I cannot say whether this be a constant character. It was observed in specimens from the Pacific brought home in spirit, and cannot be readily ascertained from dried specimens.

PLATE XLIV. B. *Fig. 1.* *Dictyosporia favulosa*, the *natural* size. *Fig. 2.* Portion of the surface, showing the division of the cells. *Fig. 3.* One of the cells of which the frond is composed, removed; the latter figures *magnified*.

ORDER IV.—ULVACEÆ.

Grav. Alg. Brit. p. 168. *Hook. Br. Fl.* 2, p. 309. *Harv. Man.* p. 211. *J. Ag. Alg. Medit.* p. 14. *Endl. 3rd Suppl.* p. 18. *Ulveæ et Enteromorphae*, Kütz. *Spec. Alg.* pp. 471–475.

DIAGNOSIS. Green or purple, marine or fresh water Algae, composed of small, polygonal or quadrate cells, forming expanded membranes or membranous sacs or tubes; rarely arranged in filaments. *Fructification*, zoospores formed in the cells of the frond.

NATURAL CHARACTER. *Root* a small disc, or point of attachment. *Frond* formed of small, often very minute, roundish, quadrate or polygonal cellules cohering together into thin, filmy membranes, of no very definite form, and either expanded into broad leaves, contracted into narrow ribbons, or forming tubes which are either simple or branched. In those of lowest organization, such as *Tetraspora*, the frond is of a nature so loosely gelatinous that it can only by courtesy be called a membrane, and the cells which give it consistency are widely separated by transparent jelly. In *Prasiola* the

cells are closer, with narrower hyaline interspaces, and the gelatine has a firmer consistence, more like that of ordinary cellulose; and in *Ulva* there is perfect cohesion between thin-walled cells, and the membrane formed by them is firm, and often rigid and tough. Perhaps in all cases the cells multiply by a fissiparous division into four, the old cell dividing longitudinally and transversely. This is very obvious wherever the cells stand sufficiently apart, as in *Tetraspora* and *Prasiola*, and in the more transparent *Enteromorpha*; but is less evident in the ordinary marine *Ulva*. Most of the *Ulvaceæ* have the brilliant, grass-green common to the Chlorosperms; but in the genera *Porphyra* and *Bangia* the frond assumes a more or less pure dark-purple hue, and hence some authors have removed these genera to the Rhodosperms. But I cannot think such removal natural or desirable; for there is really no difference between *Ulva* and *Porphyra* in structure or fructification, and the occurrence of a purple colour, or even of a purer red, is by no means limited among *Chlorosperms* to these plants. We frequently find purple colours in *Batrachospermæ*, especially in *Thorea*; they occur also in *Oscillatoriaceæ* and in *Palmellaceæ*; and in the latter, and also in the spores of *Oedogonia* a pure carmine or scarlet is often seen.

The fructification of the *Ulvaceæ* consists in zoospores, which are formed indifferently in all or in any of the cells of the frond, and are furnished with two or four cilia. Their development and germination are beautifully figured by Thuret in his valuable memoir on the zoospores of *Algæ*, in *An. Sc. Nat. Ser. 3*, vol. 14.

Ulvaceæ are universally dispersed either in salt or fresh waters throughout the world, and several are found on damp soil, or in half inundated places. All the genera and most of the species are cosmopolitan. Their specific characters are difficult to fix, and authors differ very much in their opinions respecting them. Kützing describes a multitude of species, which other writers find it difficult to separate, even as varieties. The form of the frond, in the foliaceous species, is assuredly a most uncertain character; and the comparative size and branching of the tube, in the tubular, equally variable.

SYNOPSIS OF THE NORTH AMERICAN GENERA.

* *Porphyreæ* : *frond purple*.

I. PORPHYRA. *Frond* leaf-like, purple.

II. BANGIA. *Frond* filiform, purple.

** *Ulveæ* : *frond green*.

III. ENTEROMORPHA. *Frond* membranous, tubular, simple or branched.

IV. ULVA. *Frond* membranaceous, leaf-like.

V. TETRASPORA. *Frond* gelatinous, expanded.

I. PORPHYRA. *Ag.*

Frond membranaceous, flat and leaf-like, purple. *Fructification*, dark purple granules (spores) arranged in fours, dispersed over the whole frond.

The species of this genus are difficult to determine, and I am induced, in this place, to unite the *P. vulgaris* and *P. laciniata* of authors, which I have elsewhere (*Phyc. Brit.*) figured and described as distinct. They appear to me to run one into another; and if we contend for two species, with equal justice might we make half-a-dozen. Both are indifferently used in England in the preparation of "*marine sauce*," or laver, which is often brought to table as an accompaniment to roast meat. Kützing describes sixteen species, several of which are probably reduceable to the following:—

I. PORPHYRA *vulgaris*, *Ag.*; frond polymorphous, either undivided or cleft into several broad segments; sometimes peltate, fixed by a middle point. *P. purpurea*, and *P. laciniata*, *Ag. Sp. Alg.* p. 190—191. *P. vulgaris*, *Ag. Aufz.* p. 18. *Harc. Phyc. Brit.* t. 211. *P. laciniata*, *Harc. Phyc. Brit.* t. 92. *Wyatt. Alg. Danm.* No. 32. *P. linearis*, *Grev.* *P. amethystea*, *Kütz.*

HAB. Rocks between tide marks. On the eastern shores from Charleston, South Carolina, to the Arctic Regions. Western Coast, from California to Russian America (v. v.).

Very variable in form in different localities and at different stages of growth. In an early state it is either oblong or linear-lanceolate, with an evident though minute stipes, and then it constitutes the *P. linearis* of Greville, which is found truest to its type in the beginning of winter, in situations near high-water mark, where its vegetation is less vigorous. Later in the season the form usually called *P. vulgaris*, as figured in *Phyc. Brit.* t. 211, will be found in the same locality, and also throughout the whole space between tide marks. In this the frond is ovate or ovato-lanceolate, or broadly lanceolate, much waved at the margin, and without obvious stipe, several inches long and 2—3 inches wide. *P. laciniata*, *Ag.*, which merely differs in having a deeply lobed or divided lamina, grows mixed with the simple variety (*P. vulgaris*); and specimens may easily be found which are intermediate in character. The state called *P. umbilicalis* grows on exposed rocks, generally near low water mark, and looks more like a different species than any of the other varieties. In it the frond is always short, usually of a very dull colour, fixed by a point removed from the margin of the lamina, and therefore somewhat peltate, with the upper side depressed or umbilicate in the centre. This variety is rarely more than two or three inches in length. Other varieties attain to 8 or 10 inches or more.

The colour varies with the age and condition of the fronds. Often it is olivaceous green, with little or no trace of purple; but generally it is of a fine dark purple,

especially when in fructification, the colour being wholly derived from the fructifying cells. The colour also generally becomes more intense and more purple after steeping in fresh water, and in the process of drying; and the dried plant has a very glossy surface, like satin. Sometimes it adheres to paper and sometimes not; and it always shrinks considerably in drying.

II. BANGIA. *Lyngb.*

Frond thread-shaped, tubular, composed of numerous radiating cellules, disposed in transverse rows, and enclosed within a hyaline continuous sheath. *Spores* purple, one formed in each cell of the frond.

This genus was founded by Lyngbye on the *Conf. fusco-purpurea* of Dillwyn, and several other Algæ, both marine and of fresh water, which are more or less nearly allied to it. Some of these have been properly removed. The genus still contains some anomalous species, but the three following appear to me to be con-generic. The genus was first placed by Greville in Ulvaceæ. This position has been questioned, and I was formerly disposed to concur with those who refer it to the neighbourhood of *Lyngbya* in Oscillatoricæ; but a careful examination, especially of *B. vermicularis*, has now convinced me that *Bangia* cannot be far removed from *Porphyra*, to which it bears the same relation that *Enteromorpha* bears to *Ulva*.

I. BANGIA *fusco-purpurea*, Lyngb. : filaments elongated, simple, decumbent, nearly straight, capillary, here and there constricted, forming a brownish-purple, glossy stratum : granules several in each transverse band, dark purple. *Lyngb. Hyd. Dan. p. 83, t. 24. Græc. Alg. Brit., p. 177. Wyatt, Alg. Danm., No. 167. Harv. Phyc. Brit., t. 96. Kütz. Sp. Alg. p. 360. B. atropurpurea, Alg. Syst. p. 76. Alg. Eur. t. 25. Conferva fusco-purpurea, Dillw. t. 92. E. Bot. t. 2055, and C. atropurpurea, Dillw. t. 103. E. Bot. t. 2085.*

HAB. On rocks and wood-work between tide marks. Newfoundland, Herb. *Montagne*. Narragansett Pier, *Prof. Bailey*. Little Compton, *Mr. Olney*. Providence, *M. Charles Giraud*. Lynn, Mass. *Mrs. Estes*. (v. v.).

This is attached to rocks and stones, or to woodwork, and occurs in stratified patches of indefinite extent, of a dark purple colour. The filaments are 2-3 inches long, and float freely in the water, lying down in a fleece when left by the retreating tide. They vary greatly in diameter according to age, and the microscopic characters are equally varied in young and old specimens. In the young state the filament is formed of a

series of very short cells, much shorter than the diameter of the filament ; each containing an undivided mass of dark purple endochrome, and at this age the whole structure is very similar to that of *Hormotrichum*. When further advanced, the endochrome divides longitudinally into many quadrate portions, round each of which a cell membrane grows, and they become so many cells arranged in a radiant manner round a central point, and appear, when viewed from the side, as transverse rows of beadlike granules tessellating the filaments. Eventually, from repeated cell division, the arrangement in transverse lines becomes difficult to observe, and the filament looks like a confused mass of tissue. The number of transverse granules seen in each row depends on age. The figure in *Phyc. Brit.* represents an old state of the plant when the granules have multiplied. The colour under the microscope is a beautiful amethystine purple.

I have only received this plant from the above-named American localities, but it is probably to be found along the rocky shores of all the northern States. In the British Islands it grows indifferently in the sea or in fresh water ; in the latter case it often occurs on the walls and gates of canal locks, and it may be expected to occur in similar situations in America. The specimen from Newfoundland is in a very advanced stage ; the filaments being of large diameter, irregularly constricted, and their granules very numerous in each band, and of minute size. The specimen from Lynn, on the contrary, is very young, with the transverse rows just beginning to be formed.

2. *BANGIA vermicularis*, Harv.; root scutate ; filaments basifixed, twisted, setaceous at the base, gradually widening upwards and at last claviform, much incrassated toward the end, undulating, flaccid, with a wide, hyaline, firm investing tube ; transverse bands closely placed ; granules dark-purple, vertically flattened, few in each whorl toward the base, very crowded and numerous toward the upper portion of the filament. (TAB. XLIX. A.)

HAB. Golden Gate, California, *A. D. Frye* (v. s. in Herb. T. C. D.)

Filaments fixed at the base by a scutate root, and probably freely floating in the water ; perhaps tufted, but the specimens received have been pulled asunder. Each filament is about two inches long ; at its origin it is of the diameter of human hair ; it becomes gradually thicker upwards, until, near the apex, in old filaments, it is at least twice as thick as hog's bristle. The form is therefore linear-clavate, though the club be very slender in proportion to its length. When dried the threads look like sinuous worms, tapering from a thickened apex to a very slender base. A cross section shows a central cavity surrounded by a variable number of radiating, cuneiform, dark-purple endochromes. Toward the base of the filament there are but four of these in a plane ; a little higher up there are eight, and in the upper portions they are not only indefinitely numerous in the whorl, but they form dichotomous radiating strings extending horizontally from the central tube to the circumference. They do not cohere in regular moniliform filaments, but there seems a tendency to do so. It is difficult, in this part

of the frond, to see the exact cellular structure, owing to the great transparency of the cell-walls, and the facility with which the endochromes are thrown out of their cavities when cross-sections are moistened.

This is a very distinct species, remarkable for the great diameter of its worm-like filaments, and their clavate form. Notwithstanding its somewhat greater complexity of structure, I think there can be no doubt of its near affinity with *B. fusco-purpurea*.

PLATE XLIX. A. *Fig. 1.* *BANGIA vermicularis*, the natural size. *Fig. 2.* A frond magnified. *Fig. 3.* Base; *4.* middle portion; and *5.* apex of the same. *Fig. 6, 7, 8.* Transverse sections at different heights. *Fig. 9* and *10.* Radiating endochrome-cells, all highly magnified.

3. *BANGIA ciliaris*, Carm.; filaments very minute, (forming a rosy down on the fronds of other Algae) basifixed, straight; granules either in a single series, or two or three in each transverse row. *Harr. Phyc. Brit. tab. 322. Chauv. Rech. p. 37.*

HAB. Parasitic on *Chondria atropurpurea*, at Charleston, S. C., *W.H.H. (v. v.)*

This forms a very short, bright, rose-red downy pile on the fronds of the *Chondria*. Each filament is scarcely the tenth of an inch in length, and consists either of a single row of cells shorter than their diameter; or of a double or triple series of such cells. Possibly it may be only the very young state of *B. fuscopurpurea*; but the habitat is different, and the colour much brighter.

III. ENTEROMORPHIA, Link.

Frond tubular, membranaceous, green, reticulated. *Fructification*, granules, commonly in fours, contained in the cells of the frond.

The tubular frond distinguishes this genus from *Ulva*. The tube varies greatly in width, in different or even in the same species. Sometimes it is of no greater diameter than that of human hair; and sometimes it is one or two inches across, forming an inflated bag. The species are widely dispersed, extremely variable in ramification and general appearance, and some of them are among the commonest of all littoral algae. The green stringlike weeds that infest the bottoms of boats and vessels lying in harbour are generally species of this genus, and mostly *E. compressa*, which is found in all parts of the ocean from the Arctic and Antarctic basins to the Equator.

1. *ENTEROMORPHA intestinalis*, Link ; fronds perfectly simple, elongated, becoming inflated, obtuse, tapering extremely to the base. *Link, Mor. Phys. Ber.* p. 5. *Grev. Alg. Brit.* p. 179. *Harv. Phyc. Brit.* t. 154. *Wyatt, Alg. Danm.* No. 80. *E. Bot. Sup.* p. 2756. *Kütz. Sp. Alg.* p. 478. *Ulva intestinalis*, Linn.

HAB. Whalefish Islands, Davis's Straits, *Dr. Lyall*. Boston Bay, *Dr. Gray*. Providence, Rhode Island, *Mr. Olney*. New York Bay, *Mr. Watters*, &c. Beesley's Point, *Mr. Ashmead*. Sullivan's Island, *Mr. Ravenel*. (v. v.)

Very variable in the length and breadth of the frond. Old specimens are often much inflated and bag-like ; the frond being 1–2 inches in diameter. Others, often from the same locality, are not more than quarter of an inch in breadth.

2. *ENTEROMORPHA compressa*, Grev. ; fronds elongated, branched, cylindrical or sub-compressed ; the branches simple or nearly so, long, obtuse, much attenuated at the base. *Grev. Alg. Brit.* p. 180 t. 18. *Harv. Phyc. Brit.* tab. 335. *Wyatt, Alg. Danm.* No. 168. *Kütz. Sp. Alg.* p. 480.

HAB. Sea shores, extremely common. (v. v.)

Under one or other of its many forms this species is found on all parts of the American coast extending also up the estuaries of tidal rivers. Our most northern specimens were collected in Lat. 75° 42' by *Dr. Sutherland*.

3. *ENTEROMORPHA clathrata*, Grev. ; frond tubular, tessellated, cylindrical, slender, very much branched ; branches erect or spreading, sometimes squarrose, more or less beset with slender tapering subulate ramuli. *Grev. Alg. Brit.* p. 181. *E. clathrata, erecta et ramulosa*, Hook. *Harv. Phyc. Brit.* t. 340, t. 43, and t. 245. *Wyatt, Alg. Danm.* Nos. 34, 166, and 208. *E. clathrata, ramulosa, paradoxa*, &c. *Kütz. Sp. Alg.* p. 479.

HAB. Rock pools, &c. Rhode Island, *Mr. Olney*. Staten Island, New York, *Professor Bailey*. Red Hook, &c., *Messrs. Hooper and Culverley*. Boston Bay, *Captain Pike*. Beesley's Point, *Mr. Ashmead*. (v. v.)

Very variable in appearance, but generally more slender and filiform than *E. compressa*, and also more cylindrical. It is usually densely tufted, capillary, or scaccous, soft to the touch and very much branched ; the branches either erecto-patent or patent : sometimes horizontal or squarrose, repeatedly decompound, and their ultimate divisions furnished with slender ramuli that taper to a fine point, and are not constricted at base. These ramuli are sometimes very numerous, sometimes few, and either short and spine-like or elongated and filiform. When short, horizontally spreading, numerous and

spinelike, the plant becomes *E. ramulosa* of authors. I have seen the varieties *erecta*, *ramulosa* and *clathrata* from the American coast. The cells of which the walls of the frond are composed are larger and more quadrate than those of *E. compressa*; the surface therefore looks tessellated.

4. ENTEROMORPHA *Hopkirkii*, McCalla; frond excessively slender and byssoid, flaccid, very much branched; branches feathery, decompound, erect, attenuated, set with minute subulate ramuli; cellules large, hyaline, each containing one or two minute grains of endochrome; the ramuli formed of a single series of such cells. *Harv. Phyc. Brit. tab.* 263.

HAB. In rock pools between tide marks. Greenport, *Mr. Hooper*. (v. s.)

Tufts very soft, 3-4 inches long. *Fronde* very slender and much branched. The frond of this species is composed of much larger and more hyaline cells than in the preceding, and the endochrome is of very minute size in proportion to the cells in which it is lodged. This species occurs also on the shores of England and Ireland; but is not so common as others of the genus, and appears to be sufficiently characterised by its cellular structure. The ramuli are articulated, like the branches of a *Cladophora*.

IV. ULVA. L.

Frond membranaceous, flat, and leaflike, green. *Fructification*; green granules (spores) often arranged in fours, dispersed over the whole frond.

Under this generic name I still retain the species of the modern genera *Prasiola*, *Ulva*, and *Phycoseris*; the first of which differs from the second in having its cellules arranged in a most obviously tessellated pattern; and the last, from either of the preceding, by its membrane consisting of two layers of cells instead of a single layer. The species of the section *Prasiola* are of minute size, and are found in damp places, on the soil, on old walls and on decaying timber and thatch, &c.; and no doubt several (such as *P. crispa*, *P. catophylla*, &c.) occur in America, but I have not received any American specimens. Kützing describes a *P. mexicana*, Lieb. from Mexico, in words which would apply equally to the *P. crispa* of Europe.

Sect. 1. PHYCOSERIS; membrane formed of a double layer of cellules.

1. ULVA (PHYCOSERIS) *fasciata*, Delile; frond stipitate, cartilagineo-membranaceous, rigid, cleft into several strapshaped segments, which are undulate at the margin, and irregularly toothed or sinuate. *Del. Egypt*, p. 153, t. 58, f. 5. *Mont. Alg. Alger*, p. 151, t. 14, fig. 1-2. *Phycoseris fasciata*, Kütz. *Sp. Alg.* p. 477. *Ulva divisa*, Suhr!

HAB. California, *Dr. Coulter*. Shores of the Gulf of Mexico, *Dr. Schott*. (v. v.)

More rigid than *U. latissima*, and divided into many long narrow segments, half an inch to an inch wide, and 6-8 inches long or more, preserving a nearly equal breadth throughout, and either simple or forking. Sometimes the laciniation is almost pinnate, having an undivided leading segment with lateral and often opposite lesser segments. Sometimes the division extends nearly to the base, and the form is then palmate. The margin is mostly toothed, or cut, and frequently undulate. The colour is a full grass green, and the substance rigid. It does not adhere to paper in drying.

I possess authentically named specimens from Montagne and Von Suhr.

2. *ULVA* (PHYCOSERIS) *Linza*, Linn.; frond linear-lanceolate, acute, crisped at the margin, composed of two membranes closely applied. *Linn. Sp. Pl.* p. 1633. *Ag. Sp. Alg.* 1, p. 413. *Hurv. Phyc. Brit.* t. 39. *Wygatt, Alg. Danm.* No. 164. *Phycoseris Linza* and *P. lanceolata*, Kütz. *Sp. Alg.* p. 475, (and probably others.)

HAB. Rocky shores of British America, and of the north-eastern States. Halifax, *W.H.H.* Boston Bay, *Captain Pike*. New York Bay, *Messrs. Culverley, Hooper, &c.* (v. v.)

Root a small disc. *Frond* 6-12 inches long or more, from half inch to one or two inches in width, linear-lanceolate, tapering to the base, and either blunt or attenuated at the apex, much waved and curled at the margin; formed of two distinct, separable membranes, closely applied and cohering together. *Colour*, a full, brilliant grass green, becoming pale in age. *Substance*, rather soft and thin. It adheres to paper in drying.

Agardh's *U. Bertolonii* appears to me to be a form of this species, which is also nearly allied to *Enteromorpha intestinalis*, with which, if we omit the inflated frond, there is much similarity in form and structure. It is not so common as the following species, but is nevertheless widely dispersed.

3. *ULVA* (PHYCOSERIS) *latissima*, Linn.; frond polymorphous, very broad, ovate or oblong, simple or lobed, undulate, bright green. *Lin. Fl. Succ.* p. 433. *Ag. Sp. Alg.* 1, p. 407. *Hurv. Phyc. Brit.* tab. 171. *Wygatt, Alg. Danm.* No. 33. *Phycoseris gigantea* and others, Kütz. *Sp. Alg.* p. 476.

HAB. Common on the American coast. (v. v.)

Fronde from six inches to two feet in length, from three to twelve inches in breadth, tufted or scattered; very variable in shape, sinuated and wavy or flat, often plaited. *Substance*, thin and soft, very smooth and glossy, like fine green silk. *Colour*, a brilliant green, when growing near high water mark; darker, and often glaucous when obtained from deep water, and sometimes turning brownish in the herbarium.

Specimens are often found pierced with holes, the result either of age or of the attacks of worms. Such individuals constitute the *Phycoseris myriotrema* of Kützinger.

Sect. 2. ULVA. Membrane formed of a single layer of cellules.

4. *ULVA lactuca*, Linn. ; "frond at first obovate, saccate, inflated, at length cleft down to the base ; the segments plane, unequal, lacinated, semi-transparent," *Grev. Lin. Sp. Pl.* p. 1632. *Alg. Sp. Alg.* 1, p. 409. *Grev. Crypt. Scot.* t. 313. *Harv. Phyc. Brit.* t. 243. *Kütz. Sp. Alg.* p. 474.

HAB. Boston Bay, *Miss E. H. Brewer*. Indianola, Texas, *Dr. Schott*. (v. v.)

Much thinner and more delicate in substance, and of a paler colour than *U. latissima* ; and clearly characterised, on dissection, by its simpler membrane. It is more transparent, and the cells are more regularly grouped in fours, more distant, with hyaline interspaces. When young it forms a bag, like a very short and broad *Enteromorpha*. It closely adheres to paper in drying.

5. *ULVA bullosa*, Roth. ; frond very delicate, gelatinoso-membranaceous, at first saccate, afterwards bursting, and opening out into a broad, wavy or torn floating membrane. *Roth, Cat. Bot.* 3, p. 329. *Alg. Sp. Alg.* 1, p. 414. *Harv. Man. Ed.* 1, p. 171. *Huss. Br. Fr. Wat. Alg.* p. 297, t. 78, fig. 13. *Tetraspora bullosa*, *Kütz. Sp. Alg.* p. 226.

HAB. In fresh-water ponds and ditches. Whalefish Islands, Davis's Straits, *Dr. Lyall*. (v. v.)

Probably as common in stagnant pools in America as it is in Europe, but I have as yet only seen specimens brought from the Arctic Regions by *Dr. Lyall*. When young it is attached, and somewhat tubular, like large specimens of *Eut. intestinalis* ; but it afterwards bursts open, and then generally floats on the surface, being buoyed up by bubbles of oxygen, which it disengages.

By Kützinger this species is referred to *Tetraspora*, from which it scarcely differs by any definite character.

V. TETRASPORA. *Link.*

Frond gelatinoso-membranaceous, tubular, inflated or flat, green. *Fructification*, green granules (spores) arranged in fours, dispersed throughout the hyaline cells of the frond. (*In fresh water.*)

This genus scarcely differs from *Uva* on the one side and *Palmella* on the other. The frond is more gelatinous than in *Uva*; and more membranous than in *Palmella*. The whole of the endochrome is converted into spores, which are arranged in squares and more distantly placed than in *Uva*.

1. *TETRASPORA lacunosa*, Chauv.; frond at first tubular, then flat, or irregularly lobed, membranaceo-gelatinous, pale-green, everywhere pierced with roundish holes of various sizes. *Chauv. Alg. Norm. Breb. Alg. Fal.* p. 11, t. 1. *Kütz. Sp. Alg.* p. 227. *T. Godeyi*, De Breb. *Kütz. Tab. Phyc.* t. 30, f. 3. *T. perforata*, Bailey, M.S.

HAB. In fresh-water streams. Abundant near Westpoint, *Prof. Bailey*. Providence, Rhode Island, *Mr. Olney*. (v. s. in Herb. T.C.D.)

Frond at first funnel-shaped, afterwards splitting open, and then flat, expanding upwards and irregularly lobed, everywhere pierced with roundish holes of various sizes, large and small intermixed. These holes increase in size and numbers with age, and thus at last the frond becomes an open network. The substance is very gelatinous, but rather firmer than in some other species of the genus. The colour is a pale green; and the hyaline gelatinous membrane is filled with roundish granules set in fours.

Kützing's figure of *T. Godeyi* answers well to our plant. I have not seen any authentic specimens of *T. lacunosa*, which is referred by Kützing to his *T. lubrica*, var. β ., but the description given of it applies to the American plant. When carefully dried, it forms a very pretty object for the Herbarium.

ORDER V.—BATRACHOSPERMEÆ.

BATRACHOSPERMEÆ, *Ag. Syst.* p. 23, (partly) *Hurv. Man. Ed.* 1, p. 119. *Berk. Crypt. Bot.* p. 136, *Dne. class.* p. 33 (partly.) *Kütz. Sp. Alg.* p. 535. *Lemanea.* *Ag. Sp. Alg.* 2, p. 1. *Hurv. Man. Ed.* 1, p. 118, *Dne. Class.* p. 31. *Kütz. Sp. Alg.* p. 527 (partly.)

DIAGNOSIS. Blackish-green, olivaceous or purplish fresh water Algae, with filiform, branching, inarticulate fronds, composed of small cells; naked, or whorled with moniliform ramelli. *Fructification*; moniliform strings of naked spores, either forming external tufts, or concealed within a tubular frond.

NATURAL CHARACTER. *Root* merely a point of attachment or little disc, by which the frond is firmly fixed to the substances (usually rocks and stones in rapid rivers and

streams) on which it grows. The plants referred to this Order naturally group themselves into two suborders, distinguished from each other by the habit of the frond, but closely related in structure and fructification, and as it seems to me inseparably connected by the genus *Tuomeya*, which unites in itself the characters of the seemingly so dissimilar genera *Batrachospermum* and *Lemanea*. In the first suborder (*Batrachospermeæ vere*) the branching filiform frond consists of a solid axis, invested with a gelatinous coating, and composed of vertical, confervoid filaments, strongly glued together. This axis is either, as in *Batrachospermum*, whorled at short intervals with moniliform ramelli, formed of globose cellules strung together; or else, as in *Thorea*, it is uniformly clothed with a villous stratum of byssoid ramelli, formed of cylindrical cellules. The fructification, so far as known in this suborder, consists of globular, very dense tufts of spore-threads, similar in structure to the ramelli, but of more minute size, and far more densely packed together. I question whether they be properly *spores*, probably they are rather highly developed or compound gemmæ. In the second suborder, *Lemaniceæ*, the frond is denuded of confervoid ramelli, and consists altogether of a compound, filiform axis, composed of minute cells. In *Lemanea* the frond is hollow and tubular, the walls of the tube being laxly constructed within; and moniliform strings of spores, similar to those of *Batrachospermum*, are attached to the surface of the tube. This structure is almost the exact reverse of that of *Batrachospermeæ*, where the central axis is most solid, and clothed *externally* with moniliform filaments. In *Tuomeya* the frond has at first the external characters of a *Lemanea*, but is furnished with an *axis* having the structure of a *Batrachospermum*, as if a *Batrachospermum* were developed within the tube of a *Lemanea*; and when fully developed the surface is uniformly coated with minute filaments, as in *Thorea*.

Authors differ much in their views of the proper limits of this Order. DeCaisne unites with it *Liagora* and *Dichotomaria* (*Galaxaura*) both of which are undoubtedly Rhodosperrms; and *Myriocladia*, which is a Melanosperm. Kützinger separates *Batrachospermum* as the type of an Order of which it is the only genus; while he refers *Galaxaura*, *Actinotrichia* and *Lemanea* to his Lemaniceæ; and places *Thorea* with his Chatophorideæ. My own views more nearly correspond with those of Mr. Berkeley, who brings *Batrachospermum*, *Thorea*, and *Lemanea* together into one Order. These genera are exclusively fluviatile or lacustrine, so far as I am aware. The *marine* variety "*purpurascens*," Roth, of *Batr. moniliforme* is founded on a figure of Dillenius (*Hist. Musc. t. 7. fig. 40*) which certainly looks very like a *Batrachospermum*, but the original specimen preserved in the Dillenian Herbarium belongs, according to Turner, to *Ceratinium diaphanum*. The marine "*Thorea Americana*" of Kütz. is assuredly not a congener with *T. ramosissima*, the type of the genus; but properly referred by Bory, who first described it, to *Chordaria*.

Like most fresh water Algæ, several of the species are widely distributed. *Batrachospermum moniliforme* is found throughout Europe in various parts of Asia, in Tasmania and New Zealand, and in extra-tropical South America; and *B. vagum* and *atrum*, of which as yet I have seen no North American specimens, have nearly as extensive a range. *Lemanea torulosa* occurs in Europe. *Tuomeya fluviatilis* has only as yet been found in North America, but occurs in distant localities (New York and Alabama) and may probably be found to have a much larger area of distribution.

TABLE OF THE NORTH AMERICAN GENERA.

Sub-Order I. BATRACHOSPERMEÆ ; *Frond* filamentous, gelatinous, externally clothed with minute articulated ramelli.

I. BATRACHOSPERMUM. *Frond* nodose, ramelli whorled.

Sub-Order II. LEMNIEÆ. *Frond* cartilaginous, solid or hollow, with a cellular peripheric stratum.

II. TUOMEYA. *Frond* solid, with a filiform, nodoso-articulate axis.

III. LEMNEA. *Frond* hollow.

I. BATRACHOSPERMUM. *Roth.*

Root discoid. *Frond* filamentous, gelatinous, branched, consisting of an articulated longitudinally striated *axis* beset with closely placed whorls of moniliform, free ramelli. *Fructification*, globose clusters of seriated spores, attached to the ramelli. *In fresh water.*

Widely dispersed plants inhabiting clear fresh-water streams and wells in most parts of the world ; rarely found in stagnant waters. Several species have been described, but the characters of many are unsatisfactory. All are exceedingly gelatinous, every part of the frond being invested with a clear, rather firm mucus, and when removed from the water the collapsed branches have the colour and general aspect and feel of *frog-spawn* ; whence the generic name. Kützing, in Plate 8 of his *Phycologia Generalis*, has given figures to illustrate the early development and gradual formation of the frond. At first the young plant consists merely of a string of moniliform cells. Soon there is a distinction into an axis and ramelli, the axis consisting of a series of long, pellucid cylindrical cells, placed one above the other ; and the ramelli being more coloured, formed of roundish cellules, and placed at the nodes of the axial filament, round which they gradually form a whorl. At first these ramelli are simple ; afterwards they are repeatedly dichotomous. The *axis* in the young plant consists merely of a string of naked cells ; in the full-grown frond it is invested with a sheath or outer coat formed of slender filaments which issue from the bases of the whorled ramelli, growing downwards like roots, adherent to the axis and continued to the next node. These give the longitudinally striate appearance to the axial filament ; and in old fronds they constitute the axis itself, which then becomes tubular, from the absorption or rupture of the primordial tube.

I. BATRACHOSPERMUM *moniliforme*, Roth. ; frond irregularly much branched, very

gelatinous; whorls of ramelli globose, distinct, the branches resembling strings of beads. *Kütz. Sp. Alg.* 1, p. 535. *Harv. Man. Ed.* 1, p. 119. *Hass. Brit. Fr. Wat. Alg.* p. 108. *Conferva gelatinosa*, *Dillw. Conf. t.* 32. *E. Bot. t.* 689.

HAB. On stones, &c. in running streams and wells of fresh water. New York, *Prof. Bailey*, *Mr. Calverley*. Virginia, *Mr. Jackson*. Alabama, *Prof. Tuomey*. South Carolina, *Mr. H. W. Ravenel*. Michigan, *Dr. A. Gray*. (v. v.)

Fronds densely tufted, gelatinous, capillary, irregularly much branched, decompound, the branches tapering to their extremity, beset with short tapering ramelli, which are very patent and once or twice divided. All the branches and ramuli are moniliform, and are composed of a filiform cylindrical axis; set at short intervals with very dense, globose whorls of multipartite, dichotomous ramelli. The axis is formed of an articulated monosiphonous filament, externally coated with a sheath of closely-placed, cohering, longitudinal, parallel, articulated, very slender filaments, derived from the bases of the whorled ramelli, and developed along the internodes from above downwards. The *ramelli* are excessively branched, and composed of short cells much constricted at the points of union; the lower ones are somewhat pyriform, the upper lanceolate. The masses of fructification are very dense, appearing to the naked eye like black grains among the ramelli. When examined, by squeezing between two glasses on the table of the microscope, they are seen to consist of exceedingly densely packed, minute, dichotomous ramelli, radiating from a common centre. These ramelli scarcely differ in structure from those of the ordinary whorls, and can scarcely be regarded as composed of true *spores*; but seem to be rather of the nature of *gemmæ*. The general *colour* of this species varies much: commonly it is a dark slate colour, sometimes it is olive-green, and often becomes purple after having been dried.

B. moniliforme is found in most parts of the world. It is very common in fresh-water streams in Europe; and we have received it from Van Diemen's Land, New Zealand, and Cape Horn.

II. TUOMEYA. *Harv.* (Nov. Gen.)

Fronde cartilaginous, continuous, solid, at first transversely banded, afterwards annularly constricted; composed of a longitudinal axis, and two strata of peripheric cells. *Axis* columnar, consisting of several longitudinal, cohering filaments, beset with closely placed whorls of moniliform ramelli, whose branches anastomose horizontally and vertically into a cellular peripheric membrane, which is coated externally with moniliform filaments, gradually developed. *Fructification* (probably in the superficial filaments.) *In fresh water.*

TUOMEYA *fluvialis*, *Harv.*

HAB. On stones, in rivers and streams. River in Alabama, *Prof. Tuomey*. Near Fredericksburg, Virginia, *Prof. Bailey*. (v. s. in Herb. T.C.D.)

Fronde tufted, an inch or two in height, scarcely as thick as hog's bristle, much and irregularly branched, bushy; the branches alternate or secund, scattered or crowded, twice or thrice divided, and set with scattered, patent ramuli, which are slightly constricted at the insertions, and taper to an obtuse point. When young the branches and ramuli are perfectly cylindrical, and when examined under a low power of the microscope show a surface composed of minute, dotlike cells, placed close together, and marked at short intervals with dark coloured transverse bands. These bands disappear under a higher magnifying power. They are indications of the *nodes* of the axis of the frond, seen through the peripheric stratum. In old, fully developed specimens the branches and ramuli are annularly constricted at short intervals, the nodes becoming swollen, while the internodes remain unchanged. When a young branch is bruised between two pieces of glass the axis may be readily extracted. It consists of several parallel, longitudinal, jointed threads combined together at closely placed *nodes*, from which issue horizontal dichotomous filaments composed of roundish or angular cells. These excurrent filaments spread both horizontally and vertically, and their branches anastomose into a cellular mass or fleshy membrane which forms the inner peripheric stratum. In young plants a portion of the frond, between the axis and periphery, is hollow, but in older ones the cavity is quite filled up with cells. The external surface of the cellular periphery is clothed with a coat of moniliform filaments gradually developed, and forms what is above called the *second* peripheric stratum. These are found only in fully grown specimens; they consist of much smaller cells than those of the inner stratum; they are more strongly coloured, and I consider them to be connected with fructification. The *colour* is a dark olive. The substance is brittle and rigid when dry; and the plant scarcely adheres to paper.

I formerly received specimens of this curious little plant from my late friend Prof. Bailey, under the name "*Lemanea glaucofilis*;" but, as may be gathered from the above description, it is very different from *Lemanea* in structure and much more nearly related to *Batrachospermum*. The external habit, substance, and colour are however those of a *Lemanea*, and without microscopic examination it might pass for one. The structure is difficult to see and also to describe in words. What I have called the inner peripheric stratum is externally as solid as the walls of a *Lemanea*; the outer periphery consists in a continuous clothing of the external surface of the frond with minute, fastigate, horizontal ramelli, not unlike those of which the globose fructifications of a *Batrachospermum* are made up. In young specimens only can the mode of evolution of the frond be observed; old specimens become completely blocked up with cellular tissue, and seem to be solid in every part when a transverse slice is examined; their axis may, however, be seen by employing a compressing glass.

The generic name is bestowed in memory of the late Prof. Tuomey of Tuscaloosa, Alabama, so often mentioned as a valuable contributor to these pages. I have not ventured to make a drawing from the dried specimens which alone I have yet seen.

III. LEMANEÆ, *Bory.*

Frond cartilaginous, continuous, tubular, branched, its periphery composed of two strata of cells, the *inner* stratum formed of roundish, empty, vesicated cells ; the *outer*, of minute, closely cohering, angular, coloured cellules. *Fruit*, tufts of seriated spores, attached to the inner surface of the tubular frond. (*In fresh water streams and rivers.*)

The species referred to this genus are found in fresh water streams and rivers, attached to stones by a discoid root. They are very dissimilar in appearance from other fresh water algae, being of a remarkably firm fucoid substance, opaque and closely cellular. In many respects, however, they approach *Batrachospermum*, near which genus I have long considered to be their true systemic position, an opinion which must be considered as confirmed by the discovery of *Tuomeya*, a genus of intermediate structure. Kützing associates *Lemanea* with *Galaxaura* and *Actinotrichia*, two genera that appear to me to belong to HELMINTHOCLOADIEÆ, among the RhodospERMATOUS groups. Thwaites has given in the 20th vol. of Linn. Trans. a short account of the early development of the frond in *L. glaciatis*. The spores at first vegetate into confervoid, slender jointed filaments, with long joints containing a spirally arranged endochrome. These constitute a sort of pro-thallus, or pseudo-colytedonous condition of the plant. After a time thick branchlets, the germs of the permanent frond, spring from the cells of the confervoid filament ; they are at first wholly dependent on the cell from which they rise, but soon acquire rootlets at their base, and rapidly elongating grow into the cellular, opaque, cartilaginous fronds characteristic of the genus. Kützing, *Phyc. Gen.* t. 19, also illustrates the early development, and gives elaborate sections of the cellular structure of the mature frond.

1. LEMANEÆ *torulosa*, Ag.; frond tufted, subsimple or divided near the base, robust, nodoso-constricted at short intervals, or moniliform, tapering from the base to the apex. *Ag. Sp. Alg.* 2, p. 6. *Act. Holm.* 1814. *tab.* 2, *fig.* 1. *Kütz. Sp. Alg.* p. 528. *L. variegata*, Ag.? *l. c.* p. 7.

HAB. On rocks and stones in rivers and streams. Kentucky, *Dr. Short.* (v. s.)

Root discoid. *Stems* many from the same base, 4-8 inches long or more, twice or thrice as thick as hog's bristle, rising from a very slender, capillary base, and gradually increasing in diameter upwards for about an inch, thence maintaining an equal diameter for $\frac{3}{4}$ of their length, and again tapering off at the extremity ; either quite simple or divided shortly above the base into numerous simple branches. The frond is regularly constricted and swollen at intervals of from one to two lines, so as to be nodose in the younger, and moniliform in the more advanced state, the distances between the swellings as well as their intensity varying in different specimens. The walls of the tubular frond are thick, composed of two layers of cells, the outer layer consisting of very minute and closely crowded radiant, coloured cellules, whose apices unite to form the exterior

coating of the frond, the inner of three or four rows of large, colourless, oblong, irregularly anastomosing cells. The tube is traversed and crossed by a few slender, cylindrical, long jointed filaments issuing from the inner peripheric cells. *Globose* masses of *fructification* are attached to the inner face of the tubular frond, either at the nodes or between them, without any apparent order. They consist (as in *Batrachospermum*) of very densely crowded, moniliform, subsimple strings of cellules radiating from a central point. The general *colour* is olivaceous when recent, and very opaque; it becomes a livid purplish in drying. *Substance* firmly cartilaginous or subcoriaceous. It does not adhere to paper in drying.

Agardh describes a *L. variegata*, "filis moniliformibus variegatis," as sent to him by Muhlenberg, from North America. By the description given it seems merely to differ from the common *L. torulosa* in being variegated with alternate bands of dark and pale, a character most probably dependant on the state of the specimens. I am indebted to Dr. Short of Kentucky, for fine specimens of the ordinary form. *L. gluvialis*, which is the commonest European species, has not been sent to me from America.

ORDER VI. CONFERVACEÆ.

Confervæ, J. Ag. Alg. Medit. p. 12. Harv. Man. Ed. 1 and Ed. 2, p. 196. Lindl. Veg. Kingd. p. 18. *Confervoideæ*, Endl. 3d Supp. p. 14. *Confervaceæ*, Berk. Crypt. Bot. p. 131. *Confervaceæ and Chatophoroideæ*, (partly) Dne. class. p. 31, Kütz. Sp. Alg. pp. 363-531.

DIAGNOSIS. Green, marine or fresh water Algæ, composed of articulated threads or filaments, and of cylindrical cells usually longer than their diameter. *Endochrome* diffused, or filling the cavity of the cell. *Zoospores* minute, indefinitely numerous in each cell.

NATURAL CHARACTER. *Root* rarely more than a mere point of attachment, and often perishing on the evolution of the frond, which then floats on the surface of the water. *Frond* in all cases filamentous, composed of strings of truncated, more or less cylindrical cells, placed end to end, and usually longer than their diameter. These cells are never branched, like those of the *Siphonaceæ*, and are usually much shorter in proportion to their diameter than in that order; but as compared with those of most of the filamentous Algæ they are long, varying however extremely in different species. The endochrome generally fills the cavity or primordial utricle of the cell, but varies greatly in density. In some cases it is thin and watery, and in others very dense, granular, and subopaque. It is sometimes arranged in transverse bands. In most cases the cell wall is membranaceous, soft, but of firm texture; but in *Dryasmatidia* and *Chatophora*, the filaments are invested with gelatine, and in the latter genus numerous

filaments are enclosed within a common gelatinous envelope, and thus formed into somewhat compound fronds. In the great bulk of the Order no fructification other than minute *zoospores* has been observed. These are formed out of the colouring matter of the cells, are furnished with vibratile cilia, and when they escape from the cell in which they have been organised, enjoy for a time active powers of locomotion. At length fixing themselves to some object they change their form, becoming cylindrical; and then, dividing repeatedly, are changed into articulated filaments similar to those of the parent plant. In the *Confervæ* the frond lengthens in two ways; either by the repeated bisection of all the cells of the frond, as is usually the case in the unbranched species; or by the evolution of new cells, constantly at the apex of the terminal cell, as is common in the branching species. In these latter the cell, after having once formed one or more new cells out of its apex by a cutting off of the summit from the basal portion, remains unchanged, without further growth or cell division. If but one new cell be formed at the apex, the filament will be simple; but in the branched species two or more cells are formed, the central one continuing the frond, while the lateral ones, which spring just below the summit of the old cell, grow out into branches.

The Confervaceæ are almost universally dispersed in water of every character found on the surface of the globe. Many are marine, but perhaps the largest number, at least of individuals, if not of species, are found in fresh water. The marine species usually grow within tidal limits, but several of the *Cladophoræ* occur in the Laminarian zone, and some even at a greater depth. The fresh water species are found in lakes and ponds, in rivers, streams, and wells, and in thermal springs or in mineral waters. A large number of genera and species have been described; but I fear the proper number of both genera and species has been much exaggerated, and that multitudes must be erased from the list whenever the Order shall be carefully revised. The fresh water species have as yet scarcely been attended to in America. I have received very few of these, and most of them in a state unfit for examination. Indeed, dried specimens of such obscure algae are of little value for determining species. A few of the more remarkable are here described; being all those that I can clearly make out from the specimens received. It is, however, often a difficult task either to refer one of these species to its supposed type, or to devise specific characters that shall not be illusory for what appear to be new forms. The characters usually insisted on, namely, the length of the cells as compared with their diameter, the absolute diameter of the cell, and the degree of ramification of the filament, are all subject to much variation. There appear to be no definite limits to any of these characters in any species. We are forced therefore, in describing them, to be content with rude approximations. Figures are of little use, for in many of the species, such as *Cladophora glomerata*, scarcely two specimens are in all respects similar.

TABLE OF THE NORTH AMERICAN GENERA.

Sub-order 1. CHLETOPHOREÆ. Frond invested with gelatine.

I. CHLETOPHORA. Numerous filaments combined into a gelatinous frond of definite form.

II. DRAPARNALDIA. Filaments separate, fasciculately ramulose.

Sub-order 2. CONFERVEÆ. Frond destitute of a gelatinous coating.

III. CLADOPHORA. Filaments tufted, erect, branched.

IV. CHLETOMORPHA. Filaments unbranched, membranaceous, with a thin cell-wall.

V. HORMOTRICHUM. Filaments unbranched, gelatino-membranaceous, with a thick cell-wall : nodes constricted.

VI. RHIZOCLONIUM. Filaments decumbent, spuriously branched, the branches few and rootlike.

I. CHLETOPHORA. Ag.

Frond gelatinous, polymorphous, of definite form ; the gelatine tranversed by many filaments aggregated together and issuing from a common base. *Filaments* articulated, branched ; articulations of the branches nearly hyaline, those of the ramuli filled with green endochrome. *Sporangia* globose, attached to the ramuli. *Zoospores* formed in the articulations. (*In fresh water.*)

The species form gelatinous masses, of definite or sub-indefinite form, attached to sticks, water-plants, or stones, in stagnant or running water. The gelatine is colourless, tolerably firm and tenacious, and when a portion is placed under the microscope is seen to be traversed in every part with slender, articulated, branching filaments, variously arranged. The filaments are dimorphous, that is, their main divisions are formed of differently shaped cells from those that compose the ramuli. The latter alone contain much endochrome. *Fructification* has, as yet, been seen only in very few species. In some stage of growth the terminal cell of the ramuli is tipped with a very long, hyaline bristle, whence the generic name, from *χαιτη*, a *bristle*, and *φορεω*, to *bear*. The two following species have been sent me from America ; both are common European plants. Probably several others occur in American waters.

1. CHLETOPHORA *endivivifolia*, Ag. : frond elongate, irregularly much branched ; branches linear, scattered, or fasciculate, very patent, dichotomous or pinnate, or secundly ramulose ; longitudinal filaments parallel, hyaline, or transversely banded.

emitting at short intervals tufts of multifid bright-green ramuli. *Ag. Syst. Alg.* p. 28. *Lyngh. Hyd. Dan. t. 65, fig. C.* *Kütz. Sp. Alg.* p. 532. *Hass. Brit. Fr. W. Alg.* p. 125, t. 9, fig. 1-2.

HAB. On sticks and stones, in running streams and ponds. Near West Point, *Prof. Bailey*. Cumberland, Rhode Island, *Mr. Olney*. South Carolina, *Mr. Ravenel*. (v. v.)

Frond gelatinous, varying greatly in size and in ramification; the younger specimens thicker, with fewer branches; the older attenuated and compound. The American specimens before me are 1-3 inches long, and from 1-2 inches in the expansion of the branches. Their fronds are not more than half a line in diameter, linear, filiform, and excessively branched, the branches very much crowded on a prolonged axis, from which they issue without order and are directed to all sides. They are sub-dichotomous, and more or less densely set with divaricated, simple or forked ramuli. When a portion of a branch is examined with a magnifier, it is seen to be composed of several parallel, longitudinal, articulated filaments, lying apart from each other, being separated by a gelatinous matrix; their cells are 4-6 times as long as broad, hyaline or marked with a central transverse band of granules, and they emit, at short intervals, horizontally spreading, multifid, coloured ramuli. The branching of the ramuli is irregular, and between fasciculate and pinnate, the ramification being sometimes densely crowded, sometimes distant. The cells of these ramuli are filled with green endochrome; they are 2-3 times as long as broad, and the terminal cells, which are short, are either simple or carry at their summit a long bristle-shaped acumination. *Substance* gelatinous. The plant closely adheres to paper in drying.

This species occurs in fresh-water ponds and streams in all parts of Europe, and its many minor varieties have received several names. All agree in microscopic structure. The ramification of the gelatinous matrix alone is variable, and that is a character of very little moment. Professor Bailey's specimens are labelled "*Batrachospermum Americanum*, Schweinitz;" a synonym referred by Agardh to his *Draparnaldia opposita*, which is quite different from the Alga now described.

2. *CHLÉTOPHORA pisiformis*, Ag. : frond globose, carneso-gelatinous, formed of numerous erect, radiating, sub-parallel filaments emitting to the circumference dichotomo-multifid patent branches. *Ag. Syst.* p. 27. *Hass. Brit. Fr. Wat. Alg.* p. 128, t. 9, fig. 5-6. *Kütz. Sp. Alg.* p. 532.

HAB. On sticks, in fresh-water ponds and ditches. Dr. Witt's Meadow, New York, *Prof. Bailey*. (v. v.)

Frond the size of a pea, or less, globose, several occurring together on the same stick, gelatinous, but rather firm, bright green. When bruised between two glasses, and examined under the microscope, the gelatinous matrix which forms the globe is seen to be everywhere filled with much branched filaments which rise from the base and radiate

towards all parts of the circumference, sending forth multifid coloured branches vertically and laterally. The articulations of the filaments are once, twice or thrice as long as their diameter in different parts, contracted at the dissepiments, and filled with bright green endochrome. In a young state the apices of the ramuli are prolonged into setæ, or needleshaped, colourless acuminate cells, but these are deciduous in this and other species of the genus. *Colour*, a bright green.

Possibly this species is only a small state of *C. elegans*.

II. DRAPARNALDIA, Bory.

Filaments separate, gelatinous, articulated, dimorphous; the articulations of the stem and branches hyaline, transversely banded; those of the ramuli filled with green endochrome. *Zoospores* formed in the articulations. (*In fresh water*.)

Very beautiful, and extremely gelatinous, bright green, filamentous, much branched Alga, found in clear wells and gentle streams. The structure of the filaments is similar to that of the filaments of the *Chatophore*; and this genus merely differs from the preceding in its filaments being separate one from another, and not combined by means of gelatine into a compound frond. It therefore bears the same relation to *Chatophora* that *Vaucheria* does to *Codium*. The name was bestowed by Bory de S. Vincent in honour of M. Draparnaud, a French naturalist.

1. *DRAPARNALDIA opposita*, Ag.; frond vaguely much branched; joints of the main filament as long as broad, or shorter; pencils of ramuli mostly opposite, densely set, lanceolate-acuminate in outline, plumose, bi-tripinnate, the apices much attenuated. *Ag. Syst.* p. 59. *Kütz. Sp. Alg.* 357. *Lyngb. Hyd. Dan. tab.* 65, *fig. A.* *Batrachospermum Americanum*, Schweinütz.

HAB. In clear streams. New York, *Professor Bailey*. New Jersey, *Mr. Jackson*. (v. s.)

Frond 2-3 inches long, gelatinous, capillary, irregularly much branched; the branches patent, lateral, more or less divided, and set with lesser ramuli. Main filaments with short articulations, as long as their breadth or shorter, transversely banded. At every two or three nodes and sometimes at every node a pair of opposite penicillato-multifid ramuli are thrown off. These are bright green, ovato-lanceolate in outline, much acuminate and twice or thrice pinnate, their pinnules somewhat constricted at the nodes, and tapering at the apex into long, needle-like, hyaline points. Their cells are commonly nucleated and filled with endochrome.

Whether this be permanently distinguishable from *D. glomerata* is doubtful. It has externally the aspect of that species, but its microscopic characters are nearer those of *D. plumosa*.

2. *DRAPARNALDIA glomerata*, Ag.; frond vaguely much branched; articulations of the main stems once or twice as long as broad, swollen in the middle; pencils of ramuli alternate or scattered, often distant, ovate in outline, fasciculato-multifid. *Ag. Syst. p. 58. Kütz. Sp. Alg. p. 356. Lyngb. Hyd. Dan. t. 64. Hass. Brit. Fr. W. Alg. p. 120, tab. 13, f. 1. Conferva mutabilis, Dillw. Conf. t. 12. E. Bot. t. 1746.*

HAB. In clear streams. New York, *Professor Bailey*. Rhode Island, *Mr. Olney*. (v. v.)

Very similar to the last species, but less densely plumose, with scattered fascicles of ramuli.

3. *DRAPARNALDIA plumosa*, Ag.; frond very slender, elongate, much branched; joints of the main filaments once or twice as long as broad; pencils of ramuli opposite or whorled, plumose, much attenuated, pinnate or bi-pinnate, the apices of the pinnules acicular. *Ag. Syst. p. 58. Kütz. Sp. Alg. p. 357. Hass. Brit. Fr. W. Alg. p. 121. tab. 12, f. 1.*

HAB. In streams. West Point, *Professor Bailey*. (v. v.)

More slender than *D. glomerata*, and much more branched, forming dense, gelatinous tufts, 3-6 inches long, often much drawn out in running water. In the American specimens the articulations of the stem and branches are about twice as long as broad, slightly constricted at the nodes, and swollen in the middle. Several seriated cells of this length follow each other, and then occur two or three short, nearly globular cells consecutively, which shorter cells emit the opposite or ternary penicillate ramuli. This alternation of longer and shorter cells occurs throughout the branch, the shorter ones always producing the ramuli. The ramuli are pinnate or bi-pinnate, but much less compound than in *D. opposita* or *D. glomerata*.

The synonymy of this species is confused. The American plant differs slightly from the European specimens with which I have compared it, but I am not disposed to think it specifically different. Indeed the three forms now described as species are so similar in all essential respects, that it may well be questioned whether they should be kept separate.

III. CLADOPHORA. *Kütz.*

Filaments (not gelatinous) tufted, articulated, uniform, branched. *Articulations* filled with green, granular endochrome, which is changed at maturity into *zoospores*. (*Marine or in fresh water.*)

An immense genus, in which, for the present, are placed almost all the branching

species of a *green* colour formerly referred to the genus *Conferva*. The species are extremely difficult to define, and have been unreasonably multiplied; but are so much diversified that it is difficult to avoid giving different names to the many forms met with, if they are to be described at all. Kützinger admits 210 species, and probably nearly 100 more have been described by other authors. A wholesale reduction will probably be eventually made. I have referred most of the American forms, approximately or absolutely, to European types; in some cases perhaps incorrectly. But unless better specific characters than those at present in use shall be discovered, it is almost impossible to find words to characterise, as distinct, nearly allied forms. When, therefore, I meet with an American specimen reasonably like a European, I here place them under the same head, or specific name. Several doubtful specimens I have been unable satisfactorily to identify, and hold them over for future examination, should better materials be sent to me.

Sect. 1.—*Species found in the sea.*

* CÆSPITOSÆ. Filaments short, rigid, densely interwoven into cushion-like tufts.

1. *CLADOPHORA repens*, J. Ag.; filaments short, emitting root-like processes, densely interwoven into globose or expanded mats, capillary, rather rigid, sparingly and very irregularly branched; branches erect, subsimple, filiform, naked or having a few secund ramuli; articulations cylindrical, many (10–20) times as long as their diameter. *J. Ag. Alg. Medit.* p. 13. *Harv. Phyc. Brit.* t. 236. *Kütz. Sp. Alg.* p. 416.

HAB. On rocks, &c. in the sea. Key West, *W. II. H.* (v. v.)

Tufts very dense, an inch or two in breadth and about half an inch high, cushion-like, composed of innumerable, interwoven, capillary filaments. The filaments are at first decumbent, and connected by rootlike fibres which form the substratum of the mat; the branches are erect, simple or branched, with or without secondary ramuli. The articulations vary greatly in length in specimens from different localities.

This species is a native of the Mediterranean, and also of the British Channel Islands. Except in the length of the articulations, which also vary much in the same filament, the European and American specimens nearly coincide.

2. *CLADOPHORA membranacea*, Ag.; filaments short, creeping, densely interwoven into globose or expanded mats, somewhat fastigiate, thick, almost setaceous, flaccid, membranaceous, sparingly and irregularly branched; articulations many times longer than broad. *Ag. Syst.* p. 120. *Kütz. Sp. Alg.* p. 415.

HAB. On rocks and the smaller Algæ. Key West, *W. II. H.*, *Professor Tuomey.* (v. v.)

Matted tufts an inch or more in diameter, sometimes widely spreading. *Filaments* scarcely an inch long, rising from creeping fibres, sparingly branched, flaccid, the branches very irregular, few or many, either undivided or once or twice compounded, naked, or having a few second ramuli toward the ends. *Articulations*, especially the lower ones, very many times longer than broad, their membrane thin and membranous. *Colour* a very pale green, with watery endochrome.

This has the densely matted habit of the preceding species, but the filaments of which the mats are composed are much more robust, and less rigid, of a paler green, &c. Kützinger well observes that it has the aspect of a *Valonia*.

** RUPESTRIS ; rigid, dark-green, tufted ; the cell-wall thick.

3. *CLADOPHORA rupestris*, L.; filaments capillary, rigid, dark-green, straight, tufted, bushy ; branches erect, crowded, densely clothed with appressed, opposite or tufted, subulate ramuli ; articulations three or four times as long as broad. *Lin. Sp. Pl.* p. 1637. *Dillw. Conf.* t. 23. *E. Bot.* t. 1699. *Harv. Phye. Brit.* t. 130. *Kütz. Sp. Alg.* p. 396. *Wjatt, Alg. Danm.* No. 95.

HAB. Rocky shores, near low water mark. Fiskernaes, near Cape Farewell, Greenland, *Dr. Sutherland*. Halifax, *W. H. H.* (v. v.)

Root a largish disc. *Filaments* densely tufted, 2-6-8 inches long (in my American specimens scarcely two inches), capillary, rigid, very dark-green, much branched ; the branches straight and very erect, repeatedly divided, the divisions either alternate or opposite. Penultimate branches often nearly naked, filiform, elongated, very erect and straight ; in luxuriant specimens set throughout with opposite or fascicled or scattered subulate ramuli, whose terminal cell is sometimes acute, sometimes obtuse. The process of cell division is well illustrated in this species, and may be observed even in dried specimens, so perfectly does the endochrome recover its form. The cells of the middle portion of the branches divide as well as those of the younger ramuli, and consequently consecutive cells are found of various lengths.

Two specimens of what I take to be a much denuded and battered state of this species were collected by Dr. Sutherland, in the Arctic expedition under Captain Inglefield, in the above mentioned locality, and have been sent to me by Professor Dickie of Belfast. They are faded to a dull green. The substance and ramification, so far as branches remain unbroken, are those of *C. rupestris* ; but in one specimen the articulations are very short, being only as long as their diameter, or scarcely longer. This peculiarity at first seems sufficiently characteristic of a distinct species, but a little further examination shows that the character is deceptive, resulting merely from the ordinary process of cell-division being in this specimen carried to an excess. On the other specimen are cells of the common length mixed with these short or halved cells ; and intermediate stages occur which quite explain the unusual character of the first specimen.

4. *CLADOPHORA cartilaginea*,* Rupt.; tufts ? filaments robust, setaceous, elongate, firm, somewhat rigid, rather sparingly branched; branches very erect, scattered, long and virgate, undivided, straight, set with a few scattered, erecto-patent, filiform branchlets, which are either naked or bear one or two minute ramuli; articulations in the older parts much shorter than their diameter; in the younger (towards the ends of the branches) as long, or twice as long as broad. *Rup. Alg. Ochotsk*, p. 211, (403.)

HAB. Unalashka, *Dr. Ruprecht*. (v. s. in Herb. T.C.D.)

My only specimen is a fragment, but it seems to belong to a well characterised species of large size. The portion before me is about four inches long, with a few lateral virgate branches, set at very acute angles, quite simple, straight and three inches long, furnished with several scattered, simple, erect ramuli, each of them from half an inch to an inch in length, obtuse, nearly as thick as the stem from which they spring. These are mostly naked, but in a few cases they bear a minute ramulus near the tip. The apices are not attenuated. The diameter of the filament is equal to that of hogs' bristle. The substance is firm and cartilaginous, and the colour a pale-green. Through the greater part of the filament the articulations are much shorter than their diameter; but towards the apices they are longer, and the few terminal joints are twice as long as broad, or more.

*** ARCTÆ. Filaments soft, forming dense, spongy, fastigate tufts of a pale, but vivid green.

5. *CLADOPHORA arcta*, Dillw.; tufts dense, more or less matted at the base, starry, fastigate, soft, brilliant and glossy green; filaments capillary, much branched; branches straight, crowded, very erect; ramuli opposite or scattered, erect or appressed; articulations in the lower part of the frond about twice as long as broad, in the upper (younger) branches many times longer than the diameter; apices obtuse. *Dillw. Conf. Supp.* p. 67, t. E. *E. Bot.* t. 2098. *Harr. Phyc. Brit.* t. 135. *C. arcta*, *vaucheriaformis*, and *centralis*, *Auct.* *C. scopaeformis*, *Rup.*

HAB. Coasts, from the Arctic Regions to New York Bay, on rocks near low water mark. Whalefish Islands, Davis's Straits, *Dr. Lyall*. Prince Edward's Island, *Dr. Jeans*. Penobscot Bay, *Dr. Young*. Boston Harbour, *Mr. G. B. Emerson*. New York Bay, *Messrs. Walters, &c.*, *W. H. H.* (v. v.)

* Besides this species Dr. Ruprecht notices the following from Russian America:—*C. adharens*, *Rup.* from the Arctic Sea, allied to *C. arcta* (if it be different); *C. Chamissonis*, *Rup.* from Unalashka; *C. Mortensii*, *R.* from Sitka; *C. viminea*, *Rup.* from Sitka and Unalashka; *C. scopaeformis*, and *C. coalita*, from Northern California. Of these Dr. Ruprecht has sent me fragments of *C. Chamissonis*, *C. viminea*, and *C. coalita*; but as he has not, that I am aware of, assigned full specific diagnoses to any of the above species, I am unwilling to describe the few that I possess, from the very imperfect materials at my command, lest I might add to the confusion already sufficiently confounded in this genus. I collect the above names from Dr. Ruprecht's *Alg. Ochotsk.*, as already quoted.

This species varies much in minor characters, but may generally be known by its lubricous substance, brilliant colour, fastigate tufts, and straight, much branched filaments which radiate to every side from a common base, in a star-like manner. In the young plant the tufts are less dense, the filaments nearly free from each other to the very base; but as the plant advances in age, root-like processes are developed along the lower part of the filaments, while the tufts become matted together, sometimes into a compact spongy frond. In very old specimens this condensation takes place throughout the whole length of the filament, except in the very youngest ramuli. The tufts are from two to four inches in height, hemispherical, or variously divided into two or more hemispherical or flabelliform lobes, and are generally level-topped. They are composed of many parallel, much branched, capillary filaments, of nearly equal diameter from base to apex; the branches all very straight and erect, repeatedly but most irregularly divided, and set with lateral, erect, straight ramuli, which are nearly as robust as the branches from which they spring, and very obtuse. Toward the base of the filaments the articulations are once or twice as long as broad; a little farther up they are three to four times; and in the young branches and ramuli six to eight or twelve times as long as broad. In the state or variety called *C. centralis* they are uniformly short throughout except in the very young tips. The endochrome is dense and granular, and recovers its form on being moistened after having been dried. The colour in general is well preserved in drying, in which state the tufts retain much of their gloss, and closely adhere to paper.

Authors have made several species out of what we regard as simply *C. arcta* in different stages. Thus *C. vaucheriaformis* is the young, half-developed form; *C. arcta*, Auct. the middle stage; and *C. centralis* the old plant, where the matting together of the threads has been carried to an extreme point. Other species of Kützinger's section *Spongomorpha* might probably be added to these synonyms. A fragment of *C. scopariaformis*, Rup. from Russian America, sent to me by Dr. Ruprecht himself seems to belong to one of the spongy forms of this species. *C. arcta* is perennial; and specimens collected in the same locality at different seasons will be found to put on, successively, all the characters attributed to the three principal forms indicated above.

6. *CLADOPHORA lanosa*, Roth.; tufts dense, globose, small, fastigate, yellow-green; filaments slender, irregularly much branched; branches straight and virgate, erect, patent; ramuli few, scattered, erect, straight; axils acute; articulations in the lower part twice, in the upper six to eight times as long as broad. *Roth. Vet. Bot.* 3, p. 291, t. 9. *E. Bot.* t. 2099. *Lyngb. Hyd. Dan.* t. 56. *Kütz. Sp. Alg.* p. 420. *Harr. Phyc. Brit.* t. 6. *Wyatt, Alg. Danm.* 194.

HAB. On the smaller Algæ, and on *Zostera*; generally epiphytic. Boston Bay, *Mr. G. B. Emerson.* (v. v.)

Tufts rarely more than an inch in diameter, globose, dense, formed of many filaments radiating from a common base. These filaments are at first separate, but at length by means of rooting processes issuing along their sides, they become somewhat interwoven

below. They are fastigiate and very irregularly divided, but mostly straight, with erect branches and ramuli. The lower articulations are short; the upper, and especially the terminal ones, are very long. The endochrome generally recovers its form after having been dried, at least in the younger portions of the frond, if it have not been discharged, as often happens, by the rupture of the membrane, when the frond is immersed in fresh water. This plant adheres closely to paper.

A much smaller species than *C. arcta*, to which, as well as to *C. uncialis*, it is nearly allied.

7. *CLADOPHORA uncialis*, Fl. Dan.; tufts short, vivid-green, very dense, spongy, globose, simple or somewhat lobed, fastigiate, composed of numerous filaments matted together by lateral rootlets; filaments flexuous, sparingly branched, interwoven; branches and ramuli distant, patent, curved, alternate or secund; articulations of uniform length, about twice as long as broad. *Fl. Dan. t. 771, fig. 1. Lyngh. Hyd. Dan. t. 56. Ag. Syst. p. 111. Wyatt, Alg. Danm. 146. Harv. Phyc. Brit. t. 207. Kütz. Sp. Alg. p. 420.*

HAB. On rocks near low water mark. Prince Edward's Island, *Dr. Jeans*. Halifax, *W. H. H.* Nahant, *Mrs. Mudge.* (v. v.)

Tufts about an inch in height and diameter, very dense and spongy, either somewhat globose, or cleft into numerous spongy divisions, fastigiate. *Filaments* very numerous from a common base, densely matted and interwoven by root-like processes developed along the sides, flexuous, more or less compound. Branches very irregularly disposed, generally distant, secund or alternate, once or twice again divided, and having a few patent, curved, simple ramuli. *Colour*, when growing, a vivid-green; instantly discharged in fresh water, and in drying the specimen fades to a pale yellow-green, especially toward the centre of the tuft. The endochrome recovers its form and fills the cell, on moistening after having been dried. The articulations in all parts of the filaments are of nearly uniform length, twice or thrice as long as their diameter. *Substance* soft but not gelatinous.

Very nearly related to *C. lanosa*, but the place of growth is different, and the filaments are more flexuous, the branches more patent, and the rooting processes more numerous.

*** GRACILES. Filaments loosely tufted, feathery, very slender, pale or bright-green.

8. *CLADOPHORA glaucescens*, Griff.; filaments loosely tufted, pale or glaucous green, very slender, flexuous, excessively branched; branches erecto-patent, flexuous, repeatedly sub-divided, the penultimate ones pectinated with closely set, elongate, straight, slender, many celled, erect or sub-erect ramuli; axils acute; articulations constricted at the nodes, nearly uniformly thrice as long as broad, those of the main branches a little the longest. *Wyatt, Alg. Danm. No. 195. Harv. Phyc. Brit. t. 196. Kütz. Sp.*

Alg. p. 403. *Var. β. pectinella*; small, very slender, all the divisions of the ramification secund, the penultimate ramifications closely pectinated with short ramuli and recurved.

HAB. On rocks and stones, between tide marks and in rock pools. Halifax, *W. H. H. Lynn* and Nahant, *Mrs. Mulge.* Portsmouth, N. H., *Dr. Durkee.* New York Bay, *Messrs. Hooper, Calverley, Walters, and Pike.* Beesley's Point, Rhode Island, *Mr. Ashmead.* *Var. β.* Charleston, S. C., *Prof. L. Gibbs, W. H. H.* (v. v.)

Filaments very slender, 3–5 inches long, forming tufts of greater or less density, but not usually entangled or interwoven, excessively branched, the main divisions and principal branches flexuous, sometimes very much so, closely beset with lesser branches which divide either alternately or secundly, the tendency to secund ramification increasing as the frond extends. The penultimate branchlets are generally closely pectinated with secund, erect, straight, simple ramuli composed of several cells; and occasionally the ramuli are fascicled, three or four springing from the same cell. Though always very slender, the diameter varies. The articulations, on the whole, are pretty uniform; those of the ramuli are most constricted at the nodes, and also a little the shortest. In drying the endochrome is dissipated from the centre of the cell, and collapsed at the two ends, so that the filaments, in dried specimens, have a variegated appearance under a pocket lens. On remoistening, it never perfectly recovers its form.

My Halifax specimens are identical with those published by Mrs. Wyatt, and on which the species was originally founded. Those from other localities vary in some degree, being either coarser or more slender, and more or less branched; but on the British coasts similar varieties occur.

9. *CLADOPHORA flexuosa*, Griff.; filaments very slender, pale green, tufted, flexuous, sparingly and distantly branched; branches elongate, sub-simple, of unequal length, flexuous, sometimes nearly naked, sometimes ramuliferous; the ultimate ramuli secund or alternate, short or long, curved; articulations of the branches 3–4 times, of the ramuli twice as long as broad. *Griff. in Wyatt, Alg. Danm. No. 227. Harv. Phyc. Brit. t. 353.*

HAB. Rock pools between tide marks, &c. Hingham, Massachusetts, *Miss Brewer.* Boston, *Dr. Durkee.* Jackson Ferry and Hell Gate, New York, *Messrs. Walters and Pike.* (v. s.)

Very nearly related to *C. glaucescens*, if really specifically distinct. It is chiefly known by its less compound habit, the length and nakedness of the principal branches, and their flexuosity. The diameter of the filament is nearly as in *C. glaucescens*: the articulations are rather longer. Some of the specimens are nearly destitute of ramuli, and scarcely two of those before us agree in all respects.

10. *CLADOPHORA Morrisii*; tufts elongate, dense, somewhat interwoven, dark green;

filaments very slender, much and irregularly branched, the penultimate branches very long, filiform, flexuous, simple, set with alternate or second, short, erecto-patent ramuli, some of which are simple and spine-like, others pectinated on their upper side; articulations filled with dense endochrome, in the branches 2-3 times, in the ramuli about twice as long as broad, cylindrical, not contracted at the nodes. (TAB. XLV. B.)

HAB. Elsinborough, Delaware, *Miss E. C. Morris*. (v. s. in Herb. T.C.D.)

Tufts dense, 6-8 inches in length. *Filaments* inextricably bundled together, very slender, much branched, the ramification of the principal divisions not determinable from dried specimens. The penultimate branches which float out from the somewhat rope-like tufts are generally simple for an inch or two in length, or the longer ones are furnished with similar simple branches; and all are beset with short, erecto-patent ramuli. Some of the ramuli are simple, of 3-4 cells; others emit similar ramuli on their upper side. The membrane of the cell-wall is very thick and tough, and the endochrome peculiarly firm, recovering its form well on being moistened after having been dried. The nodes are not contracted, and the internodes or articulations rarely exceed thrice their diameter in length, and often do not reach that dimension. The colour is a full dark-green, somewhat olivaceous when dried. Specimens adhere closely to paper.

I have as yet only received this plant from Miss Morris. It differs in several respects from any that I now remember.

PLATE XLV. B. *CLADOPHORA Morrisia*; *Fig. 1*, the *natural* size. *Fig. 3*, portion of a branch: and *Fig. 2*, a ramulus of the same; *magnified*.

1. *CLADOPHORA refracta*, Roth.; filaments very slender, rather densely tufted, bright green, membranaceous (not lubricous), excessively branched; secondary branches spreading on all sides, repeatedly divided and very patent, densely set with short, often opposite, recurved or squarrose branchlets, which are pectinate on the inner face with patent, simple or forked ramuli; articulations of the branches 2-4 times of the ramuli about twice as long as broad. *Roth. Cat.* 2, p. 193. *Alg. Syst.* p. 114. *Wyatt, Alg. Dunm. No.* 228. *Harv. Phyc. Brit. t.* 24. *Kütz. Sp. Alg.* p. 398.

HAB. On rocky coasts, in tide pools, &c. Rhode Island, *Mr. Olney*, *Mr. G. Hunt*. Boston Bay, *Dr. A. Gray*. Portsmouth, N. H., *Dr. Durkee*. New York, *Messrs. Culverley, Walters, and Pike*. Newport, R. I., *Professor Bailey*. Seaconot, *Mr. Congdon*. Charleston, S. C., *Professor Gibbs*. (v. v.)

Tufts 2-3 inches long, feathery, rather diffuse, the main filaments sometimes interlaced in rope-like bundles. *Filaments* more slender than human hair, rather rigid, tough, excessively branched, all the divisions patent or divaricate. The penultimate ramuli are especially reflexed or retracted, and often opposite; their ultimate divisions are

either simple or forked. The colour is a brilliant green, but it does not well preserve in drying, in which state the specimen is without gloss and generally pale. The endochrome is generally dissipated in drying, and does not, in ordinary cases, recover its form when the frond is remoistened; sometimes, however, the endochrome remains.

A beautiful species, and tolerably easily known. The American specimens are very similar to our West of Ireland plant, but more robust than those from the South Coast of England.

12. *CLADOPHORA albida*, Huds.; filaments exceedingly slender, flaccid, but not gelatinous, pale green, forming dense, silky or somewhat spongy, soft, intricate tufts, very much branched; branches zigzag, their divisions very patent, the lesser branches very frequently opposite, and nearly horizontal; ramuli alternate, opposite or secund, patent or divaricating; articulations 3.5 times as long as broad. *Huds. Fl. Angl. p. 595. E. Bot. t. 2327. Wyatt, Alg. Danm. No. 96. Harv. Phyc. Brit. t. 275.*

HAB. On rocks and algae, between tide marks. Staten Island, *Dr. Torrey*. Beesley's Point, *Mr. Ashmead* (64, 65, 66). New York Bay, *Messrs. Calverley, Walters, &c.* (v. v.)

Tufts 6-8 inches long, very dense and soft, and somewhat intricate or woven together, occasionally feathering and opening out freely. *Filaments* excessively slender and very much branched, and so interwoven that it is impossible to trace the branching. In the American specimens the main branches are very flexuous, angularly bent from side to side, and very much divided, all the divisions squarrose or divaricating. The penultimate branches, which are nearly horizontally patent, are generally opposite, but three or more sometimes issue from the same point; the ultimate ramuli are scattered, either alternate or secund. The nodes are somewhat contracted; the cell-wall thin, and the endochrome pale and watery. When dry the whole plant frequently becomes a dull greenish white. It does not strongly adhere to paper.

13. *CLADOPHORA Rudolphiana*, Ag.; filaments very long, exceedingly slender, flexuous, sub-gelatinous, much branched, bright yellow-green, inextricable; branches di-trichotomous or irregular; ultimate ramuli pectinate, secund, very long, and much attenuated; articulations of the main branches many times longer than broad, here and there swollen, their granular endochrome somewhat spiral; those of the ramuli 6-10 times as long as broad. *Ag. Bot. Zeit. 10, p. 636. Harv. Phyc. Brit. t. 86. Kütz. Sp. Alg. p. 404.*

HAB. Jackson Ferry, N.Y., *Mr. Walters.* (v. v.)

A specimen sent by *Mr. Walters* agrees pretty well with the Irish specimens figured in *Phyc. Brit.* The filaments are 4.5 inches long, soft, and somewhat gelatinous, closely adhering to paper, intricately interbranched, very flexuous, zigzag, and much branched. The branches are patent, sometimes opposite, mostly alternate or scattered,

and repeatedly divided ; the ramuli slender, few and subdistant. The articulations of the branches are very many times longer than broad ; those of the ramuli 5-6 times their breadth. The endochrome is generally dissipated in drying. When dry the specimen retains a brilliant green and has a silky gloss.

14. *CLADOPHORA gracilis*, Griff.; filaments very long, capillary, flexuous, silky, much branched, bright yellow-green ; main branches entangled, sparingly divided, angularly bent ; ultimate ramuli pectinate, secund, much attenuated, straight, and very long ; articulations 3-5 times as long as broad. *Griff. in Wyatt, Alg. Danm. No. 97. Harr. Phyc. Brit. t. 18. Kütz. Sp. Alg. p. 403.*

HAB. Growing on *Zostera*, and the various Algae, in the Laminarian zone. Nahant, *Mrs. Mudge*. Beesley's Point, Rhode Island, *Mr. Ashmead* (67.) Seaconot, Rhode Island, *Mr. Olney*. (v. v.)

Filaments more or less densely tufted, 4-12 inches long, (about 4 inches in the American specimens), capillary, soft and silky, much branched ; the main branches rather more robust and bent in a zigzag manner, sometimes very flexuous, and frequently more strongly coloured than the rest of the plant, set throughout with lateral, decompound branches all whose divisions are patent ; and the ultimate branchlets pectinated with long, simple, secund ramuli. *Colour* a yellow-green. *Substance* soft and silky, but not gelatinous. *Articulations* 3-5 times as long as broad. It does not strongly adhere to paper in drying.

Mrs. Mudge's specimens are small, but in other respects very similar to English ones. Those from Mr. Olney and Mr. Ashmead are less true to the type.

15. *CLADOPHORA brachyclados*, Mont. ; filaments very slender, tufted, sparingly branched ; branches long and virgate, set with distant, alternate, erecto-patent branchlets, which are pectinated along their upper sides with very short, erect, or incurved ramuli, of 1 or 2 cells ; articulations of the branches 5-6 times as long as broad. *Mont. Cuba, p. 13, t. 4. Sylloge Pl. Crypt. p. 456. C. Montagneana, Kütz. Tab. Phyc. vol. 4, p. 9, t. 41, fig. 2.*

HAB. Mouth of Rio Bravo, on the sea-beach, *Dr. Schott*. (v. s. in Herb. T.C.D.)

The specimen received from *Dr. Schott* is a very imperfect one, but its filaments, when examined under the microscope, show so many characters in common with those of Montagne's *C. brachyclados* from Cuba, with an authentic specimen of which I have compared them, that I am unwilling to separate forms so similar. The short, mostly single-celled ramuli are characteristic.

16. *CLADOPHORA luteola*; filaments very pale yellow-green, tufted, excessively slender.

and much branched, not matted together; main and lesser branches remarkably flexuous, the angles rounded, and the filaments areolate; branching irregular, frequently trichotomous, the lesser ramuli secund or opposite, and their ultimate divisions pectinate, somewhat corymbose and crowded toward the apices; articulations cylindrical, hyaline, 6-8 times as long as broad.

HAB. Growing on littoral corals, at Key West, *W. H. H.* (v. v.)

Filaments 2-3 inches long, rather loosely tufted, excessively slender, and soft, but not in the least gelatinous, very much branched, remarkably bent; the filaments areolate between each ramification. The branching is irregular. In the principal and also in the lesser divisions it is frequently trichotomous, three branches springing from a node; but the branches are almost as often alternate or sub-dichotomous. In the medial portion of the frond the forkings are sub-distant; they become more frequent upwards, and the branches generally end in closely set, but scarcely fasciculate pectinated ramuli, which are either opposite, alternate, or secund. The ultimate ramuli are erect and incurved. *Articulations* seldom less than six times as long as broad, sometimes more, with a very pale, watery endochrome, which is dissipated in drying. Notwithstanding its tenuity this plant does not adhere closely to paper.

***** *LETEVIRENTES.* *Filaments* loosely tufted, robust, and somewhat firm or rigid, vivid-green.

17. *CLADOPHORA letevirens*, Dillw.; filaments much branched, bushy, forming tufts of a transparent, yellow-green colour (faded and without gloss when dry); branches erecto-patent, crowded, repeatedly divided, flexuous, the lesser divisions often opposite, ultimate ramuli secund, blunt, of few articulations; articulations of the branches six times, of the ramuli thrice as long as broad. *Dillw. Conf. t.* 48. *E. Bot. t.* 1854. *Harr. Phyc. Brit. t.* 190. *Wyatt, Alg. Danm. No.* 143. *Kütz. Sp. Alg. p.* 400. *Conf. glomerata var. marina*, Roth. *Cat. Bot.* 3, p. 237.

HAB. In rock pools between tide marks. New York Bay, *Messrs. Hooper & Walters*. Boston, *Dr. Durkee*. California, *Dr. Coulter*. (v. v.)

Tufts feathery. *Filaments* 3-6 inches long or more, capillary, much branched, main filaments flexuous or angularly bent, set with alternate or scattered, occasionally opposite, repeatedly decomposed patent branches, which are densely set with lesser branches and ramuli, all of which are patent and often recurved. Lesser and penultimate branches mostly secund, sometimes opposite or fasciculate, their ultimate divisions pectinated with short closely set ramuli on the upper side. Articulations of the main branches 4-6 or 8 times, of the ramuli 3-4 times as long as broad. *Colour*, a full grass green. *Substance*, not very soft. It adheres, but not strongly, to paper in drying.

18. *CLADOPHORA diffusa* (?); filaments capillary, elongate, loosely tufted, somewhat rigid, full green, flexuous, much branched; branches distant, irregularly subdivided, nearly naked, or furnished toward the ends with a few short secund ramuli; articulations 3-4 times as long as broad. *Harv. Phyc. Brit. t. 130* (?) &c.

HAB. New York Sound, *Messrs. Walters, Pike, &c.* California, *Mr. A. D. Frye.* (v. s.)

Tufts loose. *Filaments* 6-12 inches long or more, generally so rigid as not to collapse when removed from the water, capillary or somewhat more robust, much and irregularly branched. Branches distant, often an inch or more apart, erecto-patent, naked in the lower portion or very sparingly ramulose, and sometimes naked throughout and little subdivided. Generally, however, the upper divisions are more repeatedly and more closely branched, and their branches furnished with a few short, secund, pectinate ramuli. On some specimens these are very few and confined to the apices; on others they are more abundant.

Recognised chiefly by its naked and distant branches, nearly destitute of ramuli. The more ramulose specimens seem gradually to glide off into *C. letevirens*. I quote the figure in *Phyc. Brit.* with a mark of doubt, and refrain from quoting other authorities, because I am not quite sure of the specific identity of the American and European specimens.

SECT. 2. Species found in brackish water, or in fresh-water ponds and streams.

19. *CLADOPHORA fracta*, Fl. Dan.; tufts irregular, entangled, often detached and then forming floating strata, dull green; filaments rather rigid, distantly branched, the lesser branches somewhat dichotomous, spreading, with very wide axils; the ramuli few, alternate or secund; articulations 3-6 times as long as broad, at first cylindrical, then elliptical, with contracted nodes. *Fl. Dan. t. 946.* *Dillw. Conf. t. 14.* *E. Bot. t. 2338.* *Lyngh. Hyd. Dan. t. 52.* *Harv. Phyc. Brit. t. 294.* *Kütz. Sp. Alg. p. 410.*

HAB. In salt water ditches and ponds, also in brackish or fresh water. Rhode Island, and in the Hudson, at West Point, *Prof. Bailey.* Beesley's Point, *Mr. Ashmead.* Near New York, *Mr. Walters.* (v. v.)

This is at first tufted and attached to sticks or stones, but afterwards occurs floating, and then forms strata of considerable extent. *Filaments* capillary, several inches long, loosely tufted or bundled together, much but distantly branched, the branches widely spreading at very obtuse angles, and again and again dividing, all the minor divisions being equally patent, and the angles equally wide. The lesser branches sometimes bear a few secund ramuli, and are sometimes quite naked. *Colour*, at first a grass green, but gradually becoming darker. *Substance*, membranaceous and rather rigid, seldom quite adhering to paper in drying, and readily detached.

To this species I am disposed to refer a specimen which was provisionally named *C. prasina*, formerly received from Professor Bailey, who found it abundantly in the Hudson at West Point, where it is thrown ashore after storms. I have also received a fresh-water specimen collected by Dr. Bigelow when engaged on Lieutenant Whipple's expedition to the Pacific.

20. *CLADOPHORA glomerata*, Linn. ; filaments tufted, bushy, somewhat rigid, much branched, bright grass-green ; branches crowded, irregular, erecto-patent, repeatedly divided ; ultimate ramuli secund, subfasciculate ; articulations 4-8 times as long as broad. *Dillw. Conf. t. 13. E. Bot. t. 2192. Harv. Man. Ed. 1, p. 134.*

HAB. In streams, lakes, and rivers. Probably common.

I have received North American specimens from Milton, Saratoga County, N.Y., and from Lake Erie ; also from the Mexican Boundary Surveying Expedition.

IV. CHÆTOMORPHIA, Kütz. (May, 1845.)

Filaments (not gelatinous), membranaceous or cartilaginous, unbranched, attached, or floating, articulated ; formed of a string of oblong cells, the basal cell longer than the rest. *Articulations* filled with granular endochrome. (*Marine.*)

The genus, as here adopted from Kützing, is intended to include most of the marine species of the older *Conferva*, which have unbranched filaments and articulations usually longer than their diameter. It differs from *Cladophora* solely in being branchless. From *Hormotrichum* it is less easy to point out a clear distinctive character, unless we seek it in the substance of the cell-coats, and in the shortness of the cells usual in that genus. The name *Aplonema* was proposed for this group by Mr. Hassall (*Brit. Fr. W. Conf. p. 213.*) only two months subsequently to the publication of Kützing's genus, which thus establishes its priority on very narrow evidence. It forms a part of the Agardhian *Lychnete*, published in 1846 ; a group that includes both simple and branched species, and which is thus characterised by its author :—

LYCHETE, J. Ag. ; “fronde sub-heterogenea, articulo infimo (in simplicibus), aut infimis ramorum (in ramosis) dissimilibus et non mutandis, superioribus omnibus continua subdivisione iterum iterumque divisis atque coniocystis externis distinguendum.” *Alg. Ined. Ed. 2, No. 9. (Lychnete mirabilis).*

I prefer, with Kützing, to keep the branching and unbranched species in separate genera, as being a more obvious, if not more natural arrangement. However, the whole subject of the natural arrangement of these obscure plants is open to future discussion. The present is but a temporary settlement of the question.

1. *CHÆTOMORPHA Piquotiana*, Mont. ; filaments loosely bundled together in strata, very long, ultra-setaceous, grass-green, rigid, glossy and variegated when dry, variously twisted ; articulations 3-5 times as long as broad, contracted at the nodes. *Mont. An. Sc. Nat. 3d Ser. vol. 11, p. 66.* *Mont. Syll. p. 459.* *Kütz. Sp. Alg. p. 379.* *Tab. Phyc. vol. 3, p. 19, t. 58, f. 2.* (TAB. XLVI. C.)

HAB. In deep water ; from 5 to 6 fathoms. Coast of Labrador, *M. Lamare-Piquot!* Burnt Coat Island, Maine, *Dr. A. Young.* Halifax, *W. H. H.* Boston Bay, *Mrs. A. Gray.* Staten Island, N.Y., *Dr. Torrey.* (v. v.)

This occurs in large bundled strata, the filaments lying loosely together, but probably they are attached at an early age. *Filaments* 12-14 inches long or more, twice as thick as hog's bristle, crisp and rigid, variously curved and twisted, of a full grass-green colour, fading in drying, but retaining a glossy surface. The *endochrome*, in drying, is usually dispersed toward the ends of the cell, which gives the filament a variegated look, with alternate pale and dark bands. The cell membrane is thick and tough. The articulations are variable in length, but always much longer in proportion than those of *C. melagonium*. They are commonly four times as long as broad ; occasionally only thrice their breadth, and sometimes 5-6 times as long. The dissepiments or nodes are always much constricted and very narrow. The endochrome recovers its form when remoistened. It does not adhere to paper.

I have compared my specimens with an original one communicated by Dr. Montagne. The species is nearly related to *C. melagonium*, but of larger dimensions and with much longer articulations.

PLATE XLVI. *Fig. 1.* *CHÆTOMORPHA Piquotiana*, the natural size. *Fig. 2.* a magnified portion.

2. *CHÆTOMORPHA melagonium*, Web. and Mohr. ; root scutate ; filaments erect, straight, elongate, very robust, ultra-setaceous stiff and wiry, dark-green, tapering to the base, obtuse ; articulations 2-3 times as long as broad. *Ag. Syst. p. 99.* *Lyngh. Hyd. Dan. t. 51.* *Harv. Phyc. Brit. t. 99. A.* *Wyatt, Alg. Danm. No. 221.* *Kütz. Sp. Alg. p. 379.*

HAB. In rock pools near low water mark, and at a greater depth. Greenland, *Worms-kjold.* Halifax, *W. H. H.* Boston Bay, *Mrs. Asa Gray.* Newbury Port, *Mr. Hooper.* Unalashka, *Wosnessensky.* (v. v.)

Root an expanded disc. *Filaments* either scattered, or somewhat tufted, 5-12 inches long, twice as thick as hog's bristle, erect and stiff, peculiarly wiry to the feel when growing, straight or slightly curved, very blunt at the apex, and tapering to the base. *Articulations* rather longer in the American than in European specimens, but variable even in the same tuft ; once and a-half, twice, or thrice as long as broad, filled with dark-green endochrome and contracted at the dissepiments.

3 *CHLETOMORPHA area*, Dillw. ; root scutate ; filaments setaceous, tufted, straight, (sometimes twisted in age) harsh and brittle, yellow-green ; articulations about as long as broad. *Dillw. Conf. t.* 80. *E. Bot. t.* 1929. *Lynb. Hyd. Dan. t.* 51. *Ag. Syst. p.* 100. *Wygatt, Alg. Danm. No.* 191. *Harv. Phyc. Brit. t.* 99. *B. Kütz. Sp. Alg. p.* 379.

HAB. In rock pools, between tide marks, &c. Newport, *Professor Bailey*. New York Bay, *Messrs. Hooper, Walters, &c.* (v. v.)

Filaments generally in dense tufts, 3-12 inches in length, and as thick as hog's bristle, rather harsh to the touch when fresh, but much less rigid than *C. melagonium*, and collapsing on being removed from the water, usually straight, but old specimens are sometimes crisped and contorted. The colour when growing is a beautiful yellowish green, but dried specimens are usually much faded, and dull-greenish white after long keeping in the Herbarium. The endochrome fills the cell and is of a watery consistence, and dispersed in drying. The articulations are pretty uniformly as long as broad, with contracted dissepiments.

4. *CHLETOMORPHA Olneyi*, Harv. ; filaments tufted, setaceous, straight or curved, soft, pale-green ; articulations once and half as long as broad. (TAB. XLVI. D.)

HAB. Rhode Island, *Mr. Olney*. (v. s. in Herb. T.C.D.)

This has the habit of *C. area*, but is of a soft and flaccid substance, adhering closely to paper in drying. When dry it is very pale, greenish white, and without gloss. The filaments are about the same diameter as those of *C. area* ; the articulations are longer, and the cell-wall thicker.

PLATE XLVI. D. Fig. 1. *CHLETOMORPHA Olneyi*, the *natural* size. Fig. 2. a portion *magnified*.

5. *CHLETOMORPHA longiarticulata*, Harv. ; filaments capillary, curved, loosely bundled together, flaccid, soft, pale green ; articulations 4-6 times as long as broad, swollen at the nodes. (Tab. XLVI. E.) Var. β . *crassior* ; filaments more robust.

HAB. In rock pools, between tide marks. Ship Anne Point, *Mr. Hooper*. Boston Bay, *Mrs. Asa Gray*. Little Compton, *Mr. Olney*. Var. β , in brackish ditches at Little Compton, *Mr. Olney*.

Filaments rather more slender than human hair, 3-4 inches long, loosely bundled together, and somewhat stratified. *Articulations* filled with very pale endochrome, almost hyaline when dry, several times longer than their diameter, nodoso-incrassate at one or both ends, with contracted dissepiments. The cell-wall is very thin and membranous.

I do not know any species to which this is nearly related. It is much more robust than *C. arenosa*. The length of the joints and the swelling of the nodes distinguish it from *C. litorea*.

PLATE XLVI. E. *Fig. 1.* CHÆTOMORPHA *longiarticulata*; the natural size. *Fig. 2.* a portion magnified.

6. CHÆTOMORPHA *sutoria*, Berk. ; filaments setaceous, elongate, flexuous, equal, pale or dark green; articulations once and half as long as broad; interstices pellucid. *Berk. Gl. Alg. t. 14, f. 3.* *Harv. Phyc. Brit. t. 150. B. Ch. rigida, Kütz. Sp. Alg. p. 377.*

HAB. Floating in large masses at Stonington, Con., *Prof. Bailey.* (v. s.)

This occurs, loosely bundled together in extensive floating masses or strata. *Filaments* as thick as hog's bristle, several inches long, rigid and variously curved and twisted, pale-green, cylindrical. *Articulations* once and half as long as broad, at length bisected. *Substance* rigid. It scarcely adheres to paper in drying.

Professor Bailey's specimens chiefly differ from the British plant with which I have associated them in being of a paler colour, with less dense endochrome, and of rather softer substance.

7. CHÆTOMORPHA *litorea*, Harv. ; filaments capillary, rigid, crisp, forming loose, extensive, dull-green bundles; articulations once and half as long as broad, here and there swollen in pairs and discoloured. *Harv. Phyc. Brit. t. 333. C. linum, Alg. Danm. No. 220 (Excl. Syn.) C. tortuosa, var. crassior, Rup. Alg. Och.*

HAB. Sea-shores. Sitcha, Russian America, *Wosnessensky.* (v. s.)

Filaments forming loosely interwoven, extensive, floating strata, or entangled among the branches of other Algæ, capillary, several inches in length, and of a dull green colour. The articulations are once and a-half to twice as long as broad, cylindrical, not contracted at the nodes, and mostly uniform in the same filament; but here and there a pair of longer cells occur, which are swollen towards their commissure, where the endochrome collects in a dark mass. In drying the endochrome is usually dispersed, and never recovers its form on being moistened.

This has been sent to me by Dr. Ruprecht from Sitcha, under the name *C. tortuosa, var. crassior*. The filaments, however, are fully twice as robust as in *C. tortuosa*; they are more rigid, and adhere less strongly to paper, and their endochrome is dissipated in drying. They agree pretty well with the *C. litorea* of British collections.

8. CHÆTOMORPHA *brachygona*, Harv. ; filaments capillary, interwoven in strata, curved and twisted, rigid; articulations either as long as, or much shorter than their

diameter, with occasionally a pair of swollen longer cells among the short ones. (TAB. XLVI. A.)

HAB. Key West, *W. H. H.*, *Mr. Binney*. Boca di Rio Bravo, *Dr. Schott*. (v. v.)

Forming decumbent strata, covering rocks, or entangled with other Algæ. *Filaments* slender, variously curved and twisted, of a membranaceous, rather rigid substance, destitute of gloss, and not adhering to paper when drying, cylindrical. The articulations appear to be normally about as long as broad, but as they divide in the middle by transverse cell division, they are frequently found less than half their proper length. Here and there, throughout the filament, a pair of cells occur longer than the rest, and swollen, with the endochrome of each cell collected at the dissepiment: these may be connected with reproduction. The endochrome is dispersed in drying, and does not well recover its form on being moistened.

A much more robust and rigid plant than *C. tortuosa*.

PLATE XLVI. A. *Fig. 1.* CILETOMORPHA *brachygona*, the natural size. *Fig. 2.* Portion of a filament, *magnified*.

9. CILETOMORPHA *tortuosa*, Dillw. ; filaments very slender, somewhat rigid, densely interwoven into dark green, crisped, fleecy strata ; articulations twice or thrice as long as broad, filled with endochrome. *Dillw. Conf. t. 46.* *E. Bot. t. 2220.* *Harv. Phyc. Brit. t. 54, A.* *Ag. Syst. p. 98.* *Kütz. Sp. Alg. p. 376.* (TAB. XLVI. B.)

HAB. On rocks, &c. about half tide level. Halifax, *W. H. H.* Coast of Maine, *Dr. A. Young*. Massachusetts Bay, *Mr. Pike*, *W. H. H.*, &c. Newbury Port, *Mr. Hooper*. Unalashka, *Wosnessensky*. (v. v.)

Strata spreading widely over the surface of rocks, &c. like a coating of dark green wool. The filaments are very slender, about half the diameter of human hair, but they are when recent crisp and rigid, and do not collapse when removed from the water. They are densely interwoven, of a dark green colour, and not without gloss. The articulations vary in length in different specimens, but are usually twice as long as broad, sometimes more, sometimes less ; and the endochrome generally recovers its form on being remoistened after drying.

I have received from Dr. Ruprecht, under the name *C. confervicola*, a specimen from Unalashka that I cannot distinguish, under the microscope, from the ordinary *C. tortuosa* of the East coast. It grows attached to *C. melagouium*, in which it is peculiar. The "*C. tortuosa crassior*" of Dr. Ruprecht I have already alluded to under *C. litorea*.

PLATE XLVI. B. *Fig. 1.* CILETOMORPHA *tortuosa*, the natural size. *Fig. 2.* portion of two filaments, *magnified*.

V. HORMOTRICHUM, Kütz.

Filaments gelatino-membranaceous, unbranched (or with a few rootlike branches), basifixed, articulated; formed of a string of very short cells. *Cell-wall* very thick and soft. *Nodes* constricted. *Articulations* often tumid, filled with dense, green, granular endochrome, which is finally converted into darker-coloured compact sporidia. (*Marine.*)

The plants comprised under this genus have hitherto been placed either in *Conferva* or in *Lyngbya*. They all have a peculiar habit, by which they are more readily known than by any definite character at present established. The changes that take place in the endochrome will probably afford better characters when they have been carefully ascertained and compared with what occur in *Chatomorpha*. At present we are contented to refer to this place all the soft, sub-gelatinous, marine Confervæ, which are basifixed, and have short joints—the type of these being *C. Youngana*, Dillw.; and such *Lyngbya*-like Algæ as *Lyngb. Carmichaelii* and its allies, whose truly articulated tube distinguishes them from proper *Lyngbya*. The whole assemblage of species which are thus brought together are remarkable for the brilliant green of their endochrome, which at first fills the cells, and is afterwards contracted and condensed, and for the breadth of the soft, sub-gelatinous, glassy cell-wall. At maturity the wall of the cell opens, and the compact *sporidium* escapes. All the species are natives of littoral rocks and objects growing within tide marks. Three of the following are European.

1. HORMOTRICHUM *Younganum*, Dillw.; filaments short or elongated, tufted, capillary, rather firm, grass-green, not remarkably gelatinous, nor glossy when dry; articulations as long, or once and half as long as broad, or shorter than their breadth, tumid, constricted at the nodes. *Dillw. Conf. t.* 102. *Harv. Phyc. Brit. t.* 328. *Kütz. Sp. Alg. p.* 382.

HAB. On stones and wood-work, between tide marks. New York Bay, *Mr. Congdon*. Common at Fort Hamilton in spring. *W. H. H.* (v. v.)

Filaments densely tufted, 1–3 inches long, as thick as human hair, erect, straight or curved, spreading over the surface of rocks and wood-work in grass-green fleecy tufts, not lubricous or gelatinous (as compared with others of the genus), soft, but rather firm. The filaments when young are cylindrical, but soon become constricted at the dissepiments or nodes. The cells vary much in length, even in the same filament. The common length is once and half as long as broad, but they are sometimes twice as long, sometimes only as long as their diameter, and sometimes only half as long. At first they are quite filled with the granular deep-green endochrome, which, while the filament is elongating, divides in the centre, forming two new cells from each old one; but in the mature plant it gradually condenses, and retreats toward the centre of the cell, where it forms a compact, globose or oval sporidium. In drying the filaments adhere, but not strongly, to paper.

2. *HORMOTRICHUM boreale*, Harv. ; filaments slender, forming decumbent strata of a pale yellowish-green, flaccid, slightly interwoven ; articulations as long as broad or somewhat longer, at length constricted at the nodes.

HAB. On rocks near high-water mark. Whalefish Islands, Davis's Straits, *Dr. Lyall*. (v. s. in Herb. T.C.D.)

This forms a thin, yellow-green, decumbent fleece, lying on the surface of the rock, and extending indefinitely. *Filaments* flaccid, glossy when dry, variously interwoven, about half the diameter of those of *H. Youngianum*, but in other respects very similar, except that the cells are commonly shorter. *Articulations* usually quadrate ; in age contracted at the nodes.

A much more slender plant than *H. Youngianum*, softer, more glossy, and spreading in patches, not tufted.

3. *HORMOTRICHUM speciosum*, Carm. ; filaments long, thick, flaccid, straight, at length curled, the margin slightly crenate, forming bright yellow-green strata, glossy when dry ; articulations half as long as their breadth, the cell-wall very thick. *Harv. Phyc. Brit. t.* 186, *B. Wyatt, Alg. Danm. No.* 196. (*Lyngbya*.)

HAB. Mixed with the foregoing species, at Whale-fish Islands, *Dr. Lyall*.

Much more robust than the following species, to which it is allied.

4. *HORMOTRICHUM Carmichaelii*, Harv. ; filaments scarcely capillary, closely interwoven into decumbent, crisped, full-grass-green strata, variously twisted ; articulations half as long as their diameter ; the cell-wall thick. *Harv. Phyc. Brit. t.* 186, *A. Wyatt, Alg. Danm. No.* 230. *Kütz. Sp. Alg. p.* 382.

HAB. On rocks and fuci, between tide marks. Near Boston, *Mr. Calverley*. In a "running stream" (quere, of salt, or fresh water?) on stones, in Wellington Channel, Arctic Regions, *Dr. Lyall*. (v. v.)

Strata extensive, densely interwoven, full green, or somewhat yellowish, soft, but not gelatinous, and not glossy when dry. *Filaments* very long, thinner than human hair, variously curved and twisted. *Articulations* shorter than their diameter, generally less than half as long as their breadth ; the cell-wall thick, and the endochrome at length contracting into a lenticular sporidium.

This plant is common on the British Coasts, where it occurs between tide marks. The specimen received from Mr. Calverley is said to come "from fresh water near Boston ;" but I suspect some mistake. Whether that from the Arctic Regions be from brackish or fresh water I cannot tell ; but under the microscope there is no character

by which I can distinguish its threads from British specimens of *C. Carmichaelii*. It is very luxuriant, of a bright green colour, and quite resembles the ordinary marine form. Quere, are two species confounded? Or is there an error in the habitat? Or does this plant inhabit both salt and fresh water, as *Bangia fuscopurpurea* is well known to do?

5. *HORMOTRICHUM?* *Wormskioldii*, Fl. Dan.; filaments "branched at the base" (Lyngb.); thence simple, erect, straight, ultra-setaceous, flaccid, bright yellow-green, moniliform; articulations at first nearly cylindrical and rather longer than broad, then globular, and very much contracted at the nodes. *Conferva Wormskioldii*, Fl. Dan. t. 1547. *Lyngb. Hyd. Dan.* p. 158. t. 55. *A. Ag. Syst.* p. 121. *Hormotrichum Wormskioldii*, Kütz. *Sp. Alg.* p. 383. *Chatomorpha monilis*, Harv. in *Herb. (olim.)*

HAB. Coast of Greenland, common, *Wormskiold*. Fragments dredged in Queen's Channel, lat. 76° 29', long. 96° 13' W. *Dr. Lyall.* (v. s.)

Dr. Lyall's specimens, which alone I have seen, consist of a few single threads (broken branches?) 6–8 inches long, as thick as hog's bristle or a little thicker, moniliform, with very turgid globular articulations and strongly contracted dissepiments. These fragments so strongly resemble the figure given by Lyngbye, (t. 55. A. 5.) that I cannot doubt the above reference; but I do question the propriety of arranging this species under the present genus. I follow Kützinger, however, who had probably seen more perfect specimens than I possess. Judging from the fragments collected by Dr. Lyall, I formerly placed it in *Chatomorpha*, near *C. melugonium*, believing that it was an undescribed species.

Lyngbye's description may be thus rendered: "Filaments densely tufted, parallelly floating, an ell or more in length, branched at the base, slender, as thick as human hair (below?), then increasing to the thickness of hog's bristle, or sparrow's quill, simple, attenuated toward the apex. *Articulations* as long as broad, in the thicker filaments remarkably moniliform, ellipsoidal or globose, turgid; in the more slender filaments often twice as long as broad. *Dissepiments* contracted, mostly pellucid. *Colour* green. Substance membranaceous, tender, lubricous, soft. It adheres to paper."

VI. RHIZOCLONIUM, Kütz.

Filaments (not gelatinous) membranaceous, uniform in diameter throughout, decumbent, simple or spuriously branched; branches short and rootlike; formed of a string of oblong cells. *Cell-wall* thin. *Articulations* filled with granular endochrome. (*Marine, or in fresh water, or on damp ground.*)

Confervoid Algæ, forming decumbent strata ; the filaments lying heaped together, and emitting at irregular distances rootlike branches. Kützing enumerates 28 species, among which are several which we refer to *Chatomorpha*.

1. *RHIZOCLONIUM riparium*, Roth. ; filaments long, slender, decumbent, pale-green, forming wide strata, flaccid, entangled, angularly bent, furnished at the angles with short, rootlike processes (which sometimes, but rarely, lengthen into very patent branches, and often attach themselves to neighbouring filaments). *Conf. riparia*, Roth. *Cat. Bot.* 3. p. 216. *E. Bot.* t. 2100. *Dillw. Conf.* p. 111. *Sup. t. E. Ag. Syst.* p. 106. *Harv. Phyc. Brit.* t. 238. *Conf. obtusangula*, Lyngb. *Hyd. Dan.* t. 55. *B. Rhizoclonium obtusangulum*, Kütz. *Sp. Alg.* p. 261.

HAB. On sand covered rocks near high water mark. Greenland, *Wormskjold*, fide *Lyngbye*. (v. s.)

I have not seen American specimens of this plant.

ORDER VII. ZYGNEMACEÆ.

Zygnemaceæ, Kütz. *Phyc. Gen.* p. 274. *Sp. Alg.* p. 433. *Zygnemææ*, Endl. 3d *Suppl.* p. 14. *Algæ Synsporeæ*, Dne. *Class.* p. 32. *Conjugatæ*, Berk. *Crypt. Bot.* p. 150. *Conjugatæ*, Hass. *Br. Fr. W. Alg.*, p. 129.

DIAGNOSIS. Green (freshwater) Algæ, consisting of simple, articulated, floating threads, composed of cylindrical, seriated cells. *Endochrome* usually definitely figured. *Spores* of large size, and mostly solitary, formed by the union of two endochromes or by the division of a single endochrome.

NATURAL CHARACTER. Freshwater, floating, *confervoid* Algæ, at first consisting of unbranched threads, formed of a number of cylindrical cells placed end to end ; afterwards often linked together in pairs by connecting processes. The endochrome in different genera puts on a variety of forms. It is rarely diffused equally through the cell as in ordinary Confervæ, but is either arranged in spiral bands, attached to the cell-walls, or divided into two star-like masses ; or it consists of larger and smaller grains subsymmetrically arranged. The cell-wall varies also much in character ; in some it is membranous, in others gelatinous, and occasionally very thick. The *fructification* consists of large and mostly solitary *spores* formed usually from the union and condensation of the contents of two cells, either consecutive cells of the same fila-

ment, or cells of different filaments. The latter mode of forming a spore is the most usual, whence we have the origin of the names "*Conjugatæ*" and "*Zygnemecæ*" applied to these Algæ, and alluding to their "yoked" character. When two filaments are about to conjugate, they float near one another, lying parallel, or nearly so in the stratum. Then, from the proximate sides of each cell of both filaments there issue short tubes, which mutually unite; the cell-wall at the point of union disappears, and the contents of both cells are mixed together. Sometimes the whole contents of one cell is discharged into the other, and the spore formed in that cell; sometimes, and equally commonly, the spore is formed in the connecting tubes. These tubes are sometimes long and barlike; and the pairs of conjugated threads resemble little ladders. Sometimes they are very short, and the filaments are angularly bent at the point of union. In most cases the spore forms a single spheroidal or angular mass; but in *Thwaitesia* it is divided into four sporules, exactly like the tetraspore of one of the *Rhodospiræ*. In the genus *Edogonium*, which Mr. Berkeley refers to this Family, the filaments do not conjugate, but the spores are formed by a division of the endochrome of a fertile cell. The cell separates into two half-cells by a transverse partition, as in ordinary cell division; the spore is then formed in one half; the other half lengthens to the size proper to the genus and again divides, forming a second spore in one of its halves; and so it may divide repeatedly until a string of six or eight consecutive spores is formed, in the centre or at the end of the thread, as in *E. monile*, a beautiful species from Tasmania. The spores are not always green; but (especially in *Edogonium*) are often brilliantly coloured, orange or vermillion.

Several genera, containing a large number of species, are described, chiefly from the stagnant or nearly still waters of the Northern Hemisphere. But they are probably dispersed over the globe, though few have yet been brought from the tropics. Unfortunately they do not recover their characters sufficiently, after having been dried, to admit of being accurately verified from dried specimens: and consequently I am forced to omit specific descriptions of those that I have received from North America. No doubt many of the species of the genera *MOUGEOTIA*; *ZYGEMA* (*Spirogyra*); *TYNDARIDEA*; *STAUROCARPUS*; and *ÆDOGONIUM* (*Vesiculifera*) exist in American waters; but they must be examined on the spot. Mr. Ravenel has kindly sent me a few specimens of *Staurocarpus* and *Zygnema*, but I have not been able to recognize the species satisfactorily. Authors who have written on the subject appear to me to have needlessly multiplied the European species, of which Kützinger enumerates 200, including 58 *Zygnemata* and as many *Edogonia*.

ORDER VIII.—HYDRODICTYÆ.

HYDRODICTYÆ, Kütz. *Phyc. Gen.* p. 281. *Sp. Alg.* p. 448. *Berk. Crypt. Bot.* p. 138. *Dne. Class.* p. 31. (*in part only.*)

DIAGNOSIS. Green (fresh-water) Alga, composed of cylindrical cells, united by their ends into a saccate net-work, with polygonal meshes; each side of the mesh formed of a single cell. *Endochrome* of each cell resolved at maturity into indefinitely numerous, minute *zoospores*, which arrange themselves, end to end, into a new net-work, whilst still contained within the parent cell. *Nets* viviparous.

NATURAL CHARACTER. The genus *Hydrodictyon* differs so remarkably in the mode of evolution of its frond from that of any other confervoid Alga that it has been found necessary to constitute it the type of a distinct family. Its essentially distinctive characters are thus well given by Messrs. Derbes and Soliere in their able memoir: "Each *zoospore* of this plant gives birth to one cell only, whose farther development will consist merely in an increase of dimensions, without undergoing any multiplication. Here then, without doubt, is the most distinctive character of the genus; for in the *Confervæ*, with which it has the greatest affinity, one zoospore gives birth to an individual, which increases in dimensions by the multiplication of its cells; here, on the contrary, a great number of zoospores unite together to form an individual, which is composed of a limited number of cells, which number remains the same during the whole duration of the plant; that is to say, until each of these cellules, in its turn, gives birth to a young *Hydrodictyon* complete. In other terms, a *Hydrodictyon* is an assemblage of little plants reduced to a single cell, formed by the development of a zoospore." If we trace the development, it will be obvious that this is a true explanation of the viviparous net-work.

At all stages of its growth, then, the structure of the *Hydrodictyon* is the same. Young specimens differ from old ones merely in the size of the cells of which the net is composed; the number of the cells, their form, and that of the net are the same in young as in old nets. In all stages the *Hydrodictyon* is a bag-like or purse-shaped net, with polygonal, generally five-sided meshes, each mesh consisting of a single articulation or cylindrical cell, united by its ends to the neighbouring cells, just as the cells of a *Conferva* are united, but having no passage from cell to cell, and each cell, from first to last, carrying on an independent existence. When first emitted from the

parent, the young *Hydrodictyon* is of microscopic size. It grows rapidly until each articulation becomes from a quarter to half an inch in length, and half a line in diameter. Up to this period the cells are filled with a green semi-fluid endochrome, in which grains of different sizes are formed. Gradually this green matter is resolved into an infinite number of minute zoospores, which are at first spherical, afterwards ovate, pointed at one end; and which, while contained within the cell wall, exhibit lively movements. At length these movements gradually subside, and the zoospores arrange themselves, end to end, into polygonal, commonly pentagonal, areolæ; and when all the zoospores contained within a single articulation have so arranged themselves, the little net is completed before its emission or birth. When all is thus ready, the parent net falls to pieces, each articulation floating separately; and shortly afterwards, on the bursting or deliquescence of the wall of the mother cell, the little network floats independently, and commences its career of growth and development. This curious plant early attracted the notice of botanists, and has deservedly engaged the attention of physiologists. The fullest of the earlier histories is to be found in Vaucher's work on Fresh Water Confervæ; and recent accounts are given by Areschoug in the 16th vol. of "Linnæa;" and by Derbes and Soliere in their memoir presented to the French Academy in 1848. I have never had the opportunity of examining living specimens, though abundantly supplied with dried ones from many distant parts of the world. The only species known inhabits ponds in Europe and in America, both North and South. It is rare in England, and has not yet been found in Ireland.

HYDRODICTYON, *Roth.*

(Character the same as that of the Order.)

1. *HYDRODICTYON utriculatum*, *Roth. Fl. Germ.* 3. part 1, p. 531. *Fl. Dan.* t. 1597. *Ag. Syst.* p. 84. *Lyngb. Hyd. Dan.* p. 169. t. 58. *Harr. Man. Ed.* 1. p. 140. *Kütz. Phyc. Gen.* p. 281. *Syst. Alg.* p. 448. *Conferva reticulata*, *Linn. Dillw. Conf. t.* 97. *E. Bot. t.* 1687.

HAB. In ponds of fresh water. West Point, *Professor Bailey*. Weehawken, *Mr. Walters*. Waterholes between Van Horn's Wells and Muerte on the Mexican boundary, *Dr. Bigelow*. (v. s. in Herb. T.C.D.)

This has been sufficiently described in the remarks under the Order. The full sized nets are 6-8 or 12 inches long, and 3-4 in diameter; their meshes from half an inch to three quarters of an inch across. In different localities and climates the size varies. No difference is appreciable between American and European specimens.

ORDER IX.—OSCILLATORIACEÆ.

Harv. Man. Ed. 1. p. 219. Oscillatoricæ, Harv. in Mack. Fl. Hib. part 3, p. 164. Endl. 3d. Suppl. p. 12. Oscillatoricæ and Rivularicæ, Harv. Br. Fl. J. Ag. Alg. Medit. p. 8, 10. Oscillatoreæ, Lindl. Veg. Kingd. p. 18. Oscillaricæ, Leptotrichicæ, Lyngbyæ, Seytonemæ, Mastichotrichæ, Rivularicæ, Kütz. Sp. Alg. pp. 235-344.

DIAGNOSIS. Green, (rarely olive-brown, blue, or purple) marine or fresh water Algæ, composed of simple or slightly branched filaments ; each filament having a membranous unicellular sheath, enclosing an annulated medullary chord of very short cells.

NATURAL CHARACTER. *Root* either a simple point of attachment, or, in most cases, not obvious. *Filaments* of small size, and often very minute, rarely solitary, variously aggregated together. In some microscopic forms, as in *Trichodesmium*, a number of minute filaments lie close together, cohering by their edges and parallel to each other, forming little bundles, resembling *faggots* in miniature ; and these float freely in the water, through which they move by a slow, proper motion, rising to the surface or sinking, according to the season. In others, as in *Oscillatoria*, an indefinite number of similar filaments lie loosely in a gelatinous matrix, within which they are developed, and from the edges of which they radiate ; but they have no definite or determinate arrangement in the mass. Again, in *Culothrix*, the filaments are fixed at the base, and stand erect in minute tufts, or spread in a velvety pile over the surface of various objects. In *Lyngbya* the arrangement of the threads is similar, but they are of much greater length, more curved and flexible, resembling tufts of hair or silky wool. Lastly, in *Rivularia*, there is a compact gelatinous frond of sub-definite form, constructed of a multitude of symmetrically arranged filaments ; each one springing from a minute, spherical, bulb-like cell, by which it is attached to the neighbouring filament. These basal cells have been called “connecting cells,” and also “*heterocysts*.” Their peculiar function has not been clearly ascertained. Through all the genera of the Order considerable uniformity prevails in the structure of the filaments. The external coating or peripheric portion, called the *sheath*, is a tubular membrane, destitute of markings, hyaline, and apparently formed by the lengthening of a single generating cell. In many cases it is delicately membranous and thin ; in others it is thickened ; and in some (as in *Petalonemum*), the sheath consists of many foliations, one inside the other. In several of the *Rivularicæ* also, the sheath is similarly compound, and frequently plumose multifid at the extremity. Within the sheath is the medullary column, or endochromatic part of the filament. This always consists of a series of short, lenticular, densely coloured cells, which in the full grown

filament may be readily separated. They have been described as *sporidia*; but observations on their germination are wanting. Minute *zoospores* have been observed in some. Besides the ordinary sheath which encloses each medullary column, a supplementary sheath is found in some genera, as in *Microcoleus*, enclosing a considerable number of separately sheathed filaments. The origin of this general sheath has not been observed. It probably originates as a simple filament, whose endochrome divides and subdivides longitudinally, thus forming a number of filaments within the body of the older one, whose walls continue to enlarge, being fed by the matter of the contained filaments. This appears, at least sometimes, to be the case: in other cases probably the investing sheath is formed of exuvie and dead filaments.

Many plants of this Order are celebrated for exhibiting peculiar movements resembling those of animals. Some have a rapid progressive and regressive movement, by which they can change their place, rising or falling in the water; others, while remaining nearly in one place, move from side to side, describing an arc. The genus *Oscillatoria* is so named from the pendulum-like movements of its filaments. Species of this genus are to be found in most pools of stagnant water, and their peculiar movements may be easily observed. These plants occur, when fully developed, in floating, skin-like, slimy pellicles, of a deep green or blackish or blueish colour and gelatinous substance. If a small portion of the floating scum be placed in a cup of water, and allowed to remain for some hours at rest, its edges will become finely fringed with delicate, radiating threads, which extend further and further, from hour to hour; and if the experiment be continued for a day or two, in warm weather, the whole surface of the water will be coated with a thin layer of filaments, which will spread till stopped by the dry edges of the cup. These filaments were at first contained within the gelatinous matrix, and have merely *spread* out, not *grown*, from it, by means of their peculiar movements. These movements are of three kinds:—first, there is the oscillating movement; one end of the thread remaining nearly at rest, while the other sways from side to side, sometimes describing nearly a quarter of a circle in a single *swing*. Secondly, the tip of the filament has a minute movement, bending from side to side, like the head of a worm: and thirdly, there is an onward movement, probably the result of the two former. It is this latter which causes the filaments to radiate and spread out from the edges of the stratum. If a minute portion of a living *Oscillatoria* be placed in water, under a moderately high magnifying power, all these movements can be seen without trouble. They vary in vividness, however, in different species, some being active, and some sluggish; and also according to the state of the weather, being most rapid in warm weather. Some of the species are furnished with minute cilia at the extremities, but these do not seem to take part in the motion.

Oscillatoriaceæ are found in all parts of the world, and under a great variety of circumstances. Not very many, with the exception of the *Lynghye* and *Calothrices*, are marine; the great proportion are found in fresh water. Several occur in hot-springs, even in the Geysers of Iceland; and others inhabit water highly charged with mineral salts or gases. Some are found on damp soil; others under the spray of cascades, and on the gates of canal-locks and about mill-dams. Few pieces of stagnant fresh water are free from them; but rivers and streams are equally furnished, and broad lakes are

sometimes coloured, throughout their whole extent, with minute, perhaps microscopic, species of this Order. The ocean itself, often for many hundreds of square miles, has been found discoloured by microscopic Algae of this group, belonging to the genus *Trichodesmium*; one of which, of a red colour, is found at seasons abundantly in the Red Sea, and is supposed to have caused that name to be given to the Arabian Gulf. Others are found in the Indian Ocean, one of which is of a bright yellow-green, and sometimes deeply tinges the upper strata of the sea off the coasts of Malacca. Others have been noticed in equal abundance, but less strongly coloured, in various parts of the Pacific, and on the coasts of Australia.

The species are very difficult to determine, and have been too much multiplied by authors: little therefore can usefully be said respecting their geographic distribution. Probably, if they are ever carefully investigated, the same kinds will to a large extent be found in the most distant localities. This at least seems to be the case with some, as *Petalonema alatum*, *Lyngbya majuscula*, *L. ferruginea*, *Calothrix scopulorum*, and many others.

TABLE OF THE NORTH AMERICAN GENERA.

* *Frond filamentous, branched, olive-brown, in fresh water.*

I. PETALONEMA. *Filaments* with a flattened, longitudinally and transversely striate sheath, much broader than the endochrome.

II. SCYTONEMA. *Filaments* with a cylindrical, hyaline sheath, narrower than the endochrome.

** *Frond filamentous. Filaments separate, free, green or purple.*

III. LYNGBYA. *Filaments* very long, flexible, threadlike, bundled together.

IV. CALOTHRIX. *Filaments* short, tufted, erect.

V. OSCILLATORIA. *Filaments* rigid, needle-shaped, lying loosely in a mucous matrix, usually floating.

*** *Frond formed of numerous parallel filaments contained within a simple or branching membranous common-sheath.*

VI. MICROCOLEUS.

**** *Frond formed of numerous radiating filaments invested with firm gelatine: each filament springing from a spherical root-cell.*

VII. RIVULARIA.

I. PETALONEMA, *Berk.*

Filaments stratified, decumbent, free, simple or branched. *Tube* or sheath very wide, flattened, longitudinally and transversely striate, and crenulate at the edge; endochrome olivaceous, annulated, here and there interrupted by a *heterocyst*. *Branches* issuing in pairs, formed by the division and protrusion of the endochrome of the original filament.

A very distinct and easily recognized genus established by Mr. Berkeley in 1833, under the name here adopted; a name changed by Professor Kützinger in 1845 to *Arthrosiphon*, for what reason I am not aware. The Alga on which it is founded was discovered many years previously, in the West of Scotland, by the late Captain Carmichael, and was first figured and described by Dr. Greville as an *Oscillatoria*. It has more recently been found in several parts of Europe, and we have now to record its occurrence in the New Continent. There are few more beautiful objects among the fresh water Algae, and unlike many of its kindred the fronds perfectly recover their form when moistened after having been dried. When placed under the microscope the filaments present the appearance of a cylindrical central column, containing annulated, olive-coloured endochrome, and a wide winglike border at each side of the column. This border or *sheath* is obliquely striate, the striæ running in an arch from the margin toward the centre, where they become parallel, and are then continued longitudinally downwards along the medullary column, till lost in the density. The margin of the wing is closely crenulate, and in age transversely striate at the crenatures as if jointed. Such is the *apparent* structure: the *real* structure seems to be, that an annulated central filament is enclosed within a number of compressed, trumpet-mouthed gelatinomembranaceous tubular sheaths, one arising within the other, and successively developed as the growth proceeds. These sheaths, thus concentrically arranged, are indicated by the longitudinal arching striæ; and the mouths of the younger sheaths, projecting slightly beyond those of the older, form the crenatures of the margin.

PETALONEMA *alatum*, Berk. *Gl. Br. Alp.* p. 23, t. 7, fig. 2. *Harv. Man. Ed. 1,* p. 168. *Hass. Fr. Wat. Alg.* p. 237. t. 68. f. 6. *Arthrosiphon Grevillii*, Kütz. *Phyc. Germ.* p. 177. *Sp. Alg.* p. 311. *Oscillatoria alata*, Carm. *Grev. Sc. Crypt. Fl. t.* 222. *Harv. in Hook. Br. Fl.* 2. p. 378. (TAB. XLVIII. A.)

HAB. On dripping rocks, under Biddle Stairs, Niagara Falls, abundantly, *W. H. H.* (1849). (v. v.)

This forms strata of a dark chestnut-brown colour, and of indefinite extent, on the surface of rocks or soil in places exposed to the constant drip of water. The *filaments* are decumbent, lying without order in the gelatinous matrix in which they are developed, and which forms the groundwork of the stratum. They appear to be unattached to the soil, and each filament may be about half an inch in length; but they are commonly found broken off at the inferior end, or the lower portion decays while the upper continues to grow. They are slightly curved, in serpentlike fashion, never quite

straight ; at first they are simple, but now and then they emit lateral branches, which issue at considerable angles, and generally in pairs. When a filament is about to branch, a rupture takes place in the side of the sheath, and the endochrome issues in two portions, one connected with the upper, the other with the lower half of the filament ; these form the nuclei or medullary portion of two new branches, and become duly invested with a membranous sheath, and gradually put on the aspect of the adult filament. The *endochrome* is granular, dark-brown, and annulated at short intervals, the transverse rings being placed very close together in the youngest portions, and less closely in the older, where they are distant from each other about twice the diameter of the column. This annulated endochrome is interrupted at certain fixed places, where an ellipsoidal cell is formed, separating the endochrome of the lower from that of the upper portions. These cells may be compared to nodes, and indicate, if I mistake not, the points where the twin branches issue. I have not, however, noticed their development into branches.

PLATE XLVIII. A. *Fig. 1.* Portion of the stratum formed by *PETALONEMA alatum* ; and *fig. 2.* Fronds removed from the same ; the *natural* size. *Fig. 3.* Portion of two filaments *magnified*. *Fig. 4.* Apex of a filament, more highly *magnified*.

II. SCYTONEMA, Ag.

Filaments tufted, mostly basifixed, erect or decumbent, free, flexible, branched. *Tube* or sheath cylindrical, continuous, membranaceous, tough ; endochrome olive-brown, annulated. *Branches* lateral, issuing in pairs, formed by the division and protrusion of the endochrome of the original filament.

When at Niagara Falls in the autumn of 1849, I collected on the rocks under Biddle Stairs specimens of a large decumbent *Scytonema*, which may possibly be referable to one or other of the 50 species named and described by Kützinger, but whose characters appear to me to be founded, often, on insufficient data. I am unwilling to add to the synonyms by giving a new name to the American species, and I have not at hand the means of comparing it with more than a few of the recorded species. It is of large size, its filaments being nearly twice the diameter of those of the British *S. myochrous*, which it resembles in its branching. The endochrome is narrower in proportion to the sheath and distinctly annulate ; the annuli rather distant. The sheath is of a deep chestnut brown colour.

Probably several other *forms*, if not species, occur in North America.

III. LYNGBYA, *Ag.*

Filaments destitute of mucous layer, free, flexible, unbranched, elongated, not oscillating. *Tube* continuous, cylindrical, membranaceous; endochrome green or purple, densely annulated, at length separating into lenticular sporidia. (*Marine or in fresh water.*)

A genus consisting of many species, most of which are found in the sea; several occur in estuaries of rivers and in brackish ditches, and a few are found in fresh water or in thermal springs. From *Oscillatoria* they are known by the absence of a gelatinous matrix and of oscillating movements, and by the greater flexibility of the filaments. From *Calothrix*, to which they are more nearly related, they differ chiefly in habit; especially in the great length of the filaments, and in being rarely fasciculate. The generic name is given in honour of H. C. Lyngbye, a Danish Algologist, and author of an excellent work on the Alge of Denmark.

1. LYNGBYA *majuscula*, Harv.; filaments thick, very long and tenacious, twisted, issuing in long, crisped bundles from a blackish green stratum. *Harv. Phyc. Brit. t. 62. Kütz. Sp. Alg. p. 283. Lyngbya crispa, Ag. Syst. p. 74 (in part.). Conf. majuscula, Dillw. ! Supp. t. A. L. maxima, Mont. L. Pacifica, Kütz. Sp. Alg. p. 284. (TAB. XLVII. A.)*

HAB. Long Island Sound, *Professor Bailey*. Peconic Bay, *Mr. Hooper*. Key West, *W. H. H. and Mr. Ashmead.* (v. v.)

Tufts often several inches in diameter, the central portion densely interwoven or stratified, the margins throwing off long bundles or fascicles of free, crisped, or variously twisted filaments, one to two inches in length, and floating freely in the water. The strata at first are attached to the bottom, but with age float to the surface and are cast ashore in large masses. The diameter of the filament is greater than in any other species, being commonly rather more than .05 of an inch. The Key West specimens are rather less broad than usual. The sheath or tube of the filament is thick, and forms a wide, hyaline margin to the dark-coloured, closely but not strongly annulated endochrome.

The *L. maxima*, Mont. (*L. pacifica*, Kütz.) which I have gathered in great abundance on the shores of the Friendly Islands, appears to me to be merely a luxuriant state of this common species. Except in the greater diameter of the filaments, and this varies in different specimens, I see no character by which it may be distinguished. The species (as understood in England) has a peculiar external habit, and its microscopic characters—however difficult to describe—are easily remembered after having once been seen. It was first found at Bantry, South of Ireland, by the late Miss Hutchins.

PLATE XLVII. A. *Fig. 1.* A tuft of *Lyngbya majuscula*, the natural size. *Fig. 2.* Portion of a filament, magnified.

2. *LYNGBYA ferruginea*, Ag. ; filaments slender, flaccid, curved, forming a thin stratum of a verdigris green colour, which gradually changes to a pale chestnut (but resumes the green in drying). *Ag. Syst. p. 73.* *Harv. Phyc. Brit. tab. 311.* *L. aeruginosa*, *Kütz. Sp. Alg. p. 282.* (TAB. XLVII. B.)

HAB. On muddy shores, in tide pools and floating in ditches of salt or brackish water near the sea. Haarlem River, N.Y. close to the High Bridge, *W. H. H.* Salt ditches at Hoboken and near Green Port, *Professor Bailey.* (v. v.)

Stratum thin, expanded, covering the mud to an indefinite extent, or floating on the surface of stagnant salt water, generally of an intense verdigris or blueish green colour, now and then foxy or rust colour, scarcely at all gelatinous. *Filaments* about .001 of an inch in diameter, flaccid, slightly flexuous, rather tough, with very thin, membranous cell-walls, filled with dense closely and strongly annulated, bluish-green endochrome, occasionally with empty spaces. The striae are very evident. In the dry state the blue-green colour is mostly preserved ; and the surface is not glossy.

PLATE XLVII. B. *Fig. 1.* Portion of the stratum of *LYNGBYA ferruginea.* *Fig. 2.* Portion of a filament, *magnified.* *Fig. 3.* Section of the same, more highly *magnified.*

3. *LYNGBYA fulva*, Harv. ; filaments slender, elongate, flexuous, fulvous, issuing in erect, crisped, plumose fascicles from a dark coloured stratum ; cell-wall thick, forming a broad limbus to the endochrome. (TAB. XLVII. F.)

HAB. On the granite masses composing the breakwater at Stonington, Conn. *Professor Bailey.* (v. s. in Herb. T.C.D.)

Stratum attached to the rock, dull olivaceous, throwing up long fascicles of filaments, an inch or more in length, and standing upright in the water. *Filaments* about the size of those of *L. ferruginea*, but with very thick walls, which form a glassy sheath to the enclosed fulvous or ochre coloured endochrome ; the hyaline border being nearly half as wide as the coloured portion. The annuli are strongly marked and very closely set.

This somewhat resembles *L. luteo-fusca*, Ag., but the walls of the tube are much thicker, as thick in proportion to the enclosed matter as are those of *L. majuscula* to the matter in its tube.

PLATE XLVII. F. *Fig. 1.* *LYNGBYA fulva*, the natural size. *Fig. 3.* Portion of a filament, *magnified.* *Fig. 2.* Section of a filament, more highly *magnified.*

4. *LYNGBYA nigrescens*, Harv. : filaments very slender, flaccid, densely interwoven into a fleecy, blackish-green stratum. (TAB. XLVII. D.)

HAB. Sea shores or mud, &c. Canarsie Bay, Long Island, *Mr. Hooper.* Peconic Bay. *W. H. H.* Also on leaves of *Zostera*, Peconic Bay, *Mr. Hooper.*

Strata varying in extent, lying on the surface of mud, or floating, or entangled with other Algae and attached to them, of a very dull, blackish, or somewhat violet colour, with shades of ferruginous green. *Filaments* scarcely more than half the diameter of those of *L. ferruginea*; with thin, membranous cell-walls, and densely annulated, dark or dull coloured endochrome. When dry the stratum becomes brittle, and frequently breaks off from the paper in flakes.

PLATE XLVII. D. *Fig. 1.* *LYNGBYA nigrescens*, the *natural* size. *Fig. 2.* Portion of a filament, *magnified*. *Fig. 3.* Section of the same, more highly *magnified*.

5. *LYNGBYA confervoides*, Ag.; filaments very slender, flaccid, elongate, forming long, comose fasciculi, floating freely from a blackish green basal stratum; annuli not very strongly marked. *Ag. Syst. p. 73. Kütz. Sp. Alg. p. 285. (TAB. XLVII. C.)*

HAB. Sea-shores, Charleston, S. Carolina, *Professor Lewis R. Gibbes. (v. s.)*

Stratum dark, olivaceous, or blackish green, emitting long bundles of slender filaments, 1-2 inches long, which float freely in the water. Filaments lying parallel in the bundles, flexuous, but scarcely interwoven and often separate; with very thin, narrow, membranous tubes, and a dense, dull-green endochrome, which is much less distinctly annulated than in *L. ferruginea*. The diameter of the filament is also much less than in that species.

I have compared the above quoted species with an authentic one from Professor J. Agardh, and find little difference between them.

PLATE XLVII. C. *Fig. 1.* *LYNGBYA confervoides*, the *natural* size. *Fig. 2.* Portion of two filaments, *magnified*. *Fig. 3.* Section, more highly *magnified*.

6. *LYNGBYA pusilla*, Harv.; stratum minute, blackish-green; filaments very slender, short, crisped, spreading in small bundles; endochrome pale, dull-green, annulate, cell-wall very thin. (TAB. XLVII. E.)

HAB. Parasitic on small Algae, at Sullivan's Island, S.C., *W. H. H. (v. v.)*

This spreads over small Algae in thin strata, composed of densely matted filaments, and emitting to all sides free, fascicled filaments. These latter are about quarter of an inch long, and half the diameter of those of *L. ferruginea*, with a pale endochrome. The cell-wall is extremely thin; the endochrome quite fills the tube, leaving a scarcely perceptible margin. The annuli are tolerably definite.

Possibly this may be an *Oscillatoria*.

PLATE XLVII. E. *Fig. 1.* *LYNGBYA pusilla*, the *natural* size. *Fig. 2.* Portions of three filaments, *magnified*. *Fig. 3.* Section of a filament, highly *magnified*.

7. *LYNGBYA hyalina*, Harv. ; filaments basifixed, erect, straight, very slender, arachnoid, gelatinoso-membranaceous, flaccid, very pale yellowish green or nearly hyaline ; endochrome filling the tube, at first granular, then annulated. (TAB. XLVII. G.)

HAB. On lime encrusted rocks at Key West, *W. H. H.* (v. v.)

Forming indefinite, very soft and sub-gelatinous continuous tufts or pilose strata. *Filaments* fixed by their base to the rock, and floating freely, exceedingly slender and cobwebby, straight, glossy, cylindrical, from half an inch to an inch long, very pale aeruginous or yellowish-green, often nearly colourless. The cell-wall is thin and delicate, and the endochrome quite fills the tube, leaving no perceptible margin.

I do not know any species similar to this. It is exceedingly slender and delicate.

PLATE XLVII. G. *Fig. 1.* *LYNGBYA hyalina*, the *natural* size. *Fig. 2.* Portions of three filaments, *magnified*. *Fig. 3.* Section of a filament, highly *magnified*.

8. *LYNGBYA muralis*, Ag. filaments somewhat rigid, thickish, tortuous, very long, interwoven in a bright, grass-green stratum ; annuli strongly defined. *Ag. Syst. p. 74. Harv. Man. Ed. 1, p. 160. Conf. muralis, Dillw. tab. 7, E. Bot. t. 1554. β. aquatica.*

HAB. var. *β*, in pools of fresh water, Whalefish Islands, Davis Straits, *Dr. Lyall.* (v. s.)

The specimens are mixed with turfy soil. Except in the submerged habitat, this agrees with the ordinary form. Intermixed with threads of the usual size and structure are others cohering in pairs, as in *L. copulata*, Hass., which is obviously only a state of this widely dispersed species. I have not received specimens of the ordinary *L. muralis* from America ; but no doubt it is common on damp walls, &c., as in Europe generally.

IV. CALOTHRIX, Ag.

Filaments destitute of a mucous layer, erect, tufted, or aggregated, fixed at the base, somewhat rigid, not oscillating. *Tube* continuous ; endochrome green, densely annulated, at length separating into lenticular sporidia. (*Marine or in fresh water.*)

I retain the genus *Calothrix*, as established by Agardh, in preference to dividing it, with Kützing and others, into the groups *Leiblinia*, *Tolythrix*, &c. which appear to me to be separated on very uncertain and variable characters. The whole group requires a careful study and complete remodelling ; but I have neither time nor sufficiently copious materials to attempt such a work. I can hardly suppose that the multitude of species and genera of these obscure plants described by Kützing are all

distinct. To judge by the characters assigned by him, many appear very closely allied to each other.

1. *CALOTHRIX confervicola*, Ag. ; filaments short, glaucous, opaque, filiform, blunt, rigid, straight or slightly curved, minutely tufted. *Ag. Syst.* p. 70. *Harv. Phyc. Brit.* t. 254. *Wyatt, Alg. Danm.* No. 229. *Leibleinia confervicola*, *Endl.* 3d. *Supp.* p. 221. *Leibleinia chalybea*, *Kütz. Sp. Alg.* p. 277. (and probably other species of *Leibleinia* of the same author). *Conferva confervicola*, *Dillw. Conf.* t. 8. *E. Bot.* t. 2576.

HAB. On the filiform marine Algæ. Rhode Island shores, *Professor Bailey, Mr. Olney, Mr. Hunt.* (v. v.)

Filaments about the tenth of an inch long, either forming little starry tufts along the branches of the Alga it infects, or, by the confluence of several such tufts, covering the branch with a continuous pile of dark aeruginous-green threads. When seen under the microscope the filaments are simple, curved, filiform, but little attenuated upwards, and either separate from each other or variously combined by lateral cohesion into fascicles. Their cell-wall is rather thick, and the endochrome within is of a dull bluish-green, here and there interrupted and broken into separate masses, and sometimes nodoso-incrassate at short intervals. The transverse striae are more or less distinctly seen according to the age of the specimen examined. The colour varies in different specimens, from dull to bright green ; and is sometimes olivaceous, and even yellowish or pale.

This species is a common parasite on the filiform Algæ, and found in many distant seas.

2. *CALOTHRIX scopulorum*, Ag. ; spreading in velvety dull-green strata of indefinite extent ; filaments flexuous, subulate, subattenuate, simple. *Ag. Sp. Alg.* p. 70. *Harv. Phyc. Brit.* t. 58. B. *Schizosiphon scopulorum*, *Kütz. Sp. Alg.* p. 329 (and probably others.) *Conferva scopulorum*, *Dillw. Conf.* p. 39, *Sup.* t. A. *E. Bot.* t. 2171.

HAB. Rocks near high water mark. Shores of Rhode Island, *Professor Bailey and Mr. Olney.* (v. v.)

This occurs in slimy and somewhat velvety patches of indefinite extent, covering the surface of marine rocks. The filaments rise from a slimy debris or matrix, which is gradually accumulated. They are erect, flexuous, often very much bent, attenuated to the apices, and sometimes, but not invariably, acuminate ; and they stand in the stratum parallel to each other, crowded together, but not cohering in laminae. The endochrome is commonly of a dark, olivaceous green, and the cell-wall thin and membranous. *Striae* evident.

Generally dispersed throughout the temperate zones, both north and south. Its slimy patches are very treacherous to the feet of unwary trespassers who may happen to tread on them.

3. *CALOTHRIX vivipara*, Harv. ; spreading in continuous, velvety strata ; filaments thick-walled, fasciculate at base, straight or somewhat curved, viviparous above, and pseudo-branched ; endochrome strongly annulated.

HAB. Seaconnot Point, *Professor Bailey* (v. s. in Herb. T.C.D.)

This appears to form a continuous stratum on rocks, like that of *C. scopulorum*, but the filaments of which it is composed are longer, 2-3 tenths of an inch long and straighter ; more united at the base into fascicles, and furnished above with appositional branches which evidently rise from viviparous separations from the endochrome. Sometimes the endochrome seems to split or divide longitudinally ; at other times it separates transversely, the portions growing at each end and cohering laterally. The cell-wall is wider than in *C. scopulorum*.

Certainly closely allied to *C. scopulorum* and also to *C. hypnoides*, and perhaps intermediate between them, connecting the extreme forms of each. It was sent to me by Professor Bailey as probably *C. fasciculata*, but it does not agree with the British plant so called ; and not knowing what else to do with it, being unwilling to pass it by altogether, I have given it a provisional *locus* in the genus, assigning to it the trivial name *vivipara*. It may possibly be merely a viviparous state of *C. scopulorum*.

4. *CALOTHRIX pilosa*, Harv. ; strata of indefinite extent, blackish or dark brown, pilose ; filaments densely interwoven at the base, then free, elongate, rigid, cylindrical, very obtuse, very flexuous, simple or slightly pseudo-branched ; cell-wall very thick, fulvous or subopaque ; endochrome narrow, dark green. (Tab. XLVIII. C.)

HAB. On rocks between tide marks, Key West, *W.H.H.* (v. v.)

This forms strata of indefinite extent, covering rocks in patches of a very dark blackish or brown colour, not in the least lubricous, and more pilose than velvety. The stratum is about quarter of an inch thick ; its matrix composed of the densely interwoven decumbent bases of the filaments which constitute it. These are afterwards erect, unconnected together, standing separately like the hairs on a fleece, very much curved or twisted, nearly half an inch long, rigid and not at all slimy. They are about the same diameter as *Lyngbya majuscula* ; and are scarcely attenuated at the blunt apex. The cell-wall or tube is remarkably thick and opaque, evidently formed of successive deposits, indicated by faint longitudinal striae ; and is fulvous or ochraceous in colour. The endochrome seldom constitutes more than a third of the diameter of the filaments, and is of a dull dark-green, more or less annulated. When dry the whole plant is rigid and harsh, and does not adhere to paper.

This seems to be a well characterised species, different at least from any with which I am acquainted, and to be recognised by its shaggy, rigid pile of hair-like filaments, and their dark colour. Its microscopic characters are quite different from those of *C. scopulorum*. It abounds at Key West on littoral rocks.

Plate XLVIII. C. *Fig. 1.* Stratified tufts of *CALOTHRIX pilosa*, the natural size. *Fig. 2.* Portion of the filaments *magnified*. *Fig. 3.* A more highly *magnified* portion.

5. *CALOTHRIX dura*, Harv.; strata indefinite, dull brown; filaments at first decumbent and matted together, then erect, cohering laterally in tooth-like bundles; each filament angularly bent below, at first simple, then cleft longitudinally and afterwards once or twice forked; endochrome very narrow, annulate; the cell-wall thick, lamellated and subopaque; apices acuminate. (TAB. XLVIII. D.)

HAB. On mudflats, near highwater mark. Key West, W. H. II. (v. v.)

Possibly this may be only a state of the preceding species, to which, at least, it is nearly allied, although it offers characters which would cause it to be referred to another genus of Kützing. The filaments are matted together at base; the mat being composed of prostrate portions of each thread, intricately interwoven. The threads, after proceeding for a time horizontally, suddenly become erect, bending nearly at right angles, and then they cohere together into stiff, tooth-like fascicles, in which they stand parallel, and are straight or but slightly curved. When a single filament is removed from the fascicle, it is seen to be simple and filiform below, but gradually increasing in diameter upwards to a certain stage, at which the endochrome separates into two columns, which are at first parallel with each other and contained in the same sheath; but they soon separate, and then each becomes invested by a separate sheath. In this way two branches are formed, which may either remain simple or may again divide once or twice in a similar manner. The cell-wall is much wider than the endochrome. The substance is rigid and tough: and the colour dull brown or fulvous.

PLATE XLVIII. D. *Fig. 1.* Stratified tufts of *CALOTHRIX dura*, the natural size. *Fig. 2.* Portions of the filaments *magnified*. *Fig. 3.* Apex of a filament, more highly *magnified*.

V. OSCILLATORIA. *Vauch.*

Filaments lying in a gelatinous matrix, rigid, simple, acicular, vividly oscillating. *Tube* continuous; endochrome green, densely annulated with close, parallel, transverse striæ. (*Mostly in fresh water—some marine.*)

The *Oscillatoria* occur in gelatinous strata or pellicles, which at first are formed at the bottom of stagnant or running water, and afterwards rise to the surface. The green scum frequently seen on the surface of putrid ditches is generally formed by one or

more species of this genus. Others occur in lakes, and sometimes in such abundance as to impart a blue-green tint to the water, over very wide areas. Others, again, inhabit mineral springs and thermal waters ; and some are found on the damp surface of the soil, especially in the autumnal months. Varied as are the habitats, the general characters of the species are very uniform: and all are remarkable for an oscillating movement of the filaments, from side to side, like the motion of a pendulum. This continues with greater or less vividness, while the plant lives: but some species exhibit much more lively movements than others, and all appear to be more active in warm than in cold weather.

A considerable number of species have been described by authors, but they require to be studied in a living state, or at least with very perfect materials and an ample suite of well preserved specimens. I cannot undertake to name specifically the few scraps of American *Oscillatorie* which have been sent to me by various correspondents. Probably most of the European species will be met with in America ; and no doubt some others peculiar to the New Continent. It would be interesting to know whether any species be found in the Mammoth Cave of Kentucky, or in other anomalous localities.

VI. MICROCOLEUS, *Desmaz.*

(*Chthonoblastus*, Kütz.)

Filaments minute, rigid, straight, annulated, bundled, and enclosed within membranaceous simple or branching sheaths, which are either open or closed at the upper extremities.

The filaments in this genus have the structure of those of *Oscillatoria* or *Calothrix*, but are developed within membranous common sheaths, which are either simple or branched, and either lie prostrate in indefinite strata, like those of an *Oscillatoria* ; or stand erect, in toothlike tufts, like those of many *Calothrices*. In all cases the sheath is much attenuated at the base, gradually widening upwards, and terminating either in an open, trumpet-shaped upper extremity, or in a closed club-shaped one. In the lowest part of the sheath there is but a single longitudinal filament ; a little way up, two or three parallel filaments are found ; and the filaments gradually increase in number in the upper and wider portions of the common sheath. Hence it may probably be inferred that the mode of growth of the frond is by the continual longitudinal division of the filaments ; the older ones, having once split, remaining unchanged at base ; while their apices by another splitting give birth to other filaments, which multiply in the same manner. Such a mode of growth would account for the form

which the full grown frond assumes. The species are found either in the sea or in fresh or brackish water, and even on damp soil. A terrestrial species is common in Europe by the borders of clayey highways and paths, and may also be found in America.

1. *MICROCOLEUS corymbosus*, Harv.; fronds erect, rigid, tufted, multifid, the branches erect, level-topped, linear-clavate, closed at the extremity; filaments densely packed, not oscillating. (TAB. XLVIII. B.)

HAB. On mud-flats, near high-water mark, at Key West, mixed with *Calothrix dura*. W.H.H. (v. v.)

Fronds half sunk in the mud, erect, tufted, from an eighth to a quarter of an inch in length, flexuous, tapering much to the base, gradually increasing in diameter upwards and dividing above into three or four or more erect branches, the lowest of which are longest, the upper gradually shorter, so that the apices of all are nearly on a level. These apices are obtuse, and closed. The investing sheath is tough and firmly membranous, and the enclosed filaments strongly cohere together, and are with difficulty separated. The colour of the sheath is ochraceous yellow, and of the endochrome dull green. The substance is very firm and rigid, and in drying the plant does not adhere to paper.

PLATE XLVIII. B. *Fig. 1.* Tufts of *MICROCOLEUS corymbosus*, the natural size. *Fig. 2.* Magnified view of two fronds. *Fig. 3.* Portions of the enclosed filaments, more highly magnified.

VII. RIVULARIA, Roth.

Frond globose or lobed, fleshy, firm, composed of continuous radiating filaments, annulated within; each springing from a spherical globule. (*In the sea or in fresh water.*)

A fresh water species resembling the British *R. pisum* has been sent to me by Mr. Ravenel from the Santee Canal, where it grows on submerged leaves and stems of plants. It is hemispherical, very convex, dark blackish-green and soft, and consists of densely set, spuriously branching, slender filaments. The specimens are not in a very perfect state, and I cannot say to which, if any, of the modern species they would belong. In old times they would pass for *R. pisum*, but it is nearly impossible at present to say exactly what that species is.

ORDER X.—NOSTOCHINEÆ.

Nostochineæ, Endl. 3rd Suppl. p. 12. Berk. Crypt. Bot. p. 139. *Nostochææ*, Lindl. Veg. Kingd. p. 18. Kütz. Phyc. Gen. p. 30. *Nostochaceæ*, Harv. Man. Ed. 2, p. 230.

DIAGNOSIS. Green, fresh water, or rarely marine Algæ, composed of moniliform filaments, lying in a gelatinous matrix. *Filaments* formed of globose cells, here and there interrupted by a single cell (*heterocyst*) of a different character. Propagation by *zoospores*.

NATURAL CHARACTER.—The least organized plants of this Order consist of isolated, moniliform threads, invested with a gelatinous coat, and either lying on the soil, without a root attachment, or floating freely in water. Others a little more compound are made up of numerous similar threads aggregated in bundles, and imbedded in a gelatine common to the colony : while even the most complex, as in the genus *Nostoc*, present but little further in advance, except that the gelatine in which the threads are developed is of a firm consistence, when dry becoming quasi-membranous, and assumes the character of a frond, with definite outline, but generally polymorphous shape. The filaments are almost always simple, consisting of strings of cells, and are curved or twisted, or often spiral ; in one case (*Monormia*) the filaments branch. The *cells* are spherical or oval, never truly cylindrical with flat ends, as in the *Confervaceæ*, and are filled with a dense, bright-green endochrome. In some few cases, as in *Spermosira*, the moniliform thread is enclosed within a tubular, membranous sheath, as in *Oscillatoria*, and there is little to distinguish such plants from individuals of that Order, except the occurrence of the cells called "*heterocysts*." These latter cells are destitute of endochrome, but often clothed with cilia, and are of a different size and shape from the neighbouring cells. They are always solitary, and occur at intervals in the filaments, but vary in position in the different species. Their use has not been ascertained, but they have been supposed to be connected with the male system of these plants. They never change character, like the ordinary cells, and are always found occupying a definite position in the filament, indicating that they perform some important function, whatever it may be.

Though the process of fertilization has not yet been observed, there can be little doubt but that a true fructification is formed in the ordinary cells, which at first are filled with pale-green matter, and afterwards increase in size, alter their form, and acquire a much denser and more darkly coloured, often deep brown, endochrome. All the cells of the filaments do not exhibit these changes, but only one or more, generally

those in the neighbourhood of the heterocyst. Finally, at maturity, the threads break up, and the enlarged brown cells are found to contain *spores* which germinate and continue the species. They have been stated to change into zoospores, but this requires confirmation. *M. Thuret*, in a communication recently made to the Natural History Society of Cherbourg (*Aug. 1857, vol. 5*) has described and figured the germination of the spores of *Anabaina licheniformis*, and *A. major*. In these species the sporangium is oblong, and contains at maturity a deep brown solitary spore. *M. Thuret* having obtained some specimens with ripe fruit, set them aside in a convenient glass vessel, and observed them from day to day. The filaments soon broke up, the heterocysts and sporangia floating apart in the water. Many of the latter perished, melting away, and disappearing altogether. Some remained sound, and these were carefully supplied with water, until germination commenced. The spore, in germinating, at first lengthens, pushing against one end of the sporangium, which it finally pierces lifting off the tip of the periderm like a lid, and thus its extremity issues, as the radicle from an monocotyledonous seed, capped with the lid of the sporangium. At this period new cells begin to be formed, by the repeated sub-division of the spore, which continues to lengthen till it is transformed into a moniliform filament or string of cells, like that from which it was derived. At first the divisions between the cells are but little distinct, but they become more and more strongly defined as growth proceeds. The filament lengthens at both extremities, but more rapidly at that which projects into the water; the young articulations are of smaller size than the rest, and thus the filament tapers towards each end. But this character gradually disappears, and the cells acquire a uniform dimension, proper to the species. *M. Thuret's* first experiments were made with freshly gathered sporangia: but he afterwards succeeded in causing to germinate specimens which had been dried and preserved for several months in the herbarium. They began to germinate in about a fortnight. Others (of *Anabaina licheniformis*) which had been kept for nine years in a dried state, germinated in an equal space of time, and the experiment was repeated several times with like success. Several other fresh-water Algae have been observed to possess the same property of revivification, and it seems a necessary endowment to enable them to continue the existence of their species through the alternate drying and moistening to which they are subjected in nature.

To *M. Thuret* we are also indebted for observations on the ordinary propagation by gemmation of the *Nostocs*, and for an account of the way in which the compound frond is developed. In the autumnal months, when this process goes forward, the old *Nostoc* may be said to dilinesce, the gelatine becoming loose and exuding, and the filaments contained in it breaking up into small fragments. If these be collected and placed in a glass of water, they may be observed to have a slow, progressive movement, like that of the *Oscillatorie*, which enables them to change their place; and at length they generally fix themselves on that side of the glass next the light. By continuing the observations for some days, the broken threads are seen to become immovable, and then to be invested with a transparent pellicle. At the same time the green cells increase in size, expanding laterally, till the thread attains nearly twice its ordinary diameter. A cell division, in vertical order, then takes place throughout its component cells, and thus the filament splits into two parallel filaments, which are then contained

within a common pellicle. The same process continues ; these split into other threads, and thus, by gradual bisection of the first formed threads, the frond grows until it become of the form and size proper to its kind. As it grows the filaments twist and curl, and loose their parallelism. All these changes have been figured by M. Thuret with the accuracy and delicacy of execution characteristic of that accomplished naturalist.

The Nostochineæ are very rarely marine, and are chiefly found in fresh water streams or ponds and lakes, or in damp places. *Nostoc commune* is dispersed over most countries of the globe, being found lying on the bare soil after rains, or in very damp weather. It may be observed often on garden walks in the autumn and winter months, and is found throughout both temperate zones, extending almost to the tropics. A similar species has been seen in Australia, after a shower of rain, to cover what had seemed previously to be a bare hill side, with such a thick coating of jelly as to render it impossible to walk over it without sliding. Such terrestrial species have, in England, the popular name of "fallen stars"; their sudden appearance and disappearance being accounted for by the supposition that they had fallen from the air. In Dr. Sutherland's account of his Arctic voyage a species bearing a close external resemblance to *N. commune* was observed in profusion, occurring on the shores of the Arctic Ocean, but in windy weather frequently blown over the ice, and drifted out to sea. This will be found described below as *N. arcticum*. Dr. Sutherland mentions that he had eaten handfulls of it on several occasions, without any inconvenience ; and although it was generally infested with swarms of the larvæ of flies and gnats, he considered it much more nutritious than "tripe de roche," and perhaps not inferior to Iceland moss. A very similar plant was noticed by Dr. Thomson as occurring in Thibet, up to the height of 17,000 feet, floating on the surface of pools and lakes, in soils impregnated with carbonate of soda, and drifted in heaps by the winds along their banks. Mr. Berkeley, who examined the specimens of both plants chemically, "thinks we may safely assume the jelly of the Nostoc to be a state of bassorin, passing into cellulose or dextrine." Another species of this genus (*Nostoc edule*, Mont. and Berk.) is found abundantly in streams in Tartary, whence it is exported to China, where it is sold in the markets as an article of food, and highly esteemed as an ingredient in soups. It is prepared for sale in boxes, one of which is in the Museum of the Linnean Society. These particulars are drawn from the abstract of a paper read by Dr. Hooker before the Linnean Society of London, January 20, 1852. (See *Taylor's An. Nat. Hist. 2nd. Ser. Vol. 10, p. 301-303.*) As the edible Nostoes closely resemble *N. commune* in substance, it may be worth enquiry whether the latter may not also be used as food. Possibly a new source of luxury may lie hid under this humble exterior. Or it may perhaps be a nourishing and delicate food for weak digestions. The dyspeptic had better seek for it betimes.

NOSTOC. *Vauch.*

Frond gelatinous or coriaceous, globose or lobed, filled with curled, beaded, simple filaments, formed of spherical or ellipsoidal coloured cells, interrupted here and there by a colourless cell of larger size. *Spores* formed from the ordinary cells. (*On damp ground or in fresh water.*)

1. *Nostoc commune*, Vauch. ; terrestrial ; frond expanded, membranaceous, plaited and waved or curled, olive-green, polymorphous. *Vauch. Tab. 16. Fig. 1, Ag. Syst. p. 18. Harv. Man. Ed. 1, p. 183. Hass. Br. Fr. W. Alg. p. 288 t. 74, f. 2. Kütz. Sp. Alg. p. 298.*

HAB. On damp soil, in autumn. Common after rain on dry flats, Rio Bravo, *Dr. Schott.* (v. v.)

In dry weather the frond curls up and contracts, looking like a piece of shrivelled skin, and in that state may be blown about without injury. When moistened it expands, and then forms a semi-transparent, semi-gelatinous, elastic membrane, of a dull bottle-green colour. Under the microscope it appears like a transparent jelly traversed in every part with curled strings of beadlike, green cells.

2. *NOSTOC (HORMOSIPHON) arcticum*, Berk. ; fronds foliaceous, variously plaited, green or brownish ; filaments at length (their gelatinous envelope being dissolved) free. *Berk. in Proc. Lin. Soc. Jide An. Nat. Hist. 2d Ser. vol. 10, p. 302.*

HAB. On the naked soil, in boggy ground. Assistance Bay, lat. 75° 40' N. *Dr. Sutherland.* (v. s.)

“*Fronds* foliaceous, variously plicate, sometimes contracted into a little ball. Gelatinous envelope at length effused ; connecting cells at first solitary, then three together ; threads, which are nearly twice as thick as in *N. commune*, breaking up at the connecting cells, so as to form new threads, each terminated with a single large cell, the central cell becoming free.” *Berk. l. c.*

“It grows,” says Dr. Sutherland, “upon the soft and almost boggy slopes around Assistance Bay ; and when these slopes become frozen at the close of the season, the plant lying upon the surface in irregularly plicated masses becomes loosened, and if it is not at once covered with snow, which is not always the case, the wind carries it about in all directions. Sometimes it is blown out to sea, where one can pick it up on the surface of the ice, over a depth of probably one hundred fathoms. It has been found at a distance of two miles from the land, where the wind had carried it. At this distance from the land it was infested with *Poduræ*, and I accounted for this fact by presuming that the insects of the previous year had deposited their ova in the plant upon the land, where also the same species could be seen in myriads upon the little purling rivulets, at the side of which the *Nostoc* was very abundant.” At p. 205 of his Journal, Dr.

Sutherland further mentions having tried it as an article of food, and found it preferable to the Tripe de Roche of the arctic hunters. Its nutritive qualities are probably equal to those of the jelly derived from other Alga.

3. *NOSTOC verrucosum*, Vauch. ; aquatic ; fronds large, gregarious, confluent, subglobose, plaited, at length hollow, blackish-green. *Vauch. t.* 16, *fig.* 3. *Ag. Syst.* p. 21. *Harv. Man. Ed.* 1, p. 185. *Hass. Brit. Fr. Wat. Alg.* p. 291, *tab.* 75, *fig.* 1. *Kütz. Sp. Alg.* p. 300.

HAB. On stones in fresh water streams. Pools of fresh water, Isle of Disko, and at Beechey Island, Arctic Regions, *Dr. Lyall*. Santa Fe, New Mexico, *Fendler*.

Fronds gregarious, at length confluent, adhering firmly to the rock on which they grow, becoming hollow and torn in age, and finally floating to the surface. *Colour* a bottle-green. Glossy when dry.

4. *NOSTOC cristatum*, Bailey ; aquatic, fronds orbicular, plano-compressed, firm, smooth or tuberculated, attached by a point of the circumference, erect. *N. nummular*, *Harv. MS. in Herb.*

HAB. In rivulets, attached to stones under water. Near West Point, *Professor Bailey*. Crumelbow Creek, Hyde Park, N.Y., *W.H.H.* (v. v.)

This pretty little species grows on stones in running water and may possibly be of common occurrence. The fronds are circular, about half an inch in diameter, or rather more, the tenth of an inch in thickness, plano-compressed and solid ; but perhaps in age they would become hollow, and then would probably be spherical. Such inflated fronds, however, have not yet been seen. They are fixed to the stones on which they grow by a single point of the circumference, and stand erect, like miniature cock's-combs, whence the specific name *cristatum* bestowed by *Professor Bailey*. The substance is very firm and cartilaginous. The filaments are much curled and very densely packed together, moniliform, and of a dark bluish-green under the microscope. The colour of the frond to the naked eye is a dark olive-green, blackish rather than bluish.

5. *NOSTOC Sutherlandi*, Dickie ; "discoid, coriaceous ; filaments crowded ; cells mostly spherical." *Dickie in App. Suth. Voy.* 1, p. 193.

HAB. South side of harbour, in winter quarters, Baffin's Bay, July, 1851. *Dr. Sutherland*.

"The plant is one to two inches in diameter, attached by one point of the margin. Plicato-venose beneath, the plicæ radiating chiefly from the point of attachment ; faintly venose above, especially near the point of adhesion ; toward the margin reticulately venose." *Dickie, l. c.*

This is unknown to me. It seems to be closely allied to the preceding species, if it be distinct. The plicæ and reticulations observed do not appear to be characters of much value for the discrimination of species among these gelatinous plants.

6. *NOSTOC microscopicum*, Carm. ; fronds densely aggregated, very minute, globose or oblong, immersed in a blackish crust ; filaments few. *Carm. in Hook. Brit. Fl.* 2, p. 399. *Harv. Man. Ed. 1*, p. 184. *N. muscorum*, Hass. *Br. Fr. Wat. Alg.* p. 292, t. 74, fig. 4.

IIAB. "Stones in a small stream, Baffin's Bay, *Dr. Sutherland*, fide *Prof. Dickie*.

I have not seen American specimens. In Britain this species grows among mosses on exposed calcareous rocks, but not in water. The above specific character is taken from the British plant. The fronds are rarely more than the tenth of an inch in diameter, and contain two or three beaded filaments lying in a copious transparent jelly.

7. *NOSTOC flagelliforme*, Berk. and Curt. ; terrestrial ; frond cartilaginous, linear, very narrow, compressed and often channelled, much branched, irregularly dichotomous ; branches solid, densely filled with moniliform curved threads. *Berk. and Curt.* No. 3809.

IIAB. On naked aluminous soil, at San Pedro, Texas, *Mr. Charles Wright* (v. s.)

Fronds several inches in length, half a line in diameter, lying prostrate on the surface of the soil, much branched in an irregularly dichotomous manner : branches exactly linear, compressed, often channelled on one or both sides, thinned in the middle and incrassated to the edge. *Substance* firm and elastic, cartilaginous, solid, densely filled with moniliform, curved or curled, interlaced threads, which are set longitudinally in the frond, and lie nearly parallel to each other. *Colour* dark olive.

A very curious and most distinctly marked species, differing from others of this genus, much in the same manner that *Chatophora endiviaefolia* does from the ordinary globose forms of *Chatophora*.

ORDER XIII.*—PALMELLACEÆ.

Palmellaceæ, Harv. *Man. Ed. 2*, p. 234. *Palmelleæ*, Dne. *Class*, p. 31. *Endl. 3rd. Supp.* p. 10. *Kütz. Phyc. Gen.* p. 166. *Hass. Brit. Fr. Wat. Alg.* p. 306. *Linell. Veg. King.* p. 18. *Kütz. Sp. Alg.* p. 196. *Berk. Crypt. Bot.* p. 114. *Thwaites*, in *An. Nat. Hist. 2nd Ser.* vol. 2, p. 312, and vol. 3, p. 243. *Part of Ulvacæ*, Harv. *Man. Ed. 1*, p. 169. *Part of Nostochinææ*, *Ag. Syst.* p. 13. Harv. in Hook. *Br. fl.* 2, p. 394.

DIAGNOSIS. Green or red, orange or yellowish, fresh-water Algæ, composed of separate or aggregated (but not united) globose or ellipsoidal cells, free, or lying in a gelatinous matrix ; sometimes stipitate. *Propagation* by division of the endochrome.

NATURAL CHARACTER. The plants of this family are the simplest in organization of any of the great class of the Algæ, and therefore fall to the lowest point of the scale in the arrangement we have adopted. In them we no longer find any distinction of root from frond ; most of them are amorphous masses of gelatinous substance, and only in a few, as in *Hydrurus*, does the gelatine assume a tolerably definite form, and display itself as a branching frond. The simplest of the group (*Protococcus*) consists of single, isolated cells, strewn on the surface of the soil or of whatever object to which they happen to attach themselves. These cells are globose or egg-shaped, have a hyaline, often gelatinous coat, and contain a utricle filled with dense endochrome of various colours ; sometimes green, but often red or orange. Of this character is the Red Snow plant (*Protococcus nivalis*) which has attracted so much notice, from the accounts of arctic travellers, and which may often be seen tinging the snows of Mount Blanc and other snowy Alps with a pale roseate hue. The mode of propagation of this primordial plant is as simple as its structure. The matter in the cell becomes condensed at maturity, and then subdivides into 4, 8, 16, or more parts, on a quaternary scale of increase ; each frustule acquires a new cell-coat while yet within the parent cell, and when the process is completed, and all the endochrome of the mother cell has thus been used up in providing for the progeny, the cell-coat bursts and a multitude of minute cell-plants, similar in all respects to the parent except in size, are launched into the world. These grow till they attain the dimensions of the parent, when a similar cell division takes place ; and thus in a very few generations millions of new plants may be produced from a few or even from a solitary original. As the process of growth and

* Orders XI. *Desmidiaceæ*, and XII. *Diatomeæ* are omitted in this work ; the American species having been already partially described and published by Professor Bailey, and the author not being supplied with any new materials for publication.

development is very rapid, we may easily account for the rapidity with which the *Protococcus nivalis* has been seen to extend, and also for the vast surface covered by so minute an organism. Each individual is not more than $\frac{1}{1000}$ of an inch in diameter, yet the surface of snow visibly reddened by the congregated masses often covers hundreds of square miles. A species very similar, if really different, called *P. pluvialis*, is found in shallow pools of rain water, on the surface of rocks, in gutters of houses, &c.; and has been noticed in very distant parts of the globe under various climatal conditions; and of this species a most elaborate monograph,* illustrated by figures, has been given by De Flotow, in the *Nov. Act. Leop. Carol. Nat. Cur. vol. 20*, where no less than twenty-two distinct and many more subdistinct varieties, or rather states, are enumerated, described, and measured to fourteen places of decimals (!) and figured. Several of these forms are endowed with movements resembling those of the infusorial animalcules, and have been described as animalcules by Shuttleworth in his account of the Red Snow (*Bib. Univ. Geneva, Feb. 1840.*)

A little higher in organisation than *Protococcus* is the genus *Gloeocapsa* (*Harmatococcus*) in which what is only a passing phase of the *Protococcus* becomes a permanent character. In this we have several cells (of the structure of *Protococcus*) enclosed within a common, primary cell, which is persistent, or at least partially so. In some species (as in *G. Hookeri*) the primary cell-coat exfoliates repeatedly, the old coats remaining permanently attached on one side to each other, and to the cell, which perpetually bursts through them; and thus a sort of spurious frond, simple or branching, is formed, consisting of exuviae, each branch being tipped with the living cell, which shines like a gem at its summit. These plants occur generally in damp situations, on rocks and among mosses, about the spray of cascades, &c., and Kützting has described and figured upwards of fifty.

Next come the *Palmelle* proper, where a large number of protococcoid cells are enclosed within a common gelatine, in which they sometimes appear to be distributed without order; and sometimes arranged in a subquaternary manner. In this latter case the structure approaches very closely to that of *Tetraspora*, a genus we have already referred to the *Ulvaceæ*; but which is placed by many authors next to *Palmella*. Possibly among these obscure plants forms are associated in one genus which will be separated when their development is better understood. Among some of the *Palmelle* Broome and Thwaites have described and figured a more definite organization than was previously known; namely, that the apparently scattered cells of the mass are connected in an early stage of growth, by means of slender gelatinous threads, with a central cell

* This extraordinary essay is well worth looking at—(I will not say carefully perusing)—as one of the most remarkable commentaries on the text, “how great a flame a little fire kindleth.” The object to be examined is a microscopic Alga of the simplest possible structure, being in fact merely an isolated living cell. All that need to be said of its history might, one would suppose, easily have been written in a page or two. But the learned and most laborious author has occupied nearly two hundred large quarto pages on this theme; and not content therewith, has appended long tables of decimal measurements of microscopic areas and volumes, whose only reference to his subject appears to be that they enable him to arrive at such important calculations and useful results as describing the mean differences of the shorter and longer diameters of different individuals of his *Protococcus*, and their mean comparative bulk and spherical aberration. In computing these tables, the decimals have been carried sometimes to fourteen places, and in most cases at least to six.

of large size, from which they radiate. Afterwards they become detached, and then each is seen at the end of a mucous prolongation similar in appearance to that already noticed as occurring in *Gloecapsa*. Mr. Thwaites compares these threads to the mycelium of a fungus, but regards the increase of cells by cell-division as properly an act of gemmation and not of true reproduction. The reproductive process in these plants is by conjugation of two cells, which takes place in a manner similar to that already noticed as occurring in *Zygnemaceæ*. A narrow connecting tube, soon enlarging to the breadth of each cell, is formed between two contiguous cells, through which the contents of both cells are mixed together; and thus a *sporangium* filled with a denser and more distinctly granular endochrome is formed, the membranes of the original cells being absorbed in the process. Probably at a future stage the contents of this sporangium are resolved into zoospores. (See *Thr. An. Nat. His. ser. 2, vols. 2 and 3.*)

Higher in structure than *Palmella*, and showing some approaches to the *Nostochineæ*, or even to the gelatinous CONFERVACEÆ (*Chatophora*) is *Hydrurus*, the only genus which we shall further describe.

I. HYDRURUS, Ag.

Frond fixed at base, cylindrical or compressed, elongated, branched, gelatinous. *Structure*: seriated, but separate, cellules, filled with bright-green endochrome, enclosed in gelatinous parallel tubes, ranged longitudinally in the frond, and surrounded by a common gelatinous envelope.

Of this genus several species have been described by authors, all having a close resemblance to each other, and all very variable in ramification. Indeed it is almost impossible to fix characters by which they can be permanently kept apart; and instead of adding another specific name to the already too numerous list, I prefer to consider the American specimens received as constituting a luxuriant variety of the best known of the established species. All previously recorded species or varieties of these plants are natives of rapid rivers and streams in various parts of Europe.

1. *HYDRURUS penicillatus*, var. *occidentalis*, Harv.; frond very long (1–2 feet or more) much branched; branches very irregular, scattered or crowded, wormlike, tapering to a fine point, naked or clothed with feathery villous ramuli; cells ellipsoidal or pearshaped, twice as long as their diameter.

HAB. On the rocky bottom of rivers and streams, in a strong current. Santa Fe, New Mexico, *Mr. Fendler*, February to April, 1847. (v. s. in Herb. T.C.D.)

Fronds attached at base, one or two feet long, from one to four lines in diameter, very much and irregularly branched ; branches scattered or crowded, simple or divided, a foot or more in length, attenuated to a fine point, sometimes smooth and naked, but generally densely clothed with slender, villous ramenta, spreading to all sides. The gelatinous tubes or sheaths in which the cells are seriated are very obvious, and lie close together in longitudinal, parallel strata. The cells are of large size, bright-green colour, and variable shape ; some are twice as long as others.

This I had at first supposed to be a new species, but now regard it as a very gigantic state of *H. penicillatus*, Ag. which under various forms and of various sizes is common in alpine streams in Europe. I fear characters derived from the shape and size of the cellules are not more to be depended upon than are those taken from the ramification.

SUPPLEMENT.

No. 1. Additional Species discovered since the publication of the First and Second Parts.

PART I.—MELANOSPERMEÆ.

Part 1, p. 61, add,

I.* TURBINARIA. *Lamour.*

Root branching. *Fronl* alternately decompound, having a distinct stem, branches, vesicated leaves and receptacles. *Branches* filiform, simple or pinnate. *Leaves* spirally inserted, on long petioles, peltate, becoming inflated and changed into peltate air-vessels with leafy dentate margins. *Receptacles* cylindrical, verrucose, much branched, rising from the petiole of the leaf, near its base, on the upper side ; of similar structure to those of *Sargassum*.

A genus consisting of two or three tropical or subtropical Algæ, distinguished from *Sargassum* by its peltate leaves, which are at first thin and flat, but afterwards become hollow and are changed into flat-topped, margined air vessels.

1. *TURBINARIA vulgaris*, Ag. ; frond membranaceo-coriaceous ; leaves on an inflated petiole obovate or top-shaped, the margin entire or toothed, the disc naked. *J. Ag. Sp. Alg.* 1, p. 267. *Turbinaria denudata* and *T. decurrens*, Bory. *Fucus turbinatus*, Turn. *Hist. t.* 24, fig. a. and b.

HAB. At Key West, *Mr. Ashmead.* (v. v.)

Root a mass of branching fibres, as thick as sparrow's quills, loosely entangled together. *Fronls* several from the same mat of roots, either quite simple, or dividing near the base into three or four principal branches ; or pinnately compound by the evolution of lateral branches, erect and rigid, 6–10 inches high, cylindrical and smooth. *Leaves* spirally inserted, spreading to all sides, patent, rigid ; petioles at first cylindrical,

then becoming clubshaped and somewhat inflated, from half an inch to an inch long, crowned with a peltate horizontal lamina, which is either subentire or sharply dentate at the margin. In young specimens or on young branches the peltate leaves are found flat and thin, their upper and lower surfaces forming one substance; but more commonly the centre of the leaf becomes inflated or vesicated, and then is formed a compound top-shaped flat-topped body, half vesicle, half leaf, which is characteristic of the genus. *Receptacles* dichotomous, much branched, shrubby, their branches verrucose. *Colour*, when growing a pale olive, but in the herbarium changing to a dark brown or black. *Substance*, when dry very hard and rigid.

A common plant in tropical seas, both in the eastern and western hemispheres. Mr. Ashmead obtained fine specimens at Key West, but it appears to be of rare occurrence.

Part 1, page 64, add,

III.* CYSTOPHYLLUM.

(Generic character the same as that of *Cystoseira*, except that the *air-vessels* are confined to the ultimate ramuli, which are simple and filiform.)

1. *CYSTOPHYLLUM geminatum*, Ag. ; stem ; fronds elongate, filiform, unarmed, decompound-pinnate; branches issuing from all sides, geminate; vesicles solitary in the ramuli near the summit, oval, tipped with an excurrent point; receptacles paniculate, warted, attenuate, often tipped with a vesicle. *J. Ag. Sp. Alg.* 1, p. 232. *Cystoseira thyrsoigera*, Post. and Rupr. *Ill. Alg.* 13, t. 38, f. 4.

HAB. Banks' Island, North Western America, *Mr. Menzies*, 1787. (v. s.)

In Mr. Menzies' Herbarium, now preserved at the Botanic Garden, Edinburgh, is a specimen of this plant, marked *C. trinodis* in Mr. Menzies' handwriting. Two branches are laid on one piece of paper. The largest is about 10 inches long, as thick as sparrow's quill, smooth, decompound, pinnate and ovato-lanceolate in circumscription. The branchlets are mostly geminate, filiform, alternately decompound; their lesser divisions also subgeminate. *Vesicles* oval, $1\frac{1}{2}$ lines long, scarcely a line wide, either solitary in the filiform ramuli, about the middle or a little beyond it, or two in the ramulus, the second one terminal, apiculate, and removed by a rather long pedicel from the first. *Receptacles* lanceolate, 2-3 lines long, verrucose, apiculate, often with a slender beak nearly as long as the receptacle, and sometimes two receptacles occur on the same ramulus. The upper branches are very dense.

Page 71, add,

8. *Fucus serratus*, Linn. ; frond flat, dichotomous, midribbed, serrated, without air-vessels; receptacles flat, terminating the branches, serrated. *J. Ag. Sp. Alg.* 1, p. 211. *Kütz. Sp. Alg.* p. 590. *Tunn. Hist.* t. 90. *E. Bot.* t. 1221. *Harc. Phyc. Brit.* t. 47, fig.

HAB. On rocky sea-shores. Newbury port, Mass. *Captain Pike*, 1852. (v. v.)

Fronds, two feet long or more, from one half-inch to one or two inches in width, dichotomous, with a thick midrib, bordered by a sharply serrated lamina. *Air-vessels* none. *Receptacles* flat, formed in the acuminate extremities of the branches, sharply serrate like the other parts of the frond.

I have received a small fragment of this common European plant, stated to have been found in the above locality on the American coast. It is hardly probable that it is either confined to one locality, or even rare, wherever it occurs; yet none of my other American correspondents have sent it; nor do I know the circumstances under which Captain Pike obtained it. I hope this notice may lead some one on the coast to investigate the subject; for European botanists are yet uncertain whether *F. serratus* be really a bona fide native of the American coast, or merely a stray waif, accidentally cast ashore.

Page 106, add,

2. *ZONARIA flava*, Ag.; frond erect, with an elongated, branched, woolly stipes, the branches expanding into emcate, flabelliform, vertically cleft and laterally lacinated, naked laminae; segments wedge-shaped, with radiating, longitudinal striae; sori roundish, scattered. *J. Ag. Sp. Alg.* 1, p. 110. *Styopodium flavum*, Kütz. *Sp. Alg.* p. 563.

HAB. Pacific Coast, *Dr. Schott*. (v. s.)

A small specimen, apparently referable to this species, was collected by Dr. Schott on the Pacific coast, but the locality is not stated. It is about two inches high, much narrower and more branched than *Z. lobata*, with stupose, linear, riblike patches extending up the principal lobes. Perhaps, therefore, it is rather referable to *Z. stuposa*, J. Ag., if that be a distinct species from *Z. flava*.

Page 113, add,

VI.* STRIARIA, *Grev.*

Root a small, naked disc. *Frond* tubular, membranaceous, continuous, branched. *Fructification*, groups of naked, roundish spores, disposed in transverse lines.

1. *STRIARIA attenuata*, Grev.; branches and ramuli mostly opposite, tapering to each extremity. *Grev. Crypt. Fl. Syn.* p. 44. *tab.* 288. *Alg. Brit.* p. 55. *t.* 9. *Wjatt. Alg. Danm.* No. 160. *J. Ag. Sp. Alg.* 1. p. 80. *Harr. Phyc. Brit.* t. 25. *Kütz. Sp. Alg.* p. 553. *Phyc. Gen.* t. 21. *f.* 11.

HAB. Flushing, New York Bay, *Professor Bailey*.

The only American specimen I have yet seen is small and very slender, about two and a half inches long, and not thicker than hog's bristle. It is abundantly in fruit; otherwise it could hardly be recognised. The branches are few, opposite or alternate, some of the larger ones bearing a few ramuli, and all tapering to a very fine point.

On the British coast this species varies greatly in size. Sometimes it is nearly as small and slender as that just noticed. Other specimens, like that figured in Phyc. Brit. are 8-12 inches long, and from one to two lines in diameter. The branching is irregular and sometimes whorled.

Page 137, add,

3. *SPHACELARIA arctica*; filaments naked at the base, erect, elongate, slender, irregularly branched, scarcely pinnate; ramuli filiform, naked, erect.

HAB. In tide pools, Isle of Disko, Greenland, *Dr. Lyall*. (v. s. in Herb. T.C.D.)

Filaments 1-2 inches high, irregularly once or twice compounded, the main branches few, the secondary numerous, densely set and very erect, lateral, either naked or bearing few or many, long, filiform, erect, naked, slender ramuli, from half an inch to an inch in length. *Articulations* short in the stem and branches; once and a half as long as broad in the ramuli. *Colour* a dull olive. *Fruit* unknown.

Page 138, add,

III.* MYRIOTRICHIA, *Harv.*

Frond capillary, flaccid, jointed, (simple), beset with quadrifarious, simple, spinelike ramuli, clothed with byssoïd fibres. *Fructification*, elliptical spores, containing dark-coloured endochrome.

1. *MYRIOTRICHIA filiformis*, Griff.; stem filiform, slender, often flexuous or curled, beset at irregular intervals with oblong clusters of short, papilliform ramuli. *Harv. Phyc. Brit. t. 156. Wjatt, Alg. Danm. No. 213. J. Ag. Sp. Alg. 1. p. 14. Kütz. Sp. Alg. p. 470.*

HAB. Parasitic on *Dictyosiphon furciculaceus* at Penobscot Bay, *Mr. Hooper*. (v. v.)

Fronds an inch or more in length, very slender, filiform, but thickened at intervals, as if nodose; the thickening caused by the dense aggregation of short ramuli of two or three cells each. These ramuli emit byssoïd fibres. *Spores* roundish, scattered. *Substance* soft. It adheres closely to paper.

On the British Coast this parasite commonly infests *Chorda Lomentaria*.

Page 139, add,

2* *ECTOCARPUS longifructus*, Harv.; tufts large, branching, the divisions feathery; filaments robust, excessively branched, branches mostly opposite, the lesser ones set

with short, spine-like, opposite, or rarely alternate ramuli ; articulations as long as broad ; silicles very long, linear-lanceolate, attenuate, densely striate transversely, terminating the principal branches and ramuli. *Harv. Phyc. Brit. t. 258.*

HAB. Penobscot Bay, *Mr. Hooper.* (v. s.)

I have seen an American specimen collected by Mr. Hooper, which I venture to associate with the Orkney plant to which the above character is given in *Phyc. Brit.* Perhaps it is a mere form of *E. littoralis*; though a remarkable one.

Page 140, add,

3* *ECTOCARPUS amphibius*, Harv.; tufts short, loose, soft, pale olive ; filaments very slender, sub-dichotomous ; ultimate branches alternate, spreading ; articulations two or three times longer than broad ; silicles linear-attenuate, spine-like, mostly sessile, scattered. *Harv. Phyc. Brit. t. 183.*

HAB. In fresh (probably brackish ?) water, near New York, *Mr. Hooper.* (v. s.)

Tufts 2-3 inches long, very flaccid and slender ; pale brown when fresh, fading to a dull greenish-olive in drying. This is nearly related to *E. siliculosus*, and may perhaps be regarded as a depauperated variety of that common species, altered by having grown in a less saline medium than usual. In England it occurs in brackish ditches near the coast. The American locality is not particularly specified.

PART II.—RHODOSPERMEÆ.

Page 23, add,

7. *CHONDRIA nidifica* ; frond ultrasetaceous, filiform, sparingly and distantly branched ; branches alternate or second, quite simple or forked, long, cordlike, naked, or emitting at intervals fascicles of forked or multifid fructiferous ramuli ; tetraspores several, near the tips of the ramuli. (TAB. L. B.)

HAB. Pacific Coast, *Dr. Schott.* (v. s. in Herb. T. C. D.)

Fronds 6-8 inches long, as thick as sparrow's quills, cylindrical, inarticulate, sparingly branched in a manner between alternate and dichotomous ; the branches, by frequent non-development of one of the arms of the fork, appearing unilateral. *Branches* several inches long, quite simple, or once or twice forked ; or bearing a few secondary branches one or more inches long, either quite naked or furnished at intervals of about an inch with tufts of short, fructiferous ramuli. These latter are about quarter-inch long, as thick as hog's bristle, densely tufted, and simple or sub-divided. In the specimen examined some of them bear tetraspores. A transverse slice of the inarticulate frond

shows a central axial-cell surrounded by several primary radiating cells, and many external rows of secondary cells which become smaller towards the circumference. *Colour* a dull brownish red. *Substance* cartilaginous, not adhering to paper.

I have seen but a single specimen of this seemingly very distinct plant, which has more the habit of *Clampia lumbricalis* than of one of the present genus. It was picked up, it is presumed on the Western coast, by Dr. Schott, during the Mexican Boundary Survey, but no note regarding its exact habitat accompanied the specimen. I am indebted to my friend Professor Torrey for specimens of this and other Alge collected by the officers attached to the Mexican Boundary Survey.

PLATE L. B.—*Fig. 1.* CHONDRIA *nidifica*; the natural size. *Fig. 2.* Portion of a branch, with a tuft of ramuli. *Fig. 3,* a ramulus, containing tetraspores. *Fig. 4,* a tetraspore. *Fig. 5,* transverse section of a branch; the latter figures more or less *magnified*.

Page 26, add,

4.* RHODOMELA *lycopodioides*, Ag.; frond divided near the base into several long, simple branches, which are densely beset with slender, finely divided branchlets, mixed with the short, rigid, bristlelike remains of a former series. *Ag. Sp. Alg. 1. p. 377. Harv. Phyc. Brit. t. 50. Lophura lycopodioides, Kütz. Sp. Alg. p. 850. Fucus lycopodioides, Linn. Turn. Hist. t. 12. E. Bot. t. 1163.*

HAB. Whalefish Islands, Davis Straits, *Dr. Lyall.* (v. s.)

Fronds 1–2 feet long, half a line in diameter at base, attenuated upwards, filiform, either quite simple or divided a short way above the root into several long simple branches. In its winter state the virgate branches are closely set with short, rigid, simple or slight divided ramuli, from half an inch to one inch in length. In summer, long, capillary, multifid ramuli from one to two inches in length are thrown out both from the remains of the winter ramuli and from the main branches, and the frond thus acquires a plumose aspect very different from its winter state. *Conceptacles* are abundantly borne on the summer ramuli; and *tetraspores*, lodged in clustered, podlike branchlets or stichidia, are found on the winter ramuli. *Substance* cartilaginous. *Colour* a purplish brown, becoming very dark in drying.

This interesting addition to the American Nereis occurs abundantly in various places on the shores of Northern Europe. In the British Isles it is almost confined to the coasts of Scotland and of the North of Ireland; but has occasionally been met with on the East coast of England.

Page 59,

1. DASYA GIBBESII, Harv.

Add to the description: *Conceptacles* of large size ($\frac{1}{16}$ inch in diameter), borne on the penultimate ramuli, at first globose, afterwards broadly ovate, inflated, with thin, highly cellular walls and a berry-like nucleus of much branched filaments, bearing many

small, pyriform spores. Specimens in fruit communicated by *Mr. S. Ashmead* from Key West. (v. s.)

Page 61,

3. *DASYA ramosissima*, Harv.

Add to description : *Conceptacles* sessile on the lesser branches, ovato-globose, thin walled, inflated, without prominent orifice, containing a large nucleus. *Stichidia* on the ramelli, either fusiform or ovato-acuminate, always tapering to a slender point ; tetraspores in a single or double row. Specimens in both kinds of fruit communicated by *Mr. S. Ashmead* from Key West. (v. s.)

Page 62, add,

3.* *DASYA Harveyi*, Ashmead ; rose red ; stem cartilagineo-membranaceous, longitudinally striate, glabrous, inarticulate, robust, attenuated upwards, much branched ; branches alternate or secund, once or twice decompound, their ultimate divisions being pinnated with capillary, closely set, articulated (polysiphonous) ramuli, which are densely clothed with byssoid, dichotomous ramelli ; cells of the epidermis of the branches very narrow, parallel ; articulations of the ramelli many times longer than broad, conceptacles sessile near the tips of the lesser ramuli, urceolate, with a prominent orifice ; stichidia on the ramelli, tapering to each end. (TAB. L. A.)

HAB. Key West, *Mr. Ashmead*. (v. s. in Herb. T.C.D.)

Froul 8—10 inches long, as thick as crow-quill in the main divisions ; very much branched, the successive divisions being more and more slender, till the ultimate ones have become finer than human hair. The branching is irregular, the larger divisions frequently secund, several lateral branches directed successively first to one side and then to the opposite one of the main branch. All the main *branches* and their lesser divisions down to the last are inarticulate, being coated with very slender, coloured, longitudinal, parallel, seriated cells, which give the branches a striated appearance under the microscope ; they are also glabrous, or bare of ramelli. The *ultimate* branchlets, which are half an inch to an inch long, are plumose, very flaccid and soft, and closely set with lateral, but not strictly distichous pinnules, which are clothed with excessively slender, cobweb-like, flaccid ramelli. These latter are many times dichotomous and taper to the points ; their articulations are many times longer than broad. The *conceptacles* are nearly of the form of those of *Polysiphonia urceolata*, and are sessile at or near the ends of the pinnules of the plumose branchlets. The *stichidia* spring from the lower forkings of the byssoid ramelli, and are much attenuated, tapering at each end, and containing a double row of tetraspores. The whole plant is of a beautiful, clear, rose-red colour. Its substance is very soft and flaccid, and in drying it adheres very strongly to paper.

For fine specimens of this distinct and beautiful species I am indebted to its discoverer Mr. Ashmead of Philadelphia, who sent them to me marked with the specific name here adopted.

PLATE L. A. *Fig. 1.* *DASYA Harveji*, the *natural* size. *Fig. 2.* A ramulus bearing a *conceptacle* near its summit. *Fig. 3.* Portions of different ramelli bearing *stichidia*. *Fig. 4.* A portion of a branch, showing the linear striaeform surface-cells: the latter figures *magnified*.

Page 64,

7. *DASYA Tumanowiczii*, Gatty. add to the description: *Conceptacles* on very short peduncles, borne by the lesser branches, ovate or sub-urceolate, thin walled, without prominent orifice, with a large nucleus. Specimens from *Dr. Blodgett* and *Mr. Ashmead*.

Page 105, add,

3. *NITOPHYLLUM Fryeanum*; frond sessile, full-red, nerveless, thickish, deeply divided into many cuneate lobes, which are again vertically cleft, the segments rounded, frequently crisped at the margin, specially towards the base, the sinuses narrow; fruit.....?

HAB. Golden-gate, California, *Mr. A. D. Frye*. (v. s. in Herb. T.C.D.)

I propose this species with much hesitation, having as yet seen only very imperfect specimens, which I know not how to dispose of but by giving them a local habitation and name. Two specimens are before me; one faded, the other in a better state of preservation, but neither in fruit. The frond is about 3 inches long, and 4 in lateral expansion, and is deeply divided into 4 or 5 principal segments which are broadly cuneate, and each again partially cloven into 4 or 5 lesser, vertical segments. The margin towards the base of the lobes is crisped or undulate; in other parts it is plane. The lesser lobes are somewhat crenate or sub-lobulate, and all the tips are rounded, and the axils or sinuses very narrow. The substance of the membrane is thickish; the surface-cells large and tessellated; the cells of the interior appear also to be of large size, and quadrate, but the specimens examined have been too much squeezed in the process of drying, and their cells are consequently broken and difficult to examine. No traces of veins in the specimens seen. More perfect specimens must be had before this species can be considered as other than provisional.

Fragments of one or two other *Nitophylla* have reached me from the Pacific Coast, but not sufficiently perfect to warrant me in naming them.

Page 150, add,

5. *RHODYMENIA corallina*, Grev. (?); stipes cylindrical, sub-simple, expanding into a fan-shaped, many times dichotomous, rose-red frond; laciniae linear, with rounded

interstices and a flat, entire margin; apices rounded; conceptacles clustered near the ends of the laciniae, on the surface of the lamina; tetraspores forming deep-red sori in the dilated apices. *J. Ag. Sp. Alg.* 2, p. 379. *Sphaerococcus corallinus*, *Bory. Coq.* p. 175, t. 16. *Kütz. Sp. Alg.* p. 780.

HAB. San Diego, California, *Mr. A. D. Frye.* (v. s. in Herb. T.C.D.)

A single Californian specimen only has yet been seen, and I doubtfully refer it to *R. corallina*, in preference to founding a new species on such imperfect data. The frond is stipitate; the stipes filiform, 2-3 inches long, then widening and passing into the cuneate base of a flabelliform, dichotomously parted lamina, with broadly linear or somewhat cuneate segments. The lower part of the stipes throws out 2 or 3 proliferous frondlets, and similar ones spring from the margin of the laciniae. The *conceptacles* are immersed in the ultimate segments of the laciniae, which then are truncated and foliiferous. The colour is a deep-red, and the substance rigid and membranaceous. Such is the Californian specimen, and it tolerably agrees with the Chilian species, whose character is given in the above diagnosis.

Page 175, add,

2* GIGARTINA *Chamissoi*, (?) Mont.; *J. Ag. Sp. Alg.* 2, p. 267. *Sphaerococcus Chamissoi*, *Ag. Ic. Med.* t. 6. *Mart. Ic. Scd. Bras.* t. 3, fig. 1.

HAB. West Coast, *Dr. Schott.*

A fragment of a *Gigartina*, closely allied to *G. Chamissoi*, if not a mere form of it, occurs in Dr. Schott's new Mexican collection. It is too imperfect for description. *G. Chamissoi* is a common species on the coast of Peru, and may very probably extend to the north of the Equator.

Page 180, add,

6. IRIDÆA *dichotoma*, Harv.; stipes linear, compressed, simple or branched, passing into the cuneate base of the broadly cuneiform or obovate, repeatedly forked lamina; laciniae shallow and rounded, divaricating, their margin entire or denticulate; surface smooth and glossy. *I. micans*, var. *dichotoma*. *Hook. f. and Harv. Fl. Ant.* 2, p. 487. *I. dichotoma*, Harv. in *Hook. Journ.* 1845, p. 262.

HAB. California, *Mr. A. D. Frye.* (v. s.)

Stipes 1-2 inches long, about a line wide, throwing out 2-4 minutely stipitate fronds, which are 4-6 inches long, and 3-4 wide, at their greatest width. The base of the frond is cuneate, and the lobes into which it divides are also broadly cuneiform. They divaricate from each other, leaving very wide sinuses between. The frond is thus sometimes thrice forked, the last furcation being minute, and frequently a mere indentation. The substance is rather thin and membranous. The surface is smooth and glossy, and the colour a fine purple-red.

Whether a distinct species or a mere variety of *I. micans* remains to be shewn, when some competent observer on the Pacific Coast shall have properly examined the several reputed species of this most troublesome genus. If we admit more than *one* species it is difficult to refuse admission to many, the forms are so varied. The present is, at least, a well-marked *variety*.

Page 195, add,

4. *HALOSACCION dumontioides*; stem short, filiform, emitting many crowded, tubular, membranaceous, long branches, which are quite simple, destitute of ramenta, and taper much to the base and apex.

HAB. Northumberland Sound, Queen's Channel, lat. 76° N., *Dr. Lyall*. (v. s. in Herb. T.C.D.)

Stem 1-3 inches long, simple or forked, filiform, about twice as thick as hog's bristle, emitting throughout its length, and directed towards all sides, numerous crowded, perfectly simple branches. *Branches* two feet long, more than quarter inch wide in the middle, cylindrical for their greater extent, but attenuated and fusiform to the base, and tapering at the extremity to an acute point, hollow, destitute of ramenta, smooth and glossy, formed of a very thin membrane. *Colour* a brownish pinky-red, partly discharged in fresh water. *Cellular* structure very dense.

I have some hesitation in proposing this as a species distinct from *H. ramentaceum*; but if not a good species, it is at least a strongly marked variety, and has so much the external aspect of *Dumontia filiformis*, that until I had submitted a section to the microscope, I supposed I had before me a very luxuriant specimen of that plant. The microscopic structure of the membrane is that proper to *Halosaccion* (section *Halocalia*), but is not easy to see, as the collapsed cells do not readily expand on reimmersion of the dried frond. The substance is much softer and more membranous than in *H. ramentaceum*, and in drying the branches adhere much more strongly to paper. Dr. Lyall brought home several fine specimens.

Page 242, add,

16.* *CALLITHAMNION tenue*; filaments tufted, ultra-capillary, irregularly much branched, diffuse, flexuous, the branches and their divisions very generally secund, springing from the middle of the internodes; ramuli few and distant, patent, filiform, beset toward the attenuated apices with whorls of minute, byssoid fibres; articulations cylindrical, those of the branches 4-6 times, those of the ramuli 3-4 times as long as broad, and gradually shorter towards the extremities. *Griffithsia tenuis*, *Alg. Sp. Alp.* p. 13. *J. Alg. Sp. Alp.* 2, p. 84. *Kütz. Sp. Alp.* p. 661.

HAB. Beesley's Point, New Jersey, *Mr. Samuel Ashmead*. (v. s. in Herb. T.C.D.)

Filaments 3-4 inches long, somewhat thicker than human hair, loosely tufted, flexuous, very irregularly branched, the ramification on a lateral, not a dichotomous

type. *Branches* usually secund, in some cases opposite or alternate, springing from the middle of the articulation (or internode), or from near its base (not from the shoulder), long and filiform, flexuous, furnished with several distant, secund, filiform, patent, secondary branches, which are either simple, or furnished with a few similar, secund ramuli. All the branches and ramuli of every grade spring from the middle of the internodes of the branches of the preceding grade. The ramuli taper to their summit; the last six or eight internodes are very short, or rather are gradually developed whilst the ramulus lengthens, and their nodes are beset, especially those of the younger ones, with whorls of minute and very delicate byssoid ramelli, which seem to be connected with the growing process; but perhaps may also accompany fructification, as they do in the nearly allied *C. thyrsoides*. The articulations are cylindrical, 4-5 times as long as broad, with a wide, hyaline margin and dissepiment, and are filled with rosy endochrome. *Substance* membranaceous and delicate. The frond closely adheres to paper in drying.

I have compared Mr. Ashmead's specimens with an authentic one of Agardh's *Griffithsia tenuis* from the Mediterranean, and find them to agree in every essential character; the only difference that I can perceive being, that the American specimens are larger and more luxuriant than the European. The fructification has not been observed either in America or Europe, and I may therefore be accused of indiscretion in removing this species from *Griffithsia* to the present genus. I do so because its affinity with *C. thyrsoides* of Ceylon and Australia is so great that they cannot be placed in separate genera; and the fruit of the latter is known. I only question whether I ought not to go a step further, and unite *C. thyrsoides* to *C. tenuis* as a mere variety. Both are remarkable for the manner in which the branches and ramuli are inserted; and may be known by this character alone from all allied species. But there is no American species to which the present is nearly allied.

Page 247, under *Pikea californica*, add to the specific diagnosis,

(TAB. XLIX. B.)

And insert the following reference to the figure,

PLATE XLIX. B. *Fig. 1.* *PIKEA californica*, a robust specimen; and *fig. 2*, a more slender and smaller individual; both of the *natural size*. *Fig. 3.* Longitudinal section of the frond, showing the central, articulated axial filament, and the two strata of cells. *Fig. 4*, a transverse section of the frond; these two figures equally *magnified*.

No. 2. List of Arctic Algae, chiefly compiled from collections brought home by Officers of the recent Searching Expeditions.

1. *Fucus vesiculosus*, Linn. *Ner. Bor. Amer. part 1, p. 71.*

HAB. Common along the Arctic Seas, and continuing through Behring's Straits along the North-west Coast. Whalefish Islands, and north end of Disco, *Dr. Lyall.*

2. *Fucus nodosus*, Linn. *Ner. Bor. Amer. part 1, p. 68.*

HAB. North end of Isle of Disco, *Dr. Lyall.*

3. *Agarum Turneri*, Post. & Rup. *Ner. Bor. Amer. part 1, p. 95.*

HAB. Navy-board Inlet and Whalefish Islands, *Dr. Lyall.*

4. *Laminaria saccharina*, Lamour. *Ner. Bor. Amer. part 1, p. 92.*

HAB. Floating off the West Coast of Greenland, five miles from shore, in lat. 63, *Dr. Lyall.*

5. *Alaria Pylaii*, Grev. *Ner. Bor. Amer. part 1, p. 89.*

HAB. Northumberland Sound, Queen's Channel, Lat. 76°. 52', *Dr. Lyall.*

6. *Desmarestia aculeata*, Lamour. *Ner. Bor. Amer. part 1, p. 78.*

HAB. Dredged in 6 fathoms, in Queen's Channel, lat. 76° 29', long 96° 13' W., *Dr. Lyall.*

7. *Dictyosiphon faniculaceus*, Grev. *Ner. Bor. Amer. part 1, p. 114.*

HAB. Whalefish Islands, *Dr. Lyall.*

8. *Chordaria flagelliformis*, Ag. *Ner. Bor. Amer. part 1, p. 123.*

HAB. Whalefish Islands, *Dr. Lyall.*

9. *Chætopteris plumosa*, Kütz. *Ner. Bor. Amer. part 1, p. 136.*

HAB. Arctic Coast, *Dr. Seemann.* Roots of large Algae, floating near Whalefish Islands, *Dr. Lyall.*

10. *Sphacelaria arctica*, Harv. *Ner. Bor. Amer. part 3, suppl. p. 124.*

HAB. Isle of Disco, *Dr. Lyall.*

11. *Ectocarpus fasciculatus*, Harv. *Ner. Bor. Amer. part 1, p. 141.*

HAB. Whalefish Islands, *Dr. Lyall.*

12. *Ectocarpus littoralis*, Lyngb. *Ner. Bor. Amer. part 1, p. 139.*

HAB. Whalefish Islands, *Dr. Lyall.*

13. RHODOMELA *lycopodioides*, Ag. *Ner. Bor. Amer. part 3, suppl. p. 126.*
HAB. Cast ashore on Disco and Whalefish Islands, *Dr. Lyall.*
14. RHODOMELA *gracilis*, Kütz. *Ner. Bor. Amer. part 2, p. 26.*
HAB. In rock-pools. Disco and Whalefish Islands, *Dr. Lyall.*
15. POLYSIPHONIA *urecolata*, Grev. *Ner. Bor. Amer. part 2, p. 31.*
HAB. Dredged in 10 fathoms, off Cape Cockburn, 75° N. 100° W., *Capt. McClintock.*
16. CORALLINA *officinalis*, L. *Ner. Bor. Amer. part 2, p. 83.*
HAB. Lively Harbour, Isle of Disco, *Dr. Lyall.*
17. DELESSERIA *sinuosa*, Ag. *Ner. Bor. Amer. part 2, p. 93.*
HAB. Off the Greenland Coast, *Dr. Lyall.* North Shore of Prince of Wales' Strait, *Sir R. McClure.* Cape Cockburn 75°, and Lowther Island 74°, *Capt. McClintock.*
18. EUTHORA *cristata*, J. Ag. *Ner. Bor. Amer. part 2, p. 150.*
HAB. Disco Island, *Dr. Lyall.*
19. RHODYMENIA *interrupta*, Grev. *Ner. Bor. Amer. part 2, p. 149.*
HAB. Arctic Sea, *Lieut. W. H. Griffiths, R.N.*
20. RHODYMENIA *palmata*, Grev. *Ner. Bor. Amer. part 2, p. 148.*
HAB. Queen's Channel, Northumberland Sound, 76° 52' N., *Dr. Lyall.*
21. HALOSACCION *ramentaceum*, J. Ag. *Ner. Bor. Amer. part 2, p. 194.*
HAB. Whalefish and Disco Islands, and in Queen's Channel, *Dr. Lyall.*
22. HALOSACCION *dumontioides*, Harv. *Ner. Bor. Amer. part 2, suppl. p. 130.*
HAB. Northumberland Sound, Lat. 76° N., *Dr. Lyall.*
23. KALLYMENIA *Pennyi*, Dickie. *Ner. Bor. Amer. 2, p. 172.*
HAB. Dredged in 15–20 fathoms in Assistance Bay, *Dr. Sutherland.* Dredged in 6 fathoms, Queen's Channel, Lat. 76° 29' N., Long. 96° 13', *Dr. Lyall.*
24. PTILOTA *serrata*, Kütz. *Ner. Bor. Amer. 2, p. 222.*
HAB. Arctic Coast, *Sir J. Richardson.* Whalefish Islands and West Coast of Greenland, *Dr. Lyall.*
25. PTILOTA *plumosa*, Ag. *Ner. Bor. Amer. 2, p. 224.*
HAB. Arctic Sea Coast, *Sir J. Richardson.*
26. CLADOPHORA *arcta*, Kütz. *Ner. Bor. Amer. 3, p. 75.*
HAB. Whalefish Island, Davis's Straits, *Dr. Lyall.*
27. CLADOPHORA *rupestris*, Kütz. *Ner. Bor. Amer. 3, p. 74.*
HAB. Whalefish Islands, Davis's Straits, *Dr. Lyall.* Fiskernaes, near Cape Farewell, *Dr. Sutherland.*

28. *CILETOMORPHA Melagonium*, Kütz. *Ner. Bor. Amer.* 3, p. 85.
HAB. Roots of large Algæ, Whalefish Islands, *Dr. Lyall*.
29. *CILETOMORPHA Piquotiana*, Mont. *Ner. Bor. Amer.* 3, p. 85.
HAB. Floating in the sea, near Whalefish Islands, Davis's Straits, *Dr. Lyall*. (A single filament only !)
30. *HORMOTRICHUM Carmichaelii*, Harv. *Ner. Bor. Amer.* 3, p. 90.
HAB. Wellington Channell, *Dr. Lyall*.
31. *HORMOTRICHUM boreale*, Harv. *Ner. Bor. Amer.* 3, p. 90.
HAB. Whalefish Islands, *Dr. Lyall*.
32. *HORMOTRICHUM Wormskioldii*, Kütz. *Ner. Bor. Amer.* 3, p. 91.
HAB. Dredged in 6 fathoms, in Queen's Channel, 76° 29' N., 96° 13' W.. *Dr. Lyall*.
Coast of Greenland, *Lyngebye*.
33. *MOUGEOTIA (species innominata.)*
HAB. In fresh water. Isle of Disco, *Dr. Lyall*.
34. *LYNGBYA muralis*, var. *aquatica*. *Ner. Bor. Amer.* 3, p. 104.
HAB. In pools of fresh water, Whalefish Islands, *Dr. Lyall*.
35. *ULVA latissima*, L. *Ner. Bor. Amer.* 3, p. 59.
HAB. Isle of Disco, and dredged in Queen's Channel, *Dr. Lyall*.
36. *ULVA bullosa*, L. *Ner. Bor. Amer.* 3, p. 60.
HAB. In pools of fresh water, Whalefish Islands, *Dr. Lyall*.
37. *ENTEROMORPHA intestinalis*, Link. *Ner. Bor. Amer.* 3 p. 57.
HAB. Whalefish Island, *Dr. Lyall*. (Probably universally spread.)
38. *OSILLATORIA corium*, Ag. *Harv. Man. Ed.* 1 p. 166.
HAB. On stones in a running stream. Wellington Channel, *Dr. Lyall*.
39. *NOSTOC arcticum*, Berk. *Ner. Bor. Amer.* 3, p. 113.
HAB. Assistance Bay, lat. 75° 40' N., *Dr. Sutherland*.
40. *NOSTOC verrucosum*, Vauch. *Ner. Bor. Amer.* 3, p. 114.
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41. *NOSTOC Sutherlandi*, Dickie. *Ner. Bor. Amer.* 3, p. 114.
HAB. Winter quarters, Baffin's Bay, *Dr. Sutherland*.
42. *NOSTOC microscopicum*, Carm. *Ner. Bor. Amer.* 3, p. 115.
HAB. Baffin's Bay, *Dr. Sutherland*.

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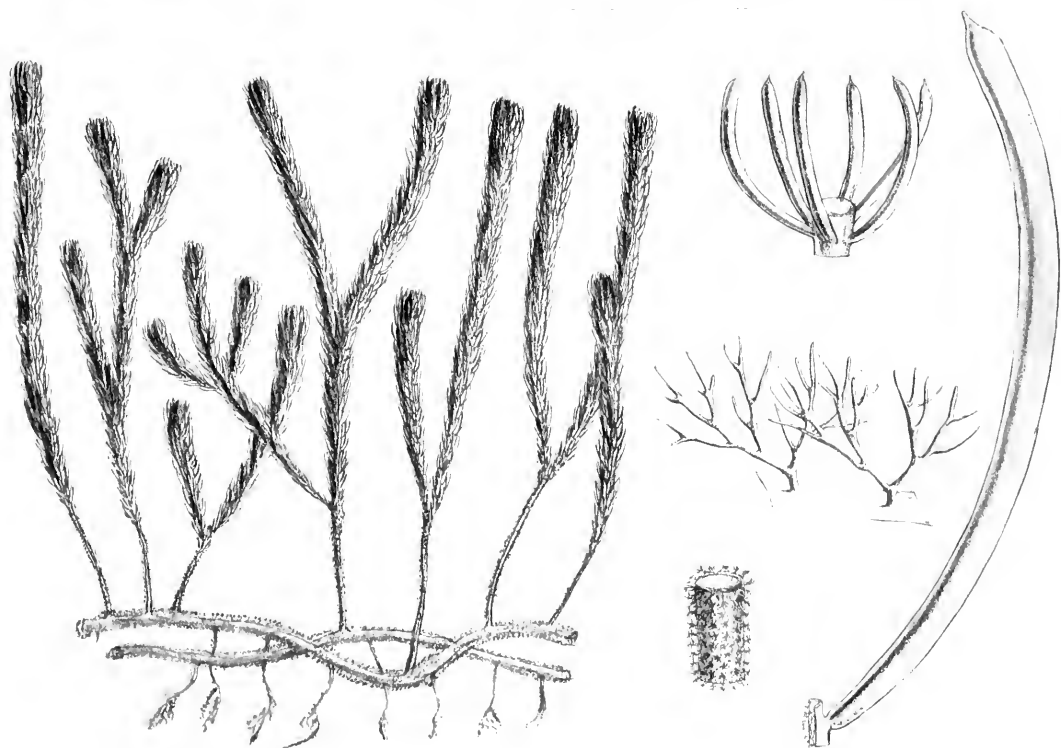
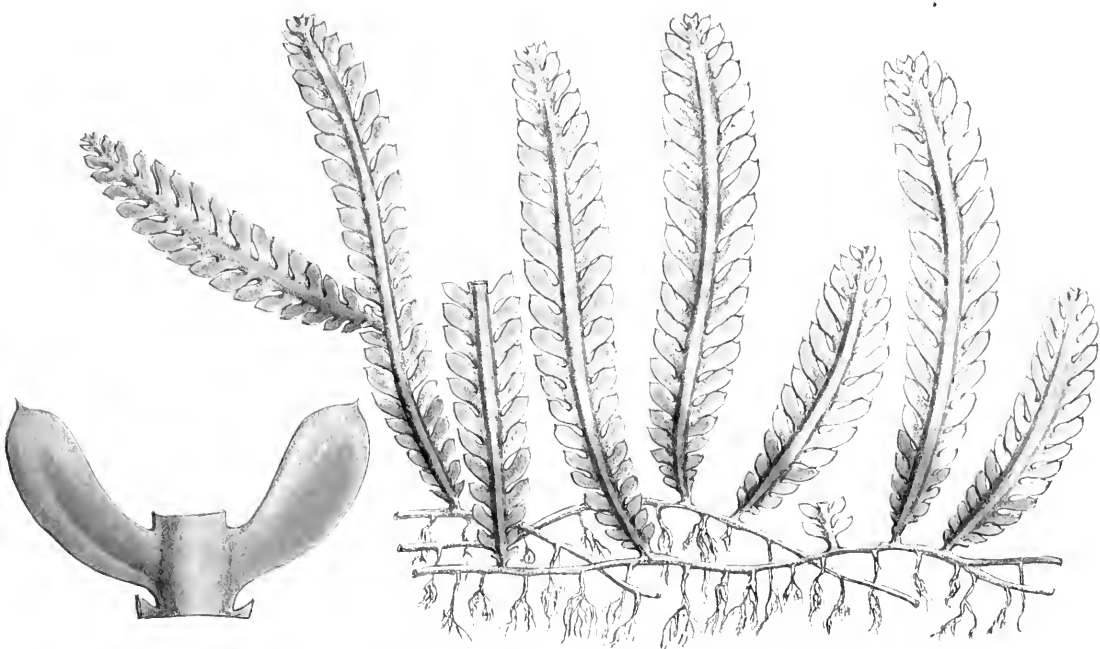
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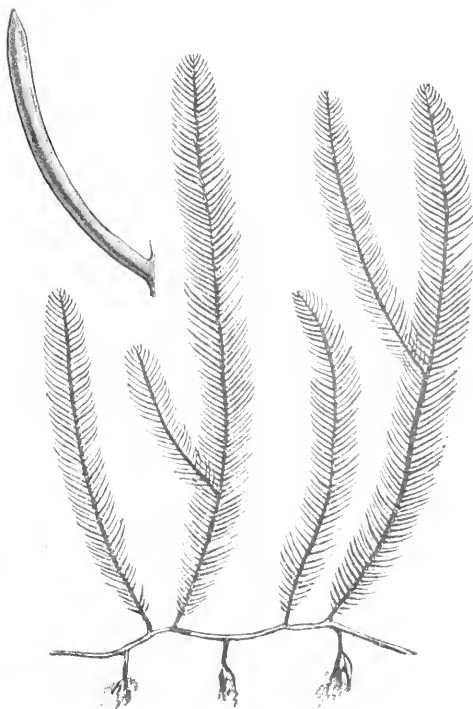
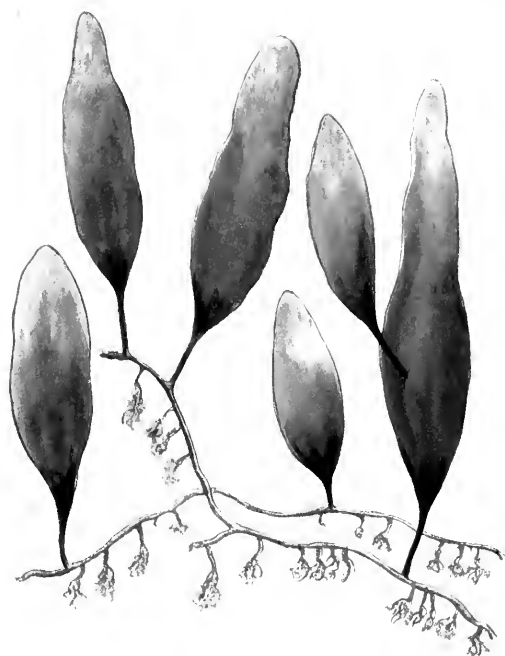
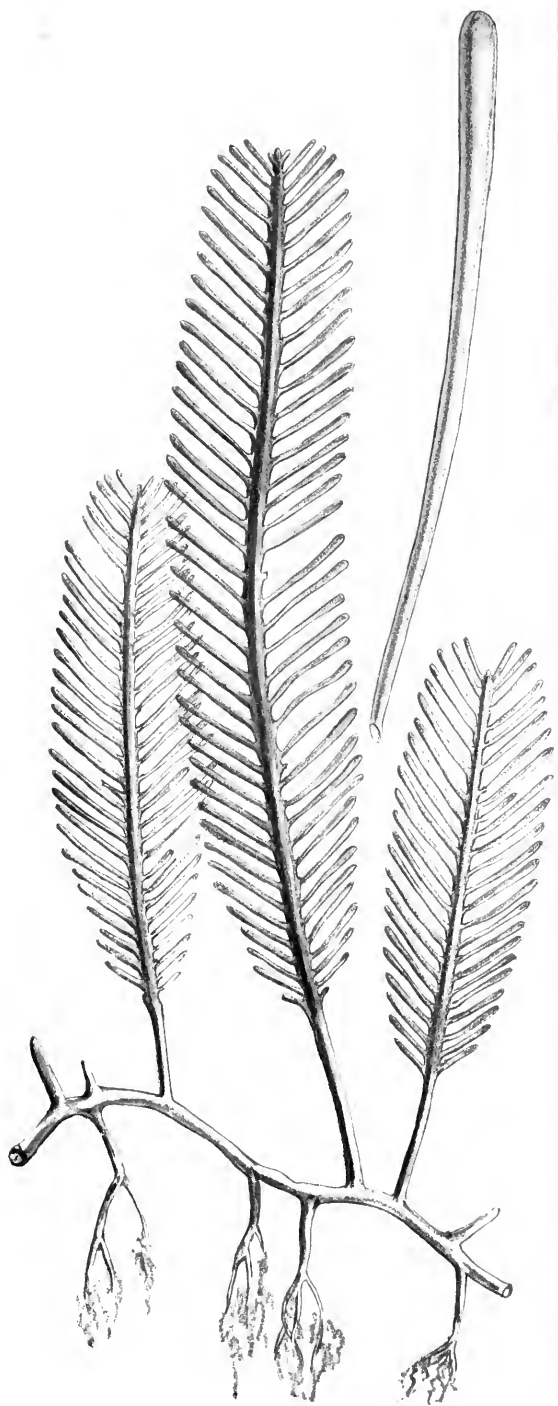
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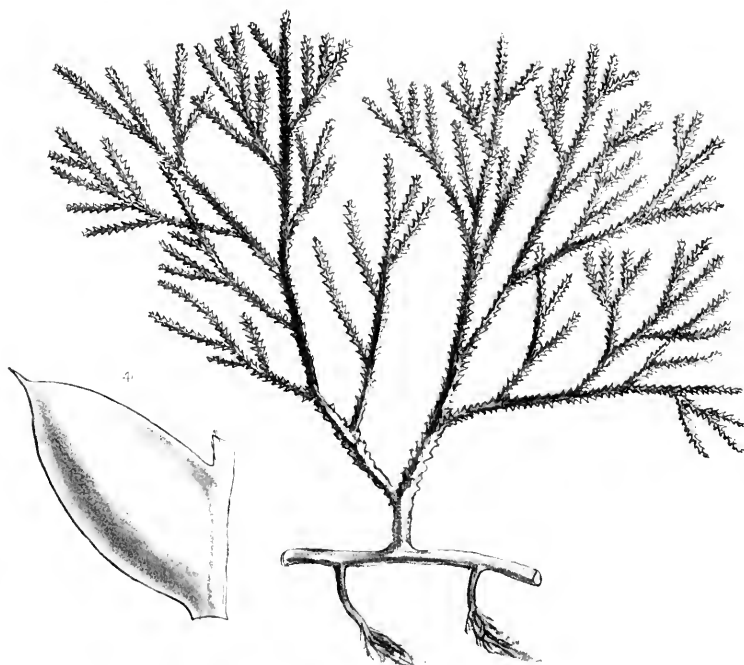
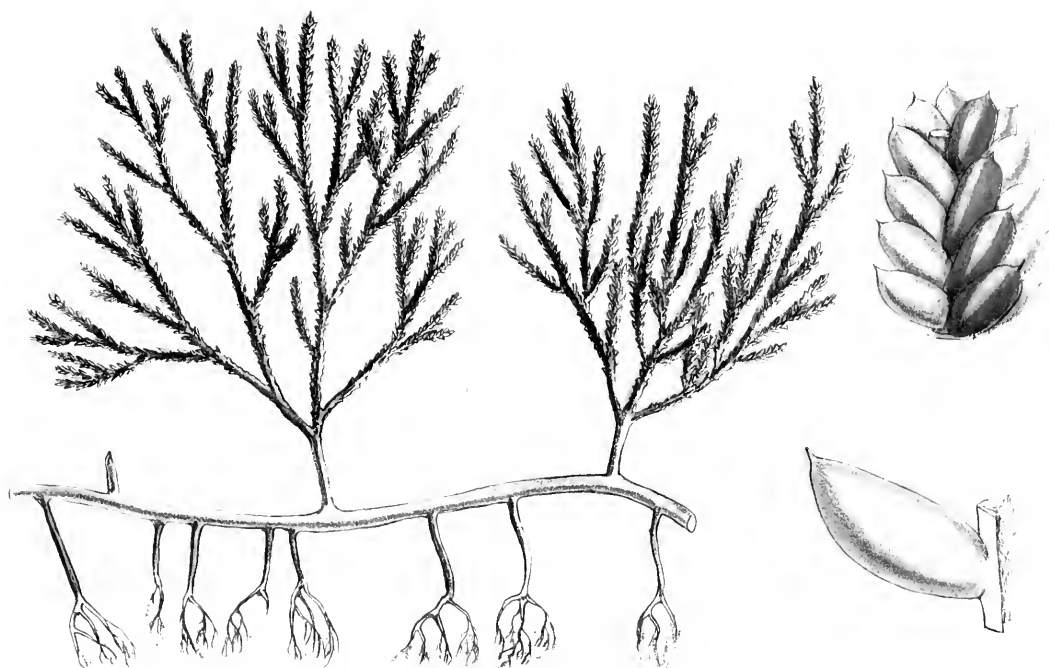
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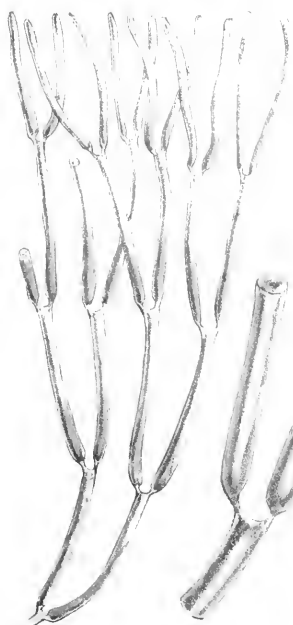
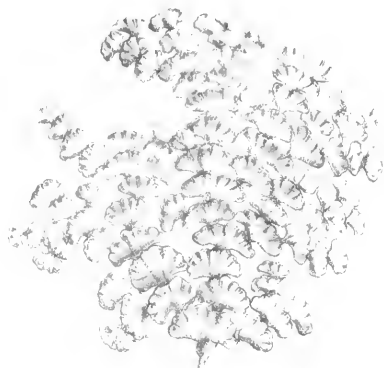
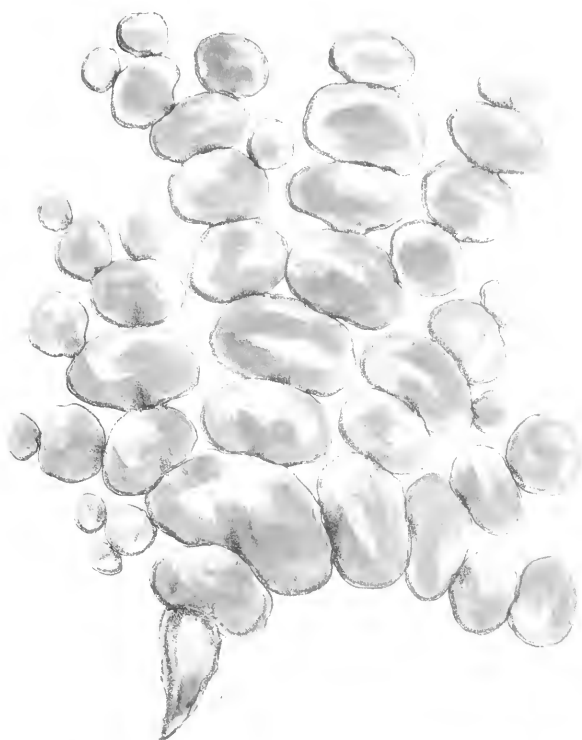
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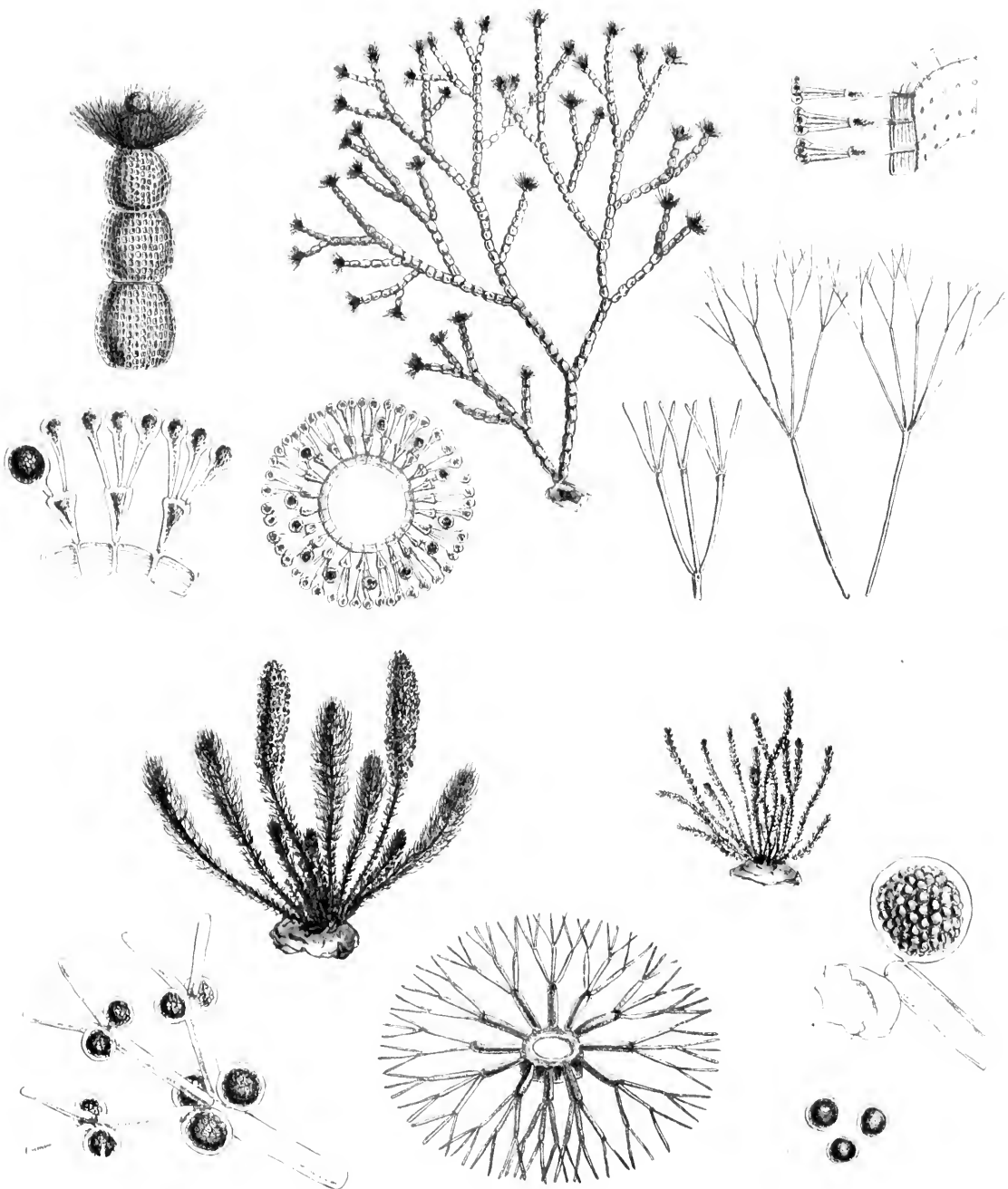
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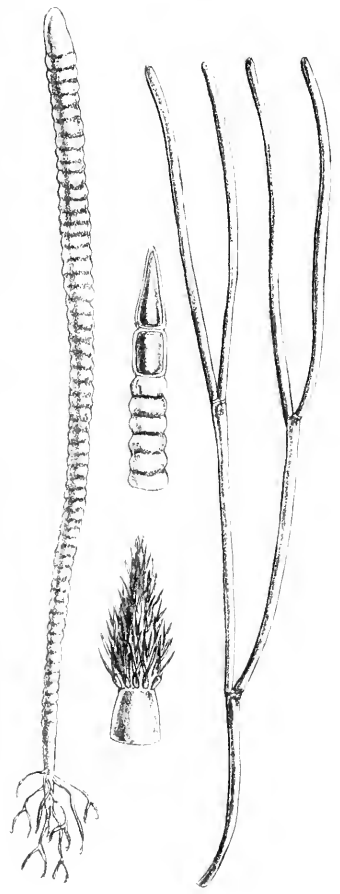
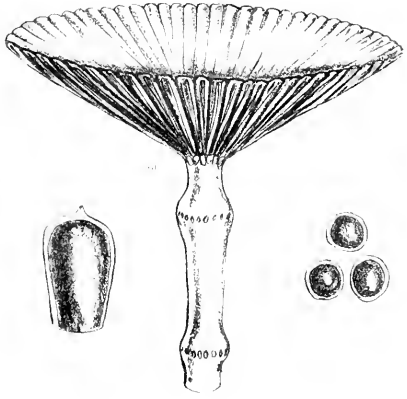
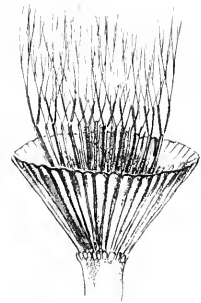
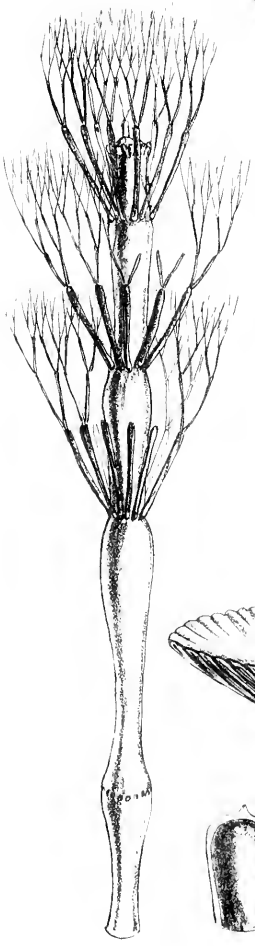


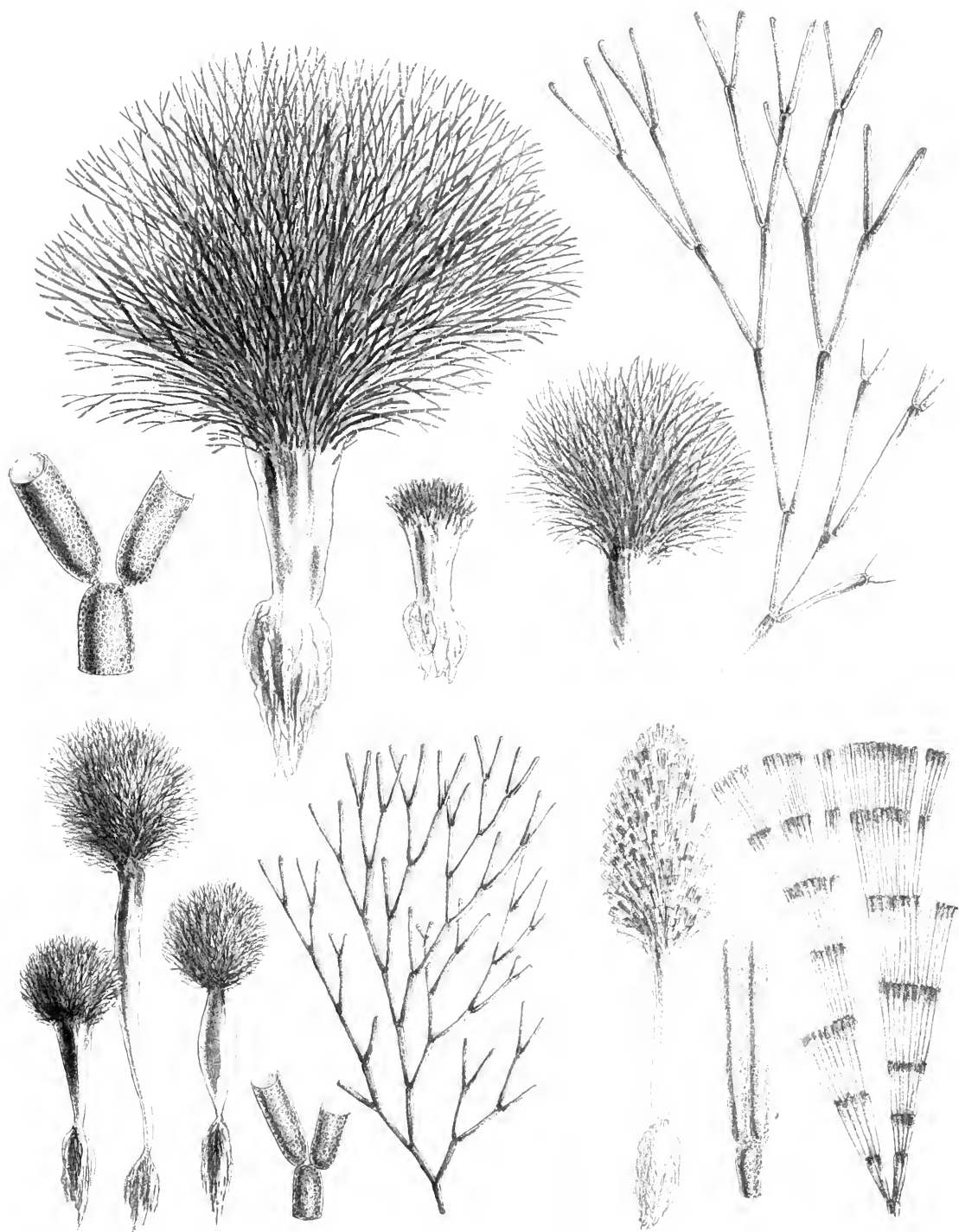


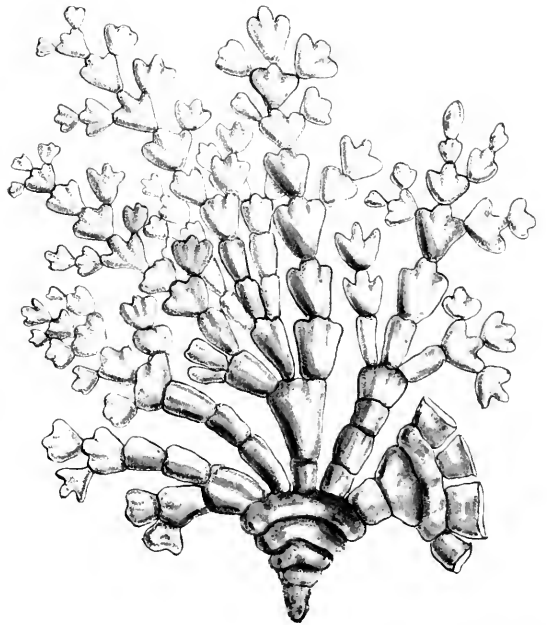
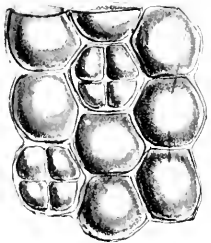
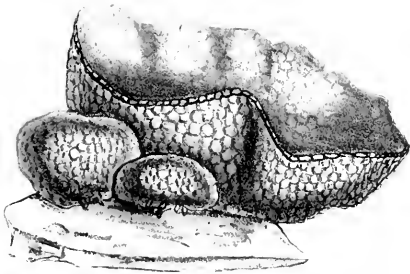
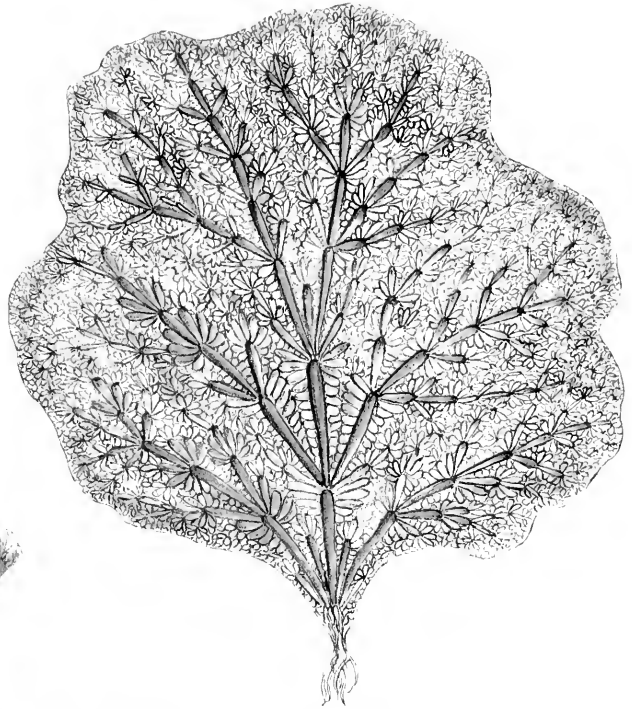


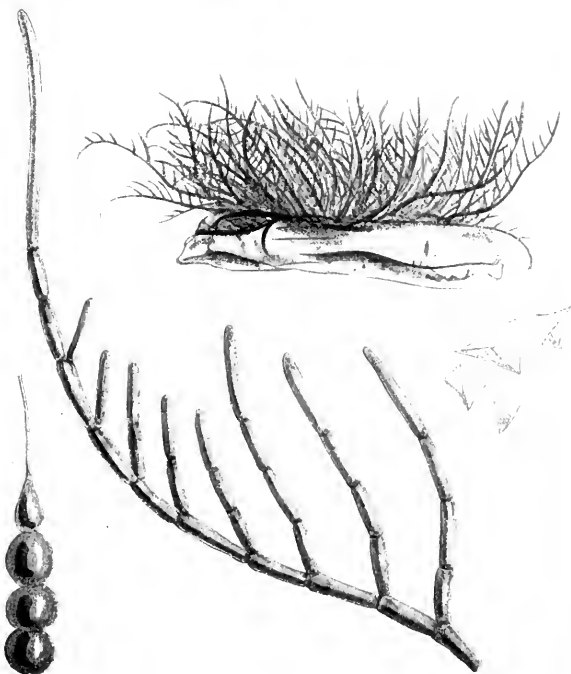
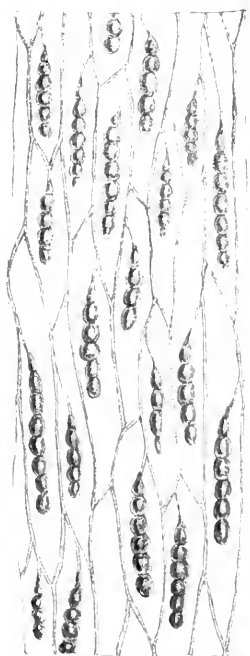
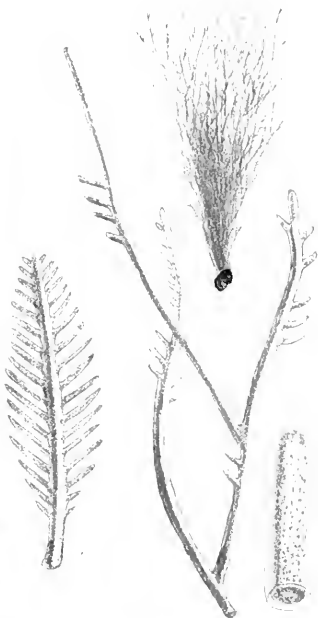






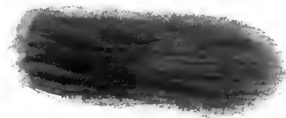
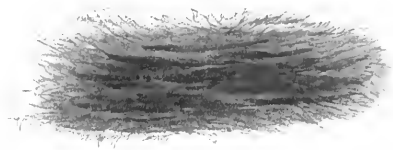
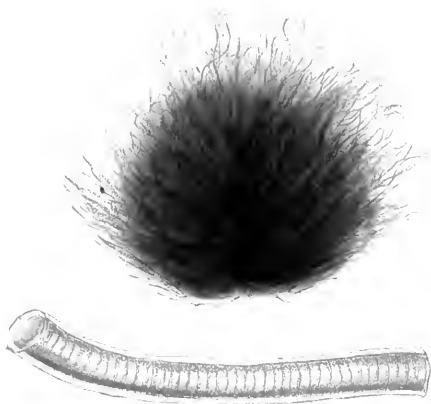




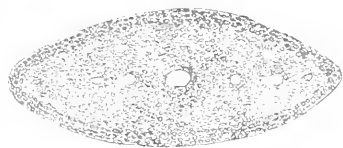
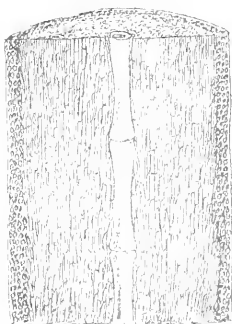
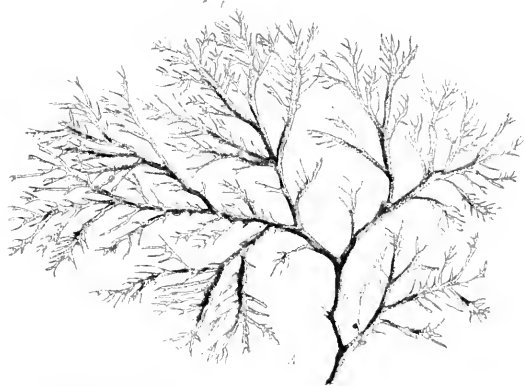
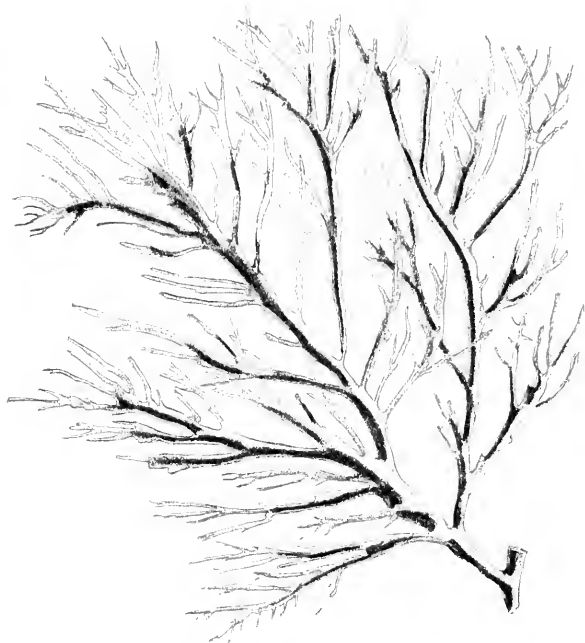
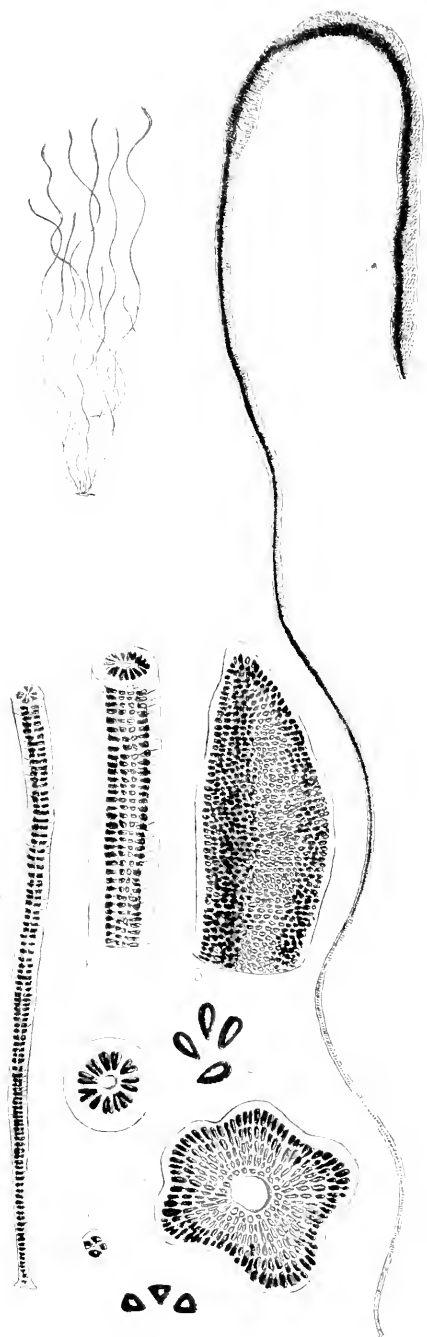


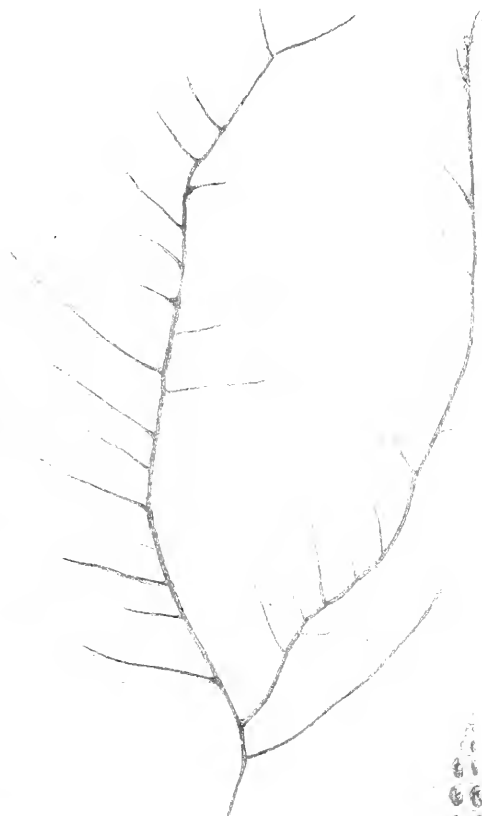
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SMITHSONIAN CONTRIBUTIONS TO KNOWLEDGE.

MAGNETICAL OBSERVATIONS

IN THE

A R C T I C S E A S.

BY

ELISHA KENT KANE, M.D., U.S.N.

MADE DURING THE SECOND GRINNELL EXPEDITION IN SEARCH OF SIR JOHN FRANKLIN,
IN 1853, 1854, AND 1855, AT VAN RENSSELAER HARBOR, AND OTHER
POINTS ON THE WEST COAST OF GREENLAND.

REDUCED AND DISCUSSED,

BY

CHARLES A. SCHOTT,
ASSISTANT U. S. COAST SURVEY.

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INTRODUCTORY LETTER.

WASHINGTON, May 17, 1858.

PROFESSOR JOSEPH HENRY, LL.D.,

Secretary of the Smithsonian Institution:

DEAR SIR: The records of the magnetic observations made under the direction of Dr. Kane, in the second expedition to the Arctic regions, were placed in my hands by his late lamented father, Judge Kane, in December last.

Dr. Kane had selected Assistant Charles A. Schott, of the Coast Survey, for the reduction of a considerable portion of the observations made in that expedition; and I, therefore, placed these in Mr. Schott's possession for reduction and discussion. The work has been faithfully performed, and I recommend it for publication in the "Smithsonian Contributions to Knowledge." It is proper to state that the instruments were furnished by the Coast Survey and the Smithsonian Institution, and that the computations have been made at the expense of the latter.

Very respectfully, yours,

A. D. BACHE.



SECTION I.

MAGNETIC DECLINATION.

1854.



COMMENTS AND ADJUSTMENTS.

Instruments.—The observations for diurnal inequality as well as those for absolute declination, were made with a Jones unifilar magnetometer (No. 3), kindly loaned by Prof. A. D. Bache, Superintendent U. S. Coast Survey. The azimuth circle reads to 20" and the centre division of the scale reads 280. The magnet was suspended by means of a silk thread $9\frac{1}{2}$ inches in length. Several trials to determine the effect of torsion gave such small quantities that it was not considered necessary to take the same into account. The instrument was not originally intended to give absolute declinations, but at the Winter Quarters the observer succeeded in obtaining a few values for absolute declination by detaching the box, containing the magnet, from the circle which bears the telescope. The same was then moved in azimuth until a well defined object within the small range of its vertical motion could be observed. The focus of the telescope was adjusted to the distance. We find the instrument "perched on a pedestal of frozen gravel," the contents of two barrels. This mounting was considered as stable as the rock underneath. On the 9th of June, 1854, Mr. Sonntag examined the instrument in reference to local disturbance, and found no sensible deviation arising from such a source. "The local deviation seems to have corrected itself; the iron in our comfortable little cell seems to have been so distributed that our results were not affected by it." (Narrative, vol. I.) The adjustments were made according to Ridel's magnetical instructions. The mirror attached to the suspended magnet faces the magnetic north. The following are the determinations for the angular value of a scale division:—

Circle.	Scale.	Circle.	Scale.	
Readings; January 13, 1854.		Winter Quarters, Van Rensselaer Harbor.		
120° 60'—58'	454.5	118° 11'—07'	2534.0	} Taking alternate means, we obtain from each set the values:— 1 ^d = 0'.797.
120 16—14	100.7	117 34—30	303.0	
120 16—14	92.5	117 34—30	303.2	
119 30—27	153.5	116 49—46	351.0	
119 30—27	148.0	116 49—46	354.5	
118 48—45	199.0	116 13—10	394.0	
118 48—45	201.0	116 05—00	405.5	
118 11—07	250.5	115 31—29	451.0	

Circle.	Scale.	Circle.	Scale.	
Readings; January 16, 1854.				(Dr. Hayes, observer.)
119° 31'—31'	452.4	121° 53'—55'	256.4	} $I^d=0'.741.$
120 48—46	350	123 19—18	150	
120 48—46	353	123 19—18	149	
122 09—06	251	124 42—40	42	
Readings; February 16, 1854.				
127° 04'—04'	624.5	121° 34'—34'	453.0	} $I^d=0'.839.$
125 55—56	153.0	122 55—56	356.0	
125 55—56	136.0	122 55—56	360.0	
124 18—17	257.0	124 23—24	249.0	
124 18—17	259.7	124 23—24	254.0	
123 00—00	355.0	125 47—47	150.0	
123 00—00	354.5	125 47—47	145.5	
121 34—34	463.0	127 05—05	42.0	
Value resulting, equal mean of all or one division of scale = 0'.804.				
Value adopted = 0'.80.				
An $\left\{ \begin{array}{l} \text{increase} \\ \text{decrease} \end{array} \right\}$ of scale readings indicates a movement of the north end of the magnet to the $\left\{ \begin{array}{l} \text{east} \\ \text{west} \end{array} \right\}$.				

A well rated pocket chronometer, nearly showing Greenwich mean time, was used for noting the time.

Diurnal Variation.—The observations for changes of magnetic declination were made during the months of January, February, and March, 1854, at the following dates:—

January 10-11	.	.	.	and	.	.	.	February 10-11
" 13-14	.	.	.	"	.	.	.	" 14-15
" 24-25	.	.	.	"	.	.	.	" 17-18
" 27-28	.	.	.	"	.	.	.	" 21-22
" 31-32	.	.	.	"	.	.	.	" 28-29
February 3-4	.	.	.	"	.	.	.	March 3-4
" 7-8	.	.	.	"	.	.	.	" 7-8

To these must be added the term days during the same period of the year, viz: January 18-19, February 24-25, and March 22-23. The remaining three terms in April, May, and June, of the same year, furnish values of the change of the diurnal inequality at a later season. Readings (the mean of two extremes during a vibration when the magnet was in motion) were taken every sixth minute, commencing, with but one exception, between 4 and 5 o'clock in the afternoon. The error of the chronometer has been applied and the time in the abstracts is given in local mean (astronomical) time. The readings are, as stated above, uncorrected for torsion, and are expressed in scale divisions. In regard to the observers, Dr. Kane remarks in his narrative: "It was not until the close of the winter that I was able to take my share in the preceding (the observations for variation) or the term-day observations; and I desire to express my obligations to Dr. Hayes and

Mr. Bonsal, as well as to George Stephenson, for their zealous and intelligent co-operation with Mr. Sonntag and myself." Each set of observations extends over twenty-four hours; they were taken nearly one minute earlier (between 56" and 40") than indicated in the abstract. The general remark on page 435 of the second volume of the Narrative, "the scale reading 280 corresponds to a magnetic declination of $108^{\circ} 3'$ west, etc.," appears to leave no doubt that the instrument was left undisturbed, and there being no statement to the contrary, we can assume the hourly and daily means at the several days of observation to refer to the same zero or to be comparable amongst themselves. At a later period in June, 1854, the azimuth circle appears to have turned about 19 minutes.

Term-day Observations.—There were six in number. The observations commence at 10 P. M., mean Göttingen time, or about $4^{\text{h}} 37^{\text{m}} 34^{\text{s}}$ mean Fern Rock time, the difference of longitude being assumed to equal $5^{\text{h}} 22^{\text{m}} 26^{\text{s}}$. The observations were not taken at the precise instant as indicated in the abstracts; the small deviation is noted at the head of each table.

Absolute Declination.—The expedition not being provided with a proper instrument, the magnetometer was temporarily converted into a declinometer by Mr. Sonntag, who determined the declination on June 9th, the 14th, and the 26th, 1854. The top of a mountain was used as a mark; it bore south 22° west (magnetic).

The mirror attached to the magnets can be inverted so that the mean reading of mirror direct and mirror reversed corresponds to the reading of the magnetic axis of the magnet.

Geographical Position of Observatory.—The latitude and longitude of the astronomical observatory has been determined as follows: Lat. $78^{\circ} 37'.0$ north, Long. $70^{\circ} 40'$ west of Greenwich. (See p. 305, vol. II. of the Narrative, also pp. 385 and 387 of the same volume.) The island (Observatory Island) on which the observatory (Fern Rock Observatory) was placed, was some fifty paces long by perhaps forty broad. (See p. 116, vol. I. of Narrative.) The magnetic observatory was adjoining; it was of stone, ten feet square, with a wooden floor as well as roof, and supplied with a copper fire grate. No iron was used in its construction.

The following is an extract of note 56, p. 464, of vol. I. of the Narrative: "The subjoined are given as aids to physical inquiry on the part of future travellers: Directions to sites of Rensselaer harbor. The observatory was placed upon the northernmost of the rocky group of islets that formed our harbor. It is seventy-six English feet from the highest and northernmost salient point of this island, in a direction S. 14° E., or in one with said point and the S. E. projection of the southernmost islet of the group. A natural face of gneiss rock formed the western wall of the observatory. A crevice in this rock has been filled with melted lead, in the centre of which is a copper bolt. Eight feet from this bolt, and in the direction indicated by the crevice, stood the magnetometer. This direction is given in case of local disturbance from the nature of the surrounding rocks."

The highest point of the island was about thirty feet above the mean tide level of the harbor. The observatory was known by the name of "Fern Rock Observatory."

Mean local time.	36m.	42m.	48m.	54m.	60m.	66m.	72m.	78m.	84m.	90m.	96m.	Mean local time.	Hourly means.
Fern Rock Observatory, January 10 and 11, 1854.													
4 ^h	300 ^d	300 ^d	299 ^{d.3}	299 ^d	295 ^{d.5}	294 ^d	294 ^d	294 ^d	293 ^d	291 ^{d.45}	5 ^h	296 ^{d.0}	
5	291	290.8	290.7	300	295.2	292.8	292	290.8	289	288.4	6	292.1	
6	290.2	292	290.6	288	290	287.5	284	282.5	281	280	7	286.6	
7	280	279	277	276	277.5	278	279.5	280	280.5	281	8	278.9	
8	282	283	284	284	285	285	287	286	286	285	9	284.7	
9	286	287	286	288	290	289	292	290	287	286	10	288.1	
10	289	292	294	295	295	297.5	298	303	304	303	11	297.0	
11	300.5	300	300	299	298	298	297	298.5	303	304	12	299.8	
12	304	306	307	308	310	307.5	311	311.5	310	310.2	13	308.5	
13	310	309	308.5	308.2	309.3	310	309.8	306	313	314	14	309.8	
14	312	310	310	309	308	306	303.3	303.5	306	308	15	307.6	
15	309.5	308	305.8	306	304.5	303	301.5	306	306	305	16	305.5	
16	304	302	298	298	301	301	295	290	289	289	17	296.7	
17	289	286	287	288	292	287	302	299	297	299	18	292.6	
18	287	285	283	283	282	268	252	241	244	246	19	267.1	
19	249	255	256	254	257	270	291	295	294	298	20	271.9	
20	290	277	273	271	273	250	275	270	260	251	21	269.0	
21	260	266	257	249	248	247	251	253	255.3	248.6	22	253.5	
22	246.3	255	260	258	256.5	254	256.5	258.5	257	256	23	253.8	
23	258	262	267.5	270	272	278.5	282.3	279.0	280	273.5	0	272.3	
0	272	270	263	259	253	251	250	246	254	252	1	257.0	
1	252	360	265	268	269	271	273	273	274	274	2	267.9	
2	274	279	275	274	278	276	275	276	276	280	3	276.3	
3	291	289	294	297	300	301	302	304	304	305	4	298.7	
4	312	314	310	312	314						Mean	284.7	
Fern Rock Observatory, January 13 and 14, 1854.													
4 ^h	302 ^d	304 ^d	308 ^d	311 ^d	314 ^d	317 ^d	315 ^d	313	300 ^d	299 ^d	295 ^d	4 ^h	311 ^{d.9}
5	317	314	311	313	315	319	322	328	333	335	337	5	321.1
6	339	340	336	331	326	330	328	316	329	335	337	6	331.0
7	340	338	344	346	348	343	342	342	345	349	8	343.7	
8	350	364	371	371	368	366	358	356	350	349	9	360.3	
9	344	338	334	329.5	329	327	330	336	342	342	10	335.1	
10	339	339.5	335.5	340	347.5	350	349	348.7	350.2	354.8	11	345.4	
11	354	352	350.8	353	351	347	343	343	344.8	342.8	12	348.1	
12	341	342											

Mean local time.	36m.	42m.	48m.	54m.	60m.	66m.	72m.	78m.	84m.	90m.	Mean local time.	Hourly means.
Fern Rock Observatory, January 24 and 25, 1854.												
4 ^h	307 ^d .3	310 ^d	313 ^d	315 ^d	317 ^d	318 ^d	323 ^d	326	331	333	5	319 ^d .3
5	337	340	342	346	348	350	353	355	353.5	354	6	347.8
6	355	355	357	357	359	360	361.5	363	361	369	7	359.7
7	373	371	366	363	368	367	366	367	367	366	8	367.4
8	364	363	362	357	356	358	360	362	364	365	9	361.1
9	364	361	358	362	365	367	363	359	357	356.5	10	361.2
10	355	354	354.5	357	356	358	358.5	360.5	359	358.5	11	357.1
11	356.5	354	356	358.5	359	361	363	364	359	352	12	358.3
12	350	352	353.5	351.5	352	354	356	359.5	361	363	13	355.2
13	360	355	359	368	370	370	373	366	361	358	14	364.0
14	360	366	365	361	359	353	351	350.8	350	349	15	356.5
15	347	348	347	344	344	344.5	342	343	340	340	16	344.0
16	340	342	344	344	344	344	343	343	343	342	17	342.9
17	340	338	338	337	337	338	338	339	341	342	18	338.8
18	344	345	348	348	347	346	346	346	347	347	19	346.4
19	347	348	348	349	350.5	350	349.5	348	346	336	20	347.2
20	322	316	318	318.5	320	321	308	305	304	301	21	313.3
21	301.5	300.5	292	291	286	291.5	304	302	310	314	22	299.2
22	317	315	315	314	316	316	318	316	314	314	23	315.5
23	315	313	312	313	314	310	309	309	308	300	0	310.3
0	298	301	304	302	292	287	282	285	288	294	1	293.3
1	300	305	300	294	292	304	304	311	309	310	2	302.9
2	312	314	316	312	308	310.5	314	315	315	314.5	3	313.1
3	316	316.5	318	316	310.5	310	310	312	315.6	318.5	4	314.3
4	311.5	310.5									Mean	337.0

Fern Rock Observatory, January 27 and 28, 1854.

4 ^h	306 ^d	305 ^d	307 ^d	313 ^d	320 ^d	327 ^d	321 ^d	315 ^d	312 ^d	308 ^d	5 ^h	313 ^d .4
5	304	302	302	306	307	308	306	308	314	316	6	307.3
6	320	325	330	332	328	326	324	323	325	326	7	325.9
7	326	328	323	324	324	325	325	320	319	320	8	323.4
8	319	319	319	319	318	319	320.5	321	322	322	9	319.8
9	322	322	322	322	323	324	323.7	324	323	323	10	322.9
10	322	320	322	323.7	325.8	326.5	327	327.3	325	328	11	324.7
11	329	329.8	330	329	328	326	326	337	338	334.7	12	330.7
12	332	342	342.2	341	339.5	334	331	328	330	331	13	335.1
13	331.4	336	337	334	330	336	334	332	331	330	14	333.1
14	330	332	334	330	338	347	357	353	348	344	15	341.3
15	346	348	348	346	345	345	346	351	356	350	16	348.1
16	346	345	347	348	349	355	359	364	368	370	17	355.1
17	378	380	384	386	388	389.5	388	387	387.5	386	18	385.4
18	386	386	386	386	385	381	378	375	375	374	19	381.2
19	374	373	370.8	365	365	360	355	355.5	352	349.5	20	362.0
20	360	365	362	360	356	353	352	351.5	353	356	21	356.8
21	354.5	356	357.5	360	362	364.5	365	365.5	363	361	22	363.8
22	359	360	361	362	363	365	367	368	365	363	23	363.3
23	360	356	341	346	341.5	336	337	338	338	335	0	342.8
0	332	335	339	342	341	340	340	341	342	346	1	339.8
1	351	356	360	359	358	363	355	362	357	354	2	357.5
2	350	350	350	348	346	350	345	344	349	350	3	348.2
3	352	352	353	353	358	359	354	340	333	332	4	348.8
4	336	340	343	345	345						Mean	342.9

Value of a division of the scale 0'.80.

Increase in scale readings corresponds to a movement of the north end of the magnet to the east.

Aurora visible on the 27th and 28th.

Mean local time.	36m.	42m.	48m.	54m.	60m.	66m.	72m.	78m.	84m.	90m.	Mean local time.	Hourly means.
Fern Rock Observatory, January 31 and February 1, 1854.												
4 ^h	332 ^d .5	340 ^d	341 ^d .5	335 ^d .5	345 ^d	333 ^d .5	331 ^d .5	304 ^d	306 ^d	325 ^d	4 ^h	335 ^d .0
5	326	327	328.5	321	318	311	313	320	325	330	5	322.2
6	338	341	348	356	358	359.5	356	357	358	358	6	352.2
7	359	359	360	360.5	361	362	363.5	365	367	368.5	7	362.5
8	370	372	372	371	371	370	371	371	371	372	8	371.4
9	372	372	373	373	374	372	372	372	371	370	9	372.1
10	368	368	367	361	361	365	371	370	369	367	10	367.0
11	365	366	370	377	376	377	380	387	384	382	11	376.4
12	379	374	375	376	374	373	370	368	374	375	12	373.8
13	376	376	380	384.5	385	381	383.5	382	380	378	13	380.9
14	379	381.5	383	381	385.5	383	380	379	376	370	14	380.1
15	368	365	364	365	367	369	371	373.5	374	375	15	369.1
16	374.5	375	375	374.5	374	375	374	374	373	373	16	374.2
17	373	374	374.5	375	374	374	374	375	378	382	17	375.3
18	385	387	390	389	388	388	389	390	385	386	18	387.2
19	387	388	389.8	387	389	389	389	387	387	386	19	387.9
20	385	385	385	384.5	383	382	382	382	376	370	20	381.4
21	367	369	370	370	292	288	278	284	285	291	21	319.4
22	294	297	311	328	338	348	359	350.5	351	350	22	333.5
23	342	338	334	318.5	314	312	311	314	318	323	23	322.4
0	329.5	331	322	332	333	312	346	350	359	365	0	340.9
1	379	370	370	375	381	379	375	372	368	364	1	372.4
2	359	356	355	351	352	351	351	350	363	373	2	356.4
3	375	377	377	380	382	376	376	378	380	386	3	378.8
4	390	396	400	398	396	407	419	430	440		4	
											Mean	362.2
Fern Rock Observatory, February 3 and 4, 1854.												
8 ^h	348 ^d	353 ^d	358 ^d	363 ^d .5	367 ^d .5	372 ^d	374 ^d	336 ^d	335 ^d	342 ^d	8 ^h	366 ^d .0
9	377	376	375	373	370	365	363	362	362	363	9	368.6
10	369	370	372	372.5	371	377	378	378.7	379	385	10	375.5
11	386	388	390	393	400	408	407	404	402	398	11	397.6
12	403	408	406	407	410	408	406	405	408	410	12	407.1
13	413	410	411	415	435	450	454	456	457	430	13	433.1
14	425	415	412	411	411	410	406	405	400	400	14	409.5
15	400.5	400	398	397	396	394	390	385	392	408	15	396.0
16	411	411	418.5	408	397	393	389	389.5	389	389	16	399.8
17	390	392	393	391	389	388	378	362	342	337	17	376.2
18	335.5	336	342	351	362	380	386	409	367	350	18	361.8
19	339	336	308	323	316	309	296	285	270	262	19	302.8
20	261.5	260	258	261	262	275	270	274	278	287	20	268.6
21	295	302	303	299	296	300	303	320	334	340	21	309.2
22	355	354	344	332	340	362	350	342	340	344	22	346.3
23	348	352	345	341	336	320	315	314	311	315	23	329.4
0	320	332	336	340	345	340	339	339	348	346	0	339.6
1	346.5	346	345	350	340	332	340	346	325	305	1	337.5
2	298	308	315.5	316	314	311	311	310	308.5	306	2	309.8
3	304	302	300	294	286	294	301	307	319	333	3	304.0
4	345	349	349	353	358	361	362	361	361	362	4	356.7
5	360	358	356	359	362	362	364	362	368	370	5	362.1
6	369	366	371	375	378	377	375	380	390	389	6	376.0
7	389	379	373	371	370	370	370	371	371		7	(373.5)
											Mean	358.6
Value of a division of the scale 0'.80. Increase in scale readings corresponds to a movement of the north end of the magnet to the east.												

NOTE.—Another stove had been put up temporarily; it was removed at the close of the observations.

AT VAN RENSSELAER HARBOR.

9

Mean local time.	36m.	42m.	48m.	54m.	00m.	06m.	12m.	18m.	24m.	30m.	Mean local time.	Hourly means.
Fern Rock Observatory, February 7 and 8, 1854.												
4 ^h	316 ^{4.5}	317 ^d	317 ^d	316 ^d	314 ^d	314 ^d	315 ^d	316 ^d	317 ^d	317 ^d	4 ^h	
5	319	320	322	323	322	320	321	323	326	329	5	315 ^{4.7}
6	333	336	339	342	344	345	347	349	345	339	6	322.5
7	341	345	349	355	355	361	354	346	352	356	7	341.9
8	357	356.5	356	355	354	354	355	355	355	356	8	351.1
9	356	356	356	355	354	352	352	354	355	360	9	355.3
10	369	370	369	368	368	369	370	372	374	375	10	370.4
11	377	379	375	370	367	368	368	368	368	368	11	370.8
12	367	367	368	369	370	372	375	377	380	383	12	372.8
13	386	389	392	395	396	394	392	389	389	390	13	391.2
14	389	387	386	381	381	378	375	372	369	365	14	378.6
15	362	359	355	350	346	342	337	336	334	333	15	345.4
16	333	334	331	335	336	338	339	339	338	336	16	336.2
17	330	325	320	314	311	308	304	302	301	302	17	311.7
18	302	302	298	294	290	287	284	280	276	273.5	18	288.6
19	271	270	268	266.5	274	283	287	290	294	294	19	279.7
20	295	297	298	300	301	305	307	310	313	313	20	303.9
21	313	312	312	311	303	295	287	294	294	295	21	301.6
22	297	298	296	295	293	294	301	310	319	326	22	302.9
23	322	323	325	323	322	321	319	318	314	312	23	319.9
0	306	299	300	301	303	306	310	320	328	334	0	310.7
1	335	336	337	336	332	329.5	330	332	332	330	1	332.9
2	327.5	320	313	308	301	296	288	291	308	315	2	306.7
3	317	315	312	309	313	320	329	333	333	334	3	321.5
4	336	341	347	350	352						4	
											5	
											Mean	332.8
Fern Rock Observatory, February 10 and 11, 1854.												
4 ^h	261 ^d	266 ^d	272 ^d	284 ^d	294 ^d	300 ^d	306 ^d	312	318	323	4 ^h	
5	330	340	352	366	368	362	354	352	355	362	5	293 ^{4.6}
6	360	358	357.5	360	366	365	365	364	366	368	6	354.1
7	371	373	376	378	380	384	385	385	390	396	7	362.9
8	396	395.5	394	392.7	394	390	390	389	387	387	8	381.8
9	387	386	386	386	380	382	382	382	382	382	9	391.4
10	382	381	380	378	377	376	376	375	374	374	10	383.5
11	376	380	383	385	385	385	386	386	386	387	11	377.3
12	388	389	389	392	393	392	390	390	392	394	12	383.9
13	396	397	396	394	392	400	412	420	424	422	13	390.9
14	422	430	444	460	464	470	487	480	493.5	498	14	405.3
15	501	504	503	499	479	460	448	429	417	407	15	464.8
16	405	400	398	397	395	389	383	379	371	368	16	461.7
17	362	370	377	373	369	365	357	348	348	350	17	388.5
18	350	329	329	325	321	317	312.5	297	288	280	18	384.9
19	272	265	263	261	261	262	262	263	265	266	19	344.8
20	267	268	269	270	273	276	279	274	270	265	20	324.0
21	261	256	251	246	240	238	225	231	239	235	21	271.1
22	216	196	196	193	203	203	202	201	206	211	22	242.2
23	215	216	215	215	211	208	205	203	200	195	23	202.7
0	200	203	204	201	200	199	203	211	215	220	0	205.3
1	227	232	239	254	280	300	311	325	320	320	1	281.1
2	319	319	319	321	327	331	345	350	362	369	2	336.2
3	353	359	361	363	365	365	361	364	365	364	3	362.0
4	361	361	351	351	347						4	
											5	
											Mean	337.2
Value of a scale division 0 ^u .80.												
Increase of scale readings corresponds to a movement of the north end of the magnet to the east.												

Mean local time.	36m.	42m.	48m.	54m.	60m.	66m.	12m.	18m.	24m.	30m.	Mean local time.	Hourly means.	
Fern Rock Observatory, February 14 and 15, 1854.													
^h			304 ^d	303 ^d	304 ^d	303 ^d	307 ^d	311 ^d	316 ^d	324 ^d	^h	(307.40)	
5	331 ^d	339 ^d	343	347	350	352	355	358	359	360	6	349.4	
6	362	362	365	369	372	380	387	396	401	410	7	380.4	
7	393	398	398	401	417	449	440	435	440	440	8	421.1	
8	435	434	428	420	420	412	405	408	413	422	9	419.9	
9	459	450	470	478	487	486	486	491	482	465	10	473.7	
10	462	458	451	443	438	432	426	431	443	457	11	444.1	
11	472	483	494	493	491	487	483	477	458	436	12	477.4	
12	434	414	410	409	410	407	406	408	413	419	13	413.0	
13	428	441	452	456	459	462	473	464	465	462	14	456.2	
14	458	454	450	449	447	446	458	473	478	481	15	459.4	
15	486	489	491	492	490	492	494	494	490	485	16	490.3	
16	478	470	468	460	452	444	434	430	428	420	17	448.4	
17	416	420	414	411	409	404	401	399	396	394	18	406.7	
18	391	376	376	377	378	392	391	366	359	356	19	376.2	
19	349	344	338	320	312	334	340	336	329	329	20	333.1	
20	331	339	350	356	359	354	349	345	331	317	21	343.1	
21	296	292	289	292	292	291	289	287	281	278	22	289.0	
22	275	273	258	246	244	238	234	228	223	218	23	243.7	
23	212	208	211	186	160	138	146	136	132	129	0	165.8	
0	131	114	159	171	181	192	203	211	218	226	1	183.6	
1	236	241	245	246	247	257	269	252	236	238	2	247.0	
2	241	242	210	213	247	251	249	249	251	254	3	247.0	
3	257	266	278	292	316	322	316	311	319	332	4	300.9	
4	331	351	360								Mean	360.7	
Fern Rock Observatory, February 17 and 18, 1854.													
^h	190 ^d	181 ^d	172 ^d	172 ^d	169 ^d	172 ^d	181 ^d	193 ^d	193 ^d	194 ^d	^h		
5	193	183	185	188	180	182	185	195	207	208	6	190.6	
6	208	230	258	298	296	286	272	271	270	270	7	265.9	
7	265	258	252	241	237	230	227	225	226	228	8	239.2	
8	232	235	238	242	249	255	260	260	261	262	9	249.4	
9	262	263	265	268	273	276	279	281	291	300	10	275.8	
10	302	300	280	273	260	249	242	236	228.5	237	11	260.7	
11	241	247.5	245	240	236	231	232	230	229	227.8	12	230.9	
12	225	222	240	238		242	239	236	230	247	253	13	237.2
13	261	248	240	231	233	237	250	244	242	240	14	242.6	
14	238	236	235	238	243	242	240.5	237	234	231	15	237.4	
15	229	229.5	234	239.5	239	238	240	241	243	247	16	238.0	
16	249	251	250	247	245	242	237	233	228	223	17	240.5	
17	218	220	223	228	232	235	237	238	239	240	18	231.0	
18	235	232	230	233	235	237	233	228	234	237	19	233.4	
19	240	234	228	220	204	166	164	147	130	152	20	188.5	
20	179	188	206	230	256	250	241	236	226	217	21	222.9	
21	218	221	224	221	217	208	221	237	244	245	22	225.6	
22	241	248	254	250	247	244	242	241	240.5	240	23	245.0	
23	240	250	252	247.5	238	227	220	219	216	214	0	232.3	
0	244	245	246	220	226	232	236	240	247	255	1	230.1	
1	262	271	180*	190	187	181	181	177	175	174	2	198.1	
2	169	163	156	150	144	146	148	147	152.5	151	3	152.6	
3	154	151	161	175	187	192	201	202	202	208	4	183.3	
4	210	209	226	233							Mean	226.6	
Value of a scale division 0'.80.													
Increase of scale readings corresponds to a movement of the north end of the magnet to the east.													

Mean local time.	36m.	42m.	48m.	54m.	60m.	66m.	72m.	78m.	84m.	90m.	Mean local time.	Hourly means.
Fern Rock Observatory, March 3 and 4, 1854.												
4 ^h	248 ^d	249 ^d	246 ^d	238 ^d	242 ^d	245 ^d	248 ^d	250 ^d	247 ^d	246 ^d	4 ^h	248 ^d .5
5	258	269	281	284	380	279	277	274	275	277	5	275.4
6	280.5	279	272.5	275	270	280	286	290	298	296	6	282.7
7	283	311	315	332	329	326	321	329	347	349	7	324.2
8	356	356	360	352	347	346	330	302	291	283	8	332.3
9	287	290	282	286	275	264	265	267	269	270	9	275.5
10	272	271	276	278	280	282	285	287	290	292	10	281.6
11	295	298	302	306	313	318	322	325	327	329	11	313.6
12	330	337	345	349	352	350	348	345	343	336	12	343.5
13	325	321	313	302	295	299	308	314	309	302	13	308.8
14	297	294	288	292	286	284	280	276	272	285	14	285.4
15	291	294	291	289	282	276	268	264	260	258	15	277.3
16	257	257	256	258	259	260	262	260	258	258	16	258.5
17	257	255	251	244.5	238	230	220	205	190	172	17	226.2
18	152	144	133	134	136	140	143	160	174	198	18	151.4
19	209	216	210	205	201	195	190	186	181	177	19	197.0
20	173	170	167	164	171	178	184	189	193	199	20	178.8
21	206	200	194	188	183	178	172	170	169	164	21	182.4
22	152	160	156	156	153	155	157	154	150	150	22	154.3
23	156	176	195	184	155	160	125	131	131	134	23	154.7
0	135	137.5	135	179	195	184	187	200	197.5	192	0	176.2
1	195	200	190	185	182	179	150	136	150	156	1	172.3
2	173	190	200	206	217	204	196	190	186	183	2	194.5
3	189	192	199	204	209	216	222	229	234	243	3	213.7
4	249	251	254	257							4	
											Mean	242.0
Fern Rock Observatory, March 7 and 8, 1854.												
4 ^h	218 ^d	223 ^d	213 ^d	218 ^d	228 ^d	224 ^d	221 ^d	231 ^d	190 ^d	202 ^d	4 ^h	224 ^d .1
5	242	243	246	247	251	270	275	275	274	274	5	259.7
6	269	261	268	260	273	270	269	255	268	271	6	266.4
7	275	271	279	284	278	269	281	282	281	286	7	278.6
8	292	304	294	302	303	312	306	299	297	293	8	306.2
9	284	288	286	287	291	291	300	305	298	290	9	292.3
10	287	280	276	270	277	280	286	281	278	273	10	278.8
11	269	272	267	270	272	271	267	268	272	280	11	271.1
12	273	279	284	290	289	291	294	291	283	274	12	284.8
13	290	288	285	282	283	291	297	300	296	291	13	290.3
14	285	278	281	284	298	291	289	286	284	283	14	285.9
15	281	282	285	288	290	292	295	297	298	298	15	290.6
16	299	300	302	297	291	285	280	278	283	288	16	290.3
17	292	296	299	297	295	293	289	287	281	275	17	290.4
18	269	261	260	256	260	255	258	260	266	270	18	261.8
19	275	272	277	261	270	268	270	259	271	268	19	269.4
20	264	276	278	270	264	260	268	282	284	286	20	273.2
21	280	278	281	285	287	274	291	297	295	291	21	285.9
22	284	276	274	268	263	257	264	271	286	293	22	273.6
23	300	299	287	285	281	274	278	271	267	265	23	280.7
0	261	246	252	245	247	243	242	246	250	252	0	248.4
1	252	252	250	250	249	250	252	255	256	258	1	252.4
2	260	265	270	272	275	276	276	280	285	280	2	273.9
3	285	281	274			258	242	247	258	263	3	(264.3)
4	262	265	268	258	245						4	
											5	
											Mean	274.5

Value of a scale division 0'.80.
Increase of scale readings corresponds to a movement of the north end of the magnet to the east.

NOTE. The mean in brackets includes two interpolated values.

Diurnal Range of the Declination.—The diurnal range being an index to the magnitude of the diurnal excursions, is best presented before the examination of the diurnal inequality. The following table contains the highest and lowest scale readings in the hourly series, and the maximum and minimum values observed, together with the corresponding ranges. One division of scale = 0'.80.

DAILY RANGE OF THE DECLINATION.

DATE.	IN HOURLY SERIES.		OBSERVED.		RANGE.	
1854.	Highest.	Lowest.	Maximum.	Minimum.	In hourly series.	Total observed.
January 10-11	309 ⁹ .8	253 ⁴ .5	314 ⁴ .0	241 ⁴ .0	56 ³ .3	73 ⁴ .0
" 13-14	368.4	242.3	378.0	212.0	126.1	166.0
" 18-19	357.9	109.7	369.0	85.0	248.2	284.0
" 24-25	367.4	293.3	373.0	282.0	74.1	91.0
" 27-28	385.4	307.3	389.5	302.0	78.1	87.5
" 31-32	387.9	319.4	440.0	278.0	68.5	162.0
February 3- 4	433.1	268.6	457.0	258.0	164.5	199.0
" 7- 8	391.2	279.7	396.0	266.5	111.5	119.5
" 10-11	464.8	202.7	504.0	195.0	262.1	309.0
" 14-15	490.3	165.8	494.0	129.0	324.5	365.0
" 17-18	275.8	152.6	302.0	130.0	123.2	172.0
" 21-22	301.7	226.1	304.0	203.0	75.6	101.0
" 24-25	531.3	321.4	558.5	268.0	209.9	290.5
March 0- 1	437.2	190.6	484.0	179.0	246.6	305.0
" 3- 4	343.5	151.4	360.0	125.0	192.1	235.0
" 7- 8	300.2	224.1	312.0	190.0	76.1	122.0
" 22-23	290.5	238.8	304.0	228.0	51.7	76.0

The mean diurnal total range observed during the above period becomes 2° 28'.6, and the maximum diurnal range observed took place on the 14-15 February, and amounted to 4° 52'.0. For comparison with similar quantities at other high latitude stations we may take Lake Athabasca, where the greatest range in any one day between October, 1843, and February, 1844, was 2° 35', it happened October 16, 1843; at Fort Simpson the maximum range was 7° 27', observed on the 16th of April, 1844, in a series of observations extending over April and May, 1844. The mean diurnal range during January and February, 1844, at Lake Athabasca, was 31'.4, and the mean range at Fort Simpson in April and May of that year was 1° 12', these two quantities, however, were taken from the hourly series.

If we classify the ranges according to this magnitude we obtain the following results:—

Daily range less than	1°	.	.	.	.	.	.	1
" " between	1 and 2°	.	.	.	.	.	.	6
" " "	2 and 3	.	.	.	.	.	.	4
" " "	3 and 4	.	.	.	.	.	.	3
" " "	4 and 5	.	.	.	.	.	.	3
" " greater than	5	.	.	.	.	.	.	0

The diurnal range in the winter months, January, February, and March, when compared with its annual fluctuation, is probably below the mean value of the year.

Diurnal Inequality of the Declination.—The following table contains the hourly means of all observations at the Winter quarters, between January 10 and March 23, 1854. The remaining observations on term-days at a later season have been excluded on account of their isolation. The above period includes the coldest season of the year, and during more than one-half of the period the sun was below the horizon.

The hourly means were made out separately for each month, the general mean includes seventeen values for each of the twenty-four hours. In January we have complete observations on six days, in February on seven, and in March on four days. The table also contains the monthly means, and all numbers are expressed in scale divisions (one division = $0'.80$).

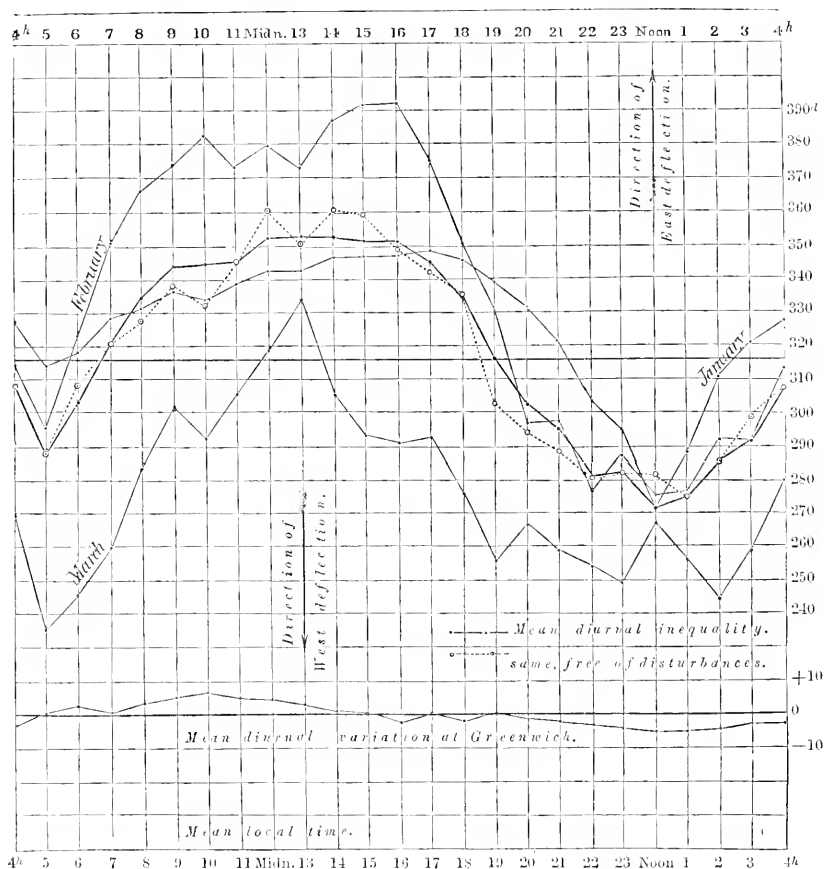
15

(The readings are given in scale divisions; the values taken from the term-day observations embrace the same number of single readings between the same times.)

Fern Rock mean time.	5h.	6h.	7h.	8h.	9h.	10h.	11h.	12h.	13h.	14h.	15h.	16h.	17h.
Fern Rock Observatory, January and March, 1854.													
Jan'y 10-11	296.0	292.1	286.6	278.9	284.7	288.1	297.0	299.8	308.5	309.8	307.6	305.5	296.7
" 13-14	311.9	321.1	331.0	343.7	360.3	365.1	345.4	348.1	342.1	346.9	350.1	364.5	368.4
" 18-19	308.2	316.9	317.3	313.3	319.9	321.8	343.3	316.7	338.4	345.3	347.8	353.8	357.9
" 24-25	319.3	347.8	359.7	367.4	361.1	361.2	357.1	358.3	355.2	364.0	356.5	344.0	342.9
" 27-28	313.4	307.3	325.9	323.4	319.8	322.9	324.7	330.7	335.1	333.1	341.3	348.1	355.1
" 31-32	335.0	322.2	353.2	362.5	371.4	372.1	367.0	376.4	373.8	380.9	380.1	369.1	374.9
Means	313.9	317.9	329.0	331.5	336.2	333.6	339.1	343.3	342.2	346.7	347.2	347.5	349.2
Feb'y 3-4	*356.7	*362.1	*377.0	*(373.5)	366.0	368.6	375.5	397.6	407.1	433.1	409.5	396.0	399.8
" 7-8	315.7	322.5	341.9	351.4	355.3	355.0	370.4	370.8	372.8	391.2	378.6	345.4	336.2
" 10-11	293.6	354.1	362.9	381.8	391.4	383.5	371.3	383.9	390.9	405.9	464.8	464.7	388.5
" 14-15	(307.0)	349.4	380.4	421.1	419.7	473.7	444.1	477.4	413.0	456.2	459.4	490.3	448.4
" 17-18	182.2	190.6	265.9	239.2	249.4	275.8	260.7	235.9	237.2	242.6	237.4	238.0	240.5
" 21-22	262.4	255.5	266.7	283.8	301.7	287.4	278.9	294.0	283.3	288.3	283.6	292.1	291.0
" 24-25	344.7	429.6	461.2	514.1	531.3	526.4	491.8	498.3	498.2	496.2	501.2	512.4	520.8
Means	294.6	323.4	350.9	366.4	373.5	381.5	371.3	379.7	371.8	387.6	390.7	391.3	375.0
March 0-1	196.9	190.6	224.1	266.2	332.4	361.6	394.7	411.0	437.2	353.2	335.0	321.7	346.2
" 3-4	248.5	275.4	282.7	324.2	332.3	275.5	281.6	313.6	343.5	308.8	285.4	277.3	258.5
" 7-8	224.1	259.7	266.4	278.6	300.2	292.3	278.8	271.1	284.8	290.3	285.9	290.6	290.3
" 22-23	261.3	246.3	258.5	258.6	240.9	238.8	270.1	280.3	274.3	266.7	260.8	269.6	269.8
Means	232.7	243.0	257.9	281.9	301.5	292.1	306.3	319.0	334.9	304.8	291.8	289.8	291.2
General means	286.9	302.5	321.3	334.2	343.3	343.5	344.6	352.6	352.7	353.5	352.0	352.1	346.2
Fern Rock mean time.	18h.	19h.	20h.	21h.	22h.	23h.	Noon. 0h.	1h.	2h.	3h.	4h.	Daily means.	
Jan'y 10-11	292.6	267.1	271.9	269.0	253.5	255.8	272.3	257.0	267.9	276.3	298.7	284.7	
" 13-14	335.7	325.6	276.4	269.4	277.0	267.0	262.3	242.3	278.8	298.2	305.9	317.0	
" 18-19	347.7	327.9	348.1	336.3	306.4	236.2	109.7	246.6	289.3	333.1	321.3	313.9	
" 24-25	338.8	346.4	347.2	313.3	299.2	315.5	310.3	299.3	302.9	313.1	314.3	337.0	
" 27-28	358.4	381.2	362.0	356.8	363.8	366.3	342.8	339.8	357.5	348.2	348.8	342.9	
" 31-32	375.3	387.2	387.9	381.4	319.4	333.5	322.4	340.9	372.4	356.4	378.8	362.2	
Means	345.9	299.2	332.3	321.0	303.2	295.2	270.0	286.7	311.5	320.9	328.0	326.8	
Feb'y 3-4	376.2	361.8	302.8	268.6	309.2	346.3	329.4	339.6	337.5	309.8	304.0	358.6	
" 7-8	311.7	288.6	279.7	303.9	301.6	302.9	319.9	310.7	332.9	306.7	321.5	332.8	
" 10-11	361.9	344.8	264.0	271.1	242.2	202.7	208.3	205.3	281.1	336.2	362.0	337.2	
" 14-15	406.7	376.2	333.1	343.1	289.0	243.7	165.8	183.6	247.0	247.0	300.9	360.7	
" 17-18	231.0	233.4	188.5	222.9	252.6	245.0	232.3	230.1	198.1	152.6	183.3	226.6	
" 21-22	270.5	258.5	260.2	226.1	226.7	257.5	260.8	261.8	259.3	272.7	285.6	271.2	
" 24-25	492.4	494.0	448.1	433.8	321.4	401.2	(389.9)	378.7	377.7	407.7	443.7	451.8	
Means	350.1	332.5	296.6	295.6	273.7	285.6	272.3	272.8	290.5	290.4	314.4	334.6	
March 0-1	319.1	315.8	310.7	301.4	285.3	280.6	338.9	306.8	261.4	272.7	308.4	311.3	
" 3-4	226.2	151.4	197.0	178.8	182.4	154.3	154.7	176.2	172.3	191.5	213.7	242.0	
" 7-8	290.4	261.8	269.4	273.2	285.9	273.6	380.7	248.1	252.4	293.9	(264.3)	274.5	
" 22-23	255.0	286.0	(285.0)	(275.8)	254.7	287.0	290.1	287.0	247.3	241.8	290.5	266.6	
Means	272.7	253.8	265.5	257.3	252.1	248.9	266.1	254.6	233.3	246.5	269.2	273.6	
General means	330.1	316.3	302.0	295.5	279.0	280.3	270.0	273.5	284.4	290.8	308.6	317.3	
The values in the above table do not refer exactly to the even hour but to 3 ^m later. Figures between brackets () are means derived from less than ten readings. * These four values were observed on the 4th at the hours indicated.													

MEAN MONTHLY CURVES OF THE DIURNAL CHANGES OF THE MAGNETIC DECLINATION AT VAN
RENSSELAER HARBOR, 1854.

AND SIMULTANEOUS MEAN DIURNAL VARIATION AT GREENWICH.



The irregularities in the daily curves compared on succeeding days are very considerable, as may be seen by glancing the eye over the last column of the preceding table, headed "daily means." No observations on account of disturbances have been excluded from the table, and the following mean diurnal inequality, therefore, contains their full effect. Comparing each hourly mean in the last horizontal line of the above table with the general mean, the following figures represent the resulting diurnal inequality of the declination during the first three months of the year 1854. For the sake of comparison the diurnal inequality observed at Greenwich during the same seventeen days has been made out and is given in the last column.

MEAN DIURNAL INEQUALITY OF DECLINATION DURING SEVENTEEN DAYS IN JANUARY, FEBRUARY, AND MARCH, 1854, AT VAN RENSSELAER HARBOR, AND AT GREENWICH DURING THE SAME DAYS; EXPRESSED IN MINUTES OF ARC.

Local mean time.	Van Rensselaer.	Greenwich.	Local mean time.	Van Rensselaer.	Greenwich.	Local mean time.	Van Rensselaer.	Greenwich.	Local mean time.	Van Rensselaer.	Greenwich.
5 ^h	+24'.3	—0'.5	11 ^h	—21'.8	—4'.5	17 ^h	—23'.1	—0'.3	23 ^h	+29'.6	+3'.5
6	+11.8	—2.5	Midn.	—28.2	—4.1	18	—10.5	+0.6	Noon	+37.8	+5.8
7	—3.2	—1.6	13	—28.3	—3.1	19	+0.8	—0.4	1	+35.0	+5.8
8	—13.5	—3.9	14	—29.0	—0.8	20	+12.2	+0.5	2	+26.3	+5.0
9	—20.8	—4.5	15	—27.8	—0.3	21	+17.4	+1.0	3	+21.2	+3.9
10	—21.0	—5.1	16	—27.8	+0.5	22	+30.6	+2.3	4	+7.0	+2.6

A negative sign indicates a deflection to the east, a positive one a deflection to the west of the mean position.

The diurnal inequality at the two stations presents in general the same characteristic features, namely, the principal deflection to the west shortly after noon, and the opposite eastern position about midnight; in regard to the diurnal inequality, therefore, the motion of the magnet at Van Rensselaer Harbor follows in general the same law as recognized in lower geographical latitudes.

The extreme westerly position is attained at noon; after this hour the westerly declination diminishes gradually, with an exception of a period of opposite motion of very limited range between the hours of four and five. The easterly extreme is reached two hours after midnight. Whether the small irregularity just noticed, producing apparently a secondary minimum and maximum, is real or only caused by the accidental deviations of the few observations under discussion, it is not easy to decide with certainty. The motion from 14 hours to 24 hours is performed with great uniformity. Thus, while the diurnal motion agrees with that observed at Lake Athabasca, Fort Simpson, Sitka, Toronto, etc., it shows no trace of that marked deviation observed at Reikiavik, in Iceland, or at Fort Confidence. In 1824 (June), at the Whalefish islands the maximum westerly deviation happened about a quarter past one o'clock P. M.; the time of the maximum eastern deflection was not determined. At Port Bowen the maximum westerly variation appears to have occurred between the hours of 10 A. M. and 1 P. M., the mean result being 11^h 49^m; the greatest deflection of the north end of the needle to the eastward took place between 8 P. M. and 2 A. M., the mean hour being 10 P. M. These observations were made during January, February, March, and April, 1825.

The range of the mean diurnal inequality is 1° 06'.8, when it is at Greenwich during the same time 10'.9.

Analysis of Disturbances of the Declination.—The declination at the commencement and end of the observations appears to have remained nearly the same; the daily and monthly means indicate at first a gradual decrease of westerly declination, which motion, however, is speedily overcome in the month of March. No further attention need be paid to this circumstance in the following discussion of the disturbances, and of their effect upon the diurnal inequality.

The mean disturbance for each of the 24 hours has been obtained by comparing the monthly mean with each hourly reading; let Δ equal this difference, n the

number of hourly readings (equal to 17), and m the mean disturbance, then $m = \pm \sqrt{\frac{\sum \Delta^2}{n-1}}$. This quantity is analogous to the mean error of an observation. In the following comparisons we must always bear in mind that the observations for the present discussion are rather limited, and that the comparisons with results at Lake Athabasca and Fort Simpson are of a date nearly ten years earlier. This interval is perhaps favorable to the comparison.

At Van Rensselaer Harbor the mean disturbance force is greater than at either place just named, and pretty regular during two well-marked periods, as shown by the following table:—

TABLE OF THE MEAN DISTURBANCE OF THE DECLINATION AT VAN RENSSELAER HARBOR, TAKEN WITHOUT REGARD TO DIRECTION, FOR EACH OF THE OBSERVATION HOURS, AND EXPRESSED IN MINUTES OF ARC.

Local Mean Time.

5h.	6h.	7h.	8h.	9h.	10h.	11h.	Midn.	13h.	14h.	15h.	16h.
$\pm 31'$	41	37	47	49	50	46	52	51	47	50	$\pm 53'$
17h.	18h.	19h.	20h.	21h.	22h.	23h.	Noon.	1h.	2h.	3h.	4h.
$\pm 49'$	42	54	48	46	34	46	60 ¹	46	39	45	$\pm 41'$

The disturbing force is least during the day (if such an expression is admissible in this case), from 10 A. M. to 7 P. M., and greater and equally regular during the hours of the night (!), from 8 P. M. to 8 or 9 A. M. At Lake Athabasca the hours of least disturbance are between 9 A. M. and 7 P. M., and at Fort Simpson from 10 A. M. to 7 P. M. Captain Lefroy, in his discussion of the disturbances of the declination remarks: "There are indications in each of the three curves (for Lake Athabasca, Toronto and Sitka) of a small increase in the mean disturbance about noon." At Van Rensselaer Harbor we find the maximum disturbance at this very hour preceded and followed by quite small values; this circumstance certainly deserves our particular attention. Further coincidences of the disturbing force can be noticed at 5 P. M., at which hour at Van Rensselaer, Lake Athabasca, and Sitka the minimum disturbance has been observed. At Fort Simpson, in April and May, 1844, the mean disturbance was but one-fourth of that observed in January, February and March at Van Rensselaer, and the ratio of the minimum to the maximum value was 5.6 and 2.0 at the two places respectively.

By adding the squares of the differences for each hour of the day and month, we find the mean monthly disturbance by the formula $\sqrt{\frac{\sum \Delta^2}{N=24}}$. The mean disturbance for each month is as follows:—

In January, 1854	.	.	.	.	.	.	$\pm 30'$
In February, "	± 65
In March, "	± 40

¹ Principally due to a very large disturbance.

The month of February was, therefore, that of the maximum amount of disturbance. At Lake Athabasca the greatest mean disturbance occurred in January (from observations between October and February inclusive). At Toronto,¹ on the contrary, the months of January and June are those of least disturbance. It is quite possible that at Van Rensselaer the above values are surpassed in other months of the year, yet relatively February contains the greatest mean disturbance during the period of observations.

Hitherto the recognition and separation of the disturbed observations have been effected by an arbitrary process of fixing upon a certain deviation from the mean as the greatest allowable departure, and regarding all observations beyond this limit as disturbances. In the present case, I have sought to introduce a more definite idea by the application of Pierce's criterion for the rejection of doubtful observations,² or what is equivalent—for the recognition of the disturbances—they following a different law from the general one. The average mean deviation of the readings composing an hourly mean I find = $+ 46'$, and for 17 values $a^2 = 4.55$; hence readings deviating from the mean more than $1^\circ 38'$ or 123d are to be recognized as disturbances.

The table of hourly readings contains 23 such values, or one disturbed observation for every 18 ordinary readings. In the five years of hourly observations ending June 30, 1848, at Toronto, the disturbances averaged one in 17 of the whole body. Excluding the above 23 values from the mean, the diurnal inequality freed of the disturbances undergoes no material change, as shown by the following table:—

5h.	6h.	7h.	8h.	9h.	10h.	11h.	Midn.	13h.	14h.	15h.	16h.
+23'.7	+6.0	—3.8	—9.3	—16.4	—12.5	—22.5	—34.7	—27.3	—35.1	—34.1	—26'.0
17h.	18h.	19h.	20h.	21h.	22h.	23h.	Noon.	1h.	2h.	3h.	4h.
—20'.1	—8.0	+9.0	+19.0	+23.3	+30.0	+29.0	+29.2	+34.4	+25.7	+13.6	+6'.9

The maximum west deflection is displaced from noon to one o'clock. The general mean changed from 317.3^a to 316.5^d , and the range of the mean inequality from $1^\circ 06'.8$ to $1^\circ 09'.5$. Eleven deflections were towards the east and twelve towards the west. The limited number of observations renders it necessary to conclude the foregoing examination of the disturbances.

Aurora Borealis.—In connection with the disturbances, a short notice of the auroral displays witnessed at the winter quarters will here find an appropriate place. In conformity with the supposed periodicity of this phenomenon, as recognized by Prof. Olmstead, no brilliant and complete auroras have been seen; with an exception of a very few, they may all be placed in his fourth class, to which the most simple forms of appearances have been referred. The aurora of October 24, 1854,

¹ See Vol. III. of the Magnetical and Meteorological Observations at Toronto, Canada. Discussion by Major-General E. Sabine. London, 1857.

² See Gould's Astronomical Journal, Nos. 45 and 83.

at 9 P. M. (see first volume of the Narrative), appears to have been one of the more conspicuous displays. A full record of the rest will be found in the 8th volume of the Smithsonian Contributions to Knowledge, in the collection made by Peter Force, Esq. There are 19 in number. The following statement is given in a foot-note: "The processes have no apparent connection with the magnetic dip, and in *no* case did the needle of our unifilar indicate disturbance."

Term-day Observations for Change of Magnetic Declination.—These observations were made at the following dates: January 18–19, February 24–25, March 22–23, April 19–20, May 26–27, and June 21–22, 1854. The readings are given in the following tables:—

TERM-DAY OBSERVATIONS FOR CHANGES OF MAGNETIC DECLINATION AT VAN RENSSELAER HARBOR, 1854.

Göttingen mean time.	0m.	06m.	12m.	18m.	24m.	30m.	36m.	42m.	48m.	54m.	Fern Rock mean time. (to 0m.)
Fern Rock Observatory, January 18 and 19, 1854. Readings taken 2 ^m 14 ^s earlier than indicated.											
10 ^h	305 ^d	305 ^d	305 ^d	307 ^d	308 ^d	312 ^d	311 ^d .8	306 ^d .5	309 ^d .5	312 ^d .5	4 ^h 37 ^m .5
11	311.2	313	314	315.8	318.5	317	317	319.7	320.5	322.5	5 "
12	320	314.8	315	315.7	317	320	321	320	316	311	6 "
13	311	307	309	311	313	315	317	318	317	315	7 "
14	320	322	319	316	320	320	322	318	320	322	8 "
15	321	323	323.3	322.3	320	319	320	320	325	325	9 "
16	329	329	330	330	327	336	350	366	367	369	10 "
17	362	354	353	347	347	346	346	341	337	331	11 "
18	330	332	335	338	338	340	342	343.5	342	344	12 "
19	344	346.5	345	344	341	345	346	346.5	347	345	13 "
20	346	345	345.5	345	348	347.5	349	351.5	351.5	349.5	14 "
21	349	354	359	363.5	359.5	351	350	351	350.8	351	15 "
22	356	358	359	361.5	361	355	352.3	357.8	358	360.5	16 "
23	360.5	358	355	351.5	350	349	346	340	332	335	17 "
0	336	333	330.5	326	320	320	323	326	328	337	18 "
1	343	352	350	346	340	348	353	357	349	343	19 "
2	337	332	328	324	332	336	340	343	346	345	20 "
3	342	339	329	320	313	300	292	284	277.5	268	21 "
4	251	244.5	240.5	250	261	254	243	230	235	155	22 "
5	115	90	89	96	88	85	105	129	145	155	23 "
6	163	180	193	220	254	290	291	307	298	270	0 "
7	268	254	240	266	289	297	320	318	320	321	1 "
8	336	336	336	331	337	337	337	330	327	324	2 "
9	314	326	332	338	323	318	316	316	316	314	3 "
10	312	310									4 "

The series commences with readings 304^d, 303^d, and 304^d, at 9^h 42^m, 48^m, and 54^m.

Fern Rock Observatory, February 24 and 25, 1854. Readings taken 2 ^m 15 ^s earlier than indicated.											
10 ^h	312 ^d	322 ^d	329 ^d	338 ^d	341 ^d .5	349 ^d .5	342 ^d	359 ^d	377 ^d	407 ^d	4 ^h 37 ^m .5
11	408	411	405	418	437	445	445	447	441	439	5 "
12	438	438	440	432	460	482	477	471	480	494	6 "
13	490	493	506	520	516	509	519	531	530	527.5	7 "
14	541	558.5	532	527	518	511	521	532	538	535	8 "
15	532	529	527	528	530.5	542	526	521	516	513	9 "
16	510	508	506	504	493	483	446	470	503	495	10 "
17	490	493	496	498	500	502	500	500	501	503	11 "
18	503	502	502	502	503	500	494	490	492	494	12 "
19	496	495	495	492	488	499	506	498	492	501	13 "
20	514	509	502	506	509	501	491	490	492	498	14 "
21	504	509	517	516	511	512	511	512	512	517	15 "
22	521	529	535	536	529	508	510	516	511	510	16 "
23	511	507	490	491	489	489	488	488	486	485	17 "
0	502	499	496	489	496	500	499	500	484	475	18 "
1	456	448	440	435	442	447	451	457	456	449	19 "
2	445	440	425	412	427	438	419	445	440	417	20 "
3	370	312	284	289	268	298	326	332	360	375	21 "
4	390	400	415	408	405	404	392	396	401	401	22 "
5	404	408	390	375	370	372	—	393	403	402	23 "
6	402	407	390	374	370	358	355	370	381	380	0 "
7	376	377	379	380	382.5	365	370	373	380	395	1 "
8	381	385	372	386	398	406	435	437	438	439	2 "
9	438	438	437	442	446	441	455	448	446	443	3 "
10	450	469	482	497							4 "

The series commences with readings 290^d, 288^d, 282^d, at 9^h 42^m, 48^m, and 54^m.

Value of a scale division 0'.80.

Increase of scale readings denotes a movement of the north end of the magnet to the east.

Göttingen mean time.	0m.	6m.	12m.	18m.	24m.	30m.	36m.	42m.	48m.	54m.	Fern Rock mean time. (to 0m.)
Fern Rock Observatory, March 22 and 23, 1854. Readings taken 1 ^m 34 ^s earlier than indicated.											
10 ^h	269 ^d	262 ^d	265 ^d	272 ^d	285 ^d	295 ^d	250 ^d	232 ^d	228 ^d	255 ^d	4 ^h 37 ^m .5
11	240	261	243	246	232	228	236	260	259	258	5 "
12	258	256	254	256	258	258	259	260	263	263	6 "
13	262	253	258	264	263	267	265	256	251	247	7 "
14	235	237	239	239	240	244	243	247	245	240	8 "
15	240	238	239	237	234	233	234	237	245	251	9 "
16	268	265	267	279	280	277	272	264	260	269	10 "
17	275	279	277	282	279	280	282	284	283	282	11 "
18	281	280	278	277	275	273	272	270	269	268	12 "
19	269	268	268	268	267	267	268	266.5	264	262	13 "
20	261	261	262	261	261	258	258	259	262	265	14 "
21	269	267	266	264	264.5	262	269	273	278	284	15 "
22	283	282	278.5	275	270.5	263	265	260	260	261	16 "
23	260	257	256	250	253	256	248	250	257	263	17 "
0	272	280	283	285	292	288	289	287	290	294	18 "
1	300	302	291	290	292	283	277	273	271	269	19 "
2	—	—	—	—	—	280	284	278	271	269	20 "
3	267	267	263	255	248	247	252	249	248	251	21 "
4	260	265	274	292	296	295	298	298	297	295	22 "
5	291	290	290	293	292	294.5	291	292	288	290	23 "
6	293	291	291	290	294	295	290	281	276	269	0 "
7	264	252	250	249	242	239	235	242	252	248.5	1 "
8	246	245	243	242	240	239	241	244	250	258	2 "
9	270	282	284	286.5	288	292	297	300	304	302	3 "
10	301	300	299	—	—	—	—	—	—	—	4 "
Fern Rock Observatory, April 19 and 20, 1854. Readings taken 2 ^m 14 ^s earlier than indicated.											
10 ^h	—	—	—	—	—	—	—	—	—	—	4 ^h 37 ^m .5
11	—	—	—	—	—	—	—	—	—	—	5 "
12	—	—	—	—	—	—	—	—	—	—	6 "
13	—	—	—	—	—	—	—	—	—	—	7 "
14	—	—	—	—	—	—	—	—	—	—	8 "
15	—	—	—	—	—	—	—	—	—	—	9 "
16	—	—	—	272 ^d	271 ^d	275 ^d	273 ^d	272 ^d .5	278 ^d	282 ^d	10 "
17	289 ^d	299 ^d	298 ^d	312	310	305	301	296	299	262	11 "
18	271	287	294	290	289	286	280	268	254	230	12 "
19	236	250	245	242	239	234	229	230	242	256	13 "
20	265	262	260	256	252	247	243	236	231	228	14 "
21	225	224	230	236	229	226	231	233	230	227	15 "
22	226	222	218	215	213	189	187	183	190	187	16 "
23	184	182	194	220	221	223	218	220	222	225	17 "
0	231	236	242	236	238	240	235	224	215	203	18 "
1	194	190	187	184	181	180	178	178	168	164	19 "
2	175	208	236	242	212	205	202	190	190	193	20 "
3	194	196	199	200	210	192	180	175	164	152	21 "
4	140	137	139	148	147	160	164	152	140	121	22 "
5	107	113	116	136	145	132	130	120	90	63	23 "
6	+62	+43	+30	+32	—	—	—4	—7	+4	+8	0 "
7	+30	+23	+16	+12	+16	+11	+5	—2	+25	+58	1 "
8	71	67	73	77	79	81	75	76	80	80	2 "
9	75	74	97	110	128	132	138	147	142	134	3 "
10	126	122	128	132	—	—	—	—	—	—	4 "
Value of a scale division 0'.80. Increase of scale readings denotes a movement of the north end of the magnet to the east.											

^d Watch stopped.

Göttingen mean time.	0m.	06m.	12m.	18m.	24m.	30m.	36m.	42m.	48m.	54m.	Fern Rock mean time. (to 0m.)
Fern Rock Observatory, May 26 and 27, 1854. Readings taken 1 ^m 34 ^s earlier than indicated.											
10 ^h	244 ^d	243 ^d	258 ^d	262 ^d	278 ^d	280 ^d	279 ^d	276 ^d	292 ^d	304 ^d	4 ^h 37 ^m .5
11	330	345	357	365	372	369	365	360	344	368	5 "
12	360	355	345	342	350	348	341	333	330	338	6 "
13	349	356	364	359	354	351	355	360	381	395	7 "
14	403	413	411	408	400	389	395	400	407	410	8 "
15	414	423	428	436	442	443	442	438	436	433	9 "
16	435	434	440	450	476	490	520	555	570	575	10 "
17	593	600	575	548	533	523	516	506	498	492	11 "
18	485	482	479	477	477	476	475	475	477	480	12 "
19	483	487	493	495	488	495	527	552	568	587	13 "
20	595	612	624	630	633	631	625	620	612	604	14 "
21	599	603	609	612	615	626	633	635	644	650	15 "
22	663	667	665	661	658	659	653	646	640	637	16 "
23	639	641	632	618	595	590	583	572	559	541	17 "
0	543	545	546	546	544	540	537	536	535	537	18 "
1	538	525	523	539	527	520	515	513	480	479	19 "
2	487	493	498	503	506	509	509	533	562	571	20 "
3	573	553	537	517	495	489	486	488	496	510	21 "
4	512	510	507	513	514	512	511	506	497	487	22 "
5	486	485	483	484	480	477	476	476	477	463	23 "
6	449	443	442	440	441	443	447	454	463	470	0 "
7	478	483	487	489	488	483	471	459	457	446	1 "
8	455	447	460	468	475	490	487	478	485	491	2 "
9	493	513	525	530	533	535	534	515	500	—	3 "
10	—	—	—	—	—	—	—	—	—	—	4 "
Observations commence at 9 ^h 24 ^m , scale readings 280 ^d , 271 ^d , 266 ^d , 235 ^d , 231 ^d , 240 ^d , corresponding to 9 ^h 24 ^m , 30 ^m , 36 ^m , 42 ^m , 48 ^m , and 54 ^m respectively.											
Fern Rock Observatory, June 21 and 22, 1854. Readings taken 1 ^m 34 ^s earlier than indicated. (Magnet suspended, I. 7.) ¹											
10 ^h	—	—	—	—	—	—	—	—	—	295 ^d	4 ^h 37 ^m .5
11	297 ^d	299 ^d	300 ^d	302 ^d	305 ^d	305 ^d	312 ^d	313 ^d	313 ^d	314	5 "
12	315	315	314	314	313	312	310	316	325	333	6 "
13	337	340	344	347	351	352	350	350	351	352	7 "
14	348	346	343	337	333	334	338	348	350	355	8 "
15	354	355	358	364	366	374	374	374	373	367	9 "
16	366	367	366	370	373	377	377	377	378	383	10 "
17	384	385	379	379	379	381	383	384	383	384	11 "
18	387	384	385	382	384	386	386	382	385	387	12 "
19	384	382	383	385	387	386	387	390	392	396	13 "
20	400	402	400	396	394	394	388	376	384	394	14 "
21	390	383	382	381	379	370	364	368	372	370	15 "
22	367	363	358	355	357	361	367	369	367	364	16 "
23	364	363	361	355	350	350	352	355	359	362	17 "
0	363	363	370	369	367	368	370	363	355	351	18 "
1	348	343	337	335	333	329	330	331	331	328	19 "
2	322	318	320	322	325	327	328	328	326	324	20 "
3	322	318	319	322	323	323	322	324	326	331	21 "
4	326	315	334	330	326	326	319	318	318	318	22 "
5	312	316	318	317	323	321	317	310	312	308	23 "
6	306	320	316	316	318	323	304	303	312	290	0 "
7	291	287	286	286	291	283	275	281	283	288	1 "
8	289	290	292	289	291	293	297	298	302	304	2 "
9	304	309	313	312	308	303	295	290	282	273	3 "
10	264	257	245	283	232	230	234	239	242	228	4 "
11	212	207	—	—	—	—	—	—	—	—	5 "
Value of a division of the scale 0'.80. Increase of scale readings denotes a movement of the north end of the magnet to the east.											

¹ This magnet I. 7 was undoubtedly used on all previous occasions. Mark reads on circle $33^{\circ} 22'$, circle reads $314^{\circ} 12'$.

The results of the preceding tables have been thrown into curves, to which the corresponding readings at Greenwich and Washington have been added.¹ These readings have all been referred to the same scale, and thus present at a glance the great difference in the magnitude of the diurnal motion as well as that of the disturbances. The Greenwich observations were taken by means of photography; the Washington corresponding observations were also obtained by means of Brooke's automatic photographic registration, and have as yet only been published in the 6th volume of the Astronomical Expedition to Chili, under the direction of Lient. Gilliss, U. S. N.; Washington, D. C., 1856.

For the Greenwich curves the zero line corresponds to 22° west declination. A remarkable absence of disturbances of any magnitude as well as a small diurnal range of motion at the time of the vernal equinox, is shown by the March curves both for Van Rensselaer and Greenwich.

There appear to be some disturbances common to both places, and if these indications should not be accidental they are of an opposite character, that is, a magnetic east deflection is presenting itself as a magnetic west deflection at the other station, and *vice versa*. For this the reader may examine hours 17 and $5\frac{1}{2}$ of the curve for January 18 and 19, hours from 6 to 8, April 20th, and one or two other less striking cases. The needle at Van Rensselaer Harbor actually points with its north end to the south of the astronomical west, and its meridional component of the direction is pointing in a southern or opposite direction to the same component at Greenwich or Washington.

Absolute Declination.—The magnetic declination at Van Rensselaer Harbor was determined on three occasions in the summer of 1854. Two different magnets were used.

Determination of June 9th. Magnet A 68, mirror facing magnetic north.

Position.	Circle reads. Mark.	P. Circle reads. Magnetic meridian (south).	P. Circle reads. Mark.
I.	338° 06'	I. 316° 01'	I. 338° 02'
	06'	00	01
II.	338 00	II. 315 57	II. 338 05
	337 59	56	04
Means	338 02.8	315 58.5	338 03.0
		at 6 ^h 35 ^m Green. t.	

Mean reading on mark	338° 03'
Astronomical bearing (N.)	93 29 E.
Reading of meridian (N.)	244 34
Magnetic meridian (N.)	135 59
Declination	108° 35'
W. (of north) at 1 ^h 52 ^m P. M. local time.	

¹ See accompanying plates 1 and 2.

Determination of June 14. Magnet 1. 10. Mirror facing magnetic north.

Mark.		Magnetic south meridian.		Mark.	
I.	338° 09'	I.	317° 10'	I.	338° 04'
	08		at 5 ^h 12 ^m (Gr. t.)		02
II.	338 05		09	II.	338 09
	04	II.	317 02		08
			01		
Means	338 06.5		317 05.5		338 05.8

Mean reading on mark	. . . . .	338° 06'
Astronomical bearing (N.)	. . . . .	93 29 E.
Reading of true meridian	. . . . .	244 37
Reading of magnetic meridian	. . . . .	137 05
Declination	. . . . .	107° 32'

W. at 0^h 29^m P. M. local time.

The magnet showed considerable agitation during the day.

Determination of June 26. Mirror facing magnetic north.

Magnetic south meridian.		Mark.		Magnetic south meridian.	
I.	315° 49'	I.	338° 24'	I.	315° 52'
	47		23		50
II.	316 18	II.	338 20	II.	315 40
	17		19		38
Means	316 02.7		338 21.5		315 45.0
at 1 ^h 3 ^m P. M. local time.				at 2 ^h 0 ^m P. M. local time	

Mark reads	. . . . .	338° 21'
Astronomical bearing (N.)	. . . . .	93 29 E.
N. meridian (true)	. . . . .	241 52
Magnetic meridian	. . . . .	135 53
Declination	. . . . .	108° 59'

W. at 1^h 31^m P. M.

Resulting mean declination (for June 16) 108° 22' W.; if we omit the 2d determination on account of disturbance, and apply a correction for diurnal change to the mean of the first and last determination, we find 108° 12' W.

SECTION II.

OBSERVATIONS OF THE MAGNETIC INCLINATION.

1853, 1854, AND 1855.

SECTION II.

MAGNETIC INCLINATION.

Instrument and Remarks.—The observations for dip were made by Mr. Sonntag by means of a Barrow dip circle received from Prof. Henry, of the Smithsonian Institution, through the courtesy of Col. Sabine. The inclinometer was supplied with Lloyd needles, for determining the total intensity, but unfortunately the complete record of these observations could not be recovered; the absence of the record for determining the constants necessary for their reduction being wanted, no use could be made of these observations, even for relative intensity at Saikatle and Marshall Bay, and the partial results given in Appendix XV., vol. II. of the Narrative, must, therefore, remain fruitless for the present. There is likewise a deficiency in the record of the dip observations at Van Rensselaer Harbor after February 23, 1854; the results, however, are all preserved in the Appendix just mentioned.

In regard to the index error of the dipping needles, we can only make an approximate comparison. The observations at New York, where the dip has been represented by the formula

$$I = 72^{\circ}.69 - 0.00491(t - 1845) + 0.00114(t - 1845)^2,$$

with a probable error of any single observation¹ of $\pm 3'.3$, would apparently produce a correction to needle 1 of $-9'$, and to needle 2 of $-14'$, the changes, however, from one station to another in the immediate vicinity of the city are much greater, and these quantities may, therefore, as well indicate local deviation as index error. The polarity of the needles has been reversed at each station, the effect of this operation upon the resulting dip is somewhat irregular, and will be found exhibited in tabular form.

¹ See Coast Survey Report of 1856, p. 240. The formula includes dip observations taken between December, 1822, and August, 1855 (exclusive of the observations of the present expedition).

May 20, 1853. 4^h.

Needle No. 1. Poles direct.

CIRCLE EAST.				CIRCLE WEST.			
Face east.		Face west.		Face east.		Face west.	
$71^{\circ} 37'$	$72^{\circ} 00'$	$75^{\circ} 55'$	$76^{\circ} 22'$	$73^{\circ} 11'$	$73^{\circ} 02'$	$73^{\circ} 41'$	$74^{\circ} 04'$
71 34	71 59	75 52	76 21	73 13	73 04	73 45	74 06
71 35.5	71 59.5	75 53.5	76 21.5	73 12.0	73 03.0	73 43.0	74 05.0
71 47.5		76 07.5		73 07.5		73 54.0	
73 57.5				73 30.7			
73 44.1							

Needle No. 1. Poles reversed.

CIRCLE WEST.				CIRCLE EAST.			
Face west.		Face east.		Face west.		Face east.	
$69^{\circ} 58'$ 70 00	$70^{\circ} 10'$ 70 13	$73^{\circ} 17'$ 73 16	$72^{\circ} 52'$ 72 55	$72^{\circ} 32'$ 72 30	$73^{\circ} 08'$ 73 06	$72^{\circ} 56'$ 72 53	$73^{\circ} 09'$ 73 06
69 59.0	70 11.5	73 16.5	72 53.5	72 31.0	73 07.0	72 54.5	73 07.5
70 05.2		73 05.0		72 49.0		73 01.0	
71 35.1				72 55.0			
72 15.1							

May 20, 1853.

Needle No. 1. Poles direct.

CIRCLE EAST.				CIRCLE WEST.			
Face east.		Face west.		Face east.		Face west.	
$71^{\circ} 48'$	$72^{\circ} 03'$	$74^{\circ} 18'$	$74^{\circ} 48'$	$72^{\circ} 38'$	$72^{\circ} 33'$	$74^{\circ} 26'$	$74^{\circ} 27'$
71 45	72 01	74 17	74 45	72 40	72 35	74 29	74 31
71 46.5	72 02.0	74 17.5	74 46.5	72 39.0	72 31.0	74 27.5	74 29.0
71 54.2		74 32.0		72 36.5		74 28.2	
73 13.1				73 32.3			
73 22.1				73 22.1			

Needle No. 1. Poles reversed.

CIRCLE EAST.				CIRCLE WEST.			
Face west.		Face east.		Face west.		Face east.	
$72^{\circ} 47'$	$73^{\circ} 21'$	$73^{\circ} 13'$	$73^{\circ} 32'$	$69^{\circ} 55'$	$69^{\circ} 48'$	$72^{\circ} 24'$	$72^{\circ} 27'$
72 45	73 19	73 11	73 30	69 59	69 51	72 28	72 29
72 46.0	73 20.0	73 12.0	73 31.0	69 57.0	69 49.5	72 26.0	72 28.0
73 03.0		73 21.5		69 53.2		72 27.0	
73 12.2				71 10.1			
72 11.2							

STATION No. IV. SAIKATLE, ISLAND SOUTH FROM SUKKERTOPPEN.

(Latitude and longitude not determined.)

The magnetic station was on a small bay on the southeast side of the island, and is covered with water at high tide. The Lloyd needles only were used.

STATION No. V. SUKKERTOPPEN, IN THE GARDEN NEAR THE GOVERNOR'S HOUSE.

(Latitude and longitude not determined.)

July 9, 1853. 15 ^h . Needle No. 2. Poles reversed. Meridian reads 75° 20'.							
CIRCLE WEST.				CIRCLE EAST.			
Face east.		Face west.		Face east.		Face west.	
^a 80° 30'	^b 80° 43'	^a 81° 15'	^b 81° 48'	^a 80° 46'	^b 80° 30'	^a 81° 20'	^b 81° 20'
80 28	80 46	81 15	81 45	80 46	80 33	81 20	81 21
80 29.0	80 44.5	81 15.0	81 46.5	80 46.0	80 31.5	81 20.0	81 20.5
80 36.7		81 30.7		80 33.8		81 20.2	
	81 03.7				80 59.5		
			81 01.6				
Needle No. 2. Poles direct.							
CIRCLE WEST.				CIRCLE EAST.			
Face east.		Face west.		Face east.		Face west.	
^a 81° 30'	^b 82° 25'	^a 80° 17'	^b 80° 40'	^a 80° 53'	^b 80° 42'	^a 79° 31'	^b 79° 04'
81 28	82 24	80 14	80 37	80 57	80 45	79 34	79 05
81 29.0	82 24.5	80 15.5	80 38.5	80 55.0	80 43.5	79 32.5	79 04.5
81 56.7		80 27.0		80 49.2		79 18.5	
	81 11.8				80 03.8		
			80 37.8				

STATION No. VII. UPERNAVIK, STATION IN GARDEN NEAR THE GOVERNOR'S HOUSE.
(Latitude and longitude not determined.)

Needle No. 2. Poles direct. Magnetic meridian reads 239° 18'.							
CIRCLE EAST.				CIRCLE WEST.			
Face east.		Face west.		Face east.		Face west.	
82° 42' 82 39	82° 43' 82 40	84° 22' 84 21	84° 21' 84 18	83° 13' 83 16	83° 33' 83 36	83° 59' 84 01	84° 12' 84 14
82 40.5	82 41.5	84 21.5	84 19.5	83 14.5	83 34.5	81 00.0	84 13.0
82 41.0		84 20.5		83 24.5		84 06.5	
83 30.7				83 45.5			
83 38.1							
Needle No. 2. Poles reversed.							
CIRCLE EAST.				CIRCLE WEST.			
Face east.		Face west.		Face east.		Face west.	
84° 15' 84 13	84° 40' 84 37	83° 22' 83 20	83° 20' 83 18	83° 33' 83 34	83° 44' 83 45	83° 40' 83 42	83° 28' 83 30
84 14.0	84 38.5	83 21.0	83 19.0	83 33.5	83 44.5	83 41.0	83 29.0
84 26.2		83 20.0		83 39.0		83 35.0	
83 53.1				83 37.0			
83 45.0							

STATION NO. VIII. BEDEVILLED REACH, FORCE BAY. STATION HALF A MILE EAST OF ANCHORAGE(?).
Latitude $78^{\circ} 34' .5$. Longitude $71^{\circ} 33' .6$.

CIRCLE EAST.				CIRCLE WEST.			
Face east.		Face west.		Face east.		Face west.	
$84^{\circ} 54'$ 84 48	$85^{\circ} 03'$ 84 59	$86^{\circ} 12'$ 86 17	$86^{\circ} 35'$ 86 30	$84^{\circ} 16'$ 84 14	$84^{\circ} 17'$ 84 14	$86^{\circ} 18'$ 86 19	$86^{\circ} 02'$ 86 04
84 51.0	85 01.0	86 14.5	86 32.5	84 15.0	84 15.5	86 18.5	86 03.0
84 56.0		86 23.5		84 15.2		86 10.7	
85 39.7				85 12.9			
85 26.3							
Needle No. 2. Poles reversed.							
CIRCLE WEST.				CIRCLE EAST.			
Face west.		Face east.		Face west.		Face east.	
$84^{\circ} 15'$ 84 20	$84^{\circ} 04'$ 84 10	$84^{\circ} 55'$ 84 55	$85^{\circ} 04'$ 85 03	$84^{\circ} 13'$ 84 09	$84^{\circ} 43'$ 84 38	$85^{\circ} 44'$ 85 40	$85^{\circ} 43'$ 85 39
84 17.5	84 07.0	84 55.0	85 03.5	84 11.0	84 40.5	85 42.0	85 41.0
84 12.2		84 59.3		84 25.8		85 41.5	
84 35.8				85 03.6			
84 49.7							

STATION No. IX. NEAR MARSHALL BAY.

Latitude $78^{\circ} 52'$. Longitude $69^{\circ} 01'$.¹

The observations on September 3d, 1853, were made with the Lloyd needle, No. 1, Box B. The dip by the statical needle is $85^{\circ} 26'$, and the resulting corrected dip $84^{\circ} 49'$. See Narrative, vol. I. p. 99.

STATION No. X. VAN RENSSELAER HARBOR, WINTER QUARTERS. MAGNETIC OBSERVATORY ON FERN ROCK.

Latitude $78^{\circ} 37'$. Longitude $70^{\circ} 40'$. W. of G.

January 26, 1854. Needle No. 2. Poles direct. Magnetic meridian reads on circle $9^{\circ} 02'$.							
CIRCLE WEST.				CIRCLE EAST.			
Face east.		Face west.		Face east.		Face west.	
$83^{\circ} 05'$ 83 05	$83^{\circ} 02'$ 83 03	$83^{\circ} 48'$ 83 47	$85^{\circ} 06'$ 85 05	$82^{\circ} 53'$ 82 47	$82^{\circ} 30'$ 82 26	$85^{\circ} 16'$ 85 10	$85^{\circ} 22'$ 85 17
83 05.0	83 02.5	83 47.5	85 05.5	82 50.0	82 28.0	85 13.0	85 19.5
83 03.7		84 26.5		82 39.0		85 16.2	
83 45.1				83 51.6			
83 51.3							
Needle No. 2. Poles reversed.							
CIRCLE WEST.				CIRCLE EAST.			
Face east.		Face west.		Face east.		Face west.	
$84^{\circ} 48'$ 84 48	$85^{\circ} 22'$ 85 23	$84^{\circ} 09'$ 84 15	$84^{\circ} 40'$ 84 39	$86^{\circ} 20'$ 86 15	$86^{\circ} 05'$ 86 00	$84^{\circ} 27'$ 84 21	$85^{\circ} 20'$ 85 16
84 48.0	85 22.5	84 12.0	84 39.5	86 17.5	86 02.5	84 24.0	85 18.0
85 05.2		84 25.8		86 10.0		84 51.0	
84 45.5				85 30.5			
85 08.0							

¹ Erroneously given $67^{\circ} 01'$ in the Narrative, vol. II. p. 431; the date should also be changed as given above.

RECAPITULATION OF RESULTS FOR MAGNETIC INCLINATION.

No. of station.	Locality.	Date.	No. of needle.	DIP.		Difference for change of polarity.	Mean and resulting dip.
				Pole direct.	Pole reversed.		
I.	New York city	May 18, 1853	2	73° 01'.4	72° 46'.8	+14'.6	72° 54'.1
"	" "	" "	2	73 09.3	72 54.6	+14.7	72 61.9
"	" "	May 20, "	1	73 44.1	72 15.1	+89.0	72 59.6
"	" "	" "	1	73 22.7	72 11.2	+71.5	72 47.0
II.	Fiskeruaes	June 20, "	2	80 32.3	80 50.2	—17.9	80 41.3
III.	Fiskeruaes Harbor	July 1, "	2	81 16.6	80 29.4	+47.2	80 53.0
IV.	Saikatle	July 9, "	Ll.	(Approximate.)	—	—	80 56.0
V.	Sukkertoppen	July 9, "	2	80 37.8	81 01.6	—23.8	80 49.7
VI.	Proven	July 19, "	2	83 05.5	83 04.5	+ 1.0	83 05.0
"	"	" "	2	82 39.5	82 58.4	—18.9	82 49.0
VII.	Upernavik	July 22, "	2	83 38.1	83 45.0	— 6.9	83 41.5
VIII.	Bedevedill Reach	Aug. 12, "	2	85 26.3	84 49.7	+36.6	85 08.0
IX.	Marshall Bay	Sept. 3, "	Ll.	(Approximate.)	—	—	84 49.0
X.	Fern Rock Observatory, Van Rensselaer Harbor	Jan. 26, 1854	2	83 51.3	85 08.0	—76.7	84 29.7
"	" "	Feb. 16, "	2	84 56.2	84 49.1	+ 7.1	84 52.6
"	" "	Feb. 23, "	2	84 44.0	85 01.6	—17.6	84 52.8
"	" "	March 2, "	2	—	—	—	84 49.0
"	" "	June 10, "	2	—	—	—	84 47.2
"	" "	" "	2	—	—	—	84 51.0
"	" "	April 24, 1855	2	(12 sets.)	—	—	84 48.7
"	" "	May 20, "	2	—	—	—	84 35.6

The resulting dip at Van Rensselaer Harbor may be taken as corresponding in time to June, 1854.

SECTION III.

OBSERVATIONS OF MAGNETIC INTENSITY.

1854 AND 1855.

SECTION III.

OBSERVATIONS AND DISCUSSION OF THE MAGNETIC INTENSITY.

THE instrument used (a unifilar magnetometer) has already been described. For the determination of the intensity, the long magnet A. 67 has exclusively been used for oscillations and deflections. The effect of the torsion in the suspension was found so small that it was neglected. The vibrations have been observed in sets of two, one containing the readings of the chronometer when the magnet was moving in the direction of the scale readings, and the other when the magnet was moving in the opposite direction.¹ A mean time pocket chronometer was generally used for noting the time, and its rate was too small to affect sensibly the duration of a single vibration. In the deflections, the magnets were always kept at right angles to one another; the distance of the middle of the deflecting magnet, A. 67, from the suspended magnet, is given by a scale divided into feet and decimals of a foot.² The observations were made by Mr. A. Sonntag. At Van Rensselaer Harbor the observations extend over the time from January, 1854, to May, 1855. Two other stations were occupied, one in June, 1855, at Hakluyt Island, the other in July, on the coast between Parker Snow Point and Cape York, at the return of the party.

The necessary constants have been determined at Washington, D. C.

Magnet A. 67 is nearly three inches in length, the two other magnets, I. 7 and I. 10, are somewhat shorter.

¹ The vibrations given in the Narrative, vol. II., Appendix, No. XV., pp. 431—434, are, therefore, double vibrations, and should have been noted as such.

² By some inadvertence, Appendix No. XV. of vol. II. of the Narrative contains the distances expressed in inches; it should have been given in feet and decimals, thus, 13 inches should be 1.3 feet, and 9 inches should read 0.9 feet.

January 17, 1854.

Fern Rock Observatory, Van Rensselaer Harbor.

A. 67 suspended. Experiments of vibrations. (From right to left.)

No.	Time by pocket chronometer.	No.	Time by pocket chronometer.	Time of 45 double vibrations.
1	5 ^h 58 ^m 37 ^s .3	46	6 ^h 10 ^m 10 ^s .8	11 ^m 33 ^s .5
2	52.9	47	26.3	33.4
3	59 08.0	48	41.4	33.4
4	23.8	49	57.0	33.2
5	38.7	50	11 12.7	34.0
6	54.5	51	28.0	33.5
7	6 00 09.9	52	43.3	33.4
8	25.9	53	58.4	32.5
9	40.2	54	12 14.0	33.8
10	55.8	55	29.6	33.8
				Mean 11 ^m 33 ^s .45
Are at beginning 4° 40'.		Temp. 50°.		Time of 2 vibrations
" end 1 28				15 ^s .410.

The vibrations from left to right could not be observed.

January 18, 1854.

Fern Rock Observatory.

Experiments of vibrations. (From right to left.)

No.	Time by pocket chronometer.	No.	Time by pocket chronometer.	Time of 50 double vibrations.
1	5 ^h 30 ^m 43 ^s .0	51	5 ^h 43 ^m 37 ^s .5	12 ^m 54.5
2	58.8	52	53.8	55.0
3	31 14.0	53	44 08.8	54.8
4	29.3	54	23.9	54.6
5	44.4	55	39.8	55.4
6	32 00.0	56	54.0	54.0
7	15.3	57	45 10.8	55.5
8	31.5	58	25.8	54.3
9	46.5	59	41.8	55.3
10	33 02.0	60	57.0	55.0
11	18.1	61	46 12.5	54.5
				12 54.81
Are at beginning 4° 40'.		Temp. 68.		Time of 2 vibrations
" end 1 12				15 ^s .496.

January 18, 1854.

Fern Rock Observatory.

Experiments of vibrations. (From left to right.)

No.	Time by pocket chronometer.	No.	Time by pocket chronometer.	Time of 50 double vibrations.
1	5 ^h 30 ^m 50 ^s .8	51	5 ^h 43 ^m 46 ^s .7	12 ^m 55 ^s .9
2	31 06.7	52	41 02.0	55.3
3	22.0	53	18.1	56.4
4	36.9	54	32.7	55.8
5	52.9	55	49.0	56.1
6	32 08.0	56	15 04.8	56.8
7	23.8	57	20.0	56.2
8	39.2	58	35.3	56.1
9	54.8	59	51.0	56.2
10	33 10.3	60	16 07.0	56.7
11	26.0	61	22.2	56.2
				12 56.15

Arcs and temp. as before. Time of 2 vibrations 15^s.523.

(Dr. Hayes assisted in these observations.)

February 21, 1854.

Fern Rock Observatory.

Experiments of vibrations. (From right to left.)

No.	Time by pocket chronometer.	No.	Time by pocket chronometer.	Time of 50 double vibrations.
1	4 ^h 59 ^m 26 ^s .0	51	5 ^h 12 ^m 23 ^s .5	12 ^m 57.5
2	41.8	52	39.4	57.6
3	56.4	53	55.0	58.6
4	5 00 12.6	54	13 10.2	57.6
5	28.2	55	26.2	58.0
6	43.5	56	41.5	58.0
7	58.9	57	57.3	58.4
8	01 14.6	58	14 12.8	58.2
9	30 2	59	28.3	58.1
10	45.6	60	43.5	57.9
11	02 01.3	61	59.2	57.9
				12 57.98
Arc at beginning 5° 52'.				Time of 2 vibrations
" end 2 21				15 ^s .560.

Experiments of vibrations. (From left to right.)

No.	Time by pocket chronometer.	No.	Time by pocket chronometer.	Time of 50 double vibrations.
1	4 ^h 59 ^m 33 ^s .5	51	5 ^h 12 ^m 31 ^s .8	12 ^m 58 ^s .3
2	48.3	52	47.1	58.8
3	5 00 04.8	53	13 02.8	58.0
4	20.4	54	18.4	58.0
5	35.7	55	34.0	58.3
6	51.2	56	49.5	58.3
7	01 06.9	57	14 05.2	58.3
8	22.5	58	20.8	58.3
9	38.0	59	36.2	58.2
10	53.5	60	51.7	58.2
11	02 09.5	61	15 07.4	57.9
				12 58.21
Arcs and temp. as before.				Time of 2 vibrations 15 ^s .565.

February 21, 1854.

Fern Rock Observatory.

Experiments of vibrations. (From right to left.)

No.	Time by pocket chronometer.	No.	Time by pocket chronometer.	Time of 50 double vibrations.
1	6 ^h 20 ^m 47 ^s .5	51	6 ^h 33 ^m 42 ^s .6	12 ^m 55.1
2	21 03.0	52	58.0	55.0
3	19.0	53	34 14.0	55.0
4	34.3	54	29.6	55.3
5	49.5	55	45.0	55.5
6	22 05.5	56	35 00.3	54.8
7	20.9	57	16.8	55.9
8	36.3	58	32.0	55.7
9	51.5	59	47.0	55.5
10	23 07.0	60	36 03.7 ¹	56.7
				12 55.45
Arc at beginning 5° 20'.				Time of 2 vibrations
" end 1 36				15 ^s .509.

¹ Corrected by 10.

February 21, 1854. Fern Rock Observatory.					
Experiments of vibrations. (From left to right.)					
No.	Time by pocket chronometer.	No.	Time by pocket chronometer.	Time of 50 double vibrations.	
1	6 ^h 20 ^m 55 ^s .2	51	6 ^h 33 ^m 51 ^s .0	12 ^m 55.8	
2	21 11.0	52	34 06.5	55.5	
3	27.0	53	22.6	55.6	
4	42.0	54	37.5	55.5	
5	57.5	55	53.4	55.9	
6	22 13.3	56	35 08.6	55.3	
7	29.0	57	25.0	56.0	
8	43.8	58	39.6	55.8	
9	59.2	59	55.5	56.3	
10	23 15.3	60	36 12.0	56.7	
				12	55.84
Arcs and time as before. Time of 2 vibrations 15 ^s .517.					
RECAPITULATION OF RESULTS.					
January 17, 1854.	Time of 2 vibrations 15 ^s .410			Temp. 50°	
" 18, "	" "	15.496	" 68)	
" 18, "	" "	15.523	" 68)	
February 21, "	" "	15.560	" 79)	
" 21, "	" "	15.565	" 79)	
" 21, "	" "	15.509	" 55)	
" 21, "	" "	15.517	" 55)	
Combination by two means		15.499	63.0		
Time of one vibration		7.749			
January 31, 1854. Experiments of deflections. Distance 1.3 feet. Deflecting magnet A 67.					
Magnet.	North pole.	Circle reads.	Mean.	Diff. or 2 n.	Temp.
E.	W.	318° 40'	40'.5		68°
"	E.	287 57	57.0	30° 43'.5	73
W.	E.	288 47	47.0		75
"	W.	319 37	37.0	30 50.0	72.5
				Means 30 46.7	72.1
February 13, 1854. Experiments of deflections. Distance 0.975 feet.					
Magnet.	North pole.	Circle reads.	Mean.	2 n.	Temp.
E.	E.	162° 07'	06'.5		50°
"	W.	83 10	10.0	78° 56'.5	61
W.	W.	86 24	24.0		65
"	E.	164 47	47.0	78 23.0	66
				Means 78 40.0	60.5

February 27, 1854.		Experiments of deflections.		Distance 1.3 feet.	
Magnet.	North pole.	Circle reads.	Mean.	2 u.	Temp.
E.	E.	140° 54'.5 51.5	54'.5	30° 56'.0	58°
"	W.	109 58 59	58.5		58
W.	W.	110 31 32	31.5	30 43.5	58
"	E.	141 15 15	15.0		56
				30 49.7	57.5
June 7, 1854. Experiments of vibrations. (Left to right.)					
No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 45 double vibrations.	
1	3 ^h 04 ^m 34 ^s .2	46	3 ^h 16 ^m 02 ^s .5	11 ^m 28 ^s .3	
2	49.1	47	17.8	28.4	
3	05 05.0	48	33.0	28.0	
4	20.3	49	48.3	28.0	
5	35.8	50	17 03.6	27.8	
6	51.1	51	19.0	27.9	
7	06 06.3	52	34.2	27.9	
8	21.8	53	49.4	27.6	
9	36.9	54	18 04.8	27.9	
10	52.1	55	20.0	27.9	
				11	27.97
Are at beginning 6° 8'. Temp. +33°. Time of 2 vibrations 15 ^s .288.					
" end 2 48					
Rate of mean time chronometer 2721 (showing nearly Greenwich time), about 2 ^s .0 losing.					
June 7, 1854. Experiments of vibrations. (Right to left.)					
No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 45 double vibrations.	
1	3 ^h 04 ^m 42 ^s .3	46	3 ^h 16 ^m 10 ^s .2	11 ^m 27 ^s .9	
2	57.6'	47	25.5	27.9	
3	05 12.7	48	40.8	28.1	
4	28.1	49	56.0	27.9	
5	43.3	50	17 11.2	27.9	
6	58.8	51	26.5	27.7	
7	06 13.8	52	41.9	28.1	
8	29.2	53	57.4	28.2	
9	44.4	54	18 12.5	28.1	
10	07 00.0	55	27.8	27.8	
				11	27.96
Arcs and temp. as before. Time of 2 vibrations 15 ^s .288.					

June 7, 1854. Experiments of vibrations. (Left to right.)				
No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 45 double vibrations.
1	3 ^h 22 ^m 08 ^s .0	46	3 ^h 33 ^m 37 ^s .0	11 ^m 29 ^s .0
2	23.3	47	52.3	29.0
3	38.5	48	34 07.6	29.1
4	53.8	49	23.0	29.2
5	23 09.2	50	38.2	29.0
6	24.5	51	53.7	29.2
7	39.7	52	35 09.0	29.3
8	55.0	53	24.5	29.5
9	24 10.3	54	39.6	29.3
10	25.7	55	54.9	29.2
				11 29.18
Arcs at beginning 6° 8'. Temp. 33°. Time of 2 vibrations 15 ^s .315.				
" end 2 48				
June 7, 1854. Experiments of vibrations. (Right to left.)				
No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 45 double vibrations.
1	3 ^h 22 ^m 16 ^s .0	46	3 ^h 33 ^m 45 ^s .0	11 ^m 29 ^s .0
2	31.2	47	31 00.2	29.0
3	46.3	48	15.5	29.2
4	23 01.8	49	30.9	29.1
5	17.0	50	46.3	29.3
6	32.3	51	35 01.5	29.2
7	47.8	52	16.8	29.0
8	24 03.1	53	32.2	29.1
9	18.3	54	47.3	29.0
10	33.3	55	36 02.5	29.2
				11 29.11
Arcs and temp. as before. Time of 2 vibrations 15 ^s .313.				
June 7, 1854. Experiments of vibrations. (Left to right.)				
No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 54 double vibrations.
1	8 ^h 12 ^m 39 ^s .1	55	8 ^h 26 ^m 30 ^s .7	13 ^m 51 ^s .6
2	54.5	56	46.0	51.5
3	13 09.8	57	27 01.5	51.7
4	25.1	58	17.0	51.9
5	40.3	59	32.2	51.9
6	56.0	60	47.8	51.8
7	11 11.3	61	28 03.2	51.9
8	26.5	62	18.8	52.3
9	12.1	63	34.0	51.9
10	57.5	64	49.3	51.8
				13 51.83
Arcs at beginning 6° 40'. Temp. 35. Time of two vibrations 15 ^s .103.				
" end 2 56				

June 7, 1854. Experiments of vibrations. (Right to left.)				
No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 54 double vibrations.
1	8 ^h 12 ^m 46 ^s .8	55	8 ^h 26 ^m 38 ^s .5	13 ^m 51 ^s .7
2	13 02.0	56	54.0	52.0
3	17.2	57	27 09.3	52.1
4	32.6	58	24.8	52.2
5	48.1	59	40.3	52.2
6	14 03.3	60	55.7	52.4
7	18.7	61	28 11.1	52.4
8	34.0	62	26.4	52.4
9	49.5	63	41.9	52.4
10	15 05.0	64	57.4	52.4
				13 52.22
Arcs and time as before. Time of 2 vibrations 15 ^s .412.				
June 7, 1854. Experiments of vibrations. (Left to right.)				
No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 50 double vibrations.
1	8 ^h 35 ^m 17 ^s .1	51	8 ^h 48 ^m 07 ^s .8	12 ^m 50 ^s .7
2	32.2	52	23.1	50.9
3	48.0	53	38.6	50.6
4	36 03.3	54	54.0	50.7
5	19.0	55	49 09.3	50.3
6	34.3	56	24.8	50.5
7	49.6	57	40.1	50.5
8	37 05.1	58	55.6	50.5
9	20.6	59	50 10.9	50.3
10	36.2	60	26.3	50.1
11	51.5	61	41.6	50.1
				12 50.47
Arc 7° 28'. Temp. 35°. Time of 2 vibrations 15 ^s .409.				
3 12				
June 7, 1854. Experiments of vibrations. (Right to left.)				
No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 50 double vibrations.
1	8 ^h 35 ^m 24 ^s .7	51	8 ^h 48 ^m 15 ^s .2	12 ^m 50 ^s .5
2	40.0	52	30.7	50.7
3	55.2	53	46.0	50.8
4	36 10.8	54	49 01.3	50.5
5	26.2	55	16.8	50.6
6	42.0	56	32.2	50.2
7	57.2	57	47.7	50.5
8	37 12.7	58	50 03.0	50.3
9	28.3	59	18.7	50.4
10	43.8	60	33.8	50.0
11	59.0	61	49.2	50.2
				12 50.43
Arcs and temp. as before. Time of 2 vibrations 15 ^s .409.				

RECAPITULATION OF RESULTS, JUNE 7, 1854.					
Set No. 1.	Time of 2 vibrations	.	.	15 ^s .288	Temp. 33°
Set No. 2.	"	"	.	15.288	" 33
			.	15.313	" 33
Set No. 3.	"	"	.	15.403	" 35
			.	15.412	" 35
Set No. 4.	"	"	.	15.409	" 35
			.	15.409	" 35
June 7, 1854.	Mean	.	.	15.355	+ 34.0
	Time of 1 vibration	.	.	7.678	

June 7, 1854. Experiments of deflections.					
Deflecting magnet A. 67.		Deflected magnet I. 10.		Distance 0.9 feet.	
Magnet.	North pole.	Circle reads.	Mean.	2 u.	Temp.
W.	E.	374° 16' 3	15' 7	108° 21' 2	36° 2
"	W.	265 55.0 54.0			38.0
W.	W.	260 58.0 55.5	56.7	107 33.8	36.0
"	E.	368 31.0 30.0	30.5		34.0
				Means 107 57.5	36.0

Experiments of deflections. Distance 1.3 feet.					
Magnet.	North pole.	Circle reads.	Mean.	2 u.	Temp.
E.	E.	331° 33' 0 31.0	32' 0	30° 58' 5	34° 5
"	W.	300 34.0 33.0	33.5		34.3
W.	W.	301 01.0 00.0	00.5	31 35.5	35.8
"	E.	332 37.0 35.0	36.0		35.0
				Means 31 17.0	34.9

These two sets of deflections were observed between the second and third set of the preceding vibrations.

June 8, 1854. Experiments of vibrations. (Left to right.)

No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 40 double vibrations.
1	3 ^h 16 ^m 20 ^s .0	41	3 ^h 26 ^m 40 ^s .4	10 ^m 20 ^s .4
2	35.5	42	56.0	20.5
3	50.9	43	27 11.5	20.6
4	17 06.5	44	27.2	20.7
5	22.2	45	42.6	20.4
6	37.8	46	58.1	20.3
7	53.3	47	28 13.5	20.2
8	18 08.8	48	29.1	20.3
9	24.3	49	44.6	20.3
10	39.8	50	29 00.5	20.7
11	55.2	51	15.5	20.3
				10 20.43

Ares 5° 36'. Temp. 35°. Time of 2 vibrations 15^s.511.
3 20

June 8, 1854. Experiments of vibrations. (Right to left.)

No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 40 double vibrations.
1	3 ^h 16 ^m 27 ^s .3	41	3 ^h 26 ^m 48 ^s .0	10 ^m 20 ^s .7
2	43.2	42	27 03.5	20.3
3	58.6	43	19.0	20.4
4	17 14.2	44	34.6	20.4
5	29.7	45	50.0	20.3
6	45.3	46	28 05.6	20.3
7	18 00.8	47	21.1	20.3
8	16.2	48	36.5	20.3
9	31.8	49	52.2	20.4
10	47.3	50	29 07.6	20.3
11	19 02.9	51	23.3	20.4
				10 20.37

Ares and temp. as before. Time of 2 vibrations 15^s.509.

June 8, 1854. Experiments of vibrations. (Left to right.)

No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 40 double vibrations.
1	3 ^h 31 ^m 33 ^s .3	41	3 ^h 41 ^m 53 ^s .9	10 ^m 20 ^s .6
2	49.0	42	42 09.2	20.2
3	32 04.5	43	24.7	20.2
4	20.0	44	40.2	20.2
5	35.6	45	55.8	20.2
6	51.2	46	43 11.2	20.0
7	33 06.7	47	26.7	20.0
8	22.1	48	42.1	20.0
9	37.6	49	57.7	20.1
10	53.1	50	44 13.0	19.9
11	34 08.3	51	28.5	20.2
				10 20.15

Ares 6° 8'. Temp. 35°.2. Time of 2 vibrations 15^s.503.
and 3 12

June 8, 1854. Experiments of vibrations. (Right to left.)				
No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 40 double vibrations.
1	3 ^h 31 ^m 40 ^s .8	41	3 ^h 42 ^m 01 ^s .2	10 ^m 20 ^s .4
2	56.4	42	16.5	20.1
3	32 11.9	43	32.2	20.3
4	27.3	44	47.5	20.2
5	43.1	45	43 03.0	19.9
6	58.6	46	18.4	19.8
7	33 14.1	47	33.9	19.8
8	29.6	48	49.4	19.8
9	45.1	49	44 04.9	19.8
10	34 00.7	50	20.3	19.6
11	16.2	51	35.8	19.6
				10 19.93
Arcs and temp. as before. Time of 2 vibrations 15 ^s .498.				
(4 sets of deflections were taken after the above, for which see below.)				
June 8, 1854. Experiments of vibrations. (Left to right.)				
No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 40 double vibrations.
1	8 ^h 31 ^m 54 ^s .3	41	8 ^h 42 ^m 09 ^s .5	10 ^m 15 ^s .2
2	32 10.2	42	24.9	14.7
3	25.3	43	40.2	14.9
4	40.8	44	55.5	14.7
5	56.2	45	43 10.9	14.7
6	33 11.4	46	26.2	14.8
7	27.0	47	41.7	14.7
8	42.3	48	56.9	14.6
9	57.4	49	12.3	14.9
10	34 13.1	50	27.5	14.4
11	28.3	51	42.9	14.6
				10 14.75
Arcs 6° 48'. Temp. 35°. Time of 2 vibrations 15 ^s .369. and 2 08				
June 8, 1854. Experiments of vibrations. (Right to left.)				
No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 40 double vibrations.
1	8 ^h 32 ^m 02 ^s .3	41	8 ^h 42 ^m 18 ^s .3	10 ^m 16.0
2	17.8	42	33.6	15.8
3	33.2	43	49.0	15.8
4	48.7	44	43 04.4	15.7
5	33 04.0	45	19.9	15.9
6	19.3	46	35.2	15.9
7	34.8	47	50.6	15.8
8	50.2	48	44 06.0	15.8
9	34 05.5	49	21.4	15.9
10	21.2	50	36.9	15.7
11	36.8	51	52.3	15.5
				10 15.80
Arcs and temp. as before. Time of 2 vibrations 15 ^s .395.				

June 8, 1854.

Experiments of vibrations. (Left to right.)

No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 40 double vibrations.
1	8 ^h 48 ^m 52 ^s .0	41	8 ^h 59 ^m 04 ^s .6	10 ^m 12 ^s .6
2	49 07.3	42	19.7	12.4
3	23.0	43	35.3	12.3
4	38.2	44	50.5	12.3
5	53.4	45	9 00 05.8	12.4
6	50 08.9	46	21.1	12.2
7	24.3	47	36.3	12.0
8	39.6	48	51.6	12.0
9	54.7	49	1 07.0	12.3
10	51 10.1	50	22.2	12.1
11	25.3	51	37.5	12.2
				10 12.25
Arcs 6° 56'.		Temp. 35°.		Time of 2 vibrations 15 ^s .306.
and 3 20				

June 8, 1854.

Experiments of vibrations. (Right to left.)

No.	Time by chronometer 2721.	No.	Time by chronometer 2721.	Time of 40 double vibrations.
1	8 ^h 48 ^m 59 ^s .8	41	8 ^h 59 ^m 12 ^s .0	10 ^m 12 ^s .2
2	49 15.1	42	27.5	12.4
3	30.3	43	42.8	12.5
4	45.8	44	58.0	12.2
5	50 01.1	45	9 00 13.4	12.3
6	16.3	46	28.6	12.3
7	31.8	47	43.9	12.1
8	47.2	48	59.3	12.1
9	51 02.2	49	01 14.6	12.4
10	17.8	50	29.9	12.1
11	33.0	51	45.3	12.3
				10 12.26
Arcs and temp. as before.			Time of 2 vibrations 15 ^s .306.	
Daily rate of chronometer 2721, losing 1 ^s .0.				

RECAPITULATION OF RESULTS, JUNE 8, 1854.

Set No. 1.	Time of 2 vibrations	. . . . .	15 ^s .511	Temp. 35°
			15.509	" 35
Set No. 2.	" "	. . . . .	15.503	" 35.2
			15.498	" 35.2
Set No. 3.	" "	. . . . .	15.369	" 35
			15.295	" 35
Set No. 4.	" "	. . . . .	15.306	" 35
			15.306	" 35
Means			15.425	35.0
Time of 1 vibration			7.712	

The following deflections correspond in time to the middle of the above vibration results.

June 8, 1854. Experiments of deflections.					
Deflecting magnet A. 67.		Deflected magnet I. 10.		Distance 1.3 feet.	
Magnet.	North pole.	Circle reads.	Mean.	2 u.	Temp.
W.	E.	329° 46' 45	45'.5	31° 10'.5	36°.7
"	W.	298 36 34	35.0		37.7
E.	W.	298 08 06	07.0	31 33.5	37.0
"	E.	329 41 40	40.5		36.2
				Means 31 22.0	36.9
Experiments of deflections. Distance 0.9 feet.					
Magnet.	North pole.	Circle reads.	Mean.	2 u.	Temp.
E.	E.	365° 52'.5 51.0	51'.7	110° 58'.2	37°.2
"	W.	254 54 53	53.5		36.6
W.	W.	262 30 28	29.0	106 33.0	37.0
"	E.	369 08 06	07.0		37.0
				Means 108 48.1	36.9
Experiments of deflections. Distance 0.9 feet.					
Magnet.	North pole.	Circle reads.	Mean.	2 u.	Temp.
W.	E.	369° 08'.0 06.5	07'.2	106° 48'.2	37°.2
"	W.	262 20 18	19.0		37.0
E.	W.	254 41 40	40.5	110 06.7	37.6
"	E.	364 48.0 46.5	47.2		36.6
				Means 108 27.4	37.1
Experiments of deflections. Distance 1.3 feet.					
Magnet.	North pole.	Circle reads.	Mean.	2 u.	Temp.
E.	E.	328° 52' 52	52'.0	31° 29'.5	36°.0
"	W.	297 23 22	22.5		35.2
W.	W.	298 03 02	02.5	31 10.5	36.3
"	E.	329 13 13	13.0		37.0
				Means 31 20.0	36.1

June 19, 1854. Experiments of deflections.					
Deflecting magnet A. 67.		Deflected magnet I. 7.		Distance 0.9 feet.	
Magnet.	North pole.	Circle reads.	Mean.	2 u.	Temp.
W.	W.	268° 50'	49'.5	107° 33'.0	40°.6
"	E.	376 23	22.5		41.6
E.	E.	373 05	04.5		41.2
"	W.	267 00	59.5	106 05.0	41.2
		266 59		Means 106 49.0	41.1
Experiments of deflections. Distance 1.3 feet.					
Magnet.	North pole.	Circle reads.	Mean.	2 u.	Temp.
E.	W.	303° 38'	37'.5	30° 43'.0	40°.8
"	E.	334 21	20.5		41.0
W.	E.	334 46	46.0		43.5
"	W.	304 04	03.5	30 42.5	43.0
		03		Means 30 42.7	42.1
June 19, 1854. Experiments of vibrations. (Left to right.)					
No.	Time. ¹	No.	Time. ¹	Time of 40 double vibrations.	
1	4 ^h 33 ^m 20 ^s .1	41	4 ^h 43 ^m 38 ^s .6	10 ^m 18 ^s .5	
2	35.3	42	54.0	18.7	
3	51.0	43	44 09.5	18.5	
4	34 06.5	44	25.0	18.5	
5	21.9	45	40.4	18.5	
6	37.3	46	55.9	18.6	
7	52.8	47	45 11.2	18.4	
8	35 08.3	48	26.6	18.3	
9	23.8	49	42.1	18.3	
10	39.3	50	57.7	18.4	
11	54.9	51	46 13.0	18.1	
				10 18.44	
Arcs 7° 28'. and 3 44		Temp. 43°.		Time of 2 vibrations 15 ^s .461.	

¹ Number of chronometer not stated.

June 19, 1854.		Experiments of vibrations. (Right to left.)		
No.	Time.	No.	Time.	Time of 40 double vibrations.
1	4 ^h 33 ^m 28 ^s .2	41	4 ^h 43 ^m 46 ^s .8	10 ^m 18 ^s .6
2	43.4	42	44 02.3	18.9
3	59.0	43	17.8	18.8
4	34 14.3	44	33.2	18.9
5	29.9	45	48.6	18.7
6	45.3	46	45 04.2	18.9
7	35 00.9	47	19.5	18.6
8	16.3	48	35.1	18.8
9	31.9	49	50.1	18.5
10	47.2	50	46 05.8	18.6
11	36 02.8	51	21.4	18.6
				10 18.72
Arcs and temp. as before.		Time of 2 vibrations 15 ^s .463.		

Experiments of vibrations. (Left to right.)				
No.	Time.	No.	Time.	Time of 40 double vibrations.
1	4 ^h 50 ^m 26 ^s .2	41	5 ^h 00 ^m 44 ^s .0	10 ^m 17 ^s .8
2	41.8	42	59.3	17.5
3	57.3	43	01 14.8	17.5
4	51 12.9	44	30.3	17.4
5	28.2	45	45.9	17.7
6	43.5	46	02 01.3	17.8
7	59.1	47	16.7	17.6
8	52 14.5	48	32.2	17.7
9	29.9	49	47.7	17.8
10	45.4	50	03 03.2	17.8
11	53 01.0	51	18.8	17.8
				10 17.67
Arcs 6° 56', and 4 00		Temp. 43°.		Time of 2 vibrations 15 ^s .442.

Experiments of vibrations. (Right to left.)				
No.	Time.	No.	Time.	Time of 40 double vibrations.
1	4 ^h 50 ^m 34 ^s .1	41	5 ^h 00 ^m 51 ^s .6	10 ^m 17 ^s .5
2	49.5	42	01 07.1	17.6
3	51 04.9	43	22.4	17.5
4	20.3	44	37.9	17.6
5	35.9	45	53.4	17.5
6	51.2	46	02 08.9	17.7
7	52 06.9	47	24.3	17.4
8	22.2	48	39.6	17.4
9	57.8	49	55.0	17.2
10	53.1	50	03 10.3	17.2
11	53 08.6	51	25.8	17.3
				10 17.44
Arcs and temp. as before.		Time of 2 vibrations 15 ^s .436.		

June 19, 1854.

Experiments of vibrations. (Left to right.)

No.	Time.	No.	Time.	Time of 40 double vibrations.
1	5 ^h 13 ^m 12 ^s .2	41	5 ^h 23 ^m 30 ^s .3	10 ^m 18 ^s .1
2	27.9	42	45.7	17.8
3	43.3	43	24 01.2	17.9
4	58.9	44	16.8	17.9
5	14 14.2	45	32.3	18.1
6	29.5	46	47.9	18.4
7	45.1	47	25 03.4	18.3
8	15 00.3	48	18.9	18.6
9	16.1	49	34.1	18.0
10	31.3	50	49.7	18.4
11	46.9	51	26 05.1	18.2
				10 18.15
Arcs 6° 48'. Temp. 42°.4. Time of 2 vibrations 15 ^s .454.				
3 36				

Experiments of vibrations. (Right to left.)

No.	Time.	No.	Time.	Time of 40 double vibrations.
1	5 ^h 13 ^m 20 ^s .2	41	5 ^h 23 ^m 37 ^s .6	10 ^m 17 ^s .4
2	35.7	42	52.9	17.2
3	51.2	43	24 08.3	17.1
4	14 06.5	44	24.0	17.5
5	22.1	45	39.5	17.4
6	37.5	46	54.9	17.4
7	53.2	47	25 10.2	17.0
8	15 08.4	48	25.2	16.8
9	23.7	49	40.8	17.1
10	39.2	50	56.5	17.3
11	54.8	51	26 11.7	16.9
				10 17.19
Arcs and temp. as before. Time of 2 vibrations 15 ^s .430.				

Experiments of vibrations. (Left to right.)

No.	Time.	No.	Time.	Time of 40 double vibrations.
1	5 ^h 33 ^m 23 ^s .3	41	5 ^h 43 ^m 39 ^s .5	10 ^m 16 ^s .2
2	38.9	42	54.9	16.0
3	54.2	43	41 10.3	16.1
4	34 09.5	44	25.8	16.3
5	25.2	45	41.3	16.1
6	40.4	46	56.7	16.3
7	55.9	47	45 11.9	16.0
8	35 11.2	48	27.4	16.2
9	26.8	49	42.8	16.0
10	42.2	50	58.2	16.0
11	57.6	51	46 13.6	16.0
				10 16.11
Arcs 7° 04'. Temp. 42°.4. Time of two vibrations 15 ^s .403.				
3 28				

Experiments of vibrations. (Right to left.)					
No.	Time.	No.	Time.	Time of 40 double vibrations.	
1	5 ^h 33 ^m 31 ^s .2	41	5 ^h 43 ^m 47 ^s .2	10 ^m 16 ^s .0	
2	46.5	42	44 02.8	16.3	
3	34 02.1	43	18.1	16.0	
4	17.4	44	33.5	16.1	
5	33.0	45	49.0	16.0	
6	48.4	46	45 04.5	16.1	
7	35 03.7	47	19.8	16.1	
8	19.0	48	35.2	16.2	
9	34.3	49	50.6	16.3	
10	49.5	50	46 05.9	16.4	
11	36 05.2	51	21.3	16.1	
				10	16.15
Arcs and temp. as before.			Time of 2 vibrations 15 ^s .404.		
RECAPITULATION OF RESULTS, JUNE 19, 1854.					
Set No. 1.	Time of 2 vibrations	.	.	15 ^s .461	Temp. 43°
		.	.	15.463	" 43
Set No. 2.	" "	.	.	15.442	" 43
		.	.	15.436	" 43
Set No. 3.	" "	.	.	15.454	" 42.4
		.	.	15.430	" 42.4
Set No. 4.	" "	.	.	15.403	" 42.4
		.	.	15.404	" 42.4
Means				15.437	42.7
Time of 1 vibration				7.718	
June 19, 1854. Experiments of deflections.					
Deflecting magnet A. 67.		Deflected magnet I. 7.		Distance 1.3 feet.	
Magnet.	North pole.	Circle reads.	Mean.	2 u.	Temp.
W.	W.	298° 54'	53'.5		42° 0
"	E.	53		30° 53'.0	
		329 47	46.5		42.2
		46			
E.	E.	329 20	19.5		43.2
		19		30 50.0	
"	W.	298 30	29.5		42.0
		29			
				Means 30 51.5	42.4
Experiments of deflection. Distance 0.9 feet.					
Magnet.	North pole.	Circle reads.	Mean.	2 u.	Temp.
E.	W.	259° 19'	18'.5		42° 2
		18		106° 11'.5	
"	E.	365 31	30.0		42.0
		29			
W.	E.	369 39	38.5		43.2
		38		106 30.5	
"	W.	263 09	08.0		41.8
		07			
				Means 106 21.0	42.3

June 24, 1854.

Experiments of deflections.

Deflecting magnet A. 67.

Deflected magnet I. 7.

Distance 0.9 feet.

Magnet.	North pole.	Circle reads.	Means.	2 u.	Temp.
W.	W.	264° 10'			
		09	09'.5		38°.0
"	E.	369 42		105° 32'.0	
		41	41.5		38.0
E.	E.	365 00			
		364 59	59.5		38.0
"	W.	259 50		105 10.0	
		49	49.5		38.0
				Means 105 21.0	38.0

Experiments of deflection.

Distance 1.3 feet.

Magnet.	North pole.	Circle reads.	Means.	2 u.	Temp.
E.	W.	298° 37'			
		36	36'.5		38°.5
"	E.	329 21		30° 44'.5	
		21	21.0		38.6
W.	E.	330 13			
		12	12.5		40.3
"	W.	299 42		30 31.0	
		41	41.5		40.0
				Means 30 37.7	39.4

June 24, 1854.

Experiments of vibrations. (Left to right.)

No.	Time by chronometer 264.	No.	Time by chronometer 264.	Time of 40 double vibrations.
1	4 ^h 21 ^m 34 ^s .3	41	4 ^h 31 ^m 53 ^s .3	10 ^m 19 ^s .0
2	49.6	42	32 08.8	19.2
3	22 05.2	43	24.2	19.0
4	20.7	44	39.6	18.9
5	36.3	45	55.0	18.7
6	51.8	46	33 10.4	18.6
7	23 07.3	47	26.3	19.0
8	22.8	48	41.8	19.0
9	38.4	49	57.2	18.8
10	53.8	50	34 12.5	18.7
11	24 09.1	51	28.0	18.9
				10 18.89
Arcs 6° 16'.		Temp. 41°.2.		Time of 2 vibrations 15 ^s .472.
and 3 20				

The chronometer nearly shows Greenwich mean time, and its daily rate is less than 0^s.5 (gaining).

June 24, 1854. Experiments of vibrations. (Right to left.)				
No.	Time by chronometer 264.	No.	Time by chronometer 264.	Time of 40 double vibrations.
1	4 ^h 21 ^m 41 ^s .8	41	4 ^h 31 ^m 59 ^s .0	10 ^m 17 ^s .2
2	57.1	42	32 14.3	17.2
3	22 12.6	43	29.2	16.6
4	28.2	44	44.4	16.2
5	43.4	45	59.5	16.1
6	59.0	46	33 14.9	15.9
7	23 14.3	47	30.3	16.0
8	29.8	48	45.8	16.0
9	45.2	49	34 01.0	15.8
10	24 00.8	50	16.3	15.5
11	16.2	51	31.6	15.4
				10 16.17
Arcs and temp. as before. Time of 2 vibrations 15 ^s .404.				
June 24, 1854. Experiments of vibrations. (Left to right.)				
No.	Time by chronometer 264.	No.	Time by chronometer 264	Time of 40 double vibrations.
1	4 ^h 40 ^m 31 ^s .1	41	4 ^h 50 ^m 46 ^s .0	10 ^m 14 ^s .9
2	46.5	42	51 01.3	14.8
3	41 02.0	43	16.8	14.8
4	17.4	44	32.0	14.6
5	32.8	45	47.5	14.7
6	48.2	46	52 02.8	14.6
7	42 03.5	47	18.1	14.6
8	18.9	48	33.4	14.5
9	34.3	49	48.8	14.5
10	43.8	50	53 04.1	14.3
11	43 05.1	51	19.4	14.3
				10 14.60
Arcs 5° 52'. Temp. 41° 2. Time of 2 vibrations 15 ^s .365. and 3 20				
June 24, 1854. Experiments of vibrations. (Right to left.)				
No.	Time by chronometer 264.	No.	Time by chronometer 264.	Time of 40 double vibrations.
1	4 ^h 40 ^m 38 ^s .8	41	4 ^h 50 ^m 53 ^s .8	10 ^m 15 ^s .0
2	54.2	42	51 09.2	15.0
3	41 09.5	43	24.6	15.1
4	24.9	44	40.0	15.1
5	40.2	45	55.4	15.2
6	55.8	46	52 10.8	15.0
7	42 11.1	48	26.2	15.1
8	26.3	47	41.6	15.3
9	41.9	49	57.0	15.1
10	57.2	50	53 12.3	15.1
11	43 12.6	51	27.8	15.2
				10 15.11
Arcs and temp. as before. Time of 2 vibrations 15 ^s .378.				

June 24, 1854. Experiments of vibrations. (Left to right.)

No.	Time by chronometer 264.	No.	Time by chronometer 264.	Time of 40 double vibrations.
1	5 ^h 03 ^m 29 ^s .3	41	5 ^h 15 ^m 44 ^s .5	10 ^m 15.2
2	44.9	42	59.5	14.6
3	04 00.3	43	14 15.1	14.8
4	15.6	44	30.4	14.8
5	31.0	45	45.9	14.9
6	46.4	46	15 01.3	14.9
7	05 01.8	47	16.8	15.0
8	17.1	48	32.2	15.1
9	32.3	49	47.7	15.4
10	47.8	50	16 02.9	15.1
11	06 02.2	51	18.2	15.0
				10 14.982
Arcs 6° 16'. Temp. 41°.2. Time of 2 vibrations 15°.375 and 3 28				

June 24, 1854. Experiments of vibrations. (Right to left.)

No.	Time by chronometer 264.	No.	Time by chronometer 264.	Time of 40 double vibrations.
1	5 ^h 03 ^m 37 ^s .1	41	5 ^h 13 ^m 52 ^s .0	10 ^m 14.9
2	52.4	42	14 07.6	15.2
3	04 07.8	43	23.0	15.2
4	23.2	44	38.3	15.1
5	38.4	45	53.8	15.4
6	53.8	46	15 09.1	15.3
7	05 09.3	47	24.5	15.2
8	24.5	48	39.9	15.4
9	40.0	49	55.2	15.2
10	55.0	50	16 10.6	15.6
11	06 10.8	51	26.0	15.2
				10 15.24
Arcs and temp. as before. Time of 2 vibrations 15°.381.				

June 24, 1854. Experiments of vibrations. (Left to right.)

No.	Time by chronometer 264.	No.	Time by chronometer 264.	Time of 40 double vibrations.
1	5 ^h 18 ^m 38 ^s .3	41	5 ^h 28 ^m 54 ^s .8	10 ^m 16 ^s .5
2	54.0	42	29 10.1	16.1
3	19 09.3	43	25.3	16.0
4	24.9	44	40.8	15.9
5	40.3	45	56.2	15.9
6	55.7	46	30 11.6	15.9
7	20 11.2	47	27.0	15.8
8	26.7	48	42.4	15.7
9	42.2	49	57.8	15.6
10	57.5	50	31 13.1	15.6
11	21 12.9	51	28.7	15.8
				10 15.89
Arcs 6° 48'. Temp. 41°.2. Time of 2 vibrations 15°.397. 3 20				

June 24, 1854. Experiments of vibrations. (Right to left.)					
No.	Time by chronometer 264.	No.	Time by chronometer 264.	Time of 40 double vibrations.	
1	5 ^h 18 ^m 46 ^s .2	41	5 ^h 29 ^m 02 ^s .7	10 ^m 16 ^s .5	
2	19 01.9	42	18.0	16.1	
3	17.2	43	23.6	16.4	
4	32.8	44	49.0	16.2	
5	48.2	45	30 04.2	16.0	
6	20 03.6	46	19.7	16.1	
7	19.0	47	35.0	16.0	
8	34.3	48	50.4	16.1	
9	49.7	49	31 05.8	16.1	
10	21 05.1	50	21.5	16.4	
11	20.6	51	36.8	16.2	
				10	16.19
Arcs and temp. as before.			Time of 2 vibrations 15 ^s .405.		
RECAPITULATION OF RESULTS, JUNE 24, 1854.					
Set No. 1.	Time of 2 vibrations		15 ^s .472	Temp.	41 ^o .2
			15.404	"	41.2
Set No. 2.	" "		15.365	"	41.2
			15.378	"	41.2
Set No. 3.	" "		15.375	"	41.2
			15.381	"	41.2
Set No. 4.	" "		15.397	"	41.2
			15.405	"	41.2
Mean			15.397	41.2	
Time of 1 vibration			7.699		
June 24, 1854. Experiments of deflections.					
Deflecting magnet A. 67.		Deflected magnet I. 7.		Distance 1.3 feet.	
Magnet.	North pole.	Circle reads.	Means.	2 u.	Temp.
W.	W.	300 ^o 17'	16'.0		44 ^o .2
		15			
"	E.	330 29	28.0	30 ^o 12'.0	43.0
		27			
E.	E.	330 41	40.5		42.2
		40		30 37.0	
"	W.	300 04	03.5		42.4
		03			
			Means	30 24.5	42.9
Experiments of deflections. Distance 0.9 feet.					
Magnet.	North pole.	Circle reads.	Means.	2 u.	Temp.
E.	W.	261 ^o 24'	23'.0		41.4
		22			
"	E.	367 31	30.5	106 ^o 07'.5	41.0
		30			
W.	E.	373 07	06.0		42.4
		05		109 04.5	
"	W.	264 02	01.5		41.7
		01			
			Means	107 36.0	41.6

The detail record of the observations of deflections and vibrations at Van Rensselaer Harbor, in May, 1855, and of the vibrations at Hakluyt Island, and near Cape York, in June and July, 1855, could not be found; the results, however, are preserved in Appendix No. XV. of the Narrative (vol. II.), and are herewith subjoined.

SYNOPSIS OF RESULTS OF VIBRATIONS AND DEFLECTIONS, OBSERVED AT VAN RENSSELAER HARBOR
DURING THE YEARS 1854 AND '55.

Date.	Temp.'s observed.	Time of 1 vibration.	Mean adopted. <i>T.</i>	Corresponding temp. <i>t.</i>	Angle of deflection. <i>α.</i>	Distance in feet. <i>r.</i>
1854.						
January 17	50°.0	7 ^s .705	7 ^s .749	63°.0	15° 23'.3 39 20.0	1.3 0.975
" 18	68.0	7.748				
" 18	68.0	7.761				
" 31	72.1					
February 13	60.5				15 24.8	1.3
" 21	79.0	7.780				
" 21	79.0	7.782				
" 21	55.0	7.755				
" 21	55.0	7.758				
" 27	57.5					
June						
" 7	33.0	7.644	7.678	34.0	53 58.7 15 38.5	0.9 1.3
" 7	33.0	7.644				
" 7	33.0	7.657				
" 7	33.0	7.656				
" 7	34.0					
" 7	34.9					
" 7	35.0	7.702				
" 7	35.0	7.706				
" 7	35.0	7.705				
" 7	35.0	7.704				
June						
" 8	35.0	7.755	7.712	35.0	15 41.0 54 24.0 54 13.7 15 40.0	1.3 0.9 0.9 1.3
" 8	35.0	7.754				
" 8	35.2	7.752				
" 8	35.2	7.749				
" 8	36.9					
" 8	36.9					
" 8	37.1					
" 8	36.1					
" 8	35.0	7.685				
" 8	35.0	7.697				
" 8	35.0	7.653				
" 8	35.0	7.653				
June						
" 19	41.1		7.718	42.7	53 24.5 15 21.3	0.9 1.3
" 19	42.1					
" 19	43.0	7.730				
" 19	43.0	7.731				
" 19	43.0	7.721				
" 19	43.0	7.718				
" 19	42.4	7.727			15 25.7 53 10.5	1.3 0.9
" 19	42.4	7.715				
" 19	42.4	7.702				
" 19	42.4	7.702				
" 19	42.4					
" 19	42.3					

Date.	Temp.'s observed.	Time of 1 vibration.	Mean adopted. <i>T.</i>	Corresponding temp. <i>t.</i>	Angle of deflection. <i>u.</i>	Distance in feet. <i>r.</i>
1854.						
June 24	38°.0				52° 40'.5	0.9
" 24	39.4				15 18.8	1.3
" 24	41.2	7.736	7.699	41°.2		
" 24	41.2	7.702				
" 24	41.2	7.683				
" 24	41.2	7.689				
" 24	41.2	7.688				
" 24	41.2	7.690				
" 24	41.2	7.698				
" 24	41.2	7.702			15 12.3	1.3
" 24	42.9				53 48.0	0.9
" 24	41.6					
1855.						
May 16	17.0	7.448	7.405	19.3		
" 16	19.3	7.416				
" 16	17.0				14 37.1	1.3
" 16	17.0				50 50.7	0.9
" 16	22.0	7.384				
" 16	19.0	7.371				
May 17	23.0	7.394	7.391	23.0		
" 17	23.0	7.388				
" 17	23.0				49 59.8	0.9
" 17	23.0				14 32.6	1.3
May 18	15.0	7.383	7.384	15.0		
" 18	15.0	7.385				
" 18	27.0				14 23.2	1.3
" 18	27.0				48 00.8	0.9
May 19	28.0	7.407	7.405	28.2		
" 19	28.5	7.413				
" 19	28.0	7.396				
" 19	27.0				49 00.7	0.9
" 19	27.0				14 36.7	1.3
" 19	27.0					

ABSTRACT OF OBSERVATIONS OF VIBRATIONS AT HAKLUYT ISLAND.

Approx. lat. 77° 23'. Approx. long. 72° 30' W. of Gr.

1855.	June 21.	33°.3	7°.020	7°.026	33°.5
"	21.	33.3	7.026		
"	21.	33.8	7.033		

ABSTRACT OF OBSERVATIONS OF VIBRATIONS AT A STATION IN LAT. 76° 03' AND LONG. 68° 00' W. OF GR., ON THE COAST BETWEEN PARKER SNOW'S POINT AND CAPE YORK.

1855.	July 19.	40°.0	6°.475	6°.495	40°.5
"	19.	41.5	6.489		
"	19.	41.2	6.541		
"	19.	39.5	6.474		

DETERMINATION OF THE MOMENT OF INERTIA OF MAGNET A. 67.

(With stirrup and mirror attached.)

No determination of the moment of inertia of magnet A. 67 having been made by the expedition, it became necessary to determine the same afterwards. The following observations for this purpose were made by myself at the Coast Survey Office, Washington, D. C.

After adjusting the instrument and suspending A. 67, the following experiments of vibrations were made:—

March 18, 1858. Mean time chronometer Kessels 1285.					
No. of vibrations.	Mean local time by chronometer 1285.	20 vibrations.	No. of vibrations.	Time by chronometer 1285.	18 vibrations.
0	9 ^h 31 ^m 10 ^s .7	1 ^m 21 ^s .7	0	10 ^h 28 ^m 51 ^s .3	1 ^m 13 ^s .2
20	32 32.4	21.6	18	30 04.5	13.5
40	33 54.0	21.1	36	31 18.0	13.0
60	35 15.1	21.4	54	32 31.0	13.8
80	36 36.5	21.5	72	33 44.8	13.1
100	37 58.0		90	34 57.9	
		Mean 1 21.47			Mean 1 13.32
Temp. 71°.S. (Rate of chronometer too small to affect the result.) 1 vibration=4 ^s .073.			Arc 234 ^d and 328 ^d Temp. 71°.0. 242 318 1 vibration=4 ^s .073		

The mirror was below the magnet in these two sets; in the following four sets it was above.

Magnet suspended with inertia ring Z, of the following dimensions: Outer diameter 2.322 inches; inner diameter 1.837 inches; thickness 0.188 inches at 69°; weight 648.937 grains: hence $K_1 = \frac{1}{2}(r^2 + r_1^2)w = 4.936$ (in feet and grains), $lg K_1 = 0.69338$.

Vibrations with ring.					
No. of vibrations.	Time by chronometer 1285.	20 vibrations.	No. of vibrations.	Time by chronometer 1285.	20 vibrations.
0	12 ^h 34 ^m 06 ^s .0	2 ^m 26 ^s .2	0	12 ^h 48 ^m 13 ^s .6	2 ^m 25 ^s .9
20	36 32.2	26.6	20	50 39.5	25.8
40	38 58.8	25.3	40	53 05.3	26.2
60	41 24.1	25.5	60	55 31.5	28.9 ¹
80	43 49.6	25.8	80	58 00.4	26.2
100	46 15.4		100	13 00 26.6	
		2 25.88			2 26.02
Arc 190 ^d —360 ^d Temp. 75°. 228 —321 1 vibration 7 ^s .294.			Arc 229 ^d —321 ^d 239 —301 1 vibration=7 ^s .301		
Vibrations without ring.					
No. of vibrations.	Time by chronometer 1285.	20 vibrations.	No. of vibrations.	Time by chronometer 1285.	20 vibrations.
0	1 ^h 17 ^m 29 ^s .9	1 ^m 21 ^s .3	0	1 ^h 26 ^m 50 ^s .7	1 ^m 21 ^s .4
20	18 51.2	21.3	20	28 12.1	20.9
40	20 12.5	21.5	40	29 33.0	21.5
60	21 34.0	21.1	60	30 54.5	21.4
80	22 55.1	21.9	80	32 15.9	21.1
100	24 17.0		100	33 37.0	
		1 21.42			1 21.26
Arc 298 ^d —230 ^d Temp. 76°. 1 vibration 4 ^s .071.			1 vibration=4 ^s .063.		

¹ Omitted, disturbed by a current of air.

Observations for torsion.			
Torsion circle.	Scale readings.	Mean.	Diff.
74°	248—304	276	21 ^d 77 60 <hr/> 31' = 39 ^d for 90° 42
164	361—234	297	
344	11—428	220	
74	190—370	280	
For torsion with ring use			
March 19, 1858. Vibrations without ring. (Mirror above.)			
No. of vibrations.	Time by chronometer 1285.	20 vibrations.	
0	9 ^h 23 ^m 31 ^s .9	1 ^m 21 ^s .2	Temp. 75°. 1 vibration = 4 ^s .061.
20	24 53.1	21.2	
40	26 14.3	21.2	
60	27 35.5	21.4	
80	28 56.9	21.1	
100	30 18.0	21.22	
Vibrations with ring.			
No. of vibrations.	Time by chronometer 1285.	20 vibrations.	
0	9 ^h 50 ^m 17 ^s .0	2 ^m 26 ^s .3	1 vibration = 7 ^s .301.
20	52 43.3	26.4	
40	55 09.7	25.8	
60	57 35.5	25.6	
80	60 01.1	26.02	
RECAPITULATION OF RESULTS.			
March 18, 1858.	1 vibration, without ring	4 ^s .073	Temp. 71°.8
" "	" " " " " "	4.073	" 71.0
" "	" with " " " " " "	—	" 75.0
" "	" " " " " " " " " " " "	7 ^s .294	" 75.0
" "	" " " " " " " " " " " "	7.301	" 76.0
" "	" without " " " " " " " " " " " "	4.071	" 76.0
" "	" " " " " " " " " " " " " " " "	4.063	" 75.0
March 19, 1858.	" " " " " " " " " " " " " " " "	4.061	" 75.0
" "	" with " " " " " " " " " " " " " " " "	—	" 75.0
Mean by combination		T = 4.069 at 74°.0	T ₁ = 7.299 at 75°.0

The moment of inertia of the magnet (with appendages) K becomes for the temp. 69° (and corrected for torsion)

$$K = K_1 \left(\frac{T^2}{T_1^2 - T^2} \right) = 2.220 \text{ and } l g K = 0.34631.$$

Using 0.0000068 for the coefficient of dilatation for 1° Fahr., the above $l g K$ for different temperatures becomes:

$$\begin{array}{llll} \text{For } 62^\circ, & l g K = 0.34628 & \text{and } l g \pi^2 K = 1.34058 \\ \text{" } 32^\circ, & \text{" } 0.34609 & \text{" } = 1.34039 & (\text{CHAS. A. S.}) \end{array}$$

The value of the induction coefficient

$$P = - \frac{r^2 r_1^5 \sin. u_1 - r_1^2 r^5 \sin. u}{r_1^5 \sin. u_1 - r^5 \sin. u}$$

may be put in the following convenient form—

$$P = - r^2 \frac{\sigma - \varrho^3}{\sigma - \varrho^5} \text{ where } \sigma = \frac{\sin. u^1}{\sin. u} \text{ and } \varrho = \frac{r}{r_1}.$$

We find:	June 7, 1854	.	.	.	.	.	.	$P = -0.007$
	" 8,	"	.	.	.	.	.	-0.003
	" 8,	"	.	.	.	.	.	-0.006
	" 19,	"	.	.	.	.	.	$+0.009$
	" 19,	"	.	.	.	.	.	-0.003
	" 24,	"	.	.	.	.	.	-0.001
	" 24,	"	.	.	.	.	.	$\left\{ +0.033 \right\}$
	May 16, 1855	.	.	.	.	.	.	$\left\{ +0.035 \right\}$
	" 17,	"	.	.	.	.	.	$\left\{ +0.039 \right\}$
	" 18,	"	.	.	.	.	.	-0.011
	" 19,	"	.	.	.	.	.	-0.011

If we take the indiscriminate mean of the above values we find $P = +0.007$, and if we reject the three values marked by brackets, $P = -0.004$; the latter value is probably nearer the truth than the first one, but both are so small that they may be neglected in the computation of the intensity.

In the absence of observations, the temperature coefficient for the magnetic moment or q may be assumed $= 0.0003$, a value found for other magnets of the same magnetic moment and size; with but three exceptions, the temperature corrections are small.

After correcting for difference of temperature, the following results for magnetic moment m and horizontal intensity X have been computed by the formulæ

$$\frac{m}{X} = \frac{1}{2} r^3 \sin. u \text{ and } m X = \frac{\pi^2 k}{T^2}.$$

TABLE OF RESULTS OF $\log \frac{m}{X}$, $\log m X$, OF m THE MAGNETIC MOMENT OF MAGNET A. 67, AND OF THE HORIZONTAL INTENSITY X , AT VAN RENSSELAER HARBOR.

Date.	$\lg. \frac{m}{X}$.	$\lg. m X$.	m .	X .
1854.				
Jan. 31	9.46463	9.56091	0.326	1.117
Feb. 13	9.46795	9.56243	0.327	1.115
" 27	9.46532	9.56282	0.327	1.119
June 7	9.46954	9.56964	0.330	1.122
" 7	9.47155	9.56980	0.331	1.120
" 8	9.47268	9.56583	0.330	1.113
" 8	9.47184	9.56583	0.330	1.114
" 8	9.47091	9.56581	0.330	1.115
" 8	9.47223	9.56593	0.330	1.114
" 19	9.46636	9.56570	0.328	1.121
" 19	9.46371	9.56556	0.327	1.124
" 19	9.46574	9.56552	0.328	1.122
" 19	9.46504	9.56553	0.328	1.123
" 24	9.46218	9.56801	0.327	1.130
" 24	9.46256	9.56782	0.328	1.129
" 24	9.45956	9.56737	0.326	1.133
" 24	9.46855	9.56754	0.330	1.121
1855.				
May 16	9.44285	9.60156	0.332	1.200
" 16	9.45125	9.60156	0.336	1.189
" 17	9.44593	9.60293	0.334	1.198
" 17	9.44065	9.60293	0.332	1.206
" 18	9.43607	9.60219	0.331	1.210
" 18	9.43286	9.60219	0.329	1.215
" 19	9.43956	9.60148	0.332	1.205
" 19	9.44266	9.60148	0.332	1.200
Mean value of $m = 0.330$ at $t = 36^\circ$. ¹				

RECAPITULATION OF VALUES OF X .

January 31, 1854	. . . . .	$X = 1.117$
February 20, "	. . . . .	1.117
June 15, "	. . . . .	1.121
May 18, 1855	. . . . .	1.203

Mean corresponding to June, 1854 1.139

Taking the above value 1.139 for the mean horizontal force during the whole period, and multiplying it by sec. $84^\circ 45'.8$, the total force at Van Rensselaer Harbor during the same period becomes $\phi = 12.479$.

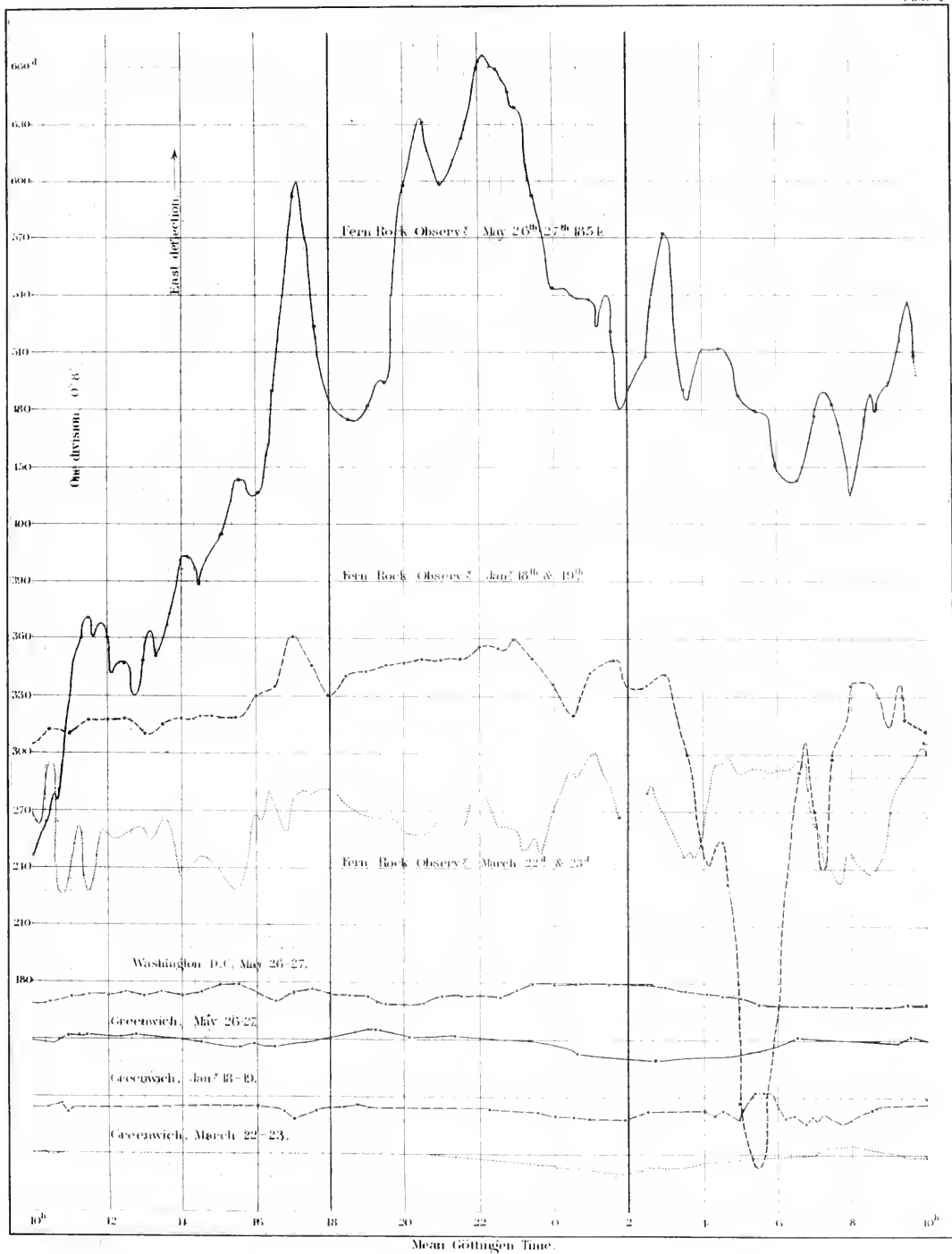
By means of the known value of m the horizontal intensity at the stations Hakluyt Island and coast near Cape York has been computed as follows:—

Hakluyt Island, June 21, 1855	. . . . .	$X = 1.344$
Coast near Cape York, July 19, 1855	. . . . .	$X = 1.573$

¹ I redetermined m at Washington, D. C., in March, 1858, and found it equal to 0.311, exhibiting but a small loss of magnetism during nearly four years.

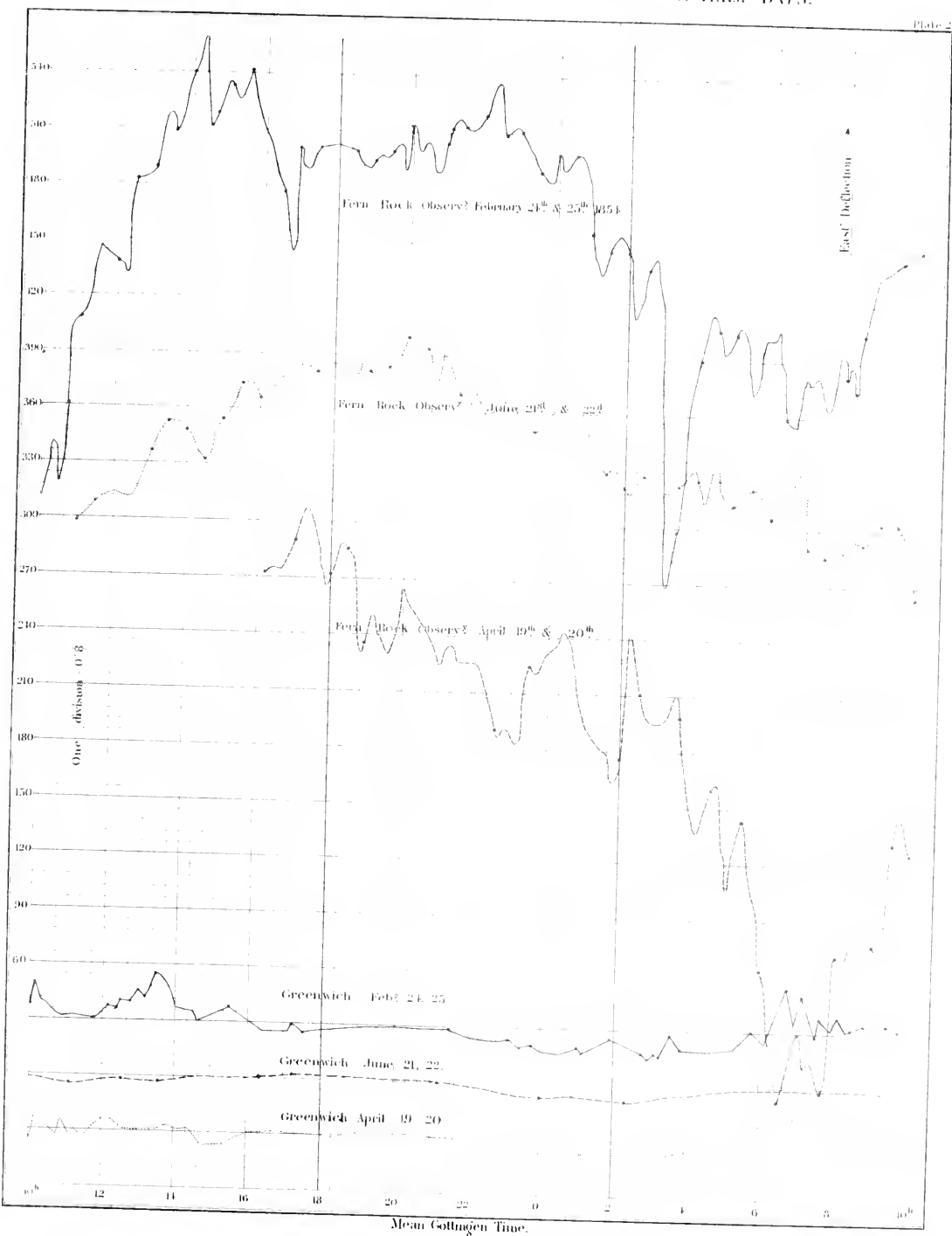
DURNAL CHANGES OF THE MAGNETIC DECLINATION ON TERM DAYS.

Plate 1



DURNAL CHANGES OF THE MAGNETIC DECLINATION ON TERM DAYS.

Plate 2



SMITHSONIAN CONTRIBUTIONS TO KNOWLEDGE.

GRAMMAR AND DICTIONARY
OF THE
YORUBA LANGUAGE.

WITH AN
INTRODUCTORY DESCRIPTION
OF
THE COUNTRY AND PEOPLE OF YORUBA.

BY THE
REV. T. J. BOWEN

Missionary of the Southern Baptist Convention.

ACCEPTED FOR PUBLICATION,
BY THE SMITHSONIAN INSTITUTION,

MAY, 1856.

R. CRAIGHEAD,
PRINTER, STEREOTYPIC, AND ELECTROLYTER,
Corton Building,
81, 83, and 85 Centre Street, N. Y.

ADVERTISEMENT.

THIS work is the result of the labors of one of the members of the Southern Baptist Missionary Society, who resided several years in the Yoruba country, and enjoyed a very favorable opportunity of becoming intimately acquainted with the manners, the customs, the mental character, and the language of the people.

The manuscript was offered to the Smithsonian Institution for publication; but before it was accepted, it was referred by the Secretary to Professor W. W. Turner of this city for critical examination, and was subsequently placed in his hands for general revision and scientific arrangement. It was next submitted to the American Oriental Society for an opinion as to its character, and was finally adopted for publication as one of the Smithsonian Contributions to Knowledge on the receipt of the following report:

BOSTON and NEW HAVEN, *May*, 1858.

The undersigned, having been appointed, by the American Oriental Society, at its meeting held in Boston, May 19th, 1858, a Committee to examine and report upon the Grammar and Dictionary of the Yoruba Language presented to the Smithsonian Institution for publication, have made examination of these works, and declare that they are, in their opinion, true contributions to knowledge, interesting and valuable from the subject and the manner in which it is treated, and that they will be welcomed both by philologists and by those who have at heart the success of philanthropic and Christian effort in Africa.

JOSIAH W. GIBBS, }
W. D. WHITNEY, } *Committee.*
R. ANDERSON, }

The Institution is much indebted to Professor Turner for the labor he has bestowed upon the revision of the work, as well as for the time he has given to it in its passage through the press.

JOSEPH HENRY, *Sec'y S. I.*

Washington, June, 1858.

P R E F A C E.

THE task of reducing the Yoruba language to writing was begun about twenty years ago in Sierra Leone, by a youthful Yoruba named Adžàye, since widely known and much beloved under the title of the Rev. Samuel Crowther. His first Grammar and Vocabulary exhibited a rude attempt to write the Yoruba language in English letters without diacritical points or tone-marks. After the Church Missionary Society had agreed on a more appropriate alphabet for the Yoruba, Mr. Crowther prepared a revised edition of his work, which was published in London in 1852. This Vocabulary, which contains "nearly three thousand vocables," is the basis of the present enlarged Dictionary.

The grammatical principles here presented have been deduced from a multitude of sentences taken chiefly from the lips of the natives. With the assistance of Professor W. W. Turner, of Washington, to whom the work was referred by the Smithsonian Institution, the whole has been carefully revised; the orthography of the language has been somewhat modified for the purpose of reducing it to a more harmonious system; and the entire Grammar has been re-arranged and re-written so as to present the phenomena of the language, in accordance with the requirements of modern philology, as nearly as practicable from a native point of view. It is simply justice to say that whatever merits it may possess, as to plan and details, are due to that accomplished scholar.

T. J. B.

Greensboro', Ga., June, 1858.

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INTRODUCTION.

THE YORUBA COUNTRY.

GEOGRAPHICAL AND HISTORICAL DESCRIPTION.

THE Yoruba country includes all the territory which is inhabited by people who speak the Yoruba language. It is bounded on the East by Ibinu or Benin and the Niger, on the West by Dahomi and Mahi, on the North by Barba (Borghoo) and Nufe, and on the South by the Bight of Benin. At the present time it is divided into eight independent kingdoms, as follows:

1. **Iketu**, situated immediately east of Dahomi, of which the extent is two thousand square miles, with a population of about one hundred thousand;* capital, Iketu. The surface of the country is level; timber and water are scarce, and the soil rather poor. Still this little kingdom has sufficient resources to repel the power of Dahomi, which it has done on two occasions.

2. **Eko**, or **Lagos**, situated immediately on the sea coast, has an area of about four hundred square miles, and a population of thirty thousand. The greater part are in Lagos, the capital, which is situated on a small island in the lagoon or bay, called Osa by the natives, and Cradoo by the English. Lagos claims all the coast to a point some miles west of Badagry. If this claim be allowed, the area and population of the kingdom are two or three times greater than above stated.

For many years Lagos was a stronghold of the slave trade. It was then nominally dependent on Benin; but the turbulent chiefs and people seem to have paid little regard either to Benin or to their own kings, who were frequently deposed and banished. Lagos is now under the protection of the English, but they claim no jurisdiction over the soil or people. It is the residence of several European merchants and missionaries, and bids fair to become one of the most flourishing towns in western Africa. The people speak the Yoruba language, which they frequently call the Eko; just as the Iketus, Egbas, &c., call it, after the name of their own tribes, the Iketu, the Egba, &c. By Europeans it is generally called the Aku language.

3. **Egba** is a small kingdom on the south of Yoruba and east of Iketu, lying on both sides of the Ogun river, but principally on the east. The whole area, including the fallen kingdom of Ota, is about three thousand square miles, with a population of one hundred thousand; the capital, Abeokuta, has a population of eighty thousand souls. The surface of the country is generally hilly, especially east of the river; the soil is unusually fertile, and the whole region well supplied with streams of clear water.

In ancient times, as the Egba people relate, their country was a province of the Yoruba kingdom. After obtaining their independence, they were governed by a king of their own; but finally growing weary of monarchy, they determined that every town should be ruled by its own chiefs. This led to mutual jealousies and dissensions. About fifty years ago, these dissensions, stimulated by the slave trade and by the machinations of the Ijébus and Yorubas, resulted in civil war. The Egba country then contained more than a hundred towns, some affirm nearly three hundred, several of which were very populous. In the course of twenty-five years, every one of these towns was swept out of existence, with the single exception of Oba, which is yet standing, about ten miles south-west of Abeokuta. It is probable that five hundred thousand people perished by sword and famine. Many thousands were sold to the slave ships, and the remnant of the tribe was scattered abroad.

The city of Abeokuta is situated on the east bank of the Ogun river, among twenty or thirty immense masses of granite, several of which rise to a height of two or three hundred feet. Forty years ago, a grotto or cave under one of these rocks, which surmounts an abrupt hill, was inhabited by a band

* It is scarcely necessary to remark that these numbers are conjectural.

of robbers. After the Egba country was destroyed, the robbers withdrew, and their place was supplied by a few refugees from some of the desolated towns. Their number was increased from time to time by the arrival of other refugees, and this continued till the new settlement contained about fifty thousand inhabitants, the remnants of about one hundred and thirty towns. In reference to the dwelling of the first inhabitants under the great rock, the town was called Abe-okuta, literally, *Under-stone*. The rock itself is called Olumo, *The Builder*, and some of the Egbas honor it with a sort of worship.

The people of Ilorin, of Ibadan, of Idžebu, and of Ota made repeated attempts to destroy the new town and sell the inhabitants for slaves. But the Egbas, now united under a skilful leader named Šodeke, were too strong for their assailants. After repelling several invasions, Šodeke began to take vengeance on his enemies, and conquered the kingdom of Ota. By this means he opened a road by which his people could trade to the sea-coast.

In the meantime several recaptured Egbas returned home from Sierra Leone, where they had learned something of civilization and Christianity. Šodeke and the Egbas generally were so much pleased with the accounts of the English furnished by the new comers, that he and the whole tribe invited missionaries to come and settle in Abeokuta. The consequence was that the English commenced a mission there in 1846. It is probable that there are now two thousand converts in that city.

On the 3d of March, 1851, the king of Dahomi attacked Abeokuta with a strong force, said to consist of ten thousand men and six thousand women—for about one third of his army is composed of Amazons.* The king expected a rich booty of slaves and plunder; but he seems to have been greatly mistaken in regard to the real strength of the town. The Egbas met him with a force at least equal to his own. Both parties were armed with guns. The battle raged for about four hours, and occasionally with such fury that the combatants were scarcely visible through the smoke at a distance of one hundred yards. In some cases they broke their empty guns over each other's heads. The king, though long accustomed to victory, was obliged to retreat. On the following day it was ascertained that he left twelve hundred and nine of his warriors dead on the battle-field. Although hotly pursued with continual volleys of musketry, the Dahomies retired in good order, and carried away all their wounded.

Since this battle the Egbas have generally enjoyed peace, and have made considerable advances towards civilization. They are now governed by a king, who is one of the ancient royal family of the nation.

4. **Idžebu**, on the south-east of Egba, and extending to the sea-coast, may have an area of five thousand square miles, with a population of two hundred thousand souls. The surface is undulating, and, like all the adjacent territories, is covered with a mixture of forests and grass-fields or prairies. The Idžebus are generally, though perhaps unjustly, regarded as the most barbarous of all the Yoruba tribes.

5. **Idžesa**, on the east of Yoruba, probably has an area of two thousand square miles, with a population of at least two hundred thousand. The capital is Ilesá, and we hear of other considerable towns in the same vicinity.

6. **Efon** extends from the north-east of Yoruba eastward to the Oya or Niger. Very little is known of this country, but it is understood to contain six thousand square miles, and a population of three hundred thousand souls. It is said to comprise several extensive towns, one of which, Bodo or Kakaunda, on the Niger, is the capital. The Efon people are skilful in working brass and copper, and it is affirmed that they have copper mines in operation, six days' journey, or one hundred and twenty miles, east of Ilorin.

7. **Ilorin**, so called from its capital city, is a small Mohammedan kingdom, composed chiefly of Yorubas, Fellatahs, and Hausas. Its area is about one thousand square miles, and its inhabitants number at least two hundred thousand, nearly one half of whom are in the capital. This district revolted from Yoruba and became independent about thirty years ago. For several years they waged continual war against the heathen population of Yoruba, and they succeeded in destroying the capital, old Oyo (Katanga or Eyoo), a great city, twenty miles in circuit. But finally they were defeated by the people of Ibadan, since which time they have acted chiefly on the defensive. The king and most of the principal people of Ilorin are Fulahs or Fellatahs; but the Yorubas and Hausas, both of whom are numerous, have some inferior officers of their own tribes.

Ilorin is one of the great marts of Central Africa, and is much frequented by people from various countries beyond the Niger, and even by Moors and Arabs. The principal exports are fine cotton cloths of Nufe manufacture, and slaves or prisoners captured in petty wars with the neighboring tribes. The imports consist of Arabian and common horses, salt, troma or crude carbonate of soda from the Great

* On the day after the battle, the writer saw several hundreds of these women lying dead on the field. So far as he has learned, Dahomi is the only country in Africa which employs female soldiers. They fought with great fury.

Desert, kola or goorah nuts, guns, swords, and European goods. Much of this traffic is carried on across the Desert, although Ilorin is not two hundred and fifty miles by the road from the Bight of Benin.

8. **Yoruba**, properly so called, lies immediately to the north of Iketu, Egba, and Idzebu, and approaches within sixty miles of the sea-coast. This division is by far the largest of the eight kingdoms which compose the Yoruba country. Its area may be estimated at thirty thousand square miles, and the population at about eight hundred thousand souls. This estimate may seem large; but it must be observed that the principal-towns in this part of Africa are from ten to twelve miles in circuit, and densely peopled. There are thousands of houses in such towns, and each house usually contains from twenty-five to sixty-five persons. The large towns of the Yoruba kingdom are, Ibadan, Ibe, Ife, Iwo, Idzaye, Oyo or Ago-Odza the capital, Ogbomoso, Ofa, Ikiši, Isaki, Isehin, Igana, and Isabe; and besides these crowded cities there are a multitude of smaller towns containing each from two to fifteen thousand people. The kingdom of Yoruba embraces the two former kingdoms of Ife and Isehin, which are now integral parts of the nation. Another ancient line of hereditary kings resides at Itabo, a small village near Bi-glorun-kpelu, among the mountains.

The entire Yoruba country, comprising the eight kingdoms above mentioned, has an area of about fifty thousand square miles, with a population of nearly two millions. The extent of sea-coast claimed by the two kingdoms of Lagos and Idzebu is about two hundred miles.

The Slave Coast, of which Lagos is nearly the central point, has been formed partly by the sands of an immense drift, which left the coarser materials in the interior of the country, and partly by the gradual upheaval of the land—an action which is still going on, not only here, but at El Mina and Cape Coast Castle. For these reasons the sea grows deeper quite slowly from the sandy beach, which is always lashed by a violent and dangerous surf. The various little rivers which descend with a rapid current from Yoruba are compelled to creep along the coast within a mile or two of the surf, till they meet with the Ogun at Lagos, where they spread out into a broad lagoon called Osa, and force a tumultuous passage into the sea. Hence the landing at Lagos is always dangerous, although there are about two fathoms water on the bar.

Between Abeokuta and the sea the country is nearly level, quite free from stones, and mostly covered with dense entangled forests. Beyond Abeokuta the surface is undulating or hilly, and is generally well supplied with gneiss, granite, claystone, and quartz rocks. This part of the country is mostly open or free from forests, therein resembling some of the partially wooded prairies of North America. It is worthy of remark that this whole region is entirely free from swamps. The streams are clear, rapid, and rocky, and the soil is everywhere dry and firm. From the sea to the interior the surface of the country rises gradually and almost imperceptibly, and yet so rapidly, that the tides do not extend ten miles above the mouth of the Ogun, and the plain at the Ogbomoso is one thousand three hundred and five feet above the level of Lake Osa at Lagos.

The chain of mountains formerly marked on the maps of Yoruba has no existence. The only mountains in the country consist of isolated peaks, or little clusters of rugged hills, which rise abruptly from the surrounding plains, sometimes to a height of a thousand feet.

NATURAL PRODUCTIONS AND CLIMATE.

The only metal known to exist in the Yoruba country is iron, which in some places is quite abundant. The copper mines of Ife are hypothetical; but lead mines are known to exist beyond the Niger.

The plants of Yoruba are similar to those of Western Africa generally. I observed, however, an unusual number of North American genera, together with many others not mentioned in Hooker's Niger Flora. Comparatively few of the somewhat numerous plants which are common to the interior of Africa and the East Indies are noticed in that work. Pine-apples are never found here in the forests, as they are in Liberia;* and there is but one species of *Datura*,—whereas on the Gold Coast there are two, one of which has a double and sometimes a triple corolla. The Cactus, which grows so vigorously at Cape Coast Castle, is never seen in Yoruba; but *Euphorbias* of various species are abundant. Grape-vines of

* In the Yoruba language the pine-apple is called *okpaimbo* (*okpe ambo*), *the white man's palm*. The orange also appears to have been received from the whites, as it is called *orombo* (*oro ambo*), *the white man's mango*.

three or four distinct species are common on the interior plains. Some of them produce large fruit, but too dry and insipid to be valuable.

African travellers have erroneously reported that various plants, as the castor-oil bean, sesame, red pepper, cotton, &c., are indigenous in Africa. The mistake has arisen from seeing such plants on deserted farms, overgrown with bushes, and perhaps far away from any place which is now inhabited. The existence of indigenous coffee is doubtful. I have seen the so-called native coffee-trees in gardens, and the leaves were certainly narrower and yellower than those of the plants introduced from the West Indies. But a tree in the forest which was triumphantly pointed out as coffee happened to be in flower, and inspection proved at once that it belonged to a totally different family. The probability is that the slaves of former days planted coffee-trees, which are now found occasionally growing in the woods.

Among cultivated plants we may mention Indian corn of the variety grown in our Southern States, and yams similar to those of the West Indies, as staple articles of food. The yam is indigenous, and all the cultivated varieties have been reclaimed from the forests where they still grow. It is a traditional saying that yams were the primitive food of man. The first man made an attempt to eat a raw yam, but pronounced it unfit for human food. Afterwards one, accidentally lying near his fire, became roasted; and this was the first discovery in the important art of cooking. Indian corn is said to have been brought from beyond the Niger by a yellow monkey. It may not be irrelevant to remark that the natives sometimes call foreigners monkeys by way of derision. When a white man appears in the streets of Abeokuta, the children usually cry out, *Oibó akítí àgbá! The white man is an old baboon!* Maize is called in the Yoruba language, *agbado* (*agbá osó*), *what is beaten or cleaved in a mortar*.

The other articles of food are, Guinea corn or sorghum, of four varieties, called *baba*, *bomo*, *gero*, and *maiwa*; sugar cane; several kinds of beans; pea-nuts, both oily and mealy; sweet potatoes; onions; and various herbs of little value. The fruits are, oranges, limes, pawpaws, plantains, bananas, and a few pine-apples. The oro, or mango, and a fruit called *osun*, are almost the only wild fruits that can be eaten.

Most farmers plant a little cotton for home consumption, and some attempt to raise tobacco; but neither of these plants succeeds well. The cotton fails, to use a planter's phrase, by "running to weed," *i. e.* the joints of the branches where the pods appear are much too far apart, and the blooms are often fruitless. The defect of the tobacco is a want of strength and flavor. The weeds attendant on cultivation are similar to those of our Southern States; so much so, indeed, that a careless observer would scarcely perceive a difference between a corn-field in Yoruba and one in Georgia or Alabama.

As the inhabitants of Yoruba are all crowded together in towns, and derive their support from circumjacent farms, at least two thirds of their fine region is given up to wild beasts. A broad belt of country, once populous but now totally desolated by war, extends from near the sea to the Niger, running to the eastward of Abeokuta, and to the westward of Idzáye, Oyo, and Ogbomoso. Between the towns there are other desert regions, some of which are twenty miles in breadth. As these partially wooded prairies are covered with grass from eight to twelve feet in height, and the people are not addicted to hunting, the numerous population of the country has not greatly diminished the abundance of animal life. Hyenas prowl around the walls of large towns, and people are sometimes attacked and killed by leopards in the adjacent farms. Even the chase-loving Anglo-Saxon would find it impossible to extirpate the wild animals on the plains of Yoruba so long as they remain covered with grass, which impedes the progress of the horseman.

The following brief sketch may give some idea of the animals known to exist in this part of Africa. The monkey tribe affords several interesting species, some of which I have not seen in the Zoological Gardens of London, or in any other collection. The most remarkable of these creatures is the well known Chimpanzee, which is found in several of the larger forests of Yoruba. The full-grown male is nearly four feet in height. His weapons of defence are his tusks, which are truly formidable; and his strength is so great, that the negroes consider him as more than a match for a man. He never defends himself with sticks or stones, never walks upright, and never builds a shelter or so much as a nest to defend himself or his young against the weather. He is generally seen on the trees, making prodigious leaps from branch to branch, and exhibiting all the habits of other monkeys. The face of the young Chimpanzee is remarkably human-like; but after the appearance of the tusks, it becomes disgustingly prognathous.

Hyenas are rather common, but I was not able to determine by examination whether or not they differ from those of northern Africa. The *alZake*, or wild dog, is a noiseless creature which prowls in solitude.

According to the statement of the natives, which is confirmed by Lander, lions are common in Barba and northern Yoruba; but I have never heard of one's being seen east of the Ogun river. Leopards are common everywhere. Though not so fierce here as in the forests of Liberia, they sometimes, as remarked above, seize men even on the farms. In 1855, an instance of this kind occurred within three

miles of Ogbomoso, which is surrounded for miles by a well cultivated country. There are several smaller animals of the cat-tribe, some of which are spotted like Leopards.

Elephants are common on the prairies of Yoruba, and still more numerous in the forests of Barba. They seldom intrude into the farms, and are not regarded as mischievous animals; but the people have considerable aversion to meeting them on the plains. The hippopotamus is confined to the deep waters of the Osa and the Niger. I believe the rhinoceros is never seen in this region; but the people have heard of it as existing somewhere in the interior. There are two species of wild boar, the larger of which is said to be very fierce; the smaller kind is frequently killed by men who make hunting their occupation, and brought into market. A species of *Hyrax*, different from that of the Cape, but uttering a similar shrill cry, is common among the mountains.

This country nourishes several species of Antelope, some of which are very small, while others are twice the size of the common American deer. A species of Buffalo, called in Sierra Leone the "jack-ass cow," is frequently seen in Yoruba, sometimes singly, but commonly in small droves of ten or twelve.

Birds are very numerous. Among them may be mentioned, a large and a small eagle, both rare; several kinds of hawks and falcons, some of which are migratory; a booted owl; two species of vulture, one quite large; orioles; red and parti-colored sparrows; a blackish mocking-bird with an orange breast, a beautiful songster; swallows; several species of the whip-poor-will family, including the curious long-shafted "goat-sucker" of Sierra Leone; larks; various creepers; crows; sunbirds; kingfishers, one small species of which feeds on butterflies; horn-bills; parrots; two species of Guinea hen; a large and a small partridge; quails; several species of doves; storks and adjutants.

I have seen but one species of Tortoise, a small kind, eight or ten inches in length, which lives in the prairies. According to the natives, there are two species of crocodiles. The several specimens which I have seen appeared to be intermediate between the true crocodile and the alligator. One of them, seen in the Ogun river, was probably twelve feet or more in length. Lizards are very numerous; some of them, analogous to the iguana, are two feet long. I have caught several Chameleons. They creep along very slowly, as if wounded and in pain; but their form is not quite so ungainly as those of Arabia, and their eyes are less prominent. None of the lizards are thought to be poisonous by the natives.

Snakes are not numerous. The largest is the python, which, I believe, never attains a greater length than about fifteen feet. The natives speak of another species nearly as large. There are no water-snakes. A green snake and a black viper are the only ones said to be poisonous.

I have seen two kinds of Snails, one of which, the *Achatina*, is found seven or eight inches in length. Good Oysters are found on the sea-coast; in some localities they attach themselves to the roots of the mangrove trees, presenting a curious spectacle. The principal fresh water shell-fish are a Muscel, resembling that of the United States, and another, found in the rapids of the Ogun river, precisely similar in appearance to the oyster. The taste is very unsavory.

Insects, and especially flies, fleas, and mosquitoes, are not so numerous as might perhaps be expected. But ants of several species are in abundance. One species, which the natives call *ota*, *the stinger*, is frequently useful as an enemy of the termites, which devours every dry vegetable substance within its reach. Another species very like the *ota* is called "the driver" in Liberia, and *idzaly*, *the fighter which makes one go*, in Yoruba, because it moves in countless multitudes, and attacks every living thing in its way with the utmost fury.

There are two species of Scorpion, the black, about seven inches in length, and the yellow or brown, which is much smaller, but is said to be more dangerous. After being stung three times by yellow scorpions, and knowing others to be stung by both species, I regard them as far less poisonous than some have reported. Centipedes are seen in Yoruba, but I have never known a person to be stung by them. The natives affirm that the Spiders of that country are entirely harmless, and I have never seen one of that hideous kind, resembling a tarantula, which is so much dreaded in the Meidi country, west of Gallinas.

As the Landers passed through the Iketa country, they saw innumerable swarms of Butterflies. I have once seen the same myself in the same region, and nowhere else. On one occasion, when descending the Ogun river, we met millions of Dragonflies, about one-fourth of an inch in length, making their way up the country by following the course of the stream. In order to observe all the phases of animal life which this region exhibits, a man must reside there for several years, and visit the forests, mountains, and plains at different seasons. The same remark applies equally to the vegetation of the country. When we arrive at the highest lands between the sea and the Niger, we enter a new climate, and a new, or at least a modified, zoological and botanical region.

The climate of the different sections of Yoruba extending from Lagos to Nafe, though similar in its

main features, is quite different in some particulars. The lower countries, from Lagos to Idzáye or Oyé, are remarkable for a rather strong breeze which blows incessantly from the sea, generally from the south-west, but varying occasionally to the west or south. The course of this wind must be attributed chiefly to the shape of this part of the continent. If it were occasioned by the heat of the Great Desert, I suppose it would continue to blow in the same direction for several hundred miles into the interior of the country. In point of fact, however, the winds at Ogbomoso, especially in the dry season, are very variable.

In consequence of the south-western breeze, the climate of the low country is quite damp, the dews very heavy, and the night air so chilly that we found it dangerous to go out after twilight. But during my stay at Ilorin, in April, 1855, the nights were so much warmer than any I had before experienced in Africa that, instead of being obliged to retire to my room immediately after sunset, I found it pleasant to walk in the yard of the house at 9 or 10 o'clock in the evening; and sometimes without a coat.

As there are no swamps in this country, it is probable that all the interior regions of Yoruba, particularly those of the northern watershed sloping towards the Niger, are as healthy as any other country within the tropics. I believe that the natives at least enjoy as good health as those of any part of the temperate zone.

Yoruba has the advantage of two rainy seasons. The "former rains" commence about the first of March, and increase till the sun has reached the Tropic of Cancer. After the middle of July there is little rain till about the first of October; then the "latter rains" commence, and continue for about two months. During December, January, and February, there is no rain except an occasional shower produced by a chilly wind from the north-east, which is called Oyé by the natives, and Harmattan by the whites. But the moisture produced by these showers is speedily evaporated by the excessive dryness of the Harmattan, which generally continues to blow for two or three days. The effects of the dry season are very decided; the grass on the prairies is withered and dried up, many kinds of trees cast their leaves, and most of the smaller streams cease to flow.

During my stay in the country, the thermometer ranged from 60° (when the Harmattan was blowing) to 97·5° on one occasion at Ogbomoso. The highest reading at Idzáye was 93°, and the lowest 68°. The average for the dry season, both at Idzáye and Ogbomoso, was about the same, viz. within a fraction of 82°. The differences indicated by the wet and dry bulbs of the hygrometer during the dry season varied from 0·2°, one morning after rain had fallen, to 2·5° under the influence of the Harmattan; and the averages for December, January, and February, were 5° at Idzáye, and 9° at Ogbomoso, fifty miles further in the interior. At the latter place, during the two rainy seasons, including the interval of delightful weather between them, the thermometer varied from 70° to 85°, and the hygrometer from 0·5° to 9°.

THE YÓRUBA PEOPLE.

PHYSICAL CHARACTERISTICS AND ORIGIN.

THE Yorubas are black and have woolly hair, but we occasionally meet with individuals who are fully as light-colored as American Indians. This color is hereditary in certain families; and it is a curious fact that, although it may seem to be lost, it sometimes reappears in subsequent generations. Individuals of this color are found not only among the Yorubas and other tribes of the interior, but among the Iboes, and even among the Kroomen. They are called "red men" in Africa, though their color is not exactly that of Indians, nor yet of mulattoes, and is something wholly distinct from albinism. Several entire tribes of red men are found in the interior. The people of Ilorin spoke of a tribe of pastoral people called Alabawo, hide-wearers, who are said to be decidedly light-colored. They build no towns, but live in leather tents, which they pitch in the form of a circular village, and remove from place to place for the sake of pasturage. Their language is said to be the Fulfude or Fellatah; but they have no political connexion with the other Fulohs of Central Africa. They are Mohammedans, acquainted with books, excellent horsemen, brave, and rapacious. Caillé mentions a tribe of Fulohs who were heathens and quite distinct from other Fulohs in language and habits. In fact they were not Fulohs, although resembling them in color. The Mandingoes, also, and others in that region, are not true negroes, either in color or features.

It seems reasonable to suppose that the red men among the Yorubas had the same origin as the red Fulohs and other red tribes of the interior. On the other hand, it is unnecessary to refer the light color of these people to climate or to other conjectural causes, when we have good evidence that an extensive amalgamation of the black and white races has taken place in the countries where most of the mulattoes

are now found. We may admit in advance that some of the evidence of this amalgamation may be spurious or doubtful. For instance, king Bêlo of Sôkoto may be mistaken, when he asserts in his History of Takoor* that Bornu was peopled by an Egyptian colony. Still it is undeniable that a strong Caucasian intermixture extends from the Red Sea through Nubia and Darfur to the Sheas, south-west of lake Tsad; and it is just here, at the last named point, that we first meet with the red Pulohs, who extend through Hausa, Bambara, &c., to the Senegal and the Atlantic Ocean.

Again, the brown men of the Desert belong to the white race. As a natural consequence of continual intercourse in peace and war, they often intermix with the blacks of Negro-land, and their half-caste offspring are as light-colored as mulattoes in America. The color, however, is different, being, as before observed, a more healthy and pleasing red, something between that of the mulatto and the North American Indian. When these African mulattoes intermarry with negroes, their children are more or less black; but their features and the texture of their skin afford unmistakable evidence that they are not pure negroes. They assume, in fact, the very appearance of the Mandingoes, whose peculiarities have been attributed to climate. Now, if there had been no amalgamation of races to the eastward of Lake Tsad, the intermixture constantly going on along the southern borders of the Desert is sufficient to account for all the types of mankind found in Sudan. The red Pulohs, who are a numerous class, correspond exactly to the half-breed offspring of negroes and the people of the Desert, while the darker Pulohs and the Mandingoes correspond to the descendants of such mulattoes and negroes. It is a curious fact, however, that some of the Pulohs at Ilorin are lighter colored and more of the white man in every respect than any half-blood mulatto I have ever seen either in America or Africa. But even in these cases the hair is woolly, although it grows sufficiently long for the women to plait it and tie it under the chin.

Finally, the Saracens, who overrun Sudan in the tenth century, left many descendants; and these, of course, were not pure negroes. In short, there is no want of evidence that the light color of many families and tribes in Sudan may have resulted from amalgamation. When we see that the children of a brown Moor and a black woman of Yoruba or Nufe are red, we very naturally conclude that all the red people in the country are of mixed blood. On the whole, then, the origin of the red or mulatto-colored men whom we find in Africa is more easily accounted for than the origin of the blacks.

But we return to the Yorubas, who are certainly negroes, if we except a few red men or mulattoes. They are not generally, however, such negroes as are frequently met with in the forests of Guinea and again, it seems, on the Benue river, in the heart of the continent.† Many of the Yoruba people, like those of Nufe and other countries, have handsome hands and feet, pleasing features, and well developed foreheads, and are altogether noble-looking men.

The traditions of the Yoruba people as to the origin of their tribe are obscure and contradictory. They generally affirm that mankind were created at Ifè, a considerable town in the eastern part of the Yoruba country. Sometimes they speak of Ifè as being four months' journey distant, as though the present town of that name were confounded with some other place of which the people retain an obscure traditional recollection. The word Ifè appears to be derived from fè, *to enlarge*; in which case it signifies *enlargement*.

Notwithstanding the prevailing belief that men were created at Ifè, I have been informed by some intelligent natives, that the Yoruba people once lived in Nufe beyond the Niger. They were driven from this position by war, at a time when the river was much swollen and difficult to cross. After retreating for some time, they founded the present city of Ifè, whence colonies were afterwards sent, first to Igboho, and then to Oyo,‡ Lander's Bohoo and Katanga or Eyeo. Igboho finally became the capital of Yoruba as a kingdom independent of Ifè. In subsequent times the seat of government was transferred to Oyo, where it remained till the city was destroyed by the Pulohs, about the year 1835. The king then removed his residence to Ago-Olûza, *the Tent-Market*, which at present is commonly called Oyo.

It would seem that Yoruba proper was once divided into three provinces, Bakpa in the west, Ibolu in the east, and Oyo (Eyeo or Hio) in the north. At least the three principal dialects of the language are still called by these names. The Dictionary contained in the present work is chiefly in the Oyo dialect, which is considered the standard by a majority of the natives.

* See the extracts from Bêlo's History in the Appendix to Denham and Clapperton's Travels in Africa, vol. ii.

† See Crowther's Journal of the Chadia Expedition in 1854.

‡ Igbo, *forest*; ilù, *shooting, elation*; Igboho, *the clamorous or noisy forest*, i.e. "the howling wilderness." Oyo, probably *escape*, from yo, *to escape*. This might indicate that Oyo was their first settlement west of the Niger.

RELIGIOUS BELIEF.

The religion of Yoruba is a curious mixture of pure theism and idolatry. All the people believe in one universal God, the creator and preserver of all things, whom they generally call *Olorun* (6 li *orun*), *the Owner or Lord of Heaven*, and sometimes by other names, as *Olodumare, the Ever-Righteous, Oga-Ogô, Glorious High One, Olawa, Lord, &c.* They hold the doctrines of the immortality of the soul and of future rewards and punishments; but on these points their notions are obscure. All the dead are in *orun, Hades*. *Oké-orun, the Upper Hades*, is the abode of the righteous, and *Orun-akpadi, the Crucible-Hades*, is the place of punishment.

Their idols are never confounded with God, either in name or character. They are called *orisa*, a name which appears to be derived from *asa, customs, or religious ceremonies*. Among the numerous *orisas* worshipped there are three great ones, called *Obatalá, Šangô, and Ifá*. *Obatalá* is thought to be the first made and greatest of all created things. Others, however, affirm that he was nothing more than an ancient king of Yoruba, and they profess to tell the name of his father. His name *Obatalá* appears to be a contraction of *oba ti nlá, the king who is great, or of oba ti òlá, the king of whiteness, i.e. purity*. A white cloth (*àlá*) is worn by his worshippers. Some of his other names are, *Orisa nlá, the great orisa; Alamiyere, he of the good clay*, because he made the human body of clay; and *Orisa kpekpo, the orisa of the gate*, because he is the guardian of the gates of cities. He is frequently represented as a warrior on horseback, holding a spear. His wife, *Iyàngbá, the receiving mother*, is represented as nursing a child. But *Iyàngbá* herself is *Obatalá*. The two are one, or in other words, *Obatalá* is an androgyne, representing the productive energy of nature as distinguished from the creative power of God. *Obatalá* forms or produces the bodies of men; but God himself imparts life and spirit, and God alone is styled *Ẹlẹ̀lẹ̀ Creator*. The second great *orisa* is *Šangô, the thunder god*, who is also called *Džakuta, the Stone-caster*. The stones or thunderbolts which *Šangô* casts down from heaven are preserved as sacred relics. In appearance they are identical with the so-called stone-hatchets picked up in the fields of America; but whether they were made originally for battle-axes, or leather dressing implements, or emblematic thunderbolts, is not easily determined.

According to one account, *Šangô* was born at Ifé, and reigned at Ikoso, a town recently destroyed, which stood thirty or forty miles south of Iſákí. He was much addicted to predatory wars, in commemoration of which his worshippers still carry a bag, as the emblem of booty. When a house is struck by lightning, they have a right to pillage it, and also to steal as many goats and chickens as they can find at large in any part of the town. They affirm that their master was translated alive to heaven, where he reigns in great state, having a palace with gates of brass, and ten thousand horses, and amusing himself with hunting, fishing, and war.

But the abstract *Šangô* is quite a different being. He is the son of *Orungan, midday*, and the grandson of *Aganlú, the desert*. His mother is *Ẹ̀zomodá, the mother of fishes*, a small river in Yoruba. His elder brother is *Dadá, nature*, one of the Yoruba idols; his younger brother is the river *Ogun*, which bears the name of the god of war and smith's work. His wives are the rivers *Oya, Ogun, and Oba*; his associate is *Oriſáko, the god of farms*; his slave is *Biri, darkness*; and his priest is *Magba, the receiver*.

The third great idol is *Ifá, the revealer of future events, and the patron of marriage and childbirth*. He is called *Banga, the god of palm-nuts*, because sixteen palm-nuts are employed in obtaining responses. The head-quarters of *Ifá* are at Ado, a village on the top of an immense rock near Awáyé.

There are several other idols of note, as *Oludua, the universe*, located at Ifé; *Dadá, nature*; and *Oriſáko, the god of farms*, whose symbol is a large iron bar. These bars are obtained at a great cost from the high priest of the idol, who dwells at Irawé. Many of the inferior idols are men and women who were distinguished in their day by some remarkable relation to the tribe.

The doctrine of idolatry prevalent in Yoruba appears to be derived by analogy from the form and customs of the civil government. There is but one king in the nation, and one God over the universe. Petitioners to the king approach him through the intervention of his servants, courtiers, and nobles; and the petitioner conciliates the courtier whom he employs by good words and presents. In like manner no man can directly approach God; but the Almighty himself, they say, has appointed various kinds of *orisas*, who are mediators and intercessors between himself and mankind. No sacrifices are made to God, because he needs nothing; but the *orisas*, being much like men, are pleased with offerings of sheep, pig-ens, and other things. They conciliate the *orisa*, or mediator, that he may bless them, not in his own power, but in the power of God.

As the people make a clear distinction between God and idols, so an idol, which is a real spiritual being,

is not to be confounded with its symbol,* which may be an image, a tree, or a stone. A charm or amulet is thought to have much power, but it is not an *orisa*. It has no life and no intelligence as the *orisas* have. White men are generally much mistaken in regard to the religion and superstition of the negroes. They suppose that the idols are looked upon as gods; that the symbol is the idol; and that a greegree, or charm, is an object of worship—all of which is incorrect.

It is usual among Europeans to call the idols of the natives "devils." The natives themselves speak of only one devil, though they believe in the existence of various other evil spirits. In the Yoruba language the devil is called *Eṣu*, *the Ejected*, from *ṣu*, *to cast out*; and *Elegbara*, *the Mighty*, on account of his great influence over mankind. The name *Ebilisi* has been borrowed from the *Pulohs*, and by them from the Arabs. The devil is not reckoned as one of the mediatorial *orisas*; but the Yorubas worship him with sacrifices, to conciliate his favor and prevent his doing them injury.

Egungun, *bones*, and *Oro*, *torment*, are the executive or vindictive power of civil government deified. The latter is most usual among the *Egbas*, who term the punishment of criminals "giving them to *Oro*." On *Oro* day all women are obliged to remain closely shut up in their houses. *Egungun*, or the "Aku Devil," makes his appearance in the person of a tall fellow, fantastically clad and masked, and is declared to be a tenant of the grave. No one, not even the king, may dare to lay his hand on *Egungun*; and if any woman should say he is a man, she would be put to death. Even Mohammedans and Christians are obliged to conceal their knowledge of the imposture under penalty of martyrdom.

INDUSTRIAL PURSUITS.

Most of the people of interior Africa are more advanced in civilization than those on the coast. The deeper barbarism of the coast people is attributable to the dense forests in which they live, to the sparseness of the population, and to the vicious and idle habits which have naturally resulted from the slave trade. The degree of civilization which exists in the interior is probably very ancient. King *Bêlo*, already quoted, may not be correct when he affirms that the ancient *Copts* colonized *Bornu*; but we have independent evidence of an early, if not extensive, intercourse between Central Africa and Egypt. The *Popo* beads which are dug from the earth in the south-eastern part of Yoruba, and in countries east of the *Niger*, are identical in appearance with the beads found on the Egyptian mummies. Several of the arts and customs of Yoruba and other interior countries are Egyptian in their character; and the use of cowries for money must have been introduced from the east, since none of these shells are found in the Atlantic.

The most important industrial pursuits of the Yorubas are agriculture, blacksmithing, and the manufacture of clothing.

Unoccupied land is common property, and free for any one to cultivate. But each man has an exclusive right to his own farm, whether in actual cultivation or in fallow. When a farm is sold, the fruit-trees remain the property of the former owner, unless they are specially mentioned in the contract. Except a few hedges of *Jatropha*, *Cucurbs*, and *Euphorbia*, in the immediate vicinity of towns, there are no fences in the country; because there are not many cattle, and these are always under the care of keepers. Disputes concerning the boundaries of farms or fallow lands are generally settled at once by the neighbors.

Although the Yorubas are an agricultural people, their implements are few and of a very simple description. The usual tools of the farmer are, an axe, three inches in width, for felling trees; a bill-hook, or heavy pruning-knife, for cutting bushes; and an oval hoe, with a handle about two feet in length. Ploughs and carts are entirely unknown. Their oxen, though large and strong, are never employed for labor; and the horses, which are usually small, though well formed, are used exclusively for the saddle.

Yams are planted in large hills in January and February, and are matured in August and September. The first crop of maize is planted between the middle of February and the first of April, and ripens in July

* Some of these symbols, occasionally engraved on the temple doors of *Obatala*, deserve a more special notice. On several distinct panels are seen a fish, a land tortoise, and a serpent. Another has a female figure with one hand and one foot, probably a half *Obatala*, or the female principle of Nature. This figure is remarkable for having a queue of very long hair (which no negro can have) with a ball or globe at the end. Opposite to this are the male and female *partes genitales in coitu*. They are represented in the natural forms, and are never disguised by being formed into a handled cross, for instance, as they were in Egypt. Phallic worship is practised, but, I believe, without impurity.

and August; the second crop is planted chiefly in August or the latter part of July. As the heavy rains of May and June are not favorable to the growth of cotton, it is planted in July; in December the crop is cut short by the dry season. Maize and yams are generally housed in the farms where they grow, and brought into town in small quantities to supply the daily market. In case the town is large, some of the farms may be ten or even twenty miles distant; but all the produce is brought in on the heads of the owners. Pack-horses and asses, though employed east of the Niger, are never seen in Yoruba. I have travelled with a caravan of two or three thousand persons, all of whom carried their goods in packages on their heads.

Some parts of the country are rich in ore, from which the people obtain a very good quality of iron. As the smelters are not communicative, I can only state what I have seen as to their manner of working. The furnace is a pit in a house, and may be entered either by the door or by an underground passage which emerges twenty or thirty feet from the building. The broken ore is placed in the furnace with layers of charcoal; a number of well dried clay tubes, about an inch in diameter and fifteen inches in length, are inserted into the mass of ore and coal, I think at the bottom. Although no bellows are employed, the heat is so intense that the ends of these tubes are partially vitrified. The iron is sold to blacksmiths, who manufacture it into various articles, among which may be enumerated axes, adzes, hoes, sickles, bill-hooks, swords, knives, razors, scissors, needles, chains and staples, all of rude workmanship. The smiths' bellows are identical in principle with those of the ancient Egyptians and Greeks. The large anvil is a stone, the smaller one a block of iron. Copper, brass, and silver are wrought by the same smith with the same implements.

The Yoruba carpenter employs himself chiefly in the manufacture of bowls, mortars, and door shutters. His principal tools are wedges for splitting trees, an axe, and an adze. The carver who makes images of wood, or carves figures on doors and calabashes, works chiefly with knives. The ornamental engraving of calabashes appears to be a thrifty business. Considerable numbers of people are engaged in the production of clothing. Cotton is freed from the seeds by rolling it under a small iron cylinder on a smooth piece of wood. It is then whipped with a bow to prepare it for spinning, which is done with a distaff. The yarn is sold to the weavers every evening in market, and the cloth given to the tailors, who cut and make garments. Thread is warped on pins driven into the ground, and then formed into a large ball instead of being wound upon a beam. With the exception of the thread beam, the parts of an African loom are the same as those of hand-loom in our own country; but the implement is so small, that the cloth is scarcely six inches in width.

Among the other employments of the people we may mention the manufacture of earthen pots and vessels for cooking and eating; the dyeing of cloth with indigo, which grows abundantly on the farms; the dressing of black, red, yellow, and white morocco, and the making of it into shoes and saddles; the manufacture of various oils, chiefly from the palm-nut, the fruit of the shea-butter tree, and the seeds of sesame and of watermelons; the manufacture of beads from broken palm-nuts and from jasper, both beautiful articles; the making of soap; and the grinding of snuff, which is practised in every town. As the tobacco is poor, it is always ground with carbonate of soda from the desert, to give it pungency.

So far as I could ascertain, the art of making glass is confined to three towns in Nufe, one of which is west of the Niger. This art is kept a profound secret.

There is no legal or customary restraint as to the choice of occupations, except that it is not reputable for women to labor on the farms. In their favorite capacity of traders, however, they are constantly engaged in bringing the produce which they have purchased from the farms to the market. Many poor women also obtain a living by supplying the market with firewood, which they sometimes bring from a distance of six or eight miles. Others gather large leaves, which they sell by the basketful to the market women to be employed as wrapping paper. The other employments of females are housework, spinning, washing, soap-making, and the manufacture of earthenware. The cultivation of the soil, blacksmithing, wood work, weaving, tailoring, and the barber's trade, are performed by men.

All the Africans, and none more so than the people of Yoruba, are addicted to traffic. Their trade with the people nearer the coast consists in palm oil, ivory, cotton cloths, indigo, iron, horses, cattle, sheep, &c.; for which they receive cheap guns and powder, calicoes, velvet, salt, and other articles from Europe and America. Their inland trade embraces the foregoing and many other commodities, including large quantities of soda, and some fine horses, worth several hundred dollars each, from Hausa and Bornu. Hides, coffee, and a superior kind of indigo will be among the future exports.

In the present condition of the country, without roads or vehicles, the traffic gives employment to thousands of people. Sometimes a single caravan consists of hundreds and even thousands of persons of

both sexes. Their only travelling equipment is a mat to sleep on, a coarse cotton sheet for a cover, a small bag containing provisions, and a little earthen pot to warm the sauce, which, with yams and preparations of corn, is the universal diet. A carrier's burden varies in weight from forty to eighty pounds. As there are neither weights nor standard measures in the country, such articles as salt, soda, and oil are sold from town to town by the load till they reach a consumer.

Markets, for the sale of provisions and other common necessities of life, are held daily in all the towns; but the large market for the sale of general merchandise is usually held every fifth day. On these occasions we frequently see thousands of people busily engaged in traffic. At Ilorin, the greatest market in the country, which is held daily owing to the abundance of business, there are men from every part of Central Africa, and frequently from Tripoli and other countries of the North. The merchandise includes a great variety of articles, African, European, and Asiatic, from a slave to a ready-made pen and a bottle of ink.

Owing to the frequent wars which afflict the country, and partly perhaps to the gregarious disposition of the people, they invariably reside in towns. Even the farmers, who are obliged to pass many of their nights in the distant fields, never erect a better dwelling than a hut in the country. All the towns in the interior are surrounded by rather strong mud walls five or six feet in height, with a deep ditch on the outside. The gates are closed at night with heavy shutters and guarded by keepers.

African towns are never laid out in a regular manner. All the streets, except the few which lead from the gates to the market, are very narrow, and intersect each other at every possible angle. The broader streets, the markets, and other open spaces are beautifully shaded with wide-spreading trees. Architecture is wholly unknown. The houses, from the palace to the dwellings of the poorest people, are built of mud and covered with a thatch of grass. They are all of the same form, that of a large square inclosed by a series of single rooms, after the manner of a fort. The interior court, which is open to the sky, is entered by a large gate with a heavy board shutter. Most of the rooms are scarcely six feet between the dirt floor and the fire-proof ceiling of sticks and mortar overhead, and the usual dimensions are six or seven feet in width by twelve or fifteen feet in length. As there is only one low door and no windows, these rooms are always dark. During the day, the people sit in the piazza which extends in front of the rooms; when they retire to rest at night, or enter a room by day, they use an earthen lamp supplied with oil.

The Africans have no chairs, tables, or bedsteads: their furniture consists of mats, earthen pots, bags, and gourds. Their food is taken with the fingers from a deep earthen dish. A sort of sauce composed of meats and vegetables, or of vegetables and oil only, and highly seasoned with red pepper, is a universal article of diet. They never roast or boil joints of meat in Yoruba. Yams are prepared to be eaten with sauce, either by simply boiling, or by boiling and pounding with the addition of water to the consistence of wheaten dough. Indian corn is first soaked till it becomes a little sour, then pounded or ground on a flat stone with a small stone cylinder or rubber, and the starch, after being washed out in pure water, is boiled down to the consistence of thick paste. This food is much used, both diluted as a warm drink in the morning, and cold in the form of round dumplings, which are wrapped in leaves for sale. When they make bread, it is fried, never baked. Very little milk is used except at Ilorin.

Most of the laboring people take their breakfast at an early hour in the streets, around the pots of women who prepare food for sale. At noon they eat in the farms or wherever they may happen to be, and their supper is taken just before they retire to sleep. The flesh of sheep, goats, and cows is sold daily in the market; but the people use it sparingly. Fish is not plentiful in Yoruba except on the larger streams.

The dress of the men consists of trowsers or short breeches, a tunic or a kind of shirt without sleeves, and a sheet or wrapper, or else a large flowing gown. The head, which in general is smoothly shaven, is covered with a tight cloth cap, to which is sometimes added a hat or turban. A woman's dress is composed of three wrappers, two around the waist and one over the shoulders, but the last is often laid aside. Women do not shave their heads except as a mark of mourning. Their usual headdress is a fillet of cloth. Horsemen wear a sort of shoes and sometimes boots. Travellers who go on foot frequently wear sandals; but most of the people of both sexes generally go barefoot. Boys are usually provided with breeches, or at least an apron, at the age of five or six; but girls of ten or twelve years often appear in the streets, from choice, wearing nothing but their beads and bracelets. Most of the Yorubas are cleanly in their habits, and rather fond of being finely dressed.

The principal amusement of the young people is dancing to the sound of drums. The older men meet together under the shady trees to talk, and sometimes to play a sort of draughts and other games of a similar nature. Several times in a year the whole population enjoy the recreation of religious festivals, the greatest of which, called *odúy*, or new year, occurs about the first of October. On these occasions they

offer sacrifices and make charms to promote the prosperity of the town, and have various noisy processions to the temples and sacred groves. Once a year, at the close of the dry season, they spend several days in burning off the prairies and in hunting. On the chief's hunting day, hundreds of people of both sexes attend him. The game is taken with dogs and clubs, as the use of guns would be dangerous.

The government of the country is a monarchy engrafted on the ancient patriarchal rule. Every house contains several families under the government of a *bálẹ* or lord of the house, every town has its *bálẹ* or lord of the land, and the whole nation is under a king. The adult males are also apportioned under rulers who stand intermediate between them and the *bálẹ*, or governor. The king, the governor, and the head of the family has each his associate or lieutenant, and the elders under him are his counsellors. Even the king is bound by the laws of the land, of which the elders are the conservators and exponents. The laws are generally good, except in so far as they are connected with idolatry and polygamy. They are rigidly executed, and sometimes with displeasing promptness; but causes are always decided by the ruler and his council according to testimony.

INTELLECTUAL AND MORAL CHARACTERISTICS.

In regard to intellect the Yorubas occupy a low position. All their arts are rude, and the people are wholly destitute both of literature and science. But they are by no means deficient either in natural shrewdness, or in that sort of common sense which is adapted to their condition. Their language also, which is surprisingly rich in abstract terms, is a proof that they are accustomed to think. Since their acquaintance with white men they evidently begin to feel the aspirations of intellect, and their desire to improve is leading to good results. At Abeokuta several hundred persons have learned to read their own language.

Like other rude people, the Yorubas are much addicted to the marvellous. In the opinion of many, the power of a white man is almost infinite. He can look around on all the passing events of the earth, he can stop the clouds in their course,* and even create cowries whenever he may need them. They seize with avidity on every extravagant story they may hear. Marvellous things have been told me of the *asòrí* or *igí ulá*, a tree somewhere in the interior, to which they attribute all the properties of the deadly *upas*; even birds that fly near it fall dead. The common people, old men, and grave chiefs have repeatedly affirmed the existence of a unicorn, which they describe as a large antelope with a straight black horn in the middle of its forehead. When I visited Ilorin in 1855, this story was repeated; and my host, Nasamu, an intelligent Bornese, added others still more wonderful. He assured me that somewhere eastward of Nufé and Yakobu there was a tribe of men, called Alabiru, who had inflexible tails about six inches in length. The Alabiru were a very ingenious people, especially in working iron; and all the fine swords in Sudan were made of iron from their furnaces. Beyond this tribe was another called Alabiwo, distinguished by a small goat-like horn projecting from the top of the head just above the margin of the hair. Somewhere in the same region was a tribe called Alakere, the tallest of whom were scarcely three feet in height. Being a weak people, the Alakere surrounded their towns with walls of iron. Nasamu had never seen any person of these tribes; but he asserted that there was one of the horned women then in slavery at Ofa, about thirty miles east of Ilorin. She always wore a handkerchief around her head, because she was ashamed of her horn. In reply to my question, whether any of the tailed men were in slavery in or near Ilorin, he replied, "Who would have a slave with a tail?" A few days after this I received a visit from an Arab trader, who confirmed all the statements of Nasamu, and added others of his own. Among the rest he told of a tribe of people south of Mandara who have four eyes. A Negro from beyond the Niger proceeded to inform me how these eyes are situated in the head, but the Arab corrected him and showed me exactly where each of them is placed. In short, it is manifest that all the floating stories of *upas* trees, unicorns, &c., have originated with the wandering Arab traders, who are equally distinguished by a vivid imagination and a small regard for truth. In the simple Negroes they find ready listeners to all their wonderful stories, and they were not at all pleased with the incredulity of an-Nasrau, the Christian.

The moral character of the Yorubas exhibits strong contrasts. On the one hand we are shocked at their occasional human sacrifices, their unlimited polygamy, and their custom of allowing the heir to inherit all his father's wives except his own mother. Their universal covetousness, their deficiency in regard to conscience, and their want of manly self-respect disgust us. On the other hand we see much to admire

* At the close of the dry season I was observing the movements of a black thunder cloud, when an old farmer said to me imploringly, *Déy, déy ó ró fú ní!* Please let it rain for us!

and to mitigate our judgment even in regard to the bad features of their character. They are naturally kind and simple-hearted, remarkably courteous in their mutual intercourse, and strongly attached to their country, friends, and kindred. All the moral virtues, and especially gratitude and honesty, are inculcated in their proverbs. It is a remarkable fact, that although the missionaries have had hundreds of parcels of cowries and supplies brought by native carriers from the coast to their interior stations, there has scarcely been an instance of theft. Adultery and other crimes are much rarer than we could suppose. During my six years' residence in the country I never knew a case of an illegitimate child, although the women do not marry before they are eighteen or twenty years of age.

When the first missionary entered the Iketu country in 1850, some regarded him as a spy, and others had superstitious fears that the presence of a white man would bring misfortune on the country. For these reasons they, in many instances, refused to admit him into their towns, but they never treated him with violence. The same thing occurred subsequently when he entered the kingdom of Yoruba. They obliged him to sleep without the walls, but they supplied him with food without charge. On one occasion he encamped under a tree near the gate of Awaye. Hundreds of friendly people came to look at him, and next day the women were singing a newly made song commencing with, *Oibó gun sidi akpe*, "The white man encamped at the foot of the akpe tree." Now that the people understand the real object of the missionaries, they are not only willing but anxious to receive them.

The gospel was first preached to the Yorubas in Sierra Leone, where there are thousands of them who have been rescued from the slave ships. Most of them have embraced Christianity, and many have learned to read. Some have accumulated considerable wealth, and others have made no mean attainments in information if not in learning. The character of the Rev. Samuel Crowther, whose Yoruba name is *Adžàye*, *struggling for life*, is known to the public, and much admired both in Europe and America; and yet Mr. Crowther is only one among other Yoruba men, his equals in mind, moral character, and respectable attainments. The people are found to be equally susceptible of improvement in their native country. Although the missions have been so recently established, all the eight kingdoms of the Yoruba country have felt more or less the stimulus of truth; and if the social laws now at work among the people produce their natural results, it cannot be many generations before Yoruba will be reckoned among civilized nations.

LIST OF YORUBA PUBLICATIONS.

Within the last ten years the Church Missionary Society of London has published the following Yoruba books and tracts, nearly all of them the work of the Rev. Samuel Crowther.

- The Yoruba Primer. Iwe Ekinni on ni tu awon ara Egba ati awon ara Yoruba. *London*, 1849.
- A Vocabulary of the Yoruba Language, compiled by the Rev. S. Crowther, Native Missionary of the C. M. Society, together with Introductory Remarks by Rev. O. E. Vidal, M. A., Bp. Designate of Sierra Leone. *London*, 1852.
- A Grammar of the Yoruba Language, by the Rev. S. Crowther, Native Missionary of the C. M. Society. *London*, 1852.
- The First Book of Moses, commonly called Genesis. Translated into Yoruba, for the use of the Native Christians of that Nation, by the Rev. S. Crowther, Native Missionary. *London*, 1853.
- The Gospel according to St. Matthew. Translated into Yoruba for the use of the Native Christians of that Nation, by the Rev. S. Crowther, Native Missionary. *London*, 1853.
- The Second Book of Moses, commonly called Exodus. Translated into Yoruba for the use of the Native Christians of that Nation, by the Rev. S. Crowther, Native Missionary. *London*, 1854.
- The Psalms of David. Translated into Yoruba for the use of the Native Christians of that Nation, by the Rev. S. Crowther, Native Missionary. *London*, 1854.
- Iwe Owe ati Iwe Oniwasa. Li Ede Yoruba tu awon Kristian ti ilu nan nipa Rev. S. Crowther, Alafa ti ilu nan. (Proverbs and Ecclesiastes.) *London*, 1856.
- The Gospel according to St. Luke, The Acts of the Apostles, with the Epistles of St. James and St. Peter. Translated into Yoruba, for the use of the Native Christians of that Nation, by the Rev. S. Crowther, Native Missionary. *London*, 1856.
- Katekismu Itan, ti Dr. Watts, Testamenti Lailar on Testamenti Titun.—Watts's Catechism of the Old and New Testament. Translated into Yoruba, by the Rev. Samuel King, Native Missionary. *London*, 1857.
- Katekismu Ekezi, ti Watti.—Watts's Second Catechism. Translated into Yoruba, by the Rev. T. King, Native Missionary. *London*, 1857.
- Iwe Orin Mimo. (Yoruba Hymns.) *London*, 1857.

GRAMMAR
OF THE
YORUBA LANGUAGE.

Y O R U B A G R A M M A R.

PART FIRST.

ORTHOEPY AND ORTHOGRAPHY.

§ 1. The system of orthography adopted in this work is essentially the same that has been widely employed for African languages. In it an endeavor has been made to give a true expression of all the well distinguished sounds of the language. To each simple fundamental sound there is assigned a single character; and each compounded sound is represented by the characters which stand for the elements of such compound sound.

§ 2. The reader should be reminded that the sound of each letter, in this as in other languages, is subject to slight modifications from accent and connexion.

CHAPTER I.

THE ALPHABET.

§ 3. The characters that represent the simple sounds of the Yoruba language are, a, ȧ, b, d, e, ẹ, f, g, h, i, k, l, m, n, ɲ, o, ọ, p, r, s, š, t, u, w, y, z.

VOWELS.

Simple Vowels.

§ 4. The simple vowels are as follows:

a is sounded long, as in the English word *father*; and short, as in *fat*.

Examples: ba, *to meet*; lati, *from*.

ȧ has the obscure sound of u in *but*, o in *mother*, &c. Ex.: ȧni, *in the hand*.

e is sounded like a in *fate*, or ey in *grey*. Ex.: de, *to come*.

ẹ is sounded like e in *met*. Ex.: ẹfẹ, *to love*.

i is sounded long, like ee in *fee*, or i in *ravine*; and short, like i in *fig*. Ex.: di, *to bind*; igo, *a bottle*.

o is sounded as in *go*, *tone*. Ex.: fò, *to fly*.

ọ is sounded long, like a in *water*, *all*; and short, like o in *not*. Ex.: fọ, *to wash*; ọni, *a crocodile*.

u is sounded long, like oo in *fool*, or u in *rule*; and short, like u in *full*. Ex.: lù, *to strike*; bùlẹ, *to lie down*.

§ 5. The vowels are either pure or nasal. Nasalization is indicated by the character *ŋ*; as, *daŋ*, *to polish*; *sũŋ*, *to sleep*.

§ 6. We may here observe:

1. That the sound of 'e' after 'kp' is more open and liquid than usual.

2. That 'a,' 'i,' and 'o,' are short before a consonant; as in *ate*, *a hat*; *ilé*, *a house*; *ɔfa*, *an arrow*; pronounced as if written *atte*, *illé*, *offa*. But to this rule there is one exception, viz. when the tone is grave, these vowels are always long; as, *àbo*, *a shelter*; *imò*, *knowledge*; *òrò*, *a word*.

§ 7. In the Egba and some other dialects, 'o' long, when followed by 'ŋ,' and occasionally when preceded by 'm' or 'n,' takes the sound of 'u' long; as, *tũŋ*, *again*; *mò*, *to drink*; *inò*, *within*; pronounced, and sometimes written, *tui*, *mu*, *ini*.

Diphthongs.

§ 8. The following are the compound vowels, or diphthongs:

ai, pronounced like *i* in *pine*, or *y* in *fly*, only it is longer and more open.
Ex.: *bai*, *thus*; *aimò*, *unknown*.

au, pronounced like *ou* in *house*, or *ow* in *now*. Ex.: *daudu*, *a prince*,

ei, **ei**, **oi**, **oi**, in all of which the second vowel, 'i,' is very short. Ex.: *ei-di*, *a wart*; *ei-ye*, *a bird*; *oi-bò*, *a white man*; *kòì-kòì*, *timidly*.

ua, **ue**, **ue**, **ui**, **uo**, **uò**, are formed only by the union of two words, the former of which ends in 'ku'; as in *akuale*, *good evening*, from *aku*, a word of salutation, and *alc*, *evening*. In all these cases the letters 'ku' have the force of *qu* in English.

Quantity of Vowels.

§ 9. The vowels are either long or short, as exemplified in the following sentence: *aláfíà kí ò wá fũ gbógbò ònià rě̀rě̀*, *peace be unto all good men*.

§ 10. Although it is not possible to lay down rules by which to determine the quantity of vowels in all cases, yet there are several facts and general principles a knowledge of which will be useful.

1. In regard to long vowels:

a. The diphthongs 'ai' and 'au' are always long; as, *aimò*, *unknown*; *daudu*, *a prince*.

b. Vowels having the grave tone (except *i*, *ò*, and *ò*, negative) are generally long; as, *àbo*, *a shelter*; *èrè*, *gain*; *ibì*, *evil*; *òdò*, *water*; *òrò*, *a word*.

c. The vowels 'o' and 'a,' when employed as auxiliary particles in conjugating the verb, are long; as, *emi ò rì*, *I shall see*, *emi li ã rì*, *I am seen*. These, for the sake of distinction, are marked with a circumflex accent.

d. The final vowel of a noun is long when followed by a personal pronoun in the possessive case; as, *iwé mi*, *my book*; *asó rě̀*, *his cloth*.

e. When a letter or syllable is suppressed or elided, the vowel which immediately preceded it becomes long; as, *bálẹ̀*, *a governor*, contracted from *ɔba ilẹ̀*, *the lord of the land*; *sũru*, *patience*, from *še* (often pronounced *se*), *to do*, and *iru*, *the act of bearing a burden* (see § 16, 3); *abà* for *abara*, *a slip with the hand*.

2. In regard to short vowels:

a. The negatives *i*, *ò*, and *ò*, *not*, are short; as, *emi ò mò*, *I do not know*; *ete ò mò ete ni ikó ọ́rọ́ bá ẹ̀rẹ́kẹ́*, *lip not keeping to lip brings trouble to the jaws*.

b. The initial '*i*' of the infinitive mood is very short and slight; as, *iwọ̀ lẹ̀ ísẹ̀*, *thou canst do*.

c. The objective pronouns *â*, *ê*, &c., are so short as to be scarcely perceptible. (See § 88, 2, *b.*)

Tone of Vowels.

§ 11. There are three primary tones, the Middle, the Acute, and the Grave; as, *ba*, *to meet*; *bá*, *with*; and *bà*, *to bend*. The middle is the ordinary tone of the voice without inflexion; the acute and grave tones are simply the rising and falling inflexions of elocutionists. In the Yoruba language, however, they are employed to distinguish words which are spelled alike, but have different meanings. Thus the two words *ọ̀bẹ̀*, *sauce*, and *ọ́bẹ̀*, *a knife*, are quite different to the ear, when uttered with the proper tones. The tones, though simple in theory, are difficult for us to seize, and require close attention.

The acute and grave tones will be denoted throughout this work by the acute and grave accentual marks placed over the vowel, as in the examples just given.

Assimilation of Vowels.

§ 12. The principle of vocalic assimilation exhibited in the Yoruba language consists in changing a weak or unaccented '*o*' into some other vowel, so as to assimilate it to the adjacent strongly accented vowel of a verb or preposition.

§ 13. Assimilation is either Perfect or Imperfect. In *perfect* assimilation, the unaccented '*o*' becomes identical with the accented vowel of the word to which it is appended.

1. *a.* The vowel '*o*,' the shortened or simplified form of the objective pronoun of the third person, is regularly exchanged for a vowel which is identical with that of the governing verb, so that this pronoun assumes all the following forms:

<i>emi wò ô</i> , <i>I looked at him.</i>	<i>emi kpè ê</i> , <i>I called him.</i>
<i>emi mò ô</i> , <i>I knew him.</i>	<i>emi fẹ̀ ê</i> , <i>I loved him.</i>
<i>emi lù ù</i> , <i>I struck him.</i>	<i>emi rí ì</i> , <i>I saw him.*</i>
<i>emi ba â</i> , <i>I met him.</i>	

b. The principle applies equally when the governing word is a preposition; as, *bá â*, *with him*; *sí ì*, *to him*; *fú ù*, *for him*.

In all these cases the unchanged full form '*oy*' may be used; as, *emi fẹ̀ oy*, *I loved him*; *fú oy*, *for him*; but the assimilation, if employed at all, must be perfect.

2. The preformative '*o*' of nouns is perfectly assimilated, if at all, to the vowel of the root; as, *oko*, *a farm* (from *ko*, *to gather*); *ọ̀rọ̀*, *a word* (from *rò*, *to utter, relate, explain*); *ata*, *pepper* (from *ta*, *to burn*); *ẹ̀rẹ̀*, *goodness* (from *rẹ̀*, *to be good*); *ẹ̀sẹ̀*, *sin* (from *śẹ̀*, *to sin*). Frequently, however, no assimilation takes place. (See § 40.)

§ 14. To understand the rule of *imperfect* assimilation, it is necessary in the first place to observe that the vowels are divided into three classes, which, in reference

* No example of '*u*' is given, as no verb, nor indeed any other word in Yoruba, ends in that vowel.

to the general character of their sounds, may be called the *close* vowels, viz. e, i, o, u; the *open* or *broad* vowels, e, o; and the *neuter* vowels, a and a. In imperfect assimilation the rule is that the vowel 'o' when occurring before a close vowel, that is, a vowel of its own class, remains unchanged; but before an open vowel, it is changed into its corresponding open form 'o.' Before the neuter vowels, it may take either form, 'o' or 'o.'

This rule applies to the nominative pronouns, mo, *I*; o, *thou*; óŋ or ó, *he*; the auxiliary particle ô, *shall* or *will*; and kò or ò, *not*; in all of which the 'o' before an open vowel becomes 'o'; as,

mò fẹ, *I love*.

o fẹ, *thou lovest*.

ó or óŋ fẹ, *he loves*.

yi ô fẹ, *he will love*.

nwọŋ kò fẹ, *they do not love*.

á ô fẹ, *we do not love*.

The same change takes place before the other open vowel, 'o.' The reader, however, must be informed that the rule is one which is often disregarded in speaking.

Elision of Vowels.

§ 15. All Yoruba verbs end in a vowel either pure or nasal; as, kọ, *to build*; ran, *to spin*. And most of the nouns begin with a vowel; as, ilé, *a house*; owu, *cotton*. To avoid an inconvenient hiatus, it is customary in speaking to drop either the final vowel of the verb, or the initial one of the noun which follows it; as, k' ere for ko ere, *to gather a crop*; ran 'wu, for ran owu, *to spin cotton*.

In this work, the vowels which are usually elided in speaking are designated by the inverted crescent (ˆ); as, kò ere, ran ôwu (pronounced ke-re, ran-wu).

§ 16. The principal rules of elision are as follows:

1. When two vowels of the same name concur, one of them is dropped; as, rà àṣò, *to buy cloth*; fẹ èṣe, *to love sin*.

2. The stronger of any two concurring vowels is retained in preference to the weaker.

The circumstances which make a vowel strong in the sense here contemplated may be shown as follows:

Strong Vowels.

Long.

Grave.

Accented.

Open.

Weak Vowels.

Short.

Acute.

Unaccented.

Close.

But these elements of strength and weakness may be variously distributed. One of the vowels may be grave, and the other accented, long, or open. To give all the combinations which may arise from the various quantities, tones, and accents of two concurring vowels, would be more tedious than profitable. It may suffice then to specify a few cases, with examples, to verify the general rule that the weaker of the two concurring vowels is elided.

a. When the first vowel is grave, and the second vowel is weak, the latter is elided; as, ó rà ôwe, *she bought leaves*;* dà èṣe, *to break the foot*; bò àra, *to cover the body*; kẹ ôroy, *to be house*. But if the second vowel should be long, the grave

* Leaves are sold to market-women to be used for wrapping articles in.

vowel is elided; as, *omòrì gbà òru*, *the lil receives (gbà) the steam*; *mò ànu*, *to know (mò) mercy*.

b. If the first vowel is open, and neither of the vowels is long, grave, or accented, the second is elided; as, *kò èbè*, *to make a yan-hill*; *fò òru*, *to break a jug*; *fè ìna*, *to blow the fire*. Sometimes, however, the choice of the vowel to be retained is reversed, to prevent ambiguity; and frequently both vowels are sounded, for the same reason.

3. In a few cases neither vowel is dropped, but the two are exchanged for 'u'; as, *wùrè* (for *wi ire*), *to bless*; *sùru* (for *se iru*), *patience*; *sufè* (for *so ife*) *to whistle*; *sùrè* (for *sa ire*), *to run*; *duro* (for *da iro*), *to stand*, &c.

CONSONANTS.

Simple Consonants.

§ 17. The simple consonants, *b, d, f, k, l, m, n, r, s, t, w*, and *y*, are sounded as in English, and are never quiescent.

g is always hard, as in *go, get*. Ex.: *igi, wood*; *gele, a handkerchief*.

h in some dialects is silent when it occurs between two vowels; as, *bèhè, so*; *lòhù, yonder*; pronounced *bè-è, lò-ny*. In all other cases, 'h' has the same power as in the English word *hat*.

ñ is the sign of nasalization. At the end of a word or syllable it is equivalent to the French *n* in *bon*. Ex.: *dan, to polish*; *sùñ, to sleep*. Before a consonant, that is, at the beginning of a word or syllable, it has a stronger sound, nearly equivalent to the English *ng* in *song*. Ex.: *ñsó, to proceed*.

The nasal pronoun *ñ, I*, is pronounced as a part of the preceding word, when it follows a vowel; as, *ki ñ lóh? shall I go?* pron. *kin lóh*. But if 'ñ' is not preceded by a vowel, it is attached in pronunciation to the following word; as, *ñ kò mò, I do not know*; *ñ ò rì, I shall see*; pronounced *ñkò mò, ò rì*.

p occurs only in the compound 'kp.' (See § 18.)

ś is sounded like English *sh* in *show*. Ex.: *śe, to do*.

z has the sound of English *z* in *azure*. It occurs only in the compound 'dz.' (See § 18.)

Compound Consonants.

§ 18. Three compounds, of two consonants each, are of such common occurrence as to have been frequently regarded as simple letters, viz. *dž, gb, and kp*.

dž is sounded like English *j*, as in *jug*, or *g* in *gem*. Ex.: *džo, to dance*. (This sound was formerly represented by *j*.)

gb represents the sounds of *g* hard and *b*; as, *gbà, to receive*; *àgba, an old man*.

kp is equivalent to *k* and *p*, as, *kpa, to beat*; *akpa, an arm*. (Formerly represented by *p*.)

The sound of 'g' and 'k' in these compounds is very slight at the beginning of words.

§ 19. Compounds of a nasal and another consonant occur incidentally :

1. The nasal 'ŋ,' as an auxiliary particle, may be prefixed to all the consonants ; as, emi ŋbò, *I am coming* ; emi ŋdà, *I am making*, &c.

2. Before the labial consonants, 'm' is frequently employed as an auxiliary prefix, instead of 'ŋ' ; as, emi mbò, *I am coming* ; emi mfe, *I am loving*.

3. 'M,' 'n,' and 'ŋ,' are occasionally prefixed to consonants in other cases ; as in the words, mbè, *to be* ; mbi, *or* ; a-la-mgba, *a lizard* ; nde, *to arise* ; nlà, *to be large* ; ŋsò, *to proceed*.

INTERCHANGE OF LETTERS.

§ 20. In consulting the Dictionary for the meaning of words, as also in tracing out their roots, it is necessary to remember that letters are frequently interchanged ; as in the following examples :

1. Not a few words begin indifferently with 'a' or 'o' ; as, abánidze, or óbá-nidze, *an injurer*.

2. Some words begin indifferently with 'a' or 'i' ; as, afidzi, or ifidzi, *remission* (of sins).

3. 'E' and 'o' are interchangeable ; as, ònia for ènia, *a person* ; leni for loni, *to-day* ; eri for ori, *the head*, &c.

4. 'E' and 'o' are interchangeable, as, oni for eni, *one*, *any*.

5. In certain cases, previously stated (§ 7), 'u' is substituted for 'o' ; as, dùn for dòn, *to be sweet*.

6. 'G' for 'k' ; as, ge for ke, *to cut*.

7. 'H' for 'f' ; as, eho for efo, *a valley*.

8. 'S' and 'ś' are frequently interchanged with each other, and in some dialects with 'ts.' Thus, for še, *to do*, the Ibakpa dialect has 'tse,' and the Ibòlò has 'se' ; and in other places sè, *to cook*, is pronounced 'śè.'

9. In the Egha dialect, 'w' is frequently used for 'h' ; as, wó, *to boil*, instead of hó ; and awón, *the tongue*, instead of ahón.

CHAPTER II.

SYLLABLES.

§ 21. A syllable consists :

1. Of a single vowel, pure or nasal ; as, o, *thou* ; óŋ, *he*.

2. *a.* Of a consonant and a vowel ; as, dá, *to create* ; dan, *to polish*.

b. Of a consonant and a vowel, with the nasal ŋ prefixed ; as, ŋdà, *is creating* ; ŋdan, *is polishing*.

3. *a.* Of two initial consonants and a vowel ; as, dze, *to eat* ; gbà, *to receive* ; kpè, *to call* ; mbè, *to be* ; nde, *to arise* ; gbón, *to be wise*, &c.

b. Of two initial consonants and a vowel, with a nasal prefixed. (See § 19.)

§ 22. No word or syllable ends in a consonant, except occasionally in the nasal 'm' ; as, bam-bam, *a beetle*.

§ 23. As consonants do not occur at the end of syllables, they are not reduplicated in spelling. Thus we write *ilé*, *a house*, and *ọfa*, *an arrow*, instead of *ille* and *ọffa*. (See § 6, 2.)

ACCENT.

§ 24. By the term *accent* is here meant that emphatic pronunciation of a syllable which distinguishes it from other syllables of the same word. This, when marked, is denoted in the present work by the sign ('), commonly termed the acute accent, placed after the accented syllable; as, *i-da'*, *a sword*, *é-ni-a*, *a person*.

§ 25. In words of two or more syllables, the accent falls regularly on the penult; as, *a'-ga*, *a chair*; *e-le'-da*, *a creator*.

§ 26. But since the accent of derivative words follows that of their primitives, this rule has several exceptions.

1. Nouns of two syllables derived from verbs having the acute tone (§ 11) are accented on the ultimate; as, *e-da'*, *a creature*, from *dá*, *to create*.

2. When a verb or preposition having the acute tone enters into the composition of a noun of three or more syllables, it usually takes the accent; as, *a-bá'-ni-dze*, *an injurer*.

3. When an accented vowel is elided or changed, as in the union of two words to form one, the accent retains its place; as, *be'-ru* (for *ba' cru*), *to be afraid*; *ni'-nó* (for *ni' inó*), *within*; *sa'-re* (for *sa' ire*), *to run*.

§ 27. Primitive nouns, or those which cannot be referred to any root in the Yoruba language, are generally irregular in regard to accent; as, *a-da-ba*, *a dove*; *o'-ri-sá*, *an idol*; *a-lu-fá*, *a learned man*.

§ 28. In polysyllables, a lighter secondary accent usually falls on the second syllable before or after the primary; as, *á'-la-tap'-kpo-kó'*, *a grasshopper*; *á'-la-sá'-ra*, *a dealer in snuff*. But many compounds retain the accents of their component words; as, *a-lai'-lọ'-gbon*, *a foolish man*; *o-ni'-ba'-ta*, *a shoemaker*.

§ 29. 1. It is proper to observe here, that all the Yoruba vowels (unless very short as to quantity) are sounded much more fully and distinctly than English vowels. Thus, *a-la'-ra-da'*, *a healthy man*, which has two full accents, is pronounced with a strong emphasis on both the accented syllables, and with a considerable although slighter stress on the unaccented ones.

2. The distinctness with which Yoruba vowels are uttered is particularly observable in the monosyllabic verbs, prepositions, and adverbs, which are generally spoken as if accented; as, *á lé' é' é*, *we can do it*; *lọh' sọ' ọ' nọ'*, *go, throw it away*.

PART SECOND.

ETYMOLOGY AND SYNTAX.

CHAPTER I.

FORMATION OF WORDS.

§ 30. In the former part of this Grammar we described the characters employed to represent the sounds of the Yoruba language, the nature of these sounds, and the changes which they undergo. We now proceed to the consideration of sounds as the representatives of ideas; in doing which we will have to treat first of the formation of words, and then of their inflexions and the mode of combining them into sentences.

§ 31. The primitive words of the Yoruba language, amounting in all to about five hundred, consist of the following classes:

1. Personal and other pronouns.
2. About one hundred and sixty verbs, several of which are obsolete.
3. About two hundred and fifty nouns, including several which are clearly exotics.
4. A few particles, as adverbs, prepositions, conjunctions, and interjections.

The remainder of the language, amounting to at least fifteen thousand vocables, has been built up on this foundation, chiefly by prefixing personal pronouns to verbs to form nouns, and by the union of nouns with verbs and prepositions.

§ 32. 1. The primitive verbs are all monosyllables, and most of them are of the simplest possible form, consisting of a single consonant simple or compound and a vowel either pure or nasal; as, *dá*, to *create*; *dán*, to *polish*; *dže*, to *cut*; *kpon*, to *be red*.

2. A few monosyllabic verbs begin with two consonants; as, *mbe*, to *be*; *nlá*, to *be large*, &c. These, however, are secondary forms: *mbe* is simply *be*, with the auxiliary prefix 'm,' which is the sign of continuance or permanence; *nlá* is a contraction of *nilá*, to *be great* (lit. *ni*, to *have*, *ilá*, *greatness*).

3. The verbs of two syllables are all either derivatives or exotics. Thus, *sufe*, to *whistle*, is composed of *so*, to *ject wind*, and *ife*, a *blowing* (from the root *fe*, to *blow*). *Fe* is now pronounced *fe*; but its original form is detected not only in *sufe*, but also in *feré*, *asthma*, *ifere*, a *plate*, and *ife-fe*, a *reed*. *Tuba*, to *repent*, is a recent importation from the Arabic.

§ 33. The primitive nouns may be classified as follows:

1. Very few are monosyllables; as, *he*, *malignant envy*.

2. Most of them are dissyllables, of which the following are examples: aba, *a crib*; or barn; alē, *evening*; ana, *kindred by marriage*; ānu, *pity*; ara, *the body*; babā, *father*; bote or ibote, *silliness*; iba, *firer*; irinj, *iron*; igi, *wood*; ōdo, and omi, *water*; orunj, *the sun*; orunj, *heaven*; omo, *a child*.

3. Some are of three syllables; as, àbata, *a marsh*; adaba, *a dove*; akara, *bread*; ahana, *a violent lawless man*.

§ 34. Among the primitive particles we have: *ni*, *in*, *on*; *si*, *to*, *against*; *ti*, *from*; *ṣugbón*, *but*; and a number of adverbs.

§ 35. Very few of the exotic words have come to the Yoruba people through the Arabic; and it is remarkable that some words of undoubted Eastern origin are unknown among the tribes further in the interior.

Having thus stated the general principles on which the words of this language, both primitive and derivative, are formed, we will now proceed to the special rules for the formation of the several parts of speech.

DERIVATION OF VERBS.

§ 36. Verbs of more than one syllable are frequently compounded of a monosyllabic verb and a noun; as, *beru*, *to be afraid* (from *ba*, *to meet*, and *eru*, *fear*); *sănu*, *to pity* (from *se*, *to make*, and *ănu*, *pity*); *bila*, *to make room in a crowd* (from *bi*, *to push*, and *ilă*, *an opening*).

§ 37. There are three classes of transitive verbs, distinguished by the peculiarity that the objective case is placed between the component parts or members of the verb. Their formation is as follows :

1. *a.* Two verbs are used for one.²⁵ Thus, from *fi*, *to make*, and *hàn*, *to appear*, is formed *fi . . . hàn*, *to show*; as, *ó fi woy hàn mí* (*he made them appear to-me*), *he showed them to me*. From *ba*, *to meet*, and *dze*, *to eat*, is formed *ba . . . dze*, *to spoil*; as, *mo ba iwe dze* (*I met book consume*), *I spoiled the book*. From *te*, *to spread*, and *bière*, *to be flat*, comes *te . . . bière*, *to level*; as, *te ôke bière* (*spread hill flat*), *to level a hill*.

b. Verbs of this class are often used intransitively, so as to be equivalent to a passive; as, iwe badže, *the book spoils or is spoiled*; ôke tchère, *the hill levels or is levelled*.

2. *a.* The second member of a compound transitive verb is sometimes composed of a preposition and a noun. Thus, *be, to cut*, *li, in regard to*, and *ori, the head*, form the compound verb, *be . . . lori, to behold*; as, *ô be ôle lori (he cut a-thief as-to-the-head), he beheld a thief*. *Ko, to gather*, *li, in regard to*, and *ên, property, goods*, form *ko . . . lêrn, to rob*; as, *nwoy ko ni lêrn (they gather-ed-up me as-to-goods), they robbed me*. When the noun in the second member of the verb has 'n' in it, 'ni' is used instead of 'li'; as, *bi . . . nimô, to vex* (from *bi, to afflict or afflict*; *ni, in regard to*; *imô, the mind*).

b. An intransitive verb, composed of a verb and a noun (§ 36) may be converted into a transitive verb by inserting 'li' or 'ni' between the verb and noun. Thus,

* These so-called compound transitive verbs are, it is true, rather phrases than words; but they are considered as words, because their parts acquire a new meaning by composition, and because they are actually united into one word when used in a passive sense, and also in forming nouns; as, *ibadže*, *to quarrel*, from *ba* + *adže*, *to quarrel*.

beru (ba eru), *to be afraid*, becomes ba...leru, *to frighten*; as, ó ba mi leru, *he frightened me*.

3. Sometimes the formation of compound transitive verbs is still more complicated, as may be seen in the following example. Ba...dže, as above stated, means *to spoil*; and ni inó, or ninó, means *in regard to the mind*; the entire expression, ba...ninó dže, means *to grieve*; as, ó ba mi ninó dže, *he grieves me*. The compound here consists of three members, the first and last of which are verbs, and the middle one is composed of a preposition and noun.

DERIVATION OF NOUNS.

With Vowel Prefixes.

§ 38. Nouns are formed from verbs, both primitive and derivative, by prefixing the pure or nasalized vowels, a, e, ɛ, i, o, ɔ, and ɒ.* These prefixes (excepting perhaps the vowel 'i') are simply variations of the pronoun of the third person, in accordance with the principle of vocalic assimilation already noticed (§ 13).

§ 39. The primary use of these prefixes appears to have been to form concrete nouns denoting the actor or agent; as, ofe, *a parrot* (lit. *a whistler*, from fe, *to whistle*); akpedža, *a fisherman* (from kpedža, *to kill fish*); ɛšin, *a horse* (from šin, *to run rapidly*). But at present, nouns formed by these prefixes have various meanings, being frequently employed to denote: 1, the doer of the action, or agent; 2, the receiver of the action, or patient; 3, the action or state of being; as, aba (from ba, *to meet*), *he who meets, he who is met, or, a meeting*; ɛše, *sin*; aše, *the state of sin* (from še, *to sin*).

§ 40. It is to be observed further that regularly, in accordance with the law of euphonic concord (§ 13, 2), the vowel prefixed to the verb should be identical with that of the verb itself; as, aba, *a meeting*; ɛše, *sin*; ofo, *loss*; òrò, *a word*. But if this principle had been adhered to exclusively, only one noun could be derived from each verb; whereas by prefixing different vowels, there may be several. Thus, from we, *to fold*, are derived ewe, *a leaf*; iwe, *a book*; owe, *a proverb*.

§ 41. The facts in regard to these preformatives, as the practice now stands, may be summed up as follows:

1. Concrete nouns are formed from all verbs by prefixing 'a'; as, aba, *a meter*, from ba, *to met*. But nouns of this form have various other meanings, as shown above (§ 39).

2. Nouns denoting an action are formed from all verbs by prefixing 'i'; as, iba, *the act of meeting*; ife, *love*. But sometimes this form has a concrete signification; as, iladža, *a peace-maker*.

3. The other vowel prefixes, although of frequent occurrence, are not employed before every verb. They generally form nouns denoting either the doer, the receiver, or the result of an action; as, ofi, *a loom*, from fi, *to swing*; ɛšin, *a horse*, from šin, *to run*; ɛká, *a creature*, from dá, *to create*; òrò, *a word*, from rò, *to utter, to relate*.

§ 42. The prefix 'ɒ' is not much used, but is met with occasionally; as, ɒggbɛ,

* The vowels ɶ and u are never employed as formative prefixes.

thirst, from *gbẹ*, *to be dry*. Before a dental consonant, the nasal 'ŋ' is changed to 'n'; as, *onde*, *a prisoner*, from *de*, *to bind*. In one case 'onj' becomes 'am' in the Iketu dialect, and 'oi' in Yoruba: viz. *ambó*, *oibó*, *a white man*, from *bó*, *to peel*.* Hence, *orombo* (*oro ambó*), *the white man's fruit*, the usual name of *the orange*; and *okpaimbo* (*okpẹ ambó*), *the white man's palm*, that is, *a pine-apple*.

§ 43. The prefix 'ai' (composed of 'a' and 'i,' *not*), and its equivalent 'è,' are attached to verbs to form nouns of a negative meaning; as, *aimò*, or *èmò*, *that which is unknown or unusual, a monster*; *aizẹ*, *that which is not eaten or must not be eaten*. Roots with this prefix are also used imperatively; as, *aiwì*, *do not speak, keep silence!*

With Syllabic Prefixes.

§ 44. *Aba* (composed of the prefix 'a' and *ba*, *to meet*) is prefixed to verbs to form nouns implying union; as, *abata*, *a market-place* (lit. *aba ita*, *the meeting of streets*); *abaše*, *a helper* (lit. *aba še*, *he who meets one to do something*). *Aba* is sometimes changed into *eba*; as, *ebado*, *a shore* (lit. *eba òdò*, *the meeting of the water*).

§ 45. *Abi*, which signifies *being in a state of, having*, is prefixed to nouns, to form nouns expressing a quality, endowment, or condition; as, *abiye* (*abi iye*), *that which has feathers*; *abara* (*abi ara*), *that which has a body*, e.g. *agaliti abara yiye*, *the lizard which has a body of roughness*, i. e. *a rough body*.

§ 46. *Abu* is sometimes a derivative from *bu*, *to give*; as, *abusò*, *a falsehood* (lit. *abu isò*, *the giving of talk*). In other cases *abu* is equivalent to *abi*; as, *aburo*, *that which stands erect* (lit. *abi iro*, *being in a standing posture*). For the vowel change, see § 16, 3.

§ 47. 1. *Ada* (from *dá*, *to make*) is prefixed to nouns, to form others implying the cause or result of an action; as, *adalu*, *a mixture, adulteration* (from *ada*, *a making*, and *ilu*, *a mixing*); *adakpè* (*ikpè*, *a calling*), *contraction of words*, by elision; *adado* (*òdò*, *water*), *an island*.

2. Sometimes the final 'a' of *ada* is elided, thus shortening the prefix to 'ad'; as, *adete*, *a leper*, from *ete*, *leprosy*; *adògun* (*ògun*, *war*), *that which causes war*; *adotè* (*otè*, *enmity*), *that which causes enmity*.

§ 48. 'Afì' or 'af' (from *fi*, *to make*) is prefixed to verbs; as, *afihàn*, *a show, display* (lit. *afi*, *a making*, *hàn*, *to appear*). It is also prefixed to nouns when they are followed by verbs; as, *afònahàn*, *a guide* (lit. *a*, *he*, *fi*, *makes*, *òna*, *a road*, *hàn*, *to appear*, i. e. *one who shows the road*).

§ 49. *Am*, a contraction of *amò*, *a knowing, he who knows*, is prefixed to nouns; as, *amero* (*ero*, *consideration*), *a discreet person, discretion*; *amoye* (*oye*, *intelligence*), *an intelligent man*.

§ 50. *Ati* (probably composed of 'a' and 'ti,' *from*) is prefixed to verbs to form nouns expressing the abstract idea of the verb; as, *atiri*, *seeing*.

§ 51. *Bu* and *ibu* are formed from *ibi*, *a place*; the final 'i' being changed into 'u' (§ 16, 3). They are prefixed to nouns; as, *budo*, or *ibudo*, *a camp* (lit. *ibi ido*, *the place of camping*); *budzoko* or *ibudzoko*, *a seat* (*ibi idzoko*, *the place of sitting*).

* When the skin of a negro peels off, especially after a burn, the surface becomes white like the skin of a white man. *Ambó* or *oibó* means, literally, *who is peeled*.

§ 52. 1. The vowels, a, e, &c., prefixed to *li* or *ni*, to *have*, form the prefixes *al*, *el*, *ol*, *ol*, &c., which form nouns of possession from other nouns; as, *alašo*, *the owner of cloth, a dealer in cloth* (from *ašo*, *cloth*); *eləsin*, *the owner of a horse, a horseman* (from *ešin*, *a horse*); *oləti*, *the owner of ale, a dealer in ale* (from *oti*, *ale*).

2. Since the performer of an action may be regarded as its possessor, nouns of this form frequently denote the actor or agent; as, *aləbo*, *a defender* (from *əbo*, *defence*); *eləgbə*, *a helper* (from *əgbə*, *help*); *eləšə*, *a sinner* (from *əšə*, *sin*); *oləre*, *a benefactor* (from *əre*, *a favor*); *oləre*, *a giver* (from *əre*, *a gift*).

3. Occasionally we have the form *olu*, by § 16,3; as, *oluwa* (*oli iwà*, *he who has life*); *a lord*; *oluše* (*iše*, *work*), *a laborer*.

4. *a.* The vowel prefixed to 'l' must be the same as the initial vowel of the noun which takes the prefix, according to the principle of euphonic concord (§ 13, 2), as seen in the examples given above. But the prefix 'il' is never used; and hence, when a prefix is required for a noun beginning with 'i,' it is customary to employ 'on'; as, *onibu*, *that which has breadth, which is broad* (from *ibu*, *breadth*); *onigbāgbə*, *a believer* (from *igbāgbə*, *belief*).

b. Sometimes it is more agreeable to the ear to substitute 'ol' for 'on'; as, *olifa*, *that which is profitable* (from *ifa*, *profit*). But in such cases it is usual for the final 'i' of *oli*, and the initial 'i' of the noun to be changed into 'u.' (See § 52, 3.)

5. *a.* By exchanging the initial vowel of these prefixes for 'ai,' they become negative. Thus, *eləšə*, *a sinner*, becomes *ailəšə*, *one who is sinless*; *oləmo*, *one who has a child*, *ailəmo*, *who is childless*; *aləgbāra*, *who is strong*, *ailəgbāra*, *who is not strong*.

b. Frequently the prefix 'al' is employed before negative nouns; as, *aliko*, *the state of being unlearned* (from *kə*, *to learn*), *alaliko*, *one who is unlearned*; *aisə*, *sinlessness*, *alaisə*, *he who is sinless*; *aidā*, *uncreatedness*, *alaidā*, *which is not created, which has no existence*.

Nouns formed by Reduplication.

§ 53. Nouns are formed from verbs by reduplicating the first syllable of the verb; as, *didara*, *goodness* (from *dara*, *to be good*); *kpikpé*, *duration* (from *kpé*, *to stay, to continue*). The vowel of the reduplicated syllable is changed into 'i,' as in the above examples, except that occasionally 'u' is not changed; as, *gigun* or *gugun*, *length* (from *gun*, *to be long*).

§ 54. Nouns formed by reduplication from active transitive verbs have both an active and a passive signification; as, *tità*, *a selling*, also, *that which is sold or to be sold* (from *tà*, *to sell*): e.g. *tità ki iše bibu*, *selling is not giving*; *ašo tità*, *cloth to sell*.

§ 55. A few inelegant nouns are formed by reduplicating the entire verb; as, *kpedzakpedza*, *a fisherman* (from *kpedza*, *to kill fish*). Either *akpedza* or *onikpedza* is preferable to the reduplicated form.

§ 56. Nouns are formed by reduplicating a noun and inserting *ki*, *li*, *ri*, *de*, or *iyi*, usually with an elision of the final vowel of the particle, as follows:

1. *a.* *Ki* has the sense of *any* or *whatever*; as, *ciyekeciye*, *any bird whatever* (from *ciye*): e.g. *à ò ri ciyekeciye*, *we saw no birds whatever*; *ciyekeciye à tó*, *any and will do (a tó, will suffice)*.

b. Nouns of this form are sometimes employed to express contempt; as, *èniakènia li iwo*, *thou art a contemptible person*; *obirikobiri*, *a trifling woman*.

c. When the reduplicated noun begins with 'i,' it is converted after the particle into 'u' (§ 16, 3); thus, from *isiy*, *service*, we have *isinkùsin*, *superstition*.

d. Observe that the vowel following 'k' invariably has a strong accent, as, *èniakènia*.

2. *Li*, *to have*, when inserted in a reduplicated noun, implies ownership in reference to a third person; as, *omolomo*, *another person's child*: e. g. *ainà omolomo*, *we must not whip another person's child* (lit. *omò omò, the child of the child-owner*).

3. *Ri*, *ever, only*; as, *àyeràye*, *ever living* (from *àye*, *the state of being alive*); *medžiredži*, *only two* (from *medži* and *edži*, *two*).

4. *De*, *to*; as, *owòdowo*, *tradition* (lit. *owò de owò, hand to hand*). *Ati*, *from*, is sometimes prefixed to nouns of this form; as, *atiranđiran*, *genealogy* (lit. *ati iran de iran, from generation to generation*).

5. *Iyi* (perhaps i. q. *eyi*, *this*) makes a noun emphatic; as, *ekurn-iyekurn*, *the dust, this dust*, i. e. *the very dust*.

Nouns formed by Composition.

§ 57. Two nouns are occasionally compounded together, the qualifying term or possessor being placed last, which is the reverse of the English order; as, *omò chin*, *a follower, a disciple* (from *omò*, *a child or servant*, and *chin*, *the back*); *odzi ona* (*eye road*), *a gate*; *olušo águn* (*watcher sheep*), *a shepherd*; *ilé tubu* (*house prison*), *a jail*.

§ 58. A whole phrase is frequently united to form a noun; as, *afibikpòre*, *an ungrateful person* (from *a*, *he*, *fi*, *put*, *ibi*, *evil*, *kpè*, *to call*, *òre*, *good*); *agabagìbe*, *a double-dealer, a hypocrite* (from *a*, *he*, *gun*, *climbs*, *aba*, *the crib or barn*, *gun*, *climbs*, *èbe*, *the game-hill*).

§ 59. Many nouns in 'a' are compounded with verbs to form new abstract nouns; as, *asàlá*, *escape* (from *asá*, *a running*, and *là*, *to be safe*); *afétin*, *perfect love* (from *afé* *love*, and *táj*, *to be completed*); *asédžù*, *excess*, as to conduct (from *asé* *a doing, an action*, and *džù*, *to surpass*).

§ 60. Adverbs also are attached to this class of nouns in the same manner; as, *akpédžo*, *a congregation* (from *akpè*, *a calling*, and *džo*, *together*); *agbesòke*, *a lifting up* (from *agbe*, *a lifting*, and *sòke*, *up*): e. g. *gbe è li agbesòke*, *lift it as to a lifting up*, for *gbe è sòke*, *lift it up*.

§ 61. To exhibit the various regular methods of forming nouns and verbs from a verbal root, we subjoin the following list of words regularly derived from *gàn*, *to despise*:

1. Nouns formed by attaching a single prefix to the root or by reduplicating it:
agàn, *one who despises or who is despised; the state of being despised, contempt; the act of despising*.
igàn, *the act of despising; a despiiser*.
ongàn, *a despiiser*.
atigàn, *a despising*; as an infinitive, *to despise, to be despised*.
gigàn, *a despising, that which is despised*; as an infinitive, *to despise or be despised*.

gàngàn, *a despiser.*

aigàn, *the state of not being despised.*

2. Verbs formed from agàn, igàn, and aigàn, by prefixing the verb dá, *to make*; dze, *to be*; li, *to have*; mọ, *to know or experience*; or še, *to do, to act*:

dagàn, *to cause contempt or hatred.*

džagàn, *to be despised.*

lagàn, } *to be despised.*

ligàn, }

magàn, *to be despised; to experience hatred or contempt.*

šagàn, *to be despised; to despise.*

laigàn, *to be not despised.*

saigàn, *to be not despised, to despise not.*

3. Nouns formed from these verbs by the prefixes 'a,' 'i,' and 'ati.' It seems unnecessary to write these nouns; but observe that instead of aligàn, *a despiser, one who is despised*, we frequently hear oligàn, olugàn, and ouigàn. Adagàn, *one who causes contempt*, may be changed into onidagàn; and in like manner 'oni' may be prefixed to džagàn, šagàn, and saigàn, instead of 'a'

DERIVATION OF ADVERBS.

§ 62. In the Yoruba language many abstract relations, as those of time and place, are expressed by nouns; as, oni, *this day*; ana, *the day before to-day, yesterday*; ola, *the day after to-day, to-morrow*; ibi, *this place*; ibe, *that place*. These nouns are formed into adverbs by prefixing li or ni, *in*; as, li oni or loni, *to-day*; li ola or lola, *to-morrow*; ni ibe or nibe, *there*, &c.

§ 63. Adverbs of time expressing the idea of recurrence or repetition are formed by reduplicating the first syllable of a noun expressing time, and then prefixing li or ni, *in*; as, oḍzo, *a day*; oḍzodzo, *day after day*; loḍzodzo, *daily*. So from oṣu, *a month*, we have oṣoṣu and loṣoṣu, *monthly*, &c.

§ 64. A few adverbs are formed by combining several words; as, nígbaghogbo, *always* (from ni, *in*, igba, *time*, ghogbo, *all or every*); nitorikini? *wherefore?* (from nítí, *in, as to*; ori, *reason or cause*; kini, *what*); boyà, *perhaps* (from bi, *if, ó, ù, yà, is*).

§ 65. Many adverbs consist of a reduplicated syllable or word; as, gege, *alike*; gidigidi, *very*; goigoi, *sluggishly*; kankan, *quickly*; fiofio, *very (high)*. It is probable that all such adverbs were originally nouns, formed by reduplicating the entire verbal root.

§ 66. Although the adverbs are quite numerous, there are some relations which none of them definitely express; and hence both verbs and nouns are frequently used adverbially, as in the following cases:

1. For want of an adverb to express the idea of *more*, the verb džù, *to surpass*, is employed in that sense; as, dara džù (*good surpassing*), *more good or better*; iwọ šíṣe džù mi, *you work more than I*. Sometimes lẹ, *to go*, is added; as, iwọ šíṣe džù mi lẹ; but it makes no perceptible addition to the sense.

2. The adverb sọkan, *together*, expresses the idea of unison or congruity, rather than that of being or acting in common; and hence to denote the latter idea, the

verbs *džó*, to *assemble*, and *kpò*, to *be common*, are employed; as, *kó džó*, to *collect together*; *sòrò kpò*, to *talk together*.

3. The adverbs of place with the idea of motion, as, *lòkè*, *up*, and *nisalé*, *down*, correspond very nearly to the English words *upwards* and *downwards*; and hence to express the precise idea of *up* and *down*, the Yorubas employ the verbs, *dide*, to *rise*, and *šubu*, to *fall*; as, *fà dide*, to *raise (one) up*; *bí šubu*, to *push (one) down*.

4. Finally, to mention one more example among many, the Yoruba adverbs meaning *much* refer to number and quantity rather than to degree; and hence to express this last idea, the noun *kpikpò*, *abundance*, is used; as, *fé kpikpò*, to *love much or greatly*.

§ 67. Many Yoruba adverbs are restricted in their use to a single word, or at most to a single idea; as, *fiofio*, *very* or *much*, which is applied to nothing except the idea of height; *šẹyšẹy*, (standing) *upright*; *buruburu*, (hiding) *closely*; *biribiri*, *intensely* (dark). Ex: *igí ga fiofio*, *the tree is very tall*; *á duro šẹyšẹy*, *we stand erect*; *òlè kpaniò buruburu*, *the thief hid closely*; *ilẹ́ sù biribiri* (*the-ground is-dark intensely*), *it is very dark*.

DERIVATION OF PREPOSITIONS.

§ 68. A few of the prepositions are verbs; as, *ba*, *with, along with* (prop. to *meet*); *fí*, *with, by means of* (prop. to *make*); *dé*, *for* (prop. to *be ready, prepared*). But most of the Yoruba prepositions are composed of a noun and one of the primitive particles *ní*, *in*; *sí*, *to*; or *tí*, *from*; as, *ninọ*, *in, within* (from *ní* and *inọ*, *the inside*). (See Prepositions.)

DERIVATION OF CONJUNCTIONS.

§ 69. A few of the conjunctions may be primitive words; but it is not difficult to refer them to verbal roots; as, *bí*, *if*; probably from the obsolete verb *bí*, to *be*, which is still retained in composition, e. g. *abi*, *the state of existence*.

§ 70. Most of the remaining conjunctions are compound words; as, *ndžé*, *then* (from *ón*, *it*, and *džé*, to *be*); *nitori*, *because* (from *niti*, *in*, and *ori*, *reason*).

§ 71. The origin of others is more doubtful. Thus, *adi*, *notwithstanding*, may be derived from *dí*, to *subtract*; *on*, *and*, appears to be the pronoun *ón*, *he*; *kí*, *that*, is a primitive. (See Conjunctions.)

CHAPTER II.

INFLEXION AND CONSTRUCTION OF WORDS.

§ 72. When words are combined together to form propositions, the relations which they bear to each other are indicated partly by their position with regard to each other, or collocation, partly by certain subordinate words or particles employed for this purpose, and partly by changes in the form of words, called inflexions. In the Yoruba language the first and second of these methods are

mostly employed. Of inflexion, properly so called, the language exhibits but faint traces.

§ 73. The verb is the most important part of speech, and that from which most, if not all, the other words in Yoruba may be considered as derived. It would therefore be proper to commence this division of the Grammar with the verb. But the verb cannot be conjugated except by means of the personal pronouns; and hence it is most convenient to begin with the pronouns.

PRONOUNS.

Personal Pronouns.

NOMINATIVES.

§ 74. The primary forms of the personal pronouns are: *emi, I; iwọ, thou; óṣ, he, she, or it.* Each of these pronouns is inflected, or varied in form, to distinguish the plural from the singular number; as, *emi, I; awa, we;* but there is no variation of form to express gender.

§ 75. Besides the primary forms just mentioned, each of the singular personal pronouns, when employed as the subject of a proposition, has two contracted or secondary forms, the use of which depends on the principle of euphonic concord laid down in a previous section (§ 13); and the pronouns of the first and third persons have each two additional contracted forms, founded on other considerations, which will presently be explained. The plurals are likewise subject to contraction.

§ 76. The contracted or secondary forms of these pronouns may be classified as follows:

1. The *euphonic* forms, which are divided into,
 - a.* The close form ending in 'o,' which is used before the close vowels.
 - b.* The open form, ending in 'o,' which is used before the open vowels.
2. The *citative* form, the pronouns of which, *mi, I; and i, he, she, it,* appear to be contractions of 'emi' and 'yi.'
3. The *future* form, so called because employed chiefly in the future tense.
4. All the plural nominatives are sometimes abridged in form by the suppression of the entire second syllable, to allow of their being more closely connected with the following verb.

§ 77. The various forms of the personal pronouns, in what may be called the nominative case, are then as follows:

SINGULAR.						PLURAL.	
<i>Primary Forms.</i>			<i>Contracted Forms.</i>			<i>Primary.</i>	<i>Contracted.</i>
			Euphonic.	Citative.	Future.		
			<i>Open.</i>	<i>Close.</i>			
1, <i>I,</i>	<i>emi</i>	<i>mo</i>	<i>mọ</i>	<i>mi</i>	<i>ṣ</i>	<i>wé, awa</i>	<i>á</i>
2, <i>thou,</i>	<i>iwọ</i>	<i>o</i>	<i>o</i>			<i>yé, ọnyin</i>	<i>é</i>
3, <i>he, she, it,</i>	<i>óṣ, óṣ</i>	<i>ó</i>	<i>ó</i>	<i>i</i>	<i>yi, á</i>	<i>thúy, awọṣ, nwon</i>	<i>á</i>

Remarks on the Nominatives.

§ 78. The primary forms of these pronouns may be employed on all occasions, the use of the contracted forms being optional.

§ 79. The close and open forms are employed instead of the primary forms merely for the sake of euphony.

1. The rules to be observed in their use are as follows:

a. When the first vowel of the following verb is a close vowel, viz. *e*, *i*, *o*, or *u*, the close form of the pronoun must be employed; as, *mô šê*, *I did*; *ô ri*, *thou seest*.

b. When the first vowel of the verb is an open vowel, viz. *e* or *o*, the open form of the nominative pronoun is employed; as, *mô fê*, *I love*; *ô mỗ*, *he knows*. This rule, however, is often neglected in practice.

c. Before the neuter vowel 'a,' the open or close form of the pronoun is used indifferently; as, *mô tà* or *mỗ tà*, *I sell*.

2. There are two peculiarities to be noted in reference to the use of the close and open forms.

a. None of them can be employed as nominatives to verbs in the future tense. For instance, it is correct to say either, *emi ô ri*, or *ơ ô ri*, *I shall see*; but *mô ô ri* is inadmissible.

b. Before the particle *kô* or *kỗ*, *not*, *ô* or *ô*, *he*, is uniformly omitted: as, *kô ri*, *he does not see*; *kỗ mỗ*, *he does not know*. But *ơ* or *ơ* is used with that particle; as, *ơ kỗ mỗ*, *he does not know*.

§ 80. 1. The citative forms, *mì*, *I*, and *i*, *he*, are rarely used; but they are sometimes employed in repeating what has been said, with the suppression of the verb of saying, asking, or replying; as, *mì*, *nibô*, *I* (enquired) *where?* *i*, *lơun*, *he* (replied) *yonder*; *mì*, *hô*, *I* (answered) *ô*; this word 'ô' being the usual reply to a salutation, which is aspirated in the above example for the sake of euphony.

2. The pronouns of this form are never employed in negative or interrogative sentences; neither is there any analogous contracted form for the second person singular or for the plural.

§ 81. The personal pronoun 'ơ' appears to be a modification of 'emi.' The manner in which it is formed is seen in the subjunctive phrase, *ki emi ri*, *that I see*, which is frequently contracted to *kê em' ri*, and *ki 'n' ri*; and is still more frequently pronounced *ki ơ ri*. Although we have classed 'ơ' along with 'yi' in the future form, its use is not confined to the future tense. It is employed as follows:

1. In the future tense, instead of 'emi'; as, *ơ ô ri*, *I shall see*.

2. In negative propositions, before *kô* or *kỗ*, *not*; as, *ơ kô ri* (*I not see*), *I do not see*; *ơ kỗ lờ* (*I not go*), *I do or will not go*. It is especially employed to express refusal; as, *ơ kô šê ô*, *I will not do it*; *emi kô šê ô*, suggests the idea of denial, *I did not do it*.

§ 82. The use of the demonstrative *yi*, *this* or *that*, as a pronoun of the third person, is confined to the future tense.

1. It is employed instead of *ơ*, *he*, *she*, *it*; as, *yi ô đê*, *he will come*.

2. It is often used pleonastically after other nominatives, either singular or plural.

a. In affirmative sentences it is generally preceded by *nì*, *to be*; as, *babá nì yi ô ri* (*father it-is that will see*), *father will see*; *awa nì yi ô mỗ* (*we it-is that will know*), *we will know*.

In these examples we have probably the full original construction of 'yi' in the future, from which the briefer modes of expression—*awa ô ri*, and *awa ô mọ*—are formed by ellipsis.

h. In negative future propositions, 'yi' is always placed between *kì*, *not*, and the auxiliary *ô* or *ô*; as, *emí kì yi ô ri* (*I not that shall see*), *I shall not see*; *nwọ̀n kì yi ô mọ̀*, *they will not know*.

§ 83. The pronoun 'á' is employed before verbs in the future tense, as a substitute both for *yi*, *he*, and *ô* or *ô*, *will*; as, *á lù mǐ*, *he will strike me*; *á fọ̀ ô*, *he will break it*.

§ 84. *Awọ̀n*, *they*, is not employed as the direct subject of a proposition, except occasionally in the Egba dialect. Its use is restricted to two cases, in both of which *nwọ̀n* is inadmissible:

1. Before *tí*, *who* or *which*, it is employed as the subject of a proposition; as, *awọ̀n tí ó dé* (*they who he came*), *they who came*; *awọ̀n tí ẹ̀bá ọ̀nà*, *they which* (fell by) *the road side* (Luke 8. 12).

2. Before nouns, to indicate plurality; as, *awọ̀n agbà kpèdžọ̀* (*they elder met*), *the elders were assembled*; *ọ̀nà awọ̀n ẹ̀lẹ̀sẹ̀*, *the way of sinners*.

§ 85. The use of the contracted plural forms, *á, ẹ̀, á*, is optional, and differs in no respect from that of the full forms, except that *á*, *they*, is used impersonally to form a substitute for passive verbs. (§ 147.)

OBJECTIVES.

§ 86. The personal pronouns when employed as the object of a proposition, whether governed by verbs or prepositions, take the following forms:

SINGULAR.			PLURAL.		
<i>Primary Forms.</i>		<i>Contracted Forms.</i>	<i>Primary.</i>		<i>Contracted.</i>
1. <i>me,</i>	<i>emí</i>	<i>mí</i>	<i>us,</i>	<i>awa</i>	<i>wa</i>
2. <i>thee,</i>	<i>iwo</i>	<i>o</i>	<i>you,</i>	<i>enyin</i>	<i>nyin</i>
3. <i>him, her, it,</i>	<i>on ọn</i>	<i>ô, ọ̀, ụ̀, ẹ̀, ẹ̀, ị̀</i>	<i>them,</i>	<i>awọn, nwọn</i>	<i>wọn</i>

Remarks on the Objectives.

§ 87. The primary forms, which are the same as in the nominative, are used in the following cases:

1. When two objective pronouns are connected by a conjunction; as, *ó dá iwọ̀ ati emí*, *he made thee and me*; *á mọ̀ on ati awọ̀n*, *we know him and them*. In this case *awọ̀n* is preferable to *nwọ̀n*.

2. When an objective pronoun is connected with 'ná,' having the sense of *self*; as, *nwọ̀n kò ri on ná*, *they did not see himself*; *ó kpè awọ̀n ná*, *he called themselves*. Here again *awọ̀n* is preferable to *nwọ̀n*.

3. When an objective pronoun begins a sentence; as, *iwo ní mo ri* (*thee it-is I saw*), *I saw thee*; *awọ̀n or nwọ̀n ní á kpè*, *we called them*.

4. When the objective pronoun is followed by the relative *tî*, *who* or *which*; as, *mo ri oŋ tî o de* (*I saw him who he came*), *I saw him who came*; *mọ fẹ awọŋ tî ọ fẹ emi*, *I love them who love me*. *Nwọŋ* is not used in this case.

5. The full form is frequently employed because it is more agreeable to the ear; as, *mọ fẹ awọŋ tî ọ fẹ emi*, *I love them who love me*.

§ 88. As the objective pronouns are generally governed by a preceding word to which they are closely attached in pronunciation, the contracted forms are, for the most part, made by eliding the initial vowel of the pronoun, so that it may be more closely joined to the governing word. On these forms the following observations are to be made:

1. We occasionally hear *ẹ* for *ọ*, *thee*; as, *mo ri ẹ*, *I see you*. This is a contraction of the pronoun of the second person plural, which, as with us, is often used instead of the singular by way of politeness.

2. *a*. Reasoning from analogy, we may assume that the original contracted form of the third person singular, was 'o,' like the nominative; but as this vowel becomes perfectly assimilated to the final vowel of the governing verb or preposition, it assumes in turn all the forms of these vowels; as, *mo rà â*, *I bought it*; *mo še ê*, *I did it*; *mo ri î*, *I saw it*; *fu û*, *to it, &c.*

b. The objectives, *â*, *ê*, *î*, *ô*, *û*, and *ü*, have no accent, and scarcely any perceptible quantity, especially when they follow a sharp vowel. The practised ear can discover, however, that they slightly sharpen the preceding vowel. Thus, *mo ri î*, *I see it*, is pronounced *mo ri*; and *mọ mọ ô*, *I know him*, is pronounced, as nearly as signs can represent it, *mọ mọ'*.

POSSESSIVES.

§ 89. As the pronouns when used to indicate possession are closely attached to a preceding noun, they assume the same contracted forms as the objectives; the only difference is that 'rẹ' is employed as the possessive of the second and third persons singular.

SINGULAR.			PLURAL.	
Primary Forms.		Contracted Forms.	Primary.	Contracted.
1. <i>my</i> ,	<i>emi</i>	<i>mî</i>	<i>our</i> , <i>awa</i>	<i>wa</i>
2. <i>thy</i> ,	<i>iwo</i>	<i>rẹ</i>	<i>your</i> , <i>onyin</i>	<i>nyin</i>
3. <i>his, her, its</i> ,	<i>oŋ</i>	<i>rẹ</i>	<i>their</i> , <i>awọŋ, nwọŋ</i>	<i>wọŋ</i>

§ 90. The full or primary forms are employed as possessives only when the relation of possession is expressed by the preposition *tî*, *of* (see § 131, 2); as, *iwe tî emi* (*book of me*), *my book*; *iwe nî tî emi* (*book it-is of me*), *it is my book*.

§ 91. 1. Frequently, however, the relation of possession is indicated simply by placing the pronoun immediately after the noun (see § 131, 1), and then the contracted form is employed; as, *iwe mî* (*book of me*), *my book*; *iwe rẹ* (*book of thee or him*), *thy book* or *his book*.

2. The same forms are used after a so-called compound verb, consisting of a verb and a noun (§ 36), when, although the pronoun is rendered into English as an objective, it really stands in the relation of possessor to the noun; as, *mọ bẹru rẹ*, *I fear him*; lit. *mo ba ẹru rẹ*, *I meet the fear of him or his fear*.

EMPHATIC AND REFLEXIVE PRONOUNS.

§ 92. The personal pronouns are augmented by the addition of several words equivalent to the English word *self*, *selves*, &c., as follows:

1. *Ná*, *that*, added to a pronoun makes it emphatic; as, *emi ná*, *I myself*; *iwe tí emi ná*, *my own book*.

2. *Ara*, *body* or *self*, is used only before possessives, and performs two offices:

a. Before a singular possessive it makes the pronoun reflexive; as, *ọ fẹ ara rẹ*, *he loves himself*.

b. Before a plural, it often makes the pronoun reciprocal; as, *nwon fẹ ara won*, *they love each other*.

3. *Tikara* (composed of *ati*, *and*, *eki*, *only*, and *ara*, *self*), sometimes pronounced *tikala*, is employed before possessives, and forms emphatic pronouns; as, *emi tikara mi mọ* (*I and-only-self my know*), *I myself know*; *enyin tikara nyin ri*, *ye your-selves see*.

4. *Kpákpa*, *self*, is added either to a nominative or objective pronoun, and renders it emphatic; as, *iwo kpákpa*, *thee thyself*. *Kpákpa* is more definite than *ná*, being equivalent to *very self*. Sometimes *tikara* with its possessive pronoun is followed by *kpákpa*; as, *iwo tikara rẹ kpákpa*, *thee thyself or thy very self*. But the expression '*iwo kpákpa*' appears to be equally strong without the addition of '*tikara rẹ*.'

§ 93. Each of the foregoing expressions may be used in conjunction with nouns, as follows: *babá ná ri*—*babá ara rẹ ri*—*babá tikara rẹ ri*—*babá kpákpa ri*—*babá tikara rẹ kpákpa ri*; each of which sentences signifies, *father himself sees*.

PLEONASTIC USE OF PRONOUNS.

§ 94. Personal pronouns which would be superfluous in English are frequently employed in Yoruba, as in the following cases:

§ 95. 1. When a verb is separated from its nominative by intervening words; as, *ọkọriri kan ọlọrọ ó ní iridzá kan* (*man one rich he had steward one*), *a rich man had a steward*.

2. When the objective noun is separated from the governing word by a relative clause, an objective pronoun is supplied after the governing word, whether it be a verb or a preposition; as, *ọmọ, tí ọ lẹh oko, ẹkun nn ụ* (*the child, who he went to-the-farm, a leopard caught him*), *a leopard caught the child who went to the farm*; *alagbe, tí ọ kọrinj li ode ni, mo fi i tu* (*the beggar, who he sang at the door it-is, I gave it to*), *I gave it to the beggar who sang at the door*.

§ 96. Pleonastic *ó* or *ọ*, *he*, *she*, *it*, frequently occurs before verbs:

1. When *tí*, *who*, *which*, is the subject of a relative clause; as, *enia tí o de* (*the person who he came*), *the person who came*; *enyin tí ọ mọ*, *ye who know*.

2. After *ní* or *lì*, *this one*, *that one*, when employed as a substitute for the relative *tí*; as, *enia lì o sına*, *a people who err*.

3. After *ní* or *lí*, when this word is used pleonastically in the sense of *to be*; as, *iwo lí o še ê* (*thou it-is that did it*), *thou didst it*; *íya lí o kpé o*, *mother called thee*.

§ 97. A pleonastic pronoun of the third person singular follows verbs of saying, writing, &c., in connexion with *kpé*, *that, to writ*; as, *ô tẹ́nuṃô ô kpé ôṅ kò še ê* (*he affirmed it that he not did it*), *he affirmed that he did not do it*; *mọ kowe rẹ kpé emi mbọ* (*I built-book of-it that I was-coming*), *I wrote that I was coming*.

§ 98. *Yi*, *he, she, it*, is frequently employed pleonastically before verbs in the future tense; as, *ọba yi ô kpa â*, *the king he will kill him*.

OMISSION OF PRONOUNS.

§ 99. The personal pronoun *ó* or *ô*, *he, she, it*, is always omitted before *kò*, *kọ*, or *kì*, *not*; as, *kò rí*, *he does not see*; *kọ mọ*, *he does not know*; *kì ísẹ ẹ́nià rẹ̀rẹ̀* (*not is person goodness*), *he is not a good man*. But the full form *ón* or *òṅ*, *he*, is not omitted; and hence, instead of the above expressions, we may use their precise equivalents, *ón kò rí*, *he does not see*; *ón kọ mọ*, *he does not know*; *ón kì ísẹ ẹ́nià rẹ̀rẹ̀*, *he is not a good man*.

§ 100. Possessives are sometimes omitted for the sake of brevity; as, *lẹ́h bọ odún*, *go wash (your) face*; *íya de*, (*my*) *mother has come*.

Demonstrative Pronouns.

§ 101. The demonstrative pronouns are *yi*, *this*; *ná*, *that*; *nì*, *this one, that one*; with their plurals *wọnyì*, *these*, *wọ̀nì*, *those*, formed by prefixing *awọ̀n*, *they*, to 'yi' and 'nì'.

§ 102. The demonstratives are placed immediately after the nouns which they define; as, *ilé yi*, *this house*; *ilé wọ̀nì*, *those houses*. When the noun is followed by a descriptive word, the demonstrative is placed after both; as, *ẹ́nià rẹ̀rẹ̀ ná* (*person of goodness that*), *that good person*.

§ 103. Both 'yi' and 'ná' may be attached to plural nouns; as, *awọ̀n ẹ́nià yi*, *these people*; *gbogbo ilé ná*, *all those houses*.

§ 104. The pronoun 'nì' appears to be, as regards its origin, the near demonstrative *this*. At present, however, this word and its corresponding substantive 'eni' have the following uses and acceptations.

1. It is employed as an indefinite pronoun, which may be variously rendered according to circumstances; as, *wi fu nì* or *eni* (*speak to one or a person*), *speak to me or us*; *bá nì sise*, *help one, or us, to work*; *eni ti mbọ* (*one who is coming*), *he who is coming*; *eni kò rí eni kan* (*I not see some one*), *I see no one*.

2. 'Nì' is frequently employed as a definite article (§ 108).

3. It is combined with other pronouns in composition; as, *eyini* (*eyi nì*), *that*; *awọ̀nì* (*awọ̀n nì*), *those*; *tani?* (*ta? nì*), *who?* *kinì?* (*kì? nì*), *what?*

§ 105. When the demonstratives are employed substantively, they are augmented by the addition of the usual preformatives; as, *eyi*, *alayi*, *eleyi*, *this*; *oná*, *that*; of which the plurals are *awọ̀nyi*, *iwọ̀nyi*, *uwọ̀nyi*, *these*; *awọ̀nì*, *awọ̀nńá*, *those*. Sometimes 'eyi' reduplicates the second syllable; as, *eyiyi*, *this*; and frequently it is compounded with *nì*, forming the compound substantive pronoun *eyini*, meaning *that*.

1. The substantive demonstratives are construed like nouns; as, *eyi lí o še ê*

(*this it-is he did it*), *this person did it*; *oṣuná lí o wí í* (*that it-is he said it*), *that person said it*; *iwoyí mọ̀*, *these know*.

2. 'Oṣuná' and 'awoṣuná' are emphatic; as, *awoṣuná ní mo rí* (*those it-is I saw*), *I saw those very persons, or themselves*.

DEFINITE ARTICLE.

§ 106. The demonstratives ná and nì, *that*, and the substantive pronoun eyi, *this*, frequently have the force of the definite article.

§ 107. Ná is always equivalent to the English demonstrative *that*, although in some cases it may be rendered by the article *the*; as, *ọ̀kọ̀pọ̀rí ná tí o de lana*, *the man who came yesterday*.

§ 108. Nì is scarcely used as a demonstrative, and is more nearly equivalent to the article; as, *á rí ọ̀dọ̀ ulá nì*, *we saw the great river*; *ọ̀ba nì lí o wí í* (*king the it-is that said it*), *the king said it*. In the use of nì we observe two peculiarities.

1. It is employed in connexion with *kan*, *one*, which is used to indicate singularity; as, *ọ̀mọ̀de kan nì lí o ̀̀sẹ̀ ẹ̀*, *the child did it*.

2. It frequently qualifies a phrase or sentence; as, *ilẹ̀ ọ̀dzo nì*, *there is a house on fire*; *badogun medzi, tí o lóh ogun ná nì, kò huwa rẹ̀*, *two generals, who went to that war, did not behave well*. In these and all similar examples 'nì' may be rendered by *it is*.

§ 109. Eyi, *this*, is employed as a definite article, before the noun, in speaking of one among a plurality of things previously mentioned. Thus in Luke 15. 12, after mentioning the two sons, we have the phrase '*eyi abùro*,' *the younger*.

The Relative Pronoun.

§ 110. The relative *tí*, *who* or *which*, is applied to both persons and things, and is not varied to indicate gender, number, or case. Hence, as is the case, for instance, with the uninflected Hebrew relative, a personal pronoun is often employed in connexion with it to indicate the number and person which the relative would have if inflected.

§ 111. 1. *a*. When employed as the subject of a relative clause, or in what may be called the nominative case, *tí* is usually followed by *o* or *ọ̀*, *he*, *she*, *it*, which is used in a general way for all numbers and persons; as, *awa tí o rí*, *we who see*; *iwo tí ọ̀ kọ̀*, *thou who learnest*.

b. When the verb of the relative clause begins with 'm,' 'n,' or 'n,' either as an auxiliary particle or as a component part of the verb, the 'o' or 'ọ̀' is usually omitted; as, *iwo tí ńsọ̀rọ̀*, *thou who art speaking*; *awa tí m̀bẹ̀*, *we who are*.

2. Frequently, however, instead of 'o' or 'ọ̀,' a pronoun is used, agreeing in person and number with the antecedent; as, *èniá tí awọ̀n ̀̀sẹ̀ ẹ̀* (*person who they did it*), *the people who did it*; *enì tí mọ̀ mọ̀* (*I who I know*), *I who know*.

3. It being regarded as sufficient if the plurality of the antecedent is once expressed, the same thing may be said in several different ways. Thus the sentence, *he slew his sons who rebelled*, may be expressed in Yoruba either by, *ó kpa awọ̀n ọ̀mọ̀ rẹ̀ tí ọ̀ sọ̀tẹ̀* (lit. *he slew them son of him who he rebelled*); or by, *ó kpa ọ̀mọ̀ rẹ̀ awọ̀n tí ọ̀ sọ̀tẹ̀* (*he slew son of him they who he rebelled*); or else by, *ó kpa ọ̀mọ̀ rẹ̀ tí nwoy sọ̀tẹ̀* (*he slew son of him who they rebelled*).

§ 112. 1. In what may be called the objective case, 'ti' is not followed by 'o' or any other pleonastic pronoun; as, *ilé ti ọba kọ*, *the house which the king built*.

2. The relative cannot be governed directly by a preposition, but only through a noun or pronoun; hence when the preposition has no other word for its object, the pronoun *eni*, *one*, is introduced before the relative; as, *si eni ti* (*to one who*), *to whom*; *fi eni ti* (*for one who*), *for whom*.

§ 113. The possessive case is expressed:

1. By employing a personal pronoun, which must follow the name of the thing possessed; as, *ọkọnrí ti ilé rẹ dọ* (*man who house of him burned*), *the man whose house was burned*.

2. By employing the pronoun *eni*, *one*, before *ti*; as, *bata eni ti eni kò tó gbé* (*shoes of one which I not am-sufficient to-bear*), *whose shoes I am not worthy to bear*. *Eni* is sometimes introduced to make a phrase definite; as, *gbogbo nyin eni ti ngbó* (*all you one who are-hearing*), *all you who hear*.

§ 114. When its antecedent is a noun signifying time or place, 'ti' may be rendered by *when* or *where*; as, *igba ti mo de*, *the time when I came*; *ibi ti ó wà*, *the place where he is*.

§ 115. The compound relative *what* is expressed:

1. By a noun and 'ti,' *which*; as, *eni kò fẹ nkan ti ó sẹ*, *I do not like what* (*lit. thing which*) *he did*.

2. By *eyi ti*, *this which*; as, *awa kò mọ eyi ti ó rí*, *we do not know what he saw*.

3. By *bí . . . ti*, *as . . . which*; as, *mọ gbó bí o ti wí*, *I heard what thou saidst*.

§ 116. We occasionally meet with *ní* or *lí*, *that*, employed as a relative instead of *ti*; as, *enia lí o sına lí eyi*, *this is a people that err*.

OMISSION OF THE RELATIVE.

§ 117. The relative is omitted in the following cases:

1. Before an adverb composed of a preposition, a noun, and the relative; as, *enyin lí awọn nigbati enyin gbó* (*ye are they in-time-which ye hear*), *ye are they who when ye hear*.

2. Before *máh*, *not*; as, *alagbara máh mọ èro* (*strong-man not knows consideration*), *a strong man who does not consider*; *abaniše máh ba ní sẹ mọ* (*helper not with one acts more*), *a helper who helps no more*.

3. Sometimes, instead of making use of a relative clause in dependence on the main proposition, two separate propositions are employed; as, *amọran mọ owe, i lădza ọrăn* (*wise-man knows proverbs, he reconciles difficulties*), *a wise man who knows proverbs reconciles difficulties*.

Interrogative and Indefinite Pronouns.

§ 118. *Ta?* *who?* is generally, if not invariably, compounded with *ní* or *lí*, *that*. It is employed as follows:

1. As an interrogative pronoun; as, *tani?* *who?* *tani ní?* *who is it?* *iwọ tani?* (*thou who*), *who art thou?* *tani sẹ é?* *who did it?* or, *tali o sẹ é?* (*who he did it*), *who did it?* *ó lù tani?* *he struck whom?* *tani ó wí fi?* *whom did he speak to?* or *ó wí fi tani?* *he spoke to whom?*

2. As an indefinite pronoun; as, emi mō tani ó lì, *I know whom he struck.*

In the Egba dialect, before the auxiliary particle 'n,' 'ta' is sometimes omitted, and 'li' only is employed; as, li ñkpè mi? *who is calling me?*

3. Tani is equivalent to a possessive in various constructions:

a. After the name of the thing possessed; as, ilé tani ñdzo? (*house of whom is-burning?*) *whose house is burning?* At the option of the speaker, ti, *or*, may be inserted before tani; as, ilé ti tani ñdzo?

b. The same thing may be expressed by tani? *who?* and ní, *to have or own*, with ti, *which*, following the name of the thing possessed; as, tani ní ilé ti ñdzo? (*who house which is-burning*), *whose house is-burning?*

§ 119. The relative 'ti' is employed as an interrogative in the sense of *what?*

1. Ti alone is used; as, emi ó ti še? (*I shall what do*), *what shall I do?* ɛnyin ó ti še mō? (*ye will what do to-know*), *how will ye know?*

2. Very often bi, *as*, is employed as a complement to 'ti'; in which case 'bi' precedes the subject of the verb; as, bi emi ti ñsé? (*as I what am-doing*), *what am I doing?* bi iwọ ti še mō? (*as thou what dost to-know*), *how dost thou know?*

§ 120. The particle or pronoun 'ē,' which the natives regard as a contraction of ɛyi, *this*, is used for *what* in the expression, ē še? (*what is it*), *what is the matter?* *why?* or, ē ti še, which has the same meaning.

§ 121. Ki? *what? which?* is also combined with nì or lì, *that*, and is used as follows:

1. As an interrogative pronoun; as, kini? or kini nì? *what is it?* kilí ó ñsé? *what is he doing?* mitori kinì iwọ ñkigbe? (*for what thou art-bawling*), *why art thou bawling?* lati kinì ó de? (*from what it came*), *from what did it arise?*

2. It is also employed as an indefinite pronoun; as, emi mō kilí ó še, *I know what he did.*

3. When inserted between the parts of a reduplicated noun 'ki' has the force of *whatever*; as, ilé ki ilé, or ilekile, *any house whatever* (§ 56, 1, a).

§ 122. 1. Wo? *which? what?* is an adjective pronoun, attached interrogatively to nouns; as, ilé wo li ó rà? (*house which is-it he bought*), *which house did he buy?* ɛnia wo li ọ fẹ ọta rẹ? (*person what is-it he loves enemy his*), *what man loves his enemy?*

2. a. Ewo? formed by prefixing 'ē' to 'wo,' is a substantive pronoun; as, ewo ti o dara? (*which that it is-good*), *which, or which one, is good?* emi ọ mō ewo! *I do not know which!*

b. Ewo is employed as an indefinite pronoun; as, bère ewo li ọ fẹ (*ask which it-is he wants*), *inquire which he wants.*

In the Egba dialect 'si' and 'yisi' are sometimes employed as substitutes for 'wo' and 'ewo'; as, ni ilé si ó de? *on what day did he come?* yisi ó gbà? *which did he take?*

VERBS.

Principles of Conjugation.

§ 123. Through all the variations of person, number, mode, and tense, the Yoruba verbal root remains unchanged.

§ 124. Person and number are denoted by the form of the personal pronoun that represents the subject, as follows:

emi ri, <i>I see or saw.</i>	awa ri, <i>we see or saw.</i>
iwo ri, <i>thou seest or sawest.</i>	enjin ri, <i>ye see or saw.</i>
on ri, <i>he sees or saw.</i>	nwon ri, <i>they see or saw.</i>

§ 125. The modes and tenses are indicated by auxiliary particles placed before the verb. The whole difficulty of the Yoruba verb lies in the position and meaning of these particles; and thus the intricacies usually found in the inflexions of the verb are here transferred, as it were, to the department of syntax.

§ 126. There is but one conjugation, and no irregular verbs, in Yoruba; all verbs being varied in the same manner. We will here give a synoptical view of the various forms of the verb.

INDICATIVE FORMS.

Simple.

AORIST.	{	<i>Perf.</i>	emi ri, <i>I see or saw.</i>
		<i>Impf.</i>	emi ri, <i>I am or was seeing.</i>
PAST.	{	<i>Perf.</i>	emi ti ri, <i>I have or had seen.</i>
		<i>Impf.</i>	emi ti ri or ti ri, <i>I have or had been seeing.</i>
FUTURE.	{	<i>First.</i>	emi o ri or a ri, <i>I shall or will see.</i>
		<i>Sec.</i>	emi o ti ri,* <i>I shall or will have seen.</i>

with ni or li o.

AORIST.	{	<i>Perf.</i>	{ emi ni ri, <i>I see or saw.</i> emi li o ri, <i>I saw or see.</i>
		<i>Impf.</i>	emi ni ri, <i>I am or was seeing.</i>
PAST.			emi li o ti ri, <i>I have seen.</i>
FUTURE.	{	<i>First.</i>	{ emi ni o ri, emi ni yi o ri, } <i>I shall or will see.</i>
		<i>Sec.</i>	emi ni yi o ti ri, <i>I shall or will have seen.</i>

OPTATIVE OR POTENTIAL FORMS.

AORIST.	emi ma ri, <i>I may or would see, or am seeing.</i>
PAST.	emi ma ti ri, <i>I might or would have seen.</i>
FUTURE.	emi o ma ri, <i>I may see or shall be seeing.</i>

* This form is scarcely recognised by the Natives.

SUBJUNCTIVE FORMS.

Simple.

AORIST.	{ <i>Perf.</i> bi emi ba ri, <i>if I see or saw.</i>
	{ <i>Impf.</i> bi emi ṣba ri, <i>if I am or was seeing.</i>
PAST.	{ <i>Perf.</i> bi emi ba ti ri, <i>if I have or had seen.</i>
	{ <i>Impf.</i> bi emi ṣba ti ri, <i>if I have or had been seeing.</i>
FUTURE.	{ <i>First.</i> bi emi ó ba ri, <i>if I shall or will see.</i>
	{ <i>Sec.</i> bi emi ó ba ti ri, <i>if I shall have seen.</i>

with ki.

PRESENT.	ki ṣ ri or ki em' ri, <i>that I see.</i>
FUTURE.	ki emi ki ó ri, <i>that I shall or will see.</i>

Auxiliary Particles.

§ 127. Before exhibiting in detail the forms of expression in Yoruba which correspond to our ideas of mode and tense, we will first examine into the nature and uses of each of the particles by the help of which these various accidents are denoted.

INDICATIVE PARTICLES.

*Particle of Continuance.***ṣ** or **m**.

§ 128. 1. The particle 'ṣ,' sometimes exchanged for 'm' before 'b' or 'f' is probably a contraction of *ní, to be*. We have analogous formations in several words; as, *nlá, to be great*, which is composed of *ní, to have*, and *ilá, greatness*; *mbè* (colloquial), *there*, from *ní, in*, and *ibè, that place*.

2. When 'ṣ' is attached to a verb, it may be prefixed to the accompanying particles also; as, *emi ṣṣi ṣṣòrò, and I was speaking*.

§ 129. 1. The use of 'ṣ' or 'm' in conjugation is to denote a continuing or unfinished action, or one which was unfinished at the time referred to; as, *omọ ṣṣun, the child is sleeping or is asleep*; *nígbatí awa mbò lana, when we were coming yesterday*.

2. Although it is not customary to prefix 'ṣ' to verbs in the future tense, no reason is apparent why this should not be done; as, *yí ó ṣṣíṣe, he will be working*.

3. This prefix is very appropriately employed in making general propositions, that is, in asserting that which always holds good; as, *keferi ṣbò ôkpe, the heathens worship the palm-tree*; *emí tí nké omọ ní ṣba omọ dze, he who indulges a child spoils a child*.

*Past Particle.***ti.**

§ 130. This particle denotes that an action is, was, or will be finished at or before

some point of time expressed or implied in the sentence. It is variously employed as follows:

1. To express anything that is past at the time of speaking; as, *mo* ti še ê lana* (*I have done it yesterday*), *I did it yesterday*; *ô ti kú*, *he is dead*; *ô ɲti ɲbô lana*, *he was coming yesterday*; *arāgbani ti ɲsina*, *the ancients erred*.

2. To express what is past in relation to some point of past time; as, *mo ti lóh*, *ki ô tó dé*, *I had gone, before he arrived* (*ki...tô, before*).

3. To express what will be past before some future point of time; as, *emi ô ti lóh*, *ki ô tó dé*, *I shall have gone, before he arrives*.

4. It is employed indefinitely like the English auxiliary *have*; as, *mo ti ri i nígbakúgba*, *I have seen him often*.

§ 131. 1. The origin of the particle 'ti' is doubtful. It is not improbably, however, a modification of *tó*, *to be sufficient, to attain to*, which is sometimes employed as a sort of auxiliary particle; as, *bí ɔmo dagba á tó lí ɔgbon* (*if child is-grown, it-will attain to-have wisdom*), *when the child is grown, it will get wisdom*; *nígbaná ni ɲwoj tó sɛna* (*then it-is they attained-to erring*), *then they erred*.

2. The use of 'ti' as a pleonastic particle seems to favor the suspicion that its original is 'tô.'

a. It is sometimes employed pleonastically after prepositions expressing instrumentality; as in the general proposition, *nikpa iše owó ti wáh*, *by labor money comes*, lit. *attains to*, or *reaches the point of, coming*.

b. Again, 'ti' is often thus employed after *máh*, *ki*, *kò*, or *kò*, *not*; as, *máh ti lóh!* (*not arrive-at going*), *do not go yet!* *óy kò lè ti so eso* (*it not is-able to-attain-to bearing fruit*), *it cannot bear fruit*.

3. The auxiliary particle 'ti' coincides with 'tó' in accent, but not with any other particle 'ti' in the language.

Future Particles.

ô or ô.

§ 132. This particle is the sign of the future tense, and is generally equivalent to *shall* or *will*. The difference between 'ô' and 'ô' is simply euphonic, 'ô' being employed before close, and 'ô' before open vowels (§ 14).

§ 133. It is probable that 'ô' or 'ô' was originally the personal pronoun *ô* or *ô*, *he, she, it*. If so, the expression *emi ô ri*, *I shall see*, means literally, *I am he to-see*, or *that is to see*.

§ 134. The particle 'ô' or 'ô' is frequently preceded in all persons and numbers by the pleonastic pronoun *yi*, *he, she, it*; as, *iwo yi ô še ê*, *thou wilt do it*; *awa yi ô ri*, *we shall see*; *ôro ti yi ô še* (*word which it will come-to-pass*), *a word which will be fulfilled*. (Luke, 1. 20.)

a.

§ 135. This particle may be regarded as an emphatic substitute for *ô* or *ô*. It is used as follows:

* The secondary forms of the pronouns, as, *mo* or *mo*, *I*, are more frequently used than the longer primary forms.

1. *a.* To give emphasis to an assertion, it being used in connexion with a nominative, before any vowel whether close or open; as, emi á ri, *I shall see*; emi á mō, *I shall know*.

b. Or without a nominative, when the subject of the verb is of the third person, either singular or plural; as, á ri mi, *he or they will see me*; á kpa mi, *he or they will kill me*.

2. Before a verb used subjunctively, after ki, *that*, without a nominative, and frequently with a preceding clause understood; as in the evening salutation, kî á sùn rē! *may you sleep well!* lit. *I wish that you will sleep well*. Servants frequently ask such questions as, kî á še cyi? *shall I do this?* lit. *do you wish that I shall do this?* But the clause preceding ‘ki’ is often expressed; as, ó ní, kî á lōh, *he said, let us go*, lit. *he said that we will go*.

Emphatic Particle.

ni or li.

§ 136. The demonstrative ‘ni’ or ‘li,’ which assumes the nature of a substantive verb (see § 181), is sometimes employed in the latter sense along with verbs for the sake of emphasis; as, babá ni yri, *father is or was seeing*; babá lí o ri, *father saw or sees*.

OPTATIVE PARTICLE.

ma.

§ 137. This particle is used as follows:

1. In affirmative propositions with a nominative of the first or third person, and in interrogative sentences with a nominative of the second person, it expresses *will or desire*; as, emi ma lōh, *I desire to go*; nwọ́n ó ma lōh, *they will go, or will desire to go*; enyin ma lōh? *do ye wish to go?*

2. In affirmative propositions, with a nominative of the second person, it expresses *permission*; as, ma lōh, or iwọ́ ma lōh, *thou mayst go*; ẹ́ ma gbẹ́ ẹ́, *ye may take it*.

This form of expression is much employed instead of the imperative, as being more courteous; as, ma kuro, *thou mayest get out of my way*; ẹ́ ma yara, *ye may make haste*.

3. In connexion with words denoting the continuance or repetition of an action, it expresses what is *customary or habitual*; as, á ma lōh nígbakúgba, *we go often*; ọ́n ma ná mí lodzódzúnú, *he flogs me daily*; iwọ́ ma sọrọ́ kpọdžù, *thou talkest too much*; ó ma šeun! (*he is always kind*), *he is very kind!* ẹ́ ma kpẹ́! (*ye always stay*), *how long ye stayed!*

§ 138. When the particle ‘ti’ is employed, ‘ma’ precedes it; as, iwọ́ ma ti še buburu, *thou hast done evil* (habitually). But when lè, *to be able, can, or may*, is employed with the verb, it may either precede or follow ‘ma’; as, kî á lè ma mō, *that we may know*; boya yi ó ma lè dżoba, *perhaps he may or can reign*. In these cases also ‘ma’ denotes the continuance of the action.

SUBJUNCTIVE PARTICLES.

ba.

§ 139. The verb 'ba' signifies to *arrive at, attain to, meet, find, &c.* It is employed as an auxiliary particle, chiefly in what may be termed the subjunctive mode, with something of the sense of *reaching, arriving at, or attaining to*, the action expressed by the verb before which it is placed; as, *bí iwò ba rí ò, kpa à, if thou seest it, kill it*, lit. *if thou attain to seeing it or chance to see it*.

§ 140. It is also employed as an emphatic or definite particle in the indicative mode; as, *ilé tí mó bá kọ ní, o wó (house which I built it-is, it fell down), the house which I built has fallen down; óhún tí Ọlórún bá tí wẹ̀nò, máh fí kẹ̀lẹ̀ lí àimọ́ (thing which God has cleansed not make to-call to-be uncleanness), the thing which God has cleansed call not unclean.*

§ 141. It is customary also to use 'ba' after *nígbatí, when*; as, *nígbatí mó bá dé, when I arrive.*

aba and iba.

§ 142. These particles, which appear to be derivatives of 'ba,' imply duty or obligation; as, *emí aba ẹ̀ ẹ̀, or iba ẹ̀ ẹ̀, I ought to do it; eṣyín kí iba tí lólú, ye should not go or have gone.* (For the use of *tí* after *kí*, *not*, see § 131, 2, 6.)

§ 143. In subjunctive sentences 'iba' is equivalent to *if*; as, *iba ẹ̀ wólí, í bá mọ́, if he were a prophet, he would know; iba ẹ̀ mó ní òyẹ́ (if it-were I had wings), if I had wings*; a form of expression employed for *oh! that I had, &c.*

ki.

§ 144. Another subjunctive form arises from the use of the conjunction *kí, that*:

1. If the nominative to the verb is *ò, I*, or a monosyllabic pronoun (except 'òyí'), only one 'kí' is used; as,

kí ọ̀ rí, } that I see.
kí emí rí, }
kí ọ̀ rí, that thou see.
kí ọ̀ rí, that he see.
kí á rí, that we see.
kí ẹ́ rí, that ye see.

2. If the nominative begins with a consonant or consists of two or more syllables, it is usually followed by a second 'kí,' with the pronoun *ó* or *ẹ́, he, she, or it*; as,

kí iwọ́ kí ọ̀ rí, that thou see.
kí awa kí ọ̀ rí, that we see.
kí nwọ́yí kí ọ̀ rí, that they see.
kí babá kí ọ̀ rí, that father see.

3. The pronoun *òyí, he, she, it*, is used with one 'kí' or with two; as, *kí ọ̀yí rí, or kí ọ̀yí kí ọ̀ rí, that he see.*

§ 145. These forms are employed as follows:

1. Subjunctively; as, *kí ọ̀ rí, kí emí rí, or kí emí kí ọ̀ rí*, which may be rendered, according to the context, *that I see, that I shall see, that I may see.*

2. Imperatively; as,

ki ɲ ri,	}	<i>let me see.</i>
kī emi ri,		
ki emi kī ó ri,		
kī o ri,	}	<i>see thou.</i>
ki iwó kī ó ri,		
kī ó ri,		
ki óɲ ri,	}	<i>let him see.</i>
ki óɲ kī ó ri,		

3. *a.* When the verb with 'ki' is preceded by an objective, it may often be rendered by an infinitive; as, mo kpè ọ ki o še ê, *I called thee that thou do it or to do it*; mo kpè nyin kī ẹ wò ô, *I called you to look at it*; ọ bẹbẹ wa kī á wí, *he begged us to tell*; ọ bẹbẹ wa kī á máh wí, *he begged us not to tell.*

b. In this construction an objective of the third person plural is sometimes followed by kī ó, *that he*; as, á kpè wọ kī ó še ê, *we called them to do it.*

OCCASIONAL PREFIX.

i.

§ 146. The inseparable prefix 'i' (which is not to be confounded with *i*, *he*, and *i*, *not*) is attached to verbs for the following purposes:

1. To denote what is permanently true or customary; as, li ọkpọlọkpọ ọkan li ẹnu iso, *in the abundance of the heart the mouth speaketh.*

2. It is frequently emphatic after kò, *not*; as, nwọy kò ide, *they have not come.* It would seem that, since 'kò' is immutably unaccented, the 'i' is introduced to supply the place of an emphatic accent on the negative.

3. It appears to be sometimes merely euphonic.

a. After 'ki' employed instead of kò, *not*; as, kī íše awodi, *it is not a hawk*; emi kī ilọh ibe, *I never go there.*

b. When the 'o' which usually follows the relative 'ti' (§ 96, 1) is omitted; as, ẹni ti ilọh, *he who went.*

Forms for the Passive Voice.

§ 147. In Yoruba, as in many other African languages, there is, properly speaking, no passive voice. Various forms of speech, however, supply its place.

§ 148. 1. The most frequent form is the plural impersonal, employing the contracted nominative á, *they*; as, á ri mi, *they see me*, for *I am seen*; á ti ri mi, *they have seen me*, for *I have been seen*; á ọ ri mi, *they will see me*, for *I shall be seen.*

2. Frequently, retaining this construction, the noun or pronoun denoting the object is placed first; thus, emi li á ri (*I it-is they see*), *I am seen.*

§ 149. Although the above substitute for the passive is applicable in all cases, there are several other forms which may be used occasionally with good effect:

1. All the compound active transitive verbs, as ba...dže, *to spoil*, kpa...mọ, *to conceal* (§ 37, 1), and a few other transitive verbs, may be used instead of passives; as, nwọy badže, *they are spoiled*; awa kpamọ, *we are hid*; ó še li odzu mi, *it was done before me*, lit. *in my eye*; ọke bọ mọle, *the hills were covered over*; níkpá ọrọ Oluwa aiyẹ ti dá, *by the word of the Lord the world was made.*

2. Occasionally an abstract noun with a substantive verb is employed instead of a passive verb; as, *mó šé igbagbe* (*I am a-forggetting*), *I am forgotten*; *ilé dí áhoro*, *the house is a desolation, or is desolated*.

3. All nouns formed from transitive verbs by reduplicating the first syllable have a passive signification; as, *riri*, *which is seen*; *kpikpa*, *which is slain*; *šise*, *which is done*. And any of these nouns may be employed before *ní*, *to be*, to form a substitute for the passive of the perfect aorist tense; as, *riri lí emi*, *I am seen*; *gbighá ní nwon*, *they are received*; *kpikpa ní babá*, *father is killed*. In the past and future tenses of the passives just mentioned, the word which represents the subject is followed by *šé* or *dže*, *to do, to be, to get*; as, *kpikpa ní iwọ ọ šé* or *dže*, *you will be killed, or get killed*.

Modes and Tenses.

§ 150. The various forms of the verb, including verbal nouns, may be arranged in five modes, viz the Indicative, the Optative or Potential, the Subjunctive (formed from the two preceding), the Imperative, and the Infinitive.

§ 151. The tenses may be divided into three classes or groups, the Aorist or Indefinite, the Past, and the Future. In the Indicative mode, and in the Subjunctive formed from it, the Aorist and the Past tenses have a perfect and an imperfect form, while the Future exhibits a first and second future form. Those of the Indicative, for example, are as follows:

Aorist Tenses.

Perfect, *emi ri*, *I see or saw*.

Imperfect, *emi ńri*, *I am or was seeing*.

Past Tenses.

Perfect, *emi tí ri*, *I have or had seen*.

Imperfect, *emi tí ńri*, *I have or had been seeing*.

Future Tenses.

First, *emi ọ ri*, *I shall or will see*.

Second, *emi ọ tí ri*, *I shall or will have seen*.

§ 152. The foregoing synopses and remarks present the general principles of the Yoruba verb; but the importance and intricacy of this part of speech seem to require a more detailed exhibition of particulars. We will therefore give the various usual and occasional forms of each tense, and describe the peculiarities of each form.

INDICATIVE MODE.

Aorist Perfect.

ACTIVE.

Affirmative.

<i>emi ri</i> ,	}	<i>I see or saw</i> .
<i>emi ńri</i> ,		
<i>emi lí ọ ri</i> ,		
<i>emi iri</i> ,		<i>I see or saw continuously</i> .

Negative.

emí ò (or kò) rí, *I do or did not see.*
emí kí ìrì, *I do not see.*

Interrogative

emí rí bí?
emí ní rí bí? } *do or did I see?*
emí ò rí bí?

Negative Interrogative

emí kò rí or ò (rì) bí? } *do or did I not see?*
emí rí kò?
emí kí ìrì bí, *do I not see?*

PASSIVE.

Affirmative.

á rí mí, } *they see or saw me—I am or was seen.*
emí ò á rí,
emí sè rí, } *I am or was seen.*
rìrì lí emí,

Negative.

á kò (or ò) rí mí, *they do or did not see me—I am or was not seen.*
emí kò (or ò) sè rí, *I am or was not seen.*

Interrogative.

á rí mí bí? }
emí ò á rí bí? } *am or was I seen?*
emí sè rí bí?
rìrì lí emí bí?

Negative Interrogative.

á kò (or ò) rí mí bí? }
emí kò (or ò) sè rí bí? } *am or was I not seen?*
rìrì kò lí emí bí?

Remarks.

§ 153. On the various forms of the aorist perfect we may observe:

1. That the simple form, as, emí rí, *I see or saw*, is wholly ambiguous as regards time, it being used either in a present or past sense.

2. The form with 'ní' may be used with a past signification; but it naturally suggests the idea of present time, and will probably become a definite present tense.

3. The form with 'ò' seems to have more of the past signification; but it can-

not be set down as a definite past tense, because it is still frequently employed in the present.

4. The prefix 'i,' in the form 'emi iri,' denotes continuous or habitual action. It is not a usual form, except in the cases already stated (§ 146).

§ 154. As to the negative and interrogative forms, observe:

1. The particles 'kò' and 'ò' are exact equivalents. Before open vowels they become 'kô' and 'ô.'

2. Kì, *not*, is employed before verbs beginning in 'i,' as shown in the example. As the prefix 'i' denotes continuation, 'kì' generally has the sense of *never*; as, emi kì ilôh ibê, *I never go there*. This form is to be rendered by the present tense.

3. The particle 'bì,' or its equivalents abi, tabi, is merely a sign of interrogation, and is often omitted; as, emi ri? *did I see?*

4. Kô, *not*, is used only in interrogations; as, emi ri kô? *do I not see?* and in negations where the verb is not expressed; as, ôh kô, it is *not he*.

Aorist Imperfect.

ACTIVE.

emi ñri, } *I am or was seeing.*
emi ni ñri, }

PASSIVE.

á ñri mi, } *I am or was seen.*
emi li á ñri, }

Remarks.

§ 155. This tense needs but little elucidation; still we may observe:

1. That the first form is employed either in a present or past sense; whereas the second form more frequently refers to present time.

2. This tense has no negative forms, and the interrogative forms differ from the affirmative only in the use of 'bì' or its equivalents (§ 154, 3) immediately after the verb.

Past Perfect.

ACTIVE.

emi wà ri, *I saw.*
emi ti ri, } *I have or had seen.*
emi li o ti ri, }

Remarks.

§ 156. The verb wà, *to be*, is used in all tenses; but there is a tendency to restrict it to the past. When it is used as an auxiliary particle, it invariably forms an indefinite past tense; as, emi wà ri, *I saw*; nwon wà li cìcècè, *they were sinners*.

§ 157. A perfect tense is occasionally formed by other particles besides ti; as, emi gbe ê de (*I brought it come*), *I have brought it*; emi ãc táy (*I did done*), *I have finished*.

§ 158. *Lî o ti ri* is rather more definite than *ti ri*.

The negative, interrogative, and passive of this tense, as also of the past imperfect, are formed in accordance with the principles laid down in treating of the aorist tenses.

First Future.

ACTIVE.

Affirmative.

<i>emî o ri,</i>	}	<i>I shall see.</i>
<i>ŋ ô ri,</i>		
<i>emî á ri,</i>		
<i>emî ni ô ri,</i>		
<i>emî ni yi ô ri.</i>		

Negative

<i>emî ki yi ô ri,</i>	}	<i>I shall not see.</i>
<i>emî ni ki yi ô ri,</i>		

Interrogative.

<i>emî o ri bí?</i>	}	<i>shall I see?</i>
<i>emî á ri bí?</i>		
<i>emî ni ô ri bí?</i>		
<i>emî ni yi ô ri bí?</i>		

Negative Interrogative

<i>emî ki yi ô ri bí?</i>	}	<i>shall I not see?</i>
<i>emî ni ki yi ô ri bí?</i>		

PASSIVE.

Affirmative.

<i>á o ri mî,</i>	}	<i>I shall be seen.</i>
<i>emî lí á ô ri,</i>		

Negative.

á ki yi ô ri mî, I shall not be seen.

Interrogative.

<i>á ô ri mî bí?</i>	}	<i>shall I be seen?</i>
<i>emî lí á o ri bí?</i>		

Negative Interrogative

á ki yi o ri mî bí? shall I not be seen?

Remark-

§ 159. It is to be observed here -

1. That the forms 'emi ó ri' and 'ɲ ó ri' have the same force; and that the three other forms of the active affirmative are emphatic.

2. That *ki*, *not*, is the only negative employed in the future; and that *yi*, *he*, always follows it. This arrangement is designed, partly to distinguish the future from other similar combinations of words, and partly to avoid uneuphonious expressions. Thus; if *kò*, *not*, were employed, *kò ó*, pronounced as two syllables, would be disagreeable to the ear; and if pronounced as one, it would be confounded with *kî ó*, *that he*.

3. Here, as elsewhere, the affirmative active exhibits a greater number of forms than the negative, &c.

OPTATIVE AND SUBJUNCTIVE MODES.

§ 160. As these modes are but variations of the Indicative, it is thought that what has been said of them, together with the detailed treatment of the Indicative, will suffice to explain their construction.

IMPERATIVE MODE.

§ 161. The following are the forms of the Imperative mode:

Imperative Active.

Affirmative.

ri, or iwo ri,	} <i>see, or see thou.</i>
ma ri, or iwo ma ri,	
kî o ri, or kî iwo kî ó ri,	
kî o ma ri, or kî iwo kî ó ma ri,	

Negative.

máh ri, or iwo máh ri,	} <i>see not, or see thou not.</i>
máh še ri, or iwo máh še ri,	
kî o máh ri, or kî iwo kî ó máh ri,	
kî o máh še ri, or kî iwo kî ó máh še ri,	

Passive.

Affirmative.

kî á ri o, or iwo ni kî á ri,	} <i>be thou seen.</i>
kî á ma ri o, or iwo ni kî á ma ri,	

Negative.

kî á máh ri o,	} <i>be thou not seen.</i>
kî á máh še ri o,	

Remarks.

§ 162. Here, as elsewhere in the conjugation of the verb, the multiplicity of

forms arises from two causes: first, from the use of synonymous words, as 'o' and 'iwo'; and, secondly, from redundant words, as 'ki o' and 'še.'

§ 163. On the use of the above forms observe:

1. That 'ma' denotes continuance (§ 137, 3).
2. 'Ki' denotes *that*, and *ki ó, that he* (§ 144, 2); so that the forms with 'ki' are analogous to the French construction, *qu'il voie, qu'il ne voie pas*.
3. 'Máh' means *not*, and is employed instead of 'kò' in the Imperative and in some other connexions.
4. The verb *še, to do*, is frequently employed pleonastically after *máh, not*; as, *máh še lóh, do not go*, instead of *máh lóh*.

INFINITIVE MODE.

§ 164. The Infinitive Active is regularly and usually expressed by the simple verb or root; as, *emi fẹ ri, I desire to see*; *ó ngbèro lóh, he is thinking to go*; *ó òdòmó wọy še ẹ, it pleased them to do it*. Frequently, however, a substitute for the infinitive is formed by the verbal nouns treated of in the following sections.

Verbal Nouns.

§ 165. The following are the forms of the verbal nouns which correspond to our infinitives and gerunds or participles.

- iri, to see; a seeing.*
- ari, to be seen; that which is seen.*
- atiri, to see or to be seen; a seeing.*
- riri, to see or to be seen; a seeing.*
- atima ri, to be seeing; a continued seeing.*

§ 166. The form in 'i' is employed as a gerund:

1. In the nominative; as, *isọde kọ yẹ fọ olọko, hunting is not suitable for a farmer.*
2. In the objective; as, *nwọy kọ fẹ isọde, they are not fond of hunting, or they do not love to hunt.*

§ 167. The form with 'ati' prefixed is employed as a gerund or infinitive:

1. In the nominative; as, *atigbọ kọ itọ, to hear or hearing is not enough.*
2. In the objective, in which case it is frequently equivalent to a simple infinitive; as, *ó kórira atisiše, he hated working or to work*; *á ma dẹ atiyẹ, we eat to live.*

§ 168. The preposition *li, in, in regard to*, is frequently inserted between the gerund or infinitive in 'ati' and the verb on which it depends; as, *ọ kọ lẹ atisiše, he refused to work*, instead of *ọ kọ atisiše*. The insertion or omission of 'li' is not always optional:

1. When the governing verb is composed of a verb and noun, as *bẹru (ba ẹru), to be afraid*, 'li' is omitted, because the gerund in 'ati' sustains the relation of a genitive to the noun contained in the verb; as, *ọ bẹru atise ẹ (he met-the-fear of doing it), he was afraid to do it*; *ó mura (mu ara) atisun (he took-himself to-sleep or sleeping), he prepared to sleep*; *nwọy wọna (wá ọna) atiwọ ilẹ (they sought-a-road of-entering or to-enter the-house), they endeavored to enter the house.*

2. A simple verb, on the contrary, may govern the infinitive by means of 'li'; as, *ó sá li atíṣe ê* (*he feared in-regard-to doing it*), *he feared to do it*, instead of *ó sá atíṣe ê*.

a. It should be observed that, although the use of 'li' in such cases is not indispensable, yet the people generally prefer it. Hence we constantly hear such expressions as, *nwọ́ rọ̀ li atíkpa á*, *they thought to kill him*; *awa kpèdzo li atíkọ̀*, *we assembled to build a house*.

b. In many cases the form with 'li ati,' and the simple form of the verb, may be employed indifferently and interchangeably; but when the infinitive is gerundive in its nature, the form with 'li ati' is preferable. Thus it is perfectly correct to say, *awa kpèdzo kọ̀* (instead of *li atíkọ̀*), *we assembled to build a house*; but it would not be proper to say, *nwọ́ rọ̀ kpa á* (instead of *li atíkpa*), *they thought to kill him*, because the precise meaning of the expression is, *they thought of killing him*.

§ 169. Nouns formed by reduplication have much the same sense when employed actively as those in 'i' and 'ati.' Thus, *igbó kò itó*, *atigbó kò itó*, *gbigbó kò itó*, *hearing is not enough*, are equivalent and equally proper forms of expression.

§ 170. In the form *atima ri*, *to be seeing*, the auxiliary particle takes the formative prefix like a principal verb. A gerund or infinitive of this form denotes continued or customary action; as, *atima kẹ̀ ẹ̀ru ni ísọ̀rọ̀*, *to be a slave is hard*; *emi grò̀nù lí atima gbọ̀ ọ̀rọ̀ Ọ̀lọ̀rọ̀n*, *I am thinking to hear the word of God*, i. e. *to become a hearer, or to make a custom of hearing*.

§ 171. The infinitive passive is expressed:

1. By the form in 'a'; as, *óhụn ari*, *a thing to be seen*; *nwọ́ ẹ̀sẹ̀ agbara rẹ̀ akparun* (*they made power his a-destruction**), *they caused his power to be destroyed*.

2. By nouns in 'ati' preceded by 'li'; as, *ó kpè wọ́n dzade li atíkpa*, *he called them out to be killed, or to kill them*.

3. *a.* By reduplicated forms preceded by *dí*, *ní* or *lì*, or *ṣe*, in the sense of *to be*; as, *ó mọ̀ wọ́n dí kpíkpa*, *he caused them to be slain*; *ó fí wọ́n lẹ̀ ẹ̀sẹ̀ tità*, *he delivered them up (fi...lẹ̀) to be sold*; *ó fú wọ́n lí ẹ̀ran ní d́zíd́zẹ̀* (*he gave them to have meat to be eaten*), *he gave them meat to eat*.

b. But the verb *dí*, *ní*, or *ṣe* is sometimes omitted; as, *Yoruba koro ifi*, *Yoruba is difficult to speak or be spoken*; *mo rà águtan kpíkpa*, *I thought sheep to kill or be killed*.

Participles.

§ 172. The Yoruba language has no participial words except the verbal nouns just noticed. The substitutes to be employed for participles depend on the nature of the sentence.

§ 173. Our Present Participle is represented,

1. By a simple verb; as, *ṣe gbogbo rẹ̀ bẹ̀rẹ̀ nihiniyi*, *do all of it beginning here*.

2. By a verb with the prefix 'y'; as, *á rí ẹ̀niá nḍzọ̀kọ̀ lẹ́bá ọ̀nà*, *we saw people sitting by the road*.

3. By *nígbatí*, *when*, with a verb and nominative; as, *nígbatí ó sì yánu rẹ̀*, *ó kọ̀*

* Akparun, *which is destroyed, which is to be destroyed*; ari, *which is seen or to be seen*. A noun in 'a,' when it denotes the object or recipient of an action, has no exact equivalent in English. See 'a' in the Dictionary.

won (when he also opened-mouth his, he taught them), and opening his mouth, he taught them.

4. By a noun beginning with 'a'; as, ó sẹ aga arun ñ tán, *he broke the chair ruining it entirely.*

§ 174. The Perfect Participle is represented much in the same manner as the present:

1. By a verb with the prefix 'y'; as, ifefe nmi fu afẹfẹ, *a reed shaken by the wind.*

2. By a verb used impersonally; as, igi ti á gbín leti òdò (*tree which they planted by river*), *a tree planted by the river.*

3. By a verb used passively with a nominative; as, á ba ilé-tubú ó se (*we found jail-house, it was-shut*), *we found the prison shut.*

4. By *kí*, *that*, and a verb; as, mo fẹ rí nkan kí ó towọ rẹ sẹ (*I wish to see something that it by thee is-done*), *I wish to see something done by thee.*

5. By a noun, or preposition and noun; as, nwon ba ñ oku, *they found him dead (oku, a corpse)*; ó sọkálẹ sí ilé rẹ ní idaláre, *he descended to his house justified*, lit. *in justification.*

Substantive Verbs.

§ 175. No language, perhaps, can claim so many verbs expressing existence, either absolutely or in different relations and capacities. The whole number of these verbs *to be*, including those which have other meanings, is ten, to wit: mbẹ, wà, yà, gbe, si, ni, ri, sẹ, dze, di. Most of them have peculiarities which prevent them from being interchangeable.

mbẹ.

§ 176. This verb denotes existence *absolutely*, as *Ọlórún mbẹ, God exists*, or *God is*, an expression often employed by the Yorubas as a solemn asseveration. Mbẹ is used in all modes and tenses; but in the imperative its place is usually supplied by *gbe* or *wà*.

wà.

§ 177. Wà is also a verb absolute, but is not entirely equivalent to mbẹ.

1. It is occasionally employed as an auxiliary particle, and in this capacity forms an indefinite past tense, the only one in Yoruba corresponding to the English imperfect; as, ó wà rí, *he saw.*

2. In some dialects it is preferred to mbẹ in the preterite; as, ó wà, *he was.*

3. Wà is preferred to mbẹ in the future, and in the imperative; as, yi ó wà, *he will be*; é wà ibẹ, *be ye there.*

4. In the Egha dialect, wà is preferred to mbẹ, to express existence in a place; as, ó wà ilé, *he is in the house*; lit. *he is house*, the preposition *ní*, *in*, being omitted after the substantive verb.

5. In speaking of the duration of existence, wà (but not mbẹ) is employed in the sense of *to live*; as, ó wà lí ọgọrún ọdún, *he lived a hundred years*, lit. *he was for a hundred years.*

yà.

§ 178. This verb, which denotes existence *in a state or condition*, is nearly obsolete except in composition; as, ó yàdi, *he is dumb*, lit. yà odi, *is a dumb person*.

ɛ́l.

§ 179. This verb, denoting existence *in a place*, is chiefly used in negative sentences; as, kò sí owó, or owó kò sí, *there is no money*.

2. The only instance in which ‘si’ is used without a negative, is in the phrase ó sí nkan (*it is a thing*), *there is something the matter*, said in reply to the question kà sí nkan? (*not is a thing*), *is not something the matter?*

rí.

§ 180. Rí denotes a *mode* of existence, and is always employed in connexion with such words as behe, *so, thus*; bi, *as*; bi . . . ti, *how*, &c.; as, behe lí ó rí (*so it-is it is*), *so it is*; bi ó ti rí, *how is it?*

§ 181. The original of ‘rí’ is doubtful; but it may be rí, *to see*, employed in the sense of *to appear, to seem*.

ní or lí.

§ 182. ‘Ní,’ whether employed as a verb, pronoun, or preposition, usually becomes ‘lí’ before a vowel; as, lí orí, *on the top*. But this change does not generally take place before the combinations idz, igb, ih, ik, ikp, il, and in; as, ní idz, *for food*; ní igba, *at the time*; ní ika, *to have cruelty, to be cruel*; ní ikpa, *in the path*; ní ilé, *in the house*; ní inó, *in the inside*.

§ 183. The substantive verb ‘ní’ or ‘lí’ appears to be the demonstrative ‘ní’ employed as a copula, in like manner with the personal pronouns of the third person in the Aramaic languages. The pronominal origin of the word is shown by the fact that in many cases it is equivalent to *it is*; as, tani ní? *who is it?* emi ní, *it is I*; awa lí o ʒe é, *we it is that did it*. In other cases it may be rendered simply by the verb *to be*; as, tani ní babá rẹ? *who is thy father?* ọba lí iwo, *thou art a king*.

§ 184. ‘Ní’ or ‘lí’ is frequently employed pleonastically:

1. For the purpose of making a proposition emphatic or definite; as, emi ní rí (*I it-is see*), *I see*; emi lí o rí (*I am that saw*), *I saw*. (See § 185, 1.)

2. Before nouns following verbs of naming, calling, &c.; as, nwoy so oruko rẹ lí Alaidz, *they called his name Alaidz* (lit. *to be Alaidz*); á kpé woy lí ọle, *we called them thieves*.

3. After an objective placed emphatically at the beginning of a sentence; as, malú lí á kpa (*cow it-is we killed*), *we killed a cow*. And in like manner after adverbs and adverbial phrases; as, behe lí ó wi (*so it-is he said*), *he said so*.

§ 185. When ‘ní’ is used pleonastically, it is frequently followed by a personal pronoun of the third person singular employed relatively:

1. In the perfect aorist, *ó* or *ó*, *he, she, it, or that*, often follows 'ni'; as, *emi lí ó rí* (*I it-is that saw*), *I saw*; *enyin lí ó mò* (*ye it-is that knew*), *ye knew*. But when this tense refers to present time, the relative pronoun is generally omitted: as, *emi ní rí* (*I it-is see*), *I see*; *enyin ní mò* (*ye it-is know*), *ye know*.

2. In the future tense 'ni' is followed by *yí, he, she, it, or that*; as, *emi ní yí ó rí* (*I it-is that will see*), *I shall see*; *enyin ní yí ó mò* (*ye it-is that will know*), *ye will know*.

gbe.

§ 186. *Gbe, to dwell, abide*, takes the place of *mbẹ* in the imperative and subjunctive; as, *gbe ibẹ*, *be there*; *dze kí ó gbe* (*make that he be*), *let him be, or let him alone*.

§ 187. This verb is often pleonastic after adverbs of place; as, *ni ilé tí ó gbe wá*, *in the house where he was*; *nihiní nwon gbe kú*, *here they died*.

di.

§ 188. *Di, to become*, may be rendered by the verb *to be*, when change of state is implied; as, *iwo ó di omọ buburu*, *thou wilt be a bad child*; *ó di arugbó*, *he is getting old*; *di atọnbí*, *to be born again*; *ó di ẹni egàn* (*he became one of contempt*), *he was despised*.

še.

§ 189. The verb *še, to do, to act*, may be rendered as a substantive verb in several cases, as follows:

1. When it has for its object a noun which denotes one who acts in some capacity or fills a station; as, *nwon še woli*, *they were prophets*, i. e. they acted as prophets or performed the work of prophets; *iwo ni ńsẹ babá mi*, *thou art my father*; *ẹni tí ńsẹ akọbí*, *he who is first-born*; *okpó lí ńjẹ*, *she is a widow*; *yí ó še àmí fú ńyin*, *it will be a sign to you*.

2. The verb 'še' (and sometimes 'dze') is used with a negative instead of 'ni'; as, *ọba lí ńjẹ*, *he is a king*; *kí ńsẹ ọba*, *he is not a king*.

3. It is also frequently employed to express the relation of ownership; as, *yí ó še tí rẹ*, *it shall be thine*.

§ 190. In the imperative with the negative *máh, not*, 'sẹ' is frequently used pleonastically, like the English *do*: as, *máh še lẹh*, *do not go*. It is sometimes used in the same manner in connexion with other negatives to express a refusal; as, *emi ẹ še lẹh*, *I will not go*.

dze.

§ 191. *Dze* appears to be another form for 'še'; at least the use of the two verbs is very similar. *Dze* is employed as follows:

1. To express being or acting in the capacity of an officer; as, *ọ dze bálẹ* (*he acts governor*), *he is governor*; *tálí ọ fí mí dze onidádzo*? *who made me to be judge?* i. e. *who made me a judge?*

2. *Dze* is the only word employed in the sense of *to be* in connexion with numbers; as, *ọ dze ọgọta* (*it makes sixty*), *it is sixty*.

3. Sometimes 'dže,' like 'še,' appears to mean simply *to be*; as, emi ô mọ emi ti i dže or i še (*I not know him who he is*), *I do not know who he is*.

§ 192. In expressing refusal, 'dže' is more frequently used pleonastically than 'še' (§ 190); as, emi ô dže lẹh, *I will not go*.

Pleonastic Use of Verbs.

§ 193. In addition to the pleonastic uses of verbs which have already been spoken of, the following are worthy of notice:

Verbs of *going* and *coming* are much employed pleonastically after verbs of motion to or from a place, and this gives peculiar definiteness to the language; as, ó gbe ê lati oko lẹh, *he took it from the farm—to some place at a distance from the speaker* (which fact is indicated by lẹh, *to go or going*); ó gbe ê lati oko wáh, *he took it from the farm—and brought it hither* (which is indicated by wáh, *to come or coming*). So, ó kpada lẹh (*he returned going*), *he went back*; ó kpada de (*he returned coming*), *he came back*. And so, lati is-iyi lẹh (*from now going*), *henceforth*.

§ 194. After verbs of giving, ní or lí, *to have*, is always added; as, bù ní lí omi, *give me water*; Olọrun lí o fú won lí agbara, *God gave them power*.

NOUNS.

§ 195. Yoruba nouns are not varied in form to express gender, number, or case; or in other words, they exhibit no traces of inflexion.

Gender.

§ 196. Gender is distinguished only where there is an actual difference of sex, as follows:

1. By using different words; as, ako, *a he-animal, a male*, abò, *a she-animal, a female*; akukọ, *a cock*, agbehò, *a hen*; òkọ, *a he-goat*, akẹ, *a she-goat*; ọkọnrí, *a man*, ọbírí, *a woman*; babá, *a father*, iyá, *a mother*; and a few others.

2. By adding to a common term one of the above general expressions in apposition.

a. In the case of animals, by prefixing ako, *male*, and abò, *female*; as, ako malù, *a bull*, abò malù, *a cow*; ako ẹ́ṣín, *a horse*, abò ẹ́ṣín, *a mare*.

b. In the case of persons, by appending the words ọkọnrí, *man*, and ọbírí, *woman*; as, omọ ọkọnrí (omọ ọkọnrí, *child man*), *a man-child, a boy*, omọ ọbírí (omọ ọbírí), *a woman-child, a girl*; iwọfà ọkọnrí, *a bowl-man*, iwọfà ọbírí, *a bowl-woman*; egbóy ọkọnrí, *an elder brother*, egbóy ọbírí, *an elder sister*; aburo ọkọnrí, *a younger brother*, aburo ọbírí, *a younger sister*.

3. By compounding two or more words in construction; as, bálé (ọba ilé, *lord of house*), *the master of a house*, or *father of a family*; iyalé (iyá, *mother, mistress*, ilé, *house*), *the mistress of a house*, or *mother of a family*; balogun (ọba, *lord*, lí, *as to*, ogun, *war*), *a general*; iyalase (iyá, *mistress*, lí, *as to*, ase, *cooking*), *a female cook*.

Number.

§ 197. There are two methods of indicating that a noun is plural:

1. By employing the personal pronoun *awọ̀n*, *they*, before the noun; as, *awọ̀n fẹ́ ogun*, *the Mohammedans love war*; *á ò rí awọ̀n ẹ́sín*, *we did not see the horses*; *budžoko awọ̀n ẹ́legàn*, *the seat of the scornful*.

When two or more plural nouns in this construction are connected by a conjunction, 'awọ̀n' is repeated before each of them; as, *awọ̀n adagbára, awọ̀n ọ̀gọ̀gbọ̀n, ati awọ̀n olódodo*, *the powerful, the wise, and the righteous*. But 'awọ̀n' is not employed unless it is really necessary to indicate plurality. Thus in the general proposition, *aragbani logboṣi*, *the ancients were wise*, it is dispensed with, because we naturally infer that the noun is used collectively.

2. When the idea of reciprocity or of repetition is connected with that of plurality, the two ideas are indicated by reduplication.

a. The ideas of reciprocity and plurality are occasionally expressed by reduplication and a copulative conjunction; as, *ọ̀rẹ ọ̀n ọ̀rẹ kí íbà ará wọ̀n dza* (*friend and friend not with self their fight*), *friends do not fight with each other*.

b. Repetition and plurality are indicated by simple reduplication; as, *bù ikọ̀n-wọ̀ ikọ̀n-wọ̀ ẹ̀rú* (*take handful after handful of ashes*), *take handfuls of ashes*; *ẹ̀yẹ ẹ̀yẹ nìbẹ̀ nìbẹ̀* (*bird bird is there*), *birds are there*, i. e. in flocks.

c. In the numerals plurality is indicated by reduplicating the first portion; as, *ẹ̀gbẹ̀gẹ̀rọ̀n*, *thousands*, or *thousands on thousands*; *ọ̀gọ̀gọ̀rọ̀n*, *hundreds*, *many hundreds*.

Case.

§ 198. There is no inflexion of the Yoruba noun to indicate case. The relations, however, in which a noun may stand to the other words in a sentence are denoted in various ways.

§ 199. The subject of the proposition, or *nominative*, is always placed before the verb; as, *ẹ́sín sáré*, *the horse runs*. To this rule there is no exception.

§ 200. The usage in regard to the *vocative* is various:

1. In calling to a person at a distance, the particle 'o' is often employed after the noun; as, *ọ̀mọ̀de o!* *O child!*

2. If the person addressed is not far off, the speaker uses *ná*, *that*; as, *ọ̀kọ̀nrí ná wá*, *man, come*.

3. In addressing one who is quite near to the speaker, the demonstrative *yí*, *this*, is frequently employed; as, *ọ̀mọ̀de yí, kuro!* *child, get out of the way!*

4. Usually, however, the name of the person addressed receives no addition; as, *ọ̀mọ̀de, tò mi wá*, *child, come to me*; *ẹ̀yinyin Yoruba, gbó tì emi* (*ye Yorubas, hear the words of me*), *ye Yorubas, hear me*.

§ 201. The position of the *objective* depends on the character of the sentence:

1. It usually follows the governing word; as, *mo rí ọ̀ba*, *I saw the king*; *din ákara fú babá*, *bake bread for father*.

2. In cases of emphasis, however, the objective precedes the governing word; as, *ẹ̀ran kí á dí?* (*meat that we fry*), *shall I fry meat?* *ọ̀bọ̀ rí!* *see the baboon!* *ọ̀n lí á wí in* (*him it-i*; *we spoke to*), *we told him*.

3. When the governing verb is an infinitive, depending on another verb, the objective is placed between the two verbs; as, *yè ni kpè* (*cease me call*), *cease calling me*; *ó mò iwe kà* (*he knows book read*), *he knows how to read*; *emí fẹ́ babá rí* (*I want father see*), *I want to see my father*.

§ 202. The *possessive* relation is expressed in the following ways:

1. By placing the two nouns in juxtaposition, the name of the possessor always following that of the thing possessed; as, *iwe omọ* (*book of child*), *the child's book*; *ilẹ́ babá*, *father's house*; *ilẹ́ ẹyẹ*, *a bird's nest*; *ẹbado okun*, *the shore of the sea*, or *the sea-shore*; *okpa irin*, *a staff of iron*, or *an iron staff*.

2. Less frequently, the relation between the two nouns is expressed, in the Aramaic manner, by the relative pronoun *tí*, *who, which*, placed between them, which thus becomes equivalent to the preposition *of*; as, *ilẹ́ tí babá* (*house of father*), *father's house*; *Kristi tí Oluwa*, *the Christ of the Lord*, or *the Lord's Christ*.

§ 203. The pronoun or particle 'ti' is necessarily used in the following cases:

1. When the first noun is omitted.

a. In propositions where the relation of possession is predicated; as, *tí babá mí nì* (*of father my it-is*), *it is my father's*; *agbara tí idze tí Ọlọrun* (*power which is of God*), *the power which is God's*.

b. In propositions where the possessive relation is simply indicated and not predicated, but where the name of the thing possessed is not expressed; as, *nwon ẹ́e tí ọ́rísá* (*they do of idols*), *they do the work of idols*, i. e. *they serve idols*; *awọ́n Nasára fẹ́ tí Ọlọrun* (*they Christian love of God*), *Christians love the doctrine or service of God*. When a laborer was looking for a suitable stone, another said to him in my hearing, *gbé tí ẹ́sẹ́ rẹ́* (*take of foot thy*), *take the one at thy foot*. The following instance comes under the same category: *ki ísẹ́ Ọlọrun okú bíkòsẹ́ tí àyẹ*, *he is not the God of the dead, but of the living*.

2. When the names of the possessor and possessed might be mistaken for names or epithets of the same person in apposition, the relation of possession must be indicated by 'ti'; as, *Kristi tí Oluwa*, *the Lord's Christ*; *Atiba tí ọba*, *Atiba the servant of the king*. *Atiba ọba*, means *Atiba the King*—the present King of Yoruba being named Atiba.

Apposition.

§ 204. 1. When nouns are in apposition, the principal word comes first; as, *Atiba ọba*, *Atiba the king*, or *King Atiba*; *Kumí balẹ́*, *Kumí the governor*.

2. When a pronoun is in apposition with a noun, the pronoun comes first; as, *iwo omọ*, *thou child*; *eyinyin enia*, *ye people*.

3. If words in apposition be connected by a copula, the predicate usually comes first; as, *emí lẹ́ Ọlọrun* (*spirit is God*), *God is a spirit*; *ọlọgbọ́n lẹ́ iwo* (*wise-man art thou*), *thou art wise*.

ADJECTIVES.

§ 205. The office of *predicative* adjectives, i. e. of those which affirm or predicate a quality, is performed:

1. By simple verbs; as, *Aina dara*, *Aina is good*; *ó tí dara*, *he has been good*;

yí ò dara, *he will be good*; oyín dòn, *honey is sweet*; igi nlá, *the tree is large*. Like other verbs, they sometimes take the auxiliary particle 'ní'; as, Aina ní dara, *Aina is good*; Aina ní yí ò dara, *Aina will be good*.

2. By compound verbs, formed by prefixing ní or lí, *to have*, or še, *to be*, to nouns; as, Aina lagbara (lí agbara, *has strength*), *Aina is strong*; iwò šèniá (še èniá, *art a person*), *thou art kind*; ọ̀ šòlẹ̀ (še ọ̀lẹ̀, *is a lazy one*), *he is lazy*.

§ 206. The office of *qualificative* adjectives, i. e. of adjectives which are attached to a noun to indicate quality, is performed:

1. By abstract nouns placed after the nouns which they qualify. These are either:

a. Abstract nouns formed by reduplication from the simple neuter verbs which are employed as predicative adjectives; as, ohun didara (*thing of goodness*), *a good thing*; oyín didòn (*honey of sweetness*), *sweet honey*; igi nkánla (*tree of largeness*), *a large tree*.

b. Primitive abstract nouns; as, banga ọ̀kẹ̀ (*room of upperness*), *an upper room*; èniá agbara, *a person of strength*, or *a strong man*; iṣẹ́ wahala (*work of trouble*), *a troublesome work*.

2. By concrete nouns placed in apposition before the noun they qualify; as, alagbara èniá (*strong-one person*), *a strong man*; otoṣi ọ̀biri (*miserable-one woman*), *a miserable or wretched woman*; okpó ọ̀biri (*widow woman*), *a widow*.

3. By the relative pronoun *tí*, *who*, *which*, and a verb; as, oyín *tí* ọ̀ dòn (*honey which it is-sweet*), *sweet honey*; ida *tí* o mu (*sword which it is-sharp*), *a sharp sword*; igi *tí* ọ̀ ṣẹ́ (*stick which it is-broken*), *a broken stick*.

4. In a very few instances, by a simple neuter verb; as, mo rí ọ̀bọ̀ nlá, *I saw a large baboon*; èniá rẹ̀ lí o še è (*person is-good it-is that did it*), *a good person did it*.

Comparison.

§ 207. Higher degrees of quality, answering somewhat to our *comparative*, are indicated by the addition of words which perform the office of adverbs.

1. The word most commonly employed for this purpose is *dzù*, *surpassing*, *exceeding*, *very*; as, ó dara *dzù* (*it is-good exceeding*), *it is very good, it is better*. *Lẹ́h*, *to go*, is frequently employed pleonastically after *dzù*; as, ó dara *dzù lẹ́h*; but this adds nothing to the sense.

2. A form of expression equivalent to a comparative is made, when only one term of the comparison is given, by adding *sí í*, *to it*, i. e. *in addition*, *more*; as, ó dara *sí í* (*it is-good more*), *it is better*.

3. *More than* is expressed simply by *dzù*, or *dzù lẹ́h*; as, ísùbù rọ̀rọ̀n *dzù* *ìdìdẹ̀*, or *dzù* *ìdìdẹ̀ lẹ́h*, *falling is easier than rising*; ọ̀ yẹ́ fú ní kí á ṣíṣẹ́ *dzù* *kí á* *še* *otoṣi*, *it is proper for us that we labor rather than that we be poor*.

§ 208. The highest degree, or *superlative*, may be expressed:

1. By *dzù gbogbo*, or *dzù gbogbo lẹ́h*, *surpassing all*; as, eyi dara *dzù gbogbo lẹ́h* (*this is-good surpassing all away*), *this is the best*.

2. By *tán*, *completed*, *perfected*, placed after the adjective; as, ó dara *tán* (*it is-good perfectly*), *it is best*.

NUMERALS.

Cardinals.

§ 209. The following list exhibits the Yoruba cardinal numerals and their construction :

1. eni, oḡan.		101. ọḡanlelógórún	(100+1).
2. edži.		105. árunḡdílalófa	(110—5).
3. ẹta.		110. áḡofa	(120—10).
4. ẹrin.		120. ẹḡofa, ọfa	(20×6).
5. arun.		130. áḡodḡe	(140—10).
6. ẹfa.		140. ọḡodḡe, odḡe	(20×7).
7. edḡe.		150. áḡodḡo	(160—10).
8. edḡo.		160. ẹḡodḡo, ọḡo	(20×8).
9. ẹsan.		170. áḡosan	(180—10).
10. ẹwa.		180. ẹḡosan, ọsan	(20×9).
11. ọḡanlá	(great 1).	190. ẹwadilúḡba	(200—10).
12. edžilá	(“ 2).	200. íḡba, <i>or</i> íḡbéo.	
13. ẹtalá	(“ 3).	210. ẹwalelúḡba	(200+10).
14. ẹrinlá	(“ 4).	220. ọḡínlelúḡba	(200+20).
15. ẹḡolún	(20—5).	230. ẹḡbónlelúḡba	(200+30).
16. ẹrinḡdílún	(20—4).	240. ọḡžiléḡba	(200+40).
17. ẹtadílún	(20—3).	250. adótalelúḡba	(200+50).
18. ẹḡḡidílún	(20—2).	300. ọḡúrún	(400—100).
19. ọḡanḡdílún	(20—1).	400. irinwo, <i>or</i> irin'ò.	
20. ọḡín.		500. ọḡéḡbẹta	(600—100).
21. ọḡanlelún	(20+1).	600. ẹḡbẹta	(200×3).
22. ẹḡilelún	(20+2).	700. ọḡéḡbẹrin	(800—100).
23. ẹtalelún	(20+3).	800. ẹḡbẹrin	(200×4).
24. ẹrinlelún	(20+4).	900. ọḡéḡbẹrún	(1000—100).
25. ẹḡolóbun	(30—5).	1000. ẹḡbẹrún	(200×5).
26. ẹrinḡdílóbun	(30—4).	1100. ọḡéḡbẹfa	(1200—100).
27. ẹtadílóbun	(30—3).	1200. ẹḡbẹfa	(200×6).
28. ẹḡḡidílóbun	(30—2).	1300. ọḡéḡbedḡe	(1400—100).
29. ọḡanḡdílóbun	(30—1).	1400. ẹḡbedḡe	(200×7).
30. ẹḡbón.		1600. ẹḡbedḡo	(200×8).
31. ọḡanlelóbun	(30+1).	1800. ẹḡbẹsan	(200×9).
35. árunḡdilogódži	(40—5).	2000. ẹḡbá	(200×10).
39. ọḡanḡdilogódži	(40—1).	2100. ẹḡbá ó lé ọḡorún	(2000+100).
40. ọḡodži, odži	(20×2).	2200. ẹḡbọḡanla	(200×11).
45. árunḡdílalóta	(50—5).	2300. ẹḡbọḡanla ó lé	
50. áḡota	(60—10).	ogorún	(2200+100).
60. ẹḡota, ọta	(20×3).	2400. ẹḡbedžilá	(200×12).
70. áḡorin	(80—10).	2600. ẹḡbẹtala	(200×13).
80. ọḡorin, ọrin	(20×4).	2800. ẹḡbẹrinla	(200×14).
90. áḡorún	(100—10).	3000. ẹḡbẹḡolún	(200×15).
100. ọḡorún, ọrún	(20×5).	4000. ẹḡbádži	(2000×2).

5,000, eḡbeedóḡbeḡ (200×25),	†	16,000, eḡbádḡe	(2000×8).
6,000, eḡbáta (2000×3),		18,000, eḡbásun	(2000×9).
7,000, eḡḡḡbáruḡ (8000—1000),		20,000, eḡbáwa	(2000×10),
8,000, eḡbáruḡ (2000—4),		or oké káḡ	(one bag).
9,000, eḡḡḡbáruḡ (10,000—1000),	†	100,000, oké maruḡ	(5 bags).
10,000, eḡbáruḡ (2000×5),		1,000,000, áḡḡḡta oké	(50 bags).
12,000, eḡbáfa (2000×6),		2,000,000, ogorun oké	(100 bags).
14,000, eḡbádḡe (2000×7),			

FORMATION OF CARDINALS.

§ 210. The primitive numerals are the units from *one* to *ten*, and the numbers *twenty*, *thirty*, and *two hundred*. Most or all of these might be referred to existing Yoruba roots; but it would be difficult to establish any plausible connexion between the meaning of the root and that of the numeral. The only exception is *igba* (from *ḡbá*, *to sweep, to collect into a heap*, as by sweeping), *a collection* or *heap*, and hence *two hundred*; so called from the fact that, in counting cowries, the Yorubas sweep each two hundred into a separate heap. This number is also called *igbéo* (*igba owó*), *a heap of money*.

The number *edḡ*, *seven*, appears to be $5+2$; which makes it not improbable that the latter units are founded on the first five, as is the case in so many African languages. A more extensive and accurate acquaintance, however, with the cognates of this language than is now possessed, would be necessary to establish the fact.

§ 211. The derivative numbers, which are by far the more numerous class, are formed as follows:

1. By appending the term *má*, *large*, to the four first units; as, *okanlá* (*great one*), *eleven*, &c.

2. By subtracting smaller numbers from larger round numbers; as, *ḡḡdóḡun* (*aruḡ di ogún*, *five from twenty*), *fifteen*; *erindilóḡun* (*erín di lí ogún*, *four from ten*), *sixteen*; *áḡḡḡta* (*ḡwa di ḡta*, *ten from sixty*), *fifty*; *odúrún* (*orún di irinwo*, *one hundred from four hundred*), *three hundred*; *odḡḡḡḡta* (*orun di eḡḡḡta*, *one hundred from six hundred*), *five hundred*.

3. By addition; as, *okanjelóḡun* (*okan lé lí ogún*, *one laid on twenty*), *twenty-one*; *ḡwalehigba* (*ḡwa lé lí igba*, *ten laid on two hundred*), *two hundred and ten*.

4. By multiplication; as, *ogodḡi*, sometimes contracted to *odḡi* (*ogún edḡi*, *twenty-two* or *twenty twice*), *forty*; *ogorun* or *orún* (*ogún arun*, *twenty-five* times), *one hundred*; *eḡḡḡta* (*igba etá*, *two hundred three times*), *six hundred*; *eḡbá* (*igba ḡwa*, *two-hundred ten times*), *two thousand*; *eḡḡokanlá* (*igba okanjá*, *two hundred eleven times*), *two thousand two hundred*.

§ 212. The fact that *two hundred*, *two thousand*, and *twenty thousand* are round numbers, is to be accounted for by their method of counting cowries as shown in the following table.

Cowry Table.

10 cowries=1 string,	.	.	called ogodḡi,	worth \$0.02
5 strings=1 bunch,	.	.	" igbéo,	" 0.10
10 bunches=1 head,	.	.	" eḡbá,	" 1.00
10 heads=1 bag or sack,	.	.	" oké,	" 10.00

§ 213. This custom of counting by cowries also gives rise to the following,

Cardinals of Price.

òkáj (owó káj)	1 cowry.	èwa	10 cowries.
édzi	2 “	òkówo	20 “
èta	3 “	ègbóhwo	30 “
èriy	4 “	ogodzi (1 <i>string</i>)	40 “
áruy	5 “	ogoriy (2 “)	80 “
èfa	6 “	ogofa (3 “)	120 “
édzé	7 “	ogodzo (4 “)	160 “
èdzo	8 “	igbéo (5 “)	200 “
èsan	9 “	iriywo (10 “)	400 “

It will be observed that up to *ogodzi*, *forty*, the first vowel of each numeral is long. The reason of this is that *òkáj*, *édzi*, &c., are contractions of *owó káj*, *owó edzi*, *one cowry*, *two cowries*, &c.

Construction of Cardinals.

§ 214. The cardinal units, from *two* to *ten* inclusive, have ‘m’ prefixed to them when they belong to nouns expressed or understood, as, *ènia mēwa*, *ten men*. *Eni*, *one*, is used only in counting. The word ‘káj’ is employed when the noun is expressed; as, *ènia káj*, *one man*; and ‘òkáj’ when the noun is not expressed; as, *òkáj de*, *one came*.

The ‘m’ prefixed to the numerals is probably a contraction of *má*, *to catch*, used in the sense of *amounting to*. When an African speaks in English, he generally says, *he catch ten, he catch twenty*, for *there were ten*, &c.

§ 215. The round numbers, as *ogún*, *ogbón*, *ogodzi*, &c., are generally placed before the nouns to which they belong; as, *ogún ènia*, *twenty men*. The other numerals follow the noun; as, *ènia medzi*, *two men*; *ènia metalegbón*, *thirty-three men*.

ORDINALS.

§ 216. The ordinals, from *one* to *nineteen*, are formed by prefixing ‘ek’ or ‘èk’ (the choice being determined by the law of euphonic concord) to the cardinals; as, *ekini*, *first*; *ekedzi*, *second*; *èketa*, *third*, &c. But the vowel of the prefix is often omitted; as, *kini*, *kedzi*, *keta*. These ordinals follow the noun; as, *òdzo ekedzi* or *kedzi*, *the second day*.

DISTRIBUTIVES.

§ 217. The distributive numerals are of two kinds.

1. Distributives of number or quantity, formed as follows:

a. By doubling the cardinals which commence with ‘m’; as, *medzimedzi*, *two by two*; *metameta*, *three by three*.

b. By reduplicating the two first letters of such cardinals as do not commence with ‘m’; as, *òkòkáj*, *one by one*; *ogogun*, *twenty by twenty*.

2. Distributives of price, formed by reduplicating the two first letters of the cardinals of price; as, *òkòkáj*, *one cowry each*; *édzédzi*, *two cowries each*.

NUMERAL ADVERBS.

§ 218. Numeral adverbs are of two kinds, viz. cardinal and ordinal adverbs.

1. *a.* The *cardinal* adverbs, signifying the number of times an event takes place, are formed by prefixing '1' (li, *in*) and 'e' (a contraction of erij or arij, *time*) to the adjectival forms of the cardinals; as, lekán, *once*; lemedzi, *twice*. Very often erij or arij is pronounced in full; as, lerij kán, or larij kán.

b. For the round numbers, igba, *time*, is employed; and in this case 'n' (ni, *in*) is preferred to '1,' as being more euphonious; as, nĩ igba ogún, *twenty times*; nĩ igba ogodzi, *forty times*.

2. *Ordinal* adverbs, which denote the order in which events occur, are formed by prefixing 'le' to the ordinals; as, lekini, *first*; lekedzi, *secondly*.

ADVERBS.

Formation of Adverbs.

§ 219. In regard to their origin, adverbs may be divided into four classes: 1, primitive adverbs; 2, nouns used adverbially; 3, words compounded of nouns and other accompanying words, as prepositions, &c.; and 4, verbs used adverbially.

§ 220. There are but few primitive adverbs, that is words which are adverbial in their primary acceptance; as, lá, *ever*; ewe, *again*; en, *yes*; ndau, *no*.

§ 221. Nouns employed as adverbs are of two classes:

1. Primitive abstract nouns; as, die, *a little*, e. g. ó sùn die, *he slept a little*; òke, *the parts above, on high, up*, e. g. ó gori òke, *he rose up*; isale, *the parts below, down*, e. g. ó lóh isale, *he went down*.

2. Derivative abstract nouns, especially those formed by reduplication; as, nwon gbero kpikpò, *they consulted much*; ó huwa buburn, *he behaved badly*.

§ 222. 1. Many adverbial expressions are composed of ni or li, *in*, and an abstract noun (§ 62); as, loni (li oni, *in this-day*), *to-day*; nigbani (ni igbani), *long ago*; lótó (li ótó), *truly*, &c.

2. Sometimes, however, several words are combined into one; as, disisiyi (di isisi yi, *till time this*), *hitherto*; nigbagbogbo (ni igba gbogbo, *in time every*), *always*.

§ 223. Verbs are frequently converted into adverbs:

a. tó, *to be enough*, is used in the sense of *sufficiently*; as, ó sòrò tó, *he spoke enough*.

b. tón, or tún, *to be new, fresh, young*, is used for *again*; as, ó tón de, *he came again*.

c. kpò, *to be common*, for *in common*, or *together*; as, nwon gbero kpò, *they consulted together*.

d. dzù, *to surpass, excel*, for *more, much*; as, buru dzù, *more wicked*; ó sísé dzù, *he labored much or excessively*.

Classification of Adverbs.

§ 224. There is no deficiency of adverbs to express the various relations of time, place, &c. A few of each class will be given, and the others may be found in the Dictionary.

1. *Of Time*: loni (li oni), *to-day*; lana (li ana), *yesterday*; lola (li ola), *to-morrow*; lodzodzo (li odzo-odzo, § 63), *daily*; lošošn (li ošu ošu), *monthly*; lekan, *once*; lemédži, *twice*; nigbatí, *when*; nighana, *then*; ki...to, *before*, e. g. ki emi to de, *before I come*.

2. *Of Place*: nihinyi (ni ihin yi), *here*; nibẹ (ni ibẹ), *there*; lóke (li óke), *upwards*; lehin (li ehin), *backwards*.

3. *Of Manner or Quality*: dzédzẹ, *softly*; li ọkpọlọkọ (*in abundance*), *abundantly*; fi ọgbọn (*with wisdom*), *wisely*; fi ika, *crudely*; fi agbara, *powerfully*, *violently*.

4. *Of Quantity*: kpò, ọkpò, *much*; díẹ, *little*; tó, *enough*; bí...tí...kpò tó, *how much*, e. g. bi mo ti fẹ lóh kpò tó (*as I how wish to-go much enough*), *how much I wish to go!* bí...tí, *how*, e. g. bi emi ó ti še nọ? (*as I shall how do to-know*), *how shall I know?*

5. *Of Comparison*: dẓù, *more*, *exceedingly*; gidigidi, dzédzẹ, *much*, *very*; táj, kpé, *most*, *perfectly*, *completely*; rère, *well*; behe, bayi, *so*, *thus*; fere, *almost*.

6. *Of Affirmation*: en, *yes*; beheńi, *so*, *so it is*, *yes*; ọ, *yes*.

7. *Of Negation*: ndau, n, *no*; beheke, *not so*, *no*; kì, kò, kò, kó, *not*; to which it may be added that any grave unaccented vowel, except 'a' and 'e,' is a negative.

8. *Of Doubt*: boya (bi ó yà, *if it be*), *perhaps*; bolése, bolésekpé (bi ó lè se kpé, *if it can be that*), *if possible*; košekpé (ki ó še kpé, *that it be that*), *if that*, *suppose that*.

9. *Of Interrogation*: bawo? (bi ewo, *if what*), *how?* eše? (eyi še, *this is*), *why?* nitorikini? (niti ori kini, *as to reason what*), *wherefore?* *why?*

Construction of Adverbs.

§ 225. As a general rule, adverbs follow the words which they qualify; as, mo ri i loni, *I saw him to-day*. We may state, however, three exceptions to this rule:

1. The adverb is sometimes placed first for the sake of emphasis; as, loni ni mo ri i, *to-day I saw him*. But although this construction is emphatic, emphasis does not always seem intended when it is employed.

2. Adverbs of doubt, negation, and some others, generally precede the word which they qualify; as, boya yi ó lóh, *perhaps he will go*; emi kò ri i, *I did not see him*.

3. Adverbial phrases composed of fi, *with*, and a noun, precede the verb; as, ó fi ọgbọn še ê (*he with wisdom did it*), *he did it wisely*.

PREPOSITIONS.

Formation of Prepositions.

§ 226. *Primitives.* Three of the prepositions, *ní, in; sí, to; and tí, from,* are regarded as primitives. It is not improbable, however, that 'tí' is the verb *tí, to push, to prop.* Retaining a trace of this meaning, it becomes a preposition, *tí, by; as, ó dzoko tí mí, he sat by me, i. e. touching me.* But at present the most usual meaning of 'tí' is *from.*

§ 227. *Verbs employed for Prepositions.* Many verbs are employed as prepositions, although they still continue to be construed as verbs. A few examples will be given here; the remainder will be found in the Dictionary.

a. *ba, to meet,* becomes *bá, with, for, from; as, ó bá mí lóh, he went with me; ó bá mí rà ádié, he bought a fowl from me; bá mí wá aṣọ, seek cloth for me, i. e. help me to procure some cloth.* If this word were construed as a preposition, it would follow the verb; as, *ó lóh bá mí;* but the phrase would be unintelligible to a native of Yoruba.

b. *fi, to make,* becomes *fí, with; as, ó fí ida sán, he smote with a sword.*

c. *fu, to give,* becomes *fú, to, for; as, wí fú ù, speak to him; mó rà â fú, I bought it for him.* But 'fú,' unlike 'bá' and 'fí,' is construed as a preposition. The reason is that 'fú' wherever used is in the infinitive mode; whereas 'bá' and 'fí' belong to the preceding nominative, and the verb which follows is an infinitive.

d. *mó, to adhere,* and *tò, to approach, to follow,* are used for *to; as, kan â mó ìgi, nail it to the wood; tò mí wáh, come to me.*

e. *kà, to place, set,* and *lù, to strike,* are employed for *on; as, gbe ê kà ina, set it on the fire; ó sùbù lù mí, it falls on me.*

§ 228. *Compound Prepositions.* We have already noticed the fact that the Yoruba language has names for purely abstract relations, which in many other languages are expressed by adverbs and prepositions. These abstract nouns are frequently employed as adverbs; but to make them available as prepositions, they must be compounded with *ní, in; sí, to; or tí, from; as, níng, in, within, from níg, the inside.*

§ 229. This account of prepositions leads us to notice the manner in which the mind of the people contemplates relations. First, they regard the relations of *up, down, within, without, &c.,* as actual things, and give them names. Secondly, they view these relations as fixed or permanent; and to form adverbs of permanent relation, they prefix 'ní' or 'lì' to the abstract noun. This word 'ní' denotes fixedness of relation, and is always employed after the substantive verb, whence it may be called the substantive preposition. Finally, the Yorubas contemplate the relations as in a state of motion or emanation *from* the subject *to* the object. Motion *from* is invariably expressed by 'tí,' and motion *to* by 'sí.' Thus from each noun of relation are formed three prepositions, to point out the mode in which the relation exists between the subject and the object; as, *lòdo (lì òdo), down,* employed after verbs of rest or fixedness; *sòdo (sí òdo), down,* employed after verbs of motion *to*

or towards the object; tòdò* (tì òdò), *down*, employed after verbs expressing motion from the object to the subject; e. g. ó wà lòdò mí, *it is below me*; lólh sòdò mí, *go below me*; ó mbò tòdò mí, *it is coming below me*, i. e. it is approaching from below towards me.

§ 230. Of the three fundamental prepositions, 'tì' only takes the substantive form by receiving the prefix 'a'; as, atì, *the fromness*. For obvious reasons this noun does not take the prefixes 'sì' and 'tì,' but it is often compounded with 'lì': as, latì ilé de oko, *from the house to the farm*.

Construction of Prepositions.

§ 231. Usually the preposition is placed immediately before the objective, and the verb precedes both; as, ó mbè nínò ilé, *he is in the house*. But to this rule we note two exceptions:

1. A finite verb employed as a preposition (§ 227. c.) precedes the verb; as, ó bá mí rà, *he brought from me*.

2. The relative 'tì' precedes the preposition by which it is governed in the objective, as is sometimes the case in English; as, emi rí ibi tì ó d̀zoko sì, *I saw the place which he sat in*; 'sì' in this construction being substituted for 'mí.'

CONJUNCTIONS.

§ 232. We will here state the peculiarities of the principal conjunctions, arranging them under the English words to which they correspond.

§ 233. *And* is represented by various particles.

1. By 'tì' in two cases only:

a. To connect personal pronouns; as, iwò tì emi rí ì, *thou and I saw it*; yì ó kpa emi tì iwò, *he will kill me and thee*. The pronouns, whether singular or plural, which are connected by 'tì,' must be of the primary forms, except that 'rè' may be employed after 'tì' instead of iwò, *thou*, or óy, *he*; as, emi tì rè á ó lólh, *I and thou will go*; emi tì rè še è, *I and he did it*.

b. In connecting verbs or clauses of sentences, 'tì' is frequently employed with 'sì,' *and, also*; as, á rí ì, tì á sì mu ù (*we saw him, and we also caught him*), *we saw him and caught him*; bí ó bá de, tì ó sì kpè mí (*if he should come, and he also call me*), *if he should come and call me*.

2. By 'atì,' the substantive form of 'tì.'

a. 'Atì' is employed to connect nouns, pronouns, adverbs, and prepositions; as, óbiri atì ọ́nọ lólh, *the woman and the child went*; ó kpè iwò atì emi, *he called thee and me*; á rí wọ́n lẹ́ba atì nínò òdò, *we saw them by and in the river*; ó s̀rọ́ làsáj atì lailogbọ́y, *he spoke vainly and foolishly*.

b. 'Atì' cannot be employed to connect verbs, because it would make the verb which might follow it equivalent in sound to a verbal noun with the prefix 'atì.' Thus, ó dídè atì lólh, *he arose and went*, would always be taken by the hearer for ó dídè atilólh, *he arose to go*.

* This form is little used.

3. 'On' is equivalent to 'ati' in all respects, only it is sometimes preferable to connect nouns; as, *mo ri Dadá on Adešina, I saw Dada and Adeshina.*

4. Kpèlu, *with*, is frequently employed in the sense of *and* to connect nouns and occasionally pronouns; as, *óbiri kpèlu omọ lí o de, the woman and the child came.*

5. 'Si' (si chin, *to back, go backwards*) is employed to connect verbs only; as, *dide si lẹh, arise and go.*

Very often a nominative pronoun, agreeing in number and person with the nominative of the first verb, is employed pleonastically before the conjunction; as, *emi dide, mo si lẹh, I arose and went; iwọ ati emi ri á si mò, thou and I see and know.*

§ 234. 1. *Because, for*, is represented by 'nitori' (ni itori), *in or by reason*, or 'nitori ti,' *by reason of*, either of which may be employed at the option of the speaker; as, *á ní lẹh nitori ọba mbò, we must go for the king is coming.*

2. Before 'ati,' *and*, the initial 'n' (or preposition 'ni') is dropped; as, *nitori mọ bẹru rẹ, ati itori ti iwọ nṣe onroro enia, because I feared thee, and because thou art an austere man.*

§ 235. *But*, *ṣugbón*, *bikòṣe*, *biòṣe*; as, *mo kpè è, ṣugbón kò dṣe wáh, I called him, but he would not come; kì íṣe aṣiwere bikòṣe ọlọgbón, he is not a fool but a wise man.*

§ 236. *If*, *bí*, *koṣekpe*, *iba*; as, *bí ó ba mò, if he knew or knows; koṣekpe enyin lẹh, if you go; iba mò eyi, yi ó kpada, if he knew this, he would return.*

§ 237. *Lest*, *kí...máh*, sometimes with 'nitori' immediately preceding 'ki'; as, *á ṣiṣe kí á máh ṣagbe (or nitori kí máh, &c.), we work lest we should beg.*

§ 238. *Neither...nor*, *kò or kí...beḥe*; as, *kọ lẹh beḥe ní kò dṣoko, he neither goes nor stays. Sometimes kò...kò; as, kò ní babá kò ní íya ná, he has neither father nor mother.*

§ 239. *Or*, *tabi*, *mbi*: *iwọ tabi emi, thou or I; akọ mbi àbò? a male or a female?*

§ 240. *Whether...or*, *iba...iba*: *iba ṣe ọkọnrí iba ṣe óbiri ní, yi ó kpa wọn, whether they be men or women, he will kill them.*

§ 241. *Since*, *nigbati*: *nigbati enyin ti de, á gbọ ọrọ Ọlọrun, since you have come, we hear the word of God.*

§ 242. *That*, is represented by several particles:

1. *By kí, kí...kí ó*; as, *mo ní kí ó lẹh, I say that he must go*; or if the nominative following 'ki' has two or more letters, 'kí ó' follows it; as, *mo ní kí ọ́n kí ó lẹh, I say that he must go.*

2. *By tí*; as, *kí lí emi ó ṣe tí emi ó dṣogun iye? what shall I do that I may inherit life?*

3. *By kpé*; as, *ó rí í kpé ó dara, he saw that it was good*; *kpé* is used pleonastically after verbs of saying, writing, perceiving, &c.; as, *á tí kọwe rẹ kpé, sawò! ó mbò, it is written, behold! he cometh; emi mò kpé iwọ ṣeun, I know thou art good; ó bí wọn lẹre kpé, lí oruko ta ní nwọ́n sẹrọ, he asked them in whose name they spoke; nwọ́n bẹ́ è kpé kí ó lẹh, they begged him to go.*

§ 243. *Then*, *ndṣe*; as, *ndṣe á ó sọ́n lí ọdọ́n, then we must sleep in the prairie.*

§ 244. *Though*, *bí*, frequently followed by *tile*, *even*; as, *bí á tile ṣọ́tẹ sí í, although we have rebelled against him.*

INTERJECTIONS.

§ 245. The principal interjections are the following:

Alas! *oh!* *ah!* *yē!* *aa!*

Behold! *wò!* *sawò!* *kíyesi!* *sá kíyesi!*

Fudge! *hū!* *kai!*

Pshaw! *xió!*

Silence! *daké!* *simi!*

Wonderful! *kpa!* *ekpa!* *arí!*

Get out of the way! *ágo!* *kuro!*

SPECIMENS OF COMPOSITION.

YORUBA PROVERBS.

..

The Yorubas have no songs; and, I believe, but few popular stories; but the language abounds in proverbs, which are at once the poetry and the moral science of the nation. Many of them are pertinent observations on the nature of things; others are devised to inculcate the various relative duties of men; and a few are simply an ingenious play upon words.

We subjoin some specimens of these proverbs, not only to exhibit the idioms of the language, but also to illustrate the character of the Yoruba mind. They are taken chiefly from Crowther's Vocabulary.

1. Ènì abá fẹ́ tó bí enì ore: enì abá kò fẹ́ iká; rirun ní ì run
Mat. of grass not fast as mat of baluch: mat of grass not does bend, breaking it is it breaks
wómwóm.
to pieces.

A grass mat does not fast like a baluch mat; a grass mat will not bend, it breaks to pieces.

2. Abáiyedé kò fẹ́ ìlì ìlì òrùn han.
Tattle not does to make root of matter appear.

It will not do to reveal one's secrets to a tattle.

3. Abá kò fẹ́ iká mọ́ ní ì esé, bíkòsé enì tí ọ̀fẹ́ búburu.
Staple not does drive to adhere to one on foot, except one who is doing evil.
The stocks are not fastened on the foot of one, except of him who does evil.

4. Abata tákete, biéniké kò bá ọ̀do han.
Marsh stand about, as if not with stream to akin.

The marsh stand about, as if it were not akin to the stream. Said of people who are proud and re-cryd.

1. *Kò fẹ́, does not; 'abá,' inductive after fẹ́, the preformative 'i' being very slightly rounded. Observe the Hebrew, run in a run, breaking it breaks, instead of ó run, it breaks. This form is poetical.*

2. *Abáiyedé (a, ba; ba...déz, spelt; aye, the world), a world spoiler. 'Kò fẹ́' here means it will not do, it is not proper, which is quite an English idiom; 'ìlì...han' (to make...appear) is a compound transitive verb, meaning to show, reveal; ìlì (root of the matter), a secret.*

3. In various and widely separated countries of Africa, prisoners are sometimes confined by placing a bare iron staple around the ankle and driving the end into a tree, thus forming a rude kind of stocks.

4. *Biéniké, as if one should say,*

1. $B = \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$

$C = \begin{pmatrix} 2 & 1 \\ 4 & 3 \end{pmatrix}$

$D = \begin{pmatrix} 3 & 2 \\ 1 & 4 \end{pmatrix}$

$E = \begin{pmatrix} 4 & 3 \\ 2 & 1 \end{pmatrix}$

$A =$

$\begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$

$\begin{pmatrix} 2 & 1 \\ 4 & 3 \end{pmatrix}$

$\begin{pmatrix} 3 & 2 \\ 1 & 4 \end{pmatrix}$

$\begin{pmatrix} 4 & 3 \\ 2 & 1 \end{pmatrix}$

$B =$

$\begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$

$\begin{pmatrix} 2 & 1 \\ 4 & 3 \end{pmatrix}$

$\begin{pmatrix} 3 & 2 \\ 1 & 4 \end{pmatrix}$

$\begin{pmatrix} 4 & 3 \\ 2 & 1 \end{pmatrix}$

$C =$

$\begin{pmatrix} 2 & 1 \\ 4 & 3 \end{pmatrix}$

$\begin{pmatrix} 3 & 2 \\ 1 & 4 \end{pmatrix}$

$\begin{pmatrix} 4 & 3 \\ 2 & 1 \end{pmatrix}$

$D =$

$\begin{pmatrix} 3 & 2 \\ 1 & 4 \end{pmatrix}$

$\begin{pmatrix} 4 & 3 \\ 2 & 1 \end{pmatrix}$

$\begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$

$\begin{pmatrix} 2 & 1 \\ 4 & 3 \end{pmatrix}$

$E =$

$\begin{pmatrix} 4 & 3 \\ 2 & 1 \end{pmatrix}$

$\begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$

$\begin{pmatrix} 2 & 1 \\ 4 & 3 \end{pmatrix}$

$\begin{pmatrix} 3 & 2 \\ 1 & 4 \end{pmatrix}$

11. Akuko gágara ni idadẓo fu ni li arin ọgandẓo.

Cock of bulkiness it-is decides for us in midst of depth-of-night.

A large cock decides for us in the midst of the night. Persons are supposed to be disputing about the time of night, when the crowing of the cock shows that it is very late. The proverb may be quoted whenever a dispute is suddenly decided by unexpected evidence.

12. Akobi ni ti ẹleran.

First-born is of shepherd.

When a woman takes a ewe or she-goat, both of which are termed ẹran, *cattle*, to feed for the owner, she claims the first-born lamb or kid for her own. Hence the proverb, *The first-born is the shepherd's*.

13. Ibaluwe gbe ilé, ẹ́e bi akurò.

Bath-room abides-in house, is like water-side garden.

Although the bath-room is in the house, it is as wet as a garden by the water-side.

14. Ọlọgbón ọgbón li á rọ idẓanu; ọkọkan li á mọ iwa ẹ́nia: á

With wisdom wisdom it-is they forge bridle-bits; one-by-one it-is we know character of persons: we ba mọ iwa ẹ́nia, á ba bu ọ, kọ fẹ; á ẹ́dẹ ni bi abadẓo.

attain to-know character of person, they attain to-give thee, not desire; it is-painful to one as calamity.

On various plans bridle-bits are made; one by one we learn the characters of men: the character of a man being known (to be bad), if it were given thee as a present, thou wouldst not desire it; it is painful to one as a calamity.

15. Ti idẓo ti ayọ ni iṣe idin, wuye wuye ni iṣe igongo: á

Both dancing and rejoicing it-is acts the skipper, wriggling wriggling it-is acts the worm: they ydẓo, á nyọ; ọmọ banabana nre oko igi.

dancer, they rejoice; child of banabana is-going-to farm of wood.

With dancing and joy moves the skipper, wriggling about moves the worm: they dance, they rejoice; but the child of banabana is going to the wood-farm.—According to Mr. Crowther, this proverb means, "others may amuse themselves, but the poor man has no holiday."

16. A ki iwá alaṣọ ála ni iso elekpo.

We not search him-of-cloth white-cloth in quarters of him-of-palm-oil.

We do not look for a man clad in white cloth in the quarters of the palm-oil maker.—We should not expect any result from incongruous or inadequate means.

17. Okéte ní, ọdẓọ gbogbo li ọ mọ; ọn kọ mọ ọdẓọ miran.

Rat says, day every it-is he knows; he not knows day another.

The rat says he knows every day; but he does not know another day; i. e. he lays up nothing for the future, in which he is imitated by the improvident.

12. For the mode of predicating possession in Yoruba, see Gram. § 203, 1, a.

13. Gbe, *to live or be in* a place, is always used without a preposition;—akurò, *a garden by a stream*, which is cultivated in the dry season only.

14. Ọlọgbón, *that which has wisdom*; ọgbón, *wisdom*; ọlọgbón ọgbón, *various wisdom or skill*; so oniru iru, or oniruru, means *kinds*, this reduplication always implying variety;—á rọ, *they forge*, is equivalent to *is or are forged* (Gram. § 118, 1);—á la, like 'ila,' implies a condition (Gram. § 143);—kọ fẹ, the subject, 'Iwe,' omitted, a common practice in Yoruba.

15. Ti...ti (see Prov. 5); wuye wuye, *wriggling about*; so taka taka, *staggering to and fro*, repetition of the act being implied by the repetition of the word; wriggling is thought to indicate pleasure;—banabana, said to be an insect which carries a bit of wood in its mouth, which is thus an emblem of the poor, many of whom, both men and women, gain a livelihood by bringing firewood from the farms on their heads;—ọmọ banabana is equivalent to banabana simply; comp. the biblical expression, *son of man*, i. q. *man*.

18. Odzúkòkoro babá òkandžua.
Covetousness is the father of unsatisfied desires.
19. Ológbò babá arọ́kín.
The ológbò is the father of traditionists.
20. Alagbara máh mọ̀ èro babá ọ̀lẹ̀.
Strong man not knows consideration is father of laziness.
A strong man who is destitute of forethought is the father (or prince) of laziness.
21. Ènì tí kò gbọ́ tí ẹ̀ga, á lí ẹ̀ga ńkpátoto ẹ̀nu.
One who not hears of oriole, he says oriole is-noisy of month.
One who does not understand the oriole says the oriole is noisy, i. e. is merely chattering. But the orioles are supposed to understand each other.—The meaning of the proverb is that men are prone to despise what they do not understand.
22. Èlẹ́da ẹ́da lí Olórún dá nì.
With nature nature it-is God made us.
God has created us with different natures or dispositions; hence we should not expect to find the same qualities in every one.
23. Bì alagbára dze ọ̀ nì iya, kí ọ̀ fí ẹ̀rún sí ì.
If great man does thee in wrong, that thou make smile to him.
If a great man should wrong you, smile upon him. Because resistance would bring upon you a still greater misfortune.
24. Alakpatà kò mọ̀ ọ̀rún ẹ̀rún.
Butcher not knows breed of sheep.
The butcher has no regard for the breed of the sheep (which he kills). He attends to his own business, and does not meddle with matters which do not concern him.
25. Igbo bíribíribí, òkúnkún bíribíribí; òkúnkún nì yí ọ̀ sẹ́tẹ̀ igbo.
Forest is-dark, night is-dark; night it-is that will conquer forest.
The forest is dark, and the night is dark; but the darkness of the night will soon conquer that of the forest.
26. Bì kò ẹ́ ọ̀bọ̀n ẹ̀nìá, tani iba dži lí ọ̀wọ̀ kí ọ̀ máh bó ọ̀džu rẹ̀ mọ̀ ẹ́sà?
If not is stolen person, who useth to-wake in morning that he not wash face his clean very?
Except a stolen, who is wout to rise in the morning without washing his face nicely?

19. The Ológbò is the chief of the Arọ́kín, whose business it is to remember the history of the country.
20. Before máh, *not*, the relative is always omitted.
21. Gbọ́ tí, *to hear* the meaning of, *to understand*.
22. Èlẹ́da ẹ́da (see Prov. 14); —nì, same as ‘ẹ̀nì,’ an indefinite pronoun, signifying *one, some one, a person*, and frequently employed instead of *wa, us*.
23. Dze, *to do, to act*; nì, *in, in regard to*; iya, *affliction, wrong*; dze . . . niya, *to afflict, oppress, wrong* (Gram. § 37, 2, a); —kí, with a nominative, is much used imperatively; as, kí ọ̀ fí, *make thou, let him make* (Gram. § 161).
24. Ẹ̀rún, *cattle*, a term including horned cattle, sheep, goats, &c.
26. Bìkòṣe (usually written as one word), *except*.

27. Ènu bálè agbede.

Tongs are goecruor of smithshop.

The tongs are at the head of the blacksmith's shop ; because they control the hot iron which otherwise would be unmanageable.

28. Ọ́sọ́ oníbudžé kò kpẹ isan, ọ́sọ́ oninabi kò džen ọ́dun
lọ́h.
going.

The marks made by the budžé-woman do not last nine days ; the marks made by the inabi-woman do not last more than a year.—No advantage or possession is permanent.

29. Bi adza ba li eni lehin, à kpa ọ́bọ.

*If dog * has person behind, he-will kill baboon.*

If a dog has his master behind him, he will kill a baboon.—This proverb is designed to show the advantage of sustaining and encouraging people in their efforts.

30. Adza ti kò li eti kò še idegbẹ.

Dog which not has ears not do for hunting.

A heedless dog will not do for the chase.—If a person will not take advice, no one will employ or trust him.

31. Gagalo šubu, ọ́wọ́ tẹ akpako.

Stilts full, hand seizes palm-stalk.

If a man let full his stilts, a hand will be stretched out to seize them.—That is, so soon as one man loses an office or position, another is ready to occupy his place.

32. A kì dá ọ́wọ́ lé ohun ti á kò lè igbẹ.

We not give hand to thing which we not can perform.

We should not undertake a thing which we cannot accomplish.

33. Onilé ndze eso gbíngbindò ; aledžo ní kì á še on li ọ́wọ́ káw
ẹ́wá.
boiled-maize.

Although the host may be living on wild beans, the guest expects a handful of boiled corn.

28. Ọ́sọ́, an ornament. In this place it means the deep black stripes with which maidens ornament their faces and arms.—‘Budžé’ is the fruit of a small tree of the same name, which when green makes a jet black stain on the skin. ‘Oníbudžé’ is the woman who makes a trade of marking the faces and arms of girls for a few cowries each. There is a fable of a jet black and exquisitely beautiful girl who was sought in marriage by all the nobles and rich men of the country ; but she treated every suitor with disdain. At last a worthless fellow laid a plan by which she was enticed into his house and detained all night. Although she escaped uninjured, the community at first thought otherwise ; and the disgrace afflicted her so much, that she fled into the woods, where the violence of her grief changed her into the bush that still bears her name. ‘Inabi’ is a plant the acrid root of which burns a durable black mark on the skin. It is seldom used for marking.—‘Lọ́h,’ pleonastic after džen (Gram. § 207, 1).

29. Ba, an auxiliary particle (Gram. § 139) ;—à, *he will* (Gram. § 135, 1, b).

31. Stilts are made of the foot-stalks of the akpako, or *wine-palm*, called *bamboo* by the whites on the western coast.

33. Ndze (Gram. § 129, 3) ;—á . . . li, *to do . . . in regard to, i. e. to supply with.*

34. Máh gbiyele' ogún; tí ọwọ́ ẹ̀nì nì itó nì.
Not trust-in inheritance; of hand of one is sufficient-for one.
Trust not to an inheritance; the product of one's hands is sufficient for one.—Said to those who neglect industry because they expect to inherit property.
35. Akóseba, eyi tí idze ọdún.
Chance, this which amounts-to year.
He who waits for chance may wait a year.—Said to those who are "waiting for something to turn up."
36. Ènì tí ọ ràn nì nì ísẹ́ lí á ibẹru; á kì ibẹru ẹ̀nì tí á ràn nì sí.
One who he sends one on message it-is we fear; we not fear one whom they send one to.
We should fear him who sends us with a message, not him to whom we are sent.—Applied to messengers sent from one king or chief to another.
37. Èrò kpẹ̀kpẹ̀; kò mọ́ bí ará ńkan ígbin.
Light very; not know us body is-paining snail.
You say it is a very light blow, but do not reflect that it would hurt a snail.—Said to those who would excuse their bad conduct to others on the ground that it does them no great harm.
38. Èsín rí ogún, d́zo; òkò rí ogún, ó yò.
Spear sees battle, it dances; lance sees battle, it rejoices.
When the spear sees the battle, it dances; when the lance sees the battle, it rejoices.
39. Ohun tí á fí ẹ̀sọ́ mún kì bad́ze; ohun tí á fí agbara mún nì
Thing which we with gentleness handle not is spoiled; thing which we with violence handle it-is
inú nì lí ará.
has one as-to body.
An affair which we conduct with gentleness is not marred; an affair which we conduct with violence causes us vexation.—Said to men who are irritable and impetuous.
40. Bì ẹyá ba dì ẹ̀kún, ẹran nì ikpa d́ze.
*If wild-cat * becomes leopard, beasts it-is it will kill cat.*
When the wild cat becomes a leopard, it will devour beasts.
41. Afed́zu toto kò mọ́ ọ̀kọ̀yí.
Gesticulation much not knows a man.
Much gesticulation does not prove manliness.—"A barking dog does not bite."

34. Tí ọwọ́ (Gram. § 203, 1, *b*);—*enì* and *nì* (Prov. 22, and Gram. § 104).

35. An elliptical proverb. Comp. Prov. 9 and 10.

36. *Ibẹru*; for the initial 'i,' see Gram. § 146, 1;—*á ràn nì*, *they send us*, for the passive, *we are sent*, Gram. § 148, 1. *Sí* and other prepositions frequently close a sentence, as in English.

37. Observe the ellipses;—*ará kan*, *it hurts*; so, *mọ́ d́yẹ*, *it is pleasant* (Prov. 56).

39. *Ní . . . lará* (*ní . . . lí ará*, *to have us to the body*), *to annoy*, *to cause vexation*;—*nì*, *one*, often equivalent to *wa*, *us*.

40. *Ẹyá*, a beast resembling a leopard, but rather smaller, *the leopard cat*;—*ikpa*; for the initial 'i,' see Gram. § 146, 1; *kpa d́ze*, *to devour, destroy*, e.g. *ẹfẹn kpa on d́ze*, *the buffalo killed him totally, violently*.

41. *Afed́zu*, *frowning* and other airs put on under pretence of courage;—*mọ́*, *to prove, to be evidence of*.

42. Oko nlá še alangba kpẹnşan; ó ní, bẹhẹ li ẹnì tí ó d̀zù nì l̀gh
Stone large did lizard crush; he said, so it-is one who he surpasses one going
ise ni.
does to one.

A large stone (being thrown) crushed a lizard. It said, "So he who is stronger than one treats one."—Said in allusion to the fact that the strong oppress the weak.

43. Alantakun bi yi ó ba ọ d̀zà, á ta ka ọ li ará.
Spider if it will meet thee to-fight, it extends to-enfold thee as-to body.
When the spider would attack thee, it extends its web to entangle thee.—Applied to the intrigues of men who endeavor to effect the ruin of others.

44. Alasédzù kpere ni ite.
A self-willed man soon has disgrace.
"Pride goes before destruction."

45. Eşu yi ọ d̀ze, eşu yi ọ m̀ó, eşu yi ọ l̀gh; nibo li
Locust he will eat, locust he will drink, locust he will go; where is-it
alatamkpoko yi ọ ẁó?
grasshopper he shall enter?
The locust will eat, the locust will drink, the locust will go; where shall the grasshopper hide?—
Probably intended to describe the effects of war.

46. Kò sí alasára ti ità igboku; gbgbo woy ni ità oyin.
Not is snuff-dealer who sells stale; all of them it-is sell honey.
No snuff-dealer sells stale tobacco; they all sell the best.

47. Akirádze kọ m̀ọ ọdún; abí isú ita bi igi.
Buyer not knows year; perhaps gums grow like logs.
The buyer does not consider the seasons; he thinks perhaps gums grow as big as logs.

48. A še alakpa li ọsọ, kọ gbó; á še ohun gbgbo fu igi, ọ ye
We do old wall as-to ornament, it not hears; we do things all for wood, it suits
igi.
wood.

If we ornament an old wall, it is not improved; if we do anything for wood (as painting or carving), it is adapted to the wood, i. e. our design is accomplished by making the wood as we desire it to be.—Some persons cannot be improved by any means that we can employ.

49. Awigbó ti ifi ọwó adžae m̀ó omi.
Disobedience which with hand of neck-cord drinks water.

Disobedience which drinks water with the hand tied to the neck.—Meaning that a person who is determined to disobey will have his own way in spite of all obstacles.

42. Se . . . kpẹnşan, to crush.

43. Ba . . . d̀zà, to fight with, to attack; —ta, to stretch a rope; —ka . . . lará, to enfold, entangle, as a net.

46. Igboku, anything stale; as, igboku taba, stale tobacco; igboku ákara, stale bread; —oyin, honey, applied to that which is excellent; the girls in the street cry, oyin ọtí! honey beer! that is, beer of the best quality.

47. M̀y, often employed in the sense of consider; —ọdún, a year, a season, in reference to its quality.

48. Še . . . li ọsọ, to ornament, adorn, — gbó, to receive an impression or benefit.

50. Afomó kò lí egbò; igi gbogbo ní ilatay.

Parasite not has root; tree every is its kindred.

A parasite has no root; every tree is its kindred.—A parasite does not care on whom he sponges for a living.

51. Erú kò še omọ igi; erú kú, iyà kò gbọ: omọ kú, igbe ta; erú
Slave not is child of wood: slave dies, his mother not hears: child dies, cry arises; slave
še omọ ní ilé iyà rẹ̀ rí.
was child in house of mother his once.

A slave is not a block of wood: if a slave dies, his mother does not hear of it; if a child dies, lamentation is made: the slave was once a child in his mother's house.—This fine sentiment exhibits something of the heart of the people who use it as a proverb; and it explains the reason why the Yorubas usually treat their slaves with a degree of kindness worthy of a Christian people.

52. Ada sáy ìgbò, kò rí èrè ìgbò; ó rọ̀ ònà, kò rí èrè ònà; ada
Bill-hook cuts bush, not sees profit of bush; it clears road, not sees profit of road; bill-hook
dá idakúda, ada dà idakúda; ada dá, ó fí àrù
breaks a-bad-breaking, bill-hook bends a-bad-bending; bill-hook breaks, it with five-courries
gbadi, ó dì oko olowo; ada lí ẹ̀ka lí ọ̀rọ̀, ó gbadza girigiri.
girds-its-bill, it reaches farm of owner; bill-hook has ring on neck, it is girded tightly.

The bill-hook clears the farm, but receives no profit from the farm; the bill-hook clears the road, but receives no profit from the road; the bill-hook is badly broken, the bill-hook is badly bent; the bill-hook breaks, it pays five courries to gird its handle with a ring; it reaches its owner's farm; the bill-hook has a ring on its neck (handle), it is girded tightly (for new labors).—Has reference to the severe and unrequited labor of slaves.

53. Ibí kì idžù ilá; bí á tí bí erú lí á lí omọ.

*Birth not surpasses birth; as they * bore slave so it is they bore child.*

One birth does not excel another; as the slave was born, so was the free-born child.

54. Bí ó tí wù kí ó rí, á kì rẹ̀rẹ̀n abirọ̀; boya ohun tí ó še ẹ̀
As thou * please that it be, we not laugh-at invalid; perhaps thing which it ails him
lónì á še iwọ̀ lọ́lá.
to-day will ail thee to-morrow.

One should never laugh at an infirm person; perhaps the same evil that afflicts him to-day may afflict thee to-morrow.

55. Iwọ̀ ní nṣe abodžuwò lẹ́hìn babá; tọ́džu ilé rere.

Thou it-is art superintendent behind master; look-to house well.

Thou art the superintendent in the master's absence; look well to the house.

56. Ní ìgbà tí ágbẹ̀ bá ńdì abò okà, inọ̀ rẹ̀ á dọ̀n; níkpà abò
In time when farmer * is-binding bundles of corn, mind his it is-sweet; by bundles
okà ní yangidi owó ití wáh.
of corn it-is bundles of money also come.

When the farmer is tying up bundles of corn, he rejoices; by bundles of corn bundles of money are obtained.

52. Sáy ìgbò, to clear land for a farm;—rí èrè dze, to receive profit.

53. Bí . . . tí, as;—á bí, they bore, in the sense of *was born* (Gram. § 148, 1).

54. Bí ó tí wù kí ó rí, followed by a negative, is the usual expression for *by no means, not in any wise*.

56. Nígbàti, spoken and written as one word, *when*;—bá, the subjunctive particle (§ 139), follows nígbàti;—inọ̀ dọ̀n, to be pleased, to rejoice; as, inọ̀ mí dọ̀n, I am glad; inọ̀ rẹ̀ dọ̀n, he is glad;—ití, the conjunction *and, also*, with 'i' prefixed (§ 146).

57. Ohun ti íse ohun abukùnj kî á máh še sì ọmọ-ẹníkédzì ẹnì.
Thing which is thing of contempt that we not do to fellow-man of one.
A contemptuous action should not be done to one's fellow-man.
58. Abulé nì mu asọ ilò tọ; ẹnì ti kò ba še tọdzu abulé, yì ń še
*Patch it-is makes cloth last long; one who not * does look-to patch, he will make*
ará rẹ lẹ ọfọ asọ.
self his in want of clothing.
Patching makes a garment last long; one who does not attend to patching will come to want
clothes.—A man who neglects the little affairs of his business will fail, or come to want.
59. Bì á ti ran nì nì ísẹ, lẹ á dẹ; bẹ iwọ ba ẹnì sí ń, adabowo
*As they * send one on message, it-is we deliver it; if thou * add to it, responsibility*
ará rẹ.
of self thy.
As one is sent on a message, so he should deliver it; if thou add anything to it, it is on thy
own responsibility.
60. Adán dorikòlò ó ọwò ísẹ ẹiyẹ gbogbo.
Bat hangs-head-down it is-watching work of birds all.
The bat hangs suspended with its head down watching the actions of all birds.—This proverb
is probably designed to teach silent observation.
61. Ó dẹ aiyẹ dẓù alaíyẹ lẹh.
He eats world more than owner of world going.
He enjoys the world more than the owner of the world.—Said of extravagant persons.
62. Dulumọ ẹkpa lẹ ọrọj sẹsẹ, á dẹbi ọrọj wẹ ti.
Slander of ground-pea on neck of white-pea, it condemns the-cause to-enter to-fail.
The slander of the ground-pea against the white field-pea falls upon itself.—Designed to show
that a slanderer may injure himself more than he injures another.
63. Olánidẹ ọ ba ará rẹ dẹ.
*Injurer he * body his injures.*
He who injures another brings injury upon himself.
64. Abánidẹ máh bá nì še ifá ẹnì; ẹnì ti ọ dẹ didọy nì idẹ kikan.
Guest who not with one is profit of person; one who he eats sweet it-is eats sour.
So is a guest who is no advantage to a person; he who eats the sweet should also eat the sour.—
Said of persons who live on others, and will not assist in the labors of the family.

57. Ohun abukùnj, a contemptuous action or word;—kî á máh še, we should not do (§ 145, 2).

58. Ba, after ẹnì (§ 139).

59. Bì . . . ti, as;—ba, after bẹ, if (§ 139).

61. Dẓaíyẹ (dẹ aiyẹ), to enjoy the world;—lẹh, pleonastic.

62. This proverb is highly idiomatic and therefore difficult: lẹ ọrọj refers to an accusation: ó fí ẹsẹ rẹ lẹ ọrọj mị, he charged his sin upon me;—ti implies failure: ọ kọ ilẹ ti, he built a house failed, i. e. began to build and could not finish;—dẹbi ọrọj wẹ ti, means that the condemnation recoiled on the accuser.

63. ba . . . dẹ, to injure.

64. The relative is omitted before máh, not;—nì idẹ; obligation is frequently expressed by the indicative form of the verb.

65. Àbati òlákpa; á ba à tì, á bá à rẹ.

Shakiness of old-wall; we against it push, we with it un-friendly.

It is like a shaky old wall; we push against it, and (finding that it does not fall) we make friends with it (by sitting down in its shade).—Said of persons whom we are at first suspicious of but, on further acquaintance, receive into our friendship.

66. Abẹbẹ ni ibẹ ikú, abẹbẹ ni ibẹ òràn; bí ọrù bá mú,
Pleader it-is pleads off death, pleader it-is pleads off difficulty; if heat is-sharp,
 abẹbẹ ni ibẹ ẹ.
fun it-is dissipates it.

A pleader (or supplicator) wards off death, a pleader wards off a difficulty; if the heat is severe, a fan mitigates it.—A fanciful play upon the word ‘abẹbẹ’ is the principal design of this proverbial saying. It also shows the power of entreaty.

67. Iyan mú, ire yọ; iyan rọ, ire rù.

Famine is-sharp, cricket is-fat; famine is-relieved, cricket is-poor.

When famine is sharp, the cricket is fat; when famine is relieved, the cricket is poor.—A paradoxical play upon words. It also expresses the fact that when famine prevails, the cricket is eaten as if it were fat or delicious; but when the famine is over, the cricket is rejected as poor and unfit to eat.

68. Odzo kpa bata báta, bata báta, li ori akpáta, li ode adzálubáta; báta
Rain beats patten patten, patten patten, on top of rock, in yard of chief-drummer; drum
 li igrí, bata li awọ.
is wood, shoe is hide.

The rain beats, “shoe drum, shoe drum,” (or patten patten,) on the rock in the yard of the chief drummer; the drum is wood, and the shoe is leather.—A play upon words.

69. Kánakána bá kánakána dzá, kánakána dá kánakána.—Eni.

Crow with crow fought, crow conquered crow. — One.

A crow fought with a crow, a crow conquered a crow.—One.—The Yorubas sometimes amuse themselves by repeating a play upon words by way of competition. At the end of the sentence, each time it is repeated, a bystander says, “one,” “two,” &c.; and he who repeats the sentences oftenest without marring a syllable is victor.

70. Ose ni isadzu ẹkún, abamò ni igbẹlín òràn; gbogbo
Smacking-of-lips it-is precedes weeping, mortification it-is follows difficulty; whole
 otokulu kpe, unwoy kò ri ẹbo abamò še.
of town assemble, they not see sacrifice of mortification to-make.

As smacking the lips precedes weeping, so mortification follows a difficulty; the whole population of the town assembled cannot find a sacrifice to make against mortification.

71. Ikpa obere li okun itò.

Path of needle it-is thread follows.

The thread follows the needle.—Applied to anything which happens as a natural consequence.

65. A ba à tì (*we meet it to-push*), we push against it.

66. Oràn, a difficulty, generally a cause before the judges.

67. The ‘ire’ is a large cricket eaten by the poor in times of scarcity.

70. Ose; the Yoruba people are accustomed to smack their lips several times before they begin to weep.

72. *Abọ́sẹ̀ kí ịsẹ̀ ịsẹ̀ ọd́zọ́; ịsẹ̀ babá nì ịgbà ọd́zọ́ enì.*

Job-rock not is work of day; work of master it-is receives day of one.

A job (done for oneself) is not the day's work; the master's work claims the chief part of one's time.—Said of slaves, who may perform little jobs for themselves, but must not neglect their master's business.

73. *Adarid́zini nì ịsẹ̀tẹ̀ ọd́zọ̀.*

Forgiver it-is compares dispute.

He that pardons the aggressor gains the victory in the dispute.—Designed to inculcate a forgiving spirit.

74. *Bì Ọ̀lorun b́a ká ẹ̀sẹ̀ sì nì lẹ́ ọran, á gbé.*

If God should count sin against us on sack, we perish.

If God should compute our sins, we would perish.—I have heard this remark made by heathens in attempting to settle disputes, but am not sure that it is a national proverb.

75. *Fì ohun wé ohun, fì ọran wé ọran; fì ọran d́zín, kí á yín ọ.*

praise thee.

Compare thing with thing, and matter with matter; forgive the matter, that thou mayest be praised.—Inculcates, as praiseworthy, the duty of examining into the facts of a dispute and exercising a forgiving disposition.

76. *Abere bọ́ lẹ́ ọwọ́ adete, ó dī ete; ọran b́a ilẹ́, ó dī ẹ̀ro.*

thought.

If a needle fall from the (mutilated) hand of a leper, it requires consideration (how to pick it up); if a difficult matter come upon the country, it requires thought (how to avert it).

77. *Aditaymò ẹ̀suo tí ọ lẹ́ ẹ̀kulu lẹ́ ọ bí iya rẹ̀.*

Genealogy of ẹ̀suo who he said ẹ̀kulu it-is she bore mother his.

It is like the genealogy of the ẹ̀suo, who said his grandmother was an ẹ̀kulu.—Applied to persons who pretend to be related to great families.

78. *Elede kpa áfọ́ t́án, ó ọwá enì rere tí yì ọ́ fì ará rẹ̀ yì.*

Pig wallowing in mire finished, it is-seeking person good whom he will make body his rub.

The pig, having done wallowing in the mire, is seeking some clean person to rub against.—Said of disgraced persons who attempt to intrude themselves upon good society.

79. *Onifuru tí itete ịsẹ̀ onile kpele.*

Suspicious-character who first does master-of-house gently.

A suspicious character (being found in a house) immediately salutes the owner of the house (before he is saluted).

72. *Ọd́zọ́* and *ọd́zọ́* are not equivalent terms; *ọd́zọ́*, the space of a day; *ọd́zọ́*, time, a day. See Dictionary.

75. *Fì . . . wé*, to compare;—*fì . . . d́zín*, to forgive.

77. *Aditaymò* (*dá itay mọ́*), a tracing of genealogy;—*ẹ̀suo* and *ẹ̀kulu*, two different species of antelope.

79. *Onifuru*, lit. one who is pale with apprehension;—*se . . . kpele*, to deal well with, to salute civilly.

80. Ágàdà kò mò orí aḡbèdè.

Sabre not knows head of blacksmith.

(In battle) the sabre does not know the head of the blacksmith (who made it).—Applied to ingratitude.

81. Aḡbèdè gbà wọ̀n là, á ní kí á kpá à ní kpansa.

Squash revived them safe, they said that they cut it for drinking-cup.

The squash having saved them (in time of famine), they said, *Let us cut it for a drinking-cup.*—Designed to illustrate ingratitude.

82. A rí abáńdè aḡbọ̀n ísàlẹ̀; bí ó kú lí ówárẹ̀, á yà lí aḡ.

We see guest of chin below; if it die in morning, it separates in evening.

We meet with guests who are like the lower jaw; if one die in the morning, it separates (from the upper jaw) in the evening.—Said of those who forsake their friends in time of trouble.

83. Akpàro dḡare adḡanakpa, Kí lí ó mu aḡo wáńh ísẹ̀ lí oko? Á dḡare akpàro, Lí oko lí á gbe ńmu aḡo ilẹ̀h.

reasoned partridge, In firm it-is we do bring clothing going.

The partridge argued concerning the bird-snare of cloth, *Why did the farmer bring cloth to the farm?* He replied to the partridge, *We are accustomed to take our wraps to the farm.*—

The meaning of this proverb is, that something can be said on both sides of a question. The partridge, seeing a cloth so spread out as to form a bird-snare, was suspicious and said, *What does he mean by this?* The farmer replied, that people always bring their wrappers to the farm (laying them on the grass or a bush while at work).

84. Adḡe, Śáluga, ó fi ẹní iwadḡu sílẹ̀ sẹ ẹní ẹ́ńń ní kpeḡe.

Fortune, the Elevator, he puts one before down-to-do one behind in gently.

Adḡe, the Elevator, he treats the foremost to deal favorably with the broadest.—That is, the first may sometimes be last, and the last first.

85. Adḡe, ẹ́mọ̀ hẹ́ — iya mí soro ga — á kpa máńh gbàḡń.

Witch, child of eny—trouble my is-hard is-high—she kills not inherits.

The witch, child of eny—my troubles are sore and hard—she kills but cannot inherit.—Witches are thought to destroy people when asleep by sucking their blood like a vampire.

86. Adḡekaḡu kò mò bí iyan mú.

Leaf-eater not knows if famine prevails.

The man who has plenty to eat does not appreciate the severity of a famine.

87. Akeke tí ńkó ịgí kò se; gbénagbénà mbù ẹ́tu sí atarí.

Ace which is-cutting tree not refuses; woodman offers propitiation to head.

The ace which cuts the tree is not afraid; but the woodman makes a sacrifice to his head.—Some kinds of trees are supposed to be inhabited by evil spirits, which might inflict some injury on the woodman unless he offered a sacrifice to his good genius, which is thought to reside in the head.

81. The aḡbèdè grows hard with age, and is cut to make cups;—gbà . . . là, to save;—kí á kpá à, let us cut it (Gram. § 115, 2).

82. Aḡbọ̀n, the chin; aḡbọ̀n ísàlẹ̀, the lower jaw.

83. Mu . . . wáńh, to bring; mu . . . ilẹ̀h, to take;—gbe, to alide, to be, pleonastic like *do* in English (Gram. § 187).

88. Abetele ni ifodžu onidádžó; notorí abetele kí ilé ísè idádžó otító.
Bebe it-is blinds judge; for bebe not can do judgment of truth.
A bebe blinds the judge, for a bebe cannot give a true judgment.
89. Bì ó kùnj oní kùnj òlá kí ogle kí ó kpa agilítí, òdžó á rò.
If it remains to-day remains to-morrow that thirst that will kill iguana, rain will fall.
If there remain to-day or to-morrow before the iguana will die of thirst, it will rain.—De-
signed to show the providence of God over his creatures.
90. Fí idžá fú Ọlorun džá: fí ọwọ́ lẹ ẹran.
Give battle to God to-night; put hand upon temple.
Love the battle to God, and rest your temple on your hand (as a spectator).—That is trust
in God's providence.
91. Tinotíng, tóhíntóhín nì labalába ńń iyín fú Ọlorun.
Within, without it-is butterfly gives praise to God.
By its beauty, the butterfly praises God within and without, i. e. in all its parts.
92. Džá agba ọti, dži agba ẹtu; ẹni tí á ran wáń, kí idži agba.
Open cask of rum, open cask of powder; one whom they send to come, not opens cask.
Open the cask of rum, open the cask of powder (if yours); but he that is sent with it does not
open the cask.—The Yoruba carriers are remarkably faithful to their trust.
93. Ogunj kọ rò ike, agbede kọ rò bata; oko kọ ́soro ro, agbede kọ
Ogunj not works ivory, smithy not works leather; farm not is-hard to-till, the smithy not
kpa okọ tá.
makes hoes to sell.
Ogunj does not work ivory, the smithy does not work leather; if the farm were not difficult to
cultivate, the smithy would not make hoes to sell.—That is, every man to his trade.
94. Hó kún wá lí Ọyọ nì igba atidžó, tí á nkpe Akidže: oibó
House one was in Katanga in time of antiquity, which they called Silence: white-man
kú mbẹ.
died there.
In old times there was a house in Katanga called Silence: a white man died there.
95. O sure iku, ọ́ bọ sí akọ ida.
He fled death, he entered into scabbard of sword.
He fled from the sword, and hid in the scabbard.—"He leaped out of the frying-pan into the
fire."
96. A ri tí ẹni mọ́ iwi, i fí akpadí bó tí rẹ mọ́lẹ.
We see that one knows to-speak, he puts potsherd to-cover that of him up.
We see that one knows how to speak (the faults of others), although he covers his own with a
potsherd.
97. A kí igbá àkaka lowó akítí; á kí igbá ilé babá lowó ẹni.
We not take spitting from baboon; we not take house of father from one.
We cannot cure a baboon of spitting (because it is natural to him); we cannot take the home-
stead from a man (because it is his by natural right).

93. Ogunj is the god of smiths.

94. Historical and other facts are frequently transmitted to posterity in proverbial sayings.

95. Tí rẹ, that of him, his.

98. *Aše òran ikòkò sèbì óh lî á mbawî, abî ará ifu bî*
Doer of crime of secrecy supposes he it-is they are-speaking-about, being body is-pale as
enî sè ohun.
one who did thing.

The perpetrator of a secret crime supposes it is he they are talking about (if he sees men in conversation), his face being pale as one who has done something (wrong).—"Conscience makes cowards of us all."

99. *Asòròkèlẹ̀ bodzùwò igbẹ̀; igbẹ̀ kì iro; eni tí á bá sọ̀ nì ísẹ̀ ikukpani.*
Whisperer watches bush: bush not tells; he who one with speaks it-is acts traitor.

A whisperer watches the bush; a bush never tells secrets; he to whom one speaks is the traitor.—
If a man wish his secrets to be kept, he should not confide them to others.

100. *Òdò kì kọ́y bọ̀ ẹ́dza lî ọ́dú.*

River not is-full to-cover fish in eye.

The river is never so full as to obscure the sight of the fish.—That is, no scheme or purpose is too deep to be confided to a friend.

PARABLE OF THE PRODIGAL SON.

Luke xv. 11—32.

Ọ̀kọ̀nrí káń lî ọ̀mọ̀kọ̀nrí meḍẓi. Eyi aburo nî inọ̀ wọ̀n wí fú babá rẹ̀
Man one had son two. This younger-brother in among them said to father his
kpé, Babá, fú mí nì iwọ̀n ọ̀gún tí ọ̀ torí mí. Ó sì kpín ohun
to-wit, Father, give me to-have measure of inheritance which it belongs me. He and divided thing of
íní rẹ̀ fú wọ̀n. Kì isì tó idzọ̀ melokan lî ẹ̀hin eyi, eyi ọ̀mọ̀kọ̀nrí
possession his to them. Not and amounted-to day few in after this, this son
aburo kó ohun gbogbo tí ó nì dzó, ó sì mu ọ̀nà rẹ̀ kpọ̀n
younger-brother gathered thing all which he had together, he and took road his straightway
lẹ́h sí ilu òkẹrẹ̀; nì ibẹ̀ nì ó gbé nà gbogbo iní rẹ̀ nì inakuna. Ní igbà
go to town of distance; in there it-is he was spending all possession his in extravagance. In time
tí ó ba gbogbo rẹ̀ dze tán, iyan nlanla wáh mú nì ilu ná; ó*
which he to-destroy all of it ended, famine of greatness came to be sharp in town that; he
sì bẹ̀rẹ̀sí idì alaini. Ó sì lẹ́h, ó dá ará rẹ̀ kpọ̀ mọ̀ ọ̀lọ̀tọ̀ káń ará
and began to-be needy-one. He and went, he made self his join cleave-to citizen one inhabitant
ilu ná; ọ̀y sì ran á lẹ́h sí oko rẹ̀ lẹ́h ísọ̀ ẹ̀lẹ́ẹ̀. Ayọ̀ nì i ba fi dze
of town that; he and sent him go to farm his go to-watch shrine. Joy it-is he would with cat
ondze tí awọ̀n ẹ̀lẹ́ẹ̀ dze; enikẹ̀nì kò fí fú á.
food which they survive ate; any-one not give to him.

Ní igbà tí ọ́dú rẹ̀ wáh ilẹ̀, ó ní, Awọ̀n alágbasé babá mí melómélo
In time which eye his came to-ground, he said, They hireling of father my how-marry
lî ọ̀ lî ondze adze yó atí adze tí, eni sì nkú fú ebi! Eni
it-is he have food eating to-be-full and eating to-leave, I and am-dying for hunger! I

* Ba ... dze, to destroy.

ó díde sé, emí ô tò babá mí lóh, emí ó sì wí fú ñ kpé, Babá, emí
will arise indeed, I will go-to father my go, I will and say to him to-wit, Father, I
 ñti ñdése sí oron, atí ní iwadzú rẹ; emí kò sì yẹ tí á bá ma kpé lí
have sinned against heaven, and in presence thy; I not and fit that they should may call to-be
 omọ rẹ mọ, fí mí še bí okan nì inọ awon alagbasa rẹ. Ó sì díde ô tò
child thy more, make me do as one in among they hithering thy, He and arose he went-to
 babá rẹ lóh. Ní igbà tí ó sì tí wà lí òkere, babá rẹ rí ì, ànì še
father his going, In time which he and had was in distance, father his saw him, pity affected
 ẹ, ó sì sure, ô rẹ mọ ô lí oron, ó sì fí enu kò ô lí
him, he and ran, he hung upon to-cleave-to him on neck, he and made mouth touch him on
 enu. Omọ sì wí fú ñ kpé, Babá, emí ñti ñdése sí oron atí ní iwadzú
mouth, Son and said to him to-wit, Father, I have sinned against heaven and in presence
 rẹ; emí kò sì yẹ tí á bá ma kpé lí omọ rẹ mọ. Babá sì wí fú awon
thy; I not and fit that they should may call to-be child thy more, Father and said to them
 omọ-odo rẹ kpé, È mu ayo aso igunwa wáh,* kí ẹ fí ì wò ô; ẹ
servant his to wit, I take choice garment of stateliness coming, that ye make it clothe him; ye
 fí oruka bo ô lí owó, atí bata sí ẹ rẹ. È sì mú egboro malù
make ring slip-on him on hand, and shoe to foot his, I and take young-one of cow
 abokpa wáh, kí ẹ sì kpa á, kí á ma dze, kí á sì ma še áriya;
fatted-to-kill coming, that ye and kill it, that we may eat, that we and may make merriment;
 nitori tí omọ mí yí tí kú, ó sì ton yẹ. Nwon sì beresi ise áriya.
because that child my this had died, he and again lives, They and began to-make merriment.
 Omọkọnrí rẹ eyi egbon tí mbẹ lí oko, bí ó sì ñti† mbẹ, tí ô
Son his this elder-brother who was in farm, as he and was-coming, and he
 sojumo eti ilé, ô gbó òrin on idzo. Ó sì kpé okan nì inọ awon
draw-near-to edge of house, he heard singing and dancing. And he called one in among them
 omọ-odo won; ó bère kpé, Kíli á mọ‡ nkán wonyi sí? Ó sì wí fú ñ
servant their; he inquired to-wit, What they know thing these to? He and said to him
 kpé, Aburo rẹ de; babá rẹ sì kpa egboro malù abokpa,
to-wit, Younger-brother thy is-come; father thy and has-killed young-one of cow fatted-to-kill,
 nitori tí ó rí ì kpàda lí alafia atí ní ilera. Ó sì binó, ô kọ lí
because that he sees him return in peace and in health, He and was-angry, he refused as-to
 atiwo ilé. Nitori ná ní babá rẹ sì še§ dzade, ó sì wà isikpe fú
entering house, On-account of that it-is father his and did go-out, he and was beseeching to
 ñ. Ó sì dàlun, ó wí fú babá rẹ kpé, Kíye sì ì lati odun mélo yí
him, He and answered, he said to father his to-wit, Take-notice to it from year how-many this
 lí emí ñti ñsiy o, bẹhẹ lí emí kò sì rufin rẹ ní igba káw rí; iwo kò
it-is I have served thee, so it-is I not and break-law thy in time one heretofore; thou not

* Mu ... wáh, *to bring*.

† Bì ... tí, *as; 'ti' having the auxiliary particle 'n'.* (Gram. § 128, 2.)

‡ The phrase á mọ ... sì, *we know ... to*, is equivalent to the verb *to mean*.

§ See, *to do*, is generally employed pleonastically after *nitori ná*, *therefore*.

sì ti ìfà ọmọ ewurẹ kún fú mí kî ó fí bá awọn ọrẹ mí ẹ́e áriya.
and hast given child of goat one to me that it make with them friend my to-make merriment.

Ẹ́gbọ́n bí ọmọ rẹ̀ yí sì tí de, ẹnì tí ó fí kpanśaga ruń ọ̀rẹ̀ rẹ̀ iwọ
But as child thy this and has come, one who he made adultery destroy wealth thy, thou

sì tí kpa egbọ́ọ malù abókpa fú ù. Ó sì wí fú ù kpé, Ọmọ
and hast killed young-one of cow fattened-to-kill for him. He and said to him to-wit, Child

títí nì iwọ mbẹ̀ lẹ́dọ̀ mí; ohun gbogbo tí mo ní tí rẹ̀ nì ẹ́e. Ó yẹ
continually it-is thou art with me; thing all which I have of thee it-is is. It is-fit

kí á ma ẹ́e áriya: mitori tí aburo rẹ̀ yí tí kú, ó sì tọ́n yẹ; ó sì
that we may do merriment: because that younger-brother thy this had died, he and again lives; he and

tí nẹ̀, á sì rí í.
had been-lost, we and see him.

THE LORD'S PRAYER.

Babá wa tí mbẹ̀ lí òke ọ̀run, òwọ̀ lí orukọ̀ rẹ̀, ídẓọ̀ba rẹ̀ de; ifẹ̀ tí rẹ̀
Father our who art in above heaven; honor be name thy, reign thy come, will of thee

ní kí á ẹ́e lí aiyẹ, bí tí òke ọ̀run; fú wa lí onḍẹ́ ọ̀dḍọ̀ wa lí oni; dari
be that we do in earth, as above heaven; give us have food of day our in to-day; forgive

igbese wa dẓi wa, bí awa tí ndaridẓi awọn onigbese wa; máh sì fà wa
debt our from us, as we are-forgiving them debtor our; not and lead us

sí inọ̀ idẹwo, ẹ́gbọ́n gbà wa nì inọ̀ tulasín. Amin.
to within temptation, but deliver us in within distress. Amen.

DICTIONARY
OF THE
YORUBA LANGUAGE.

INTRODUCTION.

It is proper to inform the reader that the following Dictionary contains scarcely one half of the Yoruba Language. There are doubtless some primitive words which the compiler has not learned; and several thousand derivative vocables have been omitted for the sake of brevity. This severe abridgement, however, is no real defect, since the exact meaning of the omitted words may be ascertained by the rules of derivation quite as easily as we can determine the meaning of inflected nouns and verbs in Latin from the nominative and infinitive. For the convenience of the reader, supposing him to be already acquainted with the rules of derivation as laid down in the Grammar, we here present a review of the various classes of words which have been omitted.

I. Many VERBS of the following kinds:

1. Verbs composed of a verb and noun; as, *beru*, to be afraid; from *ba*, to meet, and *eru*, fear. The omitted verbs of this class are formed chiefly as follows:

a. Of *dá*, to make, and a noun; as, *dýšé*, to sin, from *ýšé*, sin.

b. Of *džé*, to be, to act, to make, and a noun; as, *džolu* (*olu*, a prince, officer), to be a prince, to rule as a prince.

c. Of *li*, to have, and a noun; as, *lěšé* (*ýšé*, sin), to have sin, to be sinful, to sin; *laini* (*aini*, need), to be needy, destitute.

d. Of *mý*, to know, and a noun; as, *měte* (etc, consideration), to be considerate, provident.

e. Of *šé*, to do, to make, to be, and a noun; as, *šáimý* (*áimý*, ignorance), to be ignorant, untutored; *šáro* (*áro*, meditation), to meditate. Verbs of this class are very numerous.

2. A considerable number of verbs which appear to be formed by placing two verbs in juxtaposition; as, *biłú* (*bi*, to push, and *lú*, to strike), to beat upon, as waves; *sáre* (*sá*, to run, and *ré*, to go), to run; but in fact, the second member of these verbs is a contracted noun, for *ilú*, a striking, *iré*, a going. Bearing this in mind, the omitted verbs of this class are easily defined by referring to the roots.

3. A considerable number of verbs composed of three or four words; as, *fesetě*, to trample on. A little practice will enable the reader to analyse these verbs, or, as the natives express it, "to take them to pieces," and thus discover their meaning. Usually an elision occurs in the first syllable; as in *fesetě*, which is composed of *fi*, to make, etc, the foot, *tě*, to press. But sometimes the first vowel of the noun is elided; as, *těriba*, to bow, from *tě*, to bend, *ori*, the head, *ba*, to meet.

4. Many compound transitive verbs; as, *fi . . . hàn*, to show; *dá . . . lebi* (*li ebi*), to condemn.

All the foregoing verbs are in fact phrases, and it is probable that none of them would be treated as vocables in a dictionary compiled by a native.

II. The number of NOUNS omitted from the Dictionary is very large:

1. Several classes of nouns formed from verbs primitive and derivative.

a. Nouns formed by the prefixes 'a' and 'i.'

b. By the prefix 'a.'

c. By the prefix 'ati.'

d. By reduplicating the first syllable of the verb. For the meaning of nouns formed by these prefixes see "Derivation of Nouns" in the Grammar, or refer to each prefix in the Dictionary.

2. Nouns formed from nearly all nouns by the prefixes, *al*, *ail*, *el*, *el*, *ol*, *ol*, *ala*, *olu*, *oni*. (See Derivation of Nouns and Dictionary.)

3. Nouns formed from most verbs by prefixing 'a,' as above, with the addition of a suffix, chiefly *džú*, to surpass; *kpě*, together; *tán*, completed; as, *asédžú*, excess, lit. an action surpassing or exceeding the bounds of propriety; *asěkpě*, acting together, co-operation; *asětán*, a completed action, completion. Sometimes other suffixes are employed; as, *lā*, to be safe, e. g. *asālā*, a running to be safe, escape, from *sā*, to run,

and *lâ*, *to be safe*. Such nouns are easily analyzed, by ascertaining the meaning first of the verbal root or middle syllable, and then of the prefix and of the suffix.

III. ADVERBS, or adverbial phrases, composed of a noun and the preposition *ní* or *lí*, *in*, are often omitted ; as, *lola* (*lí ola*), *to-morrow* ; *lòkere* (*lí òkere*), *in the distance, far off*. The meaning of such words is obvious so soon as we ascertain that of the noun to which 'l' or 'n' is prefixed.

The student is requested to observe that the accent of Yoruba words in the Dictionary is marked only in those cases where it cannot readily be determined from the rules laid down in the Grammar, §§ 25-27.

PART I.

YORUBA-ENGLISH.

A

ABA

a, a prefix, the primary use of which is to form concrete nouns from verbs. But the meaning of nouns thus formed is various; and accordingly they may be classified as denoting:

1. The actor or agent; as, asoro, *a speaker*, from soro, *to speak*; adža, *a dog*, lit. *a fighter*, from dža, *to fight*.

2. The patient or recipient of an action; as, aba, *that which is met*, from ba, *to meet*: e.g. óhun abá, *a thing which is met*.

3. The action itself; as, abò, *a coming*, from bò, *to come*: e.g. ayun abò mi di eméfa lomi, *my goings and comings amount to six times to-day*.

4. The abstract quality implied in an intransitive verb; as, abade, *suitableness*, from bade, *to fit*; ayé, *the state of being alive*, from yé, *to live*.

á *pron.* *he, she, it*; and, by contraction of awa and awon, *we, they*. It is much used in forming a substitute for the passive verb; as, á lù mi, *they struck me*, i.e. *I was struck*.

â, an auxiliary particle equivalent to *shall or will*; as, eyin â lóh, *ye will go*.

â! *aa!* *interj.* *oh! ah! alas!*

ab, *n.* a contraction of abí, *that which is or has any thing*; as, abeti (abí eti), *that which has ears, which is eared*: e.g. fila abeti, *a cap with ear-flaps*.

ab, **a-ba**, a prefix formed of 'a' and ba, *to meet*, and occasionally of 'a' and bá, *with*, implying:

1. *Meeting with, or encountering*; as, abadžo (aba edžo), *meeting with a difficulty or trouble*.

2. *With or together*; as, abase (se, *to do*), *co-operation, assistance*; abásùn, *a sleeping together*.

a-ba. See root ba.

a-ba, *n.* *a thinking of, expecting, expectation, hope*: aba kí lí o ndá? (*hope what is-it thou art-making?*) *what do you hope for?*

a-ba, *n.* *an iron staple; stocks*, consisting of a large staple driven into a log and enclosing the ankle.

a-ba, *n.* *a species of wild fig-tree*.

a-bà. See root bà.

a-bà, (hà), *n.* *a mat of coarse grass*: eni abà, *a mat of the grass abà*.

à-ba, *n.* *a stack of corn, crib, barn, store*.

a-bá-bu-dža, *n.* *which surprises or thwarts, &c.* See abudža.

à'-ba-da, fà'-ba-da, *adv.* *for ever*, used only after a negative; as, emi ò sé è mọ́ fábada, *I will never do it again*.

a-ba-de (bade), *n.* *that which fits or is fitted; suitableness, adaptedness, congruity*.

a-bá-dó (dó), *n.* *a camping together, a fellow encampment*.

a-bà-do (òdò), *n.* *a confluence of streams*.

a-ba-džà (džà), *n.* *a fighting together*.

a-ba-džẹ (džẹ), *n.* *an eating together*.

a-ba-džẹ (badžẹ), *n.* *which spoils or is spoiled; a kind of game*.

a-ba-džọ (edžo), *n.* *a meeting with trouble or difficulty*. As an interjection, *wonderful! shocking!*

a-ba-džù (há), *n.* *a meeting, &c.*; *greatly, extremely*: ó bá mi lí abadžù, *it fell upon me with a great or grievous falling*.

a-bà-džu (bà), *n.* *an excessive plaiting, &c.*

a-ba-fe, *n.* *a medicinal tree*.

a-ba'-fin-džẹ (ba ofin džẹ), *n.* *a law-breaker; law-breaking*.

a-ba-fọ (fọ), *n.* *a speaking together*.

a-bá-gó-ke (goke), *n.* *a going up or ascending together*.

a-ba'-kpa-de (kpade), *n.* *a chance event, accident, coincidence*.

a-ba-lê, *n.* See **ba-lê**.
a-ba-mô (imô), *n.* *painful reflection on what has happened, chagrin.*
a-ba-mô-lê (mô-lê), *n.* *ambush, conspiracy, highway robbery.*
a-bá-ni-bê-bê (enì), *n.* *a fellow-pleader, an advocate, intercessor.*
a-bá-ni-dzê (ba enì), *n.* *a guest.*
a-ba-ni-dzê (ba...dzê), *n.* *an injurer, slanderer, corrupter.*
a-bá-ni-dzô, *n.* *a fellow-slancer, partner.*
a-bá-ni-gbe-le (ilê), *n.* *an innmate.*
a-bá-ni-kà, *n.* *an assistant in counting money or the like.*
a-bá-ni-ko, *n.* *an assistant in collecting or gathering.*
a-bá-ni-rà, *n.* *a partner in buying; also, a customer who buys from one.*
a-bá-ni-rin, *n.* *a fellow-traveller.*
a-bá-ni-rô-lê (rô ilê), *n.* *an assistant in tilling the ground.*
a-bá-ni-ru, *n.* *an assistant in carrying anything.*
a-bá-ni-sùn, *n.* *a bed-fellow.*
a-bá-ni-še, *n.* *a helper, co-worker.*
a-bá-ni-si-kpê. See **abánibêbe**.
a-ba-ni-sô-wo, *n.* *a fellow-trader, partner.*
a-ba-ra (aba ara), *n.* *a slap: ó gba mí lí abara. (he slapped me in regard to a slap), he gave me a slap.*
a-ba-ra (abi ara), *n.* *having a body or skin: agiliti abara yiyí, the rough-skinned lizard.*
a-ba-sùn, *n.* *a sleeping with, cohabitation.*
a-ba-še, *n.* *aid, co-operation.*
a-ba-ta (ita), *n.* *a public square.*
à-ba-ta, *n.* *a little marsh, a pool.*
á-ba-tí (ba tí), *n.* *failure, shakiness of a wall. (1's. 62, 3.)*
a-bá-wí (lá), *n.* *reproof, the act of scolding.*
a-bá-wôj, *n.* *a sprinkling, a stain.*
a-be-ká-na (abi ekana), *n.* *that which has claws: éraj abekana, carnivorous animals.*
a-bê-re. See **bê-re**.
a-be-še, *n.* *a contemptible person: iwô abeše yí! you good for nothing! addressed to inferiors.*
a-bé-tí (abi etí), *n.* *that which has ears: fila abetí, a cap with flaps to cover the ears.*
a-be-we (abi ewé), *n.* *that which has leaves.*
a-bê, **a-bê**, &c. See **bê** and **bê**.
a-bê, *n.* *the undernath: ó wà lí abê okuta, he was in undernath the rock.*
a-bê (bê, to cut), *n.* *a razor, lancet, penknife.*
a-bê-bê, *n.* *a fan.*
a-bê-bê, *n.* *a pleader, an advocate.*
a-bê-gi (igi), *n.* *a heaver or cutter of wood.*

a-bê-hin (abi chin), *n.* *which has something on or pertaining to the back: abáanó abehin dzidza, a mother with a kicker (i. e. a struggling child) on her back.*
a-bê-i-ya-nu, *n.* *importunity.*
a-bê-ka (abi), *n.* *which has boughs or branches.*
a-bê-lê, *n.* *privacy, secrecy.*
a-bê-lê, *n.* *flatness, thinness of a flat substance.*
a-bê-na-gbô-ro (abi), *n.* *which has a wide mouth: iboj abengboro, a wide-mouthed gun.*
a-bê-nu-gbâ-gba (abi), *n.* *a kind of loose trousers.*
A-bê-o-ku-ta, *n.* *which is under the rock, the name of the capital of Egba.*
a-bê-rê, *n.* See **bê-rê**.
a-bê-rê, *n.* *a needle, a pin.*
a-bê-ri, *n.* See **bê-ri**.
a-bê-rô (wô), *n.* *a trowel, a shovel to trim mud walls with.*
a-bê-ru, *n.* See **bê-ru**.
a-bê-tê-lê, *n.* *a begging beforehand; a bribe, bribery, briber.*
a-bê-tu (abi etu), *n.* *a brook.*
a-bê-wô (bêwô), *n.* *visitation, visitor.*
a-bê-ya (iya), *n.* *the armpit.*
a-bi, **a-bi**, *n.* See **bi** and **bi**.
abi, *a prefix, implying being in a state of, having.*
a-bí, *n.* *an existence, a being: araíyê abí olúzu kpète, man, a being of limited eye, i. e. circumstances.*
a-bí (bí, í), *adv.* *perhaps; eh? iwô mó abi? you know, eh?*
a-bí-a-mô, *n.* *a nickname for a mother.*
a-bí-gá, *n.* *a mixed breed of large and small horses.*
a-bi-kê-hin (kelin), *n.* *the latter or last born.*
a-bi-ku, *n.* *an evil spirit, supposed to kill children.*
á-bí-là, *n.* See **bi-là**.
a-bí-lé (ilé), *n.* *one's homeborn.*
a-bi-lê-kô (ba, ilê, oko), *n.* *a woman living in her husband's house.*
a-bí-lê (ilê), *n.* *a native.*
a-bí-mô (omô), *n.* *a parent of children.*
a-bí-nô, *n.* *one who is angry, &c. See bí-nô.*
a-bi-nô-dzê, *n.* See **bí-nô-dzê**.
a-bí-nô-kú, *n.* *an enemy. (1's. 37, 8.)*
a-bi-rôj (abi irôj), *n.* *which is hairy.*
a-bi-rôj (ba irôj), *n.* *a sick person, an invalid.*
a-bi-si (bisi), *n.* *increase, propagation by birth.*
a-bí-yê (abi iyê), *n.* *which has feathers. (Gen. 1, 21.)*
a-bi-ya (iya), *n.* *the armpit.*
a-bô, **a-bô**, *n.* See **bô** and **bô**.
a-bô, *n.* *a female, applied to children and to animals: abô éşin, a mare; abô malú, a cow; also, the half cock of a gun.*
á-bo, *n.* *a bag, a bundle.*

â-bo, *n.* a shelter, covert, refuge.
a-bo-de (ba), *n.* the outer yard, the space without.
a-bô-dzû (bô olû), *n.* a covering for the face, a veil.
a-bo'-dzu-wô, *n.* official visitation, superintendence; a superintendent.
a-bo-lé (ilé), *n.* a burglar, burglary.
a-bô-mi-wôj, *n.* a sprinkling, a sprinkler.
a-bô-ra (ara), *n.* a garment, a mantle. See bôra.
a-bô-ri, *n.* See bôri.
a-bo-ru (abi), *n.* which is hot.
a-bo-yûn (abi), *n.* which is pregnant.
a-bô, a-bô. See bô and bô.
â-bô, *n.* cessation; a half: âbô šikedži, two and a half; âbô šiketa, three and a half.
a-bô-dân, (bu), *n.* a meeting of the new year, a living to see it come, the anniversary of the new year.
a-bô-gi-bô-kpè (igi okpè), *n.* an idolator.
a-bô-kpa, *n.* which is fatted to kill. (Luke 15, 23.)
a-bô-ri-ša (ôriša), *n.* an idolator.
a-bô-sè-dzè (bu...dzè ošè), *n.* a sabbath-breaker.
a-bô-sè (iše), *n.* a job, job-work.
a-bô-wô-gân (bu ôwô), *n.* a musketo.
a-bu, a-bû. See bu and bû.
a'-bu-dza, *n.* a cutting across, short cut, anticipation of one's words, a confounding: abudža žna, a cross road or street.
a'-bu-ka, *n.* the act of surrounding.
a-bu-ke, *n.* a hunchback.
a-bu-kon, *n.* an adding, a blessing. See bukôn.
a'-bu-kûn, *n.* remainder, deficiency; contempt (Ps. 35, 26): še li abukûn, to despise. See bukûn.
a'-bu-la, *n.* adulteration.
a-bu-lé, *n.* a patch, something added to the true statement.
a-bu-mô, *n.* an addition, exaggeration.
a-bu-ra, *n.* who swears. See bura.
a-bu-ran, *n.* which is carded, prepared to be spun.
a-bu-ro (abi iro), *n.* which stands erect.
a-bû-ro, *n.* a younger brother, or any younger relative male or female.
a-bu-ru, *n.* See bura.
a-bû-ru-bu-tân, *n.* a whale.
a-bu-si, *n.* a grove; one who blesses. See basi.
a-bu-sô, *n.* an incantation, a jutschood.
a-da, *n.* a bill-hook, a pruning knife.
a-dá, a-dà. See dá and dà.
a-dá. A prefix implying making, constituting, appointing.
a'-da-ba, a'-ta-ba, *n.* a dove: adaba šušu, the white pigeon.
a-da-bi, *n.* which resembles, likeness.
a-dá'-bo-bô-ni (dâ âbo eni), *n.* a defender, an ally.

a-da-bô, *n.* a half: adabô olža, a market held on the day after market-day.
a-da-bô-wô, *n.* self-assumed responsibility.
a-da-dži, *n.* the time just before day.
a-da-džô, *n.* a judge, an appointed day.
a-da-guŋ, *n.* a lake, a pond.
a-da'-gun-lè a-kpo, *n.* a large quiver set on the battle-ground, from which arrows are given to the men.
a-dá-kà-dé-ke (ikà eke), *n.* a tattler, a mischievous person.
a-da-kô (ekô), *n.* a maker of ekô.
a-da-kpè, *n.* contraction of words.
a-da-kpô, *n.* union, confederacy.
a-da-lá-re, *n.* justification, a justifier.
a-dá-lu, *n.* mixture.
a-da'-mah'-lè-se, *n.* one who makes a failure.
a-da-mô, *n.* a mistaken opinion, heresy.
a-da'-mô-ran, *n.* advice, a proposal; an adviser.
a-dâ-mu, *n.* confusion of mind.
a-da-na, *n.* See dana.
a-da'-ni-dá, *n.* which is natural or according to nature.
a-da-ni-du-ro, *n.* a detainer.
a-da'-ni-dži, *n.* that which awakes or arouses one.
a-da'-ni-kpa, *n.* one who is cruel.
a-da'-ni-lá-ga, *n.* one who is wearisome, importunate.
a-da-ni-la-ra, *n.* a mortifier, disappointer.
a-da-ni-la'-ra-ya, *n.* one who enlivens or cheers others.
a-da-ni-lè-kun, *n.* a prohibitor.
a-da-ni-lo-dzu, *n.* one who disappoints.
a-da-ni-lo-ro, *n.* a tormentor.
a-da-ni-ni-dži, *n.* one who alarms people, an alarmist.
a-dá-nô, *n.* which is thrown away or lost.
a-dân, *n.* which polishes, is polished, etc. See dan.
a-dân, *n.* a bat.
a-dâ-re, *n.* a justifier, justification.
a-da-ri-dži-ni, *n.* one who forgives.
a-da'-ri-kpôn, *n.* the red-headed lizard.
a-dá-ro, *n.* anxiety, one who is anxious.
a-da-ru-da-kpô, *n.* indiscriminate mixture, confusion.
a-da-sân, *n.* a hereditary debt.
a-da-sí, *n.* which is spared, reserved, a gleaming, an intermeddler, intermeddling.
a-da-sô, *n.* a fiction, a fictitious report, a lie.
a-da-win, *n.* instalments of a debt.
a-da-wo, *n.* a contribution of money.
a-dá-wô-lè, *n.* who assumes responsibility.
a-de, *n.* a covering, a crown: de li ade, to crown; fi ade de, to set a crown on.

a-de, *n.* a charm to bring home the ghost of one killed in war.

a-de-bi kpa ni (lá ebi), *n.* that which starves one.

A-de-gbô, *n.* The name of a man, meaning who comes to hear.

a-de-hùṣ, *n.* bargain, covenant; contractor.

a-de-ke, *n.* a liar.

a-de-le-bô (ile), *n.* a newly married woman, a bride.

a-de-mô, **a-de-mu**, *n.* a water-pot.

a-de-na (ona), *n.* who lies in ambush; an impudent.

a-de-bi, *n.* condemnation.

a-de-te (lá eṭe), *n.* a bper.

a-de-ti si-le, *n.* a listener to private conversation.

a-di, *n.* a binding, tangling, etc. See di.

a-di, *n.* oil of the palm-nut kernel.

a-di, *conj.* notwithstanding, after all.

a-di-dôṣ, *n.* flour of parched corn, anything savory.

a-di-džā (di idžā), *n.* coming to blows or to a fight.

a-di-dži, *n.* a scarecrow, a fright.

a-di-džu, *n.* a blinder or deceiver.

a'-di-e. See ádiré.

a-di-gba-ro, *n.* a colander.

a-di-lu, *n.* child's game of casting lots.

a-di-mi-mô (dā minô), *n.* a sanctifier, sanctification.

a-di-mô, *n.* he who shuts one in, state of being shut in.

a-di-mô, *n.* a secret covenant, a plot.

a-di-mu, *n.* who holds fast, a holding fast; used also as a proper name.

a-diṅ-gbê, *n.* which is dried over the fire, jerked meat.

a'-di-re, *n.* a domestic fowl.

a-di-ro, *n.* a colander.

a-di-si (lá isi), *n.* an inventor. (Rom. 1, 30.)

a-di-taṅ-mô (lá itaṅ), *n.* a tracing of kinship.

a-di-ti (eti), *n.* a deaf person.

a-do, *n.* a small gourd used for a vial.

a-dô, *n.* an adulterer; lewdness.

a-do-do-dže, *num.* one hundred and thirty (vow-ries) each: *elo o tí à? how dost thou sell it?*

adodolže, one hundred and thirty each.

a-do-dže, *num.* one hundred and thirty.

a-do-gun (lá ogun), *n.* which causes war.

a-dô-džô, *num.* one hundred and sixty.

a-dô-džô-džô, *num.* one hundred and sixty each. See *adodolže*.

a-dô-dô-fa, *num.* one hundred and ten each.

a-dô-fa, *num.* one hundred and ten.

a-dôṣ, *n.* flavor, taste, sweetness.

a-dô-rin, *num.* seventy.

a-dô'-rô-rin, *num.* seventy each.

a-dô' rô-rin, *num.* ninety each.

a-dô-rin, *num.* ninety.

a-dô-saṅ, *num.* one hundred and seventy.

a-dô'-sô-saṅ, *num.* one hundred and seventy each.

a-dô-ta, *num.* fifty.

a-dô'-tô-ta, *num.* fifty each.

a-du, *n.* a few; *adu enia*, a few people.

a-dú, *n.* a very black person.

a'-du-gbô, *n.* an old acquaintance, a neighbor.

a-du'-gbo-lù, *n.* a stumbling block.

a-du-kpê, *n.* thanks, thankfulness: *adukpê lody Olorun*, thanks to God.

a-du-ra, *n.* prayer to God only.

a-dža, *n.* a dog; a fairy skilled in medicine.

à-dža, *n.* an attic, a loft, a ceiling overhead.

a-džā. See *adžā*, of which it is a contraction.

a-dža-ba, *n.* trouble, unhappiness.

a-džā-bô, *n.* escape through hard struggling.

a-dža-di, *n.* which is broken in the bottom; *adžadi agbôṣ*, a broken bottom basket.

a-dža-džê, *n.* a low, mean fellow.

a-dža-e, *n.* a cord with which a prisoner's hand is bound to his neck.

à-dža-ga, *n.* a neck-shackle, a yoke.

a-dža-ga-dži-gi, *n.* a violent jerking at something solid.

a-dža-gbôṣ, *n.* the tamarind-tree.

a-dža-gun, *n.* a soldier, a title of respect much like "esquire."

a-dža-i-lê, *n.* a ceiling over the mouth of a grave or pit.

a-dža-ka, **a-dža-ka-lê**, *n.* an epidemic, pestilence.

a-dža'-ka-su (džê akaṣu), *n.* one who eats the large loaf, i. e. who has plenty.

a-dža-ko (oko), *n.* a kind of wild dog.

a-dža-kpa, *n.* a petty trader, a nickname given to the tortoise.

a-džā-lā. See *adžābô*.

a-dža'-na-kpa, *n.* a bird-snare made of cloth.

a-dža'-na-ku, *n.* the elephant.

a-džan, *n.* meat cut small to retail.

a-dža-o, *n.* a kind of large bat.

á-dža-ô-su, *n.* the moon's dog, i. e. the evening star. See *aguala*.

a-dža-ra, *n.* a climbing plant the leaves of which impart a black stain.

a-džê, *n.* the god of money, fortune.

a-džê-dže, *n.* a stranger or alien: *adžêdže ihu*, a strange or foreign town; *še adžêdže si*, to be estranged from. (I's. 78, 30.)

a-džê-re, *n.* an earthen pot pierced full of holes to dry meat in.

a-džê, *n.* a paddle, an oar.

a-džê, *n.* a witch.

a-džê-kôṣ, *n.* a remnant after eating.

a-džê-kpô, *n.* the eud, an eating together.

a-dze-le, *n.* an official agent, consul.
a-dze-ni-a (ñia), *n.* a cannibal.
a-dze-ti, *n.* eating and leaving a part uneaten, (Luke 15, 17.)
a-dze-yô, *n.* eating to the full, (Luke 15, 17.)
a-dži-bô-wa-bá, *n.* which pre-exists.
a-dži-džin, *n.* a shadow, (1's, 23, 4.)
a-dži'-gbe-se, *n.* a debtor.
a'-dži-mô (Arab.), *n.* the Mohammedan Sabbath.
a-dži-na, *n.* expenditure, expenses.
a-dží-nde, *n.* a rising up, the resurrection.
a-džin, *n.* profound silence, the depth of night.
a-džin-sin-sin, *n.* deep concealment, that which is concealed.
a-dži-re ! *good morning !* (lit. did you wake well ?)
à-džo, *n.* a journey.
ã-džo, *n.* anxiety : *ê* ãdžo, to be anxious.
a-džô-gun (džê ogun), *n.* an heir.
a-džô-kpa-run, *n.* which burns fiercely, devouring fire.
a-džô-ô-kù (ô, not), *n.* which is unquenchable.
a-džô-rân, *n.* a catching fire from something else on fire.
a-džô-wu, *n.* one who is jealous ; jealousy.
a-džô, *n.* an assembly, crowd : adžô odún, a feast, festival.
a-džô-džê-kpô, **a-džô-mô-kpô**, *n.* an assembly for a feast, (1 Pet. 4, 3.)
a-džô-kpin, *n.* a partaker, sharer : *ê* adžôkpin, to partake, share.
a-džô-rin, *n.* a travelling together : egbê adžôrin, a travelling companion.
a-džô-rô, *n.* a consultation, council.
a-džô-sq, *n.* a talking together.
a-džô-yô, *n.* a rejoicing together.
a-džô-ba, *n.* a newly cleared field.
a-džu-de (odê), *n.* an armlet of iron worn by hunters.
a-džu-mô, *n.* an acting or being together, companionship.
a-fa. See *fa*.
a-fa. See *fa*.
a-fai-mô (fi aimô), *adv.* perhaps, possibly, doubtfully : bi yi ô de lola afaimô, if he will come tomorrow is uncertain.
a-fá-ra, *n.* a bridge ; two sticks rubbed together to produce fire : afára oyin, honey-comb.
à-fa-ra, *n.* slowness, dilatoriness.
a-fe, *n.* a kind of rat.
a-fe-bi-kpa, *n.* See alebikpa.
a-fe, *n.* pleasure, affection, love : mo fê li afê tan, I love with perfect love.
a-fe-džu, *n.* a frowner, a frowning.
a-fe-fe, *n.* wind, air, spirit.
a-fe-hin-ti (fi ehin), *n.* a prop, support.

a-fe-mô-džu-mô, *n.* the dawn, daybreak.
a-fe-nô, *n.* which is winnowed away.
a-fe-nu-si (fi enu), *n.* a meddler.
a-fe-re, *n.* lightness ; cork-wood.
a-fê-ri, *n.* search, a seeker : *ê* afêri, to seek.
a-fê-sô-na (sî ñna), *n.* who is betrothed.
a-fê-tán, *n.* perfect love.
a-fi, **a-fi-bi**, *conj.* unless, except.
a-fi-bi-kpô-re (fi kpô), *n.* an ungrateful person.
a-fi-dži, *n.* forgiveness, repeal of law.
a-fi-hân, *n.* a showing, guidance, exhibition.
a-fi-lê (fi ilê), *n.* abandonment, renunciation.
a-fi-na (fiñ ñna) *n.* an engraver, engraving.
a-fi'-nô-ša'-dže-re (fi ñô *ê* adžere), *n.* one with a treacherous memory, an unreliable person, unteachable.
a-fi-no-ê-hin (ehin), **a-fi-no-šo-de** (ode). See the preceding word.
a-fin, *n.* a palace ; an engraver, engraving ; an albino.
a-fin-džu (odžu), *n.* neatness, tidiness ; a tidy person.
a-fin-gba (igba), *n.* an engraver of calabashes.
a-fi-re-ê (ire), *n.* wilfulness in doing an evil action.
a-fi-sq, *n.* one who is accused.
a-fi-yan-džu-ê, *n.* acting by constraint ; reluctance.
a-fi-ye-si (iye), *n.* attention, notableness. (Acts 2, 20.)
a-fo, *n.* a space, room ; openness, an opening.
a-fo-džu-di (fi), *n.* insolence.
a-fô-džu-sô-na, *n.* a looking for, expectation.
a-fo'-fo-ro, *n.* cork-wood.
a-fo-mô, *n.* a parasite, mistletoe.
a-fo'-ni-fô-dži, *n.* a valley.
a-fo-re-ê-bi (fi ore *ê* ibi), *n.* an ungrateful person.
a-fo-ta, *n.* purblindness : ô *ê* afota, he is purblind.
a-fô, *n.* hogs' wire.
a-fô-ba-džê, *n.* overthrow, destruction.
a-fô-džú (fi), *n.* a blind person.
a-fô-gun, *n.* a bottle.
a-fô-ko-ko (ikoko), *n.* a pot-washer. (1's. 68, 8.)
a-fô-na-hân (fi ñna), *n.* a guide.
a-fon-fe-re, *n.* a flute-player, piper.
a-fô-ô-gbô (ô, not), *n.* unruliness, disobedience.
a-fô-ran-lô (fi ñran), *n.* one who investigates a case or dispute, a reconciler.
a-fô-ran-mô (fi ran), *n.* accusation, suspicion.
a-fô-ê, *n.* a fulfilled prediction ; a foretelling.
a-fô-wô-bô (fi owô), *n.* a secret.
a-fô-wô-ra, *n.* pilfering.
a-fô-wô-ta, *n.* a careless search.
a-fu-ra (fi ara) *n.* a suspicious person.
a-ga, *n.* which is high, a height ; a rampart, ladder, chair, stool, table.

a-gā. See *agara*, of which it is a contraction.

a-ga-ba-ge-be (gun āba gun ebe), *a double-dealer, a hypocrite.*

a'-ga-da, n. *a short sword*: *agada kô mû ori ala-gbede, the sword knows the head of the blacksmith (who made it).*

a'-ga-da'-go-do, n. *a lock, especially a padlock.*

a-ga-kpo-si, n. *a bier.*

a-ga-la-ma-ša, n. *a trick, deceit, naughtiness.*

a-ga-na, n. *a highway robber.*

a-ga-ndžu, n. *a palace.*

a-gā-ndžu. See *agindžu*.

a-gān, n. *which sews or is sewed, cuts or is cut, &c.*
See *gūp*.

a-gān, n. *which despises or is despised, a despising, contempt*; *a barren woman*: *yā agān, to be barren.*

a-gan-gau, n. *a flat stone on which glass beads are ground or polished.*

a-gān-gān, n. *a pinnacle, topmost point.*

a-ga-ra n. *wearyness*: *agara aye ma dā mi, I am weary of life.*

a-gā-ra, n. *the coney (hyrax).*

a-gba, n. *a cask.*

a-gbā, n. *help.*

ā-gba, n. *an elder, an adult, a man*: *āgba āgba, man by man.*

a-gba-bonj (ibonj), n. *a cannon.*

a-gbā-bō, n. *a foster-child.*

a-gba-da, n. *a loose garment*; in the translation of *Exodus, the liver.*

a-gbā-do, n. *nutize.*

a-gbā-du, n. *a viper.*

a-gba-dža, n. *a girdle.*

a-gba-džō, n. *an assembly of the whole people.*

a-gba-gba, n. *a plantain*: *agbagba ejycle, a spotted pigeon.*

a-gba-gun, n. *that which causes the assembling of soldiers*; *an army.*

a-gbai-ye, n. *the whole world*: *ođzū agbaiye, the face of the earth.*

a-gba-ko, n. *a coming in contact, a precise point of time*; *a moment*: *li agbako nā, at that moment.*

a-gba-ku, n. *a frame in which a load is placed to be carried on the head.*

a'-gba-la, n. *a walled garden.*

a-gba-la-dža, n. *a kind of shirt.*

a-gba-lá-gba, n. *an elderly or honorable man.*

a-gba-le, n. *a kind of insect.*

a-gba-lu, n. *the whole town, the population.*

a-gba-mi, n. *the open sea.*

a-gbā-ni, n. *a helper.*

a-gba-nrè-re, n. *the unicorn*: *agbayrère obowo kàn, the agbayrère is one-horned.*

a-gba-o-džō, n. *one who is old in days, an aged person.*

a-gba-ra, n. *strength, violence.*

a-gbā-ra, n. *a strong climbing plant used for ropes.*

a-gbā-ra, n. *a stockade.*

a-gba-ri, n. *the skull.*

a-gba'-ri-gba, n. *a kind of antelope.*

a-gba-sa, n. *a mass of rocks.*

a-gba-si, n. *accumulation.*

a-gba-sin, n. *a eve taken care of for a portion of her increase.*

a-gba-še, n. *help for hire*: *fu mi li agbāše, hire me.* (Matt. 20, 7.)

a-gba-tān, n. *entire help, helping throughout.*

a-gba-tō-džu, n. *one who keeps something for another, a trustee.*

a-gba-wō, n. *which is hired or rented, as a house.*

a-gbe, n. *a resident, inhabitant*; *forgetfulness*; *begging for alms.*

ā-gbe, n. *a large gourd-bottle.*

a-gbe-bō, n. *a hen.*

a-gbe-de (gbo), n. *one skilled in language, a linguist.*

a-gbe-de-me-dži, n. *the middle, midst.*

a-gbe-dži (gbā edži), n. *a rain hat.*

a-gbe-džō-lo, n. *a long-necked gourd.*

a-gbe-džū, n. *great assistance*; *ō gbe mi li agbe-džū, he aided me much.*

a-gbe-gbe, n. *neighborhood, surrounding region.*

a-gbe-lé-bu, n. *a cross.* (Luke 21, 21.)

a-gbe-nde, n. *a raising up, the resurrection.*

a-gbe-ni, n. *who exalts or aids one.*

a-gbe'-ra-ga, n. *who exalts himself, is proud.*

a-gbe-re, n. *fornication.*

a-gbe, n. *a whetter*; *a farmer*; *a kind of sword.*

a-gbe-de (agbe idē), n. *a smith's shop, smith work*, lit. *the whetting of brass.*

a-gbe-dže, n. *a kind of squash.*

a-gbe-ku-ta (okuta), n. *a stone-cutter, a lapidary.*
He makes beads and other ornaments of agate, jasper, and cornelian.

a-gbe-mā-ye, n. *a barren hen.*

a-gbin-yi-kā-gbā (ogbā), n. *a hedge.*

a-gbo, n. *a flock, a ring of dancers, a stack of corn*: *omō agbo, a babe*; *agbo ilē, the inner court of a house.*

a-gbo, n. *a ram.*

a-gbō, n. *which is old, an old person*: *še agbō, to be old*; *a cat-fish*; *a fermented medicinal wash.*

a-gbō-de-gbā, n. *a thief stationed out of doors to receive what burglars steal.*

a-gbō-džu-lē, n. *who perseveres, acts firmly.*

a-gbo-wō-de (gba owō odo), n. *a toll-gatherer, tax-collector.*

a-gbōj, n. *the coconut-tree, a coconut.*

ā-gbōj, n. *the chin*: *āgbōj isalē, the lower jaw.*

a-gbōj, n. *a basket, hamper.*

a gbõn, *n.* a wasp.
 a-gbõn-rii, *n.* a kind of antelope.
 a-gbõ-ti (gbà ɔ̀tì), *n.* a butler.
 a-gbõ-ya, *n.* hearing quickly: iwò gbõ agbõya (thou hearest hearing-quickly), you pretend to be deaf.
 a-ge-re, *n.* the stand on which Ifá is set.
 a-ge-mò, *n.* a chamberlain; the cock of a gun.
 a-gi-dí, *n.* stubborn; an obstinately wicked person.
 a-gi-dí, *n.* balls of cold éko wrapped in leaves.
 a-gi-lí-tí, *n.* a kind of lizard.
 a-gi-ndžu, *n.* a wilderness, a desert.
 a-gí-sa, *n.* a rag.
 a-go, a-go-go, *n.* a bell, a clock: ago melo? what o'clock is it? ago medži ni, it is two o'clock: ago medži ro, the clock struck two.
 a-go, *n.* a cup, small box as for pills.
 a-gò, *n.* a striped rat.
 ā-gò! get out of the way! āgo mi li òna, get out of my road! āgò ɛ́sin, get out of the way of the horse!
 a-gò-go, *n.* that which is tall; tallness.
 a-go-go-ri (gongo ori), *n.* a sharp point.
 a-go-ro, *n.* a rabbit.
 a-go-rò, *n.* a striped rat.
 a-gò, *n.* a shroud.
 a-gò, *n.* a tent, hut, shanty.
 a-gò, a-gò-ní, *n.* one who neglects family discipline.
 a-gõn, *n.* a grudge, hatred, strife. (Rom. 1, 29.)
 a-gõn-gõ, *n.* one armed with a club.
 à-gu-à-la, *n.* the planet Venus, called the moon's dog.
 A'-gu-da, *n.* a Spaniard, or other dark European.
 a'-gu-fõn (gun ɔ̀fõn), *n.* the crested crane.
 a-gu-na, *n.* an embroiderer.
 a-gu-ndžę (gun dže), *n.* a table-fork.
 a'-gu-tan (gun itan?), *n.* a sheep.
 a-ha, *n.* a drinking-gourd.
 a-ha-le, *n.* a boaster; boasting.
 a-ha-mò, *n.* entanglement, difficulty.
 a-ha-mò-ra, *n.* who is entangled in business, who is horsed in armor.
 a-ha-na, *n.* a reckless, wicked man.
 a-hay-hay, *n.* a lizard resembling the iguana.
 a-ha'-ri-ya, *n.* bird-shot.
 a-he-re (ere), *n.* a farm-house, a barn.
 a-hó' (hó), an exclamation of contempt: šo aífó ší, to despise.
 a'-ho-ro, *n.* desolation, ruins.
 a-ho-to, *n.* tight pantaloons.
 a-hõn, *n.* the tongue.
 a-hu-sa, *n.* an escalant nut.
 ai, a prefix, not, un-, in-.
 ai-ba, *n.* which is not met, &c., not meeting, &c.
 See ba.

ai-ba dže, *n.* which is not corrupted or spoiled, incorruptible.
 ai-bá-wí, *n.* blamelessness. (Mat. 12, 5.)
 ai-bę-ru, *n.* courage, boldness. (Acts 18, 26.)
 ai-bò, *n.* defencelessness.
 ai-dá, *n.* uncausingness, uncreatedness.
 ai-dá-a-ra, *n.* bad health.
 ai-dę-ra, *n.* unnegligence, strict application.
 ai-di'-ba-džę, *n.* uncorruptness, incorruption.
 ai-džę, *n.* which is unactable; a not permitting, unsuitable.
 ai-džę-bi, *n.* innocence, uncondemned.
 ai-dži-yan, *n.* which does not dispute, is indisputable.
 ai-fę, *n.* unwillingness, indifference.
 ai-fę-ni, *n.* uncharitableness.
 ai-fò-ya, *n.* boldness, courage.
 ai-fò, *n.* soundness, unbroken.
 ai-fò, *n.* uncleanness, unwashed.
 ai-gba-gbõ, *n.* unbelief.
 ai-gbe-de, *n.* state of ignorance of a language.
 ai-gbo, *n.* sluggishness, stubbornness.
 ai-gbó, *n.* unripeness, immaturity.
 ai-gbõ, *n.* disobedience.
 ai-gbõn, *n.* lack of wisdom, folly, &c. See gbõn.
 ai-gbõ-ran, *n.* See aigbõ.
 ai-ká, *n.* which is uncounted, left out, excepted: gbogbo wọ́n li aiká ẹ̀yí, all of them except this.
 ai-kõn, *n.* which is unfilled. See the next word.
 ai-kõn-si-nò (si mọ), *n.* being unsatisfied, a murmuring.
 ai-kpa, *n.* which is not killed, unquenchable.
 ai-kpè, *n.* who is not invited, uncalled.
 ai-kpé, *n.* unendurableness.
 ai-kpin, *n.* which is undivided, undistributed.
 ai-ku, *n.* immortality, unquenchableness; aiku, usually pronounced aku! or oku! is a very common salutation, whence the Yorubas are called in Sierra Leone "the Aku people."
 ai-la'-ba-wọ́n, *n.* which is sustained, unblemished.
 ai-la'-bu kun, *n.* which is faultless, uncondemnable.
 ai-la'-bu-la, *n.* which is unadulterated.
 ai-le-ra (lé ara), *n.* infirmity, weakness.
 ai-le-ri (li eri), *n.* purity, cleanness.
 ai-le-wu (li ewu), *n.* which is in safety.
 ai-le-bi (li bi), *n.* which is guiltless.
 ai-le-mi (li mi), *n.* which is spiritless, dead.
 ai-le-nu (li enu), *n.* which has no mouth or opening.
 ai-le-ri, (li eri), *n.* which has no testimony, is unproved.
 ai-le-se (ese), *n.* which has no feet.
 ai-lę-šę (šę), *n.* which is sinless, innocent.
 ai-lę-la (ọ̀la), *n.* which is unhonored.
 ai-lę-mọ (mọ), *n.* who is childless: ó wá li ai-lomọ, he was childless.

ai-máh, *a double negative employed pleonastically after another negative; as, emi ò lè iše aimáh lóh, I must go, lit. I not am able to do not go. Ailóh or máh lóh may be used instead of aimáh lóh.*

ai-mò-re (mò òre), *n. ingratitude, who is ungrateful.*

ai-mo-ye (moye), *n. ignorance, who is ignorant.*

ai-mò, *n. ignorance, which is unknown or unusual.*

ai-mó, *n. which is unclean, not clear or light; uncleanness, pollution.*

ai-ni, *n. who has not; need, destitution.*

ai-ni-di (idi), *n. which is causeless, unreasonable; nwon kóira rẹ li ainidi, they hated him without a cause, or unreasonably.*

ai-ni-kpai ya, *n. fearlessness.*

ai-ni-kpe-lé, *n. which has no addition; li ainikpelé, without addition.*

ai-ni-kpe-te, *n. which is undesigned, unintended; li ainikpete, without intention, undesignedly.*

ai-ni-kpe-kun, *n. which is endless, everlasting.*

ai-ni-kpi-le-še, *n. which is unfounded or has no foundation.*

ai-ni-ni-ye, *n. which is numberless.*

ai-ni-ye-nó, *n. who has no understanding.*

ai-ni-yin, *n. which is unpraised, unhonored.*

ai-ni-yo-nó, *n. which has no mercy or compassion; ó lé won li ainíyónó, he drove them unmercifully.*

ai-rà-kpa-da, *n. who is unrepented.*

ai-re-kọ-dza, *n. soberness, temperance.*

ai-rẹ-lẹ, *n. which is undoubted, lack of humility.*

ai-ri-ran, *n. dinness of sight.*

ai-ri-wí, *n. who is incensurable, finds nothing to plead; incensurableness.*

ai-rò, *n. thoughtlessness, inconsiderateness.*

ai-ro-dzú (ri olú), *n. a being busy, unremitting occupation.*

ai-ro-wọ (ri owọ), *n. Same as the preceding.*

ai-sán, *n. sickness; še aisan, to be sick.*

ai-sí, *n. absence.*

ai-si-mi, *n. unrest, perseverance.*

ai-sin, *n. independence.*

ai-sá, *n. which is uncut, unraped.*

ai-sá-nú (še anú), *n. unmercifulness. (Jas. 2, 13.)*

ai-še, *n. inaction; which is not done.*

ai-še-de-dé, *n. transgression.*

ai-še-gbe, *n. equity, impartiality.*

ai-še-mẹ-lẹ, *n. diligence; industry.*

ai-še, *n. which is unfulfilled.*

ai-šẹ, *n. which is innocent, faultless. (1's. 59, 4.)*

ai-še-tan (etan), *n. undevilfulness, sincerity.*

ai-ši-mẹ-lẹ. See aishemẹlẹ.

ai-ši-ye-me-dzi, *n. undoubtedness, certainty.*

ai-šo-do-do, *n. injustice, unrighteousness of action.*

ai-šo-dzú-šá-dzú, *n. impartiality.*

ai-šo-tó (še otó), *n. injustice, wrong.*

ai-ta-ra, *n. equality; ẹsin sure li aitará nwon yọ, the horses ran equally and came out together.*

ai-tó, *n. insufficiency; še aitó, to be not enough. (Mat. 25, 9.)*

ai-tó, *n. crookedness, absurdity.*

ai-wá-ka-ra (wu), *n. unleavened bread.*

ai-wẹ, *n. which is unwashed; aiwẹ owẹ, unwashed hands. (Mat. 15, 20.)*

ai-wú, *n. which is unswelled or unleavened; awú akara, unleavened bread.*

ai-ya, *n. breast, chest, heart, stomach, bosom; courage, influence.*

ai-ya-fò, **ai-ya-dza**, **ai-ya-kpa**, **ai-ya-lá**, *to affect with fear; aiya fò mi, I am afraid, lit. the heart jumps me; dá aiya fò, to frighten one (1's. 10, 18); aiya kpa mi, my heart fails. (Ps. 40, 12.)*

ai-ya-kpa, *n. undeviatingness, union, as opposed to schism.*

ai-ya-tọ, *n. which does not differ, identity.*

ai-ye, *n. the world; condition, days or times of one, circumstances in life, duration of life, as distinguished from àye, life.*

ai-yé, *n. which is not understood, unintelligibility; unceasingness.*

ai-yè, *n. which is lifeless; lifelessness.*

ai-ye-rai-ye, **ai-ye-ti-ti-lai**, *n. which is everlasting; eternity.*

ai-yẹ, *n. See aigbo.*

ai-yẹ-sẹ (yi ẹsẹ), *n. firmness, steadfastness.*

a-ká, *n. a crib.*

a-ka-bẹ, *n. the cloth-beam of a loom.*

a-ka-dàn, *n. a filon on the finger.*

à-ka-ka, *n. the squatting posture.*

à-ka-la, *n. the large vulture.*

a-ka-lá-mbi, *n. a suck.*

a-ká-mọ, *n. the act of surrounding.*

a-kàn, *n. a crab; an upaulet.*

a-kan-še, *n. a rarity; which is made to order; a speciality. (Acts 19, 11.)*

á-ka-ra, *n. bread.*

a-ká-so-ẹ-wu, *n. a sack coat, loose garment.*

a-ka-só, *n. stairs, ladder, fork of a tree.*

à-ka-sú, *n. a large loaf or ball of ẹko.*

a-ka-ta, *n. a kind of wild cat.*

à-ka-ta, *n. the umbrella-hat of the natives.*

a-ka-tan-kpo, *n. a cross-bow.*

a-ká-ta-ri, *n. the zenith.*

a-ka-we, *n. metaphor, allegory, explanation; aka-we oran, a comparison of matters.*

a-ká-we, *n. a reading, a lesson.*

a-ka-yin (ka chin), *n. a toothless person.*

à-ke, *n. an axe; àke gboro, an adze.*

a-ke-dé (wde), *n. a public crier.*

a-ke-dza-ọ-na, *n. a cross-road.*

a-ke-gi (iri), *n. a chopper or hewer of wood.*

a-ke-gun (ọkọ), *n.* an old worn-out hoe.
a-ke-ke, *n.* See **ake**.
a-kē-kē. See **akerekere**.
a-ke-kun, *n.* stubble.
a-ke-lẹ, *n.* dropsy of the chest.
a-ke-re, *n.* a very small person.
a-kē-re-kē-re, *n.* a scorpion; the trigger of a gun.
a-ke-re-ko-ro, *n.* a nickname given to spiteful little people.
a-kē-ri (ke, to cut, ori, head), *n.* a hater.
a-ke-ru, *n.* a bob-tail.
a-ke-si, *n.* a call, a caller, visitor.
a-ke-te, *n.* a bed of earth, a bed.
a-ke-ti, *n.* a crap-car.
a-ke, *n.* a large she-goat.
a-ke-dun, *n.* the goat.
a-ke-hin-dā-si (chin), *n.* a turning the back upon, one who forsakes (Mat. 26, 33): *še* akēhin-lāsi, to forsake.
a-ke-san, *n.* a palace.
a-ke-še, *n.* the red-flowered cotton.
a-kē-te, *n.* a hut.
a-ke-toj, *n.* a new hoe; a bough.
a-ki-i-dze (i, not), *n.* who does not reply, silence.
á-ki-lẹh, *n.* a salutation on parting, good-bye.
a-ki-mọ-lẹ (ilẹ), *n.* that which is pressed down. (Luke 6, 38.)
a'-ki-ra, *n.* African tobacco.
a-ki-ri, *n.* a wandering, a wanderer.
a-ki-sa, *n.* a rag, scrap of cloth.
a-ki-tan. See **átan**.
a-ki-ti, *n.* a baboon: oibó akítí àgbà! the white man is an old baboon! (cried in the streets of Abbeokuta by the children when they see a white man.)
a-ki-ye-si, *n.* attention to, an overseer, that which is notable.
a-ko-bi-a, *n.* barrenness: yà akobia, to be barren.
a-ko-de (akú ode), *n.* a salutation to one in the streets.
a-ko-dza, *n.* a bringing to an end, finishing, completion.
a-ko-dzọ, *n.* a piling up, accumulation, a heap (Rom. 14, 16): *še* akodzo, to gather in a crop.
a-kó-ká, *n.* the first of a series, first counted.
a-kó-kí, *n.* a salutation on meeting in the road.
a-ko-ko, *n.* a tooth; a woodpecker.
a-kó-ko, *n.* a point of time: akóko kodza, the time is past.
a-kó-kun, *n.* a remainder, remnant.
a-kó-kpọ, *n.* a collecting together, collection, draught. (Luke 5, 4.)
a-ko'-lò lo, *n.* a stammerer, a stammerer.
a-ko'-ni-ši-še, *n.* a taskmaster, a driver.
a-kó-ri-ra, *n.* a hater.
a-kó-ro, *n.* a boggy or muddy place.

a-kò-sa, *n.* a bird of prey.
a-kó-so, *n.* control, restraint: *še* akoso, to rule over. (Gen. 1, 16.)
a-ko-so, *n.* a smelling-bottle.
a-kó-tan, *n.* a completion of collecting: li akótán, finally. (1 Pet. 3, 8.)
a-ko-to, *n.* a calabash.
a-kọ, *n.* the male of beasts. See **abò**. Also, full cocked (gun); harshness, roughness: okuta ako, a hard stone.
a-kọ, *n.* a stork; a scabhard.
a-kọ-bi, *n.* first-born.
a-kọ-dzù, *n.* a very learned man, scholar.
a-kọ-gba, *n.* a fence, hedge.
a-kọ-kan, *n.* the first, the foremost.
a-kọ-lẹ, *n.* a superscription (Luke 23, 38); the address on a letter.
a-kọ-le, *n.* a builder.
a-kọ-mu, *n.* that which is first taken.
a-kọ-ni (eni), *n.* a strong man.
a-kọ-ni (eni), *n.* a teacher.
a-kọj, **a-kun**, *n.* beads made of shell.
a-kọ-ọ-dzọ, *n.* every fifth day when full market is held.
a-kọj-rin, *n.* a singer.
a-kọj-si-nọ (inọ), *n.* a grumbling, a grumbler.
a-kọj-wọ-si-lẹ (ilẹ), *n.* which is full to overflowing.
a-kọ-rò, *n.* the first rains.
a-kọ-rọj, *n.* a closet, private room.
a-kọ-se-ba (ese), *n.* chance, luck.
a-kọ-so (eso), *n.* first ripe fruit, first fruits.
a-kọ-še, *n.* first made, beginning.
a-kọ-tán, *n.* one who is perfectly taught, well informed.
a-kọ-wah, *n.* the first coming, first comer.
a-kọ-we (ive), *n.* a writer, a scribe.
a-kpa, *n.* an arm, wing, side, bough: li akpa kan, on one side, aside.
a-kpa, *n.* a thorny tree.
à-kpa, *n.* a prodigal, a spendthrift; a drum cord, a pack rope: àkpa asara, a roll of tobacco.
a-kpa-da, *n.* a return, revocation.
a-kpa-da-hù, *n.* a fresh start, a young sprout.
a-kpá-di, *n.* a potsherd.
a-kpá-gbè-yin, *n.* a rut.
a-kpá-ko, *n.* a board, a plank floor.
a-kpá-ko, *n.* a footstalk of the wine-palm.
a-kpa-la, *n.* a kind of gourd; a clod of earth; a whistle.
a-kpa-lọ (alo), *n.* a riddle-maker: akpalọ kpatitá, a riddle-maker makes them to sell.
a-kpa-mọ-ra, *n.* long suffering.
a-kpa-ni (eni), *n.* a murderer, an executioner.
a-kpa-ni-dze, *n.* a devourer. (Mat. 7, 15.)
a-kpa-ra, *n.* barrenness of land.

a-kpa-ri, *n.* a bald-headed person.
a-kpà-ro, *n.* a partridge.
a-kpa-rɔŋ, *n.* a kind of ratan.
a-kpa-ta, *n.* a shield.
a-kpá-ta, *n.* a rock.
a-kpè-džɛ, *n.* an invited guest.
a-kpè-džò, *n.* an assembly.
a-kpè'-džu-re, *n.* a pattern, model.
a-kpe-lé, *n.* a surname.
a-kpe-na, *n.* one who summons or calls a meeting together.
a-kpè-na, *n.* warp-pins of a native loom.
a-kpe-re, *n.* a pad to ride on.
a-kpe, *n.* a staying : *akpɛ li o kpe*, you stayed long.
akpé, *n.* a clapping of hands : *šɛ akpé*, to clap.
a-kpɛ-dža, *n.* a fisherman.
a-kpɛ-re. See *akpɛdžure*.
a-kpɛ-ta, *n.* part of a dead body, as a finger, a nail, or a lock of hair, brought home from the battlefield to the relatives.
a-kpi-ni, *n.* the chief of the priests called *ɔdžɛ*.
a-kpi-nti, *n.* a kind of drum.
a-kpo, *n.* a quiver.
â-kpo, *n.* a bag : *âkpo agadagodo*, a kind of leather bag ; *âkpo isana*, a bag for flint and tinder.
a-kpo-fiŋ, *n.* the chief archer.
a-kpo-kpo, *n.* a roll of cloth : the pad of certain tees.
a-kpo-lu'-ku-tu, *n.* the large cocoon of the African silkworm.
a-kpo'-ri-ki, *n.* See *akpofin*.
a-kpo-ro, *n.* a walk in a garden.
a-kpo-ró (*kpa oró*), *n.* an antidote.
a-kpo-ti, *n.* a bar, a stool : *akpoti itise*, a foot-stool.
a-kpɔŋ, *n.* a bachelor : *akpɔŋ oliri*, a woman who has weaned her child.
â-kpɔŋ, *n.* restlessness.
a-kpó-nti, **a-kpó-ti**, *n.* a brewer.
â-kú (*âiku*), *n.* a salutation.
a-kua-bò (*alò*), *n.* salutation to one returning.
a-kua-lè (*alè*), *n.* salutation in the evening.
a-kuà-rɛ (*arɛ*), *n.* salutation to one who is fatigued.
a-kua-rò (*aurò*), *n.* salutation in the morning, good morning.
a-kua'-ti-džò (*atilžò*), *n.* salutation to one who has not been seen for a long time.
a-ku-bò. See *akuabò*.
a-ku-diŋ, *n.* the heart-wood of a tree.
a-kú-džò-ko, *n.* salutation to one who is sitting.
a-kuɛ-ru (*eru*), salutation to one carrying a load.
a-kuí'-e-gbe, *n.* rheumatism.
a'-ku-kò, *n.* a male fowl, a cock.
a-ku-lé (*ilé*), *n.* salutation to one in the house.
a kun, **a kun rɛ tɛ**, *n.* a stupid person.

a-kun-yun-gbà, *n.* a court flatterer, a bard, a drummer.
a-ku-rò, *n.* a garden by the water side, for the dry season.
a-kú-tà, *n.* salutation to one who is selling.
â-la, *n.* five white cloth, linen, cambric, &c.
a-lá, *n.* a dream : *lá alá*, to dream.
a-la'-ba-džɛ, *n.* a fellow-guest, an associate.
a-la'-ba-kpa, *n.* a partner in hunting or fishing.
a-la-ba'-kpa-de, *n.* chance, luck.
a-la'-ba-kpiŋ, *n.* a partner, a sharer.
a-la'-ba-mò-lè, *n.* a highway robber, a kidnapper.
a-la'-ba-riŋ, *n.* a fellow-traveller.
a-la'-ba-še, *n.* a helper.
a-la'-bi-nò-kú, *n.* a deadly foe.
a-lá-bò, *n.* a shelterer, defender.
a-la'-bo-džu-to, *n.* a superintendent.
a-la'-bò-o-wó, *n.* the owner of a bundle of cowries.
a-la'-bu-kòŋ, *n.* who blesses or is blessed.
a-la'-bu-kùŋ, *n.* who despises or is despised : *alabukun ɔrɔŋ*, an invalid, a disabled person.
a-la-bu-si, *n.* one who bestows.
a-la'-dā-mò, *n.* an errorist, a heretic.
a-la'-da-si, *n.* a meddler.
a-la'-da-sɔ, *n.* one who speaks in the name of another without authority : *aladaso ni Mọhemodu*, Mohammed was self-sent.
a-la-de, *n.* one who wears a crown, a crowned head, king : *guo alade*, the king's children.
a-la-di, *n.* a dealer in the oil oil.
a-la-dòŋ, *n.* paste of bone-seeds.
a-la-dò-ta, *n.* which costs sixty cowries.
a-la'-du-gbo, *n.* a neighbor.
a-la-dža, *n.* a peace-maker, a reconciler.
a-la-džɛ, *n.* a self-assumed nickname.
a-la'-džò-kpa. See *alabakpa*.
a-la-džò-ni, *n.* a partner ; one in the same condition, a fellow.
a-la'-džu-ku, *n.* a seller of *džuku* tobacco.
a-la'-fe-ti-gbò (*fi eti*), *n.* a hearer.
a-la'-fe-hiŋ-ti (*fi chiŋ*), *n.* a prop, a supporter.
a-la'-fe-nu-si (*fi nu*), *n.* a meddler, a busy-body.
a-la'-fɛ-ri, *n.* a seeker.
alā-fi-a, *n.* peace, safety, prosperity.
a-la'-fi-hàn, *n.* a shower, exhibitor ; a traitor.
a-la'-fi-la, *n.* a dealer in caps.
alā-fiŋ, *n.* one who owns a palace.
a-la-fi-ye-si, *n.* an observer, overseer, superintendent.
a'-la-fo, *n.* a hole, scuttle ; a valley.
a-la'-fo-džu-to (*fi ɔdžn*). See *alahiyesi*.
a-la'-fu-ra, *n.* a suspicious person.
a-la-fu-ta, *n.* a purse, a wallet.
a-la-ga (*aga*), *n.* a dealer in chairs.
a-la-gā-ri, *n.* a saddler.

a-la-gbà, *n.* an elder, honorable man, gentleman.
 a-la'-gbà-fò, *n.* a washerwoman.
 a-la-gbà-ra, *n.* a strong man, a great man.
 a-la'-gbà-rò, *n.* a hired farm-servant.
 a-la'-gbà-sò, a-la'-gbà-wi, *n.* a spokesman, an advocate.
 a-la'-gbà-še, *n.* a hiring.
 a-la'-gbà-tà, *n.* one who sells on commission.
 a-la'-gbà-tò, *n.* a foster-nurse.
 a-la'-gbà-wi. See alagbàso.
 a-la-gbe, *n.* a beggar.
 a-la'-gbe-de, *n.* a blacksmith, a smith.
 a-la'-gbo-wo (gbà owò), *n.* a receiver of money.
 a-la'-gbò-raj (gbò ọran), *n.* one who is heedful, obedient.
 a-là-gì, *n.* a splitter or sawer of wood.
 a-la-gì-di-gba, *n.* beads manufactured from palm-nuts.
 a-la-gì-sa, *n.* a ragged person, a dealer in rags.
 a-la'-he-re, *n.* one who gathers in a crop.
 a-la'-he-sò, *n.* a news-monger, a smatterer.
 a-la'-ho-ro, *n.* one who is desolate.
 a-lai-bò, *n.* which is unsheltered, defenceless.
 a-lai-du-ro, *n.* which is unstable, changeable.
 a-lai-gbe-de (gbò ede), *n.* one who is ignorant of the language, a barbarian.
 a-lai-gbò, a-lai-gbò-raj, *n.* one who will not take advice.
 a-lai-gbọn, *n.* one who is unwise.
 a-lai-ko-la, *n.* who is untattooed, uncircumcised.
 a-lai-kò, *n.* one who is untaught, ignorant.
 a-lai-ku, *n.* who is immortal.
 a-lai-là, *n.* who is unsaved, unsafe.
 a-lai-le, *n.* which is weak, unsound.
 a-lai-le-ra, *n.* who is weak or infirm.
 a-lai-lè-re, *n.* which is unprofitable.
 a-lai-le-so, *n.* which is fruitless, barren.
 a-lai-lè-še, *n.* who is sildess, innocent.
 a-lai-lò gbọn, *n.* one without wisdom.
 a-lai-lò-la, *n.* one without honor.
 a-lai-mo-re, *n.* one who is ungrateful.
 a-lai-mo-ye, *n.* one without understanding.
 a-lai-mò, *n.* one who is ignorant.
 a-lai-mò-wé, *n.* one who cannot read.
 a-lai-ní, *n.* one who has not, who is needy : še alaíni, to need, to want.
 a-lai-ní-ba-bá, *n.* a fatherless child.
 a-lai-ní-gba-gbò, *n.* an unbeliever.
 a-lai-ní-ka-nò, *n.* one without cruelty.
 a-lai-ní-tò, *n.* one who has not enough.
 a-lai-ní-ya (iya), *n.* a motherless child.
 a-lai-ní-ye, *n.* which is numberless.
 a-lai-ní-ye-nò (iyè inò), *n.* who is without understanding.
 a-lai-rí-wí, *n.* one without excuse.

a lai sí, *n.* one who is absent.
 a-lai-še, *n.* one who fails to do ; which is necessary. (Acts 15, 28.)
 a-lai-še, *n.* one who does not sin. (1's. 19, 13.)
 a-lai-šo-do-do, *n.* one who is unrighteous.
 a-lai-šò-tò, *n.* one who does wrong.
 a-lai-tò, *n.* which is not right.
 a-lai-ya, *n.* who has a heart : alaíya mimò, one with a clean heart.
 a-lai-ye (li aiye), *n.* the owner of the world : ó dẓaiye dẓú alaíye lóh, he enjoys the world more than the owner of the world (said of extravagant persons).
 a-lai-yè, *n.* which is alive.
 a-lai-ye, *n.* one who is unfit, unworthy.
 a-lai-yò, *n.* one who is hungry. (Luke 6, 11.)
 a-la'-ka-ra, *n.* a baker, a dealer in bread.
 a-la-ka-tan-kpo, *n.* a cross-bow man.
 A-la-ke, *n.* the Lord of Ake, a title of the King of Egha, from lí, to have, and Ake, the name of the royal city.
 a-la'-ke-le, *n.* a master weaver.
 a-la'-ke-sí, *n.* a visitor.
 a-la-kon, *n.* an addition to.
 a-la'-kò-še, *n.* a beginner.
 a-la'-kò-tí, *n.* a disobedient person.
 à-la-kpa, *n.* an old wall.
 a-la'-kpa-run, *n.* a destroyer.
 a-la'-kpa-tà, *n.* a butcher.
 a-la'-kpè-dze, *n.* an invited guest.
 a-la-kpin, *n.* a divider, sharer.
 a-la'-kpo-lu, *n.* a mixer, an apothecary.
 a-là-la, *n.* which is white.
 a-la-là, *n.* a dreamer.
 a-la-lè, *n.* evening by evening : lí alaìè, every evening.
 a-la'-lu-kpà-yi-dà, *n.* a juggler.
 a-la'-mgba, a-la-mò, *n.* the red-headed lizard.
 a-là-mí, *n.* a spy, a secret observer ; which is spotted, speckled.
 a-la-mò, *n.* a secret. See alamgba.
 A-la'-mò-re, *n.* A title of Ọbatala, as the maker of the body, lit. the owner of the good clay.
 a-la'-mò-ri. See alamgba.
 a-la-ní-yan, *n.* one who is anxious.
 a-la'-nta-kun (ta okun), a-lan-sa-sa, *n.* a spider.
 a-là-nu, *n.* one who is merciful.
 a-la-ra (lára), *n.* which has a body (Mat. 14, 36), a free person.
 a-la'-ra-bà-ra, *n.* kinds, fashions : onírùrù alara bara, all sorts of fashions.
 a-la'-rà-dze, *n.* one who buys his provisions.
 a-la'-ran-še, *n.* a helper.
 a-là-re, *n.* one in the right, righteous.
 a-la-ré-ke-ré-ke, *n.* a scoundrel.
 a-la'-rè-kò-dza, *n.* a transgressor.

a-la'-re-na, *n.* one employed to engage a bride for another, a go-between.
a-lā-rí, *n.* scarlet.
a-la'-rin-dzō, *n.* a strolling dancer.
a-la'-rin-kí-ri, *n.* a wanderer, stroller.
a-la-ro, *n.* which is blue.
a-la'-ro-bō, *n.* a petty trader.
a-la'-ro-ko, *n.* a farmer, tiller.
a-la'-ro-ye, *n.* a great talker.
a-lā-rū, *n.* a porter, carrier.
a-la-sa, *n.* a king's messenger.
a-la-sē, *n.* a cook.
a-la'-si-ki, *n.* who is prosperous.
a-la-sq, *n.* a talker.
a-la-sō, *n.* a quarrelsome person.
a-la'-sq-dōn, *n.* a flatterer, one who exaggerates.
a-la-sa, *n.* a military officer.
a-la-sá-ra, *n.* a dealer in tobacco or snuff.
a-la'-se-dzū, *n.* who acts extravagantly, a self-willed person.
a-la'-se-rān, *n.* one whose actions infect others, a leader in evil.
a-la-sō, *n.* one who has cloth, a dealer in cloth.
a-la-ta'-mkpo-ko, *n.* a grasshopper.
a-la'-ti-le-hin, *n.* a sustainer, supporter.
a-la-tōn-sē, *n.* one who mends or repairs, a reformer.
a-la-we, *n.* which has cotyledons.
a-lā-we, *n.* a faster, a mourner.
a-la'-wi-ī-gbō, *n.* one who is unruly, who refuses advice.
a-la'-wi-ī-ye, *n.* one who does not speak intelligibly.
a-l-a'-wi-ká, *n.* a wizard, a witch.
a-la'-wf-ye, *n.* one who explains.
a-la-wō, *n.* a diviner, a priest.
a-la-wō, *n.* a leather or hide dealer;—as an *adjective*, which has color: *malū alawō kpukpa*, a red colored cow; *alawō kpikpō*, many colored.
a-la'-wō-fin (*afin*), *n.* one who lives in a palace.
a-la-yān-dze, *n.* a swindler.
a-la-ye, *n.* which is spacious, roomy.
a-lā-ye, *n.* which has life.
a-la'-ye-kan, *n.* a kind of apron.
a-la-yi, *pron.* this.
a-la'-yi-dá-yi-dá, *n.* an artful fellow, a dissembler. (I's. 26, 4.)
a-le, *n.* a concubine.
a-lē-bu, *n.* one who vilifies, or abuses.
a-le-dzō, *n.* a stranger.
a-le-gba, *n.* a kind of yellow monkey.
a-le-so, which is fruitful.
a-le, *n.* evening.
a-li-ga'-ri-mi, *n.* a spirited horse.
a-li-ká-ma, *n.* wheel.
a-li kí-ba, *n.* a blanket.

Al-ku-ra-ni (Arab.), *n.* the Koran.
a-lō, *n.* a district; flame.
a-lo-ngo, *n.* tight-legged trousers.
a-lo-re, *n.* a sentinel's stand, a gibbet.
a-lō, *n.* which is inverted; a riddle.
a-lō, *n.* which is bent, grafted: *alō ina*, flame.
a-lō'-lē-kē (*ilēkē*), *n.* a bead-grinder.
a-lō'-mo-rí (*omō ori*), *n.* which has a lid.
a-lō-mō, *n.* which is engrafted.
a-lō-ni-lō-wō-gbā (*lō ọwọ*), *n.* an extortioner.
a-lu-ba-ra, *n.* a beetle. See *bambam*.
a-lū-ba-ta, *n.* a beater of the drum called *bata*.
a-lu-bō-sa, *n.* an onion.
a-lū-dōn-dōn, *n.* a beater of the drum called *dōndōn*.
a'-lu-fā, *n.* a learned man, religious.
a-lū-fa, *n.* teacher, doctor in religious knowledge.
See olifā.
a-lu-gba, *n.* a door-faring.
a-lu-gbe, *n.* domesticated honey-bees.
a-lu-gbōy, *n.* a likeness, resemblance.
a-lu'-kan-rin, *n.* a crown.
a-lu-ka-sa-fa, *n.* a jacket, tunic.
a-lu-ka-wa-ni, *n.* an agreement.
a-lu-ke-mbu, *n.* a stirrup.
ā'-lu-kō, *n.* a cockatoo.
ā-lu-kō, *n.* purple. (Acts 16, 14.)
ā-lu-kpa'-yi-dā, *n.* sleight of hand.
a-lu-mā-ga-dzī, *n.* scissors.
a-lu-se, *n.* a door-lock.
a-lu-sin, *n.* a damage, misfortune.
a-lu'-wa-la, *n.* ablution.
a-lu'-wa-si, *n.* parade, ostentation.
a-mā-lā (*mō alā*), *n.* an interpreter of dreams.
a'-ma-la, *n.* yam-flour mush.
a-mbō (*bō*, to peel), a white man, in the *Iketu* dialect; whence *orombo*, lit. orange, or the white man's fruit.
a-mbō-sin, **a-mbō'-to-ri**, *adv.* what else?
a-mbu-a, *n.* red ink.
a-mē-wa (*mō ēwa*), *n.* a judge of beauty.
ā-mi, *n.* a sign.
a-mí, *n.* a spy.
a-mi-kān, *n.* a breathing on.
a-mi-kpō, *n.* which is shaken together. (Luke 6, 38.)
ā-mīy, *adv.* amen.
a-mi-sí, *n.* a breathing into.
a-mō-fin (*mō ofin*) *n.* a lawyer.
a-mo-dzū-ká-ro (*mu*), *n.* an overlooking, or not observing.
a-mo-re, *n.* a thankful person.
a-mo-ye, *n.* an intelligent person.
a-mō, *n.* a large earthen pot.
ā-mō, *n.* potter's clay.

a-mô, *n.* which adheres ; figuratively, a child.
a-mô-dun, *n.* next gear : wayi an-gelun m' à tò gban-ga-gban-ga, *by this time next gear I shall be a great man.*
a-mô-dža, *n.* a guess : še an-môdža, *to guess.*
a-mô-dže, *n.* one who tries suspected persons by water ordeal : še an-môdže, *to try by water.*
a-mô-džù, *n.* one who is well informed.
a-mô-džù, *n.* drunkenness, a drunkard.
a-mô-hun-gbo-gbo, *n.* who is omniscient.
a-mô-kpa, **a-mô-kpa-ra**, *n.* drunkenness, a drunkard.
a-mô-kpê, *conj.* though, notwithstanding.
a-mô-kun, *n.* a lame person, lameness.
a-mô-le (mô ilê), *n.* a builder.
a-mô-lê, *n.* a conspirator : še an-môlê, *to conspire.*
a-mô-lê-kpa, *n.* assassination.
a-mô-na, *n.* a guide : še an-môna, *to guide, lead.*
a-mô-na, *n.* booty, plunder.
a-mô-ra, *n.* an attendant, body-servant.
a-mô-ran, *n.* a wise person.
a-mô-še, *n.* wilfulness, obstinacy.
a-mô-tân, *n.* pretended knowledge, self-coverit.
a-mô-te-kun, *n.* an animal like a leopard.
a-mô-te-le, *n.* foreknowledge.
a-mu, *n.* a hook.
â-mu, *n.* confusion of mind.
a-mu-bá, *n.* means, instrumentality.
a-mu-di, *n.* a cold.
a-mu-kpa-da, *n.* a bringing back, restoration.
a-mu-ran, *n.* a tailor's hook, to hold the cloth while sewing.
a-mu-re, *n.* a girdle ; a kind of lizard.
a-mú-rõn, *n.* a bleeding at the nose.
a-mu-wáh, *n.* result, effect, issue.
a-mu-ya, *n.* seizure of goods for debt.
a-na, *n.* yesterday : ô de li ana, *he came yesterday.*
â-na, *n.* a relative by marriage ; extension of kindred. (Gen. 30, 20.)
a-na-bi (Arab.), *n.* the prophet : anabi Musa li o wi, *the prophet Moses said.*
a-na'-bi-ri (obiri), *n.* a female relative, sister, aunt, &c.
a-na'-kõn-ri (okõnri), *n.* a male relative.
a-ní (ní, *to say*), *adv.* even, yet.
a-ní-a-ní, *n.* doubt, uncertainty.
a-ní-do-kpin (le okpin), *n.* complete possession.
a-ní-ní-la-ra, *n.* an oppressor.
a-ní-tân, *n.* complete possession ; used also as a proper name.
a-ni-yan, *n.* anxiety, care.
a-nte-te, *n.* a kind of cricket.
ânú, *n.* pity, sorrow : še ânú, *to pity* ; ko ânú, *to mourn.*
an-fa-ní, *which is easily performed ; advantage.*

an-ge-re, *n.* a wooden leg.
a-ra, *n.* an oath.
a-rá, *n.* body, skin, member of a community, self : ará (ilê), *family* ; aráfi (ilê), *citizen* ; ará mî dá, *my body is well*, i. e. *I am well* ; ará mî fun, *my skin is pale*, i. e. *I am alarmed* ; ará kàn mî, *my body pains me*, i. e. *I am grieved, vexed* ; ará iyara, *the body itself, the natural body.*
a-rã, *n.* thunder.
a'-ra-ba, *n.* the cotton-tree (Bombax).
a-ra'-bi-ri (obiri), *n.* a sister, a female relative.
a-rã-džo (rê adžo), *n.* a traveller.
a-ra'-kõn-ri, *n.* a male relative.
a-rá-lê, *n.* a member of the family.
a-rá-lê, **a-rá-lu**, *n.* a citizen, inhabitant.
a-ra-mô-ri, *n.* a tight cap.
a-ran, *n.* intestinal worms.
a-rán, *n.* velvet.
â-ran, *n.* dabage : še âran, *to be old and silly.*
a-ran-ba-ta, *n.* a shoemaker.
a-ran-kàn, *n.* bitterness, spitefulness.
a-ran-mû, *n.* which is infectious.
a-rán-ní-lô-wõ, *n.* help, a helper.
a-ran-še, *n.* See the preceding.
a-ran-şõ, *n.* a sewer, tailor.
a-ran-wu, *n.* a cotton-spinner.
a-ra-ra, *adv.* at all, in the least.
a-ra-rá, *n.* a dwarf.
â-rã-run, *nam.* five by five.
a-rá-tu-bu, *n.* a prisoner, one in jail.
a-ra-yá, *n.* liveliness, cheerfulness, merriment.
â-re, *n.* a being in the right : emi şe âre, *I am right.*
a-rê-ke-rê-ke, *n.* dishonesty, knavishness ; a trick, a knave : edžo şe arêkêrê-ke, *the serpent was subtle.* (Gen. 3, 1.)
a-re-re, *n.* deep silence.
a-re, *n.* eldership, older ; as a title of honor, grandissimo : iwõ şe are mî, *you are older than I* ; are mî i dze, *he is the are.*
â-re, *n.* fatigue : âre nu mî, *I am tired* : ô tò âre, *it is enough to tire one* ; ará mî di âre tân, *I am tired.* (Ps. 73, 26.)
a-re-ká-kan-fô, *n.* a general in the army.
a-re-kú-nda, *n.* devil.
a-re-lê, *n.* abasement, an abaser.
a-re-mô (omû), *n.* the eldest child, first born.
a-re-ni-dže, *n.* a cheater.
a-re-wa (arâ cwa), *n.* a beautiful person.
a-rí, *n.* which is seen : etu mbe li oko ? arí, *are there any guinea-fowls on the fence ? there are : arí ! see now !*
a-ri-di-dži, *n.* an apparition.
a-ri-fi, *n.* which is hot, heat : inô rê gboma bí arifi, *the inside is hot as heat.*
a-ri-hun-gbo-gbo, *n.* all-seeing.

a-rii, *n.* the center, time, previousness; **li arii rē**, in the middle of it; **mō sē ē li arii kân**, I did it once; **mō ri li arii kân**, I have seen it before; **li arii dōlō**, in the midst of the rain.

a-rii-dzō, *n.* a street doorer.

a-rii ko, *n.* a point of time; chance.

a'ri wá, *v.* the north.

a-ri-wi, *n.* an excuse, extenuation.

a'ri-wo, *n.* noise, uproar.

a-rō, *n.* meditation; **sē a-rō**, to meditate.

a-rō, *n.* a corn-crib; blue dye.

à ro, *n.* sorrow, mourning; **dā àro**, **sē àro**, to mourn, to be sorry.

ā ro, *n.* restlessness; a hearth, a stand on which pots are set to boil.

a-ro-bō, *n.* petty traffic.

a-rō-dzē, *n.* a resting-place on the road.

a-rō hun-gbō, *n.* See arihūngbōbō.

a-rō kân, *n.* painful reflexion, grief, remorse.

a-ro-ko, *n.* the head man of a farm.

a-ro-kpín, *n.* a limit; **sē a-rokpín**, to limit.

a-ro-le, *n.* an hair.

a-ro-mō-lē, *n.* the afternoon.

a-rō-ni-ká, *n.* a witch, wizard.

a-ro si-lē, **a-ro-tē-lē**, *n.* a thing agreed on, terms, bargain.

a-ro-wa, *n.* noon; **wáh li arowa**, come noon.

a-ro-ye, *n.* quarreling, disputing; **sē a-ro-ye**, to quarrel, dispute.

a-rō, *n.* one with withered limbs, a cripple.

a-rō, *n.* the smith's trade.

a-rō, *n.* affliction, tormenting.

a-rō, *n.* a quiver made of a long gourd.

a-rō-kín, *n.* one skilled in traditions.

a-rō-ku-ro, *n.* the latter rains.

a-rō mō-bí mō (ó rí mō), *n.* one who has grand-children.

A-rō ni (arō ñni), *n.* the name of a fairy. (It is sculptured as a female, with one arm and one leg, with a long queue and a ball at the end.)

a-rōn, *n.* sickness; **ni ibule arōn**, in sickness. (P's. 11, 3.)

a-rōn kà rōn, *n.* all sorts of diseases; an evil disease.

a-ru-da, *n.* a propitiatory sacrifice.

a-ru-fín, *n.* a law-breaker.

a-ru-gbō, *n.* an old person.

a-ru-gō-gan, *n.* an iron hook.

a-ru-kōn, *n.* a fusket; an extra sacrificer.

a-ruj, *num.* five.

a-ruj le-lō gbōn (dī lī, from *on*), *num.* twenty-five.

a-ruj le-lō ta (li lī, *hundred*), *num.* sixty-five.

a-sa, *n.* a saddle.

a-sá, *n.* a flight, a running.

a-sá! *interj.* excuse me! said by a bailiff when he arrests a man. See *asia*.

a-sa-di-dze, *n.* a foot-pace.

a-sa-ka-ni-lē, *n.* the square of a house.

a-sá-lā, *n.* a place for safety, escape, refuge; **sá asá-lā**, to escape.

a-sá-lē, *n.* barrenness; **dī asá-lē**, to be barren. (2 Pet. 1, 80.)

a-sân, *n.* emptiness, vacuity, naught; **asân li orísa**, idols are vain or contemptible; **li asân**, in vain, without excuse or cause.

a-sân-kōn, *n.* full payment.

a-sa-re, *n.* a canoe.

a-sá-sē, *n.* a cook.

a-sá-sín, *n.* a runaway, who forsakes his father to live with another.

a-se, **a-sē**, *n.* paint, color.

a-sē, *n.* a meal, a feast; **asē adē**, a supper; **asē idzē**, a public feast; **asē iyawo**, a wedding-feast; **asē owurō**, breakfast; **asē ọ-saj**, dinner.

a-se-kpōj, *n.* a barren woman, used as a term of reproach.

a-se-ndzē. See *asē*.

a-se-nō, *n.* a barren woman.

a-sē, *n.* a steamer; the field field-rat.

à-sē, **ai-sē**, *n.* a large door.

a-sē-mi (omi), *n.* a water-filter.

a'si-a, *n.* a flea, cynos.

a'si-a! *interj.* excuse me! I beg pardon! alas! See *asá*.

ā-si-ki, *n.* good luck, success.

a-sin, *n.* service.

a-sin-gba, *n.* an express, or the sending of things, generally the king's goods, from post to post.

a-sin-kpa, *n.* bitter service.

a-sin-rii, *n.* the rat called *asē*.

a-sin-win, *n.* a fool, a crazy person, lunacy.

a-si-wa, *n.* the last state. (Luke 11, 26.)

a'si-wa a'si-bō, *adv.* now at last; **ndzē, asi-wa asibō yi ó de**, then, at last he will come.

a-so-fēi-yē-dzē (fi cije), *n.* a species of fig (lit. it bears for birds to eat).

a-só gbō, *n.* ripe fruit.

a-sō, **a-sō kpō**, *n.* wrangling; **asō babá idzā**, wrangling is the father of fighting.

a-sō-dōn, *n.* sweet talk, flattery, concycation.

à-sō ni dá ho-ro, *n.* a desolation.

a-sō ni dà yē, *n.* which quickens, or makes alive.

a-sōn kōn, *n.* increase, the drapsy.

a-sōn mō, *n.* nearness, proximity.

a-sō-rō-dzē dzē, **a-sō-rō-kē-lē**, *n.* a whisperer, tattler.

a-sō-tái, *n.* completeness of talking; **ó sōrō li aso-tai**, he spoke perfectly. (Acts 18, 26.)

a so-tè-le, *n.* *prophecy, prediction*; so aso-tè-le, to prophesy, predict. (Acts 19, 6.)
a-so-ti, *n.* *an unfinished talking, a failure in making a speech.*
a-so-ye, *n.* *a reasoning, explaining*; so asoye, to convince. (Acts 18, 28.)
a-sù-bò, *n.* *a gilding, or plating of metal.*
a-sùñ, *n.* *state of being asleep.*
a-sùñ-kú, *n.* *the sleep of death.*
a'-sun-wòp, *n.* *a wallet, a purse.*
à-sá, *n.* *a fashion, a custom*; àsá lailai, an old custom.
a-sá, *n.* *a falcon*; a-sá ni Takpa gije, the falcon is the Takpa of birds. (The Takpa or Nufe people are said to be the swiftest of men.)
a-sá, *n.* *which is picked up*; a-sá ènin, an idler, lounge, vagabond.
a-sá-dzu, *n.* *a firecracker.*
a-sá-gbe, *n.* *a beggar.*
a-sá-gi (igi), *n.* *chips.*
a-sá-gon, *n.* *contention, a contentious person.*
a-sá-kpa, *n.* *a canopy over a corpse.*
a-sá-lè, *n.* *barren or worn out land.*
a-sá-le, *n.* *evening.*
a-sap, *n.* *food without meat or sauce.*
a-sá-ra, *n.* *snuff.*
a-sá-ro, *n.* *mash, porridge.*
a-sá-ro, *n.* *meditation, meditator*; ée a-sá-ro, to meditate.
a-sá-ti, *n.* *a stuck or shock.*
a-sá-ti, *n.* *which is rejected.*
a-sá'-wa-da, *n.* *jesting, playfulness.*
a-sá-wi, *n.* *a one-sided statement, special pleading.*
a-sá-ya, *n.* *playfulness, as that of a kitten.*
a-sá-yan, *n.* *which is selected.*
a-sé, *n.* *an action, actor*; paint.
a-sé-dzù, *n.* *extravagant behavior, excess.*
a-sé-fe-fe, *n.* *who is puffed up, proud.*
a-sé-hàn, *n.* *which is done for display.*
a-sé-kán, *n.* *a final action.*
a-sé-kpe, *n.* *which is perfected.* (1 Pet. 5, 10.)
a-sé-kùn, *n.* *which remains unfinished.*
a-sé-le-ke, *n.* *falsehood.* (Jas. 1, 21.)
a-sé-sa, *n.* *disgraceful action.*
a-sé-tán, *n.* *which is completed.*
a-sé-ti, *n.* *a failure.* See a-sékun.
a-sé-ti-nó, *n.* *self-will.* (2 Pet. 2, 10.)
a-sé, *n.* *power, a commandment*; good speed, success: a-sé ikò, authority, commission (Acts 26, 12); i-sé a-sé, a mighty work, a miracle; kpà a-sé, kpa...li a-sé, to command, decree.
a-sé, *n.* *which comes to pass, a fulfilment, effect*; imprecation; the menses.
a-sé-ye-sa-te (gije ade), *n.* *a double-dealer, dissembler.*
a-sé-hin-de (chin), *n.* *an agent.*

a-sé-nu (enu), *n.* *an advocate, mediator.*
a-sé-še-kò-šé, *n.* *beginning.*
a-si-kpa-ya, *n.* *a revealing, disclosing.*
a-si-ri, *n.* *a secret, a discovery.*
a-si-šé, *n.* *a laborer, a poor man.*
a-si-šo-ri, *n.* *a pistol.*
a-si-wè-re, *n.* *a fool.* (Ps. 31, 33.)
a-šò, *n.* *a morose sour look*; a-šò erin, an elephant feeding alone.
a-šo-dzu. See a-séhigbe.
a-šo-re, *n.* *a well-doer, benefactor.*
a-šo-ri, *n.* *a tree to which the natives ascribe the properties of the apas.*
a-šo-ró, *n.* *a sharp-pointed knife.*
a-šò-ro, *n.* *a tormenter, a vindictive person.*
a-šò-wo, *n.* *a trader, merchant.*
a-šq, *n.* *cloth, clothing*; a-šq o-šq, a fine dress; a-šq tita, a curtain.
a-šò, *n.* *one who is fierce, a savage.*
a-šq-lu (a-šq, watcher, ilu, town), *n.* *a magistrate.*
a-šq-té, *n.* *a revolver, rebel, later.*
a-šu-kan, *n.* *a kind of bread.*
a-šu-wòp, *n.* *a measure.*
a-ta, *n.* *red pepper.*
à-ta, *n.* *the ridge of a house.*
a'-ta-ba, *n.* *a dove*; ataba orenkìre (rè ni kìre), a wild pigeon.
a-tá-dza-tè-ran (ati adza ati eran), *n.* *cattle, domestic animals of any kind.*
a-ta-fo, *n.* *a whitlow.*
a-tai-ye-rai-ye, *adv.* *everlastingly.*
a-ta-lè, *n.* *ginger.*
a-ta-li-a, *n.* *the larger species of Malaghetta pepper.*
a-ta'-mkpo-ko, *n.* *the thumb.*
a-ta'-mò-ra, *n.* *one who is girded with armor, or entangled in business.*
a-tá-na-má-na (ati ana mó ana), *adv.* *from yesterday till now.*
a-tá-nò, *n.* *what is thrown away, refuse.*
à-tap, *n.* *a dung-hill, dirt-pile.*
a-ta-re-re, *n.* *a kind of pepper.*
a-ta-ri, *n.* *the crown of the head.*
a-te, *n.* *a kind of rat.*
a-te, *n.* *a hat*; bird-line.
a-te-te, *n.* *which is first, youngest.*
a-te-te-ba, *n.* *which is first met, an outer yard, front.*
a-te-te-bi, *n.* *the first-born.*
a-te-te-kò-šé, a-te-te-šé, *n.* *the beginning.*
a-te, *n.* *flatness, insipidity, disgrace.*
à-te, *n.* *a fun for winnowing.*
a-te-gun, *n.* *a fresh breeze.*
a-tè-le, *n.* *which follows, the next, the second.*
a-tè-le-bò-si, *n.* *the outer yard.*
a-tè-le-hin, *n.* *a hunchback.*

a-te-le-se, *n.* the sole of the foot.

a-tê-lô-wô, *n.* the palm of the hand; ibi atêlôwô, a hand-breaker.

a-tê-mô-ra, *n.* long suffering.

a-tê-ru, *n.* a share-dealer.

a-tê-wô-gbâ, *n.* which is acceptable.

a-ti, a *prefix*, forming nouns which present the meaning of the verb in a substantive form; as, atiri, seeing; á gwôma atiri, we are trying to see.

a-ti, *prep.* from.

a-ti, *conj.* and; ati—ati, bath—and; ati iwo ati eni, bath you and I.

a-ti, *n.* a sheep.

a'-ti-bá, *n.* a meeting, a coincidence; used also as a proper name.

a'-ti-ba-ba, *n.* a platform, a scaffold.

a'-ti-bô, *n.* a coming, an advent.

a'-ti-de, *v.* on arrival.

a-ti-dza-run, from five days till now; eni ô ri i li atizarun, I have not seen him for five days.

a'-ti-dze-fa, *v.* from six days till now.

a'-ti-dzô (ati dzô), *n.* old times, former days; li atidzô iwa, from the day of being, i. e. from the beginning of creation.

a-ti-kpi-lê-sê, *n.* the beginning.

a'-ti-kpo, *n.* a resident, sojourner, immigrant; sê a'tikpo, to sojourn, emigrate.

a'-ti-ma, *auxil. part.* denoting continuance; atima ri, to be seeing.

a-ti-ran di ran (iran de iran), *n.* genealogy.

a-ti-si-si-yi-lôh, *n.* this time and forward; li atisi-yilôh, henceforth.

a'-ti-sê-nf-sê, *n.* a punishing, punishment.

a'-ti-tu-ni-nô, *n.* a comforting, consolation.

a'-ti-wáh, *n.* a coming, arrival, advent.

a'-ti-wáh o-dzô, *n.* the east.

a'-ti-wô o-run, *n.* the west.

a-tô, *n.* which straightens, a long-necked gourd.

a-to, a-to-to, *n.* noise; kpâ ato, to make a noise; atoto! hear ye! "oh yes!" a word used by the town criers.

a-to-ni-mo-ni (ati oni mô oni), *n.* morning till now; eni ô dzêhun li atoniuoni, I have not eaten to-day.

a-to-ri, *n.* reason of, account of; li atori, for the reason that, on account of.

a-tô, *n.* urine; ilê ato, the bladder.

a-tô-dzô-mô-dzô, *n.* a long time; which is old; ôro atôdzômodzô, an old story.

a-tô-dzu, *n.* a director.

a-tô-kô (tu ôkô), *n.* a pilot, helmsman.

a-tô-kuy, *n.* a leader, guide.

a-tô-mô-dô-mô (ati de mô), *n.* generation to generation; yi ô wà li atomodomo, it will remain from generation to generation.

a-tô-na, *n.* a spy, watchman on the road.

a-ton-bi, a-tun-bi, *n.* regeneration.

a-ton-dâ, *n.* a revivifying.

a-ton-hù, *n.* a reputation of behavior, a fresh sprouting out, revival.

a-ton-kpa, *n.* a caville.

a-ton-sê, *n.* a mending, amendment.

a-ton-wi, *n.* repetition of a thing said.

a-tô-run-wáh (ati run), *n.* which is original.

a-tô-si, *n.* gonorrhœa.

a-tô-wô-dô-wô (ati de ôwô), *n.* tradition. (Mat. 15, 2.)

a-tô-wô-wáh, *n.* which originates with oneself.

a-tu-bô-sê, *n.* which brings to completion.

a-tu-bô-tân, *n.* termination, end of life.

a-tu-di-mô, *n.* a covenant breaker. (Rom. 1, 31.)

a-tu-kô, *n.* one who rows or paddles a boat.

a-tu-lê, *n.* which breaks up the ground, as a plough.

a-tu-ni-ni-nô, *n.* which comforts.

a-tun. For words beginning in atun, see aton.

â-u-rô, *n.* morning.

a-wa, *pron.* we; awa ná, we ourselves; awa tika-ra wa, we ourselves, our own selves; ará wa, ourselves.

a-wá, *n.* a sparrow.

â-wa-da, a jest, a joke; sê âwada, to jest.

â-wa-mû, *n.* adherence.

â-wa-nô, *n.* a waster, spendthrift.

a-wa-ri, *n.* search; wáh li awari i, look till you find it.

a-wa-tân, *n.* perfect or perfected search.

a-wa-ti, *n.* an abandoned search, a failure to find; á wáh á li awati, we looked but could not find it.

a-wa-wi (wáh wi), *n.* an excuse, subterfuge.

a-wa-ya, *n.* bird shot.

a-wa-yá, *n.* struggling, agony; sê awayá, to struggle, to be in agony.

a-we-re, *n.* the yellow monkey.

a-wê-re, *n.* folly, silliness.

a-wê, *n.* breadth of cloth; a catfishman.

â-wê, *n.* mourning, a religious fast; gbâ âwê, to fast.

a-wê-mô, *n.* a washing clean, purification.

a-wê-nô, *n.* which is washed off, a being cleansed or pure.

a-wi-gbô, *n.* hoversay, plain speaking.

a-wi-i-da-kê (i, not), *n.* incessant talking.

a-wi-i-gbô, *n.* one who refuses to receive advice.

a-wi-kpe, *conj.* provided that.

a-wi-máh-yi-hun (ohun), *n.* a true statement, one who speaks without equivocation.

â-wiŋ, *n.* credit; tà li âwiŋ, to sell on credit.

a-wi-riŋ, *n.* a witch, a wizard.

a-wi-si, *n.* which is said in addition, superadded terms.

a-wí-ya-nu (enu), *n.* *importunity.*
a-wí-ye, *n.* *discussion, explanation*: sê awíye, *to explain, discuss.*
a-wo, *n.* *any white earthen vessel, a plate*; *a shock of corn*; *the black-crested Guinea hen*: awo koto, *an earthen basin*; awo oko, awo kpoke, *a dish*; awo imi, *a chamber-pot*; awo alya, *a breast-plate.*
a-wò, *n.* *a secret bargain, a superstitious mystery*; *a spy-glass*: awò odzú, *spectacles*; awò džídží, *a looking-glass.*
a-wo-di, *n.* *a hawk.*
a-wò-ko, *n.* *culic.*
a-wò-ko, *n.* *the mocking-bird.*
a-wò-ní, *n.* *a visitor.*
a-wò-ran, *n.* *a likeness, resemblance.*
a-wo-re, *n.* *luck.*
a-wò-sé, *n.* *a pattern.*
a-wò-tán, *n.* *a cure*: sê awòtin, *to cure.*
a-wo-tí-rí, *n.* *a bow-knot.*
a-wo-wo, *n.* *a channel.*
a-wo-ye, *n.* *an inspector, spy.*
à-wọ, *n.* *a hide, leather*; *color, outward appearance*: àwọ sama, *a cloud.*
a-wò-hin, *n.* *a branch-back.*
a-wọ'lẹ-hù, *a.* *a fabrication, a lie.*
a-wọ'lẹ-wọ-rí, *n.* *a bowlegged person.*
a-wọ-ní, *pron.* *those.*
a-wọń, *n.* *a tortoise*; *a cunning scamp, a miser, stinginess*: sê awọń, *to be stingy.*
a-wọń, *pron.* *they*: àwọń ná, awọń tìkara wọń, *they themselves.*
a-wọń, *n.* *the tongue.*
à-wọń, *n.* *a net.*
a-wọń-kán, *pron.* *certain, some.*
a-wọń-şọ, *n.* *a weaver.*
a-wọń-yí, *pron.* *these.*
a-wu-dze, *n.* *red beans.*
a-wu-dzọ, *n.* *the midst of a crowd.*
a-wu-dzu, *n.* *confusion, the midst.*
a-ya, *n.* *a wife.*
ā-yá, *n.* *a monkey.*
a-ya-ba, *n.* *a king's wife, a queen.*
a-ya-bá, *n.* *devoutness.* (Acts 17, 17.)
a-ya-kọ, *n.* *a mother-in-law.* (Mat. 10, 35.)
a-ya-kpa, *n.* *division, separation.*
a-ya-mọ, *n.* *a daughter-in-law.*
a-ya-mọ-bi, *n.* *otherwise, unless.*
a-ya-ndze, *n.* *a cheat, imposition.*
ā-yan, *n.* *a cockroach, a stench*: sê āyan, *to stink.*
ā-yan, *n.* *inquisitiveness.*
a-yan-fe, *n.* *which is chosen, beloved*; *a friend*: in the translation of Scripture, "the elect."
a-yan-ga, *n.* *a word of threatening or rebuke to an inferior.*
a-yan-şe, *n.* *which is made or done to order.*

a-yan-şe-bi, *conj.* *unless, except.*
a-ye, *n.* *space, room, opportunity, or time to do a thing*; aye agba, *a chief room.*
a-yē, *n.* *breadth of cloth.*
ā-ye, *n.* *the state of being alive, that which is alive.*
a-ye-tán, *n.* *perfect understanding of a thing.* (Acts 21, 22.)
a-yi-dā, *n.* *change, cycle of time, a year, next season.*
a-yi-da'yi-da, *n.* *much talk, loquaciousness.*
a-yi-ka, *n.* *a surrounding, circle, halo.*
ā-yin, *n.* *a palm-leaf mat.*
a-yin-rin, *n.* *light blue color.*
ā-yo, *n.* *the game called warry.*
a-yo, *n.* *which is beloved, much prized.*
a-yó, *n.* *cating to the full, which is full.*
a-yọ, *n.* *which is selected, chosen.*
a-yọ, *n.* *joy, happiness*: yọ ayọ, *to rejoice.*
a-yọ-lu-wò (ila), *n.* *a spy sent to survey a town.*
a-yọ-mọ, *n.* *a daughter-in-law, the wife of a king's son.*
a-yọ-ni-wò (eni), *n.* *a spy set over one.*
a-yọ-san, *n.* *money paid for sacrifice.*
a-yọ-şe, *n.* *which is done by stealth.*
a-yún, *n.* *a going*: ayún abò, ayún awàh, *going and returning.*
ā-yun, *n.* *a saw, a file.*

B

ba, *v.* *to come in contact with*; and hence, *to meet, overtake, find, befall*: ba tí rẹ lóló (met of thee go), *go thy way*; *go about thy business*; ba...lí òhun (See ba...lòhun); ba...lí onko dze (See ba...lorukodze); ba...ni inọ dze (See ba...nimodze).
bà, *v.* *to bring in contact with*; and hence, *to plait*; *to strain, to bespeak, to come to the point in speaking about a thing*; *to fit*; *to alight*; *to sit, to lie close or hide*; *to bend or to be bent*: bà àro, *to strain potash*; mò bà ẹsin, *I bespoke the horse*; ẹyẹ bà lé okuta, *the bird alighted on the rock*; ibọy bà, *the gun is bent.*
ba, *aux. pref.* *shall, will, would, should, ought.*
bá, *adv.* *at all*: kí یشه ọy bá, *it is not he at all.*
ba, ba-un, *adv.* *so, as*: tálí o wí ba? *who said so?* ńrú ẹnià ba wọni, *such people as these.*
bá, *prep.* *with, from, for*: bá mí lóló, *go with me*; ó bá mí rí àdìe (he from me brought fowl), *he brought a fowl from me*; bá mí wá owó (for me find money), *find or get money for me.*
ba-ba, *n.* *copper, red Guinea-corn.*
ba-bá, *n.* *a father, a master.*
bá-ba, *n.* *a great mother.*

bà-ba, *n.* a small matter: *bàba bò bàba mọlẹ, a great affair covers up a small affair.*
ba-ba-lá (baba alá), *n.* a grandfather, a patriarch.
ba-bá-là-se (alàsẹ), *n.* a chief cook.
ba-bá-là-wo (aláwò), *n.* a priest of Ifá.
bá-bi-ka, *n.* a popular dance.
bá-bu-dzá (abudzá), *v.* to surprise by coming upon suddenly, to thwart.
ba-da, *n.* a title.
bá...dá kpò, *v.* to unite with, to join: *ó bá wọ́n dákpò, he joined them.*
ba-de, *v.* to suit, agree, fit: *ó bade, it suits or fits*: *bata bá mí lí eṣe de, the shoe fits me (on the foot).*
ba...džẹ, *v.* to spoil, corrupt, injure, destroy: *baldžẹ, to be spoiled, etc.*
ba...dži-yan, *v.* to contradict: *ó ba mí džíyan, he contradicted me.*
ba-džọ (edžọ), *v.* to get into trouble: *mo bádžọ ní Ilorin, I got into trouble at Ilorin.*
bá-fin (bá afin), *n.* a eunuch, in the King's palace, where there are six of them.
bá ga-dáí! *by the staff of Ifẹgún! (an oath):* *bagadai! igidá olokó sá, the tree fell and frightened the farmer, i. e. the mountain labored and brought forth a mouse.*
bai, *adv.* See bayi.
bàì-bàì, *adv.* dimly shining.
bá-ka-ná (bá okan ná), *adv.* alike, the same.
ba-lá-bu-dzá (ba lí abudzá), *v.* See abudzá.
ba-la-ga (bá lé aga), *n.* a youth, a young man nearly grown, an adolescent.
bá-lẹ (ilẹ), *n.* a master of a house, landlord.
bá-lẹ, *v.* to be quiet, contented.
bá-lẹ (ilẹ), *n.* a governor.
bá...lẹ-ru (lí eru), *v.* to frighten.
bá-lo-gun (lí egun), *n.* a military officer.
bá...lò-huy (lí in ohun), *v.* to assent to, (Luke 23, 51.)
bá...lo-ru-kọ-džẹ (ba dže lí oruko), *v.* to slander: *ó bá mí loruko džẹ, he slandered me.*
ba-lu-wẹ (lìbì abuwẹ), *n.* a bath-house.
bam-bam, *n.* a battle, for beating mud floors.
bá-mọ, *v.* to consult with.
bá-mọ-lẹ (mọ ilẹ), *v.* to lie in ambush.
ban-gí-dži. See obangidži.
bá...ní-džam ba, *v.* to do violence to, to assault.
bá...ní-nọ-džẹ (bá džẹ ní inọ), *v. t.* to rear, to rear.
bá-o, *adv.* See bawo.
ba-ra, *n.* the ear of the egusi.
bá-ra, *n.* See egghara.
bá...rẹ, *v. t.* to agree, to be friendly.
bá...rẹ-kpò, *v. t.* to be adapted to, (Luke 5, 36.)
bá...rò, *v.* to advise, to consult with.

bá-sa (Egba), *n.* a large room, parlor.
bá...sọ, *v.* to quarrel with, scold.
bá...sùṣù, *v.* to cohabit.
bá...še, *v.* to assist, co-operate; to suit. (Acts 15, 15.)
ba-şọ-ruṅ. See ifaşoruṅ.
ba-ta, *n.* hide, leather, shoe, sandal, hoof; a small box.
bá-ta, *n.* a kind of dena.
ba...tán, *v.* to be akin.
ba...ti, *v.* to miss (as an arrow): *mo bá eṣẹ ti, I missed the bird.*
ba-tu-re (Hausa), *n.* a white man.
bá...wí, *v.* to rebuke, to blame.
ba...wi-džọ (wí džọ), *v.* to judge. (Acts 7, 7.)
ba-wo, *adv.* how?
bá...wọ́n, *v.* to blot, besprinkle.
ba-yi, *adv.* so: *lẹ́h bayi, go in this or that direction* (as the speaker points out).
bá-ni (Egba), *adv.* in the hand: *mú okó bani, take a bow in your hand.*
be, an obsolete verb signifying to heap up (?) whence *bebe* and *che*.
be-be, *n.* the bank or brink of a river or ditch; a shout: a heap: *bebe idí, the camp*; *bebe odžú, the igbrow.*
be-kpe-džẹ (ba ekpe džẹ), *v.* to swear falsely.
bè-re, *v.* to ask, to inquire, to exact: *ó bèrẹ o, he inquired after you.*
be-se, *n.* a saddle-cloth.
bẹ, *v.* 1. to cut; 2. to jump; 3. to be of a red color; 4. to be impudent; 5. formerly, perhaps, to descend, whence *abe* and *bère*; 6. to breed, applied to pigeons and to carnivorous animals only; 7. to cool by fanning: *bẹ lẹ (ilẹ), jump down*; *bẹ sinşan, to split into strips*: *bẹ...lí ori* (See *bẹ...lori*).
bẹ. bẹ-bẹ, *v.* to beg, entreat.
bẹ-he, *adv.* so, thus: *bẹhe kọ, no, not so*; *bẹhe gẹgẹ, even so*; *bẹhe ní, yes, so it is*; *bẹhe ní kò, neither.*
bẹ-kpẹ, *n.* a pauper.
bẹ-lẹ. bẹ-lẹ-bẹ-lẹ, *v.* to be thin, flat.
bẹ-lẹ-džẹ, *adv.* beautifully red or yellow.
bẹ...lo-ri (lí ori), *v.* to behead.
bẹ-ndẹ, *n.* a blow with the fist: *kò...ní bẹndẹ, to strike with the fist.*
bẹ-ntẹ, *v.* to be lean, weakly: *ara mí bẹntẹ, I am lean.*
bẹ-rẹ, *n.* a kind of grass (broom-sedge).
bẹ-rẹ (bẹ and rẹ), *v.* to be low, flat, sloping; to stoop: *kú bèrẹ, to be lying dead.*
bẹ-rẹ-sí, *v.* to begin.
bẹ-rí (orí), *v.* to behead.
bẹ ru (ba eru), *v.* to fear.
bẹ-ru bẹ-ru, *v.* to be timid; *adv.* timidly.

bẹ-ru-ke-ru (ɾu ki ɾu), *v.* to fear something; generally employed in the negative: emi ó bẹru-ke-ru, *I fear nothing.*

bẹ... wò, *v.* to visit, to investigate.

bí, *v.* to ask; to afflict, or cause to suffer; bí... lí ebi (See bí... lebi); bí ino dze (See bíngdze).

bí, *v.* to generate, beget, bear, breed; to follow or succeed.

bí, *v.* to push, omit: bí kiri, to beat or drift about on the water.

bí, *conj.* if, as, though, whether: bí ènia, like a person; bí ofin, according to law.

bí? a sign of interrogation: ó mò bí? does he know?

bí-ba wo? *adv.* whereby? in what way? how?

bí-bẹ, *n.* a begging, supplication.

bí-bí, *n.* birth, a bearing: ó ñkun bíbí, she left off bearing.

bí-bò, *n.* a covering, which is covered.

bí-bò-mọ-lẹ, *n.* which is overwhelmed. (Ps. 77, 3.)

bí-bu, *n.* a patch in a roof.

bí-è-ni-a, *adv.* humanlike, humanly.

bí-e-ru-kpẹ, *adv.* like dust.

bí-ẹ-ni-kpẹ, *adv.* as, as if.

bí-ẹ-ran-ko, *adv.* bristly.

bí'ki-ta, *v.* to notice or regard.

bí-kò-še, **bí-kò-še-kpẹ**, *conj.* but, except, unless.

bí-là, *v.* to open a way or give place in a crowd.

bí... le-bí (lí ebi), *v.* to ask, inquire: bí on lebi, ask him.

bí... lè-re (lí èrè), *v.* to question, interrogate.

bí... lẹ-dzọ (lí ẹdzo), *v.* to arraign, interrogate a person in a court.

bí... lò-hun (lí òhun), *v.* to reproach for a fault.

bí-lù, *v.* to beat against, as waves.

bí-mọ (omo), *v.* to beget, or bear a child.

bí-na-bí-na, *n.* abusive language.

bí... ní-nọ (inọ), *v.* to grieve, to vex.

bí-nọ (inọ), *v.* to be angry.

bí-nọ-dze, *v.* to feel grieved or vexed.

bí-ó-su-mā-rè (osumare), *adv.* in the form of a semicircle.

bí-ọ-kọn-rí, *adv.* manly.

bí-ọ-lẹ-run, *adv.* godlike, godly.

bí-rí, a suffix, *contr.* from ẹbí-rí, a woman: omọ-bí-rí, a girl.

bí-rí, *v.* to be small (applied to land).

bí-rí, *v.* to be large (applied to land).

bí-rí, bí-rí-bí-rí, *n.* darkness; —*adv.* darkly, very dark.

bí-rí-ga-mí, *n.* a haversack, satchel.

bí-rí-ko-to, *v.* to be small, as a hole in the ground: dá ilu bírikoto, dig a small hole.

bí-sí, *v.* to increase or multiply.

bí... tí, *adv.* and *pron.* as, how, what, that: še bí tí ènia, do like a person; bí emi ó tí še? how or

what shall I do? eni bí tí Egba, a mat like those of the Egbas; bí tí inọ rẹ, according to your mind or will; ni bí tí, inasmuch as.

bí... tí-lẹ, *conj.* though, if even: bí á tílẹ sọtẹ sí í, though we have rebelled against him.

bí-ye-sí (hú), to respect or reverence the great. See kalijesi.

bó, *v.* to peel, to strip off, to bray like a he-goat.

bó, *v.* to cover, to be full of leaves, to overwhelm.

bó-bo, *adv.* very or intensely (hot).

bo-de (ba odo), *n.* a custom-house.

bó-dzo (bí ọdzo), *adv.* like a coward, cowardly.

bo-dzu-mọ (ba ọdzu), *v.* to chide, reprove.

bó-dzu-to, **bó-dzu-wò**, *v.* to look upon, to care for, to see after.

bo-dzu-wò (hú), *v.* to look at, visit.

bó-dzu-yàn (ha ọdzu), *v.* to blind with brightness: ọrun bođzuyàn, the sun is blinding.

bó-lẹ (ilẹ), *v.* to rob a house, to confiscate.

bò-lẹ, *v.* to cover or thatch a house.

bo-le-bo-le, *n.* a robber.

bò-le-bò-le, *n.* a thatcher.

bo-lẹ še-bí, **bo-lẹ-še-kpẹ** (bí), *adv.* if possible.

bò-lẹ (ilẹ), *v.* to cover the ground; to flourish.

bó-lo-bó-lo, *n.* a honey-making goat without sting.

bò-mi-wọn (hú omi), *v.* to sprinkle with water.

bo-mọ, the white-grained Guinea-corn (a species of Sorghum).

bò... mò-lẹ, *v.* to overwhelm.

bó-ní (ẹgba), *v.* to be large.

bo-ni-bo-ni, *v.* to be very large.

bò-ra (ara), *v.* to cover, to cover the body.

bò-rí (bó ori), *v.* to surpass, to prevail, to cover the head or top.

bo-rọ, very near (as to distance). See gboro.

bo-rú-kọ... dzẹ (ba oruko dzẹ), *v.* to slander.

bò-tí, *v.* to tear half-way open, to half strip.

bo-ti-bo-ti, *adv.* foolishly (talking), sillily.

bo-yun (abi ayun), *v.* to be pregnant.

bọ, *v.* 1. to drop (as of a solid); hence 2. to slip or slide; 3. to take down, as from a peg; 4. to take off one's clothes; 5. to feed; hence 6. to worship; 7. to wash any part of the body, as the face; 8. to beat, as a mud-floor; 8. to empty (1's 10, 8): ọran ná bọ lí ọwọ mí, that business failed in (lit. fell out of) my hands; mo bọ lí ewu ná, I escaped (lit. slipped out of) that danger.

bọ, *v.* 1. to insert; 2. to pierce; to boil or cook in water; 4. to put on a garment; 5. to shake (lit. insert) hands; 6. to enter or go out of a house; 7. to arrive, to be in the act of coming: bọ lẹ, get down; sokalẹ bọ, come down; ó ntutu bọ, it is getting wet; nwọn sure bọ, they are coming on a run; ó ni bọ wá, he is coming.

bọ-dzu (ọdzu), *v.* to wash the face.

bô-gi (igi), *v.* to worship a tree or image.
bô-kí-ní, *n.* a vent person, dandy.
bô-lá (lâi lâi), *v.* to honor, reverence.
bô-lê, *v.* to fall down, as when struck. (P's. 89, 23.)
bô-lô-gí, *n.* a kind of lily.
bô-lô-dzô, *adv.* beautifully (black). Comp. hê-lê-lê.
bô...lô-wô (lî wô), *v.* to shake hands.
bô-mí (omi), *v.* to put into water, to dip.
bô-n, *v.* to be filthy, shoddy.
bô-ní, *n.* a kind of aracia used by tanners.
bô-ra (arâ), *v.* to wash oneself.
bô-ru-kô-nu, *n.* a stupid spendthrift; wastefulness.
bô-sê (bô êsê), *v.* to go aside on a call of nature.
bô...sî-kpô (ikpô), *v.* to restore one to his place or position.
bô-wáh, *v.* to be in the act of coming; á gbôwáh, we are coming (now on the road).
bô-wô (hú wô), *v.* to divide.
bô-wô, *v.* to shake hands.
bô-wô (hú wô), *v.* to honor.
bô-wô-lô-wô, *adv.* fancifully made.
bô-ya (bí á yâ), *adv.* perhaps.
bû, *v.* to cry aloud, to abuse; to stink; to take a portion of.
bû, *v.* 1. to give; 2. to cut or break, as bread; 3. to cross each other, as roads; 4. to roast in the ashes; 5. to moulder or rot: bû mí lî omi, give me some water.
bu-ba (ibi ibâ), *n.* a lodging-place.
bu-bu-ru (baru), *n.* badness: éniá baburu, a bad person.
bu-do (ibi ikô), *n.* a camping-place.
bû-dza (wâdzâ), to entrust a thing to one to be sold.
bû-dza (bâ idzâ), a reaching the road; see dza), *v.* to make a near cut to a place, to anticipate what one is about to say.
bû-dzê, *n.* a fruit used for making black ornamental marks on the skin.
bû-dzê (ibi idzê), *n.* a feeding-place, a stall.
bû...dzê, *v.* to bite.
bû...ka (ika), *v.* to surround, encompass.
bû...ká, *v.* to distribute around: mó bû owô kâ wô, I gave them money all round.
bu...kâ, *v.* to set on the top of: bu ikôkô kâ ina, set the pot on the fire.
bû-ke (hú ôke), *v.* to swell, to rise in a hump or hillback.
bû-kôj, *v.* to add to, to fill up; to bless.
bû-kùj, *v.* to be deficient, to despise, to make little of. (Jas. 2, 6.)
bû-lâ, *v.* to mix, to adulterate.
bû...lá-bu-ka (lî abuka), *v.* to surround.
bû...lá-dzan (wâdzân), *v.* to cut into bits, to mine.
bu-le', *v.* to add to, to patch.

bû...lû, *v.* to overwhelm, to smite with, to afflict with: ô bû ikôlza lû wô, he smote them with blindness.
bû-mô, *v.* to add to; to hide or conceal itself about one, as vermin: ô bû mô nyin, it hides about or clares to you.
bûn, for bû, *v.* to give.
bu-ra (ara), *v.* to swear, to take an oath.
bu-ru, *v.* to be bad, ugly.
bu-ru-bu-ru, *adv.* badly, closely (hiding).
bu-ru-ku, *adv.* intensely, very.
Bu-ru-kâ, *n.* an evil deity who causes some kinds of fits, and produces death in small-pox.
bû-sí, *v.* to add to, to bless, to offer sacrifice to.
bu-sô (ibi isô), *v.* a tying-place for animals, a stall.
bu-sô (ibi isô), *n.* a resting-place, where travellers put down their loads.
bu-sû, *n.* loose, heavy sand.
bu-sûj (ibi isûj), *n.* a sleeping-place, a bedstead.
bû...sân, *v.* to bite severely, as a dog: ô bû mí sâj, he bit me.
bû...wôj, *v.* to sprinkle with anything.
bû-yin (iyin), *v.* to praise, to honor: mó bûyin fu ô, I praise thee.

D

dâ, *v.* 1. to make, create.
 2. to assault, strike: ô dà mí lî igi, he struck me with a stick.
 3. to flash: manamana dâ, the lightning flashes.
 4. to break or be broken: ô dà mí lî êsê, he broke my foot, or leg: êsê mí dâ, my foot is broken.
 5. to cease: ôdzo dâ, the rain ceases.
 6. to be dry, without rain: gâ dâ lî wâjyî ni, there is a drought (lit. it drougths) this year.
 7. to give: dâ êkô fu arza, give mush to the dog: dâ owô, to contribute money.
 8. to prepare or buy: dâ êkô, buy mush, i. e. have it prepared.
 9. to pay: dâ owô ôde, to pay a fee.
 10. to prescribe: tali ô dâ êkô ná? who prescribed that sacrifice?
 11. to speak or mention: nuâ sê dâ orukô rê, do not mention his name.
 12. to conquer, whip: kanakana dâ kanakana, a croon whipped a croon.
 13. to be intelligent, give promise: ênyô ná dâ, that child is intelligent.
 14. to be sound: arâ mí dâ, my body is sound.
 15. to overturn, as a stone or anything heavy: dâ...lî aga. See dâ...laga.
dâ, *v.* 1. to pour out.
 2. to overturn, capsize, as a boat.

3. to remove a thing from one position to another,
 4. to betray, disappoint,
 5. to purify, as silver,
 6. to be acceptable, as a sacrifice,
 7. to turn about, change the position of,
 8. to offer a sacrifice,
 9. to become,
 10. to hunt or be hunted, as a sword,
 11. to attend to, as cattle,
 da, *adv.* where? *iwé mí da?* where is my book?
 da-ba (aba), *v.* to think of, expect, suppose,
 dà-ba, *v.* to be flat, as a roof,
 da-bí, *v.* to resemble, be like; to act the part of,
 da-bò-bò (abò bò), *v.* to shelter, defend, protect,
 da-da, *n.* which is made,
 Da-da, *n.* one of the Yoruba idols, a proper name of a person,
 da...du-ro, *v.* to detain,
 da-dza, *v.* to severance,
 da-dzi, *v.* to arise before day,
 da-dzó-ko, *v.* to sit, to sit steadily or long,
 da-dzo, *v.* to appoint a day for any purpose; to judge,
 da-dzu, *v.* to be evident, confident, impudent,
 da-dzu-da-dzu, *adv.* evidently, confidently, certainly,
 dá...fò, *v.* to invent a report or story,
 da-gba (igba), *v.* to grow, to be developed,
 da-gbe-re (dà), *v.* to bid farewell,
 da-gbe-se, *v.* to run in debt,
 da-gbo (ogbo), *v.* to grow old,
 da-gin, *n.* the back of a furnace or chimney,
 da...gi-ri, *v.* to frighten, to drive people together, as when they collect from fear of war,
 da-gun (ogun), *v.* to collect into a pool or pond,
 da'ho-ro, *v.* to dissolve or destroy a town,
 dà-huy (dà dhuy), *v.* to reply, answer,
 dai-ya-fo (dò aya), *v.* to frighten, discourage,
 dá-ka-ka, *v.* to spout,
 dá-kàn, *v.* to strike against,
 da-ke, *v.* to be silent, to cease; figuratively, to be dead,
 dá-ke-dzé, dá-ke-rò-rò, *v.* to be calm, as the wind,
 da-kò-dza, *v.* to slip over, pass by, to neglect,
 da-kpa-ra, *v.* to be hard, as flint; to corks, to rust,
 da...kpè, *v.* to contract a word,
 da...kpò, da...kpò mò, *v.* to adhere, join, mingle,
 da-kú, *v.* to faint, to be at the point of death,
 da-kup, *v.* to withhold,
 dà-kup, *v.* to feel threat,
 dá...ku-ro, *v.* to release, acquit; to depart,
 dá...la-da-dzù (lì), *v.* to over-drive, as a flock,
 dá...la-ga (lì agà), *v.* to worry,

dá...la gbe de me dži, *v.* to cut in two, to divide,
 da...la mu (lì), *v.* to confuse, confound,
 da...la ra (lì), *v.* to disappoint, to annoy,
 da...la'ra-ya, *v.* to criticize, to cheer,
 da...lā-re, *v.* to justify,
 da...lā-wín, *v.* to trust, to sell to on credit,
 da...lā ye, *v.* to give life to, to quicken,
 da...lē, *v.* to put down,
 da...lē-kun, *v.* to prevent, forbid,
 da...lē-sẹ (lì), *v.* to cripple the foot or leg,
 da...lē-sẹ, *v.* to convict of sin,
 da...lì da, *v.* to strike with a sword,
 da...lò-dzo, *v.* to frighten, intimidate,
 da...lò-dzù, *v.* to make one certain: ó da mí lodzù, I am sure of it,
 dà...lò dzù, *v.* to disappoint,
 da...lo-go, *v.* to glorify,
 da...lò huy, *v.* to answer, reply,
 da...lo-ro, *v.* to torment, torture,
 da...lu, *v.* to burn,
 da...lú, *v.* to mingle, adulterate,
 da-lù, *v.* to fall upon: okuta dàlù kpà á, a stone fell on and killed him,
 da...me-dži (molži), *v.* to cut or divide into two parts: So, da...mèta, da...mèrin, &c., to divide into three parts, four parts, &c.,
 da...mò, *v.* to cause to adhere, to strike against, to impute: kò da ẹ̀sẹ̀ mọ̀ wá, he does not impute sin to us: kò da ẹ̀sẹ̀ mọ̀ Adama, he did not create Adam a sinner,
 da-mò, *v.* to hold an erroneous opinion, to invent a doctrine, to be a heretic,
 da-mò-dza (amòdza), *v.* to guess,
 da-mò ran (ẹran), *v.* to purpose, advise,
 dà-mu (àmù), *v.* to perplex, confuse; to be confounded, to be damned,
 da'mu-re (amure), *v.* to gird,
 da-na (ina), *v.* to make or kindle a fire,
 da...ni da (dà ní dà), *v.* to be or to make according to nature, to look or be natural,
 da-ni...da-gi-ri, *v.* to frighten people, as war, which drives them together,
 da...ni de (ide), *v.* to release, set free,
 da...ni-dza (idza), *v.* to throw in something,
 da...ni-dži (idži), *v.* to frighten, surprise,
 da...ni-gi (igi), *v.* to beat with a stick, to cudgel,
 da...ní-kpa (ikpa), *v.* to cause division or strife, to separate or disunite friends,
 da-ni...lò-dzù (olžù), *v.* to make one certain: ó dani lodzù, we are certain of it, confident as to its truth,
 da...nù, *v.* to pour out, throw away, waste: nwayi sẹ̀yẹ̀ daniyè lomi, they failed in their negotiation today,

dá nũ (cũu), *v.* to be fluent, talkative.

dan, *v.* to be smooth, bright, as metal; to be slippery, as a wheel; to polish; to be good, all right.

cãn, *a sign of interrogation*: iwe mẽ dan? do you know?

dan-dan, *n.* a tale mirror.

dan-ka-re, *n.* soldiers.

dan...wõ, *v.* to try, to tempt; to consult an oracle or a priest, to divine.

da-ra (dĩ ara), *v.* to be good, handsome, pretty.

dà-ra (àrà), *v.* to introduce a new fashion or custom.

da-ra-da-ra, *n.* smallness;—*adv.* in a good manner, well.

dà-ran (dĩ ran), *v.* to transgress, to commit a fault.

da-ràn-da-ràn, *n.* a cattle-driver, herdsman.

da'-ra-ya (araya), *v.* to work or to be cheerful, merry.

da-ri (dĩ ri), *v.* to lead, to drive.

da-ri...dĩl (dĩl and dĩl, fire), *v.* to forgive.

da-ri...dĩzõ, *v.* to assemble, to meet.

da-ro (arõ), *v.* to dye blue.

dà-ro (àrõ), *v.* to grieve, to feel uneasy about a thing.

da-ru, *v.* to stir up, confuse things; to be mingled in a confused manner.

da-ru-da-kpõ, da-ru-kpõ, *v.* to mix or be mixed confusedly.

da-ru-da-ru, *adv.* entirely: ituku bo ìlu mọle darudaru, the fog hides the town entirely.

da ru gbõ (dĩ arugbõ), *v.* to grow or be old.

da-sũ, *n.* a small covered dish.

dã-sa, *v.* to lie down, to fall and sleep.

da-se (c-c), *v.* to stop going to a place; to cease, leave off.

da...sĩ, *v.* to be, to mendle; to reserve, to spare.

da...sĩ-lẽ (lĩ), *v.* to cause a thing, to introduce; to reserve, spare, discharge.

da...sõ, *v.* to talk about, mention.

da sũ, *v.* to presume, dare, (Acts 5. 13.)

dã-sa, *v.* to introduce a custom or fashion.

da...sẽ, *v.* to fail, to risk, (1's. 12, 1.)

da sọ bõ (arõ), *v.* to chafe, cover.

dau-du, *n.* chest son of a prince, the heir apparent.

da win (awin), *n.* to pay by instalments.

dã...wõ, *v.* to consult an oracle, to inquire of the gods.

da wõ (owõ), *v.* to contribute, to pay: dawo cẽu, to pay into the savings club; dawõ lẹ, to pay down.

da wõ kpõ (owõ), *v.* to combine in a scheme.

da wõ lẹ (owõ), *v.* to lay hands on, undertake.

dã-wũ (own), *v.* to reel or wind thread.

dã ye-lẽ. See dĩlẽ.

de, *v.* to come to, arrive at, come upon, to extend to; to cover with a lid; to wear, as a hat: bũ mi de olũ ña, go with me to the gate; de...lĩ ake (c-c de...ake).

de, *prep.* for, ready for, to.

dẽ, *v.* to bind, shackle; dẽ mọ, to bind to.

de-bi-kpa (dĩ bi), *v.* to stare.

de-de (Egla), *pron.* all, every.

dẽ-dẽ, *adv.* rightly, properly.

dẽ-hũn (õhũn), *v.* to conclude a bargain.

de-ke (dĩ), *v.* to invent or tell a lie.

de...la-de (lĩ ake), *v.* to crown.

de...lõ-na (ña), *v.* to withstand, oppose.

de...mõ-lẹ, *v.* to cover up.

dẽ-na (ña), *v.* to stop the road, to obstruct: dẽna de, to lie in wait for.

dẽ-ri (arĩ), *v.* to cover the head.

dẽ-tĩ. See dĩtĩ.

dẽ-wõ (dĩ wõ), *v.* to prohibit on religious grounds.

dẽ, *v.* to hunt, chase, to set a trap: dẽ sĩ, to set a dog after; dẽ sĩlẹ, to lay a snare.

dẽ, *v.* to be soft, ripe, loose, slack; to grow negligent, to mitigate, as pain: dẽ...lĩ ara (see dĩ...lĩ ara).

dẽ-bi (dĩ bi), *v.* to pronounce guilty, to condemn.

dẽ-dẽ, *adv.* near by, at hand: olũ ña dẽdẽ, the clouds are dark and low, i. e. near the earth.

dẽ-dõ (dĩ), *v.* to fish with a net.

dẽ-dza (dĩza), *v.* to fish.

dẽ-dza' (arĩa), *v.* to hunt with a dog.

dẽ-dzã (olũzã), *n.* coarse cloth.

dẽ-gbẹ, *v.* to hunt in the woods or prairies.

dẽ-hĩj (Egĩa), *adv.* again, more: mãh dẽhĩj sọke, don't do any more.

dẽ-kun (dĩ kun), *v.* to cease, to gild: dẽkun! forbear! desist! let me alone!

dẽ-kun' (õkun), *v.* to set a rope snare.

dẽ...la-ra (lĩ arĩa), *v.* to relieve, to make comfortable.

dẽ-nõ (ĩnõ), *v.* to fast.

dẽn-gẽ, *n.* soft mush.

dẽ-ra (arĩa), *v.* to be negligent, slothful.

dẽ-re-dẽ-re, *adv.* loosely hanging.

dẽ ru (cũu), *v.* to be terrible: ò dẽru sĩ mĩ, it is terrible to me.

dẽ-ru (dĩ), *v.* to bind or pack goods.

dẽ-ru-ba (cũu), *v.* to wake afraid.

dẽ-sẹ (c-c), *v.* to slacken the pace, stop.

dẽ-sẹ (dĩ sẹ), *v.* to sin.

dẽ-tĩ (cĩ), *v.* to incline the ear, to listen, hearken: dĩtĩ sĩlẹ, to listen secretly or attentively.

dẽ-tĩ, *v.* to be difficult, to fail in an attempt.

dẽ...wõ. See dĩwõ.

dĩ, *v.* to bind, tie, close up; to wreath; to acquire; to chew tobacco; to be entangled, complicated; to congregate, to grow hard on cooling, as tallow; to be depicted, to lack: a dĩ dĩl, it lacks two cowries;

dĩ...lĩ olũ (see dĩ...lĩ olũ). See dĩl.

dĩ, *v.* to be, become, to be changed : ó nli arugbó k̄h, he is growing old ; dĩ ów, to disappear, vanish : titi ó tĩ dĩ isisiyi, till now (lit, till it made to become now) ; ó dĩ ók̄i, wait till to-morrow (lit, till it becomes to-morrow) ; ó dĩ idz̄o koolzi uwag k̄h, they went the next day.

dĩ (dĩ), *prep.* from, employed in composition : mełzi dĩ li ogug (two from on twenty), eighteen.

dĩ ba-dz̄e, *v.* to spoil, be corrupted.

dĩ bí. See dĩ-bi.

dĩ bo (dĩ), *v.* to cast lots.

dĩ da, *n.* which is made, which is healthy : dĩla gbi, condemnation ; dĩla ará, health ; se dĩla ará, to heal.

dĩ de, *v.* to arise.

dĩ dĩ, *n.* which is harmful, wreathed. See dĩ.

dĩ dĩ, *n.* the game of draughts.

dĩ dz̄a, *v.* to cause war, to become a fight.

dĩ dz̄e, *v.* to complete, to circulate.

dĩ dĩ, *v.* to be afraid, to be disappointed, mistaken : me dĩlzi babá mĩ nĩ, I thought it was my father, but was mistaken.

dĩ dzu, *v.* to be entangled.

dĩ ẹ, *n.* a little, a few, some.

dĩ . . . ẹ-ẹ-se mu-lẹ or **ni-lẹ**, *v.* to establish, confirm.

dĩ ẹ, *v.* to bloom, to blossom.

dĩ gba-ro, *v.* to remain standing, to wait.

dĩ gba, *conj.* till.

dĩ gbo-še, *adv.* by and by.

dĩ gi, *n.* a glass, a mirror.

dĩ go, *n.* a breech-cloth.

dĩ . . . ha'-mọ-ra, *v.* to gird.

dĩ . . . ka-lẹ, *v.* to establish, confirm.

dĩ kpa-ra, *v.* See dakpara.

dĩ . . . la'-mu-re (li), *v.* to gird.

dĩ . . . le-ti (li), *v.* to deafen, to refuse to hear.

dĩ lẹ, *v.* to be dilatory, at leisure.

dĩ . . . lẹ-ru (li), *v.* to enslave.

dĩ . . . lẹ-won (li), *v.* to chain.

dĩ lo-dz̄a (li), *v.* to tangle, to blindfold.

dĩ lu, *v.* to congal.

dĩ mọ, *v.* to fasten on, to clasp or cling to.

dĩ mọ, *v.* to agree upon, covenant.

dĩ mu, *v.* to hold, uphold, lay hold on.

dĩ na, *v.* to block up the road, impede, hinder.

dĩ nf-bo (ni), *v.* to grasp, enlose in the hand.

dĩ nf gbe-sin (ni), *v.* to take captive.

dĩn dĩ, *v.* to bake, parch, fry.

dĩn ka-ra (akara), *v.* to bake bread.

dĩ ri-ki-si, *v.* to conspire, plot against.

dĩ-ron (iron), *v.* to plait the hair.

dĩ-si-si-yi, *adv.* till now, hitherto.

dĩ-ti (eti), *v.* to be deaf.

dĩ wó, *v.* to be in a strait or difficulty.

dĩ ye-le, *v.* to set a price on, charge for.

dó, *v.* to encamp, to inhabit (an indecent word) : dĩ tĩ k̄i, to encamp against, to besiege.

dó dó, *n.* the wall ; in the Ketu dialect, a room in a house.

dó-dó, dó-dó-dó, *n.* teeth, righteousness : se dó-dó-dó, to be upright.

dó-dzu-bọ-lẹ, *v.* to turn the face towards the ground, to hang down the head.

dó-dzu-de, *v.* to turn upside down.

dó-dzu-kó-dó, *v.* to hang down the head, to meditate, ponder.

dó-dzu-ti, *v.* to make ashamed, to put to shame, to abash.

dó-gi-ri, *v.* to gallop.

dó-go-ti, *v.* to dawn.

dó-gun, *v.* to rust.

dom dom-al-ye (dón d̄y), *n.* comforts, luxuries of life.

dó-ri-kó-dó (ori). See dodz̄ukódo.

dọ-ba-lẹ (d̄a ibal̄), *v.* to prostrate, to lie flat.

dọ-ẹ, *v.* a raven.

dọ dọ, *adv.* much shrivelled or cool.

dọ gba, *v.* to be equal, right, straight.

dọ-kọ-du-ro (d̄kọ), *v.* to anchor.

dọy, *v.* to cry, as any beast or bird.

dọy, *v.* to be sweet, pleasant ; to affect pleasantly or painfully : in̄ mĩ dọy, my mind is pleasant, i. e. I am pleased ; in̄ dọy mĩ, my belly aches or pains me ; in̄ mĩ dọy s̄i i, I am pleased with him (Mat. 3, 17) ; ki li ọ dọy ọ, what ails thee.

dọy-dọy, *n.* a kind of drum.

dọy-mọ, *v. t.* to please.

dũ, *v.* to be block.

dũ, *v.* to deny, to refuse, to grasp : ó dũ mĩ li owó, he refused me money.

dũ-bu-lẹ, *v.* to lie down : dũb̄il̄ ẹny, to be sick a-bed.

dũ-du, *n.* blackness.

dũ-dz̄e, *v.* See dĩd̄z̄e.

dũ-gbo-lu, *n.* a stumbling-block.

dũ-kẹ-lu-kẹ, *adv.* verily.

dũ-kẹ, *v.* to thank.

dũ-lu-mọ, *v.* to slander.

dũn, dũn. See d̄y, d̄y.

dũ-ra, *v.* to make an effort to prevent falling when one stumbles.

dũ-ro, *v.* to stand, to wait, stay : dũro tĩ, dũro t̄i s̄i, to stand by, wait on ; mu . . . dũro, to make or cause to stand.

dũ-ru, *n.* a violin, a guitar : l̄a dũru, to play the violin ; li odz̄a okan dũru, on the harp. (Ps. 49, 4.)

dũ ru dũ-ru, *n.* greatness (applied to the works of God).

dza, *v.* to jerk, to break, as a rope; to break loose, as a horse; to snatch, to drop from aloft, to find out a thing; to reach the road.

dzá, *prep.* through, throughout a place.

dzá, *v.* to fight, quarrel, strive; to rage, as a storm: dzá ôle, to steal; nwan dzá â to bálé lóh, they dragged him to the governor; dzá...li ôle (=so dzá...lôle).

dzá-bô, *v.* to escape by struggling.

dzá-de, *v.* to go out;—*adv.* out, forth: dzáde! turn out!

dzá-fa-ra (dže afara), *v.* to be slow, to hinder.

dzá-gan, *v.* to be rough, harsh.

dzá-gbá, *v.* to perform a job (applied to pawn-servants, who must do jobs for the pawnor, when called on).

dzá-gba dzá-gba, *adv.* confusedly.

dzá-gi di dzá-gan, *n.* a low, mean fellow (Acts 17, 5); base conduct.

dzá-gu dá-kpa-li, *adv.* on any account.

dzá-gu-du, *v.* to struggle together, tug at each other.

dzá-gun, *v.* to fight, in war;—*n.* a title.

dzá-hij dzá hij, *adv.* through, from side to side.

džai ye (dže), *v.* to enjoy the world, to act extravagantly.

dža-ka, *n.* a way.

dža-ka-di, *v.* to wrestle.

dža-ka-re, *n.* soldiers.

dža-ko ro, *v.* to contradict, oppose.

dža-ku-mô, *n.* a leopard.

dža-kun (ókun), *v.* to break a rope, to break loose.

Dž-ku-ta (ókuta), *n.* the storm-caster, a name of Sango, the god of thunder.

dža-là, *v.* to escape by fighting, to fight one's way through.

dža-le (ôle), *v.* to steal, pilfer.

dža...le-ka-na (li ekana), *v.* to pinch, to scratch.

dža-le (ilê), *v.* to go through the country;—*adv.* to the ground (see koro); flatly, utterly refusing.

dža-le, dzá-le, dzá-le, *adv.* thoroughly.

dža...lê-nu (li enu), *v.* to wean.

dža...lô-le (li ôle), *v.* to steal from.

džá-lô, *v.* to attack by surprise.

džá-ma, *n.* a soldier.

dža-mba, *n.* damage, violence: ba ni džamba, to assault, to do violence to.

dža-na (ôna), *v.* to reach the road, to be reasonable in one's position.

dža...ni-de (ni île), *v.* to release one by force.

dža...ni-ko-ro (ikoro), *v.* to contradict.

dža...ni-yan (iyau), *v.* to dispute with.

dža-nu (enu), *v.* to boast.

džau džau, *adv.* intensely hot: ora mú džau džau, the sun is very hot.

dža ngbo ro, *n.* the knee-cap.

dža-nká-wô, *n.* soot.

dža-re, *v.* to be right; to justify, to be justified; if you please.

dža-si, *v.* to reach, arrive at, drop into; to be or act as: dzá-si bí, to be according to.

dža...ti-lê (ti ilê), *v.* to cast down.

dže-gbe-dže-gbe, *adv.* childishly, foolishly.

džé-ni-a-džé-ni-a, *n.* a cannibal.

džé-re, *v.* to gain, deserve, earn.

džé-re-džé-re, *adv.* sparklingly, dazzlingly.

džé, *v.* to be, to act in a capacity: bí (bírny) ka dže kpèlu mí, if God shall be with me.

džé, *v.* to cut, to consume; to owe; to deserve, to gain, earn, get; to perform, to make; to reply, to deliver (a message); to let or permit, to be willing, will, would; to mean, as a word, to be named: dže íu, to consent to (Gen. 34, 23); dže...li grí (see dže...lgrí).

džé, dže-džé, *adv.* quietly, still.

džé-bi (ebi), *v.* to be guilty, to be condemned.

džé-di-ê-di-ê, *n.* a kind of racket, so called from its cry.

džé-džé-džé, *adv.* very gently, quietly.

džé...gbe-se. See džigbese.

džé-gú-du-ra-gú-du, *n.* a ragabond, a knifer.

džé-hun (ôhun), *v.* to cut; džéhun lara (li ará), to feed on. (Is. 49, 14.)

džé-ka, *v.* to snare.

džé-la-ra (li ará), *v.* to feed on.

džé-lê-ri (li erí), *v.* to bear witness.

džé-lô-wê (li owê), *v.* to aid in work.

džé-ni-ya (iya), *v.* to punish, afflict.

džé-ri, *v.* See džé-leri.

džé-run, *v.* to devour.

džé-un, *v.* See džéhun.

džé-wô (owô), *v.* to confess.

dži, *v.* to steal.

dži, *v.* to awake, awaken, quicken, frighten.

dži, džin, *v.* to fall into a hole, to lap a cask, to know; to be deep, obscure, or hard to understand, to be distant: dži li ęę (see dži...lesę).

dži...di-de, *v.* to arouse, to raise from the dead.

dži-dža, *n.* which is lustrous.

dži-dža. See dži.

dži-dža-du, *v.* to scramble for a thing.

dži-dže, *n.* food. See dže.

dži-džin (dži), *n.* depth, distance, lowness.

dži-džo, *n.* resemblance. See dže.

dži-džu, *n.* which is east, etc. See džu.

dži-gbe-se (dže), *v.* to go in debt, to owe.

dži-gbi ni, *adv.* abundantly fruitful.

dži-goy-roy, *v.* to be deep, as a pit.

dži-hin (dže), *v.* to deliver a message, to answer for an officer.

dži-ká-nu (Nufé), *n.* a brick.

dzi...le-se (li e-se), *v.* to strike the foot against, to supplant.
 dzi...le-se (e-se), *v.* to strike with the fist.
 dzi-mi dzi-mi, *adv.* gorgeously.
 dzi-mi rà-ta, *n.* a term of abuse.
 dzi-na, *v.* to heal, as a wound.
 dzi-na (ña), *v.* to be far off.
 dzi-nde, *v.* to arouse, to raise from the dead.
 dzi-ndi (di), *v.* to steal and conceal: dzi-ndi dzi-ndi to be thievish.
 dzi-nle (ni il), *v.* to be deep, abstruse, mysterious.
 dzi-se (dzi ise), *v.* to deliver a message, to act as a mediator.
 dzi-ya (iya), *v.* to suffer.
 dzi-yau (iyau), *v.* to be careful, cautious; to contradict, deny.
 dzó, *v. i.* to dance, to whirl; to burn.
 dzó, *v.* to leak, to drop, as water.
 dzó-fó-ló, *n.* a kind of cap.
 dzó-gun (ogun), *v.* to inherit, possess.
 dzó-ko, *v.* to sit, dwell, abide: dzóko de mi, wait for me.
 dzó-kpa, *v. t.* to consume, burn up.
 dzó-na (ina), *v. t.* to burn.
 dzó...ni-run, *v. t.* to burn up, consume.
 dzó-ran, *v.* to catch or take fire.
 dzó-run, *v.* to burn up, consume.
 dzó-we-re (dzá), *v.* to struggle, to be in trouble.
 dzó-wu (dzi owú), *v.* to be jealous.
 dzó-ye (dzi ove), *v.* to be a ruler, to govern.
 dzó, *v.* to be alike; to assemble, to be together: dzó! please! dzó mi li gón, let my neck alone; dzó rě, let it alone; dzó mi lówó, let me alone.
 dzó-ba (dzi oha), *v.* to reign, rule.
 dzó-dzò, *adv.* very, greatly, well.
 dzó-lá (dzi), *v.* to enjoy an honor due to another.
 dzó-lò, *n.* a long-necked calabash.
 dzó-wò (dzi owó), *v.* to let, permit; to let alone.
 dzó-wò...dzé, *v.* to let alone.
 dzó-wò-ló-wò, *v.* to release, dismiss.
 dzu, *v.* to be worm-eaten, as wood; to take up a thing.
 dzù, *v.* to cast, to throw; to surpass. In comparison, more, more than, above, very. (See Gram. § 207.)
 dzu-ba, *v.* to respect, to remember with gratitude.
 dzu-di dzu-di, *adv.* confusedly, applied to the mind.
 dzù-fu, *n.* an arachnid.
 dzu-ku, *n.* tobacco of native manufacture.
 dzu-mò, *adv.* together.
 dzu-nò, *v.* to throw away, to lose, to be lost.
 dzu-re, *v.* to point, direct, show how to do.
 dzu-wò (owó), *v.* to beckon.

E.

e, a prefix, having the power of a.
 ê, *interrog.* what? which? ê ti se? why?
 è, *adv.* and prefix. in, an: èmò, unknown; è dara, not good.
 ê, *pron.* him, her, it, after a verb ending in 'e': as, se è, do it, kpé è, call him.
 è-be, *n.* a hill to plant gums in: kò èbe, to make gum-hills.
 e-be, *n.* gum-parings: fi ebe fu ran, give the gum-peltings to the goat.
 e-bi, *n.* a journey: mo rè èbi, I went a journey.
 e-bí, *n.* hunger: ebi kpa, hunger affects; ebi nkpa mi, I am hungry; ebi kò kpa o, thou art not hungry.
 e-bi, *n.* vomit.
 è-bi, *n.* a question, interrogation: bi i li èbi, ask him.
 e-bi-li-si, *n.* a demon, the devil.
 è-bo, *n.* a binding; a species of fig-tree.
 e'-bo-lo, *n.* a pot-herb.
 e-bu, *n.* a crossing; a reverse, abuse.
 è-bu, *n.* mildew.
 è-bu, *n.* small gums to plant, gum-plantings.
 e'-bu-te, *n.* a landing-place, wharf: omi bò ebute mole, the water covers the wharf.
 e-de, *n.* a crayfish, a prawn.
 è-de, *n.* a language, a nation: emi è gbò ède rě, I do not understand thee.
 e-di, *n.* a deficiency.
 e-dí, *n.* a cause, origin. See idi.
 è-di, *n.* a binding, a bond.
 e-dí-dí, *n.* a stopper, a cock; a bundle, parcel.
 è-do-ló, *n.* the house-cricket.
 e-dú, *n.* charcoal.
 e-dza-nò, *n.* passion, intense feeling.
 e-dzé, *num.* seven.
 e-dzi, *num.* two.
 è-dzi (Egba), *n.* ruin.
 è-dzi-ká, *n.* the shoulder.
 è-dzi-kap, *n.* a thief, a robber.
 e-dzi-lá, *num.* twelve.
 è-dzo, *n.* a snake: èdzo li oró, the snake is poisonous.
 e-dzo-nò (inò), *n.* an intestinal worm.
 e-dzu-dzu, *n.* a kind of fan.
 e-ga-ke, e-gi-ni, *n.* a tickling: málh rin oyo li egake, do not tickle the child.
 e-gha-ya, *n.* a pole tied across rafters.
 e-gbe, *n.* profit; vindication; condescension.
 e-gbé, *n.* loss, perdition: egbé ni tu o! damn thee!
 e-gbe-re, *n.* a kind of evil spirit.
 e-gbin, *n.* a kind of antelope.

e-gbii, *n.* *filth.*
e-gbo, *n.* *hewn, husk of grain.*
e-gbô, *n.* *boiled maize, hominy; toughness.*
è-gbo, *n.* *a foot; a sore, ulcer.*
e-gbôn, *n.* *a flea, a tick.*
e'-ge-de, *adv.* *only.*
e-gi-ni. See egake.
e-gi-ri, *n.* *chilliness; egiri mu mi, I am chilly.*
e-gun, *n.* *an imprecation.*
e-gun, e'-gun-gun, *n.* *a hour.*
E-gun-gun, *n.* *one of the gods.*
e'-gu-re, *n.* *a village.*
ê-gu-rin, *n.* *dirt, filth.*
e-hâ-se, e-hâ-ti-sê, *adv.* *why? what for?*
e-he-re, *n.* *a crop, a harvesting.*
e-hin, *n.* *a tooth; chin gkânkay, a front tooth; chinjôn, toothache.*
e ho-ro, *n.* *a rabbit.*
e-hu, *n.* *a sprout, blade of young grass.*
e-hù, *n.* *which is old and stale.*
e'-i-bô, o'-i-bô, *n.* *a white man.*
ei-di, *n.* *a wart.*
e-kan, e-ka-na, *a claw, finger-nail.*
e-kan, *n.* *young sprouts.*
è-kan, *n.* *a wooden pin or peg.*
e-ke, *n.* *a lie, falsehood; a liar.*
e-ke-dze, *num.* *the seventh.*
e-ke-dzi, *num.* *the second.*
eki, *adv.* *only; eki wura, pure gold.*
e-ki-ri, *n.* *a kind of goat.*
è-ki-ti. See ôkiti.
e-kô, *n.* *which is callous; hard pads of okra.*
e'-ko-lo, *n.* *the earth-worm.*
ê-kô. See oruko.
e-kpa, *n.* *a crust.*
e-kpe, *n.* *a curse, an oath.*
e-kpo, *n.* *chaff, husk, bark; palm-oil.*
e-ku. See ekute.
e-ku-ku, *n.* *a cocoon.*
e'-ku-lu, *n.* *a kind of antelope.*
e-kun, e-ku-kun, *n.* *a knife-handle, a hilt of a sword.*
e-kun, *n.* *protracted sickness; a region of country.*
e-kun, e-ku-run, *n.* *the knee.*
e'-ku-rô, *n.* *the dry palm-nut.*
e-ku-ru, *n.* *bread of pau-mut.*
e'-ku-ru, *n.* *dust.*
e kû-ru, *n.* *the mango.*
e'-ku-te, *n.* *a rat.*
e-ku-ya, *n.* *a pal-herb.*
e-le, *n.* *force, violence, hardness.*
e-lê, *n.* *a course or layer, on a wall; an eminence; iron tools, weapons; interest on money; êlê! to arms!*

e-le-gbe, *n.* *an aider, instigator; one who responds in chorus.*
e-le-gê-de, *n.* *a pumpkin.*
e-le-ke, *n.* *a liar.*
e-le-kpe, *n.* *a square.*
e-le-ni-ni, *n.* *a backbiter, a despoiler.*
e-lê-ri, *n.* *which is filthy, filthiness.*
e-lê-ru-kpe, *n.* *which is earthly or earthly.*
e-lê-se, *n.* *a maker or seller of colors.*
e-le-so, *n.* *which is fruitful, fruit-bearing.*
e-lê-šu, *n.* *one possessed with the devil.*
e-le-ti, *n.* *one who is obedient.*
e-le-yi, *pron.* *this.*
ê-lo, *adv.* *how much? in price; êlo yi? how much for this?*
ê-lo, *n.* *use; furniture, a utensil, ingredient; ohun êlo, a vessel.*
e'-lu-bô, *n.* *gun-floor.*
e-mi, *pron.* *I, me; emi ná, emi tikañ mi, I myself.*
e-mi-nà, *n.* *the fruit-bearing gum-creeper.*
e-mi-rin, *n.* *the sand-fly.*
e-mô, *n.* *a bar growing on grass; emô agbo, a large kind of bar.*
ê-mô, *n.* *which is unknown, strange; a monster, a wonder; emô de loni, a wonderful thing has happened to-day.*
e-na, *n.* *a stretching; a visit.*
ê-na, *n.* *war-pins of a loom.*
e-ni, *num.* *one.*
ê-ni, *n.* *an addition to price or quantity, something added to a message.*
ê-ni-a, *n.* *a human being, person; mankind, people.*
e-ra, i-ra, *n.* *a kind of antelope.*
e-rà, *n.* *a small black ant.*
ê-rán. See rán.
ê-ran, *n.* *crab-grass.*
ê-rân, *n.* *inflection.*
e-rê, *n.* *an imprecation.*
e-rê, *n.* *an image; goodness, guilt, going; erê ɛ́sín, the guilt of a horse.*
ê-re, *n.* *a question; bí lí ɛ̀re, to ask; ɛ̀re bí lí ɛ̀rê? why? for what reason?*
ê-rê, *n.* *the hui constrictor.*
ê-re, *n.* *gain, desert, guilt, interest on money; a crop; dze ɛ̀re, to gain.*
e-re-kê-re, *n.* *dishonest gain, filthy lucre.*
e-re-kê-ti, *n.* *a dung-hill.*
e-re-ko, *n.* *a handful.*
e-re-ku-šu, *n.* *an island.*
e-re-ni, *n.* *the fourth day hence; ɲ ô lola lí ɛ̀reni, I will go four days hence.*
e-ri, for ori, *n.* *the head; eri ekun, the knee pain.*
ê-ri, ê-rin, *n.* *filth, wet bran fed to goats.*
ê-ri-gi, *n.* *the games.*
e-rin, *n.* *an elephant.*

ē-riŋ. See ēri.

e-riŋ-mi (omi), *n.* the river-horse, hippopotamus.

e-ro, *n.* a caracum; a uil.

e-rô, *n.* a percussion-cap, a lucifer match.

è-ro, *n.* consideration; a relation or telling; a device, thought.

e-ro, *n.* a funnel, lamp-filler.

e-rû, *n.* deceit, craft.

ê-ru, *n.* ashes, lime, ash color.

e-ru-ku-ku, *n.* the tame pigeon.

e'-ru-kpe, *n.* dust, earth.

e-run, *n.* an ant.

e-sa, *n.* a small red ant.

e-se, *n.* a cat; the butter-tree nut.

ê-se, *n.* preparation for the future, providence.

è-se, *n.* paint, color.

e-si, *n.* a reply.

e-so, *n.* fruit, a seed-vest of any kind.

e-sôŋ, *n.* accusation, a suit at law.

e-sû, *n.* jasper, carnelian.

ê-su, *n.* a payment to the funds of a club.

ê-sû, *n.* sugar-cane grass.

e'-su-ê, *n.* nausea: kpa li e-sue, to nauseate.

e-su-ru, *n.* a small bitterish gum.

e-su-su, *n.* a leech.

ê-sê, *n.* gleaming.

ê-sê, *adv.* why?

è-si, *n.* a mistake, accident, error.

e-šin-šin, *n.* a fly.

e-śû, *n.* a locust, the white ant when winged.

ê-sû, *n.* the devil, Satan.

e-śu-śu. See esusu.

e-śu-wa, *n.* former times.

e-ta, *n.* dry bean; soreness of the gums.

e-te, *n.* a tip; intention, thought, device.

e-tê, *n.* a fragment, morsel.

e-ti, *n.* an ear; edge, proximity: fi eti si ti emi, hear me; eti iguŋ, a corner, angle.

e-tile (ilè), *n.* vicinity, nearness: ó wà li etile, he was near.

e-ti-ri, *n.* numbness.

ê-ti-ri, *adv.* why? See eyi.

ê-ti-se, *adv.* why? what for?

e-tu, *n.* which is loosed, stripped off; a discovery.

ê-tu, *n.* an old farm nearly worn out.

ê-tu-tu, *n.* purification, reconciliation.

e-wê, *n.* childhood, youth, a child.

e-wê, *n.* a leaf, herb.

e-wê-bê (ôbê), *n.* an esculent herb of any kind.

e-we-ke-we, *n.* a leaf or herb of any kind.

e-wê-ko (oko), *n.* a garden herb of any kind.

e-wi, *n.* insanity.

e-wô, *pron.* which? what? why?

e-wô, *n.* time, season: ewô ôdzo, the rainy season.

è-wô, *n.* prohibition, something prohibited.

e-wu, *n.* danger: ôli ewu, to be or become dangerous.

e-wu, *n.* grey hair.

è-wu-râ, *n.* a kind of soft gum.

ê-wu-rê, *n.* a goat.

ê-wu-ro, *n.* a pot-herb.

e-yi, e-yi-yi, *pron.* this: eyi ti, this or that which, eyi ná, this, that, the same: eyi ti ri? why?

e-yi-ni, *pron.* that: eyinú ni, that is.

e-yin. See chin.

e-yi-ta-wi-yi (ti á), *adv.* just now, straightway, directly, immediately.

e-yô, *n.* a pool of okra.

Ê.

ê, *a prefix.* See a.

ê, *adv.* yes. See he.

ê, *pron.* ye, you.

ê, *pron.* him, her, it.

ê-ba, *n.* nearness, proximity to the ground: li êba, by (if near the ground). See lêba.

ê-ba-dô (ôdo), *n.* the water-side, shore.

ê-be, *n.* outcry, supplication.

ê-bi, *n.* fault, guilt, condemnation.

ê-bi-ri, *n.* a large quiver.

ê-bi-ti, *n.* a trap, an insensate crag, or the like.

ê-bô, *n.* a sacrifice: êbô alakoto, the sacrifice in the basket or vessel, i. e. a human sacrifice.

Ê-bô-ro, *n.* a name of Ègbunguŋ.

ê-bô-tô, *n.* cowardice.

ê-bu, *n.* an abode; a kilu, a furnace.

ê-bû, *n.* a crosswise direction.

ê-bun. See éba.

ê-bûn, *n.* a gift, present.

ê-bu-ru, *n.* a back door or passage.

ê-da, *n.* a flower.

ê-dá, *n.* a creature; instinct, natural properties, nature; creation; a kind of cat; interest on money: êê dâ, to create.

ê-dá-lê (ilè), *n.* a deceiver, traitor.

ê-dav, *n.* the Ogboni staff.

ê-dê, *n.* which is soft, ripe, slack.

ê-dê-gba-rin, *num.* seven thousand.

ê-di-nô-guŋ, *num.* sixteen.

ê-dô-guŋ, *num.* fifteen.

ê-dô, *n.* the liver; resolution, firmness: êdô ôdô, irascibility.

ê-dôŋ, *n.* a kind of monkey.

ê-dôŋ, *n.* sadness; grief (see dôŋ); a hatchet; a proper name frequently given to one of twins: imi êdôŋ, a sign.

ê-dza, *n.* a fish.

ê-dze, *n.* blood: eni êdze, a bloody or bloodthirsty man.

ẹ-dzọ, *num.* eight.

ẹ-dzọ, *n.* a criminal matter; dispute; harm; ẹlẹ́, to judge, as a magistrate; ẹlẹ́...li ẹdézọ, to condemn.

ẹ-ẹ-di-nó-gun, &c. See ẹ-di-nó-gun, &c.

ẹ-fà, *num.* six.

ẹ-fà, *n.* a kind of trousers.

ẹ-fe, *n.* fault-finding, accusation.

ẹ-fe, *n.* a jest, mockery; sẹ ẹfe, to jest; sẹ ẹfe si, to mock, ridicule.

ẹ-fi, ẹ-fin, *n.* smoke.

ẹ-fọ, *n.* greens, pot-herbs.

ẹ-fọ-kọ (fọkọ), *n.* shipwreck.

ẹ-fọy, *n.* a corn-busk; footstalk of a palm-leaf; a crossbow arrow; ẹfọy ila, a rib.

ẹ-fọy, *n.* a hagfish.

ẹ-fū-fu, *n.* wind, breeze, air.

ẹ-fun, *n.* chalk, lime, white clay.

ẹ-ga, *n.* the yellow palm-bird.

ẹ-ga, *n.* a grasshopper.

ẹ-gan, *n.* a thick forest; egan oṣuṣu, a thorny forest.

ẹ-gan, *n.* contempt, riproach, blasphemy; sẹy ẹgan, to blaspheme.

ẹ-gan-ran, *n.* unripe fruit.

ẹ-gba, *n.* which is swept.

ẹ-gba, *n.* the mangrove tree.

Ẹ-gba, *n.* the name of a tribe.

ẹ-gba, *n.* the pulley.

ẹ-gbā, *num.* two thousand.

ẹ-gbā-dze, *num.* fourteen thousand.

ẹ-gbā-dzi, *num.* four thousand.

ẹ-gbā-dzọ, *num.* sixteen thousand.

ẹ-gbā-fa, *num.* twelve thousand.

ẹ-gba-ra, *n.* a kind of cat.

ẹ-gbā-rin, *num.* eight thousand.

ẹ-gbā-run, *num.* ten thousand.

ẹ-gbā-san, *num.* eighteen thousand.

ẹ-gbā-ta, *num.* six thousand.

ẹ-gbā-wa, *num.* twenty thousand.

ẹ-gbẹ, *n.* the side, the loins; a companion, a company, society; ẹgbẹ-ẹgbẹ orilẹ́ ẹde, a multitude of nations.

ẹ-gbẹ dó gun, *num.* five thousand.

ẹ-gbẹ fa, *num.* twelve thousand.

ẹ-gbẹ gbẹ-run, *num.* one, one, by the thousand.

ẹ-gbẹ ra, *n.* equality.

ẹ-gbẹ ri, *n.* obscurity, mystery; one initiated.

ẹ-gbẹ rin, *num.* eight hundred.

ẹ-gbẹ rin lá, *num.* twenty-eight hundred.

ẹ-gbẹ run, *num.* one thousand.

ẹ-gbẹ-san, *num.* eighteen hundred.

ẹ-gbẹ-sin, *n.* cattle-rush.

ẹ-gbẹ-ta, *n.* one, six hundred.

ẹ-gbẹ ta lá, *num.* twenty-six hundred.

ẹ-gbin, *n.* filth.

ẹ-gbọy, *n.* an elder brother, a male relative.

ẹgbọy, *n.* which is shaken or to be shaken; ẹgbọy owú, cotton whipped with a bar ready for spinning.

ẹ-gbọ-rọ, *n.* the young of cattle; ẹgbọrọ maṣi, a calf.

ẹ-gẹ, *n.* a snare, a trap; helplessness.

ẹ-gí, *n.* a dog's collar.

ẹ-gu, *n.* a seat in a tree on which a hunter sits to watch for beasts.

ẹ-gún, *n.* a thorn, heifer, prickly; egun ikoko, a large thorn used for arrow-heads.

ẹ-há, *n.* a close-fitting garment.

ẹ-hin, *n.* the back, hinder part; the last of a series; the outside of a town; the top of anything in a vessel; absence; chin oṣa, after to-morrow; chin aso, a remnant of cloth left in the loom; it ẹ li agbara li chin Olorun, we have no power without (or apart from) God; sẹ ẹ li chin mi, do it in my absence; wá chin, to look after one who is walking away.

ẹ-i-ye, *n.* rebellion, revolt.

ẹi-yé, *n.* a bird.

ẹ-ka, *n.* a band, ring; a branch, bough, prong; the collar-bone.

ẹ-kan, *adv.* once; li ẹkan, once, at once, immediately, formerly; mo ti sẹ li ẹkan, I have done it once.

ẹ-kai, *n.* sarcass.

ẹ-ke, *n.* indulgence to inferiors, confidence.

ẹ-kẹ, *n.* a beam, joist, rafter; the trigger of a gun.

ẹ-kọ, *n.* some wash of maize.

ẹ-kó, *n.* which is hard, as fruit.

ẹ-kọ, *n.* doctrine.

ẹ-kọ-kẹ-kọ, *n.* superstition, false doctrine.

ẹ-kọy, *n.* which fills up, fulness, a supplement.

ẹ-kòy, *n.* a grumbling, murmuring.

ẹ-kpa, *n.* the ground pea or pea-ant; ẹkpa roro, the oily pea-ant; ẹkpa bāsan, the watery pea-ant.

ẹ-kpọy, *n.* a spoon, a dipper.

ẹ-kpọy, *n.* richness, ripeness of fruit, plumpness.

ẹ-kpọy, *n.* a testicle.

ẹ-kpọ-rọ, *n.* a ditch, drain, sewer.

ẹ-kú, *n.* a kind of trap or snare.

ẹ-kú-lé, *n.* a gable end, a back yard.

ẹ-kun, *n.* cessation, prohibition, a door, shutter; ẹlẹ́ ẹkun, to cease; ẹlẹ́...li ẹkun, to forbid, prohibit; sẹ ẹkun, ẹlẹ́ ẹkun, to shut the door.

ẹ-kún, *n.* a craning, weeping.

ẹ-kun, *n.* a leopard; a region, a waste place.

ẹ-kun-ya, *n.* the herb Cleome.

ẹl ẹlẹ́, (see ak, ala), prefixes, denoting the actor, owner, &c.

ẹ-lá, *n.* which is cloven, split off; a detached portion, fragment.

ẹ-lẹ-bẹ, *n.* a plunder, a brute.
 ẹ-lẹ-bọ-tọ, *n.* coon-dung.
 ẹ-lẹ-da, *n.* a creditor.
 ẹ-lẹ-de, *n.* a boy.
 ẹ-lẹ-dze, *n.* which is bloody.
 ẹ-lẹ-fin, *n.* which has smoke, is smoky; a smoker, a steamer.
 ẹ-lẹ-gân, *n.* a despoiler, scaffer.
 ẹ-lẹ-gbà, *n.* a helper, deliverer.
 ẹ-lẹ-gba, *n.* a palsied person, a paralytic.
 ẹ-lẹ-gba ra, *n.* the devil.
 ẹ-lẹ-gbẹ, *n.* a companion, a leader.
 ẹ-lẹ-gẹ, *n.* which is fragile, brittle.
 ẹ-lẹ-go-do, *n.* coarse calico.
 ẹ-lẹ-kẹ-re-de, *n.* which is weak, infirm.
 ẹ-lẹ-kun, *n.* a weeper, mourner; figuratively, a daughter.
 ẹ-lẹ-kpe-re, *n.* a kind of soft maize.
 ẹ-lẹ-la, *n.* a part or portion.
 ẹ-lẹ-mi (ẹmí), *n.* one who has breath; a servant, so called because his master's life is in his hands.
 ẹ-lẹ-mọ, *n.* a palm-wine dealer.
 ẹ-lẹ-mọ-şo, *n.* one who is tasteful in dress.
 ẹ-lẹ-nọ, *n.* a spider.
 ẹ-lẹn-ga, *n.* a grasshopper.
 ẹ-lẹ-ri (ẹrì), *n.* an eye-witness.
 ẹ-lẹ-se, *n.* which has feet, which relates to the feet: ẹlẹse mọrin, which has four feet, a quadruped; di ẹlẹse nilẹ, to establish, confirm.
 ẹ-lẹ-şẹ, *n.* who has sin, a sinner.
 ẹ-lẹ-şin (ẹşin), *n.* a horseman.
 ẹ-lẹ-tan, *n.* a dissembler.
 ẹ-lẹ-ya (ẹya), *n.* who is scorned, despised; ridicule; a scorner.
 ẹ-lẹ-yẹ, *n.* a tidy person, who has clothes made to order.
 ẹ-lẹ-wà (ẹwà), *n.* a handsome person.
 ẹ-lẹ-wọn, *n.* who is chained, a prisoner.
 ẹ-lo mí, ẹ-lo-mí-ra, *pron.* another, others.
 ẹ-lu, *n.* indigo; a mixture.
 ẹ-lú-lu, *n.* a thrush.
 ẹ-lu-ru, *n.* a moose.
 ẹ-me-dzi, *num.* twice.
 ẹ-me-fa, *num.* six times.
 ẹ-me-ta-lo-kan (me-ta li ọkan), *n.* that which has three in one; the trinity.
 ẹ-me-wa (mọ ẹwa), *n.* a chief councillor, a prime minister.
 ẹ-mi, *n.* the shea-tree, its fruit, the butter made of it.
 ẹ-mi, *n.* breath, life, spirit.
 ẹ-mọ, ẹ-mu, *n.* palm wine.
 ẹ-mu, *n.* tongs, piners; seizure.
 ẹ-na, *n.* inversion of words or letters; as, do mí babá, for babá mí do.
 ẹ-ni, *n.* a mat.

ẹ-ni, *pron.* a person, one; ẹni ẹkpe, one who is invited; ẹni ká, some one, any one, the only one; ẹni kedži, a companion, friend, the next person; ẹni tí à dí tọ, a happy man.
 ẹ-nu, *n.* a mouth, opening; ẹni kẹkọrọ, the beak of a bird; ẹni ẹkpa, the mouth of a river; ẹni ọma, a gate, door; ẹni ọşin, eaves of a house; ẹni mí ra, my appetite fails or is bad; ẹni mí şi, my appetite is good; ẹni mí ya, I am astonished.
 ẹn-yin, *pron.* ye, you; ẹyin ná, ẹyin ará nyin, ẹyin tikarú nyin, ye yourselves.
 ẹ-ra, *n.* a beast, a goat or sheep; meat, flesh; ẹra ná, a cow; ẹra fun, a kind of bagful; ẹra abekana, a carnivorous animal; ẹra ará, man's flesh.
 ẹ-rán, *n.* the temple of the face.
 ẹ-ra, ẹ-ra-ko (oko), *n.* a wild beast, a brutish person.
 ẹ-ra, ẹ-ra-lá (ná), *n.* a cow.
 ẹ-re, *n.* a bank, gully, mire, bog.
 ẹ-re-ke, *n.* the cheek, jaw-bone.
 ẹ-re-rin, *num.* by fours.
 ẹ-rí, *n.* witness, testimony; gbá... şe ẹrì, to take as a pledge.
 ẹ-rin, *num.* four; ẹrin di logun (four from twenty), sixteen; ẹrin di logogá, thirty-six.
 ẹ-rin, *n.* (number of) times; li ẹrin medži, twice.
 ẹ-rin, *n.* height.
 ẹ-rin-lá, *num.* fourteen.
 ẹ-ro, *n.* skill, contrivance, subtlety.
 ẹ-ro, *n.* softness, gentleness.
 ẹ-rú, *n.* a slave; a hoe or axe-handle.
 ẹ-rù, *n.* a load, luggage, goods.
 ẹ-ru, *n.* fear, awe, terrible-ness.
 ẹ-rú-bi-ri (óbiri), *n.* a female slave.
 ẹ-rún, *n.* a fragment, a crumb, splinter.
 ẹ-run, *n.* the dry season, great heat.
 ẹ-sán, *n.* payment, retaliation, vengeance.
 ẹ-sai, *num.* nine.
 ẹ-se, *n.* a cow, order.
 ẹ-se, *n.* a foul, track, coarse.
 ẹ-se-sai, *num.* nine by nine.
 ẹ-sẹ-se, *n.* an orderly manner.
 ẹ-si, ẹ-sin, *n.* shame, ridicule; a secret.
 ẹ-so, *n.* carefulness, gentleness.
 ẹ-sọn, ẹ-sùn, *n.* an accusation, a suit at law.
 ẹ-şẹ, *n.* a blow with the fist; a broken part, piece; slenderness.
 ẹ-şẹ, *n.* sin, guilt; ẹşẹ ẹdze, blood guiltiness; ẹşẹ ọba, treason.
 ẹ-şẹ-na (ina), *n.* coals of fire.
 ẹ-şẹ-ri, *n.* rancidity.
 ẹ-şin, *n.* a horse; gun ẹşin, to ride on horseback; disgrace.
 ẹ-şin, *n.* a spear.
 ẹ-şo, *n.* a watchman, guard, police.
 ẹ-şo, *n.* newly smelted iron.

ẹ-ta, *n.* a bulb, tuber, ear of corn, coarse flour; extension; a sling.
 ẹ-ta, *num.* three.
 ẹ-ta, *n.* a fragment of a corpse brought home to the family, over which funeral rites are performed.
 ẹ-ta-la, *num.* thirteen.
 ẹ-tan, *n.* deceit, allurement: ẹ-ẹ-tan, to deceive.
 ẹ-tẹ, *n.* disgrace, reproach.
 ẹ-tẹ, *n.* leprosy, scrofula.
 ẹ-tẹ-ta, *num.* by threes.
 ẹ-ti, *n.* a failure.
 ẹ-tọn, *n.* a bough, branch.
 ẹ-tu, *n.* a kind of antelope.
 ẹ-tu, *n.* gunpowder.
 ẹ-tu, *n.* checked cloth, a guinea-fowl; conduct; a propitiatory sacrifice.
 ẹ-wà, *num.* ten; mind, intentions.
 ẹ-wà, *n.* beauty, likeness: li ewà, to be beautiful.
 ẹ-wa, *n.* a jest, a joke.
 ẹ-wẹ, *n.* a kind of bean.
 ẹ-wẹ, *conj.* again, on the other hand.
 ẹ-wẹ-wa, *num.* by tens.
 ẹ-wi-ri, *n.* a bellows.
 ẹ-wọ, *n.* a company, caravan.
 ẹ-wọ, *n.* hail.
 ẹ-wọn, *n.* a thistle.
 ẹ-wọn, *n.* a chain, bondage.
 ẹ-wu, *n.* which pleases; a loose garment, shirt.
 ẹ-wu-ni, *n.* a pit covered with earth.
 ẹ-ya, *n.* a kind of panther.
 ẹ-ya, *n.* separation, contempt; a division, tribe.
 ẹ-yẹ, *n.* fitness, worthiness.
 ẹ-yi, *adv.* yes (used only by males to superiors).
 ẹ-yin, *n.* a pain-out; the eye-ball.
 ẹ-yin, *n.* an egg.
 ẹ-yin, *n.* praise, that which is celebrated.
 ẹ-yin-ko-lo, *n.* little hills made by earth-worms.
 ẹ-yin-nò-gi, *n.* starch made of maize.
 ẹ-yọn, *n.* toe-itch.

F.

fa, *v.* to scrape, shave, wipe, pluck; to purify.
 fa, *v.* to draw, lead, crawl, creep, as a melon-vine; to shrink, as a raw hide; to abate: fa...li ẹtan (see fa...le-tan).
 fa, *adv.* leisurely, freely, without restraint; exceedingly.
 fa ba-da. See ába-da.
 fa da, *n.* (at florin), the aristocracy, the aristocratic quarter of the town.
 fa da-ka, *n.* silver.
 fa dze-re, *n.* the dawn.
 fa dzu ro, *v.* to look sad.

fa-gbon (agbon), *v.* to shave the chin.
 fa-gun, *v.* to protract.
 fa-kpa, *v.* to withdraw, draw back.
 fa...là, *v.* to lick.
 fa...lẹ, *v.* to lighten, to string a bow.
 fa...le-tan (li), *v.* to solve.
 fa-mọ, *v.* to cleave, to adhere.
 fa...mọ-ra (arà), *v.* to embrace, to hug, to cleave to.
 fa-ra-hàn (fi arà), *v.* to become visible, to appear.
 fa-ra-kpá, *v.* to hurt, to wound.
 fa'-ra-mọ (fi), *v.* to adhere, to adjoin.
 fa'-ra-we, *v.* to compare, make a trial of powers, emulate.
 fa-ri, *v.* to shave the head.
 fa-ri, *n.* display, parade.
 fa-rò, *v.* to be sad.
 fa...se-hin (si chin), *v.* to draw back, withdraw, abstain; to shun, delay, withhold.
 fa-tẹ-le, *n.* a small canoe.
 fa...tì, *v.* to draw aside.
 fa-ti-la, *n.* a lump.
 fa-tu, *v.* to loosen, pull up by the roots.
 fa...ya, *v.* to tear, rend: ó fa mi sokoto ya, it tore my trousers.
 fa-yọ, *v.* to draw out, extricate.
 fe, *adv.* long (in time), for ever.
 fe-bi-kpa (chi), *v.* to famish, starve.
 fe-fe, *n.* boasting: ẹ-ẹ-fe, to boast.
 fe-re, *n.* asthma.
 fẹ-re, *n.* a flute, pipe.
 fẹ-re, *v.* to sip.
 fẹ-re-se, *n.* a window.
 fe-si (fi esi), *v.* to reply.
 fe-ti (fi eti), *v.* to listen, hearken, regard, (tienu, 21, 12.)
 fẹ, *v.* to blow, fan: fẹ lẹh, to blow away; fẹ ẹfẹ si, to find fault with.
 fẹ, *v.* to love, to wish, desire, to be willing; to woo, to marry, procure in marriage. (Gen. 21, 21.)
 fẹ, *v.* to breathe heavily, to puff, to distort the face, to frown; to enlarge: fẹ...li ẹfẹ (see fẹ lẹfẹ).
 fẹ-di. See fẹ idi.
 fẹ-dze (ilze), *v.* to seek food.
 fẹ-dze-fẹ-dze, *n.* provender, food.
 fẹ-dzọ-mọ (fi), *v.* to accuse.
 fẹ-dzú (wízzú), *v.* to look angry, to frown.
 fẹ-dzu-fẹ-dzu, *adv.* frowningly.
 fẹ-fe, *v.* to be far, to be near.
 fẹ-fẹ (ẹfẹ), *v.* to find fault, to accuse.
 fẹ-fá, *v.* to betroth for or to.
 fẹ-hin-ti (fi chin), *v.* to lean on, to trust in; to prop, support.
 fẹ-i dí, *v.* to investigate.
 fẹ-ka, *v.* to scatter, to strewn.

fě...kun, *v.* to miss what is lost; *mo fě iwe mi kun, I miss my book.*

fě-le, fě-le-fě-le, *v.* to be fine in texture, smooth, flat, thin.

fě...le-fě (li fě), *v.* to accuse, find fault with.

fě...lo-dzu (li odzu), *v.* to choke.

fě-ni-fě-ni, *n.* dry pea-hulls.

fě...ni-ya-wo, *v.* to court, woo.

fě-nò, *v.* to fun or winnow away, blow off.

fě-nu-ko (ti enu), *v.* to kiss.

fě-nu-si (eni), *v.* to reply, intermeddle.

fě-ra (arà), *v.* to be selfish.

fě-re, *v.* to be light, as to weight.

fě-re, adr. almost; *fě-re mäh, with difficulty, scarcely.*

fě-re-fě-re. See *fěfě*.

fě-ri (ori), *v.* to cool the head, to rest; to suck, inquire after.

fě-sí, *v.* to find fault with.

fě...sò-na (si), *v.* to betroth: *ó ti fě aya sòna, he has betrothed a wife.*

fi, *v.* to make; to place, put, apply to a purpose.

fi, *prep.* with, in, by, for, during: *ó fi ida ša wəŋ, he smote them with a sword; fi i šə haum, do thus with it; fi orukə ɔba, in the name of the king; ani woli á ó fi mọ eyi? by what sign shall we know this? fi gbogbo ɔdzo, for or during the whole day.*

fi, *v.* to swing, vibrate, wave, sling, incline to one side.

fi...ba-le (ilē), *v.* to place on the ground, to put down; to reject: *fi agbəŋ bale, set the basket down; mo fi okáŋ bale, I laid my heart on the ground, i. e. I rested, was contented, satisfied.*

fi...bọ, *v.* to put into, to put on, as a garment; to dip, to soak: *fi oka bọ dí ɔúrò, soak the corn till morning.*

fi...bọ-mi (omi), *v.* to dip, immerse, soak in water.

fi...bu, *v.* to put on oath, to swear one; to accuse.

fi...bú, *v.* to abuse, vilify, curse.

fi...da-le (ilē), *v.* to throw, as a horse his rider.

fi-di-ba-le (idi ilē), *v.* to sit down.

fi...dza-fa-ra, *v.* to slight, to treat with disrespect.

fi...dza-re, *v.* to justify, in a forensic sense.

fi...džę, *v.* to place in authority, to appoint.

fi...džę-bi (ɓi), *v.* to condemn, to regard as guilty.

fi...džę-wọ ai-ye, *v.* to condemn to death.

fi...dži, *v.* to forgive, to remit sin, repeal a law.

fi...dži-yä (džę), *v.* to punish, to give up to mis ry.

fi...džó na, *v.* to barn: *fi igi džona, barn the wool.*

fi...džo-ye (džę), *v.* to appoint to office.

fi...džo-ba (džę), *v.* to appoint one to be king.

fi-fä, *n.* a tearing, that which is torn or to be torn. See *fi*.

fi-fa-yọ, *n.* which is drawn out, extracted.

fi-fi, fiŋ-fiŋ, *n.* dimness, twilight.

fi fi, *n.* a swinging, which swings, &c.: *ɔbọ fi fi, a wave-offering.*

fi-fọ, *n.* which is broken. See *fọ*.

fi-fọ, *n.* which is washed. See *fọ*.

fi...fu, *v.* to give to, endow with.

fi-fü. See *fiufiufi*.

fi...gbe, *v.* to give up to destruction, to destroy.

fi-gbo-na, *v.* to heat, to warm.

fi...gun, *v.* to put to the male.

fi...ha, *v.* to hang up, to suspend.

fi...hän, *v.* to show, exhibit, reveal, betray.

fi...kä, *v.* to place or set upon.

fi...kọp, *v.* to add to: *fi omiran kọp ɔ, add another to it.*

fi...kpè, *v.* to suppose, to pretend, to mean (Gen. 33, 8): *nwoŋ fi i kpè woli, they supposed him to be a prophet; ó fi arà rẹ kpè nkam, he pretended to be something great.*

fi...lé-lẹ (ilē), **fi...lẹ**, **fi...sí-lẹ**, *v.* to put down, leave, forsake: *fi ọye lẹ, to abdicate, resign office.*

fi...lé-lọ-wọ, *v.* to deliver to.

fi...li-kpo, *v.* to substitute.

fi...lọ, *v.* to investigate, inquire, interrogate.

fi...mọ, *v.* to suspect, attach to, impute.

fi...mọ, *v.* to cause to know, to show, inform of.

fi...mu, *v.* to take hold of, grasp: *fi ẹsẹ mu ilu* (or *ilē*), to grow firmly, to be established, confirmed.

fi...mu-lẹ (ilē), *v.* to establish, confirm: *ó fi ẹsẹ mu ilē wayi, he is now established.*

fi-na, *n.* a leather string.

fi-na, fě-na (fě ina), *v.* to blow the fire, kindle.

fi...ni-lẹ. See *fi-lé-lẹ*.

fiŋ, *v.* to terminate, to be perfected; to discover; to engrave, embellish; to be fine, nice: *abó...li abó fiŋ, to peel off the bark.*

fiŋ, *v.* to fill with smoke, smother, suffocate.

fiŋ-dzu (odžu), *v.* to be neat, tidy, tasteful in regard to one's appearance.

fiŋ-fiŋ, *n.* which is carved, engraved, &c. See *fiŋ*.

fiŋ-fiŋ, *n.* dimness, twilight.

fiŋ-rin, *n.* a thread.

fi-o-fi-o, *adv.* very (high): *ilé ga fi o, the house is very high.*

fi...ra-na. See *fi...gbona*.

fi-raj (ran), *v.* to aggress, to sack a quarrel.

fi...ré, *v.* to curse; fire, to be cursed.

fi-ri (li and ri, to be), a complement of *džu*, to surpass, employed in the sense of *more*; as *ó tobi*

džũ ùia firi (*he is great surpassing man*), *he is greater than man.*
 fi...rō, *v.* to twist, to sprain a joint.
 fi...rō. See fira.
 fi...rōn, *v.* to chew, to dip into sauce.
 fi...ru-bo, *v.* to sacrifice.
 fi...sán, *v.* to value: ó ñ águtan sán ẹgbà, *he valued the sheep at two thousand (cowries)*; fi...sán owó kán, *to value at one cowry, i. v. to treat with contempt*; málh ñ ẹmọ sán owó kán, *do not treat the child with contempt.*
 fi...sí, *v.* to add to, to contribute.
 fi...sí-lẹ, *v.* See fi...lẹ-lẹ.
 fi...sí-nọ (inọ), *v.* to keep or harbor in the mind.
 fi...sin or sin-sin, *v.* to conceal.
 fi...sọ-lẹ (ilẹ), *v.* to dash down, to lay the foundation of a clay house.
 fi...sọn or sùn, *v.* to accuse, to sue.
 fi...sẹ, *v.* to appoint.
 fi...sẹ-ẹn, *v.* to ridicule, disgrace.
 fi...sẹ-fẹ, *v.* to ridicule.
 fi...sẹ-lẹ-ya, *v.* to set at naught.
 fi...so-fọ, *v.* to waste.
 fi...sù, *v.* to deliver to.
 fi...sù-ra, *v.* to treasure up.
 fi-tì, *v.* to lean against; to suspend or postpone.
 fi-ti-la, *n.* a hump.
 fi...tọ-rẹ, *v.* to give, make a present.
 fi...wẹ, *v.* to compare; to wrap up.
 fi...wọ, *v.* to put into, to clothe with, induce; to bait a fish hook.
 fi...ya-na. See fighona.
 fi-ye-de-nọ, *v.* to be patient under trials.
 fi-ye-sí, *v.* to attend to.
 fọ, *v.* to be empty, wasted, lost; to feel bereaved.
 fọ, *v.* to fly, jump, palpitate; to break away, as clouds: aiyọ fọ mi, *I am alarmed*; fọ sọke, *to float.*
 fọ-dži-sọn (olži), *v.* to accuse of adultery.
 fọ-džu-di (olžú), *v.* to be insolent.
 fọ-džú kan-wọ, *v.* to squint.
 fọ-džú kpẹ, *v.* to wink to give a hint.
 fọ-džú sí, *v.* to look at, attend to.
 fọ-džú sọ na (sí ọna), *v.* to look for, expect.
 fọ-džú tì, *v.* to abash.
 fọ-džú-to, *v.* to reverse, superintend.
 fọ fọ, *n.* foam.
 fọ-fọ, *v.* to be bright, glittering, radiant;—*adv.* brightly, radiantly.
 fọ kọ dža, *v.* to pass by, neglect. (Mat. 23, 23.)
 fọ lo-fọ-lo, *n.* the lights, lamps.
 fọ-re-si gi, *n.* an ungrateful person, an ingrate.
 fọ ri, *v.* to be thin, empty, as an ear of corn.
 fọ-ri bà lẹ (ori ilẹ), *v.* to bow down, worship, submit.

fọ-ri-bọ (ori), *v.* to plunge into.
 fọ-ri-fun, *v.* to submit to. (Gen. 4, 7.)
 fọ-ri-ti, *v.* to endure, persevere.
 fọ-ro, *v.* to afflict, to be bitter against.
 fọ-ya (aiya), *v.* to fear, to be discouraged.
 fọ, *v.* to skin, flay.
 fọ, *v.* to break, as a vessel; to ache, as the head.
 fọ, *v.* to wash, cleanse; to speak.
 fọ-džu (olžú), *v.* to be blind.
 fọ-hun (ohun), *v.* to speak.
 fọ-kan-sí (fi), *v.* to set the heart on, to be in earnest.
 fọ-kan-sin, *v.* to be devout, to serve in heart.
 fọ-lẹ (ile), *v.* to break into a house.
 fọ...li-o-džu. See fọ...lọdžu.
 fọ...lọ-džu (li), *v.* to blind, put out the eyes of.
 fọ-lu (ilu), *v.* to destroy a town.
 fọ-na (inu), *v.* to take fire from the hearth.
 fọ-na-hun (fi), *v.* to show the road, direct, guide.
 fọn, *v.* to scatter, to sow; to be slender; to press, squeeze, choke; to blow a flute or trumpet, to kindle a fire.
 fọn-fọn, *adv.* soundly (sleeping).
 fọn-gbun, *v.* to sow seeds.
 fọn-ka, *v.* to scatter abroad, disperse.
 fọn-kọn, *v.* to discharge menses.
 fọn-kpa, *v.* to choke.
 fọn-kpọ (ikpe), *v.* to blow a trumpet.
 fọn-kpọ, *v.* to crowd, as in a congregation.
 fọn...lọ rọn (li), *v.* to choke.
 fọ-rai-mọ (ọra), *v.* to accuse, charge with.
 fọ-ru-gbun (iru). See fọngbun.
 fọ-wọ-ba (fi), *v.* to touch, feel.
 fọ-wọ-kọ, *v.* to go hand in hand, to embrace.
 fọ-wọ-kpẹ, *v.* to beckon to.
 fọ-wọ-ra nu (anu), *v.* to be silent under wrong or affliction.
 fọ-wọ-ta (ti), *v.* to search or seek for carelessly.
 fu, *v.* to grow, as a plant.
 fu, fun, *prep.* for, to, of, by, with, on account of: mu ú fu mi, *catch it for me*; sọ fu won, *speak to them*; ọ kọy fu omi, *it is full of water*; fu árá rẹ lí ó sọ ẹ, *he did it of himself, or of his own accord*; ife-ẹ nua fu aye, *a veal shaken by the wind*; olžú rẹ wuwo fu ọrun, *his eyes were heavy with sleep*; džó fu aye, *to dance for joy.*
 fú, fún, *v.* to give, to be white.
 fú, *adv.* quickly, at once, rapidly.
 fu-dža, *v.* to brag, to boast.
 fu-fu, fun-fun, *n.* whiteness, purity; boiled yams powdered.
 fu-kẹ-fu kẹ, *adv.* violently (palpitating).
 fu-lẹ, *v.* to be soft, as corn.
 fu-lẹ fu lẹ, *adv.* softly.
 fu-lu-fu-lu, *n.* dry corn-husk.

fun. See **fu**. **Fu** alone, or as a syllable, is often pronounced **fun**.

fu-ra (ara), *v.* to be pale, to be suspicious, to do wickedly.

fu-ra, *n.* beer of grain and honey.

fu-ru, *adv.* silently, quietly.

fu-te-fu-te, *adv.* easily (torn).

fu-ye, *v.* to be light, as to weight; to be better, in sickness.

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ga, *v.* to be high, tall.

gā, *n.* a title.

ga-bau'! *interj.* wonderful!

gā-ba-si, *n.* the east.

gā-fa-ra, *v.* an excuse: *še* gafara fū mi, excuse me; *še* gafara lōdō wōn, let them alone.

gā-fa-ra'! *interj.* beware! take heed! (Gen. 24, 6.)

ga-ga, *adv.* closely (crowded).

ga-ga-lo, *n.* stilts.

ga-ga-ra, *n.* a large gawky animal.

ga-la, *n.* a kind of antelope.

ga-mu-ga-mu, *n.* a tomahawk, battle-axe.

gā-ni-gā-ni, *n.* a despoiser.

ga'ni-ki, **ga'ri-ki**, *n.* a shield.

gan, *v.* to pierce, to stab; to sew coarsely; to cut bushes; to take by little at a time; to be upright, perpendicular.

gan, *adv.* firmly; duro gan, to stand firmly.

gān, *v.* to despise, revile.

gan-gan, *n.* a small quantity of sauce or the like.

gan-gan, *v.* to be perpendicular; overhead;—*n.* erectness, perpendicularity: *gan gan*, midday.

gan-gan, *adv.* exactly, exactly, very.

gan-gan, *n.* a kind of drum.

gan-raṇ, *adv.* straight (onward).

gan-raṇ-gan-raṇ. See **gagara**.

ga-ri, *n.* farina.

gā-ri, *n.* a saddle.

gā-ri-ki, *n.* a shield.

gā-sa, *v.* to be tired out, much fatigued.

gā-sa'! *interj.* wonderful! indeed!

gaup, *adv.* very (much).

gba, *v.* to slap, to sweep, to collect together, to float about: *gba fū*, to permit to remain at ease; *gba... lōlzu* (li), to slap in the face.

gbā, *adv.* loudly (slapping);—*v.* to sound.

gbā, *v.* to take, to take away from; to receive, to hold, as a vessel; to assist, succor; to strain; to wrap up; to flourish; to consent: *gbā bāraya*, to recreate, amuse oneself; *gbā āye*, to be large, roomy; *li gēlza gbā*, to gird, encircle with a band.

gbā-di (idi), *v.* to encircle the loins or the hilt of a sword.

gbā-du-a, **gbā-du-ra**, *v.* to pray to God.

gbā...dū-lu-mō, *v.* to slander.

gbā-dza-mō, *n.* the barber's trade.

gbā-dže (džē), *v.* to let blood, to bleed, cap.

gbā-džo (włžy), *v.* to assemble, to collect an assembly.

gbā-ē-ri-dže, *v.* to bear witness.

gbā-gba, *n.* which is capacious, wide.

gbā-gban'di-di, *n.* a dry ancient gourd.

gbā-gba-ro, *n.* eaves of a house.

gbā-gbe (igbe), *v.* to forget.

gbā...gbō, *v.* to believe, to obey.

gbā-ge-de, *n.* a wall around a garden.

gbā-gun (ogún), *v.* to inherit.

gbāi, *adv.* loudly, noisily.

gbai-ye (gbāi), *v.* to live, to be in the world.

gbā-ko, *adv.* exactly, fitly.

gbā-kpe (gbā erukpe), *v.* to make mortar.

gbā...lā, *v.* to save, rescue.

gbā...lā-ba-ra (li), *v.* to slap.

gbā...lā-wij (li), *v.* to credit, trust for goods.

gbā-lē (ilē), *v.* to sweep the house.

gbā-lē (ilē), *v.* to sweep the ground or yard.

gbā-lē, *v.* to spread over the ground, to extend, increase, flourish.

gbā...lē-dže (li), *v.* to bleed or cap.

gbā...lē-ri-dže (li), *v.* to bear witness for.

gbā...lō-dza (li), *v.* to gird (1's. 18, 32), swaddle.

gbā...lōh, *v.* to take away: *ó gbā mi li asọ lōh*, he took away my cloth.

gbā...lō-wō (li), *v.* with one objective, to help, succor; with two, to deprive of, to take away from: *ó gbā mi lōwō*, he assisted me; *ó gbā gūwō lōwō mi*, he deprived me of my child.

gbā...lū, *v.* to dash or cast upon the shore, as waves: *ó gbā òkọ̀ lù okuta*, it cast the ship upon the rocks.

gbam-gbam, *adv.* tightly, compactly (tied up).

gbā...mō-ra (arā), *v.* to embrace, hug.

gbā...mu, *v.* to seize upon, to make a pretext of. (Luke 11, 54.)

gban-ga, *n.* a large room, hall, parlor.

gban-gba, *n.* publicity, which is exposed to public view.

gbā-ra, *v.* to boil slightly, parboil.

gbā...rō, *v.* to relate in behalf of one, to defend a cause: *gbā ọṅan mi rō*, defend my cause.

gbā...sī-lē (ilē), *v.* to redeem by exchanging one thing for another. (Exod. 13, 13.)

gbā...sọ-dō (sì), *v.* to receive into friendship.

gbā...še, *v.* to obey, observe a rule.

gbā-ti, *v.* to crowd after one.

gbā-wẹ (aiwẹ), *v.* to move, to fast.

gbà-ye (àye), *v.* to be broad, large, roomy.
 gbà...wô, *v.* to hire or rent a house.
 gbe, *v.* to be, to live, to abide at; to take up, raise; to make, cause, perform; to bear with one.
 gbé, *v.* to parish, to go to perdition.
 gbè, *v.* to be near, to help; to be difficult: kò gbè badžé, (it) is not hard to spoil.
 gbè-de (gbé), *v.* to understand a language.
 gbe-de-gbe-yo (gbà ède gbà yo), *v.* to interpret for persons speaking different languages.
 gbe...di-de, *v.* to cause to rise, to raise up.
 gbe...du-ro, *v.* to cause to stand, to uphold.
 gbe-džé, *v.* to remain quiet, to be undisturbed. (Ex. 23. 11.)
 gbe...ga, *v.* to raise up, exalt, magnify, to promote in rank.
 gbe-gô (agô), *v.* to dwell in a tent, to tabernacle.
 gbe...ha, *v.* to hang up, suspend.
 gbe...kà, *v.* to set upon: gbe è kà ina, set it on the fire.
 gbe...ka-lé, *v.* to set down, set before, establish.
 gbe-lé (gbà), *v.* to exact usury, to take interest.
 gbe...lé, *v.* See gbe...kà.
 gbe...le-bu (li), *v.* to lay crosswise.
 gbe...le-ke, *v.* to exalt, extol.
 gbe...lô-ran (li), *v.* to clear, acquit.
 gbe...mì, *v.* to swallow.
 gbe-ra-ga (arà), *v.* to exalt oneself, to be proud, vain.
 gbe-rè, *v.* to bid farewell.
 gbe-ri (arì), *v.* to lift up the head, take courage.
 gbè-ro (gbà), *v.* to consider, intend, consult, think, purpose.
 gbé...ro, *v.* to cause to stand, erect, build.
 gbe...rù, *v.* to lay upon. (1's. 89, 19.)
 gbe...šan-lé, *v.* to dash down.
 gbe...wáh, *v.* to bring.
 gbe...wô, *v.* to raise from the ground in order to judge of the weight.
 gbe-ya-wo (iyawo), *v.* to take a bride, to marry.
 gbé, *v.* to be dry; to sharpen, whet; to carve, hew; to cackle, as a hen.
 gbé-du, *v.* a kind of drum.
 gbé-du-gbé-du, *n.* an overflowing, a wide extent of water.
 gbé-džé. See gbadžé.
 gbé-hin (gbé chin), *v.* to follow; to be too late.
 gbé-džô (gbé), *v.* to hear a cause or suit.
 gbé-kan, *v.* to feel sore: arà mi gbékan, my body is sore or aches.
 gbé-ké-lé, gbô kan-lé (gbé), *v.* to trust in, to depend on: mo gbékéle wô, or mo gbékan mi lé wô, I trusted in them.
 gbé-na gbé-na (ma), *n.* a carpenter.
 gbén-gbé, *adv.* widely (extending).

gbén-gbé-gbén-gbé, *n.* largeness or bulkiness.
 gbé-san (gbà), *v.* to take vengeance, to avenge.
 gbé-se (gbé), *v.* to step nimbly.
 gbé-še (gbà), *v.* to sin.
 gbí-dža (gbà), *v.* to assume a quarrel, to defend.
 gbí-gba, *n.* which is received, &c. See gbà.
 gbí-gbe, *n.* which is exalted.
 gbí-gbé, *n.* which is dry, dryness; which is heavy.
 gbí-gbo-na, *n.* which is hot, heat.
 gbí-gbô, *n.* which is heard, hearing.
 gbí-hin (gbé), *v.* to hear news.
 gbí-ké (gbà), *v.* to accept a propitiation (applied to idols).
 gbí-kpé, *v.* to accept consolation, to take comfort, to be comforted.
 gbí-kpo (gbà), *v.* to take one's place, to be substituted for.
 gbí-lé. See gbàlé.
 gbí-mô (gbà), *v.* to consider, advise, consult.
 gbí-na (gbà), *v.* to be on fire, to catch fire, kindle, to glow.
 gbí-ni-kô, *v.* to foster, to be full of pus, to inflame.
 gbín, *v.* to breathe heavily.
 gbín, *v.* to plant, sow.
 gbín-gbí-ni-ki, *n.* bulk, bulkiness.
 gbí-ro. See gbero.
 gbí-yan-džá, *v.* to mature.
 gbí-te (ite), *v.* to accept worship or caressing.
 gbí-ye-lé (iyé). See gbékéle.
 gbo, *v.* to bark as a dog; to rub: gbo čšin li ará, carry the horse.
 gbó, *v.* to be or grow old, to ripen, to be tough: gbó kôh, to woe old.
 gbo'-do-gí, *n.* the yaws.
 gbo-džu (odžu), *v.* to be bold, impudent.
 gbô-džú-gbà, *v.* to be bold, impudent.
 gbo-džu-lé, *v.* to be resolute, confident.
 gbo-džu-wô-ke (oke), *v.* to look up.
 gbo-gbo, *pron.* all, every: titi odžô gbo-gbo, all the day.
 gbo'-go-dô, *v.* to be clumsy;—*adv.* clumsily.
 gbô-hun (gbé), *v.* to hear: gbôhun! hear! an exclamation during a public address.
 gbô-hun-gbô-hun, *n.* an echo: gbôhun-gbôhun gbà, the echo sounds.
 gbo-ku (gbà), *v.* to be stale, rancid.
 gbo...le-nu (li), *v.* to contradict.
 gbô-lô-hun, *n.* a single word, just a word.
 gbôm-gbo, *v.* to be large, as a heap.
 gbo-mi-gbo-mi, *v.* to be large, as a surface.
 gbo-na, *v.* to be warm, hot, zealous, fervent.
 gbo nu (nu), *v.* to resist a proposition.
 gbo ngbo, *n.* root, bottom of a matter.
 gbô ngbo ta, *n.* Malaghetta pepper.

gbo-ro, *n.* a kind of snare.
gbô-ro, *v.* to be narrow.
gbô-wide, *v.* to be wide.
gbô-run (gbô orun), *v.* to smell, lit. to hear a scent.
gbô, *v.* to hear, heed : gbô tì, to hearken.
gbô, *v.* to flourish, as a plant.
gbô-dô (gbà dolo), *v.* to dare, presume : ô gbôdô, kô gbôdô, no, not (emphatic).
gbô-gô-dô, *adv.* (falling) with a crash.
gbô-hin (ihin), *v.* to hear news.
gbô-hun (ôhun), *v.* to hear a voice, to hear. See gbôhun.
gbô-kan-lé. See gbêkêlé.
gbô-kô (gbà), *v.* to be navigable.
gbôn, *v.* to be deep, great.
gbôn, *v.* to be wise, cunning ; to strike ; to hale out water.
gbôn, *v.* to shake ; to move to tears, to be in distress, to sling a stone, to cast, throw.
gbôn-gbôn, *n.* depth ;—*adv.* headlong.
gbôn-gbôn-gbôn-gbôn, *adv.* clumsily.
gbô-raj (ôraj), *v.* to hear a cause, to hear.
gbô-rô, *n.* greens of squash-leaves.
gbô-rô, *v.* to be long and slender.
gbu-ro (gbô iro), *v.* to hear of.
gbu-ru, *adv.* violently (raining).
ge (Egba for ke), *v.* to cut.
gê, *n.* a kind of cloth.
ge-ge, *n.* a lot : ê gege, to cast lots.
gê-ge-le, *n.* a bank of earth, a furrow.
ge-gun, *n.* a curse.
ge-le, *n.* a handkerchief.
gê-le, *v.* to be elevated, raised above the surface.
ge, *adv.* exactly.
ge-dê-ge-dê, *n.* dregs, sediment.
ge-ge, *adv.* even so, well : gege bi, even as.
gê-ge, *n.* a wen.
ge-nê-ge-nê, *n.* dilatoriness : ê ge-nê-ge-nê, to be dilatory.
ge-re-ge-re, *adv.* in a lambent manner, as flame.
gê-re-gê-re, *n.* descent, slope, or brow of a hill.
ge-sin (gun êsin), *v.* to mount, to ride.
gi-di, a *phonasma* in the Egba dialect : libisi ô yilôh gidi, whither art thou going ?
gi-di-gi-di, *adv.* very much.
gi-di-gi-ni, *n.* tumult, uproar.
gi-ga, *n.* height.
gi-ga-gi-ga, *v.* great height ;—*adv.* loftily.
gi-gan, *n.* which is pierced or to be pierced.
gi-gan, *n.* which is despised. (Acts 19, 27.)
gi-gi, **gi-gi-le** (ilc), *v.* See gôgele.
gi-gi-ê-se, *n.* the heel.
gi-gô, *n.* which is slender ; which is puzzling.
gi-gô, *n.* which is stupid, awkward.

gi-gun, *n.* which is long ; which is to be ridden. (Acts 23, 24.)
gin-gin, *n.* a very little quantity or thing.
gi-ri, **gi-ri-gi-ri**, *adv.* closely, firmly, diligently.
gi-ri-gi-ri, *n.* a corn cob.
go-go, *n.* sharp points ;—*adv.* sharply, severely : ará mi hàn gogo, I am leav.
gô-ke (gun), **go-ri**, *v.* to go up, mount, ascend.
gon-go, *v.* to be sharp, acute.
go-ri. See gôke.
go-ro, *adv.* shrilly.
gô, *v.* to be long and slender, to stoop, to bide.
gô, *v.* to puzzle, perplex.
gô, *v.* to be stupid, awkward.
gô-gô, *v.* a horse's mane ; a stick with a hook at the end, for plucking fruit from trees ; a child's play of lots.
gô-gô-wu, *n.* a sheet.
gô-gô, *adv.* sluggishly.
gô-mbo, *n.* a table-spoon.
gôn-gôn, *v.* to be prominent, as the eyes ; to be large, as a bird's beak.
gôn-gôn, **gôn-gôn-gôn-gôn**, *n.* a height, a steep.
gu. See gun.
gu-dê-gu-dê, *n.* cloudiness.
gû-du-gû-du, *n.* scrambling : ê gûdagûdu, to scramble ;—*adv.* entirely. (Gen. 31, 15.)
gû-du-gû-du, *n.* a poisonous wild gum.
gu-fê, *v.* to belch.
gu-na (lôrin), *n.* the esculent watermelon.
gu-nu-gu-nu, *n.* a buzzard.
gun, *v.* to climb, to ride ; to be long.
gun, *v.* to encamp ; to land, as a boat ; to pond, as water.
gún, *v.* to strike against, pound, stab, pierce : gun-gi (igi) to, to be torn or broken, as a bush in travelling.
gun-lê (ilc), *v.* to land, to run aground.
gun-rôn, *v.* to recline.
gun-wa, *v.* to put on stately dress, to sit in state.
gun-yê (iyê), *v.* to be fledged, feathered.
gû-su (Ilausa), *n.* the south.

II.

ha, *v.* to scrape, scratch, bruise.
há, *v.* to lock, to wattle, to be entangled, crowded, narrow.
há, an expletive auxiliary.
hà, *n.* astonishment : hà ê wô, they were astonished.
hâ ! *interj.* denoting wonder.
ha-ha, *n.* a blade of corn, fodder.
ha-kup (ekup), *v.* to shut a door.
ha...la-ye (li), *v.* to throng, crowd.
há-lê (ilc), *v.* to boast.

hă...mô, *v.* to lock up, imprison.
 ha...mô-ra (arâ), *v.* to gird; to be armed, harnesses.
 hă-na, *n.* to be crazy, to act the madman.
 hă-na-hă-na, *n.* roughness.
 hă-ntă, *adv.* scrawnyly: ó rù hăntă, he is very lean.
 ha-ntu, ha-ntu-ru (Hausa), *v.* to write.
 hau, *v.* to scrape, to be worn out, as land; to scream.
 hân, *v.* to appear, become visible; to draw out a nail; to hang up.
 hân...lê-mô (lî), *v.* to maltreat.
 ha-ri (ori), *v.* to do homage, to worship, to reverence; to share.
 hau! See hō.
 he, *v.* to pick up things scattered.
 he...sô, *v.* to collect news to tell, to pick up crude knowledge, to smatter.
 he-wu (owu), *v.* to grow grey-headed.
 hē, *adv.* yes (addressed by females to superiors).
 hēē, *n.* malignant envy.
 hē-lē, *adv.* pantingly.
 hē-yi, *adv.* used for hē by males.
 hî-ha, *n.* narrowness.
 hî-hû, *n.* conduct, behavior.
 hō, *v.* to hail, fervent, lather, foam; to shout, roar, howl at; to peel, strip: hó ilho, to make a noise; ódzo nhô hō, the rain is close at hand, lit. roaring to come.
 ho-kun, *v.* to shout, applaud.
 hō-lē, *v.* to salute by acclamation.
 hō, *v.* to be narrow; to peel or pare; to scratch; to move hastily; to retreat.
 hō, kō, *adv.* not: eyi hō! is it not this?
 hō! hō hu! an exclamation of contempt or of opposition.
 hō-hō, *n.* a kind of crow.
 hōy. See huy.
 hōy, *v.* to itch, be irritable.
 hōy, *v.* to caw: kaniakawa dze, ó yó, á hōy, the crow has cawed, he is full, he caws.
 hōy-run, *v.* to swear.
 hū, *v.* to pull up by the roots, to dislodge.
 hū, *v.* to moulder, rot; to be fickle; to germinate, come up, as a plant; to behave; to occur, to come into notice, to be notable, distinguished: kailai li ó hū, he flourished in ancient times.
 hu-ko (oko), *v.* to produce herbs, as the earth; to spring up.
 hu-kô, *v.* to cough.
 hu-mô, *v.* to meditate, devise, originate an idea or notion.
 hūy, *v.* to grant.
 hū-wā (iwa), *v.* to behave, to conduct oneself.
 hu-yē (iyē), *v.* to be fidgeted, feathered.

I.

i, a prefix forming nouns of action, and occasionally other nouns from verbs; as, iba, a meeting, from ba, to meet. It is also used with the subjunctive mode.
 i, *pron.* he, she, it.
 i, *pron.* him, her, it.
 i, *adv.* not: odudua igba nlá medži, á de i sí, the universe is two large calabashes, which are shut and can not be opened.
 i-ba, *n.* the act of meeting, &c. (see ba); a holding, an ambuscade; a coincidence, a lucky hit.
 iba, *aux. part.* should, ought, might, suppose that: iba še ònia, if he were a man; awa iba ti kpala, we might have returned; iba še! would that! if that!
 i-bà. See bà.
 i-ba, *n.* fear: iba n̄s̄ é, he is sick of a fever.
 i-ba-de, *n.* fitness, accordance.
 i-ba-di (idî), *n.* the hips or loins.
 i-ba-dze, *n.* a spoiling, corruption, injury.
 i-ba-dzô, *n.* a meeting with trouble, a difficulty.
 i-ba-fin. See bafin.
 i-bai-ye-dze, *n.* mischief, a stirring up of strife.
 i-ba-ka, *n.* a mole.
 i-ba-ka'-sî-ē, *n.* a camel.
 i-ba-kpa-de, *n.* a chance meeting.
 i-ba-lē (ilē), *n.* quietness, contentment; the train or tail of a loose garment; a throwing or casting: ilalē oko, a stone's throw.
 i-ba'-lo-guŋ, *n.* a military officer. See balogun.
 i-ba-lôh, *n.* accompaniment, attendance.
 i-ba-mô-lē, *n.* an ambuscade.
 i-ba-ntē, *n.* an apron.
 i-bá-ra, *n.* the passage of migratory birds: awodi lōh Ibara, the hawks are gone to Ibara.
 i-ba-rē, *n.* friendship, alliance.
 i-ba-rô, *n.* consultation.
 i-ba-sô-kpô, *n.* a talking together, conference.
 i-ba-sô-run, *n.* a prime minister.
 i-ba-tan, *n.* a relative, kinsman.
 i-ba-wi, *n.* a judging, rebuke.
 i-be-dzi (bi edži), *n.* twins.
 i-be-kpe-dze, *n.* perjury.
 i-bē-re, *n.* an inquiry.
 i-bē, *adv.* that place, yonder, there: mibē, there; sibē, to there, yet; niha ibē, near there.
 i-bē-bē, *n.* entreaty, supplication.
 i-bē-kpe, *n.* a pawpaw.
 i-bē-rē, *n.* a stooping; a beginning, commencement.
 i-bē-ru, *n.* fear, dread, a fearing.
 i-bē-ru-bo-dzo (ba odzo), *n.* fear and trembling.

i-bê-tê-lẹ, *n.* a bribery.
i-bê-wò, *n.* a visitation, investigation.
i-bi, *n.* a place, this place, here: **ibi** ghogho, everywhere, every respect: **ibi** iyawo, a marriage: **ibi** oku, a burial: **ibi** dżoko, an abode: **ni ibi ti**, where.
i-bi, *n.* evil, hurt: a question.
i-bí, *n.* birth: **ogún ibí**, birthright: **ibi tẹ**, travail comes on. (tien. 35, 16.)
i-bi-ki-bi, *n.* any place whatever.
i-bi-lẹ (ilẹ), *n.* one home-born.
i-bí-lẹ (ilẹ), *n.* a native.
i-bi-mbí, *n.* the natural state, untutoredness.
i-bi-nọ, *n.* veneration, anger, wrath.
i-bi-nọ-dzẹ (ing), *n.* sorrow, regret, veneration.
i-bi-rọ-gbọ-ku, *n.* a couch, a sofa.
i-bí-si, *n.* increase.
i-bo, *n.* the place in which, where: **ni ibo**, where? **niha ibo**, where away, in what place? **ará ibo li** iwo? a citizen of what place art thou? or whence art thou?
i-bo, *n.* breadth: lot, sortilege.
i-bo-de (ba ode), *n.* custom-house at the gates of towns.
i-bo-dži, *n.* a den, pit, grave.
i-bo-džin, *n.* a shade.
i-bo-dzo, *n.* a fearing, trembling for fear.
i-bo-dzu (odžá), *n.* a veil: dissimulation.
i-bo-dzu-wò, *n.* superintendence.
i-bo-mi-wọn, *n.* sprinkling, affusion.
i-bò-mọ-lẹ, *n.* a concealing, concealment.
i-bò-ra (ará), *n.* a covering for the body.
i-bò-ri (ori), *n.* a covering for the head or top.
i-bò-sẹ (ese), *n.* a hoof.
i-bọ-ni, *n.* a supporting of one's cause.
i-bọn, *n.* a gun.
i-bọ-ri-ša, *n.* idolatry.
i-bọ-sẹ (ese), *n.* a stocking.
i-bọ-wọ (owó), *n.* a glove.
i-bu, *n.* abstraction of a part.
i-bu, **i-bu-bu**, *n.* breadth, diameter: an abyss, a channel: depth.
i-bu-ba, *n.* a hiding-place.
i-bú-bu, *n.* crosswise, eastwise: **ni ibúbu**—ade, crosswise.
i-bu-do, *n.* a camp, encampment.
i-bu-du-ro (ibi iduro), *n.* a stand, stand-point.
i-bu-dzẹ (ibi idzẹ), *n.* a feeding-place, a manger.
i-bu-dzo-ko, *n.* a habitation, abode.
i-bu-ke, *n.* a carrier, engraver, carrying.
i-bu-kọp, *n.* a blessing: **ibukọp fi li iwo**, blessed art thou.
i-bu-kùnn, *n.* a deficiency, remnant: disgrace, contempt.
i-bu-mọ (ibi imọ), *n.* a watering-place or trough.
i-bùnn, *n.* a gift, present.

i-bu-ra, *n.* an oath.
i-bu-ru, *n.* wickedness, evil-doing.
i-bu-si, *n.* an addition, a blessing.
i-bu-wọn, *n.* a sprinkling, staining.
i-bu-yin, *n.* honor, reverence.
i-da, *n.* wax, resin.
i-dá, *n.* which is created, which is natural: a *division*, part, point of time: **ni ida ana**, at this time yesterday: **ida kẹrin**, a fourth part: **ida merin**, four parts.
i-dā, *n.* See **dā**.
i-da, *n.* a sword, cutlass.
i-da-a-sa, *n.* a scrap of cloth, a patch.
i-da-do, *n.* an island, a detached abode.
i-da-du-ro, *n.* detention.
i-da-dži (odži), *n.* half: a flaw in cloth.
i-da-dzọ, *n.* a collecting, a collection.
i-dá-dzọ, *n.* judgment, sentence of the judge.
i-da-dzọ-lù, *n.* condemnation.
i-da-gi-ri, *n.* an alarm.
i-da-gù-dẹ, *n.* cold cloudy weather.
i-da-gun-si-lẹ, *n.* which causes war.
i-dá-ho-ro, *n.* desolation.
i-da-hun, *n.* a reply.
i-da-kẹ, *n.* silence, quietness.
i-da-kẹ-dzẹ, **i-da-kẹ-rọ-rọ**, *n.* quietness, a calm.
i-da-kọ-dza, *n.* a passing over or by.
i-dá-kọ-rò (òkọ), *n.* an anchor.
i-dá-kpọ, *n.* mixture, fellowship, union.
i-da-kú-da, *n.* a bad breaking.
i-dā-kù-da, *n.* a bad bending.
i-da-me-dži, *n.* half.
i-da-mẹ-rin, *n.* a fourth part, quarter.
i-da-mẹ-ta, *n.* a third.
i-da-mẹ-wa, *n.* a tooth.
i-dā-mọ, *n.* a mistaken opinion, heresy.
i-da-mọ-ran, *n.* a plan, device, invention.
i-da-mu, *n.* confusion, perplexity.
i-da-na, *n.* a little portable furnace: a feast.
i-da-nde, *n.* redemption.
i-da-ni-la-ra, **i-da-ni-lo-dzu**, *n.* disappointed, trouble.
i-dan, *n.* which is smooth, sleek: slight of hand: a joint of grass: brightness: a piece sowed to the bottom of trousers legs: **gung idan**, a dunsel.
i-dan-ra-wò (ará), *n.* a trial of strength, exertion.
i-dan-wò, *n.* trial, temptation.
i-da-ra, *n.* goodness, beauty.
i-da-ran, *n.* transgression.
i-da-ra-ya, *n.* cheerfulness, liveliness.
i-da-ri-dži, *n.* forgiveness, pardon.
i-da-ro, *n.* anxiety, sorrow.
i-dá-rọ, *n.* dross of iron, clinders.
i-dá-rọn-si-lẹ, *n.* which causes disease or pestilence.

i-da-ru-da kpò, *n.* a confused mingling or mixture.
 i-da-si, *n.* which is spared, a remnant, gleaming, effluence.
 i-da-si-lè, *n.* a beginning, cause; an ordinance or law.
 i-da-sè, *n.* a venture, risk, hazard.
 i-dá-wò, *n.* consulting the gods or an oracle.
 i-da-wò, *n.* See idarò.
 i-da-wò-kpò, *n.* union, combination.
 i-da-ye-da-ye, *adv.* now and then, occasionally.
 i-de, *n.* bondage, bond; a binding; ni ide, bound.
 i-de-bi-kpa (dà ebì), *n.* starvation.
 i-de-hun, *n.* a bargain.
 i-de-le, *n.* guardianship; family medicine.
 i-de-na, *n.* a king's officer who has charge of the revenues of a district; a custom house; an obstruction in the road, a hindrance; a lying in wait, an ambushade.
 i-de-ni, *n.* bondage.
 i-de-ri, *n.* a lid, a cover.
 i-de-ti (idi eti), *n.* the bar of the car.
 i-de, *n.* See de.
 i-de, *n.* brass.
 i-de, *n.* a demijohn.
 i-dè, *n.* See dè.
 i-dè-kun, *n.* a snare.
 i-dè-ti, *n.* failure, inability.
 i-dè-wò, *n.* a trial, temptation, snare.
 i-di, *n.* a bundle, sheaf, bunch; castiveness.
 i-di, *n.* the rump, buttock, butt; a source, cause, reason; ni idi, to understand, to prove; wá idi, to investigate; so idi, to explain.
 i-di, *n.* an eagle; idi babá akòsà, the eagle is the father of birds of prey.
 i-di-dzi, *n.* a fright, an alarm.
 i-di-gba-rò (dà), *n.* a rambling in a standing posture.
 i-di-kpò (dà), *n.* union, combination.
 i-di-le (ilè), *n.* kindred or race of the same stock.
 i-di-lu (ilu), *n.* a mixing, a mixture.
 i-di-nò (inò), *n.* anger, passion; castiveness.
 i-diñ, *n.* a maggot, skipper; di idin, to breed worms.
 i-di-roy (iron), *n.* a plaiting of the hair.
 i-di-ròy (eròy), *n.* a neck-tie.
 i-do, *n.* encampment, settlement, colonization; siege; the herb cinna.
 i-do-do, *n.* the novel; in the Iketa dialect, a room.
 i-do-gbo-lu, *n.* a stumbling-block.
 i-do-ko, *n.* an arriving at the farm; the name of a town.
 i-don, *n.* the bed-bag, chinch.
 i-don, *n.* sweetness, pleasantness.
 i-du gbo lu. See idogbolu.
 i-du ro, *n.* a standing, the erect position.

i-dza, *n.* a blow.
 i-dza, *n.* wrestling, fighting, war, strife; idza idzi, motion of the whirlwind.
 i-dza-ba, *n.* trouble, annoyance.
 i-dza-dan, *n.* fruit which the bats have gnawed.
 i-dza-de-lòh, *n.* a going forth.
 i-dza-du, *n.* scrambling, earnest contest.
 i-dza-i-ya, *n.* fear.
 i-dza-ká-di, *n.* wrestling, struggling.
 i-dza-kpa-ti, *n.* a pitched battle, contest; a snatching from the hand.
 i-dza-lòh, *n.* the black ants called "drivers."
 i-dza-nu, *n.* a birth-bit; a club with an iron hook on the end used by kidnappers.
 i-dzan-dza, *n.* small pieces.
 i-dza-rò, *n.* detection of falsehood.
 i-dza-sap, *n.* a leather guard on the left wrist to defend it against the bow-string.
 i-dze, *n.* a race, competition, emulation.
 i-dzè, *n.* a reel; the seventh day.
 i-dze-dzi-la, *n.* twelve days ago.
 i-dze, *n.* an effect; a response, reply.
 i-dze, *n.* feed, food, fuel of a gun.
 i-dze-bò, *n.* an altar.
 i-dze-ka, *n.* deep sleep, snoring.
 i-dze-rè, *n.* the silk of maize.
 i-dze-ri, *n.* testimony, evidence.
 i-dze-rin, *n.* four days ago.
 i-dze-ta, *n.* three days ago.
 i-dzi, *n.* a whirlwind, a storm; fright, surprise.
 i-dzi-gbo, *n.* a chief priest.
 i-dzi-gò-ròy, *n.* a ravine, valley.
 i-dzi-ka, *n.* deep sleep.
 i-dzi-la, *n.* a famous or notorious person.
 i-dzi-lè, *n.* depth, mysteriousness.
 i-dzi-mò, *n.* See adziñmò.
 i-dzi-na, *n.* depth (from the top of a height), distance, expenditure.
 i-dzi-ni (oni), *n.* seven days hence.
 i-dziñ. See idzi and idžina.
 i-dzi-se-kpa-lè (ilè), *n.* the early afternoon.
 i-dzo-wu, *n.* jealousy, envy.
 i-dzo-ye, *n.* officer.
 i-dzò, *n.* an assembly.
 i-dzò, *n.* a dog; idzò odun, new year's day; idzò lálá, birth-day; idzò gbagbo, daily.
 i-dzò-kán-lò gboy (li ogboy), *adv.* seldom, occasionally, now and then.
 i-dzò-ni, *n.* eight days hence.
 i-dzu, *n.* wilderness.
 i-dzu-re, *n.* a pattern. See akpedzure.
 i-fa, *n.* one of the Yoruba idols.
 i-fa, *n.* a round shawl, used for scooping out the pulp of green calabashes.
 i-fa, *n.* gain, luck; abundant, abiding.

i-fā-gi (igi), *n.* a *darning-knife*.
i-fa-ni, *n.* the *space of six days*.
i-fa-roṣ (orṣ), *n.* an *iron instrument with which the horse is drawn*.
i-fe, *n.* a *cup*; a *whistling*.
i-fe-fe, *n.* a *reed*.
i-fe-re, *n.* a *flute*, a *pipe*.
i-fe-ti-si (ti), *n.* *attention to, obedience*.
i-fē, *n.* *love, will, desire*.
i-fē, *n.* a *hitching, crucetation*.
i-fē-kū-fē (kū ifē), *n.* *irregular desire, lust*.
i-fē-ni, *n.* *charity, philanthropy*.
i-fē-ṣe-dzī, *n.* *forgiveness of sins*.
i-fi-bu, *n.* *who is cursed*: ifilū li ōn, *accursed is he*.
i-fi-bun, *n.* a *gift, present*.
i-fi-dzī, *n.* *pardon, remission*.
i-fi-han, *n.* a *showing, revelation*.
i-fi-mq. i-fi-raṣ-mq., *n.* *suspicion, a fastening upon*.
i-fo-le, *n.* a *home-born slave*.
i-fo-ri-fo, *n.* a *flake*, a *spark of fire*.
i-fo-ya, *n.* *fear, dread*.
i-fō, *n.* *abundance*; *barling*.
i-fō, *n.* *cleansing*; *utterance*.
i-fō-kq, *n.* *shipwreck*.
i-fō-le (ilō), *n.* *burglary*.
i-fō-lu (ilu), *n.* the *destruction of a town*.
i-fon, *n.* a *gut, bowels, tripe*.
i-fōn, *n.* a *severe eruptive itching of the hands*.
i-fon-fon, *n.* a *small honey-making fly*.
i-fon-kpō, *n.* a *crowd*.
i-fun, *n.* *whiteness*.
i-ga, *n.* *height, stature*.
i-ga, *n.* *stretch, extension*: na i-ga, *to stand at full stretch, reaching up*.
i-ga-na, *n.* a *wall, a walled enclosure*, the name of a town.
i-gan, *n.* *contempt, contemptuousness*: i-gan amado, *the large wild boar*.
i-gan-gan, *n.* a *kind of grass*.
i-gān-gan, *n.* *largeness, hugeness*.
i-gan-rin, *n.* a *mattock*.
i-gan-re, *n.* a *pick-axe*.
i-ga-ra, *n.* a *robber, robbery*.
i-gba, *n.* *admittance, reception*; *beating upon*; a *good cut for use*; *time, opportunity*: ni i-gba ti, *in the time which, when*; ni i-gba ná, *then*; ni i-gba kpikō, *many times*; i-gba ori, *the skull*.
i-gba, *n.* the *African locust-tree*.
i-gba, *num.* *two hundred*.
i-gbá, *n.* *tomato*.
i-gba-dzā, *n.* a *bean-pod*.
i-gba dzē, *n.* a *large gourd*.
i-gba-gbe, *n.* *forgetfulness, oblivion*.
i-gba-gbō, *n.* *faith*.
i-gba kq, *n.* a *bottle*.

i-gba-ku-gba, *n.* *any time*: ni i-gbakugba, *when*.
i-gba-la, *n.* *salvation, deliverance*: ṣe i-gbala, *to save*.
i-gba-mu, *n.* *scizure*.
i-gba-ni, *n.* a *span*.
i-gbā-ni, *n.* *ancient times*: arā i-gbāni, *ancients*.
i-gba-ro-ko, *n.* the *hip-joint*.
i-gba-ti (eti), *n.* a *border, edge*.
i-gbe, *n.* a *taking*; *forgetfulness*. See i-gbagbe.
i-gbe-kun, *n.* a *male captive*.
i-gbe-le, *n.* *usury, interest*: ṣe i-gbele, *to exact usury*.
i-gbe-ra, *n.* *self-defence, vindication*.
i-gbe-ri (gbe and ri), *n.* *matrass*.
i-gbe-ri (ori), *n.* *position above the head*. (Mat. 27, 37.)
i-gbe-ri-ko, *n.* a *neighborhood, province*.
i-gbe-ro, *n.* *consideration*.
i-gbe-se, *n.* *debt, desert*.
i-gbē, *n.* *bush*; figuratively, *forces*.
i-gbē-hin (igba), *n.* the *last, the afterpart, the end* of a period.
i-gbē-kē-le, *n.* *hope, assurance*. See gbēkēle.
i-gbē-sin, *n.* a *female captive*.
i-gbī-mq, *n.* a *councillor*.
i-gbīn, *n.* a *smile*; an *effort to remove anything*.
i-gbo, *n.* a *forest*.
i-gbo, *n.* an *assembly of priests, a sacrifice*.
i-gbo-du, i-gbo-fa, *n.* a *sworn grace*.
i-gbo-i-ya, i-gbo-dzā, *n.* *courage*.
i-gbō-kun (gbā), *n.* a *saile*.
i-gbō-ro, *n.* *bush-green fallow land*.
i-gbo-ro, *n.* a *street*.
i-gbo-ro-bo, *n.* the *thumb*.
i-gbo-se, *n.* *after a while*: ó dī i-gboṣe, *let him wait a while, after a little*; yí ó wāh ní i-gboṣe, *he will come by and bye*.
i-gbō, *n.* *hearing, attention, trust, obedience*.
i-gbō-kū-gbō, *n.* *credulity, one who is credulous*.
i-gbōn-ra (arā), *n.* a *shaking of the body*.
i-gbōn-wō, *n.* the *elbow, a cubit*: ṣo ní i-gbōnwō, *to jog with the elbow*.
i-gbō-wō (gbā), *n.* a *pledge, token*; a *cubit*.
i-ge-de, *n.* a *mystery* (superstitions).
i-ge-re, *n.* a *fish-pot*.
i-ge, *n.* a *sitting, perching*.
i-ge, *n.* the *breast, chest*.
i-ge-kpa, *n.* a *bird-snare*.
i-gi, *n.* *wood, tree, stick, stalk, stem*: i-gi imq, *swamp*.
i-go, *n.* a *bottle*.
i-gōn-go, *n.* a *grub-worm*: i-gōn-go gōn, *the wind-pipe*.
i-gon-gon, *n.* *tip, end*.
i-gō, *n.* *perplexity*: i-gy i-gi, *roots above the ground leaving the tree*.
i-gon, *n.* the *skin*.

i-gon, *n.* a corner, an angle.

i-gun, *n.* a culture.

i-gun-wa, *n.* sitting in state, staidness (of dress).

i-gu-sq, *n.* a tobacco pipe, a forked stick, an instrument of torture.

i-ha, *n.* the side, a part, portion, region : i-ha ikpin ilē, the ends of the earth ; i-ha inō, the inward parts ; ni i-ha ilē, in those parts ; i-ha ekpo, the husk of the palm-nut.

i-ha-ga-ga, *n.* a press, a crowd.

i-ha-hq, *n.* crust or burnt part at the bottom of the pot.

i-ha-le, *n.* poverty.

i-ha-ri, *n.* homage.

i-hin, *n.* place, this place, here, hither.

i-hin, *n.* narration, news, thing, reputation.

i-hō, *n.* noise, &c. See hō.

i-ho, *n.* a hole, pit, ditch ; i-ho inq, the nostrils ; i-ho itēbo, a socket for a tenon, a mortise.

i-ho, i-hō-ho, i-hō-ri-ho, *n.* nakedness : ni i-hōho, naked.

i-hō-kūn, i-hō-lē, *n.* acclamation.

i-hō, *n.* a district spared for hunting, a park.

i-hū-hu, *n.* down.

i-hu-lē (ilē), *n.* origin, rise.

i-ka, *n.* a fayer.

i-kā, *n.* cruelty, obstinacy, wickedness.

i-ka-ka, *n.* a mussle (shell-fish).

i-ka-kī-ka, *n.* great wickedness.

i-ka-ndu, *n.* a large stinging ant.

i-ka-ni, *v.* a waist-band.

i-ka-ni-la-ra (kaŋ li), *n.* piercingness, or power of words.

i-kā-nq (inō), See ikā.

i-kan, *n.* cave with which chairs are bottomed.

i-kān, *n.* the white ant, a large species of termites.

i-kān, *n.* a kind of egg-plant.

i-kaŋ-dzu, *n.* a hastener : ikaŋdzu dzaŋye, one who hastens to be rich.

i-kan-gun, *n.* extremity, remote corner.

i-ka-ra, *n.* a back yard ; a cham.

i-ka-si, *n.* respect ; that which is stole.

i-kā-wō, *n.* control, mastery : ŋe ikawō, to subdue.

i-ke, *n.* hoag ; a hump or hunch ; carrying, sculpture ; a joint, a partition, a ring of bead ; an outcrop.

i-ke-de, *v.* a proclamation : ŋe ikede aŋdži, to proclaim the capital of a town.

i-ke-le (ile), *n.* a partition, a room.

i-ke, *n.* indulgence, devoted attention to.

i-ke, *n.* hoarseness.

i-ke-hin, *n.* the end, the last : ni i-kehin, at last.

i-ke-kun, *n.* a snare.

i-ke-na, *n.* large wood for the fire.

i-ki, *n.* thickness of a liquid, as soup.

i-kī, *n.* salutation.

i-kī-be, *n.* a sash, a band.

i-kī-ni, *n.* salutation.

i-kī-ri, *n.* wandering.

i-kī-we-dze, *n.* a wrinkle.

i-ko, *n.* palm-leaf fibres woven into cloth : i-ko-eti, a binding on the edge of cloth.

i-ko, *n.* a large tall basket in which peas are stored.

i-ko-dzo, *n.* a gathering : ikodzo oko, harvest.

i-ko-gun, *n.* plunder, captivity.

i-ko-ko, *n.* a pot : ikoko tala, a tobacco pipe.

i-kō-ko. See ikoriko.

i-ko-lōh, *n.* a carrying away, captivity.

i-koŋ-ko-so, *n.* a kind of rat-trap.

i-ko-re, *n.* a harvest, a crop.

i-ko-ri-ko, *n.* grass ; a hqma.

i-ko-ro, *n.* bitterness.

i-kō-ro, *n.* a sky-light.

i-ko-ro, *n.* a perch (fish).

i-ko-ti, *n.* a hair-pin.

i-kq, *n.* a cold chisel, a tack ; a cough ; a skin ; doctrine. See kq.

i-kq, *n.* a messenger.

i-kq-dzu-si, *n.* a fronting on, moving or looking towards.

i-kq-kq, *n.* the inner corner of a thing, a secret place, privacy.

i-kq-kq-rq, *n.* a hook.

i-kq-ku-kq (ikq ki ikq), *n.* false doctrine.

i-kq-lē (ilē), *n.* the head man of a firm.

i-kqŋ, *n.* a squirrel ; means ; fulness.

i-kqŋ, *n.* a murmuring.

i-kqŋ-dō (ōdō), *n.* a freshet.

i-kqŋ-du, *n.* the end, as of a box.

i-kqŋ-ra, *n.* fatigue, satiety.

i-kqŋ-si-nq (inō), *n.* a grumbling.

i-kqŋ-wq (wō), *n.* a handful.

i-kqŋ-wq-si-lē (ilē), *n.* an overflowing full measure.

i-kq-ra, *n.* a loud howling, a crying out.

i-kq-sē (esē), *n.* a stumbling, a hindrance.

i-kq-sē-bā, *n.* an unexpected event, a chance.

i-kpa, *n.* a path, foot-print, channel : ikpa ŋma, a road.

i-kpa, *n.* power, circumstances in life ; a part, a party ; a kick.

i-kpai-ya, *n.* fearfulness.

i-kpa-ka, *n.* a corn-floor, barn.

i-kpa-kan, *n.* a part.

i-kpa-ka-ra, *n.* a spacious back yard.

i-kpa-kq, *n.* the hollow on the back of the neck.

yi ikpakq si, to flee from.

i-kpa-kpa, *n.* a prairie.

i-kpa kpō, *n.* a mingling, a mixture.

i-kpa-la-ra, *n.* hurt, injury.

i-kpa-lẹ mọ, *n.* *preparation* : ikpalẹmọ oko, *harvest*.
i-kpa-na, *n.* *a place* : iwọ imbẹ ni ikpana mi, *thou art in my place or seat*.
i-kpa-ni, *n.* *manslaughter, murder*.
i-kpan-ka, *n.* *a bargain as to price*.
i-kpan-ko-ro ọ-mọ, *n.* *a girl*.
i-kpa-ra, *n.* *suicide* ; *rust on metal*.
i-kpa-rẹ, **i-kpa-run**, *n.* *destruction*.
i-kpa-ri (ori), *n.* *boldness*.
i-kpa-rọ, *n.* *a change, exchange*.
i-kpa-sẹ (ese), *n.* *a foot-print, a path*.
i-kpe, *n.* *a trumpet*. See **kpe**.
i-kpe-dzẹ, *n.* *an invitation to a feast*.
i-kpe-dzi, *n.* *an opening, interval, interstice*, as between the teeth, or between threads of cloth.
i-kpe-le, *n.* *a distant relation*.
i-kpen-kpe-dzu, *n.* *the eye-lash*.
i-kpe-re, *n.* *the small snail*.
i-kpe-ti, *n.* *a snare for beasts*.
i-kpe, *n.* *the shoot of maize or Indian corn* ; *a fish-scale* ; *a flat stick on which ram cotton is wound*.
i-kpẹ, *n.* *entreaty* : sẹ ikpẹ, *to beseech*.
i-kpẹ fọn, *n.* *a bailiff* : ikpẹfọn igbese, *petty debts*.
i-kpẹ-kpẹ, *a scale*, as of a fish, *a small shell* : ikpẹ-kpẹ okun, *a sea-shell*.
i-kpẹ-rẹ, *n.* *a halter for a horse*.
i-kpẹ-rẹ, *n.* *young people*.
i-kpi-lẹ, **i-kpi-lẹ-sẹ**, *n.* *foundation, beginning*.
i-kpin, *n.* *one's good genius* ; *a species of rangle-buffed jig* ; *a division, dec.* (See **kpin**) : ikpin ilẹ nini, *a portion of an inheritance* ; ikpin rẹ, *his share*.
i-kpin-ka, *n.* *distinction*.
i-kpo, *n.* *place, stead, office, rank, condition* ; *fold, double* : ikpo okú, *the place of the dead, hades*.
i-kpò-mọ, *n.* *mingling, mixture* : ikpòmọ ẹnià, *mingled people*.
i-kpo-run, *n.* *a parasol*.
i-kpọ, *n.* *abundance, cheapness*.
i-kpọ-dzu, *n.* *the greater part, majority*.
i-kpọn, *n.* *thickness* ; *a wooden spoon*. See **kpon**.
i-kpọn, *n.* *irony* : ran ikpọn si, *to speak ironically of*.
i-kpọn-dzu, *n.* *distress, adversity*.
i-kpọ-ri, *n.* *the great toe*.
i-kpọ-si, *n.* *scorn, contempt*.
i-ku, *n.* *end, termination*.
i-kú, *n.* *death*.
i-kù, *n.* *the gable of a house, end of a box*.
i-kù-du, *n.* *a clay pit*.
i-ku-dza-re (džẹ), *n.* *the gathering of locust fruit*.
i-ku gbu, *n.* *presumption*.
i-ku-ku, *n.* *the fist*.
i-kù-ku, *n.* *a cloud, fog*.

i-kù-le (ilẹ), *n.* *the gable of a house*.
i-kun, *n.* *the belly, abdomen* ; *a cavity, bowl*.
i-kun-ra (arú), *n.* *outfit for the body*.
i-ku-sa, *n.* *earnestness*.
i-la, *n.* *okra*.
i-là, *n.* *a cleaving, a cleft* ; *salvation, escape* ; *up-pouring, state, condition* ; *tattoo* ; *circumcision* : ilà orun, *sunrise, the east*.
i-la-gun, *n.* *first fruit of the season*.
i-lai-ya, *n.* *boldness, courage*.
i-la-ka-ka, *n.* *forceful impression*.
i-la-na, *n.* *an ordinance* : sẹ ilana, *to ordain*.
i-la-ra, *n.* *energy* ; *freedom* : sẹ ilara, *to energize*.
i-la-ri, *n.* *a king's headdress*.
i-la-sa, *n.* *the okra leaf*.
i-la-sa-dò, *n.* *a kind of herb*.
i-lẹ, *n.* *a house* : ilẹ abẹrẹ, *a needle-case* ; ilẹ àsẹ, *a kitchen* ; ilẹ atọ, *the bladder* ; ilẹ ero, *an inn* ; ilẹ ẹyẹ, *a bird's nest* ; ilẹ iso, *a stable* ; ilẹ oku, *a tomb*.
i-le, *n.* *a bird snare*. See also **lẹ**.
i-le-ke, *n.* *which is above, an upper garment*.
i-lẹ-ko. See **ileto**.
i-le-kọ, *n.* *a pistol*.
i-le-ra (arú), *n.* *strength, which is strong*.
i-le-ri, *n.* *a promise, vow* : sẹ ileri, *to promise*.
i-le-ru, *n.* *a furnace*.
i-le-to, *n.* *a village*.
i-lẹ, *n.* *ground, earth* (see **lẹ**) : ilẹ ini or nini, *a possession* ; ilẹ oku, *a burying ground* ; ilẹ ọba, *a kingdom* ; ilẹ mọ, *it is daybreak* ; ilẹ ku, *it is dark* ; ilẹ niye, *the earth* ; ilẹ biri, *a small piece of ground, a field*.
i-lẹ-dú, *black soil, manure*.
i-lẹ-ke, *n.* *a mud* : ilẹke okpọlo, *toad's eggs*.
i-lẹ-kpa, *n.* *a grave, tomb*.
i-lẹ-kun, *n.* *a door-shutter*.
i-lẹ-sẹ, *n.* *the beginning*.
i-lo, **i-lo-ro**, *n.* *a porch*.
i-lò, *n.* *a using, use* : ohun ilò, *a vessel*.
i-lo-ri, *n.* *a whirling round*.
i-lọ, *n.* *an accusation, a charge*. See **lọ**.
i-lọh, *n.* See **loh**.
i-lọ-lọ, *n.* *fetidness* ; *lukewarmness*.
i-lọ-ra, *n.* *delay* : sẹ ilora, *to delay, tarry*.
i-lọ-sọ, *n.* *a squatting posture*.
i-lu, *n.* *a girdlet* ; *a town*. See **lu**.
i-lu, *n.* *a drum*. See **lù**.
i-lu-ke-dzi, *n.* *a small village*.
i-ma, *aux. part.* *a sign of continued action*. See **ma**.
i-mà-dò, *n.* *a kind of wild honey*.
i-ma-le, *n.* *a Yoruba proselyte to Mohammedanism*.
i-ma-ra-du-ro (mu ará), *n.* *continuance, self-restraint*.

i-ma-ti-ko, *n.* an instrument for drawing the bow-string.

i-me-le, *n.* idleness, idollence; *še imēle*, to be indolent.

i-mi, *n.* dung.

i-mi, *n.* a breathing.

i-mi, *n.* a shaking; *imī cōdō*, sighing, a sigh.

i-mi-lē, *n.* a shaking of the earth.

i-mi-si, *n.* breathing on, inspiration.

i-mo-dzo, *n.* a kind of rat.

i-mo-dun-dzu-ō, **i-mo-dzu-ō**, *n.* the fore-finger.

i-mō-re, *n.* gratitude.

i-mo-ru (*imū ora*), *n.* heat of the sun; *imoru cōlō*, the heat or middle of the day.

i-mo-ye, *n.* intellect, understanding. See *moye*.

i-mō, *n.* the nose.

i-mō, *n.* knowledge, interpretation, decision; *fi imō šekap*, to agree together.

i-mō-dze, *n.* the water weed.

i-mō-džū, *n.* drunkenness.

i-mō-džū, *n.* superior knowledge.

i-mō-džū-mō, *n.* the dawn.

i-mō-lē, *n.* light; *še imōle*, to enlighten.

i-mō-lē, *n.* a conspiracy.

i-mō-mō, *n.* the grass-ent.

i-mō-ni-nō, *n.* conscience.

i-mō-raj, *n.* a wise man.

i-mō-tā (*mō tā*), *n.* a having sold out.

i-mō-te-le, *n.* foreknowledge.

i-mu, *n.* sharpness, severity. See *mu*.

i-mu-bā, *n.* means, instrumentality.

i-mu-ku-ro, *n.* taking away.

i-mu-lē, *n.* firmness, as to standing.

i-mu-na-mu-na, *n.* the fire-fly.

i-mu-ni-bi-nō, *n.* a provocation.

i-mu-nū, *n.* activity, in a cause.

i-mu-re, *n.* a glia.

i-na, *n.* a fire; a blossom; a house. See *na*.

i-nā, *n.* a whipping, a stripe or stroke with the whip. See *nā*.

i-na-bi, *n.* a plant which blisters the skin.

i-na-kī, *n.* the chimpanzee, ape.

i-na-kū-na (*kī*), *n.* extravagance.

i-naj, *n.* sight, vision.

i-ne-džē-dži, *n.* sides of the doorway.

i-nī, *n.* possession; *imī rē kpō*, his possessions are great.

i-ni-la, *n.* greatness.

i-ni-la-ra, *n.* oppression.

i-ni-ra, *n.* freedom; difficulty, strait, need.

i-ni-raj, *n.* remembrance.

i-nō, *n.* the inside, mind, womb; an inclination or bent (Ex. 25, 31); *imō didōy*, pleasure (of mind); *še imō dōy si*, to be pleased with, delight in; *imō rēre*, a good disposition; *še imō rēre*, to be kind-

hearted; *imō lađže*, to be displeased; *imō yō*, to pity; *ekoy imō*, the fulness of a thing (1's. 50, 12); *nī imō*, in, within; *imō mī dōy*, I am pleased, happy; *imō dōy mī*, I am pained, grieved.

i-nō-bi-bi, *n.* fatfulness.

i-nō-džū, *n.* a towel for the face, a handkerchief.

i-nō-le (*ilē*), *n.* inside the house.

i-nō-se, *n.* a foot-towel.

i-nō-wō, *n.* a hand-towel.

i-ra, *n.* a morass, a bog; a kind of horse. See *ra*.

i-ra-dō, *n.* compassion.

i-ra-kpa-dā, *n.* redemption.

i-ra-le, *n.* lathing, laths.

i-ra-lē, *n.* evening.

i-ra-na, *n.* a propitiation made for the dying.

i-raj, *n.* a sight, seeing; a generation, a race; *re-sculblauer*.

i-raj-di-raj, *n.* successive generations, genealogy.

i-raj-šē, *n.* a servant.

i-raj-wu, *n.* a cotton-spinner. (1'r. 44.)

i-ra-wō, *n.* a star.

i-re, *n.* play.

i-rē, *n.* a going off, as a trap; a curse, an urging forward, haste.

i-rē, *n.* goodness; well-wishing; gift of a horse.

i-re-de (*ōle*), *n.* revelling, revelry.

i-re-guy, *n.* abuse, a curse.

i-re-ke, *n.* sugar-cane.

i-re-kō-dža, *n.* a passing over.

i-re-kpa, *n.* transgression.

i-re-kpe, *n.* a scrap or remnant of cloth.

i-re-ni, *n.* four days hence.

i-re-ra, *n.* pride.

i-re-ri, *n.* a being past harvest time.

i-re-ti, *n.* hope.

i-rē, *n.* friendship, fr. See *rē*.

i-rē, *n.* a cane-bush.

i-rē-na, *n.* candle-snuffers.

i-re-ni-džē, *n.* a cheating, fraud.

i-ri, *n.* sight, fr. See *ri*.

i-ri, *n.* dew, mist.

i-ri-džū, *n.* a steward.

i-ri-na, *n.* a sight, a spectacle.

i-ri-ndō, *n.* nausea.

i-rij, *n.* iron; a kind of rat-trap.

i-rij, **i-rij-lē**, **i-rij-mī**, *n.* dampness, moisture.

i-rij, *n.* walking, fr. See *rij*.

i-ri-ra, *n.* hatred, an abomination.

i-ri-raj, *n.* See *iriba*.

i-ri-ri, *n.* experience.

i-ro, *n.* a telling, fr. See *ro*.

i-rō, *n.* a steering, fr. See *rō*.

i-ro, *n.* the chimpanzee.

i-ro-bi-nō-džē, *n.* grief, trouble.

i-ro-gba, *n.* an assembly of the elders.

i-rô-kû-rô, n. an evil thought.
i-ro-na, n. a going in quest of.
i-ro-nô, n. consideration, thought.
i-ro-nô kpi wa-da, n. repentance.
i-ro-ra, n. pain, grieving.
i-rô, n. a relating, interpretation, &c. See rô.
i-rô, n. a fib; texture, the warp of cloth.
i-rô, n. an equal, a companion.
i-rô gbô-ku, n. a couch.
i-rô-kpô, n. acting for an absent person.
i-rô-nô, n. abstinence from food, solemnity, pain in the stomach.
i-rô-nu, n. tenderness, compassion.
i-rôn, n. hair: *iruŋ gaungauŋ, a* bristle.
i-rôn, n. prayer by rote.
i-rôn, n. a being sick.
i-rôn-gân, n. bareness.
i-rôn-gbôŋ, n. the beard.
i-rô-ra (arî), n. a bolster.
i-rô-ri (orî), n. a pillow.
i-ru, n. a rising, a fountain, an uproar, &c.
 See ru.
i-ru, n. seed of plants; kind, species, such: *bi iru*
 eyi ti ô fe, such as (bi . . . ti) he loves.
i-ru, n. the tail; a gully.
i-ru-di, n. a bad.
i-ru-gbin, n. seed for sowing.
i-rû-ke-rû-do, n. a tumult, insurrection.
i-ru-ke, n. a cow's tail carried as a badge.
i-ru-ke-re, n. corn-silk.
i-ru-kpe-kpe, n. exertion; vigorous growth.
i-ru-la, n. okra seeds.
i-ru-lu, n. a tumult, an uproar.
i-ru-mi, n. waves.
i-ru-mô (omô), n. seed, offspring.
i-rû-ru, n. a variety of kinds, any kind.
i-ru-ya, n. an emetic.
i-sa, n. flight, &c. See sa.
i-sâ, n. a grave, a pit.
i-sâ, n. an attempt, &c. See sâ.
i-sa-bô-ti, n. an outer yard.
i-sa-ga-da-gba, n. a regular set-to in battle.
i-sa-ga-ti, n. a siege.
i-sa-lê, n. the lower part, bottom, below.
i-san, n. retaliation, &c. See san.
i-san, i-sa-ni, n. nine days hence.
i-sân, n. a snow.
i-sân-đuy (yân), n. harvest.
i-san-sa, n. a deserter, a runaway.
i-sâ-se, n. a feast.
i-sê-lu, n. confection.
i-se-lê, n. an earthquake.
i-si, n. a new invention, a new era.
i-si mi, n. rest, the sabbath.
i-sin, n. service.

i-sin kû sin, n. superstitious worship.
i-si-si yi, n. this time, now.
i-so, n. a tying; an emission of wind; a producing of fruit: *iso melokan, a* little white, (Gen. 24, 55.)
i-so fin, n. a giving of law, a prohibition.
i-so kô, n. a mooring-place.
i-so kpa, n. a hard knot.
i-so-lu, n. a coupling.
i-so-rô, n. a hanging, a curtain.
i-so-yi gi, n. marriage.
i-sô, n. a place, station, quarter of the town: *i-sô*
 agba, meeting-place of the elders.
i-sô-di, n. which is made, or caused to be.
i-sô-ka, n. a kind of bird snare.
i-sô-kû-sô, n. silly or evil talk.
i-sô-nu, n. the Mohammedan supper after the long fast.
i-sôn, n. a fountain.
i-su-wa, n. goodness of a proposition or act.
i-sa, n. ab-tide.
i-sâ-dzû, n. former (time or state).
i-sâ-na, n. a flat and stuck.
i-sâ-kpa, n. a kind of hibiscus.
i-san, n. a flood; a vein, artery.
i-sa-sun, n. a sauce-pan.
i-sê, n. custom, fashion, character, &c. See sê.
i-sê-un, n. kindness: *i-sêun ite, loving* kindness.
i-sê, n. work, trouble, distress: *i-sê àmî, a* sign; *i-sê*
 asê, a miracle; *i-sê ikpa, hard* toil; *i-sê i-sin, duty,*
 service; *i-sê ora, torment*; *i-sê sibi i-sê, go to*
 work.
i-sê-ki-sê, i-sê-ku-sê, n. a wicked work.
i-sê-kpe, n. small fire-wood.
i-sê-kpo, n. a fold, a double.
i-sê-nô, n. abortion, miscarriage.
i-sê-ti, n. a beam.
i-si, n. gentleness, fasting.
i-si, i-sin, n. a kind of indigenous fruit.
i-si-nu, n. appetite.
i-sin, n. a tree and its fruit.
i-si-si, n. a fault, error of action.
i-sô, n. peevishness.
i-sô, n. slackness, as of a rope.
i-sô-de, n. patrol, police.
i-sô-kar, n. concord.
i-sô-ra, n. watchfulness.
i-sô ran, n. an offence, an offender, evil doer.
i-sô-te, n. enmity, rebellion, sedition.
i-sû, n. a ball, a lump; the gum, &c. (See sù): *i-sû*
 ôde, wild gum; *i-sû okpe, palm-sabotee*.
i-sû-ra, n. treasure.
i-ta, n. a street; waof of cloth; pain, pangs; a
 setting sail, &c. See ta.
i-ta do gun, n. seven days.
i-tâ-fo (local), n. a table.

i-ta-lẹ, *n.* a worm which comes up from the ground and attacks people when asleep.
i-ta-lẹ-mọ, *n.* ancestors.
i-ta-mọ ra, *n.* accoutrements for war.
i-ta na, *n.* a flower, blossom.
i-tan, *n.* the thigh, a ham; kinship, tradition, completion, &c. See **tan**.
i-tan-kpa-ra, *n.* an ulcer caused by small-pox.
i-ta-ra, *n.* haste, hurry, zeal, anxiety.
i-ta-so-ri, *n.* which is poured on the head.
i-ta-şọ (aşọ), *n.* a cloth stretched or hung as a curtain.
i-tẹ, *n.* a throne, &c.
i-tẹ-bo, *n.* the underside of a roof; a tenant. See **iho**.
i-tẹ-hin, *n.* a saddle-cloth.
i-tẹ-lẹ, *n.* the leg of a boat.
i-tẹ-lẹ, *n.* foundation.
i-tẹ-lẹ-se, *n.* a private sign (as a nod, wink, &c.) to attract attention.
i-tẹ-ri-gbà, *n.* the lintel of a door.
i-tẹ-se, *n.* the treadle of a loom.
i-ti, *n.* timber, a log.
i-ti, *n.* a bundle, sheaf, whisp; breaking, snapping in two.
i-ti-dzu, *n.* shame, modesty.
i-ti-se, *n.* a foot-school.
i-tori, *n.* a share; &e **itori**, to share.
i-to-rí, *n.* the cause, reason; therefore.
i-to-si, *n.* nervousness; mitosi, war.
i-to-tọ, *n.* truth.
i-to-ye, *n.* merit, value.
i-tọ, *n.* straightness; a creek; old age, endurance, leading; spittle, &c. See **tọ**.
i-tọ, *n.* urine, &c. See **tọ**.
i-tọ-dzu, *n.* oversight, care, perseverance; &e **itọdzu**, to persevere, to oversee.
i-tọ-kọ, *n.* an oar, a rudder.
i-tọ-ri-ray, *n.* recovery of sight.
i-tọ-re, *n.* a gift; itore ãnn, alms.
i-tọ-wọ, *n.* an earnest, anticipation.
i-tu, *n.* overthrow, eradication, &c. See **tu**.
i-tu, *n.* a sparrow.
i-tù, *n.* ease, relief; itù ẹdọ, consolation; &e **itù ará**, to rest.
i-tu-mọ, *n.* interpretation, sense, meaning.
i-tu-nọ, *n.* comfort, consolation.
i-tu-ra, *n.* ease from pain, refreshment; itura ẹlázọ, the cool of the day.
i-wá, *n.* distribution. (1 Pet. 4, 10.)
i-wà, *n.* being, origin, life, duration of life, conduct, disposition, nature of a thing, presence (Gen. 43, 9): iwà ikpa, violence; iwà baburu, wickedness; iwà tító, integrity, honesty; iwà títu, meanness; iwà ibi, iwà ika, mischief; iwà mimọ, foolishness; iwà ará, brotherhood; iwà Ọlórún, the Godhead; ẹlázọ ẹlún iwà rẹ, the quies of his life.

i-wa-dzẹ, *n.* gain, profit, seeking for foul.
i-wa-dzu, *n.* the front, presence, before, before, before.
i-wà-ku-wà, *n.* bad behavior, caprice.
i-wa-lẹ, *n.* a digger; figuratively, a man child, a son.
i-wa-na, *n.* a smith's poker.
i-wa-ra, *n.* haste, impatience; &e iwara, to hasten, hurry.
i-wa-şẹ, *n.* powder, fine grains; the measles.
i-wa-wi, *n.* an excuse, extenuation.
i-wa-ya i-dza, *n.* struggling, angony.
i-we, *n.* the kidneys.
i-wé, *n.* a book, a comparison.
i-we-dzẹ, *n.* a wrinkle.
i-we-dzẹ, *n.* a curl, a tress.
i-we-re, *n.* silliness, folly; &e iwere, to be foolish, to act foolishly.
i-we-ri, *n.* a head-band.
i-we, *n.* a frog; fineness of grain or of threads.
i-wẹ-fa, *n.* a couch.
i-wo, *n.* a horn.
i-wó, *n.* the thrush in children.
i-wò-do, *n.* a ford.
i-wo-ro, *n.* a heathen, an idolater.
i-wo-ye, *n.* foresight, providence.
i-wo-yi, *n.* the present time, now.
i-wọ, pron. thou.
i-wọ, *n.* the neck, crookedness; hank of certain seeds; a horn.
i-wọ, *n.* poison put in food; entering, &c. See **wọ**.
i-wọ, *n.* suitableness, form; a fish-hook.
i-wọ-dzọ, *n.* a gathering together, an assembly, crowd.
i-wọ-fa, *n.* a poor servant.
i-wọ-ni, pron. those.
i-wọy, *n.* scarcity of food, &c.; a long neck, as of a gourd.
i-wọy, *n.* a measure of quantity or distance, size; iwọy fadaka, a piece of silver, as money; ní iwọy bí, so long as; iwọy ẹnià, as many people as.
i-wọy-wọy, *n.* the iguana; a bundle.
i-wọy-yi, pron. those.
i-wọ-ra, *n.* greediness.
i-wọ-si, *n.* contempt, spite; &e iwosi si, to insult.
i-wọ-şọ, *n.* a ball of thread, wound up ready for weaving.
i-wù, *n.* a choice, preference, &c. See **wù**.
i-wu'-ka-ra (akara), *n.* heaven.
i-wuy, *n.* a thing.
i-ya, *n.* the armpit.
i-ya, *n.* loss, poverty, suffering; &e iya, to suffer; emirin &e ní kò tó iya, the bite of a sandfly is not so sharp as poverty.
i-yā, *n.* mother, mistress of a servant.

i ya-fin (afin), *n.* a quern, mistress of a house.
i ya-gbà, *n.* a midwife.
i ya-kọ, *n.* a mother-in-law.
i ya-kpa, *n.* separation, a sect.
i ya-lá, i ya-nlá, *n.* a grandmother.
i ya-là-se, *n.* a female cook.
i ya-le (ilẹ), *n.* the mistress of the house (that is, the first wife).
i ya-lẹ-ta, *n.* about eight o'clock in the forenoon.
i ya-lo-de, *n.* a wise woman.
i ya-nu, *n.* wonder, astonishment.
i yán, *n.* boiled gum pounded.
i yàn, *n.* denial, contradiction, a question in dispute, &c. See yàn.
i yan, *n.* famine.
i yan-dze, *n.* a cheat, imposition.
i yan-dzú, *n.* exhortation, perseverance, constraint.
i yan-fe, *n.* See anyafe.
i yan-gbẹ, *n.* dryness, that which is dried.
i yan-gbo, *n.* chaff.
i yan-ran, *n.* an oven.
i yan-rin, *n.* sand: iyanrin dílẹ, quicksand.
i ya-ra, *n.* activity, nimbleness: ará iyara (eyi ará), the body itself.
i ya-ri, *n.* vivacity.
i ya-tọ, *n.* difference, separation.
i ya-wò, *n.* a bride: ibi-iyawo, a wedding.
i ya-wu, *n.* a sledge-hammer.
i ye, in composition, *this, self, very*. See iyékuru.
i yé, *n.* mind, understanding.
i yè, *n.* life, &c. See yè.
i ye, *n.* number, value, price: sọ iye, to value, set a price on; a reed; in composition, mother, as, iyekan.
i ye-bi-ye, *n.* great price, preciousness.
i ye-kan, *n.* a mother's relative.
i yé-ku-ru (iye), *n.* the very dust.
i ye-me-dzì, *n.* doubt: sọ iyemedzì, to doubt.
i ye-ni, *n.* which is intelligible.
i ye-nọ, *n.* sense, understanding.
i ye-re, *n.* black pepper.
i yé, *n.* fitness, comeliness; a feather: akpa-iyé, a wing.
i yẹ, *n.* dust of worm-eaten wood.
i yẹ-fun, *n.* flour.
i yẹ-gbẹ, *n.* a kind of trousers.
i yẹ-ka, *n.* the very branches, natural branches of a tree.
i yẹ-wò, *n.* investigation.
i yẹ-wu, *n.* a chamber.
i yin, *n.* praise.
i yi-sọ, *n.* a pin to turn the weaver's beam.
i yo-dzú (iye), *n.* the natural face. (James 1, 23.)
i yo-kun, *n.* the remainder, the rest.

i yọ, *n.* salt, the flood tide (see yọ): i yọ gílá, sugar.
i yọ-nọ, *n.* compassion.
i yọ-nu, *n.* trouble.
i yọn, *n.* coral, pearl.

K.

ká, *v.* to gather, to reap, to pull a tooth; to fold, to roll; to fail.
ká, *prep.* around, on;—*adv.* around.
kà, *v.* to count, to read; to regard, respect; to set or place upon.
kā (kì á), *adv.* not. See Gram. § 179.
kā, *adv.* presumptuously.
ka-ba-ka-ba, *adv.* roughly, unevenly.
ka-bi-ye-sì! (kì á), *let us reverence!* an exclamation as the king approaches.
kā-dun (wun), *v.* to be the spare of a year.
ka-fo, *v.* tight-legged pantaloons.
ka-gba, *v.* to hang or be entangled in.
ka-hun. See kan.
kain-kain-kā, *n.* chaff of millet.
ká-ka, *n.* which is strong, stiff.
kā-ka, *adv.* instead of, otherwise; presumptuously.
ka-kai-fo, *n.* a military general.
ká-ka-ra, *n.* a muscle-shell.
ka-ka-ra-ka, *adv.* strongly, stiffly.
ká-ki-ri, *adv.* abroad, wanderingly.
ka-ko, *v.* to curl, to twist.
ka-kọ, *v.* to be stiff.
kā...kọn, *v.* to add to.
ká-la-mọ, *n.* a pen to write with.
ka...la-ra (li), *v.* to unfold, entangle, as a net.
ká...le-hin (li), *v.* to pull a tooth of.
kā-lẹ (ilẹ), *v.* to set down, to deposit, to establish;—*adv.* around, abroad.
ka-lẹh (kì á lẹh), *v.* let us go to follow!
ka...mọ, *v.* to surround, to enclose.
ka-na-ka-na, *n.* a crow.
kā-na-kā-na, *n.* a sting.
kā-nọ, *v.* to be cruel, harsh.
kā-nu, *v.* to be sorry, to grieve, mourn.
kan, *adv.* at once, quickly.
kan, *v.* to be sour, morose, painful, opposed to; to bore.
kán, *num.* one: awọn kán, certain ones; miran kán, others; owó kán, the last corey; isẹ kán, the last action;—*adv.* precious. (Ps. 22, 20.)
kán, *v.* to drip, drop, as water: to pluck, nip, to take off, as a ring.
kàn, *v.* to knock upon, nail, touch: to gore, as an ox.
kan-dzu, *v.* to listen.

kan-ga, *n.* a well.
 kan-gi, *v.* to be difficult, callous.
 kan-gun, *n.* to be the last, at the end.
 kan-kan, *adv.* hastily.
 kân-kai, kân-ri kan, *n.* soft fibres used instead of sponge.
 kan-ki, *n.* tight pantaloons.
 kan-kun (c-kun), *v.* to knock at the door.
 kan...la ra (râ), *v.* to pierce, as words.
 kan...mô, *v.* to nail or fasten to: kanmô agbe-lebu, to crucify.
 kan-mô lê, *v.* to stick fast, as in mud.
 kan-mu kan-mu, *adv.* sweetly (flavored).
 kan-ra (râ), *v.* to be morose, peevish.
 kân-ri (ri), *v.* to nail a cut-off head to a tree; to touch the head with a sacrifice.
 kan-ri, kan-ri-kan-ri, *adv.* far distant.
 kan-run-kan-run-fê, *n.* a long time.
 ka-ra, *n.* a gland.
 ka-râ, *adv.* loudly.
 ka-ra-won, *n.* a couch-shell.
 kâ-ri (ri), *v.* to set on the head.
 ka-run, *num.* fifth.
 kâ-san, *n.* sarcophylla.
 kâ-se, *v.* to walk leisurely; to terminate.
 ka-si, *v.* to be stale.
 ka...sî, *v.* to place upon, to impute, to respect: kô kâ rô Olorun sî, he does not regard the word of God.
 kâ-si-nkan? (kî á sí), what's the matter? is anything amiss? kô sî nkan, there is nothing! ô sî nkan, there is something.
 ka-ša, *adv.* proudly (walking).
 kâ-ša, *v.* to introduce a new fashion; to recite the names of the gods.
 ka-ta-ka-ta, *adv.* scatteringly, staggeringly.
 ka-ta-ri, *v.* to be in the zenith, overhead.
 ka-ti, *adv.* (not) at all, (none) whatever.
 kaun, *n.* trana, carbonate of soda (from the Great Desert).
 kaun-kaun, *adv.* sweetly (scented); quietly.
 kâ-we, *v.* to wind.
 kâ-we (iwé), *v.* to read.
 kâ-wô (owô), *v.* to count money.
 ka-wô (ôwô), *v.* to abstain from things prohibited; to assent; to grasp, rule over.
 ka-won. See karawon.
 kâ-wú (owú), *v.* to reel, wind; to walk to and fro.
 ke, *v.* to cry out; to cut, chop.
 ke-de, *v.* to be scarce, infrequent.
 ke-dô (ôle), *v.* to proclaim aloud.
 ke-do-re, *adv.* clearly (seeing).
 ke-dze, *num.* seventh.
 ke-dzi, *num.* the second, the next.
 kô-te ri (Arâb), *n.* an arabian, a heathen.

ke-gi (igi), *v.* to cut or chop wood.
 ke-ke, *n.* a stick on which carded cotton is wound for spinning.
 ke-ke, *n.* ring of metal, &c., when struck.
 ke-kê, *n.* child's play of bats; a custom-house, a ticket or check.
 kê-kê, *adv.* clamorously.
 ke-ke-ke, *n.* littleness, a little one.
 ke-ke-lu-ke, *n.* which is full-breasted, as a bird.
 kê-ke-re, *n.* smallness.
 ke-kpê, *v.* to call, to call upon.
 kê...le-gâ-ke (li), *v.* to tickle.
 ke-lo, *adv.* how many?
 kê-ni-â, *n.* a lion.
 ke-re, *v.* to be little.
 ke-re-o-wâ, *n.* cotton-seed.
 kê-ri (ko), *v.* to grow dirty, to be filthy.
 kê-ro-ra (irora), *v.* to cry out for pain, to groan.
 ke-si, *v.* to visit.
 ke-ti, ke-ti-ri, *v.* to be benumbed, asleep, as the feet.
 ke-tô, *v.* to call upon, to cry to.
 ke-wu, *v.* to read.
 kê, *v.* to indulge, cherish, as a child or wife; to set a snare.
 kê, *v.* to extend, to grow worse, as a sore; to be hoarse; to glow.
 kê-dzô, *num.* eighth.
 kê-dô-gun, *num.* fifteenth.
 kê-dô-gbôn, *num.* twenty-fifth.
 kê-fa, *num.* sixth.
 kê-gân (ko), *v.* to despise.
 kê-gbê, *v.* to associate with.
 kê-hin, *v.* to be lost, to follow.
 kê-hin-da-si, *v.* to turn the back on, to forsake.
 kê-kê, *n.* cackling, as of a hen; a black squirrel.
 kê-kê, *n.* a wheel of any kind, a distaff.
 kê-kê, *n.* profound silence.
 kê-kê, *adv.* slowly, gradually.
 kê-kê-kpa, *v.* to be dumb, quiet.
 kê-kê-ru, *n.* a wagon, cart.
 kê-kô (kô), *v.* to learn, study.
 kê-lê, *adv.* gently.
 kê-lê-kê-lê, *n.* a spy, vanguard;—*adv.* gently.
 kê-lê-kâ, *n.* calico.
 kê-rê, *n.* a kind of mat.
 kê-rê, *n.* a symptom.
 kê-rê-dê, *v.* to be weak, infirm.
 kê-rin, *num.* fourth.
 kê-rin-lâ, *num.* fourteenth.
 kê-san, *num.* ninth.
 kê-ta, *num.* third.
 kê-tê kê-tê, *n.* an ass.
 kê-wa, *num.* tenth.
 kê-yô, *n.* the toe itch.

- kí ?** *pron.* what? *ki li eyi? what is this?* *oḍḍó kí oḍḍó, any day whatever.*
- kí, conj.** that; *ki iwọ́ kí ó lẹ́h, that thou go; ki... to, ki... teni, before; kí ó to lẹ́h, before he goes; kí á to lẹ́h, before we go.*
- ki, v.** to be thick, as oil or bushes; to ram, to press down.
- kí, v.** to salute.
- kí, v.** to press, load, as a cart.
- kī, adv.** not.
- kí-bi-ti, adv.** in a small compass.
- kí-bi-tī, adv.** in a large compass.
- ki... bọ-mi (omi), v.** to press into the water, to immerse.
- ki-dzi-ki-dzi, adv.** tremulously (shaking), with quivering.
- ki-dzi-kpa, n.** a kind of coarse cloth.
- ki-gbé (ke), v.** to cry aloud.
- ki-ki, n.** salutation.
- kí-kí, adv.** only; *kíkí wura, pure gold.*
- ki-ki-ni, n.** a small particle or bit.
- ki-kọn, n.** that which is full; *kíkọ́n omi, a freshet, a flood.*
- ki-kun, v.** which is hard, loud.
- ki-kun-ki-kun, adv.** hardly, loudly.
- ki-lọ, v.** to warn, caution, threaten.
- ki... mọ-lẹ, v.** to press to the ground.
- ki-ni, v.** a thing, something.
- ki... ni-bẹ-ndẹ, v.** to strike with the fist.
- kí-ni-dze-bẹ', adv.** no! not at all!
- kí-ni-ki-ni, adv.** neatly, accurately.
- ki-ni-si, n.** a carpet.
- kí-ni-ú, v.** See *kenin*.
- ki-nla ?** *pron.* what is it?
- kin-kin, n.** a very little portion.
- kin-rin, v.** to rub, to curry.
- ki-re-dze, v.** to twist, entangle, as thread.
- ki-ri, v.** to wander, stroll.
- ki-ri, ki-ri-ki-ri, adv.** about, wanderingly.
- ki-ri-bi-ti.** See *kibiti*.
- ki'ri-mọ, v.** to press one, to insist on, to apply closely to work.
- ki'ri-kpa, n.** which is dry and hard.
- ki-roṅ (irọṅ), v.** to pray by rote.
- ki-san (kọṅ isan), v.** to be nine days.
- ki-ta, v.** to be three days.
- ki-ún, n.** a very little.
- ki-we-dze, v.** to wrinkle.
- ki-wọ-bọ (ọwọ), v.** to thrust the hand into.
- ki-yan, adv.** at once.
- ki'ye-si, v.** to notice, look, attend to; *kiyesi ará, take care of yourself.*
- kí... yó, v.** to cram full.
- ko, v.** to gather, collect; to grow hard; to take up, as a loaf; to strike two hard substances together;
- ko ánn, to mourn; ko írira, to hate; ko fú, to describe to; ko wáy to mí wáń, bring thou to me.*
- kò, v.** to meet, confront; *kí ó lẹ́ kò, if possible, if it may be.*
- kò, adv.** not; *kò sẹ́ kpẹ́, if, suppose that.*
- ko-bi-ko-bi, adv.** thickly (breaking out).
- ko'-bi-ta, n.** riding shoes with spurs.
- ko'... dà-nọ, v.** to take up and throw away.
- kò-dé-dé, adv.** no wonder! no doubt!
- ko... dźọ, v.** to collect, heap up.
- ko-dzu dza, v.** to resist, withstand.
- kó-fi-ri, v.** to espy, to happen to see.
- ko-gun (ogun), v.** to inherit, to take property.
- ko-ki-ki, v.** to nagguig, crib.
- ko-ko, n.** a knot, protuberance, wen; *koko ọwọ́, the knuckles; koko ẹsẹ, the ankle.*
- kó-ko, adv.** very much.
- kò-ko, n.** the *timia*, root and plant.
- kó-ko-rò, n.** a worm, an insect.
- ko-ko-sẹ ẹ-sẹ, n.** the ankle.
- ko... kpò.** See *ko... dźọ*.
- ko-lé (ilé), v.** to steal from or plunder a house.
- kò-le-ra (arà), v.** to be feeble, infirm.
- kó... lẹ-ru (li), v.** to despoil, to rob.
- kó-lo-bá, n.** a mattock.
- kó-lo-bo, n.** an oil-pot, a lamp-filler.
- ko... lo-dźú (li), v.** to confront.
- kò-lo-fin (li), n.** a lawless person.
- kó-lo-lo, v.** to stutter.
- ko... lóh, v.** to take away, carry off, lead captive.
- ko... lẹ-na (li), v.** to meet, encounter.
- ko... lẹ-nọ (li), v.** to disavow, disown.
- ko-mo-kun, n.** the muscle between the breasts.
- ko-ní-ba-bá, n.** a fatherless child.
- ko... ni-bẹ-ndẹ, v.** See *ki... ni bẹndẹ*.
- ko... ni-dza-nu, v.** to hold in with a bridle.
- ko ni-gba-gbe, v.** one who is not forgetful; also a proper name.
- kon-ko-to, n.** a play-god of children, a kind of dove.
- ko-re (ere), v.** to gather, to reap.
- kó-ri kó, n.** grass.
- kò-ri-kò, n.** the hyena.
- ko'-ri-ra, v.** to hate, abhor.
- ko-ro, v.** to be bitter, spiteful.
- ko-ro, adv.** very, entirely; *okata là dźale koro, the stone split to the very bottom.*
- kó-ro, n.** a smelting-pot, crucible.
- ko-ro-ko-ro, n.** a small brass bell.
- ko'-ro-wo, n.** a ditch.
- ko-so, n.** a kind of drum.
- ko-sun (kun), v.** to paint red.
- ko-ti, v.** to collect around; to encounter.
- ko-to, n.** a hole, pit, ditch; *koto aya, the pit of the stomach; koto dźigonroṅ, a deep ravine; koto òke, a valley, glen.*

kō, *v.* to learn, teach; to build, to lay one thing on another (Gen. 21, 14); to dig earth into heaps; to mark, tattoo, write; to flash; to call, crow, shout; to entangle: **kō okun**, to make a rope.

kô, *v.* to be not: **emî kô**, it is not I; **iwô li ôba kô?** art thou not a king?

kô, *v.* to refuse, reject, rebel; to hang up, to deter.

kô, *adv.* not.

kô-bi, *n.* tall projecting gables of a royal palace; hence, a projection.

kô-dza, *v.* to pass by, to omit, to be beyond: **ô fô soke odzû rê kôdza rêre**, it is above far out of his sight.

kô-dzu-dza-si, *v.* to resist, oppose.

kô-dzu-si, *v.* to face, to attend to.

kô-gba (ogba), *v.* to build a fence.

kô-i-kô-i, *v.* indirectly, suspiciously.

kô-kan, *num.* one.

kô-ka-ra, *v.* to howl aloud.

kô-kô-ro, *n.* a hook, a key, a bird's beak: **kôkôro gun**, the iron pin with which a weaver turns the warp-beam.

kô-kô-sô. See **kôkô-sô**.

kô-kû, *n.* green color.

kô-kun, *n.* to make a rope.

kô-lâ, *v.* to tattoo, to circumcise.

kô-la, *n.* the small goorah-out.

kô-le (ilê), *v.* to build a house.

kô-lê, *v.* to make hills or beds of earth.

kô...lê (ilê), *v.* to renounce, forsake.

kô-lô-fîn, *n.* a secret place, closet.

kô-lô-kô-lô, *n.* a beast commonly culled the fox, the *casra*.

kô-lu, *v.* to assault, to smile.

kô-ni, *v.* to teach.

kô...ni-ya-wô, *v.* to refuse a betrothed bride.

kô-nô (nô), *v.* to dread, to stand in fear of.

kôn, **kôn-rîn**, *v.* to sing.

kôn, *v.* to fill, to be full, to feel heavy: **ôwô kôn mî**, my hands are heavy (Ex. 17, 12); **orun kôn mî**, I am sleepy.

kôn, **kûn**, *v.* to hum, murmur, grumble, to grudge.

kôn-kô-sô, *n.* a sieve of palm-leaf.

kôn-rôn, *n.* the bed of a stream.

kôn-sa, *v.* to fall or pounce upon.

kô-ri-si, *v.* to move towards.

kô-ro. See **kôn-ro**.

kô-sê (vê), *v.* to trip, to stumble.

kô-sê-ba, *v.* to meet by chance.

kô-ti, *adv.* heavily, reluctantly.

kô-we, *v.* to write.

kpa, *v.* to kill, extinguish; to cut in two; to crack a nut; to beat upon, as rain; to rub, as in polishing; to put off bark; to beat in playing a game; to relate a parable; to break up fallow land; to set

up a tent; to betray; to hatch; to make one drunk; to cease, knock off: **ebi kpa mî**, I was hungry; **kpa ôdžolo**, to make a loop or button hole.

kpa, *adv.* at once, suddenly.

kpa! *interj.* wonderful!

kpa...dâ, *v.* to turn, return.

kpa-dâ, *adv.* again, in return.

kpa...dâ-nô, *v.* to lose.

kpa...de, *v.* to shut, close; to meet with; to help.

kpa-de-gun (ogun), *v.* to meet in battle.

kpa-de-lù, *v.* to come in collision.

kpa-dê-ru, *v.* to meet together.

kpa...džê, *v.* to devour, destroy utterly; to forget the day of the month.

kpa-fâ, *n.* a butcher's bench.

kpa-fê-fê (afêfê), *v.* to take the air.

kpa-fô (afô), *v.* to wallow in mire.

kpa-gô (agô), *v.* to pitch a tent.

kpa-hin-ke-ke (ehin), *v.* to gnash.

kpa-ka (oka), *v.* to thresh corn.

kpa-ka-dza, *v.* to adjust one's wrapper.

kpa-ki-kpa-ki, *adv.* very (sound in health).

kpa'-ki-ti, *n.* a kind of mat.

kpa-ko. See **akpako**.

kpa-kpa, *n.* a pair, a pasture.

kpa-kpa, *n.* self.

kpa-kpa, *adv.* violently (trembling); slammin'ly.

kpa-kpa-la, *adv.* in a shrivelled state, from drying or parching.

kpa-kpê (akpê), *v.* to chop the hands.

kpa...kpô, *v.* to mingle, to confound or confuse; to be very abundant.

kpa...kû, *v.* to kill.

kpa-ku-ta, *n.* a small steppan.

kpa-la, *adv.* with difficulty or with much effort.

kpa-lâ (ila), *v.* to separate from, divide.

kpa-lai, *adv.* by no means.

kpa-la-ka, *n.* a fork, as of a stick, or between the fingers.

kpa...lâ-nu (li), *v.* to make sorry.

kpa-la-kpa-la, *n.* which is rough, as a rosl.

kpa...la-ra (li), *v.* to hurt, wound.

kpa...lâ-rê (li), *v.* to fatigue.

kpa...la-sê, *v.* to command, give orders.

kpa-le (ilê), *v.* to rub a dirt floor, to plaster.

kpa-le-mô, *v.* to set a house in order.

kpa-le-mô, *v.* to prepare ground, to prepare.

kpa...lê-nu-mô (li), *v.* to put to silence.

kpa...lê-rîn, *v.* to make one laugh.

kpa...lê-tai, *v.* to outwit, deceive.

kpa-li, *n.* lids of a book.

kpa...lo-dzo, *v.* to intimidate.

kpa...lo-kpe, *v.* to fool, to puzzle one.

kpa...lo-se, *v.* to paint, color or stain.

kpa-lə (alə), *v.* to propose riddles.
kpa...ləh, *v.* to sail along the coast.
kpa...lə-kan-dā (li ŋkan), *v.* to convince one ; to change or convert him.
kpa...mō, *v.* to keep, preserve ; to hide : kpa-mō, to be hid ; kpa-ɛnu mō, to be silent ; kpa-oko mō, to gather in a crop ; kpa...mō kuro, to withhold ; fi arā kpa-mō, to restrain oneself, refrain.
kpa-mō-lə, *n.* a viper.
kpa-mō-ra, *v.* to endure, bear.
kpa-ndu-kú, *n.* an uncut guard.
kpa-ni, **kpa-ni-a** (ɛnia), *v.* to kill a person, to murder.
kpa-ni-kpa-ni, *n.* a murderer.
kpa...ni-ye, *v.* to confuse.
kpa...ni-ye-dā, *v.* to persuade ; to change one's mind.
kpa-nsa, *n.* See kpaṇḍukú.
kpa-nsa-i-lə, *n.* a grave.
kpa-nsa-ga, *n.* adultery, an adulteress.
kpa-nti-ri, *n.* a bramble.
kpaŋ-huŋ, *adv.* at one blow, at once.
kpa-ra (arā), *v.* to hurt oneself ; to anoint oneself.
kpa-rā, *n.* the plate or timber laid on the top of the piazza posts.
kpa-rā, *adv.* with a sudden noise.
kpa-ra...dā, *v.* to turn around ; to change ; to disguise oneself.
kpa-ra-mō, *v.* to restrain oneself, to keep close, to be humble.
kpa-re, *v.* to fade away, put out, destroy.
kpa-ri, *v.* to finish, come to an end ; to conclude from premises ; to be bald-headed.
kpa-ri, *n.* the jaw-bone.
kpa'-ri-dā, *v.* to turn a thing about, to change its course.
kpa'-ri-wo (ariwo), *v.* to make a noise.
kpa-ro, *v.* to exchange, barter ; to change the character or purpose.
kpa...ro-ro, *v.* to still a commotion or a storm.
kpa-ru-bə, *v.* to kill a sacrifice.
kpa-run, *v.* to rub out, to destroy, consume, abolish.
kpa-šā, **kpa-šan**, *n.* an oyster.
kpa-šan, *n.* a whip.
kpa-šə (ašə), *v.* to command, enact.
kpa-ši-kpa-ro, *v.* to exchange, barter.
kpa-ta, *v.* to prepare, make ready.
kpa'-ta-ki, *n.* which is chief, principal.
kpa'-ta-kò, *n.* a wooden shoe, a hoof.
kpa-ta-kpa-ta (ototo), *adv.* entirely, altogether.
kpa-ti, *v.* to be forcible, violent.
kpa-ti-kpa-ti, *adv.* forcibly, violently.
kpa-ti-re, *n.* a switch, twig.
kpa-to, **kpa-to-to** (atoto), *n.* to make a noise.

kpé, *conj.* that, to wit.
kpé, *v.* to complete, perfect ; to last long : owó kpé, the money is right ; iwá rí kpé, his character is perfect.
kpè, *v.* to call, to invite, to assemble : fi...kpé ŋkan, to esteem.
kpè-džə, *v.* to call an assembly, to assemble.
kpe-ge-de, *v.* to be right, proper.
kpe-na (ɛna), *v.* to call an assembly, to assemble.
kpe-kpe-le, *n.* a bank of earth in a room to sleep on.
kpe-re, *adv.* only.
kpe-ri, *v.* to mean, to say.
kpé...ro, *v.* to drill soldiers, to form a line.
kpè-se (kpa), *v.* to prepare.
kpe-te (kpa), *v.* to intend, to think of doing, devise.
kpé, *v.* to stay long at a place, to last long.
kpé'-hin-dā (kpa), *v.* to turn the back on.
kpe-ka (kpa), *v.* to shoot forth branches.
kpe-kə-kpe-kə, *n.* which is streaked, speckled.
kpe-kun, *v.* to terminate, come to an end.
kpe-kpe, *adv.* gently (striking).
kpe-kpé, *n.* a slip of wood, a shelf, an altar ; a bird-snare ; a shell.
kpe-kpe-kun (ɔkun), *n.* a sea-shell.
kpe-kpéi-yə, *n.* a duck.
kpe-lə, *adv.* gently.
kpe-lə-bə, *v.* to be flat.
kpe-lə-kpé, *n.* a kind of wild dog.
kpe-lu, *conj.* also ; —*prep.* with, in : kpélu ayò, with joy ; kpélu ɔšə, in sin.
kpe-lu-kpe-lu, *adv.* moreover, besides, yea.
kpeŋ-šan, *n.* a crushing : šə kpéŋšan, to crush.
kpe-re, *v.* to be soft ; —*adv.* gently.
kpe-ré, *adv.* suddenly.
kpe-rə-kpe-rə, *adv.* (tearing) into rags or pieces ; very much.
kpe-sə, *adv.* gently, easily.
kpe-sə-kpe-sə, *n.* gentleness of conduct or disposition.
kpe-sə-mō (kpa), *v.* to restrain the feet, slacken one's pace.
kpe-tə-lə, *n.* level ground, a plain.
kpe-tə-kpe-re, *adv.* comfortably.
kpe-tə-kpe-tə, *n.* mud, mire.
kpi, *adv.* entirely, wholly.
kpi-dan (idan), *v.* to perform sleights of hand, to juggle.
kpi-džə (kpa), *v.* to pull or cut grass for feed.
kpi-kpa, *n.* which is to be slain.
kpi-kpé, *n.* perfection.
kpi-kpò, *n.* much, abundance.
kpi-lə-šə, *v.* to commence.
kpi-mə (kpa), *v.* to counsel, suggest.
kpi-nu, *v.* to bargain, purpose, conclude, resolve.

kpɪŋ, *v.* to share, divide; to terminate.
 kpɪŋ-i-ya, *v.* to divide, separate.
 kpɪŋ-huŋ (ôhuŋ), *v.* to conclude a bargain or agreement.
 kpɪŋ-kpɪŋ, *adv.* fast or tightly, closely.
 kpɪŋ-lɛ (ilɛ), *v.* to terminate.
 kpɪŋ-ya, *v.* to divide, separate.
 kpɪ-taŋ (kpa), *v.* to relate traditions, to recount old events.
 kpɪ'-wa-dâ (kpa...dâ), *v.* to reform, repent.
 kpɪ'-ye-dâ, *v.* to change the mind.
 kpɪ-yɛ (kpa), *v.* to plunder.
 kpo, *v.* to knead.
 kpô, *v.* to smelt.
 kpô-huŋ-re-re, *v.* to cry aloud, bewail.
 kpo-kpo-ndo, *n.* a large wild bean.
 kpo'-kpo-rô, *n.* a corn-stalk.
 kpoŋ-šɛ, *n.* a nut of which snuff-boxes are made.
 kpô-ri, kpô-ri-ri (ori), *v.* to whirl around.
 kpo-rin (irin), *v.* to smelt iron ore.
 kpo-ro-kpo-ro, *adv.* talkatively.
 kpo-si, *n.* a coffin.
 kpo-tu-tu (kpa), *v.* to feel cold.
 kpo-we (kpa), *v.* to speak a parable.
 kpɔ, *v.* to vomit.
 kpô, *v.* to be abundant, great, common, cheap: kpô si, to multiply or increase.
 kpô, *v.* to turn from, to separate, turn away. (Gen. 11, 8.)
 kpô, *adv.* in common, together.
 kpô-kô, *n.* a kind of calabash.
 kpô-mô, *v.* to be mixed, mingled.
 kpôŋ, *v.* to be rid, to be ripe; to sharpen, whet; to flatter, make much of: kpôŋ mɪsɪrɪsɪ, to be hoorn.
 kpôŋ, *v.* to curry on the back; to dip up.
 kpôŋ-gâ, *n.* sticks placed across a grave to prevent the earth from falling in.
 kpôŋ...lô-dzu (li), *v.* to afflict, torment, oppress.
 kpôŋ-mi (omi), *v.* to draw or dip water.
 kpôŋ-mu, *v.* to whet, sharpen.
 kpôŋ-šɔ, *v.* to ripen, as corn.
 kpôŋ-ti (oti), *v.* to brew.
 kpô-si, *v.* to increase.
 kpô-si-lɛ, kpô-so-de (ile, ode), *v.* to be busy in and out.
 kpô-tɔ kpô-tɔ, *n.* wind, breeze.
 kpû, *adv.* precipitately.
 kpu-kpa, *v.* to be red;—*n.* redness: kpa-kpa eyin, the yolk of an egg.
 kpu-kpô. See kpi-kpô.
 kpu-rɔ (kpa irɔ), *v.* to fish.
 kpu-tu, *adv.* well, foamingly lathering, as soap.
 kû, *v.* to die, to wither, to terminate, to come short; to be blunt or dull.

kû, to sift, to run here and there; to thunder mutteringly: kû êkuru, to throw dust.
 ku-bu-su, *n.* a blanket; partly earth.
 ku-dôŋ, *v.* to be fond of, to love.
 ku'-du-ru, *n.* the globular form; bread of bean-flour.
 ku-fe-ku-fe, *n.* braggadocio.
 ku-gbɛ, *v.* to perish.
 ku-gbɛ, *v.* to die in the bush: o kugbɛ! may you die in the bush!
 ku-gbu, *v.* to charge furiously; to be presumptuous.
 kû-hu, *adv.* loudly shouting.
 ku-kpa, *v.* to be very busy.
 ku-ku, *adv.* rather.
 kû-ku, *n.* a corn-cob.
 ku'-ku-mô, *n.* a tuber.
 ku-ku'-ndu-ku, *n.* the sweet potato.
 kû-ku-ru, *n.* shortness.
 ku'-ku-te, *n.* stem or boll of a tree.
 ku-mbu, *n.* a conig (hyrax).
 ku-mô, *v.* to clear to, as dust.
 kû-mô, *n.* a cudgel.
 ku-na, *v.* to be smooth, fine, as thread or meal.
 kuŋ, *v.* to burn, to cook, to bake.
 kûŋ, *v.* to remain, to lack; to drench, paint, anoint; to be busy here and there: kûŋ si dɛdɛ, to be near, at hand.
 kuŋ-kuŋ, *v.* to pore.
 kuŋ-kuŋ, *adv.* loudly, aloud.
 kuŋ-le (ilɛ), *v.* to plaster a house.
 kuŋ-lɛ, *v.* to kneel.
 kuŋ...si-lɛ, *v.* to spare, to give up.
 ku-ro, *v.* to get out of the way: kuro ni, kuro mɪnɔ, from, from in; ô dzade kuro ni ile, he went out of the house.
 ku-ru, *v.* to be short.
 ku'-ru-ba, *n.* a pail, a bucket.
 ku-ru-hû, *n.* the cry of a hen when she sees a hawk.
 ku'-ru-kû, *n.* fog, mist, cloud.
 ku'-ru-mû! *adv.* no, not at all!
 ku-sa, *v.* to make a bold attempt.
 ku-sa-ta, *n.* a compound or block of houses.
 ku-si, *v.* to torment.
 kû-tâ, *v.* to find dull sale, to sell a thing slowly.
 kû-tu kû-tu, *n.* very early in the morning.
 ku-ye, *v.* to be forgetful.

L.

lâ, *v.* to lick; to dream.
 lâ, *v.* to split; to wade; to appear; to pass through, escape, be safe; to be rich: lâ imɔ, to devise.

lā-ba, *n.* a leathern bag, satchel.
 la-ba-la-ba, *n.* a butterfly.
 la-ba-mō-lē, *n.* robbers, kidnappers.
 la-bē (li), *prep.* under, beneath : ā sūn labē igi, *we slept under a tree.*
 la-bu-lā-bu, *n.* fresh ashes.
 lā-dī (dī), *v.* to explain, to prove.
 la-dī-ro, *n.* a beer-strainer.
 la'-du-gbo, *n.* a large earthen pot.
 lā-dža (idža), *v.* to reconcile, to pacify.
 lā-džā, *v.* to pass through, traverse.
 lā-džō (čdžō), *v.* to settle a dispute.
 la-ga, *n.* the brow-band of a bridle.
 la-gba, *n.* a horse-whip.
 la-gba-mō, *n.* the brow-band of a bridle.
 la-gba-ra (li), *v.* to be strong.
 lā-gi (igi), *v.* to split wood, to saw into boards.
 la'-go-go (lā), *v.* to ring a bell.
 lā-gun (ogun), *v.* to sweat, perspire.
 lai (li ai), *a prefix*, implying *not having, without* :
 as, lai-beru, *without fear, fearless* ; ā na fi lu ni lai-
 gbwó (li ai gbà), *he gives to us without money.*
 lai, lai-lai, *adv.* ever, for ever.
 lai lai, *n.* oldness, ancientness : ile lai lai, *a very old house.*
 lai-kpe, *adv.* soon, quickly.
 lai-ku-ku, *adv.* not rather.
 lai-le-wu (li), *v.* to be without danger, safe, secure.
 lai-lē-se (li), *v.* to be free from sin, sinless.
 lai-lo-wó (li), *v.* to be destitute of money, moneyless.
 lai-ni, *adv.* and *prep.* in need of, without : ó lóh lai ni bata, *he went without shoes.*
 lai-ni-dí (idí), *adv.* without cause : ó ba mi wi lai ni dí, *he reproached (ba...wi) me without cause.*
 lai-sē (sē, to sin), *adv.* without sinning or being in fault : nwon kpa ā lai sē, *they killed him without sin, i. e. without his being guilty of offence.*
 lá-ka-ka, *v.* to strive to do a thing.
 lá-ka-lá-ka, *v.* to hop on one leg.
 lā-ki-ri, *n.* patience, clemency.
 lá-ki-sé, *adv.* however.
 lá-ko-ko (li), *adv.* punctually, at the time : lakoko ná, *then.*
 lá-ko-tan, *adv.* finally, in short.
 la-kp, *v.* to gain a prize, to win a race.
 lá-kpa-ta, *n.* a kind of fried cake (masa).
 la-kuf-e-gbē, *n.* a kind of rheumatism.
 lá-lā, *n.* trouble, annoyance.
 la-lá (alá), *v.* to dream.
 lā...lōh, *v.* to go through.
 la...lō-na, *v.* to ordain, decree, enact.
 lā-mō (imō), *v.* to devise.
 la-mō-ran (la hm; éran), *v.* to plan, advise, propose.

la-na (li), *adv.* yesterday.
 lā-na (ña), *v.* to open a road ; to propose, decree.
 lā-nū (li), *v.* to be merciful.
 la-ra (li), *prep.* on, in, from : gbesan mi lara oia mi, *avenge me on my enemy* ; lara igi tutu, *in the green tree* ; gbe woy lara mi, *take them from me, i. e. deliver me.*
 la-ra (li), *v.* to be stout of body, bulky, fat.
 lā-ra, *n.* the castor-bean.
 lā-re (li), *v.* to be tiresome.
 lā-ri, *v.* to prove, make manifest.
 la-rin (li), *prep.* in the midst of, amongst : larin kán, *once, before or previously.* See lerin kán.
 lā-san (li), *adv.* in vain, vainly : enia lasan, *trifling people.*
 la-sē-ràn, *v.* to cause infection, to be infectious.
 la-ti, *prep.* from, often followed by a pleonastic verb ; as, ó mu ũ lati oko wáh, *he brought it from the farm* ; lati owo, *from, when the object is a person* ; lati owo, *by the hand of, by* ; ó ran ā lati owo maleika, *he sent it by the angel.*
 la-to-ri (lati ori), *conj.* because of. See mitori.
 la-wa-ni, *n.* a belt, a girdle.
 la-wu, *adv.* all's well : alatia kô wà? *is it peace?* lawu, *it is.*
 la-wu, *adv.* very (white).
 la-ye, *v.* to be spacious, roomy.
 la-yē (li), *v.* to be alive ;—*n.* a living animal.
 lē, *v.* to be strong, hardy, healthy ; to be more than, above, overhead : mu mi lé, *make me strong* ; owó lé cta, *the money is three (cowries) too much* ; ó gbe nibé lé ni idžọ mewa, *he stayed there more than ten days.*
 lē, *v.* to lay upon ; to appear ; to drive, pursue ; to blister.
 lē, *prep.* on, upon : fi lé ilē, *put it on the ground.*
 lē, *v.* is able, can, may.
 le-bi (li to have), *v.* to be hungry.
 lē-gun (ogun), *v.* to prevail in battle, to beat back the enemy.
 le-ke (li óke), *prep.* above ;—*adv.* up.
 le-ke (li óke), *v.* to be above, to be prominent, exalted.
 le-ke-le-ke, *n.* an egret.
 le-kpa (ikpa), *v.* to follow, pursue.
 le-lē, le-ilē, *v.* to be satisfied, at ease ;—*adv.* down, on the ground : kô lelē, *to be troubled, perplexed*, with ðkan, *heart*, or ara, *body*, for the nominative.
 le-ra (ara), *v.* to be strong, healthy.
 le-re (ire), *v.* to hasten, urge forward.
 lè-re (li), *v.* to be profitable.
 le-ri (là ori), *v.* to promise, lit. to strike the head (forehead, with the hand).
 le-ri (li ori), *prep.* on, upon.

le ... sọ-nđ, *v.* to drive away in theft.
 lế ... sế, *v.* to compel: ố le mi sế ế, he compelled me to do it.
 le-ti (li, to have), *v.* to be obedient, docile.
 le-ti (li, on), *prep.* by.
 le-wu (li), *v.* to be grey-haired.
 lẹ, *v.* to be sluggish, lazy.
 lẹ, *v.* to be evening; to lay one thing lightly on another, to engraft, transplant: ả lẹ lẹ, it is evening (nearly dark).
 lẹ, *v.* to replenish, to patch; to be elastic, pliable; to be strong, as the wind.
 lẹ, for ỉ, *adv.* down, on the ground.
 lẹ-ba (li), *prep.* by, at, &c.; by the side of, applied to things near the ground.
 lẹ-bẹ, *n.* anything narrow and flat, a fin.
 lẹ-bu-lẹ-bu, *n.* new ashes.
 lẹ-he, *adv.* well, that's right.
 lẹ-hin (li), *prep.* and *adv.* after, behind, outside: ố mi bọ lẹhin wa, he is coming behind us.
 lẹ-hin-lẹ-hin, *adv.* backwards.
 lẹ-káp, *adv.* once, first: lẹkólđi, secondly; lẹme-đđi, twice; lẹmeta, lẹketa, &c.
 lẹ-lẹ, *n.* which is yielding, elastic, as air.
 lẹ-rin-káp, See lẹkáp.
 lẹ-rọ, *v.* to be skilful.
 lẹ-ru (li), *v.* to be terrible, dreadful: ỉbi yi lẹru tó! how dreadful is this place!
 lẹ-sẹ-sẹ, lẹ-sẹ ẹ-sẹ, *adv.* in a row, in regular order.
 lẹ-sẹ-kap ná, *adv.* immediately.
 lẹ-sọ lẹ-sọ, *adv.* carefully, strictly.
 lẹ-wu, *n.* down at the foot of palm leaves, used for tinder.
 li, euphonic for ni, to be, to have, to say. See ni.
 li-bi-si? (ibi), *adv.* where?
 li-bọ? (li), *adv.* where?
 li-đẻ-ta (li), *adv.* three days ago.
 li-kpọ (li), *prep.* for, instead of.
 li-le, li-le-li-le, *n.* which is hard, violent, strong.
 li-li, *n.* a kind of porcupine.
 li-li-li, *adv.* by littles, scatteringly.
 lỏ, *v.* to use; to bend, to be elastic: lỏ gỏỏ, to wear out; lỏ ... ni mimỏ, to use sacredly, to sanctify. (Ex. 20, 8.)
 lỏ-bỏ-tủ-đẻ, *n.* the physic-nut (cucurbit).
 lỏ-de (li), *adv.* outside.
 lỏ-di (li), *adv.* contrarily.
 lỏ-do (li), *adv.* below.
 lỏ-đỏ-đỏ, *adv.* suddenly, abruptly.
 lỏ-đỏ (li), *v.* to be timid, cowardly.
 lỏ-đỏ-đỏ-mỏ, *adv.* daily.
 lỏ-đỏ (li), *v.* to be attentive, observant: ỉran mi lỏđỏ, my affairs are prosperous, in good condition.
 lỏ-đỏ, *prep.* before, in the presence of.

lỏ-đỏ-kap-ná, *adv.* immediately.
 lỏ-đỏ-rẻ-re, *adv.* favorably, graciously.
 lỏ-ke (li), *adv.* above, up, on, beyond.
 lỏ-ki-ti, *n.* a false-bottomed vessel for straining potash.
 lỏ-ni (li), *adv.* to-day.
 lỏ ... ni-mi-mỏ, *v.* See lỏ.
 lỏ-ri (li), *prep.* on, upon.
 lỏ-ri, *v.* to whirl.
 lỏ-ru (li), *adv.* by night.
 lỏ-sỏ, *v.* to squat like a dog, to crouch.
 lỏ-ti-tỏ (li), *adv.* truly.
 lỏ-tỏ (li), *adv.* truly, verily.
 lỏ-yủn (li), *v.* to conceive, be pregnant.
 lỏ, *v.* to play a stringed instrument.
 lỏ, *v.* to be lukewarm.
 lỏ, *v.* to engraft, to transplant; to wring, to grind; to be twisted, crooked, contrary; to wrest the meaning of one's words; to cry lost goods; to investigate, compare.
 lỏ-đỏ (li), *prep.* by, with, among. (Gen. 24, 40.)
 lỏ-đỏ-đỏ (li), *adv.* yearly.
 lỏ-đỏ-đỏ (li), *adv.* daily.
 lỏ-ẻ, *adv.* early in the morning.
 lỏ-gap (li), *adv.* instantly, immediately.
 lỏh, to go, used adverbially in the sense of off, away: gẻ ế lỏh, take it away, pleonastic after đỏ, very; as, đỏ đỏ lỏh, very good.
 lỏ-hun (li), *adv.* yonder.
 lỏ-kỏ-kap (li), *prep.* towards, opposite to.
 lỏ-kỏ-kỏ, *v.* to grow, fill up, as an ear of corn.
 lỏ-lá (li), *adv.* to-morrow.
 lỏ-lỏ, *adv.* lately.
 lỏ ... lỏ-rỏ, *v.* to strangle, choke.
 lỏ-ra (li), *v.* to be slow, to linger.
 lỏ-rỏ (li), *v.* to be rich.
 lỏ-rỏ (li), *v.* to be eloquent.
 lỏ-san (li), *adv.* by day, at noon.
 lỏ-sỏ (li), *v.* to be adorned, ornamented.
 lỏ-tỏ (li), *v.* to be distinct, separate, different.
 lỏ-wỏ, *prep.* from: yi ỏ bẻẻ rẻ lỏwỏ nyin, he will demand it of or from you; á sẻ ế lỏwỏ mi, it was done by me.
 lỏ-wỏ-lỏ-wỏ, See lỏlỏ.
 lỏ-wỏ-wỏ, *adv.* lukewarmly:—*n.* lukewarmness.
 lu, *v.* to bore, to scuttle; to be discovered.
 lủ, *v.* to mingle, adulterate.
 lủ, *v.* to strike, knock; to make a move, as in chess; to beat a drum, to play a stringed instrument: sủ lủ, to file against. (Ex. 14, 27.)
 lủ ... bỏ-lẻ, *v.* to beat down, destroy.
 lủ ... đỏ, *v.* to break into, as a house.
 lu-ha, *v.* to be difficult, abstruse.
 lu-kỏ-rỏ, *v.* to hind or insinuate against one.

lù...kpa, *v.* to smite fatally, to slay.
lu-le (ilè), *v.* to strike down; —*adv.* down.
lu-lu, *adv.* entirely (burnt up).
lu-mô, *v.* to be hid.
lù-ru, *n.* powder of dried leaves, for sauce.
lu-wê, *v.* to bathe, to swim.

M.

ma, an auxil. particle, conveying the idea of continued action.
mă, *adv.* very, truly, well: o mă șeuș, you are very kind; ęșiu mă sare, the horse runs rapidly.
ma-de-ko-so, *n.* a strolling beggar, who tells news for a living.
mă-di-mi-lô-run (măh di mi li orun), *n.* a drop-sical person.
ma-do-fun, *n.* white leather.
mă-dza-la, *n.* flakes of burnt grass which fly through the air.
ma-dze-re, ma-dze-we, *n.* a saddle-girth.
ma-dze-si, *n.* a child.
mă-dze-mu (măh), *n.* a covenant.
ma-ga-dzi, *n.* an heir, especially the first-born.
măh, *adv.* not: emi kô lè še măh wi, I must speak.
ma-ha-ru, *n.* the hovel of a wild beast.
ma-ká-lu, *n.* a forked stick.
ma-ka-ri, *n.* compasses, dividers.
ma-lă-dzu, *n.* a kind of rat.
ma-lei-ka (Arab.), *n.* an angel.
ma-lù', *n.* an animal of the cow kind: akô malù, a bull; abò malù, a cow; ęmô malù, a calf.
ma-mô-dza, *v.* to guess, conjecture.
ma-na-ma-na, *n.* a kind of snake.
ma-na-ma-nă, *n.* lightning.
mă-ra-du-ro (mu ară), *v.* to restrain oneself.
ma-raș-ma-raș, *adv.* in a bright dazzling manner.
ma-ra-run, *num.* the whole five, by fives.
ma-ri-ma-dze, *n.* a person who has no regard for kinds of food.
ma-ri-wô, *n.* strips of palm leaf, a garland.
ma-sa, *n.* a kind of parakee.
ma-so, *adv.* only, even.
ma-ša-la-še, *n.* a mosque.
ma-še-gbiu, *n.* a kind of antelope.
mă-ta-ká, *n.* a smith's hammer.
ma-te, *n.* a kind of snare.
ma-tô, *n.* which is sacred, not to be touched; — *interj.* hands off!
ma-wô (mu ăwô), *v.* to assume the form or nature of.
ma-ya-fi, *n.* a sash, belt.
ma-ya-mi, *n.* a hunter's bag for bullets, &c.

mbê, *v.* to be.
mbê, *adv.* for mbê, there.
mbi, *conj.* or.
me-dze, *num.* seven.
me-dze-dze, *num.* by sevens, the seven.
me-dze-dzi, *num.* the two, both.
me-dzi, *num.* two: me-dzi me-dzi, a pair.
mê-lo? *adv.* how many? many (Acts 24, 10): ęve egberun mêlo? how many thousands?
mê-lo-káj, *pron.* some, certain ones.
mê-lo-mê-lo, *adv.* how much more.
mê-ro (mu êro), *v.* to consider, meditate.
me-te (mu), *v.* to reflect, consider.
mê-do-gun, *num.* sixteen.
mê-dzân-mê-dzân, *adv.* with a spring, in an elastic manner.
mê-dze-dzô, *num.* the eight, by eights.
mê-dzô, *num.* eight.
mê-fa, *num.* six.
mê-fe-fa, *num.* the six, by sixes.
mê-gbê, *n.* a mealy yam or potato.
mê-ne, *n.* a kind of broom-grass.
mê-re-riu, *num.* the four, by fours.
mê-riu, *num.* four.
mê-ro (mô), *v.* to be skilful.
mê-še-ri (mu), *v.* to be rancid.
mê-ta, *num.* three.
mê-ta-lô-kan, *n.* which is trine.
mê-te-ta, *num.* the three, by threes.
mê-wa, *num.* ten.
mê-wa (mô), *v.* to be a judge of beauty.
mi, *pron.* me, my.
mí, *v.* to breathe: mî sí, to inspire; mî hęę, to pant.
mî, *v.* to shake; to swallow.
mî-ę, *pron.* See mîraș.
mî-mô, *n.* cleanness, purity, holiness.
mî-mu, *n.* sharpness.
mî-raș, mî-re, *pron.* another, other.
mo, *pron.* I.
mo-dzu-ku-ro (mu), *v.* to be inattentive, to connive at, to impute not.
moi moi, *n.* a kind of cake.
mo-kun (mu), *v.* to receive strength, grow strong.
mô-re (mô), *v.* to be grateful.
mo-ru (mu), *v.* to be sultry.
mo-ye (mô), *v.* to be perceiving, intelligent, discreet.
mô, *v.* to drink, to suck; to build or form of clay.
mô, *v.* to be light (as day), to shine, to be clear, clean, holy; to adhere.
mô, *adv.* again; after a negative, more.
mô, *v.* to know, to understand; mô sí is employed as a substitute for the verb to mean; as, kî lî á lè mô ęyi sí? what does this mean? ô gô mî bí á tí ha mô ęyi sí, it puzzles me as to what this means.

mō-dī (oli), *v.* to build a wall.
 mō-du-mō-du, *n.* brains, marrow.
 mō-dze (alze), *v.* to try by water ordeal.
 mō-dzū (olzū), *v.* to be time.
 mō-dzu-mō, *v.* to be light in the morning, to dawn.
 mō-kan-lá, *num.* eleven.
 mō-kpa-ra (arā), *v.* to get drunk.
 mō-kun, *v.* to be lame.
 mō-le, *v.* to build a house.
 mō-lē (ilē), *adv.* to the ground.
 mō-lē, *v.* to conspire; to shine.
 mō-lē-wu, *n.* the grape-vine.
 mō-ra (arā), *adv.* closely, near to one.
 mō-raj (mō), *v.* to know the law as to disputes, to be wise.
 mō-tī (mu), *v.* to drink spirits.
 mō-tī-mō-tī, *n.* a drunkard; a gnat called "the drunkard."
 mō-tī-mō-tī, *adv.* closely joining, hard by.
 mō-tī-yō, *v.* to get drunk.
 mu, *v.* to drink, to suck, to absorb.
 mū, *n.* rice.
 mū, *v.* to catch, to hold; to be sharp; before an accusative and verb, to cause; as, ǒ mū mi duro, he caused me to stand, he upheld me; mū òna kpon, go your way.
 mù, *v.* to sink, to disappear, as in a crowd.
 mu...ba, *v.* to fit or adapt to; to employ as a means.
 mu...bē-ru, *v.* to make afraid.
 mu...dže, *v.* to devour, as a wild beast does.
 mu...dzi-na, *v.* to heal a wound.
 mu...dzū-tō (olzū), *v.* to see to, attend to.
 mu...gō, *v.* to fool one.
 mu...ka-lē, *v.* to spread, as famine or pestilence.
 mu...kōn, *v.* to fill.
 mu...kpa-dā, *v.* to bring back, restore.
 mu...lā, *v.* to save.
 mu...la-ra-dā (li), *v.* to heal.
 mu...lē, *v.* to strengthen.
 mu-lē (ilē), *v.* to stand firmly, to confirm.
 mu-nū, *v.* to be active, fiery.
 mu-ra (arā), *v.* to prepare oneself, make ready.
 mu...rō-lē, *v.* to tranquillize.
 mu su-lu min' (Arab.), *n.* a Mohammedan.
 mu...sē, *v.* to bring to pass, to fulfil.
 mu...wáh, *v.* to bring, to fetch.
 mu...wō, *v.* to bring in, introduce, entertain a guest.

N.

n, *adv.* See nn.
 na, *adv.* already, now.
 ná, *pron.* that, the same, the.

ná, *v.* to spend money.
 nā, *v.* to flog; to stretch, extend.
 na-dza (ndza), *v.* to trade, traffic.
 na-ga (iga), *v.* to stretch in reaching up.
 na-gu-dū, *n.* a kind of trousers.
 na-hun (ōhun), *v.* to extend the voice, to speak aloud.
 na-mai, *n.* a ring with which the bow-string is drawn.
 na-na, *n.* madam.
 na-ni, *v.* to be careful of, to make much of.
 nap, dap? *interrog. interj.* ch?
 na-ro, *v.* to stand erect.
 na-sá-ra (Arab.), *n.* a Christian.
 nā...sī-lē, *v.* to let down from above, to lower.
 na-wo (owō), *v.* to spend.
 na-wo-na-wo, *n.* a spendthrift.
 nā-wō (owō), *v.* to extend the hand, to pass from hand to hand.
 ndan, *adv.* not. See nap.
 ndau, nda-wo, *adv.* no.
 nde, *v.* to arise, get up.
 ndže, *adv.* then, therefore.
 nē. See na.
 nē-ga. See naga.
 nī, *v.* to be, it is, it was.
 ní, *prep.* in, on, at: nī bí, whereas, that whereas.
 nī, *v.* to have, to own; must.
 nī, *v.* to say.
 nī, *v.* to load a canoe or ship.
 nī (ēni), *pron.* one, person, us, that, the.
 nī-bai, nī-ba-yi, *adv.* there, yonder.
 nī-bē (ilē), *adv.* there.
 nī-bi, nī-bi-yi, *adv.* here, hence.
 nī-bi-kan, *adv.* somewhere.
 nī-bi-ki-bi, *adv.* wherever.
 nī-bi-ti, *adv.* where, whence.
 nī-bo, nī-bo-ti, *adv.* where, whence.
 nī-bo-mi-raj, *adv.* elsewhere.
 nī-bu, nī-bū-bu, *adv.* crosswise.
 nī-dá-ye-dá-ye, *adv.* now and then.
 nī-dí, nī-dí-tí, *prep.* about, concerning.
 nī-dže-fa, *adv.* six days ago.
 nī-dže-rin, *adv.* four days ago.
 nī-dže-ta, *adv.* day before yesterday.
 nī-dzō-gbo-gbo, *adv.* every day, daily.
 nī-dzō-kan-lō-gbōn, *adv.* seldom.
 nī-gbā, nī-gbā-tí, *adv.* when, while.
 nī-gba-gbo-gbo, *adv.* always.
 nī-gba-ku-gba, *adv.* at any time, often.
 nī-gbā-ná, *adv.* then, at that time.
 nī-gba-ni, *adv.* anciently, in old times.
 nī-gban-gba, *adv.* publicly, openly.
 nī-gba-wo? *adv.* when?
 nī-gba-yi, *adv.* now, at this time.

ni-gbẹ-hiṇ, *adv.* afterwards, hereafter, at last.
 nī-gbo se, *adv.* by and by, after awhile.
 ni-ha, *adv.* near, alongside, about.
 ni-hiṇ', ni-hiṇ-yi, *adv.* here, hence.
 ni-hō-ho, ni-hō'-ri-ho, *v.* to be naked.
 ni-kan, ni-kan šo-šo, *adv.* alone, singly, only.
 ni-kẹ-hiṇ, *adv.* at last, lastly.
 ni-kō, *adv.* See nkō.
 ni-kọ-kọ, *adv.* in private, secretly.
 ni-kpa, ni-kpa-tf, *prep.* by, concerning, as to, according to.
 ni-kpa-se (ese), *prep.* by (means of).
 ni-kpẹ-kun, *v.* to have an end, to terminate.
 ni-kpò, *prep.* instead of, in the room of.
 ni-kpọṇ, *v.* to be thick, as a board.
 ni-ku-sa, *prep.* near, close to.
 ni-lá (nlá), *v.* to be large.
 ni-lai-lai, *adv.* anciently.
 ni... la-ra (li arí), *v.* to annoy, vex, press, as a job of work.
 ni-lẹ (m), *adv.* on the ground, down.
 ni-lọ-lọ, *adv.* lately, recently.
 ni-ná, *n.* extent, extension.
 ni-ni, *adv.* quite (cold): tutu nini, to flourish, as a plant. (Ps. 92, 14.)
 ni-ní, *n.* a hail-stone.
 ni-ni, *n.* property, possessions; an owner.
 ni-nọ, *prep.* inside, within, among, in.
 ni-raṇ, *v.* to remember.
 ni-sa-lẹ, *prep.* below, beneath.
 ni-sí, *v.* to be concerned about, to care.
 ni'-si-si, ni'-si-si-yi, *adv.* now.
 ni-sá-dzu, *adv.* before, formerly.
 ni-ti, ni'-ti-tf, *prep.* in that, for that, for, concerning, in, of, from.
 ni'-ti-kpẹ, *conj.* as to, in regard to that.
 ni'-to-ri, ni'-to-ri-tf, *conj.* because, for, for the sake of;—*prep.* for, concerning.
 ni-to-ri-ná, *adv.* therefore, wherefore.
 ni'-to-si, *prep.* near.
 ni'-tò-tò, *adv.* in truth, truly.
 ni-wá (ni), *v.* to be amiable, of a good disposition.
 ni-wá dzu, *prep.* and *adv.* before.
 ni-wo-yi, *adv.* now.
 ni-wọṇ, *adv.* moderately; at the time of.
 ní wọṇ-bí, *adv.* inasmuch as.
 ni'-ye-nọ (iye inọ), *v.* to be intelligent.
 ni-yiṇ, *v.* to be praised, honorable.
 nlá, *v.* to be great: ìgi nlá, a large tree.
 nlá-nlá, *n.* greatness.
 nn, *adv.* no.
 nọ, *v.* to be lost; to wipe;—*adv.* off, away.
 nọ... nọ, *v.* to wipe off, blot out, brush away.
 nọṇ-yi, *v.* to rest a little.
 nsó, *v.* to go on, proceed.

nwọṇ, *pron.* they.
 nwọṇ-yi, *pron.* these.
 nyiṇ, *pron.* you.

N.

n, an auxiliary prefix, denoting an action which is or was in being at the time alluded to in the proposition; as, ó ọtá, he is selling.

n, *pron.* I.

ngbà! *interj.* take it!

ngbò! *interj.* hark! hear.

ṅkán (ohun kán), *n.* a thing, something.

ṅkan-kí'-ṅkan, *n.* a trifling thing.

ṅkò, *v.* to be not: ọ ṅkò, it is not he; ó rí í ṅkò? (he saw it is-it-not or did-he-not) did he not see it?

ṅsò. See nsó.

nyin, *pron.* you.

O.

o, *pron.* thou.

ò, a word of assent: to mi wá, come here; ò, yes, or I will.

ó, *pron.* he, she, it, that; used without the tone-mark after li, ti, and other particles; as, emi li ó de (I it-is that came), I came.

ò, *adv.* not.

ò, *aur. part.* shall, will.

o-bi, *n.* a parent; a female, of cattle.

ò-bi, *n.* the kola or gourd nut.

ò-bi-ri, ò-biṇ-ri (òbò énia), *n.* a woman.

o-bó, *n.* a hint, private information.

ò-bo, *n.* pudendum multibre.

o-bo-tu-dze, *n.* physican (curans).

o-bọ, *n.* a foster-parent, a nurse.

o-bọ, *n.* a roller for ginning cotton.

o-bu, *n.* which is insipid, stale; a rotten egg.

o-da-le, *n.* a breaking down: ke odale, to break down.

o-de, *n.* the outside, out of doors.

o-dẹ, *n.* a small bat.

o-dẹ, *n.* a parrot.

o-dí, *n.* malice, wrongfulness: odí sí, opposition, perverseness.

o-dí, *n.* a town wall, breastwork; a dumb person.

o-dí dẹ. See odẹ.

o-dí dī, *n.* a bunch, cluster; the whole.

o-dí-nọ, *n.* a passionate person.

o-do, *n.* a division, section, party, district.

o-dó, *n.* a mortar for pounding things in.

ò-do, *n.* water in a body, as a river or pond.

o-dò-dí, o-dò'-ro-dí, *adv.* never, not at all.

o-do-do, *n.* truth, righteousness, justice.
 o-do-dô, *n.* scarlet color.
 o-do-gí, *n.* scrupulous.
 O-du, *n.* the companion of Ifa.
 ô-du, *n.* a boiler, caldron.
 O-du-a, O-du-du-a, *n.* heaven and earth; the goddess, Nature: *Odu-na, igba nlá meḍi á de ì ṣi, heaven and earth, two large calabashes shut not to be opened.*
 o-dze, *n.* sap of plants.
 o-dzé, *n.* lead.
 o-dzi, *n.* a reviving, revival.
 ô-dzi, *n.* forty; adultery.
 o-dzi-a, *n.* gum, resin.
 o-dzi-dzi, *n.* an electrical fish.
 o-dzi-dzi, o-dzi-dzin, *n.* a shadow, shade.
 ô-dzi-dzi, *num.* by forties;—*n.* suddenness.
 o-dzi-gbe-se, *n.* a debtor.
 o-dzi-gbọn, *n.* the outer corner of a house.
 o-dzi-ya, *n.* a sufferer, one oppressed.
 o-dzo, *n.* cowardice, a coward.
 ô-dzo, *n.* rain: *ôdzo otù, now weak ale.*
 o-dzo-bo, *n.* a lump.
 o-dzô-dzo, *n.* agar.
 o-dzô-dzû-le, *n.* every house.
 o-dzô-dzu-mo, *n.* every day, daily.
 o-dzô-gan, *n.* a kind of scorpion.
 o-dzô-gún, *n.* an inheritor.
 o-dzô-ro, *n.* one who cheats at play, a cheat.
 o-dzô-wu, *n.* a jealous person.
 o-dzô-ye, *n.* a ruler, officer.
 o-dzô, *n.* the space of a day: *ondzé ôdzô, daily bread; comp. ôdzô.*
 o-dzô-rô, *n.* an iron mace.
 o-dzu, *n.* a sore, a scar.
 o-dzû, *n.* the eye, face, appearance, edge, as of a knife or sword; an opening: *ôdzû òma, the middle of the road, the road, a gate; ôdzû rẹ wáh ilẹ, he came to himself (after being insane); ôdzû alá, a dream; ôdzû aiyé, the sky; ôdzû owó, the principal (money), as distinguished from interest; ôdzû orun, sleep; ôdzû ori, the grave; ôdzû aghara, a gutter, a wide street; ôdzû sama, a cloud; gbe ôdzû ako, to cock a gun; gbe ôdzû ábo, to half cock a gun.*
 o-dzu-gba, *n.* a companion, an equal.
 o-dzu-gọn, *n.* the shin.
 o-dzu-kan ná, *n.* immediateness.
 o-dzû-kô-ko-ro, *n.* coconsciousness: *ṣe ôdzúkòkoro, to court.*
 o-dzu-kpo, *n.* a skylight in the palace where the king takes the air.
 o-dzu-kpo, *n.* trouble, perplexity.
 o dzu la fẹ nì, *n.* a thin-server, an on servant.
 o-dzu-le (ilẹ), *n.* a doorway.
 o dzu lu mọ, *n.* an acquaintance.

o-dzu-mọ, *n.* morning, dawn.
 o-dzu-nlá, *n.* a covetous person; envy, greediness.
 o-dzu ran, *n.* dream, a vision.
 o-dzu rẹ-re, *n.* favor, grace: *ṣe olzurẹ-re, to favor.*
 o-dzu-ri, *n.* an eye-witness.
 ô-dzu-son, *n.* a fountain.
 o-dzu-ṣá-dzu, *n.* partiality.
 o-dzu-ti, *n.* shame, modesty.
 o-dzu-wá, *n.* a sharer, distributor.
 o-fe, *n.* a parrot; a derisive fellow.
 o-fe-re, *n.* the morning star; about three o'clock in the morning.
 o-fi, *n.* a loom, lit. a swinger.
 o-fi-dzi, *n.* forgiveness.
 o-fin, *n.* a law, prohibition.
 ô-fin, *n.* a pit.
 ô-fo, *n.* loss, calamity, emptiness, desolateness.
 o-fô-fo, *n.* a busy-body, tale-bearer.
 ô-fo-ro, *n.* a kind of squirrel.
 o-fũ-ru-fũ, *n.* the firmament, space.
 o-gbi-fọ, *n.* an interpreter.
 o-gbi-gbi, *n.* a kind of owl.
 o-gbo, for gbogbo, *pron.* all.
 o-gbô, *n.* old age; a kind of wildcat.
 o-gbo-do, *n.* a young or green yam.
 o-gbo-dzu, *n.* a daring man.
 o-gbo-gbo, *n.* a mullet.
 o-gbo-lô-gbo, *n.* ancientness, old age.
 o-gbo-ni, *n.* a sort of free-masonry; a respectable elderly man.
 o-gbu-fọ, *n.* See oghifọ.
 o-ge, *n.* a fop, dandy.
 o-ge-de, *adv.* only.
 o-ge-de-gbe, o-ge-de-mgbe, *n.* headlongness: *li ogedemgbe;—adv. headlong falling.*
 o-gi, *n.* an old dog, an old bachelor.
 ô-gi, *n.* starch of maize.
 o-gi-dan, *n.* a leopard.
 o-gi-df-gbo, *n.* a kind of drum.
 o-gi-ri, *n.* a guard wall.
 o-gi-ri, *n.* a gallop, a rush of a crowd.
 o-gô, *n.* glory, counting.
 ô-go, *n.* a person sitting at one's door daily to shame him into the payment of a debt.
 o-go-do, *n.* the young of cattle, a calf, colt.
 o-go-du-gbẹ, *n.* dropsy.
 o-go-dze, *num.* one hundred and forty.
 o-go-dzi, *num.* forty.
 o-gou-go, *n.* the ostrich.
 ô-go-ti, *n.* See ôgo.
 o-gu-fẹ, *n.* a wether.
 o-gu-lu tu, *n.* a clod of earth.
 o-gu-na, *n.* a coal of fire.
 o-guy, *n.* war, an army, a battle.
 Ô-gún, *n.* the god of blacksmiths and of soldiers.

o-gúú, *n.* an inheritance;—num. twenty.
 ô-gúú, *n.* a chair.
 ô-gùú, *n.* perspiration.
 ô-guú, *n.* medicine, poison, a charm.
 o-gùú, *n.* a round pole, foot-stalk of a wine-palm leaf.
 o-gu-ro-do, *n.* a standing upright.
 ô-gu-rô, *n.* palm-wine.
 o-gu-sô, *n.* a tobacco-pipe.
 ôh! *the usual reply to a salutation. See ô.*
 o-ho! *a word of exclamation.*
 o-huú, *n.* a thing: ohuú llo, a vessel, utensil; ohuú iní, property, possessions; ohuú ọna, a tool, instrument; ohuú ọsà, a domestic animal.
 ô-huú, *n.* the voice, speech, a sound.
 o-huú-kô huú, *n.* any thing whatever.
 o-i-bô, e-i-bô, a-mbô, *n.* a white man.
 ô-ka, *n.* a ring.
 ô-káú, *n.* one cowry.
 ô-kan-ai-ya, *n.* the breast, chest.
 ô-ke, *n.* top, hill, height, mountain: ôke ọrun, heaven.
 o-ke-lê, *n.* a package of salt.
 ô-ke-lê, *n.* a bit, a morsel.
 o-ke-re, *n.* distance, far off, aloof.
 ô-ke-tê, *n.* a bale of goods, a wallet; a rat.
 o-kê-hin-dà, *n.* renunciation, forsaking.
 o-kê-lê-ndžê, *n.* a kind of lizard.
 o-ki, *n.* failure to fire (as a gun), or to cut (as a dull knife).
 ô-ki, *n.* flattery, compliments.
 o-ki-ki, *n.* fame, rumor.
 o-ki-ki-ri, *n.* hardness, difficulty; a knot.
 o-ki-ri-bi-ti, *n.* the area of a circle.
 o-ki-ri-kpa, *n.* dryness and hardness, as of leather: okirikpa adža, an old dog.
 ô-ki-ti, *n.* a sunmeriset, a headlong fall.
 ô-ki-ti, ô-ki-ti ọ-gúú, *n.* a white-ant hillock, a heap.
 o-ki-ti a-ro, *n.* a potash-strainer.
 o-ki-ti ê-be, *n.* a hill for planting yams, corn, &c.
 o-ko, *n.* a furm: oko aye, afternoon's farm work; oko ọru, bondage, slavery.
 o-kô, *n.* a stone.
 o-ko-bô, *n.* a eunuch; a liar.
 o-kô i-bou, *n.* the lock of a gun.
 o-ko-to, *n.* a kind of snail.
 ô-kp, *n.* a name.
 o-kpe, *n.* a puzzle, ignorance; a simpleton.
 o-kpe-kpe, *n.* a youth.
 o-kpin, *n.* an end, boundary.
 o-kpin-lê (ilê), *n.* boundary of land, ends of the earth.
 o-kpo, *n.* the place of audience in the palace; a raised place to sleep on.

o-kpô, *n.* a post; a widow: okpô ọko, a mast.
 o-kpo kpo, *n.* an avenue outside a town gate.
 o-kpo-ro, *n.* which is common, usual.
 o-kú, *n.* a corpse, the dead, state of death, insipidity.
 ô-kú, for aikú, *n.* a salutation.
 o-ku-ku, *n.* the woof of cloth.
 o-kú-nà (ṣṣa), *n.* an old overgrown road.
 o-kuú, *n.* strength, ability.
 o-kùú, *n.* a rope, a string: okùú tinrin, twine.
 ô-kuú, *n.* the ocean.
 ô-kuú, ô'-kuú-kuú, *n.* darkness.
 o-kuú-fa, *n.* an attraction, encouragement.
 o-kuú-ra, *n.* anything rotten.
 o-kuú-rọ́n, *n.* illness.
 o-ku-ru-ro, *n.* an ill-natured person.
 o-ku-ša, *n.* ale of millet.
 o-ku-ša-lê, *n.* worn-out land.
 o-kú-šu, *n.* refuse from dyeing rats.
 o-ku-ta, *n.* a stone, a boulder.
 o-ku-ye, *n.* one dull of memory.
 ô-la, *n.* the cloth-moth.
 o-là, *n.* that which saves, saving, salvation.
 ô-lê, *n.* a roof.
 ô-le, *n.* a thief, theft.
 o-li-fa, *n.* which has or pertains to Ifa; which is advantageous.
 o-lo-bô, *n.* one who hints, or gives a caution.
 o-lo-di, *n.* which is walled, fortified.
 o-lo'-do-do, *n.* a righteous person.
 O-lo-du-mā-re, *n.* the Ever righteous, a name of God.
 o-lô-dzo, *n.* a stranger.
 o-lo-dzu, *n.* oneself, an owner.
 o-lo-dzu-kan, *n.* a one-eyed person.
 o-lo-fin, *n.* a longiver.
 o-lo-fo-fo, o-lo-fo-fo. *See* olofo.
 o-lo-gbo, *n.* a cat.
 o-lô-gbô, *n.* the king's traditionist or chronicler.
 o-lo'-gi-ni, *n.* a cat.
 o-lo-go, *n.* who is honorable, glorious.
 o-lô-go, *n.* one who duns, a dun.
 o-lo'-gon-še, *n.* a sparrow.
 o-lo-guú, *n.* a physician.
 o-lô-huú (li), *n.* a man of influence.
 o-lo'-ki-ki, *n.* who is famous.
 o-lô-kuú, *n.* which has strings; a rope-maker.
 o-lo'-ku-rọ́n, *n.* a sick person.
 o-lô-là, *n.* a professional fattener.
 ô-lo-lô, *n.* a stammering, stammering.
 o-lo-ni. *See* oni.
 o-lo-nkâ. *See* ọnkâ.
 o-lô-re, *n.* a benefactor: olôre ọye, one who is gracious, benevolent.
 o-lo-ri, *n.* a head man, chief, captain.
 o-lo-rí, *n.* a great man's wife.

o-lô-rin, *n.* a singer.
o-lo-ri-o-ri, *n.* all sorts, variety.
o-lô-ri-ša, *n.* an idolator.
o-lo-ro, *n.* which is venomous.
o-lô-ru-kô, *n.* who is distinguished, famous.
o-lô-šu-mā-re, *n.* which is curved.
o-lô-tô, o-lô-ti-tô, *n.* a just person.
o-lo-wô, *n.* who is rich.
o-lô-ye, *n.* who is wise, prudent.
o-lô-ye, *n.* an officer, a noble.
o-lo-yo, *n.* the yellow monkey.
o-lô, *n.* powder of any kind.
o-lá, *n.* a chief, an owner : olá ofin, a lawgiver or owner.
o-lù, *n.* a hammer.
o-lu-bô, *n.* who maintains or feeds ; who beats a mud floor.
o-lá-bu-kon, *n.* who adds, or blesses.
o-lu-da-nde, *n.* a redeemer, ransomer.
o-lu-dā-re, *n.* who is justified.
o-lu-fē, *n.* who loves, or is beloved.
o-lá-fi-sôn, *n.* an accuser, plaintiff.
o-lu-fô'-kay-sí, *n.* a devout or devoted person.
o-lu-fu-ni, *n.* a giver.
o-lá-gba-là, *n.* a savior.
o-lu-gbà-nì, *n.* a helper, deliverer.
o-lu-gbe, *n.* who lifts up, or raises.
o-lu-gbôn-gbô, *n.* a smooth round block on which cloth is folded.
o-lu'-gbo-ro, *n.* a cudgel.
o-lu-gbô, *n.* a believer.
o-lu'-ko-lo. See abiku.
o-lu'-ko-re, *n.* a crapper, crop-gatherer.
o-lu-kô, o-lu-kô-nì, *n.* a teacher.
o-lu-kpa, o-lu-kpa-nì, *n.* a murderer, an executioner.
o-lá-kpa-mô, *n.* a preserver.
o-lu-kpa'-ra-mô, *n.* one who is long-suffering.
o-lá-kpi-lê-sê, *n.* a beginner, author.
o-lu-kpiin, *n.* a sharer, divider.
o-lá-kpon-dzû, *n.* one who is poor, distressed.
o-lu'-ku-lù-ku, *pron.* each, every.
o-lu-mô, *n.* a builder.
o-lu-mô ran, *n.* a wise man.
o-lá-ran-lô-wô, *n.* a helper.
o-lu-ran-sê, *n.* a sender.
o-lu-rê, *n.* a comforter.
o-lu-rê-ron (ir-ŋ), *n.* a sheep-shearer.
o-lu-sin, *n.* a server, worshipper.
o-lá-šā-rô, *n.* a thoughtful person.
o-lu-sê, *n.* a doer, actor.
o-lu-sê, *n.* a victor, conqueror.
o-lu'-sê-tan, *n.* an enemy, a hater.
o-lu-šô, *n.* a watcher : oluša agutan, a shepherd.
o-lu'-šô-gba (ogba), *n.* a gardener.

o-lu-tan, *n.* a relative, a kinsman.
o-lu-tô, *n.* a director ; one who brings up a child, a nurse.
o-lu'-tô-dzû (odzû), *n.* a guardian, a keeper.
o-lu-wā, *n.* a lord, master, owner.
o-lu-wā-rê, *n.* an individual, a person.
o-lu-wô, *n.* a priest.
o-lu'-wo-dzû, *n.* one who respects persons.
o-mi, *n.* water : omi kikan, foul water.
o'-mi-dān, *n.* a young chicken ; a maiden.
o-mi-dze, omi-odzû, *n.* a tear.
o-mf-ran, *n.* a giant.
o-mf-rān, *pron.* other, another, the other.
o-mi-rin, *n.* the throat ; swallowing with ease.
o-mi-to-ro, *n.* broth.
om-ni-ra, *n.* a free person.
o-mu, *n.* the grass-nut.
o-nde, *n.* an amulet tied to the body.
o-ndê-rê, *n.* a parrot.
o-ndzê, *n.* food.
o-ni, *n.* this day, to-day : oni oloni, this very day ; ó de li oni, he came to-day.
o-nf-ba-ta, *n.* the owner of a shoe, a shoe-maker.
o-nf-bo-de, *n.* a custom-house officer.
o-nf-bu-sí, *n.* one who blesses.
o-ni-dá, *n.* a creator, maker.
o-nf-da-dzô, *n.* a judge.
o-nf-da-lā-re, *n.* a justifier.
o-ni-dá-mô-ran, *n.* an adviser, proposer.
o-ni-da-nde, *n.* a redeemer.
o-ni-dan-wo, *n.* a tempter.
o-nf-di-kan, *n.* a child who has one parent free and the other a slave.
o-nf-fā-ra-rô (fi), *n.* a supporter, backer.
o-ni-fa-ra-we, *n.* an imitator, emulator.
o-nf-fe-fe, *n.* a proud person, boaster.
o-ni-fô, *n.* a washer.
o-nf-gān, *n.* a catechumen of an idol.
o-ni-gbá-dza-mô, *n.* a barber.
o-nf-gba-gbô, *n.* a believer.
o-ni-gba-nì, *n.* a helper, savior.
o-nf-gbe-se, *n.* a debtor.
o-ni-gbô-wô (gbà), *n.* a surety.
o-nf-ha-lê, *n.* who is poverty-stricken.
o-ni-ka, o-ni'-ka-nô (inô), *n.* one who is cruel.
o-ni-ke-ke-re, *n.* one who has little of a thing : enyin onikekekere igbagbo, ye of little faith.
o-nf-ke-re, *n.* a small person.
o-nf-ki-ri, *n.* a wanderer.
o-ni-kô (iko), *n.* one who is troubled with a cough.
o-ni-kpa, *n.* one who takes part in a transaction, a participator, sharer.
o-nf-kpê-lê, *n.* one who is gentle, courteous.
o-ni-kpin, *n.* he who appoints our lot, the disposer of events.

o-ni-ku, *n.* one who is mortal.
o-ní-ku-kpa-nì, *n.* a betrayer, traitor.
o-ni-là, *n.* who is tattooed or circumcised.
o-ní-là-dzá, *n.* a peace-maker.
o-ní-le-ra, *n.* who is healthy.
o-ní-lọ-ra, *n.* who is slothful.
o-ni-na (ina), *n.* which is fiery.
o-ni-ni, *n.* a possessor.
o-ní'-nọ-ni-bi'-nì, *n.* a persecutor.
o-ni-nọ di-dòṅ (inọ), *n.* a good-natured person.
o-ni-nọ fu-fu, *n.* a pure-hearted person.
o-ni-nọ ti-te, *n.* a meek person.
o-ní-re-ra, *n.* who is proud.
o-ní-rẹ-lẹ, *n.* who is humble.
o-ní-rò-bi-nọ-džẹ, *n.* who is broken-hearted.
o-ni-ro-ra, *n.* who is ruined, in sorrow.
o-ni-rọṅ, *n.* which is hairy.
o-ni-ru, *n.* one who is similarly endowed.
o-ní-rù-ru, *n.* variety, various kinds.
o-ní-sa-džu, *n.* who is modest, bashful.
o-ni-sā-džu, *n.* who is partial.
o-ní-še-guṅ, *n.* a doctor.
o-ni-še, *n.* a worker.
o-ni-ši, *n.* an author or inventor of a thing.
o-ní-ši-ti, *n.* a powerful or eloquent speaker.
o-ní-šo-guṅ, *n.* a doctor, physician.
o-ní-šò-wo, *n.* a trader.
o-ní-şọ-na, *n.* a mechanic.
o-ni-ti-wọṅ, *pron.* any one, lit. their person.
o-ní-tu-bu, *n.* a jailor.
o-ni-wa, *n.* who has a disposition or character; a circumstance: *oniwa iwa*, all circumstances or conditions.
o-ní-wā-si, **o-ní-wā-su**, *n.* a preacher.
o-ní-we-re, *n.* which wriggles, a wriggler.
o-ní-wọ-ra, *n.* a greedy person.
o-ni-ye, *n.* one who has a good memory.
o-nọ, *n.* prehension of danger, dread.
oṅ, *pron.* him, her, it.
oṅ, *conj.* and.
oṅ, *pron.* he, she, it.
oṅ-fẹ, *n.* one who is charitable.
oṅ-gbẹ, *n.* thirst: *oṅgbẹ gbẹ mi*, I am or was thirsty.
oṅ-ka, *n.* one who counts, a counter.
oṅ-là, *n.* that which saves, a saver.
oṅ-ná, *pron.* himself, that.
oṅ-ro-ro, *n.* one who is austere.
oṅ-še, *n.* a messenger.
o-rà, *n.* a purchaser.
o-re, *n.* a bulrush, a mat of rushes.
o-re, *n.* a watch-tower, a watching from a tower.
ô-re, *n.* goodness, kindness: *ôre oṛẹ*, grace.
o-re-re, *See* okpokpo.
o-rẹ, *n.* the porcupine.

o-ri, *n.* the head, top; a kind of pigeon; shea butter: *ori amọ*, *n.* butter.
o'-ri-ka (ika), *n.* the end of the finger.
o-ri-ke, *n.* a joint of the limbs.
o-ri-lẹ, *n.* a family, race, nation, tribe: *orilẹ èdè*, a nation.
o-rin, *n.* a tooth-brush made of a root bearing the same name.
ò-rin, *n.* a song, a tune.
o-ri-so, *n.* a stall, a tying-up place.
o'-ri-sọṅ, *n.* a spring, a fountain.
o'-ri-ša, *n.* an idol.
O'-ri-šá-ko (oko), *n.* the farm-god.
O'-ri-ša-nlá, *n.* a name of Obatala.
o-ri-şẹ á-lu-fá (işẹ) *n.* priest's work, the priestly office, priesthood.
o-ro, *n.* honey; a stick to stir ale with; provocation, difficulty, hardness, fierceness.
O-ro, *n.* the god of civil government, the executive of the state deified.
o-ró, *n.* venom of reptiles; torture, torment: *şişẹ oró*, to be tormented.
ô-ró, *n.* the erect posture, erectness; the indigenous mango.
o-ro-bo, *n.* good luck, fortune.
o-ro-mbo (oró ambo), *n.* an orange, lime, lemon.
o-ro-rẹ, *n.* pimples on the face.
o-rô-ro, *n.* bitterness, gall.
o-rô-ro, *n.* oil: *fi ami ororo yau*, to anoint.
ô-rọ, *n.* morning.
o-rọ-nu, *n.* which is tender.
o-ru, *n.* heat, steam.
o-rù, *n.* a pitcher, jay.
ô-ru, *n.* night.
o-ru-ba, *n.* an oil-pot.
o-ru-ga ndžọ, *n.* midnight.
o-ru-gu-du, *n.* a short thick bottle.
o'-ru-ka, *n.* a ring.
o-ru-kọ, *n.* a name; a he-goat.
o-ru-lé (ilẹ), *n.* a roof.
o-ruṅ, *n.* sleep: *oruṅ kọṅ mi*, I am sleepy.
ô-ruṅ, *n.* the sun: *ôruṅ là*, the sun rises; *ôruṅ wọ*, the sun sets; *şẹ-ôruṅ*, the large red setting sun.
o-rùṅ, *n.* a smell, a scent.
o-se, *n.* paint.
o-sé, *n.* the hippopotamus.
o-siṅ, *n.* which is tamed, a domestic animal, cattle.
ô-siṅ, *n.* the left, the post of honor: *ôsiṅ yama*, the south.
o-şe, *n.* a smacking of the lips for sorrow; the clab of Sangó. *See* ose.
o-şe-şe, *n.* meat of the first quality.
o-şi, *n.* misery.
o şi şẹ, *n.* a poor or miserable person, a pauper, a wretch.

- o-šo, *n.* a witch, sorcerer: še oko si, to bewitch.
 o-šo-nó, *n.* an ill-natured person.
 o-su, *n.* the new moon, a month.
 o-su-kpa, *n.* the moon.
 o-su-mã-re, *n.* a rainbow, semicircle.
 o-su-me-re, *n.* a lily.
 o-su-su, *n.* a grove, thickot: kpa o-su-su, to form a grove, to stand in a grove.
 ô-su-wôj, *n.* a measure, a weight.
 o-tâ, *n.* a seller.
 o-te, *n.* the corner of a house.
 o-ti-to, *n.* truth: otiti idi, the true cause or reason.
 o-to-lo, *n.* a kind of antelope.
 o-to-si. See o-si-še.
 ô-tô, *n.* truth.
 o-ton-kan-yan, *n.* one who creates disturbance.
 o-tu, o-tu-tu, *n.* cold, a cold in the head.
 o-tu-mô, o-tu'-di-mô, *n.* a covenant-breaker.
 o-we, *n.* a proverb, a parable; plumpness.
 o-we-re, *n.* struggle, effort, wriggling, writhing.
 o-wi-wi, *n.* an owl.
 o-wo, *n.* a horn.
 ô-wo, *n.* a boil.
 o-wô, *n.* courtes, money: še owô, to make money.
 ô-wo, *n.* trade, traffic: še ôwo, to trade.
 o-wô-bo-de, *n.* tax, customs.
 o-wo-kan-ai-ya, *n.* the husum.
 o-wô-še (iše), *n.* wages.
 o-wû, *n.* cotton, thread; jealousy.
 ô-wu-rô, *n.* morning.
 o-wu-su-wu-su, *n.* fog, gloomy weather.
 o-ya, *n.* that which separates, a comb.
 o-ye, *n.* a number: li ariji nùlô? how often? nwéj kô li oye gbá, they set no number (of times).
 o-yé, *n.* understanding, intellect: oyé ye mi, I understand; kô li oyé, he has no sense.
 ô-ye, *n.* a title of honor, office: dzé oyé, to hold an office.
 o-yi, *n.* giddiness: oyi nkpa mi lólù, I am dging of vertigo.
 o-yi-bô, o-i-bô, *n.* a white man.
 o-yin, *n.* a honey-bee, honey: oyin igan, wild honey; oyin alagbe, bees in a hive.
 o-yo, *n.* a small owl.
 o-yûn, *n.* pregnancy; a hand-saw: li oyûn, to conceive, to be pregnant.

O.

- o, *pron.* thou.
 ô, *pron.* he, she, it.
 ô, *adv.* not.
 ô, *aux. part.* shall, will.
 o-ba, *n.* a king; father, sire: Oba O-gá, God.
 o ba kan, *n.* a father's kinspeople.

- o-ba-le, *n.* prostration.
 O-bán-gí-dzi, *n.* the Lord, the Almighty.
 O-ba-ta-lá, *n.* the originating god (an androgyne), the generative principle.
 o-ba-ra, *n.* cord, pack-thread.
 o-bé, *n.* a knife.
 o-bé, *n.* sauce, lather, soap.
 o-bé-do, *n.* green scum on water (lemna); hence, green color.
 o-bô, *n.* a baboon.
 o-bô, *n.* coarse white cloth.
 ô-bôj, *n.* a filthy person, stolen.
 o-bôj-bôj', *n.* an umbrella; a beetle (insect).
 o-bô-rô, *n.* which is plain (not marked).
 o-dá, *n.* drought, dearth, need; old age: odá da nyin? do you need anything?
 ô-da, *n.* war.
 o-da-dzá (lá odzá), *n.* one who is shameless.
 o-dan, *n.* an inconsistent story; a vain talker.
 o-dán, *n.* a species of fig-tree.
 ô-dan, *n.* a prairie.
 o-de, *n.* a hunter: de o-de, to hunt for; ohun o-de, prey.
 o-de-de, *n.* a piazza.
 o-di-a-kpa-sa, *n.* a remnant of cloth in the loom.
 o-dô, *n.* presence of a living being: li o-dô, si o-dô, ti o-dô; see lodô, sôlô, todô: lati o-dô, from.
 o-dô, *n.* the young of domestic animals: o-dô aguntan, a lamb.
 o-dô-dun, *n.* every year, yearly: li o-dô-dun li á ri í, we see it every year.
 o-dôj, o-dun, *n.* cloth of palm-leaf fibres.
 o-dún, *n.* a year.
 o-dzá, *n.* a band, a girth; that which is broken off.
 ô-dza, *n.* a market, merchandise.
 o-dze-hun, *n.* a glutton.
 o-dzô, *n.* time, a day: odzô afe, afternoon; odzô ibi, n. birthday; odzô idzô, assembly-day; odzô iwà, the day of being, the creation, beginning of the world; odzô isi, a notable day, an epoch.
 ô-dzô, *n.* a place of settlement, lodging-place: so... li odzô, to set or place. (Gen. 1, 17.)
 o-dzô-dzô, *n.* every day, daily.
 o-dzô-dzô-dzô, *n.* many days, old times.
 o-dzô-ka-rin, *n.* noon.
 o-fa, *num.* one hundred and twenty.
 ô-fa, *n.* an arrow, a pledge, a pawn; the state of being in pawn.
 ô fe! an exclamation of those who carry a corpse through the street.
 o-fé, *n.* gravity, gratis.
 ô-fé, *n.* the dawn, a gentle breeze.
 o-fé-re, *n.* the being weary, the being almost.
 o-fin, *n.* a pit to catch a thief or beast, pit-fall.
 ô-fô, *n.* a squabble, palaver.

ò-fò, *n.* mourning for the dead.
 o-fon, *n.* the neck.
 o-ga, *n.* who is exalted, a hero : Oga Ogo, the Most High ; oga órísà, the chamelon.
 o-gan, *n.* a thorn, a cork's spur : yò o-gan, to put forth spurs.
 o-gán, *n.* an instant ; the hillock of the white ant.
 ò-gan, *n.* the large wild boar ; a vain boaster.
 o-gan-dzò, *n.* midnight : o-gan-dzò me-dzò, great darkness.
 o-gan-raṅ, *n.* a straight course.
 o-gbà, *n.* a garden, a fence.
 ò-gba, *n.* equality, a balancer, an equal.
 o-gban-gan, *n.* a hand-bell.
 o-gbè, *n.* a wound : nwọ́yí gbà o-gbè de inó, they were cut to the heart, vexed ; o-gbè inó, internal hemorrhage.
 o-gbè-lè (ilè), *n.* dry land : ará o-gbèlè, ikú abẹnu gbòro, dry-land thunder, death with a wide mouth, a riddle, meaning a gun.
 ò-gbò-dò, *n.* a duce, defiance, challenge ;—interj. no !
 o-gbọ́n, *n.* a precipice, a depth, a deep ditch ; the extreme end ; bristles of a turkey-cock.
 ɔ-gbọ́n, *n.* wisdom, cunning : o fi o-gbọ́n sè è, he did it wisely.
 o-gbọ́n, *num.* thirty.
 ò-gbọ́n, *n.* gauze.
 o-gbọ́n-gbọ́n, *adv.* wisely.
 o-gbọ́n-kọ-gbọ́n (ogbọ́n kọ o-gbọ́n), *n.* subtlety, dishonest dealing.
 ò'-gè-dè, *n.* the banana.
 o-gè-gè, *n.* the cassava.
 o-gè-rò, *n.* which is gentle, soft.
 o-gè-yi, *n.* cold gloomy weather.
 o-gò, *n.* a club, a rod ; a package (of salt).
 ó'-gò dọ, *n.* a clay-pit, a pit.
 o-gò-dzò, *num.* one hundred and sixty.
 o-gò-fa, *num.* one hundred and twenty.
 o-gò-rin, *num.* eighty.
 o-gò-run, *num.* one hundred.
 o-gò-ta, *num.* sixty.
 o-han, *adv.* yes.
 o-he, *n.* a stupid person.
 ò-hun, *n.* that place, the place beyond : li ò-hun, there, yonder.
 o-kà, *n.* Guinea corn, the large red millet (sorghum) ; any kind of corn.
 ò-ka, *n.* name of a disease : òka ikú, the death struggle.
 o'-ka-ndzú-a, *n.* avarice, a miser.
 o-kan, *num.* one, the same : sè o-kan, to agree, coincide.
 ò-kan, *n.* the heart, reins. (I's. 16, 7.)
 o-kan-lá, *num.* eleven.

o-ké, *n.* a sack.
 Ó'-ké-ré, *n.* a proper name of a man.
 o-ké-ré, *n.* the squirrel.
 o-kọ, *n.* a husband : o-kọ iyawú, a bridegroom.
 o-kó, *n.* a hoe ; the shoulder-blade : o-kó asa, a stirrup.
 ò-kọ, *n.* a canoe, boat, ship, trough, shuttle ; a spear : nwọ́yí ba tí ò-kọ lẹ́h, they went by ship.
 ó'-kọ-kan, *n.* the direct line ; the direction towards or opposite to.
 o-kọ-kan, *num.* one by one, each one.
 o-kọ-la-ya, ò-kọ-lo-bi-ri, *n.* a married man.
 ó'-kọn-ri, *n.* a man.
 o-kò-sè, *n.* one who refuses to do a thing.
 o-kpa, *n.* a staff, a pole : o-kpa ikpo, a travelling-staff.
 o-kpa-gun, *n.* an ensign, a banner.
 o-kpai-mbó (okpe ambó) *n.* the pine-apple.
 o-kpa-kọ, *n.* a pole to push a canoe.
 o-kpá-la-ba, *n.* a bottle, a rial.
 o-kpa-lai, *n.* a squabble, a dispute.
 o-kpè, *n.* the oil-palm.
 o-kpè, *n.* thanks : dà o-kpè, sè o-kpè, to thank.
 o-kpè-lẹ, *n.* a messenger of Iṣa.
 o-kpè-rẹ, *n.* a canoe, a boat.
 o-kpọ, *n.* abundance, a multitude, much.
 o-kpọ-lọ, *n.* a frog.
 o-kpọ-lọ-kpọ, *n.* abundance.
 o-kpọ́n, *n.* a hoar.
 o-kpọ-wọm, *n.* an innumerable swarm.
 ò-kun, *n.* an insect (lulus) ; a stupid person.
 o-la, *n.* to-morrow.
 ò-lá, *n.* honor, authority, majesty.
 o-là, *n.* wealth, safety.
 o-là-dzá, *n.* a peace-maker.
 o-la-ra, *n.* an envious person.
 o-lẹ, *n.* laziness, one who is lazy.
 o-lẹ, *n.* a fatus, cargo.
 o-lẹ-lẹ, *n.* a kind of cake.
 o-lọ, *n.* a mill-stone.
 o-lọ-dzá, *n.* an executioner.
 o-lọ-gan-raṅ, *n.* a kind of cricket.
 o-lọ-gbà, *n.* a gardener.
 o-lọ-gbọ́n, *n.* a wise person.
 o-lò-kan, *n.* which has, or pertains to, a heart : o-lòkan mimó, one with a holy heart.
 o-lọ-kọ, *n.* a spermata.
 o-lò-kọ, *n.* a master or owner of a ship.
 o-lọ-kpa, o-lọ-kpa-ga, *n.* a staff-bearer, a bailiff, policeman.
 o-lọ-la, *n.* an honorable or official person.
 o-lọ-mu-e-ko (omu), *n.* a maiden nearly grown.
 o-lọ-na (ona), *n.* a mechanic.
 o-lò-na (na), *n.* the owner or overseer of a road.
 o-lọ-re, *n.* a giver.

o-lô-rô, *n.* a rich man, an eloquent man.

O-lô-run (ô lî erun), *n.* God, a name never applied to the inferior gods, or 'Orisa.'

o-lô-sá, *n.* a licensed robber, i. e. a land pirateer.

o-lô-tan, *n.* a distant relative.

o-lô-te, *n.* a rebel, a seditious man.

o-lô-ti, *n.* a brewer, a liquor-dealer.

o-lô-to, *n.* a rich or distinguished person; a citizen.

o-mô, *n.* a child, servant, offspring; a kernel; omo agbo, a babe; omo akale, children of a king, princes; omo ale, a bastard; omo chin, a follower, a disciple; omo odo, a body-servant; omo egun, a soldier; omo kewu, a scholar, school-child; omo edzi, pupil of the eye; omo okú, an orphan; omo owa, a smith's hammer; omo odó, a pestle; omo Sika, a kea.

ô-mô bi-ri (ô-biri), *n.* a girl, daughter.

o-mô-dán, *n.* a young woman.

o-mô-dê, *n.* a child.

o-mô din, *n.* the little finger, little toe.

o-mô-dô, *n.* a rivulet.

o-mô dun, *n.* tender leaves of a tree.

o-mô-ko-ko, *n.* a potter.

o-mô-kon-ri (okonri), *n.* a boy, a son.

o-mô-le (ilê), *n.* the house-lizard.

o-mô-lo-dzu (li), *n.* a grand-child.

o-mô-ni-ke-dzi, *n.* another person, another.

o-mô-nô-ya (inô iyâ), *n.* a brother or sister by the same mother.

o-mô-ri (ori), *n.* a lid, as of a pot.

o-mô-sê (sê), *n.* a bar.

o-mô-ti, *n.* a drunkard, tippler; a kind of nut.

o-mu, *n.* the female breast, udder; breast milk; a flat stick to divide the wood.

o-na, *n.* mechanic's work, carrying, decoration.

ô-na, *n.* a road, a channel; a president of any department of government; as ôna Iwefu, the chief of the Eunuchs; ôna Isokun, the chief of the Council of Twenty-two.

o-ni, *n.* a crocodile.

o-nô, *n.* apprehension, fear of results.

o-rá, *n.* fit, fitness; ora egungun, macramé.

o-râ, *n.* a purchase, a purchaser.

ô-rau, *n.* a matter, a cause, an affair; ti ôrau lôh, to appeal.

o-re, *n.* a friend.

o-rê, *n.* a switch, a small whip.

ô-rê, *n.* a gift, present, offering; ôrê ánn, charity, alms.

o-rê-kê-sê, *n.* a small carry-bag made of grass.

o-rê-rê, *n.* salt.

ô-rê-rê, *n.* convulsions.

o-rin, *num.* eighty.

ô-rin, *n.* diarrhoea; ôrin edê, dysentery; ôrin nso é, he is sick of diarrhoea.

o-rô, *n.* euphorbia.

ô-rô, *n.* a kind of rope.

o-rô, *n.* equivocation, deceit.

o-rô, *n.* wealth; éyá; a ghost, a fairy.

ô-rô, *n.* a word, conversation; ôrô ikôkô, a dark saying (1's. 49, 1); ôrô idzínle, a mystery.

o-rôn, *n.* the neck.

o-run, *n.* a bow, the sky, heaven, the invisible world, hoots; erun akpali, hell; ôke erun, heaven.

o-rún, *num.* one hundred.

o-run-la, *n.* deictal okra.

O-sa, *n.* name of the lake at Lagos.

o-sá, *n.* flight, retreat; sá osá, to flee from.

ô-sa, *n.* a space of time; ô-sa agogo kán, the space of an hour.

o-sà, *n.* robbery.

o-sán, *n.* daytime.

o-sân, *n.* an excellent fruit.

o-san-gan-gan, *n.* midday.

o-san-han, *n.* the straightforward direction.

O-san-hin, *n.* the god of medicine.

o-sê, *n.* the sabbath, a holy-day.

o-sê-gê, *n.* very wide cloth.

o-sin, *n.* an osprey.

ô-sin, *n.* domestic animals, cattle.

o-sô, *n.* much talk, exaggeration, complaining.

ô-sun, *n.* a common pot-herb.

o-sán, *n.* a bow-string, a cord; ôsán éniá, a long lean person.

o-sê, *n.* soap; a kind of crane.

o-si-gi, *n.* grains of maize boiled.

o-sin, *n.* one who makes a mistake.

o-sô, *n.* decoration, show; sê li ôsô, to adorn.

ô-sô, *n.* an iron digger; thorns in a pitfall.

o-sôn-sôn, *n.* a rat-trap; a hard kind of wood.

o-sô-rô, *n.* drippings of rain from the eaves of the house, a cascade; ôsôro adire, a young chicken; éni ôsôro, eaves of a house.

o-ta, *n.* an enemy, adversary; ôta ôkan, a deadly foe.

o-ta, *n.* a bullet, shot.

o-tán, *adv.* all right, very well.

o-ta-o-lô-dza, *n.* an crocodile.

o-tê, *n.* unity, rebellion.

o-tê-sê, *n.* a private informer.

o-tí, *n.* ale, beer, spirituous liquor.

o-tô, *n.* difference, separateness; éniá á ma ya li ôto, men are different; ya si ôto, separate or withdraw from.

o-tô-kô-lu, *n.* the whole population.

o-tôn, *n.* holy water in the idol houses, &c.

o-tôn, *n.* the right hand side or direction; second, as to rauk.

o-tɔŋ-lá, *n.* the day after to-morrow.
o-tɔ tɔ, *n.* the whole, totality.
o-wá, *n.* the foot-stalk of a wine-palm leaf.
o-wa-ra, *n.* which is scattered, a shower of rain.
o-wa-ri-ri, *n.* a trembling.
o-wɛ, *n.* a company invited to do a piece of work, an accomplice, abetting : ɔ̌ ďɛ ɔ̌ le li ɔ̌ wɛ, he aided the thief.
o-wɛ-rɛ, *n.* the small intestines.
o-wɛ-rɛ, *n.* a kind of perch.
o-wɔ, *n.* a broom.
o-wɔ, *n.* the band ; a flock, caravan, assortment : ɔ̌ wɔ̌ ina, flame ; ɔ̌ wɔ̌ tɛ, to attain to.
ɔ̌-wɔ, *n.* honor, respect.
o-wɔ-ďɔ-wɔ, *n.* hand to hand, tradition.
o-wɔ lɛ, *n.* time (for doing a thing), opportunity.
o-wɔp, *n.* retaliation, recompense.
o-wɔp, *n.* a black snake, said to eject venomous spittle.
o-wɔp, *n.* scarcity, dearth, as to price ; a wicked person.
ɔ̌-wɔp, *n.* a pillar, a column.
o-ya, *n.* hire, wages.
O-ya, *n.* the Niger (the wife of Sangó).
o-yá, *n.* a creature like a hedge-hog.
O-yé, *n.* the harmattan-wind.
O-yo-mi-si, *n.* the elders of Oyo.

R.

ra, *v.* to perish, dissipate ; to ache slightly.
rá, *v.* to rub upon ; to crawl, to struggle.
rà, *v.* to buy ; to lay one thing on another, to tie together, to lath a house ; to rot, to moulder ; to sour around, to hover near, as a hawk.
ra-bi-tá, *n.* a piece of scarlet cloth.
ra-di, *v.* to recompense, retaliate.
ra-dɔ (ɛdɔ), *v.* to be perrish, splenetic ; to pity.
ra-dɔ-bɔ, *v.* to hover, as a hen ; to shelter.
ra-dzo (rè), *v.* to go a journey, travel.
rà-gan-bí (rɔ̌ agàn bí), *n.* a child born after the mother has been long barren.
rà-huɔ (ghuɔ), *v.* to murmur, grumble.
ra-huɔ-ra-huɔ, *v.* perplexity : ɛ̌ ra huɔ ra huɔ, to be perplexed.
ra-ko, **ra-ko-ro**, *v.* to crawl, creep, as an insect.
ra...ku-na, *v.* to eramble.
ra-le (ilè), *v.* to lath.
ra-lɛ (alɛ), *v.* to be evening.
ram-ram, **ra-mu-ra-mu**, *adv.* loudly, harshly (crying or roaring, as a lion).

ra-na (ina), *v.* to warm or dry at the fire.
ra-ndžá (ni ɔ̌ ďžá), *v.* to look steadily or fiercely.
ra-nti (ni ɛti), *v.* to remember.
raɔ, *v.* to twist, to spin, to sew ; to send ; to help ; to grow slowly ; to endure : raɔ̌ ikpɔ, to speak ironically ; raɔ̌ kɔ̌, to appoint ; raɔ̌ ni si wa, send to us.
raɔ, *v.* to communicate, as fire or infectious disease, to shine, burn ; to cut, wound.
raɔ...le-ti (li), *v.* to remind.
raɔ...lo-džu (li), *v.* to dazzle.
raɔ...lɔ-wɔ (li), *v.* to help.
raɔ...lu, *v.* to sew small pieces of cloth together.
raɔ...ni-raɔ, *v.* to remind.
raɔ...ni-ɛ̌, *v.* to send on business.
raɔ-ɛ̌, *v.* to send a messenger.
raɔ-ɛ̌, *v.* to sew cloth.
raɔ-wu, *v.* to spin cotton.
ra-ra, *adv.* at all.
ra-rá, *adv.* loudly.
ra-re, *v.* to linger in sickness.
rau-rau, *adv.* entirely.
re, *v.* to shed off, to moult.
rɛ, *v.* to spring or go off, as a trap.
rɛ, *v.* to go ; to be good ;—*adv.* well.
re-bi (ɛbi), *v.* to jockey, teard.
re-de-re-de, *adv.* foolishly.
re-di (jili), *v.* to wag the tail.
re-fɔp (ru ɔ̌ p or ɛfɔp), *v.* to break a law.
rɛ-fɔp, *v.* to smoke, as a chimney.
re-ke, *adv.* in a high degree.
rè...kɔ̌-dža, *v.* to cross over, to pass beyond, to surpass ;—*adv.* much, surpassingly : rè ni kɔ̌ ďža, to pass by me. (Mat. 26, 42.)
rɛ-kú, *v.* to kill, as a trap.
re-ra, *v.* to be proud.
re-re, *adv.* far, at a great distance.
rè-re, *n.* goodness ;—*adv.* in a goodly manner, well.
re-ri, *v.* to be past harvest time, entirely gathered.
re-ru, *v.* to be entirely out of sight, gone.
re-ti, *v.* to expect, hope ; to pick the ear.
rɛ, *v.* to dye, to soak.
rɛ̌, *v.* to cut, shear, to skim milk ; to stick or adhere, to be friendly ; to suit, agree.
rɛ̌, *v.* to be weary, heavy of heart, humbled ; to comfort or quiet ; to shed hairs, fade, wither, to be sad ; to increase or multiply.
rɛ̌, *pron.* his, her, its, thy ; him, thee.
rɛ̌...ďɛ, *v.* to cheat.
rɛ̌-gɛ (rɛ̌), *v.* to set a snare.
rɛ̌-kpɔ, *v.* to agree, accord.
rɛ̌-le, for **ra-le**, *v.* to loth.

re...lê (ilê), *v.* to hand down, decline; to humble, abase: re-lê, to be humble.
 re...mô-lê, *v.* to cut down, mow.
 re-re, *adv.* closely: lê...re-re, to pursue; re-re olžu, an eye-serrand.
 re-rin, *v.* to laugh: re-rin wesi, to smile.
 re-rin (iron), *v.* to shear, to trim the hair.
 re...si-lê. See rê...lê.
 re-yin (oyin), *v.* to take honey from the hive.
 ri, *adv.* heretofore.
 ri, *v.* to be, to have; to see, to seem, to find; to be defiled.
 ri, *v.* to sink, to drown, to hide, to plant a tree or a post in the ground; to pass threads through the sley.
 ri-di (dli), *v.* to understand or ascertain the nature of a matter.
 ri...gbâ, *v.* to receive.
 ri-ki-si, *v.* to plot against, to conspire;—*n.* a plot.
 ri-ndô, *v.* to be nauseated.
 ri-ndô-ri-ndô, *n.* strength of stomach.
 rin, *v.* to water, to be wet; to press to the earth, as a weight.
 rin, *v.* to laugh.
 rin, *v.* to walk, wander, sail; to tickle: ôkô ná mã rin, that ship sails well or rapidly.
 rin...lê-dô (li), *v.* to make sick at the stomach, to nauseate.
 ri-ran, *n.* a sending; brightness. See ran.
 ri-ran, *v.* to see, to see a vision or wonder.
 ri-re. See re.
 ri-ri, *n.* seeing, sight; which is seen or to be seen, a sight. See ri.
 ri-ri, *adv.* slightly (trembling).
 ri-ri, *adv.* greatly (trembling).
 ri-ri, *n.* a sinking. See ri.
 rin-rin, *adv.* (weighing) heavily.
 ri-ro, *n.* See the root, 'ro.'
 ri-ru, *n.* a swelling, a sprout of a vegetable, an issuing forth: ri-ru omi, waves.
 ri...sâ, *v.* to flee from, to shun.
 ro, *v.* to till, to relate; to sound, to strike, as a clock; to cut weeds from the ground, to till; to drip or drop, as water; to pain, to throb; to stand erect; to write: ro kalê, to publish abroad.
 rô, *v.* to stir, to think, meditate, intend; to trouble.
 ro-džo (odžu), *v.* to give account of, to answer for.
 ro-džu (odžu), *v.* to delay.
 rô-džu, *v.* to look sad, to be perplexed.
 ro-gun, *v.* to drain off, distil.
 ro-hin (ihin), *v.* to tell news, to relate.
 ro-ki-ro-ki, *adv.* brightly (red).
 ro-ko (oko), *v.* to till, to farm.
 ro-le (ilê), *v.* to succeed by inheritance to the headship of a family, to inherit property.

ro...lo-džu, *v.* to be or seem difficult.
 rô-na (îna), *v.* to open a road, to spy; to meet by appointment.
 ro-nô (inô), *v.* to meditate, to be solemn.
 ro-nô-kpi-wâ-dâ, *v.* to repent.
 ro-rê, *n.* a pustule, a pimple.
 ro-ro, *adv.* with a fine red color.
 rô-ro, *n.* a door-mat of twigs.
 rô-ro, *v.* to be austere, harsh.
 rô, *v.* to slacken, to wither; to scrape together, to collect into a mass.
 rô, *v.* to turn from a course or position, to yield or give place, to bend or break at the edge; to gush out, to rush, to sprout; to explain, to translate.
 rô, *v.* to cool, ease, mitigate; to be soft; to rain; to swing, to suspend on a thing, to lean; to urge, press, insist on; to fabricate from any raw material, as iron, leather, or ivory.
 rô-be-re, *v.* to explain at length, by relating the facts of the case.
 rô-bi, *v.* to travail.
 rô-džo (ôdžo), *v.* to ruin: rôdžo si, to sprinkle water on.
 rô-džo, *v.* to wither.
 rô-džu (odžu), *v.* to persevere, to bear patiently, to try.
 rô-džu, *v.* to be tame, gentle, as an animal.
 rô...gba-kâ, *v.* to surround, beset.
 rô-gbô-kû, *v.* to lean on the elbow, recline.
 rô-gun, *v.* to lie in wait, to set a watch for; to produce, as yams.
 rô-ke-ke, *v.* to make active preparations for some public enterprise; to make an uproar or tumult.
 rô-kin, *v.* to relate traditions.
 rô-kon, *v.* to rebel.
 rô-kpo (ikpo), *v.* to take the place of another.
 rô-kpô, *v.* to mix, mingle.
 rô-le, *v.* to cease, to be tranquil.
 rô-mô, *v.* to hang or lean upon.
 rô-ndon, *v.* to be pale.
 rô-nô, *v.* to fast, to be solemn.
 rô-n, *v.* to dip into, to sop.
 rô-n, *v.* to chew.
 rô-n, *v.* to be sick: ô rin êgba, he is sick of palsy.
 rô-ndon-rô-ndon, *n.* paleness.
 rô-n-gân, *v.* to be barren from disease.
 rô-n-gbon, *n.* the beard.
 rô-n-rôn, *v.* to be easy.
 rô-ra (arâ), *v.* to be gentle, go softly: ma rôra, be careful! a common salutation on meeting in the road.
 rô-rô, *n.* the bearded sheep.
 ru, *v.* to rise, swell, to spring up, as a fountain; to smoke, to be elevated, to be angry, to be agitated, to boil over, to stir up, to sprout, to flourish, to break out, to be exposed; to mingle.

rù, *v.* to bear, carry; to be lean; **rù lēh**, to remove a thing; **rù c̣hə**, to offer a sacrifice.
rù bə (c̣hə), *v.* to sacrifice.
ru-bu-tu, *n.* a writing, a manuscript.
ru-di (dī), *v.* to bad.
ru-du ru-du, *n.* confusion.
ru-fū (ōfū), *v.* to break the law, transgress.
rū-gu-du, *v.* to be thick and short.
ru-ke ru-dō (ōko dō), *v.* to make a tumult.
ru...lai-ya (lī), *v.* to make one vomit.
ru-lu (lū), *v.* to stir up the town, to cause sedition.
ru-lu ru-lu, a-ru-lu, *n.* a seditious person.
ru-nō (inō), *v.* to be vexed, indignant.
rūn, *v.* to consume, destroy; to break to pieces, to perish.
rūn, *v.* to stink; to chew a stick, to rub the teeth with a stick.
run-lē (lē), *v.* to dig into a house, as thieves.
rū-rū, *adv.* confusedly.
ru-we (iwe), *v.* to put forth leaves, flourish.

S.

sa? *adv.* where?

sá, *v.* to run, to flee, to fear; to dry in the sun: **sá kuro nūg** or **lōdō**, to flee from.
sá, *conj.* for;—*adv.* now, only: **sá ghō!** hear now!
sā, *v.* to aim or point at, as with a gun; to attempt, to make; **sā akpə**, to make a model or pattern.
sā, *adv.* a while, for a time.
sā-ba (sū), *v.* to sit, as a hen, to incubate.
sa-di (dī), *v.* to take refuge under a person's protection.
sa-ga-da-ga, *v.* to become a close conflict or battle.
sā-ga-tī (aga), *v.* to encamp against, to cast up works before a town, to besiege.
sa-gba-ra-ka (sə agbara ka), *v.* to fortify, especially with stockades.
sa-gun (ogun), *v.* to make a charm.
sa-ka-nī, *n.* the surrounding neighborhood.
sá-ka sá-ka, *n.* hay, dried provender.
sa-kpa-mō, *v.* to abscond, hide.
sa-kpa-ra, *n.* barren land.
sa-kpə-rə, *v.* to make a pattern, sign, or token.
sa-ku-sa, *n.* a bird noted for its song.
sa-la-há, sá-la-lá, *n.* a kind of apron.
sā...la-mī (lī), *v.* to set a mark or seal on.
sa-lan-ga, *n.* a prize.
sa...lō-dza, *v.* to slip from the memory.
sa-lōh, *v.* to run away, desert.
sa-lū-bá-ta, *n.* a scandal.
sa-ma, *n.* See *sanua*.
sa mi (ami), *v.* to mark, to make a sign or.

san, *v.* to be in health; to pay, recompense, benefit; **san lēh**, to prepay; **san esan**, to retaliate; **o san dī**, he is a little better; **aiya san wōn**, they prosper in the world.
sān, *adv.* homely, vividly, straight forward.
sán, *v.* to gird, to tie around; to crack, to split; to thunder.
san-ma, *n.* a cloud.
san-ra (ará), *v.* to be healthy, to be fat.
san-sau, *adv.* in strips or slips.
san-yan, *n.* silk.
sa-ra (sī), *prep.* on, in (after a verb of motion).
sa-rá, sa-ra-há, *n.* alms (Mohammedan).
sa-re (iré), *v.* to run.
sā-re, *n.* the square of a house.
sa-re-kpə-gbē, *n.* the messenger of a society, who calls the members together.
sa-ri, *n.* the Mohammedan meal before day during the fast.
sá-rīn (sī), *prep.* in the midst, among (after a verb of motion).
sa-rō-ta, *n.* a cigar.
sa-rū-ba, *n.* a border sewed to a blanket or sheet.
sā-se, *v.* to make a feast.
sa-ta, *n.* a household, a group of buildings under one head man.
sá-wō! *interj.* behold! look!
sē, *v.* to shut a door, to close up; to be barren, to miss, in shooting.
sē, *v.* to cook, to dye cloth or leather.
se-bə (lōg, feeding), *v.* to grow fat, to be gross.
se-dō (dō), *v.* to dam.
se-gī-rī (sā), *v.* to be chilly.
se-kpən, *v.* to be barren or unfruitful.
se...mō, *v.* to shut up, imprison.
se...mō-lē, *v.* to shut in.
se-se, *n.* the stinging bean.
se-so (so), *v.* to bear fruit.
se-sī, *adv.* perhaps, happily. (Acts 5, 39.)
sē, *adv.* emphatic and mostly expletive: as, **ē ō dīle sē, I will arise** (Luke 15, 18); **ō mōb sē o**, he is really coming ('o' pleonastic).
sē, *v.* to strain, as milk; to deny: **ō sē Olawa rē**, he denied his Lord.
sē, *v.* to distil, as dew, or water from the ground; to quake, as the earth; to interrogate, inquire.
sē-gī, *n.* a kind of bead, ancient Egyptian beads dug from the earth at Ifé and other places.
sē hiu (sī), *prep.* behind, outside;—*adv.* back, backward (after a verb of motion).
sē-mī (omī), *v.* to drip, to fill.
sē-mī (sū), *v.* to preserve one's life or breath: (Oghun) **semī rē**, that preserve thee! (said to superiors).
sī, *v.* to be.

sí, *prep.* to, against, at, at, from, in, into : **lêh sí lê**, go to the house ; **ô dîê s mî**, he arose against me ; **á yé sí iká**, we are worthy of death ; **mô yô sí í**, I rejoice at it ; **mwôh dîzîna sí wa**, they are far from us ; **hê sí yara**, go into the room.

sî, *conj.* and.

sî-a ? sa ? *adv.* where ?

sî-an, su-an, *v. impers.* it is good, it is well.

sî-bê (sî), *adv.* there, yet, still, more : **ô wâ sîbê**, he is yet alive.

sî-bi (sî), *adv.* here, after a verb of motion.

sî-ha (sî), *prep.* by, towards, etc., after a verb of motion.

sî-hin, sî-hin-yi, *adv.* here.

sik-sik, sí-ki-sí-ki, *n.* hiccup.

sî-kpa (sî), *prep.* towards, unto, in regard to, concerning.

sî-lê (sî), *adv.* to the ground, down.

sî-mî, *v.* to rest, to pause :—*interj.* **sîmî !** hush !

sí...ndže, *v.* to imitate, mock.

sí-ni-ká, *n.* perverser.

sî-ni-sî-ni, *n.* a tyrant.

sî-nô, *prep.* into, among.

sîj, *adv.* before ; preceded by **tête**, first or early : **ô tête de sîj mî**, he came before me.

sîj, *v.* to string, as beads ; to bury ; to sneeze.

sîj, *v.* to serve, to worship ; to accompany, to lead ; to tame or put, to raise cattle, etc. ; to cease ; to dun ; to dominate over, to prevent from doing.

sîj-gbâ, *v.* to put in pawn ; to transmit from town to town.

sîj-hun. See **sîjwîj**.

sîj-ka-fa, *n.* pointer.

sîj-ku (oku), *v.* to bury.

sîj-sîj, *adv.* closely.

sîj-sîj, *n.* burial.

sîj-sîj, *n.* service, religion.

sîj-wîj, *v.* to be silly, crazy.

sî-sô, *n.* a speaking, which is spoken : **enî ñrî sîsô**, one who speaks fluently.

sî-wa, *adv.* forward : **sîwa sêhîj**, forwards and backwards, to and fro.

sî-wa-dzu (sî), *prep.* before ;—*adv.* before, more, for a little space.

sô, *v.* to to, to hang ; to bear fruit.

sô, *v.* to break out aloud, to break wind.

sô-bi-a, *n.* the Guinea worm.

sô-de (sî), *adv.* out of doors, out.

sô-dzi (sî), *adv.* near, into the shadow or presence of : **mî...sôdî**, to receive into favor. (1st, 85, 6.)

sô-fin (sî), *v.* to enact, to prohibit.

sô-ke (sî), *prep.* and *adv.* above, up.

sô-kpa, *v.* to tie into a hard knot.

sô-kpai-kpa, *v.* to value goods for the market, to appraise.

sô...lô-rôn (li), *v.* to hang a person.

sô-mô, *v.* to tie to.

sô-ri (sî), *prep.* on, upon, on the top of.

sô-rô, *v.* to hang up so as to string, to suspend.

sô-yi-gi, *v.* to marry persons, unite in marriage.

sô, *v.* to throw, to leap ; to move a thing ; to sew up a wound or broken calabash, to mend ; to cause or make (see **sô...di**) ; to shoot forth from the stem, as leaves.

sô, *v.* to speak, talk, pronounce, to call or name (Luke 6, 13) ; to quarrel, scold, complain ; to come down, descend, to let or put down from the head or shoulders : **sô asolôj**, to exaggerate ; **sô itumô**, to expound, explain ; **sô odi sî**, to speak against, to gainsay.

sô...dâ-ho-ro (di), *v.* to desolate.

sô...dâ-mô, *v.* to pollute.

sô-dî (ili), *v.* to explain, prove.

sô...dî, *v.* to cause to be or to do : **sô...dî àsan**, to bring to naught, to annihilate ; **sô...dî nlá**, to make great ; **sô...dî mimô**, to sanctify ; **sô...dî kpikpô**, to increase.

sô-dô (sî), *prep.* to, unto a person.

sô-fa (fa), *v.* to put in pawn, to pledge.

sô-hun (sî), *adv.* yonder, used after a verb of motion to.

sô...ka-lê, *v.* to come, put, or bring down.

sô-kun (kun), *v.* to wrap.

sô...lê, *v.* to dash down, to lay a foundation, to pound.

sô-lê-dzê, *n.* a child's play, a sort of dancing doll.

sô...lô-fin (li), *v.* to prohibit, forbid a thing.

sô...lô-ku-ta (li), *v.* to slow.

sô...lô-dzô (li), *v.* to locate in a place, to assign to lodgings.

sô-lù, *v.* to pull.

sô-mi-dô-lô-tô, *n.* a solitary yellow monkey.

sô-na-sf (sôj ina sî), *n.* irritation, excitement : **êe sonasi**, to excite against.

sô-ni-di (sô enî di), *v.* to make, appoint, or constitute one, as to a purpose.

sô...nô, *v.* to throw away, to lose : **ke sô-nô**, to cut off.

sôn, sun, *v.* to broil, to burn. (Mat. 3, 12.)

sôn, sôn, *v.* to move, to shore, to filter ; to plough ; to send forth water, as a fountain.

sôn, sôn, *v.* to accuse, to sue ; to point or aim at.

sôn-ki, *v.* to shivel, contract ; to shrink from, shun.

sôn-kôn, *v.* to drip full of water.

sôn-mi (mi), *v.* to filter, drip.

sôn-mô, *v.* to approach.

sôn-mô (mô), *v.* to snuff the nose, as one with a comb, to snuff.

sò-rọ (òrọ), *v.* to talk, converse; *bà sòrọ*, to speak or commune with; *sòrọ oḍi sù*, to speak against; *sòrọ nì rere*, to speak well of.

sọ-rọ-dze-dze or **ke-ṣe**, *v.* to whisper, to talk privately.

sọ-rọ-lẹ hìn, *v.* to backbite.

sọ-lẹ-lẹ, *v.* to predict, prophesy.

sọ...tì, *v.* to miss, in throwing at.

sọ-ye, *v.* to explain, to value, set a price on.

sù, *v.* to sour, to retain any liquid, as beer; to remove from the socket or handle; to perplex, to puzzle; to break out, as measles; to be wary; to fall lame, to coat with metal, as in gibling; *sù dḗale*, to bring forth herbs, as the earth.

sù, *v.* to fail in cutting or wounding because the instrument is dull.

sù-a, su-an, *v. impers.* is good, nice, well: *ó suan*, it is well; *very well, all right*.

sù-ā, *adv.* universally.

su-bọ, *v.* to coat with metal.

su-fe (so ife), *v.* to whistle.

su-mọ. See *soymọ*.

sun, *adv.* (looking) with surprise; *aditi wò nì li enu sun*, the deaf look with surprise on people's mouths (when speaking).

sún. See *són*.

sùn, *v.* to sleep; to grow thick on cooling, to coagulate, as oil; to freeze.

sún. See *són*.

sun-ko-nu, *v.* to cease.

sun-ye, *v.* to doze, to take a short nap.

su-re (sò ire), *v.* to bless or call a blessing upon.

sù-re (sá ire), *v.* to run.

sù-ru, *n.* patience: *še sùru, mu sùru*, to be patient; *sùru inu*, taking patience, or being patient. (Jas. 5, 10.)

sù-tì, *n.* a contemptuous pouting of the lips; contempt.

su-wa, su-wọn. See *suay*.

S.

śa, *v.* to fade.

śā, *adv.* awhile.

śā, *v.* to smile, laugh, wound; to snap a gun.

śā, *adv.* only; by all means.

śā, *v.* to pick up, collect; to pick out, select.

śa-ba. See *śaṭṭy*.

śa-dō (śe), *v.* to commit hardness.

śa-dzo (śe), *v.* to be anxious, apprehensive.

śa-dzu, *v.* to go before, precede; to go forward, advance.

śa-fa, *v.* a kind of tree: *śafa kpukpa*, yellow color.

śa-fe-ri (śe), *v.* to seek.

śa fiṇ, śa la, *n.* an iron chain or ring worn on the arm.

śa-fò-dzù-di (śe), *v.* to be saucy, insolent.

śa-fọ-wọ-rá (śe), *v.* to pilfer.

śa-gá-la-má śā (śe), *v.* to play tricks, to be guilty of double dealing.

śa gbe (śe), *v.* to beg, to borrow.

śa-gbō, *v.* to be old.

śa-hō (śe), *v.* to despise, to ridicule.

śai! *interj.* of contempt or defiance.

śai-san (śe), *v.* to be sick.

śa-ka, *adv.* entirely, wholly.

śa-ka-tá, *n.* a morass, a bog.

śa-ki, *n.* punch, tripe.

śā-ki, *v.* to miss fire or snap, as a gun; to fail in cutting, to be wrought.

śa-ki śa-ki, *adv.* unevenly, raggedly, badly: *á śā á lẹgbe śakiśaki*, he was badly wounded.

śā-ko-kō (śe), *v.* to occur seasonably, to be opportune.

śa-ko-so (śe), *v.* to control, govern, have dominion over.

śa-kpa-nā, *n.* small-pox.

śā-kpa-sā-kpa, *adv.* in a disorderly manner.

śa-kpe-dzù-re, śa-kpe-re. See *sakpere*.

śa-kpe, *v.* to clap the hands.

śa-la-bá-kpa-de, *v.* to chance, to happen.

śā...lọ gbe (li), *v.* to wound, by striking with a weapon.

śā-lu-ga, *n.* who elevates; fortune; a title of Adze, *god of money*.

śā-na (ina), *v.* to strike fire.

śa-ni-a-ni (śe), *v.* to be doubtful, uncertain.

śā-nu (śe) *v.* to pity: *mo śānu wọṇ; ānu wọṇ še mi*, I am sorry for them.

śay, *adv.* twinklingly, as stars; uprightly, erectly.

śān, *v.* to strike against something hard; to cut bushes; to dash; to cut dry bread or gum.

śān, *v.* to be loose; to flow, as a stream; to burst, to burst forth, as thunder: *asọ nśān lẹ*, the cloth is dragging on the ground.

śa-nfa-ni (śe), *v.* to be profitable, advantageous.

Śa-ngō, *n.* the god of thunder.

śān gbe (igbe), *v.* to cut bushes, to clear land.

śān gbó (igbó), *v.* to cut down a forest.

śān kú, *v.* to die in the prime of life.

śān-ku-ta, *v.* to dash against a stone.

śān-lẹ, *v.* to dash down.

śān-se (ese), *v.* to strike the feet together in walking.

śān-śay (see śay), *adv.* in splits or strips.

śān wọ (wọ), *v.* to swing the hands in walking.

śān-wọ, *v.* to be empty-handed, i. e. having no presents in hand.

sà-ran (sə), *v.* to be silly from age, be in one's dotage.
sà-re (sə), *v.* to make right, to be right.
sà-rẹ (sə), *v.* to be older than.
sà-rò, *v.* to meditate, to be thoughtful.
sà-ro-kpiu, *v.* to limit.
sà-ro-ye, *v.* to dispute, complain.
sà-sa, *n.* an old broom; scurs left by small-pox.
sà-sa, *adv.* entirely, thoroughly; scatteringly.
sà-ta, *n.* mud, mire.
sà-ti, *v.* to cast away, to set at naught.
sà-ti-kpo, *v.* to sojourn, emigrate.
saun-saun, *adv.* well, thoroughly: ó gbéde wa saunsaun, he understands our language well.
sá-wa-da (sə), *v.* to jest, joke.
sà-wo (sə), *v.* to plot, conspire.
sà-wo-tan (sə), *v.* to heal, cure.
sà-won (sə), *v.* to be stingy.
sà-yan (sə), *v.* to stink.
sà-yan (sə), *v.* to pick out, call, select.
se, *v.* to do, to make; to be; to ail: ó sê chíu bí eledé, he has a back like a hog; kí ísè tí wá, it is not ours; awa sê tí Olórún, we serve God; bata kò sê gun ori okuta, shoes are not good to climb up a rock; nwon sê odún, they are keeping new year's day; sê é kí ó mọ́, make it shine; wiwo lí á ó sê ní títo, the crooked shall be made straight; kí ísè é? what ails him? íba nṣe, fever ails him; ánu rẹ́ nṣe mí, I am sorry for him; kò lè sê málh (or àì) must; awa kò lè sê m ìh dṣà (or àlṣà), we must fight.
sê-be, *n.* a black snake.
sê-bi, *v.* to suppose, to do as if.
sê...dži-na, *v.* to deepen.
sê-fe-fe, *v.* to be ruin, to brag.
sê-gá-fa-ra, *v.* to excuse.
sê-gbe, *v.* to perish, to be lost.
sê-i-ro-na. See *šerona*.
sê-ke (eke), *v.* to tell a lie.
sê-kpe (sə), *v.* to swear.
sê...la-bu-kùn (li), *v.* to dishonor.
sê...lá-le-dzo (li), *v.* to entertain a guest.
sê-la-ra (ilara), *v.* to eury.
sê...lé-gi-ri (li), *v.* to chill.
sê...lè-mò (li), *v.* to treat coldly.
sê-le-ri (iləri), *v.* to promise, to vow.
sê...lẹ-tẹ (li), *v.* to communicate the leprosy to.
sê...lẹ-wa, *v.* to beautify, to decorate.
sê...lo-fo (li), *v.* to become.
sê...lọ-rẹ (li), *v.* to befriend.
sê...lò-re (li), *v.* to confer a favor.
sê...lọ-sọ (li), *v.* to clothe, to adorn, to furnish.
sê-ni, *v.* to trouble, annoy.
sê-ni-a (sə), *v.* to be kind, accommodating.

sê-ni-sí, *v.* to exceed or go beyond one's instructions, to add to the price.
sê...ní-džam-ba, *v.* to do violence to, to maltreat.
sê...ni-sẹ (isə), *v.* to punish.
sê-ri-džá, *v.* to serve as a steward.
sê-ro-na, *v.* to go in search of.
sê-siu (esiu), *v.* to ridicule.
sê-tan, *v.* to complete, to be completed.
sê-ti, *v.* to pertain to, to serve.
sê-un (olun), *v.* to be kind, good: o sɛun, thank you, well done!
sẹ, *adv.* greatly.
sẹ, *v.* to come to pass, to happen, to be fulfilled.
sẹ, *v.* to break, as a stick; to break up or subdue as a town; to make a noise: sẹ okun bọ inọ esin, make the rope into a noose on the horse's nose.
sẹ, *v.* to sin; to convince.
sẹ-bọ (sə), *v.* to make a sacrifice.
sẹ...bọ, *v.* to make into a noose on a thing. See sẹ.
sẹ-da, *n.* silk.
sẹ-dá (sə), *v.* to create.
sẹ-džá (olṣá), *v.* to wink the eye.
sẹ-fẹ (sə), *v.* to jest, mock, ridicule.
sẹ-gbẹ (sə), *v.* to associate with.
sẹ-ge, *n.* a kind of grass, broom-sedge.
sẹ-gun (ogun), *v.* to conquer, prevail over.
sẹ-hin (sə), *v.* to be behind or lost.
sẹ'i-yẹ (sə), *v.* to rebel, revolt.
sẹ-ke-ke, *v.* to reckon by tickets, to cast lots; to give an account.
sẹ-kẹ-rẹ, *n.* a calabash-drum, tambourine.
sẹ-kẹ-sẹ-kẹ, *n.* fitters, shackles.
sẹ-kẹ-tẹ, *n.* beer of maize or Indian corn.
sẹ-kpe, *v.* to wither.
sẹ-kpo, *v.* to be double.
sẹ-ku (ši), *v.* to open the door.
sẹ...kun, *v.* to diminish or remove a part. (Exod. 5, 8, 11.)
sẹ...le-ti, *v.* to hem.
sẹ-le-ya (sə), *n.* to despise, condemn.
sẹ-mbe, *adv.* in a flickering manner.
sẹ...ni-kpo, *v.* to double.
sẹ-nọ (inọ), *v.* to miscarry, to suffer abortion.
sẹ-o-run, *n.* the setting sun when it appears large.
sẹ-ri, *v.* to turn into another course, to take another direction.
sẹ-siu, *v.* to ridicule, to be ashamed.
sẹ-sẹ, sẹ-tou, *adv.* nearly, recently.
sẹ-sẹ, *n.* which is broken.
sẹ-tan (sə), *v.* to be deceitful, to deceive.
sẹ-tẹ (sə), *v.* to conquer, to gain the victory in a dispute.
sẹ-tu (sə), *v.* to be speckled.

śī, *v.* to make a mistake, to miss; to fade in color, to be pale; to rinse.
śī, *v.* to open, to remove, to slip out of the hand, to push off from the shore.
śī-bi, *n.* a spoon.
śī-bo, *n.* the papaya.
śī-dī (īlī), *v.* to pluck up, to remove.
śī-dzi, śī-dzi-bō (śe), *v.* to shade, to overshadow.
śī-dzū, *v.* to open the eyes, to be daring.
śī-dzu-wō, *v.* to look upon, to regard.
śī-fi-sī, *v.* to misplace.
śī-gbōn. See *śugbōn*.
śī-gī-dī, *v.* to be short and thick.
śī-gī-dī. See *sūgūdu*.
śī-gun (ogun), *v.* to go forth to battle.
śī-gun, *n.* the physician.
śīk, a contraction of *śe ikōn*, to make a fulcrum, or to fill up, employed as a prefix to numerals after *abō*, a half; as, *abō śīketa* (eta), there and a half; *abō śīkarun* (arun), five and a half.
śī-ka, *n.* a key.
śī-kō (ōkō), *v.* to get under way.
śī-kpa-yā, *v.* to lay open, expose to view; to disclose, reveal.
śī-kpē (śe), *v.* to entreat, to beg pardon.
śī-kpo. See *śī nikpo*.
śī-kun (ekun), *v.* to open the door.
śī-kūn, *v.* to remain, after some has been taken.
śī...la-dze, *v.* to condemn for witchcraft.
śī...lai-ya (lī), *v.* to alinate.
śī-lo, *n.* a curved grass-knife, rap-hook, sickle.
śī...lo-dzū (lī), *v.* to stimulate or revive, as when weary.
śī-lōh, *v.* to start, depart.
śī-mbo (īśī ambō), *n.* the papaya, lit. the white man's īśī.
śī-mō-ran (śe), *v.* to counsel, to take into consideration.
śī-na (ōna), *v.* to miss the way, to err. In l's. 78, 50, for *śe ōna*, or *śōna*.
śī...ni-kpo, śī...ni-dī (nī), *v.* to remove.
śī...ni-ye (nī), *v.* to remind.
śī...nō, *v.* to wash, rinse.
śin, *v.* to run precipitately; to be guilty; to lend, to borrow.
śin, śin-śin, *adv.* uprightly, steadfastly.
śin, *adv.* piercingly, keenly.
śin-śin, *n.* a porcupine quill.
śin-sin ō-bē, *n.* a kind of sauce.
śī! interj. *phew!* tut!
śī-ra (arī), *v.* to be quick, to hurry.
śī-re (śe), *v.* to play.
śī-re-gun (śe), *v.* to rebuke for ingratitude, to reproach.
śī-ri, *n.* a stalk of corn or rice with the grain on it.

śī-ro (so), *v.* to reckon, calculate.
śī-se (śse), *v.* to move the foot, to hasten.
śī-sā, *n.* which collects, a collection, &c. See *śā*.
śī-sān, *n.* which flows, &c. See *śān*.
śī-se, *n.* to mistake, to do amiss.
śī-se, *n.* which can be done, which is possible.
śī-śe (śe), *v.* to work, to labor, to be in distress: *śīy o-ro*, to be in torment.
śī-sī, *n.* which errs; an error.
śī-sū, *n.* which is dark; darkness.
śī-sū, *adv.* rapidly (boiling).
śī-wa-dzu (śe), *v.* to be before, first.
śī-we-re (śe), *v.* to be silly, insane.
śī-wo! an exclamation of defiance.
śī-wō (owō), *v.* to remove the hand, to stop work; to remove, drive away (Exod. 8, 31): *nwōn śīwo*, they have knocked off work; *owō tō śī*, it is time to knock off.
śī-wōn (śe), *v.* to weigh. (l's. 62, 9.)
śī-ye-me-dzi (śe), *v.* to doubt, to hesitate.
śō, *adv.* very slightly (touching).
śō, *v.* to be passionate, morose.
śō, *v.* to be slackened or loosened.
śō-bō (śe), *v.* to hint.
śō-dī-nō, *v.* See *śō*.
śō-dzo-ro (śe), *v.* to cheat in play.
śō-dzu-ko-ko-ro, *v.* to court.
śō-dzu-rē-re, *v.* to be gracious, to favor.
śō-dzu-sa-dzu, *v.* to be partial.
śō-fō (śe), *v.* to suffer loss of property, to be empty, to waste, to feel bereaved.
śō-fō-fō (śe), *v.* to battle.
śō-go (śe), *v.* to glory, to exult, to act rationally.
śō-ke-hin-dā, *v.* to be offended, to forsake.
śō-ko-to, *v.* to be small, a room, as a room.
śō-ko-tō, *v.* trousers, pantaloons.
śō-kpe (śe), *v.* to be simple, ignorant.
śō-kun, śō-kun-kun, *v.* to be dark.
śō-lō, *n.* a rivulet.
śō-lo-rī, *v.* to command, to rule over.
śō-nō, *v.* to be peevish, surly.
śōn-śō, *n.* the point or tip; a pinnacle; a small item, a particle.
śō-re (śe), *v.* to do good.
śō-ro, *v.* to be difficult.
śō-rō (śe), *v.* to be sharp pointed; to be spiteful, furious.
śō-sō, *adv.* singly, only.
śō-sō (śe), *v.* to whitish.
śō-wō (śe), *v.* to make moww.
śō-wo (śe), *v.* to trade.
śō-yī (śe), *v.* to be dizzy.
śō, *v.* to watch, to guard.
śō-de (odē), *v.* to patrol.
śō-fō, *v.* to moww for the dead.

şo-fon, *v.* to be persuasive; á şo-fon bí alakura, he is as persuasive as a cake-seller.

şo-gba (şo), *v.* to keep a garden.

şo-hom-bi-a, *n.* a boat.

şo-kaj (şo), *v.* to be one, to agree, act in concert.

şo-kpe (şo), *v.* to thank.

şo-lá (şo), *v.* to honour.

şo...lò-şo (lí), *v.* to garnish, adorn.

şo-na (şo), *v.* to work at a trade, to carve.

şo...ní-gbò-wó, *v.* to strike with the elbow, to jog.

şoñ, *adv.* easily, calmly.

şoñ, *adv.* precipitately, with a plunge.

şoñ, *v.* to abstract by little at a time.

şoñ-gon, *v.* to be long and slender; asoñgon ólári asówo máh dè-olá, (a riddle), a long slender trading woman who never reaches the market, i. e. a canoe, which is left at the landing-place when the owner goes into the market.

şoñ-gon, şoñ-gon-şoñ-gon, *n.* which is long and slender.

şo-ra (wá), *v.* to watch over oneself, be careful.

şo-ran (şo), *v.* to commit an offence.

şo-re (şo), *v.* to be friends, to associate; ó bá mí şo-re kpò, he was my friend.

şo-ro. See şoñgon.

şo-rom-bi-a, *n.* See şomómbá.

şo-şó (şo), *v.* to adorn.

şo-şo (şo), *v.* to complain, to talk much.

şo-tè (şo), *v.* to be a jester, to revolt.

şo-wó (şo), *v.* to hand over, send over, deliver.

şo-won (şo), *v.* to be scarce, dear, precious.

şu, *v.* to cast out, to evocate faces.

şú, *v.* to discourse; to intrust; to grow dark, to blacken, as clouds; ilé şú, it is dark; şú okunjun, to be dark, obscure, difficult to be understood; şú džíkana, to make bricks; şú sí, to care for or notice what is unwise.

şà, *v.* to knead, to work into balls or loaves; to be round as a ball, to be cylindrical; to collect, as a swarm of bees; to be disagreeable to.

şà-bò, *v.* See şámò.

şu-bu (şo-ibá), *v.* to fall; bí şábu, to push down.

şu-dzó, *v.* to collect, as a crowd.

şu-gbòñ, *conj.* but, yet.

şu-gu-đu, *n.* an image made of clay.

şu-kpó (okpó), *v.* to marry a widow.

şu-ká, *n.* a little hand-basket.

şú-ku-rá, *n.* a partridge (the akpáro).

şu...le-se (lí), *v.* to besmear with paint.

şu...lò-hun (lí), *v.* to ensure, to abuse.

şu-lo-kpó (lí). See şukpó.

şu-nò, *v.* to gather around, to press upon, in a crowd; to settle on, as bees.

şu...ní-nò (inó), *v.* to purge.

şu-nò (inó), *v.* to be loose, to run off, as the bowels.

şu-ra, *v.* to treasure up.

şu-ru, *v.* to be in a heap or bunch.

şu-şu, *v.* to be plump.

şu-şu, *adv.* greatly, utterly.

T.

ta, *v.* to shoot, to kick; to sting, to burn, as pepper; to spill or shed, as blood; to open a boil; to pour, to uncoil; to cast, to fall on; to spread, as a sail; to shine; to produce, as yams or potatoes, to shoot forth roots or branches; to sound aloud; to go from place to place; ta ire, to imprecate evil upon.

ta? *pron.* who?

tá, *v.* to salt; to fine.

tá-ba, *n.* tobacco.

tá-bí, *adv.* or, indeed.

tá-džé (olžé), *v.* to shed blood.

tá-dži, *v.* to awake suddenly.

tá-džu (olžu), *v.* to be in haste, to be anxious.

tá-fa (ofá), *v.* to shoot a bow.

tá-fa-la, *v.* to waste.

tá-fa-ta-fa, *n.* an archer.

tá-ge-re, *v.* to hasten.

tá-gbo-kun, *v.* to set soil.

tá-gbon-gbon, *v.* to stagger, to decline to one side.

tai, tai-tai, *adv.* indifferently, insolently.

tá-ka (ika), *v.* to snap the fingers.

tá-kar-dá, *n.* paper.

tá-ke-te, *v.* to throw a sunset.

tá-ke-te, *v.* to stand aloof.

tá-ko-ko, *v.* to tie a knot.

tá-kò-tá-bò (ate), *n.* a pair, male and female.

tá-kpa (ikpa), *v.* to kick, strike, snatch away.

tá-kpè (ikpè), *v.* to shoot or put forth ears, as maize.

tá-kun (okun), *v.* to stretch a rope.

tá-lá, *n.* white cloth, whitewash.

tá...lai-ya (lí), *v.* to strike on the breast, to be contrary to, as the wind.

tá-la-ká, *n.* which is poor, a poor person.

tá...lò-re (lí), *v.* to give a gift to.

tá-lu-bò, *n.* young fruit.

tá-ma-ha, *v.* to suppose, to hope.

tá-mkpa, *n.* the breast-bone.

tá-ná (tañ ina), *v.* to light a lamp or candle.

tá-ndžé, *v.* to cheat, to deceive.

tá-ndžu, *v.* to look stern.

tá-ní-tá-ní-şo-kò, *n.* a centipede.

tá-nò, *v.* to throw away, cast out.

tan, *v.* to be vain to; to run a canoe aground.

tán, *v.* to be finished, perfect; to cure;—*adv.* perfectly.

tàn, *v.* to shine, to light, as a lamp; to cut, to divide, scatter: tàn mọ̀lẹ̀ or imọ̀lẹ̀, to shine.
 tan'-ga-ra, *n.* tin, a plate.
 tan-gbo, *v.* to take root.
 tan-ka-lẹ, *v.* to spread abroad, promulgate.
 tan-kpa-ra, *v.* to decerate.
 tan-sap, *v.* to shine, as a lamp.
 tàn-tan, *adv.* (stretching) to the full extent, violently, as in convulsions.
 tan-ta-si, *n.* a yam-vine left to rot.
 tã-ra, *n.* gravel.
 tã-ra, *adv.* straight forward, hastily.
 tar-dá, *n.* ink.
 ta-ri (ori), *v.* to push violently.
 ta-sa, *n.* tin or pater.
 ta-se, *v.* to miss.
 ta-se (tse), *v.* to kick.
 ta... si-lẹ, *v.* to spill, to shed, as blood.
 ta-sẹ, *v.* to imprecate evil on.
 ta-sọ, *v.* to warp thread for weaving.
 ta-wo, ta-yo, *v.* to play the game called 'worry'.
 ta-tu, *adv.* very (light); sadly, gloomily: tigi yi tigi ta-tu, this wood is very light.
 te, *v.* to fettle, worship, propitiate.
 tẽ, *adv.* (sitting or alighting) on the top.
 tẽ-de, *n.* a kind of parrot.
 te-dzu, *v.* to look after, superintend.
 tẽ-fe-tẽ-fe, *adv.* wholly, entirely.
 te-mi, *pron.* of me, mine.
 te-ni. See toni.
 te-ni-te-ni. See tonitoni.
 te-re, *n.* a wave of the sea.
 te-re, *adv.* scatteringly: eni tere ezi tere, one here and there.
 te-te, *adv.* early, soon, first; with a quick pace.
 te-te, *n.* the leg of a beast.
 te-te-kó, *adv.* first.
 tẹ, *v.* to lay, to spread out; to be flat, insipid, disgraced; to beat or onto; to push forward; to erect, as a tent or an altar.
 tẹ, *v.* to trample; to bend; to castrate; to approach, to be near: tẹ si, to agree to.
 tẹ-bá, tẹ... ba-lẹ, *v.* to bend, to bow, to be cast down.
 tẹ... bẹ-rẹ, *v.* to bend, bow, level.
 tẹ... bọ, *v.* to dip, to immerse; to hang up on a hook or pin.
 tẹ... bọ-mi (omi), *v.* to dip into water.
 tẹ-dọ, *v.* to be patient, to act calmly, leisurely.
 tẹ-dó, *v.* to encamp, to found a settlement; to inhabit, to dwell.
 tẹ-dzu, *v.* to be flat, smooth; also tẹ-dzu, plain cloth.
 tẹ-dzú, tẹ-dzu-mọ, *v.* to fix the eyes on, to gaze at.

tẹ-fa, *v.* to consult Idu.
 tẹ... gben gbe, *v.* to expand.
 tẹ-gun, *v.* to set in battle array, to lie in wait, as an army.
 tẹ-hin-gbe-sa, *n.* a crust.
 tẹ... lai-ya (li), *v.* to soothe, pacify.
 tẹ-lẹ, *v.* to follow, pursue.
 tẹ-lẹ, *adv.* before-hand, preciously.
 tẹ... lẹ, tẹ... lẹ-se, tẹ... si-lẹ, *v.* to tread down, trample on; to spread out, prepare food.
 tẹ... lo-go (li), *v.* to glory or triumph over.
 tẹ... lo-ron (li), *v.* to satisfy, to comfort.
 tẹ mọ, tẹ... mọ-lẹ. See tẹlẹ.
 tẹ-na, *adv.* already.
 tẹ-ni-tẹ-ni, *n.* abject poverty, distressed condition.
 tẹ... nfi-kpa (ni), *v.* to compel.
 tẹ-nọ (inọ), *v.* to be meek;—*adv.* quietly.
 tẹ-nu-mọ (nu), *v.* to gladden.
 tẹ-nṛ-rẹ, *n.* a kind of culture.
 tẹn-yin (ti), *pron.* yours.
 tẹ-rẹ, *n.* line, shells of which line is made.
 tẹ-rẹ (ti), *pron.* his, thine.
 tẹ-rẹ, *v.* to be slender, to be long and narrow.
 tẹ-ri, tẹ-ri-ba (ori), *v.* to bow, to bend the head down.
 tẹ-ru, *n.* white cloth, shirting.
 tẹ-ru (ti), *v.* to deal in slaves.
 tẹ-ru-tẹ-ru, *n.* a slave-dealer.
 tẹ... si-lẹ. See tẹlẹ.
 tẹ... sẹ, *v.* to compel to do a thing.
 tẹ-tẹ, *n.* a game of chance; the name of a weed.
 tẹ-tẹ-gún, tẹ-tẹ-e-gún, *n.* a kind of cane.
 tẹ-tẹ-rẹ, *adv.* carelessly, awkwardly.
 tẹ-tu, *n.* an executioner, sheriff.
 tẹ-wọ-gbà (ọwọ), *v.* to receive, accept.
 ti, *aux. part.* have, has, had.
 ti, *v.* to gnaw; to tie, bind.
 ti, *pron.* who, which, that.
 ti, *adv.* how, where, when, already: ó ti wà ni-lẹ, he is there already.
 ti, ti, *prep.* from, off, by;—*conj. and*: á ti oko de, we came from the farm; ẹni tí Oluwa, the word of the Lord; duro tí mi, stand by me; eni tí rẹ á lẹh, I and thou will go.
 ti, *v.* to thump, to strike against; to fade, as to color, to consume.
 ti, *v.* to lean against, push, prop, support; to lock or fasten, to lock up, imprison: ti lẹhin, to sustain, strengthen; ti saba, to push down.
 ti, *adv.* heavily, vehemently (beating upon, as the sun or waves).
 ti, an adverbial particle denoting failure: as, ọ kọlé tí, he failed in his attempt to build a house.
 ti-an, *adv.* distant, far off.
 ti-bẹ, *adv.* from there, thence.
 ti-bọ, *v.* to kneel.

ti-dzú (wǎzú), *v.* to be ashamed.
ti-ha, *prep.* from.
ti-ka-lá, ti-ka-rá, *n.* self.
ti-kọ, *adv.* sluggishly, unwillingly.
ti-kpa-sẹ, *prep.* by, by means of.
ti-kú-ro, *v.* to cast off, reject.
ti-lẹ-ti lẹ (ati lẹ ati lẹ), *adv.* with all the house.
ti-lẹ, *adv.* from the ground, even: kò tífẹ́ sẹ́ kẹ́, not that, not because.
ti...lẹ-hin, *v.* to sustain, strengthen.
ti...lo-dzu, *v.* to abash, to be ashamed of.
ti-mọ-ti-mọ, *adv.* closely (adhering).
tim-tim, *n.* a pillow, a cushion.
ti-na-bọ (ina), *v.* to set on fire, to kindle.
ti-nọ (inọ), *prep.* from within, from out of.
ti-nọ-ti-nọ, *adv.* heartily.
ti-ra, *n.* a Mohammedan charm; anything written, a book.
ti-rẹ (ti), *pron.* thine, his.
ti-ri (ori), *v.* to stoop, to look downwards: tiri si, opposite to.
ti-rin, *v.* to be slender: okun tirin, twine; Ogun kún, Osa kún, ó kún tirin kò kpadé (a riddle), there remain the Ogun (river), the Osa (lake), and the slender, which you have not met (i. e. crossd); meaning the nose.
ti-rin-mọ-lẹ (ti rin), *v.* to stand firm.
ti-ro, *v.* to stand on tiptoe reaching upward.
ti-ro-ti-ro, *adv.* with consideration, advisably.
ti-sá-dzu, *n.* which is former or foremost.
ti-tá, *n.* which is for sale, &c. See tá.
ti-tàn, *n.* who is cheated, or deceived, &c. See tàn.
ti-tẹ, *n.* which is lowly, &c. See tẹ.
ti-ti, *adv.* continually, for ever, till: yi ọ sán titi ọlá, he will be better by to-morrow.
ti...ti, *adv.* wholly, altogether: ti ogó ti ogó, all glorious. (Ps. 45, 13.)
ti-ti, *adv.* tremulously, violently (shaking).
ti-ti-ai-ye ti-ti lai, *adv.* for ever.
ti-to-ri, *conj.* because, on account of.
ti-tọ, *n.* which is straight, true, &c. See to.
ti-tọn, *n.* which is new or young.
ti-wa (ti), *pron.* ours.
ti-wọn, *pron.* theirs.
to, *adv.* by drops, as water; without clouds.
tó! *interj.* well! very good!
tó, *v.* to be enough, sufficient, capacious; to reach: kò tó nkán, few, not much; ọ́ kọ́ tó! how much or how big it is! á tó ogogun, they are as many as a hundred; fi odúú tó, to put the eye to, to attend to; tó lá, as much as; tó bẹ́hẹ, so much, inasmuch as; asẹ́ Oluwa tó, the commandments of the Lord are right; agogo tó lá, it is time for the clock to strike; ó tó bí ẹ̀nì ọ̀kun mewa, he is ten years old.

tò, *v.* to stand or place in a row, to set in order, to keep or powder in the mind; to lay up, to be restored, as a broken limb: tò dọ́, to lay up, as treasure.
to-bi, *n.* a napkin, a towel.
tó-bi, *v.* to be large.
to-bi-nọ-wọ (nọ ọwọ), *n.* a towel.
to-dzú-bọ, *v.* to pry into.
to-gbé, *v.* to doze, to slumber.
to-ge-dén-gbe, *v.* to come tumbling down.
to-ló, *n.* a wattle.
to-ló-to-ló, *n.* which is wattled, i. e. a turkey.
tom-bà, *n.* a sort of club or cudgel.
to-ni, te ni (tó ọni), *adv.* till to-day: ki...teni, before; ki á teni de, before we come.
to-ni-to-ni, te ni-te-ni, *adv.* till now.
to-ni-to-ni, *adv.* cleanly, nicely.
to-nto-ro, *n.* a small bit, a particle.
to-ri (ti), *v.* to fall to one's share, to pertain to: tori odzú, to satisfy, satiate.
to-ri, *prep.* from on.
to-ro, *v.* to be narrow.
tò-ro, *n.* an upper garment, a coat.
tò-ro, *v.* to settle, as dirty water; to be tranquil: ilẹ́ tòro, the country is at peace.
to-ro-gbé, *v.* See togbé.
to-to, *adv.* clearly, without clouds.
to-to, to-to-hun, *adv.* (never again) at all, totally, thoroughly.
tò-tọ, *n.* truth: ni tòtọ, truly.
to ye, *v.* to be of equal value, to be meritorious.
to-ye-to-ye, *adv.* considerably, discreetly.
tọ, *v.* to guide, lead, bring up, educate; to watch over or take care of; to be straight, right, true; to correct; to be long, durable; to split into strips; to touch; to urge, trouble, enrage; to taste.
tọ, *v.* to follow, to approach, resort to, arrive at; to urinate: tọ mi lẹ́h, tọ mi lẹ́hin, follow me; tọ mi wáh, come to me; ke...tọ, to cry to.
tọ...da-gba, *v.* to bring up, as a child.
tọ-do (ti), *prep.* from, from the presence of.
tọ-dzú (odzú), *v.* to look after, take care of.
tọ-họ, *adv.* well, very (employed in commending): iwọ́ sẹ́un tọhọ, you have done well.
tọ-hun (ti), *pron.* that one yonder.
tọ-kay-tọ-kay (ti), *adv.* with all the heart, fervently.
tọ-kọ (tu), *v.* to paddle a canoe, to steer.
tọ kpa (ikpa), *v.* to follow, trail, trace out.
tọ-kpe-re (akpẹrẹ), *v.* to copy.
tọ...kpọ, *v.* to bring up together, as children.
tọ kun (okun), *v.* to guide, direct.
tọ...la-ra (li), *v.* to touch one.
tọ...lẹ-hin (li), *v.* to follow.
tọ...lẹh, *v.* to go to, to follow.

tò-na (òna), *v.* to go along the road, to trace the footsteps, to take the lead.
 tòn, *v.* to run, as a melon-vine.
 tòu, *tân*, *adv.* again, once more.
 tò-rẹ (lạ), *v.* to give a present, to offer: tò-rẹ ăm, to give alms.
 tò-rọ, *v.* to borrow, to beg.
 tò-se (ởse), *v.* to trace out, track, examine.
 tò-tọ, *v.* to be whole, complete;—*adv.* fully.
 tò...wò, *v.* to taste.
 tò...wộ (ti ợwộ), *prep.* by (means of).
 tò-wọ-bọ (tẹ), *v.* to dip the hand in (Mat. 26, 23).
 tò-wộ-tẹ-se, *adv.* (bound) hand and foot.
 tò-wọ-tộ-wọ (ợwộ), *adv.* respectfully, reverently.
 tu, *v.* to throw out, to spit; to pluck up; to fail.
 tú, *v.* to untie, to loosen; to break loose, as a horse; to pour out, to gush, to tap a barrel; to scatter, to plunder, to unfold, to blossom, to break up, as a crowd; to pull a paddle or oar: tú ợh, to bring tidings that the bearer's friend is dead.
 tù, *v.* to cease from paining, to ease, to reconcile; to be cool or cold.
 tu-ba (Arab.), *v.* to repent.
 tu-bộ (tun), *v.* to try again.
 tu-bu, *n.* a jail.
 tu-dzu-ka (ớđứ), *v.* to take courage, be cheerful.
 tu...ka, *v.* to scatter.
 tu-kọ, *v.* to navigate.
 tu-kpù, *adv.* precipitately.
 tu-kũ, *n.* a wild hog.
 tu...la-ra (lị), *v.* to refresh.
 tu-la-siạ, *n.* misfortune, evil.
 tu...la-sọ (lị), *v.* to strip one.
 tu-lẹ (lị), *v.* to break up the earth, to plough.
 tu...lẹ-dọ (lị), *v.* to console.
 tu...lọ-dứ (lị), *v.* to tame, to charm, as one does a serpent.
 tum-bu, *n.* the silk-worm.
 tum-mộ, *v.* to disclose a secret, to baffle a plot; to explain words, to expound.
 tu...nf-ho-ri-ho, *v.* to strip naked.
 tu...ni-nọ (inộ), *v.* to pacify, comfort, console, to propitiate.
 tu-nộ. See tu...nị.
 tú-ra-ri, *n.* perfumery of any kind.
 tú-tọ, *v.* to spit.
 tu-tu, *n.* coldness, greenness (not dry, as plank); rawness, which is wet; freshness (not salt): ộ đứ ộ nỉ tutu, he ate it raw.
 tú-tu, *adv.* entirely.

W.

wa? *adv.* where? iwe nỉ wa? where is my book?

wá, *v.* to seek; to share; to trouble: wa ri, to find out, discover.
 wà, *v.* to be, live, endure, stand; to dig, to pull an oar or paddle: wà inộ, to perceive; wà lịye or li ậyc, to live.
 wa, *pron.* us, our.
 wá, *adv.* loudly.
 wa-di (jili), *v.* to examine into, to scrutinize.
 wà-du-wá-du, *adv.* hurriedly.
 wa-dze, *v.* to seek or seize food, to forage; to gain.
 wa-dzi, *n.* blue dye or color.
 wa-dzọ, *n.* to investigate a cause; to avenge a wrong.
 wa-ga, *n.* a package of kamų.
 wa-gay, *n.* mush.
 wa-gi, *n.* batter.
 wa-gun (ogun), *v.* to set in battle array.
 wáh, *v.* to come.
 wa-há-la, *v.* to trouble.
 wa-há-la, *n.* trouble, affliction.
 wa-ha-ri, *n.* a slave woman taken for a wife.
 wai. See wayi.
 wà-ka-si, wà-ra-ka-si, *n.* cheese.
 wa'-ka-tí, *n.* time, season, hour.
 wa...ki-ri, *v.* to seek for.
 wa-lá, *n.* a board to write on, a slate.
 wa-la-mi, *n.* an oar, a canoe-paddle.
 wá-le (lị), *v.* to search a house.
 wà-lẹ, *v.* to be at home.
 wà-lẹ (lị), *v.* to dig the ground, to dig.
 waj-ray-waj-ray, *adv.* irregularly, foolishly.
 wa-kpọ, *v.* to be end to end, to abut.
 wa-ra, *n.* a shower.
 wá-ra, *v.* to be nimble.
 wà-ra, *n.* milk.
 wa-ra-kpa, *n.* epilepsy.
 wa-ri, *v.* to divide or share; to do homage, to worship.
 wa-ri-fa, *n.* a counsellor, one of the cabinet.
 wa-ri ko (ori), *v.* to sit head to head, as two persons leaning forward in conversation.
 wa-rí-ri, *v.* to tremble.
 wa-rí-ri, *v.* to tremble greatly.
 wa-ron-ki (ợợ), *v.* to stiffen the neck, to be obstinate.
 wá-si, wá-su, *v.* to preach.
 wa-wa, *n.* a leaf of maize.
 wa-wi, *v.* to make an excuse.
 wa-wộ, *v.* to cease, abate.
 wa-yá-i-dzà, *v.* to come to a close contest.
 wa-yi, *adv.* now.
 we, *v.* to twist, to curl, to fold; to wean a child.
 we...kpọ, *v.* to twist or wind together.
 we-le, *adv.* wavingly, as grass in the wind.

we...mô, *v.* to wind upon.
 we-re, *v.* to be silly.
 wé-re, *v.* to be quick motioned.
 we-re-kpe, *n.* the stinging bean.
 we-re-we-re, *adv.* nimbly.
 we-wu (wě), *v.* to enter into danger.
 wê, *v.* to be fine, as grains or fibres; to chew, grind, mash; to sport or be playful with each other.
 wê, *v.* to wash, to swim; to adorn, decorate: wê dzále, to swim out.
 wê for ewê, *adv.* again, now: ẽ ẽ wê? what's the matter now?
 wê...lê-wa (h), *v.* to castrate.
 wê...mô, wê...ndô, *v.* to wash off, cleanse, purify.
 wê-ra (ará), *v.* to wash oneself.
 wê-rê, wê-wê, *v.* to be small.
 wê-wô (wô), *v.* to wash the hands.
 wí, *v.* to speak, to say, tell: á ɲwí, they say, it is said.
 wí, *v.* to sing.
 wí-dzô (ɛlɛ), *v.* to complain of a difficulty.
 wí-kí-rí, *v.* to publish about.
 wí-ndi, *v.* an under garment.
 wíŋ, *v.* to lend, to borrow.
 wíŋ-ríŋ, *v.* to be near a place.
 wí-rí-wí-rí, *n.* twilight.
 wí-rí-wí-rí, *adv.* quickly, hastily.
 wí-wô, *n.* which is crooked, crookedness.
 wí-wu, *n.* which is swollen, a swelling, a tumor.
 wô, *v.* to doze, sleep lightly.
 wô, *v.* to fall; to break, cut, or push down; to be dead, applied to large animals: ẽŋ wô, the horse is dead.
 wô, *v.* to look at, behold; to wait on the sick; to visit, superintend, search; to look, seem.
 wô...ba-lê, *v.* to break a thing down, to abate a nuisance.
 wô-du, *v.* to look black or dark.
 wô...dzí-na, *v.* to heal a wound.
 wô-dzú (wólú), *v.* to regard.
 wô-fí-rí, *v.* to glance at, to look at stealthily.
 wô-hin wô-huŋ, *v.* to look here and there.
 wô-ke (oké), *v.* to look upwards.
 wô...kpa-lê. See wá...balê.
 wô-lê, *v.* to fall down.
 wô-lê (ilê), *v.* to look at the ground; a common salutation.
 wô-li, *n.* a prophet.
 wô-lù, *v.* to fall upon from a height.
 wô...lù-lê (ilê). See wô...balê.
 wô-raŋ, *v.* to look on, to look. (Luke 23, 35.)
 wô-ro, *n.* a grain or seed.
 wô wê, *n.* hail.
 wô ye, *v.* to perceive, to observe.

wo-yi, *adv.* at this time (to-morrow or next year).
 wô, *v.* to drag, to crawl, as a snake; to flock: wô dzále, to drag out.
 wô, *v.* to be hollow, to enter into; to abide in a house, to lodge; to excavate; to put on clothes; to set, as the sun; to disappear, as an eruption; to go to roost, as fowls; to shed leaves, to press down as a burden; to distress; to be suitable, convenient.
 wô-bi-a, *n.* greediness, lasciviousness.
 wô-dzá, *v.* to cast down.
 wô-dzô kpô, *v.* to gather together.
 wô-huŋ (wô chun), *v.* to look or see there. (Luke 17, 23.)
 wô-kpô (ôkpô), *v.* to embark.
 wô...la-ra (li), *v.* to enter into one.
 wô...la-şô (li), *v.* to clothe.
 wô-le (ilê), *v.* to go into the house, to enter a place.
 wô-lê (ilê), *v.* to sink into the ground.
 wô-ndô, *v.* to take soundings.
 wô-ni, *pron.* those.
 wô-nô (inô), *v.* to enter, go or come in.
 wôŋ, *pron.* them.
 wôŋ, *v.* to be scarce, dear, precious, stingy, to catch any thing thrown to one; to descend on, as a curse; to wean; to sprinkle; to weave, plait, knit; to blame, to relegate.
 wôŋ, *v.* to measure, to weigh; to prune, to pick off; to aim or point at.
 wôŋ-şô (aşô), *v.* to weave.
 wôŋ-yí, *pron.* those.
 wô-ra (arâ), *v.* to enter into one.
 wô-rin (irin), *v.* to make nails.
 wô-rô-wô-rô, *adv.* lukewarmly, as water.
 wô-şô (aşô), *v.* to put on, to wear.
 wô-ti, *v.* to draw aside, as for conversation, to sit by.
 wô-wê (ewê), *v.* to wither, to cast the leaves.
 wô-wô, *v.* to be copious, to be lukewarm.
 wu, *v.* to please one by its appearance or character: bí ó tí wu kí á ẽ (as you please that it be), be that as it may, by all means.
 wú, *v.* to swell, to rise as bread; to increase, to stir up sediment; to look gloomy; to impend, as danger: ori rẹ wú, he was frightened.
 wu-ndí-a, *n.* a virgin.
 wu-ra, *n.* gold.
 wu-re (wí ire), *v.* to bless.
 wu-ru-wu ru, *adv.* confusedly (mixed).
 wu-wô, *v.* to be heavy, dull of action.

Y.

ya, *v.* to hasten, to be sprightly, lively; to be easy of performance; to select an image to worship; to hold in power; to wear, to be warm.

yà, *v.* to tear apart; to comb, *adj.* fast; to pluck ears of corn; to *eat* in, as a well; to depart, separate from company, give place in a crowd.
yā, *v.* to be; ó yā aro, *he is a cripple*. (Acts 14, 8.)
ya-bo-dē, *v.* to *swindle*.
ya-di (odli), *v.* to be *dumb*.
ya-dzu (odzu), *v.* to be *savvy*.
ya-gāu (agāu), *v.* to be *hacran*.
ya-gbē (igbē), *v.* to *evacuate* faces.
ya-hū-di (Arab.), *n.* a *Jew* (so called at Ilorin).
ya-kpa (ikpa), *v.* to separate, to go astray, to err.
ya-kpa... si-lē, *v.* to separate from, avoid, shun.
ya-ku-ro, *v.* to leave, clear out, to be absent.
ya-la, *conj.* *whether*.
ya... lo to (li), *v.* See ya... sōto.
ya-ma, *n.* the *west*.
yam-yam, *n.* a *musket*.
ya-na (ina), *v.* to return *at the fire*.
yā na (qna), *v.* to step out of the road, to get out of the way.
ya... ndže, *v.* to *cheat*.
ya-ndzu (ni odzū), *v.* to be *beautiful*.
ya... ni ha, *v.* to *chagrin*, to mortify.
ya-nu (enu), *v.* to open the mouth: yānu si, to gape or wonder at.
yān, *v.* to *bake*, try, *parade*; to walk *heisurly*, proudly.
yān, *adv.* *brilliantly* (shining).
yān, *v.* to gape, to gurn, to *teigh*; to kick.
yān, *v.* to choose, select, appoint, to take out from among several, to buy food from a cook, to extract a thorn: yān lē, to *ap* point over. (Exod. 5, 14.)
yān-gāu, *n.* *noise*.
yān-gi, *n.* *claystone cemented with iron*.
yān-gi-di, *n.* a bundle of *covachs*.
yān-hān, **ya-un**, *n.* a *cut*.
yān-huŋ (ohuŋ), *v.* to threaten.
yān-kōŋ, *v.* to add select things to.
yān... kpa-mq, *v.* to buy up, as money.
yān... ni-kpa, *v.* to set at *variance*.
yān... ni-kpō-si, *v.* to set at *naught*.
yān... ni-tete, *v.* to kick (applied to beasts).
yān-rān, *v.* to boast of one's knowledge, to be obstinate in one's opinion.
yān-wē (owe), *v.* to be *plump*, as a young bird.
yān-yān, *adv.* *entirely*.
yān-yān, *adv.* *roughly*, *unwarily*.
ya-ra, *n.* a room: yāra ōke, an upper room.
ya-ra, *n.* a ditch around a town.
ya-ra (arā), *v.* to *hasten*, to be active.
yā-ra (arā), *v.* to warm oneself.
ya... sō-to (-i), *v.* to separate, or set apart to a purpose.
ya-to (to), *v.* to be different, to differ.
ya-un, *v.* to *men*; — *n.* a cat.
ya-ya, *adv.* *nimbly*, *briskly*.

yá yō (ayō), *v.* to rejoice.
ye, *v.* to lay eggs; to be pleased; to cease doing a thing; to be comprehensible: ó ye mi, ó ye wōŋ, I understand it, they understand it.
yē! *interj.* oh! alas!
yē, *v.* to live, to be sound in health.
ye-me-dzá, *n.* the godless of streams.
ye-ye, *n.* mother.
yē, *v.* to be fit, worthy, suitable.
yē, *v.* to make much of, indulge, praise.
yē, *adv.* a little, lightly (sleeping).
yē, *v.* to turn out of place, change, postpone.
yē-mō-ti. See yānmoti.
yē-na (yān), *v.* to open a road.
yē-ra (arā), *v.* to change one's position, to turn aside, to depart.
yē-tu-yē-tu, *n.* a blossom.
yē-wu, *n.* a chamber.
yī, *v.* to turn, revolve, move, pervert.
yī, *v.* to be tough, fibrous.
yī, *pron.* this.
yī... dā-nō, *v.* to overturn, spill.
yī-gbi, *v.* to be dull or slow in hearing or believing.
yī-gi, *n.* marriage.
yī-huŋ (ohuŋ), *v.* to prevaricate.
yī-ka, *v.* to encircle, to surround.
yī... ku-ro, *v.* to avert, to cross the hands in salutation.
yīn, *v.* to move, to shake slightly, to lay eggs, to attract attention, excite cautious desires.
yīn, *v.* to praise, admire; to eject suddenly.
yīn-bōŋ (ibōŋ), *v.* to fire a gun, to shoot.
yīn-fiŋ (ohiŋ), *v.* to break a law.
yī... kpa-da, *v.* to turn, convert, pervert, avert.
yī-kpō, *v.* to turn aside, to pass away.
yīn... lo-gō (li), *v.* to extol, glorify.
yīn... ni-bōŋ, *v.* to shoot, to shoot at.
yīn-yīn, *n.* hail.
yī-si? *pron.* which?
yī-yē, *v.* cessation, failure, hollowness.
yī-yī, *n.* which is rough, scaly.
yō, *v.* to be full, satisfied with food.
yō, *adv.* deeply (well).
yō, *v.* to pull out, to draw, as a sword; to deliver, to escape; to put forth young leaves; to appear, as the new moon.
yō, *v.* to melt, to feel compassion; to slip, to be slippery, to walk stealthily: inŋ mi yō si i. I pity him.
yō, *v.* to rejoice, to be glad, to triumph over.
yō-dza-de, *v.* to prostrate.
yō-dzá (odzū), *v.* to be conspicuous, to appear.
yō... le-nu (enu), *v.* to harass, annoy.
yō nu (enu), *v.* to wash the mouth; to be troublesome.

yḡḡ, *v.* to itch.

yḡḡ, *adv.* with force (falling); in a swarm.

yḡḡ, *v.* to cut or saw off.

yḡḡ-mḡ-tí, *n.* sesame, the bene plant.

yḡ-ri (ori), *v.* to raise the head, as from the midst of tall grass; to appear, to be conspicuous, prominent.

yḡ-rḡ, *n.* vermin on fowls.

yḡ...su-ti-sí, *v.* to thrust out the lips at, to deride.

yḡ-yḡ, *n.* a group, a flock, a constellation.

yún, *v.* to conceive, to be pregnant; to go to and fro.

APPENDIX.

[Some of the following words have been supplied from memory, and others from Crowther's Vocabulary, a work which I was not able to procure for a long time after my return to America.—T. J. B.]

A B A

a-bai-ye-dzẹ (à bá...dzẹ aiyẹ), *n.* a mischief-maker, a tattler.
a-ba-ku-lu-dzẹ, *n.* a kind of egret.
A-bọ-do rin (abọ de orin?), *n.* a proper name.
a-bọ gán, *n.* See abọwogán.
a-dá-dò (dà òdò), *n.* an island; a house or settlement in a retired situation.
A-de-rin, a proper name of a man.
A-de-gbọ, a proper name of a man.
a-di-rẹ i-ra-na, *n.* the fuel of propitiation, killed just as a person dies.
a-di-ri (orí), *n.* grape-shot.
a-dọ-tẹ-si-lẹ, *n.* an insurrectionist, one who promotes rebellion or emnity.
a-dùn, *n.* See adùn.
a-dza, *n.* a jerking; one who jerks, which is jerked, &c. See dza.
a-dzà, *n.* a fighting, a fighter, &c. See dzà.
a-dza-sọ, *n.* a flying report, hearsay.
A-dzà-sẹ, *n.* (broken by war), a town west of Badagry.
a-dze, *n.* the water orted.
a-dzẹ-fọ-wọ, *n.* a pot-herb.
A-dzi-bọ-kpẹ, *n.* (patin-worshipper), a proper name.
a-fò-re-ši-bi, a-fò-re-ši-gi, *n.* an ungrateful person.
a-fọn-ru-gbìn, *n.* a sower; which is sowed, &c.
a-gan-ran, *n.* the green parrot.
a-gan-wo, *n.* a tree used for timber.
a-gba-kān-kān, *n.* a forest bird.
A-gba-ma-ya, *n.* the name of a town below Abeokuta.
a-gba-wò, *n.* See agbasin.
a-gba-yọn, a-gba-yọn-kọn, *n.* the miraculous berry, the sweet taste of which remains in the mouth for a long time.
a-gbe, *n.* one who takes, &c. (see gbe); a cockatoo.
a-gbìn, *n.* which is planted, a planter. See gbìn.
a-gbìn-yi-ka-gba, *n.* a hedge or fence around a garden.
a-gbọ, *n.* which is heard; a hearer. See gbọ.
a-gbọn-gbe-re, *n.* the snatch-game, played by

A I M

children; agbọngbere kpote igara, *swatching resembles* (lit. *thinks of*) robbery.
a-gbọn-yi, *n.* a kind of antelope.
a-gbu-bo, *n.* a forest bird.
a-gẹ, *n.* a petty officer, a king's servant.
à-go-ro, *n.* a title of honor.
a-gu-mò-na, *n.* a running plant.
a-gun, *n.* a climbing, a riding, which rides, is ridden, &c. See gun.
a-ha, *n.* See the root 'ha.'
a-he, *n.* See the root 'he.'
a-he-sọ, *n.* a newsmonger, a smatterer, &c. See hesọ.
a-họ, *n.* a caving, &c. See họ.
a-hu. See the root 'hu.'
a-hu-sọ, *n.* which is false, a falsehood, a false report.
ai-ba-de, *n.* unsuitable, unbecoming.
ai-bẹ-lẹ, *n.* not flat, uneven.
Ai-bò, *n.* a town in Yoruba.
ai-dù, *n.* which does not refuse, which consents.
ai-dza, *n.* See the root dza.
ai-dzọ, *n.* unlike, dissimilar. See dzọ.
ai-gbe-se, *n.* not indebted, not owed.
ai-he, *n.* not picked up or gathered. See he.
ai-ke-si, *n.* not visited, unvisited.
ai-ki, *n.* not saluted, &c. See ki.
ai-ki-lọ, *n.* not warned, unadmonished.
ai-ko, *n.* ungathered; not hard. See ko.
ai-kọ, *n.* uninstructed, ignorant. See kọ.
ai-kọ-la, *n.* untold, uncircumised.
ai-kọn, ai-kùn, *n.* unwarmering. See kọn.
ai-kọ-se, *n.* free from stumbling, void of offence.
ai-kùn, *n.* which is not remaining; finished, exhausted, used up.
ai-là, *n.* unsaved; invisible, &c. See là.
ai-la-di, *n.* unexplained.
ai-là-dza, *n.* unaccommod.
ai-la-dzọ, *n.* unsettled, as a dispute.
ai-li fa, *n.* disadvantageous, unprofitable.
ai-lu, *n.* the name of a plant.
ai-lu, *n.* not perforated, imperforate.
ai-mè-te, ai-mè-ro, *n.* inconsiderate, imprudent.

ai-mẹ-lẹ, *n.* *not lazy, industrious; sê aímẹlẹ, to be industrious.*
ai-mì, *n.* *unshaken, dev.* See **mì**.
ai-mọ, ai-mu, *n.* *which is not drunk, dev.* See **mu**.
ai-mũ, *n.* *not sharp, dull.*
ai-na, *n.* *a proper name.*
ai-rà, *n.* *unbought, dev.* See **rà**.
ai-rẹ, *n.* *unshorn, dev.* See **rẹ**.
ai-rí, *n.* *unseen, dev.* See **rí**.
ai-rọ. See root **rọ**.
ai-si, *n.* *unopened, dev.* See **si**.
ai-tà, *n.* *unsold.* See **tà**.
a-ka, *n.* *the name of a tree; the armadillo.*
a-ke, *n.* *a crier; a cutter, which is cut, dev.* See **ke**.
a-ke-ri, *n.* *a hater; a soporaceous plant.*
a-kẹ, *n.* *a climbing plant, used for ropes.*
A-ki-o-la, *n.* *(only honor), a proper name.*
a-ki-sa-lẹ, *n.* *a running plant.*
a-kọṇ-rọṇ, *n.* *a closet.*
a-kpa a-sa-ra, *n.* *a roll of tobacco.*
a-kpa i-kò-ko, *n.* *a fibrous plant, of which shoe-thread is made.*
a-kpọ-dzù, *n.* *the majority, abundance.*
a-kpọṇ, *n.* *a king-fisher.*
a-ku-ma-la-kpa, *n.* *the young leaf of the shau-tree.*
a-la, a-là, *n.* See the roots 'la' and 'là.'
a-la, *a prefix equivalent to 'oui' implying the owner, the actor, dev.* (Gram. § 52, 1, 4).
a-la-ba-la sẹ (ala bá māsẹ), *n.* *the oracle; a name of Obatala.*
a-la-ba-wọṇ, *n.* *a sprinkler; one who has a stain on his character.*
a-la-dù, *n.* *a refuser.*
a-la-fẹ, *n.* *a lover.*
a-la-fẹ-ní, *n.* *a charitable person, a philanthropist.*
a-lá-gba-da, *n.* *a maker or dealer in the garment agbada.*
a-lá-guṇ, *n.* *a perspicer.*
a-la-họṇ, *n.* *which has a tongue, tongued.*
a-la-rí, *n.* *a king's spy or policeman.*
a-le, *n.* *the name of a plant.*
A-lí, *a proper name.*
a-lọ-ke-lẹ, *n.* *the fig-eater, a bird.*
ai-ma-ga-dzi, *n.* *scissors, shears.*
A-lu-bi, *a proper name.*
a-lu-ki, *n.* *a slender prickly plant; bí iṣa dzo, á bíyọ fú aluki, when the fire burns (the woods), it respects the aluki (and leaves it undamaged).*
a-lu-ma-ga-dzi, *n.* See **alongadzi**.
ámkan, a-mu-kan, *n.* *sorel plant.*
a-mọ-dze wẹ-wẹ, *n.* *a medicinal plant.*
a-mgba-du, *n.* *the name of a pot-herb.*
a rá, *n.* *the name of a bird.*

à-ra, *n.* *a fashion, custom.*
a-rai-ye (arà aiyẹ), *n.* *the people of the world, mankind.*
a-ra-ra, *adv.* *at all.*
a-ra-wo, *n.* *a carnivorous bird.*
a-re-ke-re-ke, *n.* *dishonesty, a dishonest person.*
a-rẹ-rẹ-gbò-sun, *n.* *a small bird with red feathers.*
á-rí-ya, á-rí-yò, *n.* *unvermout.*
à-ro, *n.* *a small bird with blue feathers.*
a-ro-si-lẹ, *n.* *a precious agreement, a bargain.*
a-rugbo-rugbo, *n.* *a very old man.*
a-ru-kọ, *n.* *a household.*
a-ru-kpẹ, *n.* *a dwarf.*
a-ru-lu (ilú), *n.* *a solitons person.*
a-sa, *interj.* See **asia**.
à-sa, *n.* *the hatten of a loom.*
a-ta, *n.* *a resinous tree.*
a-tàn ko-ro, *n.* *a disease in fowls.*
a-ti-lẹ nde (ati ilẹ), *n.* *a goath, adolescent.*
a-ti-ní, *n.* *possession, attainment.*
a-ti-o-ro, *n.* *a tassel; a kind of bird; a kind of plant.*
a-to-ri, *n.* *a tree the wood of which is very elastic.*
a-tọṇ-wáh, *n.* *a coming again, a returning.*
a-tun-sẹ. See **atọṇsẹ**.
a-wa-wa, *n.* *a small climbing animal which barks like a dog.*
A-wa-ye, *n.* *the name of a town.*
a-wẹ, *n.* *a washing, cleansing, that which cleanses.*
a-wẹ-dẹ (ilé), *n.* *an herb used for cleansing brass: onibaba ni itòdzu orombo, onide ni itòdzu awẹdẹ, the owner of copper looks for a lioness, the owner of brass looks for awẹdẹ.*
a-wọṇ e-kun, *n.* *a nettle, lit. leopard's tongue.*
a-wu-ka-ra (akara), *n.* *beamed board.*
a-ya-mọ-kpẹ, *conj.* *otherwise, unless.*
a-yọṇ, a-yùṇ, *n.* *a saw, a file.*

B.

ba-bo, *n.* *a tree with a broad leaf.*
ba-na-ba-na, *n.* *a kind of insect.*
ba-na-ba-na, bẹ-na-bẹ-na, *n.* *a narcotic plant.*
ba-un (ba ọṇ), *adv.* *so, thus.*
be-dzi (bì), *v.* *to bear twins.*
bẹ-ke (bù), *v.* *to give a false reply, to utter a falsehood.*
bẹ-ro-fu (bù), *v.* *to reflect upon, to think about.*
Be-se, *n.* *a town in Yoruba.*
bẹ-mi (bù), *v.* *to give life to.*
bi-a-ti-ywi, *adv.* *just now, at once, immediately.*
bi-ba, *n.* *a meeting, dev.* See **ba**.
bi-bà, *n.* *a building, dev.* See **bà**.
bi-bi, *n.* *that which is pushed, dev.* See **bà**.

bi-bọ, *n.* *that which is fed, a feeding, &c.* See **bọ**.
bi-bù, *n.* *that which is given, &c.* See **bù**.
bi-ḡ-dzẹ (ba...dzẹ), *v.* *to spoil love, to cause enmity.*
bi kpọ, *v.* *to breed together; mu bi kpọ, to cross breed.*
Bi ò-ká, *n.* *(if he does not die), a proper name.*
Bi-ọ-lọ-run-kpe-lu, *n.* *(f' God be with us), the name of a town.*
Bi-ri, *n.* *(darkness), the slave of Sàngó.*
bi-yọ-sí (bù), *v.* *to salt.*
bo-dži, bo-džin, *n.* See **ibodži**.
bom, *n.* *a kind of tree.*
bo-mu-bo-mu, *n.* *a tree the leaf of which curdles milk.*
bọ...la-şọ (li), *v.* *to strip off the clothes.*
bọ-sí, *v.* *to enter, enter into.*
bu, *adv.* *nearly, almost; a bu şe, or ó bu tán, it is nearly finished, completed, all gone.*
Bu-kú, *n.* See **Burukin**.
bu-sũ, *v.* *any soft springy substance, loose heavy sand, soft peaty earth.*
bu-sũ-gba (igba), *n.* *the soft pulp of the locust fruit.*

D.

da-bọ, *v.* *to cease coming, to cease.*
da...bu-lẹ, *v.* *to cease to lie down, to lay down.*
da-kpa-ra, *v.* *to sweep at, to make a jest of.*
da-kun, *v.* *to cease.*
da-kũn (ókun), *v.* *to make gun into hanks.*
da...ku-ro, *v.* *to release, acquit, redeem.*
da...lẹ bí, *v.* *to condemn, censure.*
daŋ-ka-re, *n.* *soldiers.*
da-o-ru-kọ, da-ru-kọ, *v.* *to mention by name.*
da...wọŋ, *v.* *to enclose, shut in; šakatá ni ida wọŋ wọŋ ni Bese, the marsh shuts them in (the town of) Bese.*
de-hũn (óhũn), *v.* *to lower the voice.*
di-lẹ-di-lẹ, *adv.* *dilatorily.*
di-yan (dà), *v.* *to be careful, thoughtful about.*
do-gun-si-lẹ (dà), *v.* *to cause war.*
dó-ti, *v.* *to encamp against, besiege.*
dọ-tẹ-si-lẹ (dà), *v.* *to cause enmity.*
du-du, *adv.* *blackly, gloomily, darkly; òdžo šu du, the rain (i. e. the clouds) gathers darkly.*
dža-na-dža na, *n.* *the name of a disease.*
dža-ndu-ká, *n.* *a wicked person.*
dža-ò-ke, *n.* *the name of a shrub.*
dža-tā, *v.* *to be unconcerned about, to be careless.*
džũ-džũ, *n.* *a confused mass, chaos.*

E.

e-ba, *n.* *an oil jar.*
e-bo, *n.* *a peeling off.*
e-dá, *n.* *a creating, creation.*
e-dẹ, *n.* *slackness, as of a rope; ripeness.*
e-dži-ẹ, e-dži-rẹ, *n.* *twins.*
e-džu, *n.* *a casting, which is cast.*
e-ga, *n.* *a height.*
e-ga-ni, *n.* See **egake**.
e-gun, *n.* *length.*
e-ha, *n.* *a scaper.*
e-he, *n.* *a gathering or picking up, a collection of things.*
e-kan a-wo di, *n.* *hawk's claw, a prickly shrub so called.*
e-kan ẹ-kun, *n.* *leopard's claw, a prickly shrub so called.*
e-kó, e-kó ọ dán, *n.* *the winding up or end of the year.*
e-ko-ro, *n.* *that which is bitter.*
e-kọŋ, *n.* *that which is full.*
e-ku-şe, *n.* *the name of a disease.*
e-le-ri, *n.* See **alori**.
e-lẹ-ši, *n.* *one who is mistaken.*
e-na a-wọŋ (ena for ina, *fice*; awọŋ, *the tortoise*), *n.* *the flickering appearance of the atmosphere in hot dry weather.*
e-rẹ, e-we-re, *n.* *a kind of white bean with a black eye.*
e-ro dži-ka-si, *n.* *a kind of sweet plum.*
e-sĩn, *n.* *a kind of tree.*
e-su-o, *n.* *a kind of antelope.*
è-şe, è-şe, *n.* *paint, color.*
e-şu-şu, *n.* *a running prickly plant.*
e-tu-tu, *n.* *a small species of white ant or termites.*
e-we e-ti, *n.* *car-baff, i. e. convulsus, so called because the juice of the leaf is mixed with oil to heal sore ears.*
e-we i-na, *n.* *pin-leaf, an acrid poisonous shrub, the leaf of which blisters the skin.*

F.

ẹ-dẹ, *n.* *a kind of tree.*
ẹ-dọ-fo-fo, *n.* *irascibility; lit. a liver of foam.*
 The liver is supposed to be the seat of the passions; hence **ghọdọ** (ghà ẹdọ, *to receive liver*), *to be contentious, to dare.*
ẹ-ga a-kpa-şo, *n.* *a kind of palm-bird.*
ẹ-gō, ẹ-gọ-rọ, *n.* *a kind of plant.*
ẹ-gu-sí, *n.* *water-melon seeds, the oil made of them.*
ẹ-hi-ri, *n.* *a poisonous plant.*
ẹ-hũ-ru, *n.* *a kind of large bird.*

- ẹi-yẹ-le (ilẹ), *n.* a pigeon; lit. house-bird.
 ẹ-ka-dọ-rin, *num.* the seventieth.
 ẹ-ka-dọ-run, *num.* the ninetieth.
 ẹ-ka-dọ-ta, *num.* the fiftieth.
 ẹ-kẹ, *n.* the cheek, the jaw-bone.
 ẹ-kẹ-dzọ, *num.* the eighth.
 ẹ-kẹ-rin, *num.* the fourth.
 ẹ-kẹ-san, *num.* the ninth.
 ẹ-kẹ-ta, *num.* the third.
 ẹ-kẹ-wa, *num.* the tenth.
 ẹ-kọ-kan-la, *num.* the eleventh.
 ẹ-ku, *n.* a running plant.
 ẹ-kù-ku, *n.* a very poisonous plant.
 ẹ-le-bu, *n.* one who owns or occupies a house, or a *kila* for making oil or burning earthen-ware.
 ẹ-le-gbẹ i-na, *n.* companion of fire, a bird which hovers over the fire (to catch insects) when the prairie is burning.
 ẹ-le-yin-dzú (eyin odzú), *n.* a person with prominent eyes, pop-eyed.
 ẹ-li-ri, ẹ-lu-ru, *n.* a mouse.
 ẹ-lu i-wa-še, *n.* the small-leaved indigo, an herbaceous plant much like the American indigo.
 ẹ-lu ọ-gbọ, *n.* the broad-leaved indigo, a small tree with very long virgate branches. The fine indigo of Sudan is the product of this plant.
 ẹ-mọ, *n.* a kind of brown rat.
 ẹ-rin-di-ló-gun, *num.* sixteen.
 ẹ-rin-di-ló-gbon, *num.* twenty-six.
 ẹ-rù, *n.* a kind of spice, used as medicine.
 Ẹ-ru-mu, *n.* (caught by deceit), a town east of Ibadan.
 ẹ-run, *n.* a medicinal tree. A fumigation of the bark is employed to drive away evil spirits.
 ẹ-tà, *n.* a kind of leopard.
 ẹ-wa, *n.* grain, i. e. corn of any kind; a mixture of boiled corn and beans.
 ẹ-wu-ru, *n.* a pit-fall covered with earth.
 ẹ-yin, *n.* that which protrudes or is prominent.
 ẹ-yin, *n.* charcoal.
 ẹ-yin-dzú, *n.* the eyeball.

F.

- fà-ti, *adv.* freely, liberally, greatly. See fà.
 fe-ri-bà-ẹ, *v.* See foribà.
 fe-ri-bọ, *v.* See foribọ.
 fe-ri-ti, *v.* See foriti.
 f-ti-si (fi), *v.* to put the ear to, to listen attentively, to hearken.
 fi-la, *n.* a cap.
 fi... ẹ-ẹ-sin, *v.* to put to shame, to shame, disgrace.
 fo ri si (fi), *v.* to pay attention to, to apply the mind to.

- fọ... kpẹ-tẹ kpẹ-tẹ, *v.* to destroy.
 fọ... rau-rau, fọ... ru-ru, fọ... tu-tu, *v.* to destroy entirely.
 fọ... yàn-yan, *v.* to break to pieces, to smash.
 fọ-nu, *n.* an elastic wood used for bows.
 fọ-nu (ẹnn), *v.* to boast, brag.
 fọ-wọ-lẹ (fi), *v.* to place the hand on; to undertake.
 fu-la, *n.* a kind of beer. See fura.
 fu-lẹ-fu-lẹ (fu ilẹ, for the earth), *adv.* freely, copiously.
 fu-lẹ-fọ-lọ-run, fu-yi-fu-lọ-run, *adv.* (lit. for the earth and for God), of one's own accord, freely, of choice.
 fun-kun, fọn-kun, *v.* to discharge mucus.

G.

- ga-ga-dze, *n.* a tree which grows near the water.
 gbà, *v.* to wrap up, to envelope.
 gbà a-du-ra, *v.* (lit. to take prayer), to pray.
 gbà i-da-ra-ya, *v.* to take exercise or recreation.
 gbà i-kpẹ, *v.* to take comfort, to be comforted.
 gbe (to be), a phonetic particle much used after adverbs and nouns of place; as, nihiyi li á gbe kú ara wa (here it is we to-be not selves our), we met here.
 gbín-gbì-ndò (gbingbin òdò, planted by the water), a tree growing near streams which bears an esculent bean.
 gbò-do-gi (gbà òdò igi), *n.* the name of a plant.

I.

- i-ba-dò (òdò), *n.* the water's edge, coast, shore.
 I-ba-dan (iba odan), *n.* (the meeting of the woods with the prairie), a large town fifty miles east of Abeokuta.
 I-ba-ra (bà rà?), *n.* a town near Abeokuta.
 I-ba-ra-kpa, *n.* one of the Yoruba tribes, living west of Idzaye and south of Isaki.
 I bọ, *n.* (who is pecked), a proper name.
 I-bọ-lọ, *n.* one of the Yoruba tribes, in the N. E. of the kingdom.
 I-dẹ, *n.* (hunting), a large town east of Ibadan.
 I-dó, *n.* (camping), the name of a town.
 i-dò-do, *n.* See adodo.
 i-du-kpẹ, *n.* a thanking, thanks.
 I-dzà-kà, *n.* (a fighting around), the name of two towns on the Yoruba river, called Idzàkòke or Idzà-kauke (òke), upper Idzàka, and Idzàkòdo (òdo), lower Idzàka.
 I-dzà-lẹ, *n.* (a fighting for home), a town in Iketa.

I-dzà-yè, *n.* (*fighting for life*), a large town fifty miles N.E. of Abokuta.
I-dze ša, *n.* a tribe in the N.E. of the Yoruba country.
I-fa-gbe mi, *n.* (*Ifa helped me*), a proper name given to children in honor of Ifa.
I-fẹ, *n.* (*enlargement*), a tribe and a town of Yoruba.
I-ga-la, I-ga-ra, *n.* a semi-Yoruba tribe east of Yoruba.
I-ga-na, *n.* a considerable town in Ibarakpa. See Igua.
I-gbẹ-ti, *n.* (*entangled with bushes?*), a town on a mountain west of Ilorin.
I-gbo-ho, *n.* (*the noisy forest?*), a town in the N.W. of Yoruba, formerly twenty miles in circuit but now much reduced. *Lander's Boko*.
i-hu-lẹ-hu-lẹ, *n.* See ihulẹ.
i-kā-nu, *n.* See iko *infra*.
I-ke-tu, *n.* (*a cutting loose?*), a tribe and town of Yoruba.
ì-ki (ikiki), *n.* an animal with large eyes and small erect ears, which feeds on the kola or goora nut: iwọ lẹ dze òbí, o sẹ ìkì bí? *thou art able to eat (art always eating) kola nuts; art thou an ìkì?*
I-kì-ši, *n.* (*an opening of the thicket?*), a large town near Igboho.
i-ko, *n.* the act of gathering; the act of feeling a mental emotion: iko àmù or ikànnù, a pitying, a feeling compassion or sorrow. See kànnù.
i-kpan-ko-ro, *n.* the name of a plant.
I-la-de, *n.* a proper name, a town on the Niger.
I-lẹ ọ-ẹ, *n.* (*the hunter's house*), a village near Idzáye.
I-le-ša, *n.* a very large town, the capital of Idžesa. The syllable 'ša' in these two words is a contraction of a proper name.
I-lẹ-san, *n.* a town in Ibarakpa.
I-lọ-rin, *n.* (*a going to walk?*), a large town in the north of Yoruba, a proper name of persons.
I-lu-ku, *n.* the name of a town.
i-na-ki-ri, *n.* a carpenter's compasses.
I-ra-wọ, *n.* (*star*), the name of a town in the western part of Yoruba, the head-quarters of Orisako.
i-ra-wọ i-lẹ, *n.* (*ground star*), a medicinal plant.
i-rin ọ-kpa i-kpọ (*walking-staff, abundance*), *n.* a rapid journey, a forced march.
i-rò-dzu, *n.* perplexity, vexation, sadness of countenance.
i-ro-ko, *n.* farm labor, tilling; a farmer.
i-ro-kó, *n.* an esculent running plant.
ì-ro-ko, *n.* a kind of okra or esculent hibiscus.
i-rò-ko, *n.* a fine timber tree, called sassa wood in Liberia.
i-rọ dzu, *n.* patience, perseverance.

i-rọ kẹ kẹ, *n.* a townlet, an upstart.
ì-ru-kẹ, *n.* See irukẹ.
ì-sa, *n.* a rat's hole; a running plant.
ì-sá, *n.* a sharp stick or bar for digging holes in the ground.
I-se-hin (i-se-i), *n.* a town west of the Ogun.
i-sin-ku (okú), *n.* a burial, a funeral.
ì-šà-bẹ, *n.* (*a doing or an opening beneath?*) a town in the west of Yoruba.
Ì-ša-ga, *n.* (*the making of a heap or bright?*), a town west of Abeokuta.
Ì-ša-ki, *n.* (*a snapping, as of a gun, a failure*), a large town in the west of Yoruba.
Ì-ša-la, *n.* a town near Aibó.
i-šẹ-dzú, *n.* the twinkling of an eye, an instant: ni išedzú ká, in a moment, instantly.
i-šẹ-ko-ke, *n.* the casting of lots, a lottery.
i-šẹ-kpo-lo-hun, *n.* a kind of tree, a kind of grass.
i-šẹ-ti, *n.* a hem.
i-ši-gun, *n.* a prairie shrub with aromatic roots.
ì-ši-ko, *n.* a species of tree called also iši or isin.
ì-ši-še, *n.* a wrong action, a misdeed.
i-ši-ye-me-me-dzi, *n.* a doubting, a doubt, a scruple.
i-šo-nọ, *n.* peevishness, surliness.
i-šo-ro, *n.* severity, provocation.
i-šò-ro, *n.* a difficulty.
i-šu, *n.* the act of casting out, emission, evacuation.
i-šú, *n.* the state of being dark, gloomy; darkness.
i-šu-bu, *n.* a fall, the act of falling.
i-tà, *n.* the name of a tree much used for fuel.
I-tà-bò, *n.* (*shaded by the ità tree?*), a town in Yoruba.
i-ta-gbo-kun, *n.* the act of setting sail, a being under sail.
i-ta'-ma-ha, *n.* hope, hoping, expecting.
i-ta-mẹ-ta, *n.* the meeting of three streets or roads.
i-te, *n.* a fondling, a worshipping. See te.
I-te-ro, *n.* a town west of Igua.
i-tẹ, *n.* a trampling on, &c. See tẹ.
i-tẹ-ọ (tẹ ọ), *n.* composure, patience.
i-tẹ-lẹ-di, *n.* the under garment, worn around the hips.
i-tẹ-wọ, i-tẹ-wọ gbà, *n.* acceptance, reception.
i-ti-lẹ-hin, *n.* aiding, abetting, support of a person in his cause.
Ì-tó-bo-lo, *n.* a town in Iketa.
i-wa-ri, *n.* homage to a king.
i-wó, *n.* the tree which bears the bitter kola-nut.
i-wó, *n.* a falling; a pushing down, a felling. See wó.
i-wò, *n.* a look, appearance; a raven.
i-yá, *n.* a tree with broad leaves.
I-ye-mọ-dza (yẹ ẹdza), *n.* (*the mother of young fishes*), one of the Yoruba idols.

i-ye-re, *n.* the seeds of the African locust.

I-ye-wa, *n.* (our mother), one of the Yoruba idols; a small river which falls into the Osa west of Badagry.

i-ye-yè, *n.* a kind of sour plum.

i-yi-kpà-da, *n.* a turning, conversion.

K.

ká, k'á (kí á), an optative particle much used in conversation, *let us; shall we? shall I? may we? may you? k'á bèrè, let us inquire; k'á kpè woy? shall we call them? k'á gèşin? shall I ride? k'á de bè li aláfiá? may we reach there in peace? k'á sùñ rě! may you sleep well!* a very customary salutation on retiring to rest at night. See kabi-yesì and kalòh.

ka-fe (introd. from Ilansa), *n.* coffee.

kai! an exclamation of displeasure, sometimes of wonder.

ka-ná (káy ná), *pron.* the same: ènia kaná, the same person.

ka-ndzú (kan odzú), *v.* See kanđzú.

ka-ndzú dzai-ye, *n.* one who makes haste to be rich, a covetous person.

ka-nti-ka-nti, *n.* a kind of gnat called "the drunkard;" a kind of ant.

kan, *v.* to ache.

kân, *v.* to reach, to arrive.

kan-ga-ra, *n.* a kind of bill-hook or pruning knife.

kan-gba, *v.* See kagba.

kan-rin, *v.* to be far off.

kan-rin-kan-rin, *adv.* far off, out of sight, clean gone.

kà-ro, *n.* a bird so called from its cry.

kè-gi-o, kè-gi-ro, *n.* a kind of bird.

ke-ke-le-ndze, *n.* a small kind of lizard.

ke-lè, *v.* to cut down; hence akelè, dropsy in the chest.

ki-kan, *n.* sourness, etc. (see kan);—*adv.* earnestly, strenuously.

kí-kan, *n.* a dropping, etc. See kán.

ki-kan-ki-kan, *adv.* earnestly, strenuously.

ki-ke, *n.* See ke.

ki-kẹ, ki-kẹ, *n.* See kẹ and kẹ.

ki-kí, ki-kí, *n.* See kí and kí.

ki-ko, ki-kò, *n.* See ko and kò.

ki-kọ, ki-kọ, *n.* See kọ and kọ.

ki-kọn, ki-kọn, *n.* See kọn and kọn.

ki-ku-na, *n.* smoothness, fineness.

ki-ye-sa-ra (kiyesi), *v.* to take care of oneself, to be careful.

kò i tó, *adv.* not yet, lit. it is not enough; kòitò lẹh, it is not time to go.

ko-ko, ko-ri-ko, *n.* grass.

kò-mò-re kò-mò-ra (mò òrè mò ọrà), *n.* an ungrateful person, lit. he knows not goodness, he knows not the purchaser of the thing which he enjoys.

kò-ni-lè kò-lẹ-na (ni, to have; lẹ, a house; ẹba, a road), *n.* a vagabond, a vagrant.

ko-ro-kpo-ma, *n.* the name of a plant.

kò-si-a, ko-su-an, kò-su-wa, *adj.* not good, it is not proper. See súa.

kò-si-ẹkan, *n.* nothing, lit. there is nothing.

kò-tó. See kòitò.

kò-wě, *n.* a bird so called from its cry.

kọ-bi-kọ-bi, *adv.* with many projections, like a castellated wall. The walls of royal cities only are built in this way.

kọ-rọ-gún, *n.* an iron pin on which thread is wound.

kọ-sọ-kọ, *n.* a kind of bird.

Kọ-sọ-kọ (kò sì ọkọ), *n.* a proper name.

kọ-tọ, *adj.* not straight or right, crooked, wrong.

kpa, *n.* Additional phrases to those already given are, kpa agbò, to form a circle, as in dancing; kpa alò, to cease burning in a flame; kpa alọ, to propose a riddle; kpa aşè, to command, to proclaim a law; kpa ete, to intend, purpose; kpa imò, to consult, suggest, hint; kpa iyé, to forage in the farms; kpa oşu dze, to miss or forget the month; kpa oşu, to form a grove; asòrì kì ikpa oşu, the upas never forms a grove, only one tree being found in a place; kpa ọdọy dze, to miss or forget the day.

kpa-kpa-gò-ri, *n.* a kind of bird.

kpa kun-re-te, *n.* a kind of dove.

kpa-ló (aló), *v.* to cease burning in a flame.

kpa-mọ (imọ). See kpimọ.

kpa-nşu-kú, *n.* a large calabash with a lid or cover.

kpa-ntí, *n.* See kpantiri.

kpà-si, *n.* a coarse grass used in thatching.

kpò-kpo-là, *n.* a tree with scarlet flowers.

Ku-mi (kọy omi?), *n.* a proper name.

ku-rú! an outcry of women to drive away hawks.

L.

la-gba-de-me-dzi (li), *adv.* in the middle or midst.

laì-bẹ-ru, *adv.* without fear, boldly.

laì-bò, *adv.* in an uncovered or unsheltered state.

laì-dze-bi, laì-lẹ-şẹ, *adv.* innocently, without sin or guilt.

là...lọ-na (li), *v.* to enact, ordain.

La-si-me-dzi, *n.* a proper name.

lẹ ri (li), *v.* to have filth, to be filthy, unclean.

- lẹ̀ bí** (lì), *v.* to be guilty, to be condemned.
lẹ̀ sẹ̀ (lì), *v.* to be sinful.
lì-lá, *n.* which is split or to be split, *div.* See **lā**.
lì-lòh, *n.* a going, a departure.

M.

- Ma-dá-ri-ke**, *n.* a proper name.
Máh-kú, *n.* a proper name.
maí-ki-ri, *n.* embroidery.
Ma-mā, *n.* a proper name.
ma-na, *n.* a kind of bird.
mè (emí *I, è nat*), in the Egba dialect, *I will not*;
 mè dèhín rā-āso, *I will not lay cloth again*.
me-dzi-lá, *num.* twelve.
me-dzi-me-dzi, *num.* two by two.
mẹ-yan-mẹ-yan, *adv.* in small pieces, (broken)
 to atoms.
mọ-ko-ko (ikoko), *v.* to make earthenware.
mọ-nu-mọ-nu, *n.* See mọdunmọ.
mọ-hun-gbo-gbo (ohun), *v.* to know all things,
 to be all-wise.

O.

- o-bo-ni**, *n.* a secret society of great power and
 influence, connected with the religious and civil
 government of Yoruba. See ogbou.
O-dzò, *n.* a dower; a proper name.
O-fi-ki, *n.* a proper name.
o-fu-a, *n.* a kind of kola-nut; the name of a me-
 dicinal tree.
O-gbo-mọ-şo, *n.* (the wild cat caught the sen-
 tiel ?), a large town in Yoruba.
o-gbo-yá, *n.* a small carnivorous animal.
o-gbu-gbu, *n.* a wild duck (?); a kind of grass;
 dyed cotton wool.
O-gu-ba-na, *n.* a proper name.
O-gu-bò, *n.* a proper name.
o-gu-du-gbè, *n.* See ogodugbè.
o-gu-mọ, *n.* an escalant herb.
O-gu-nto-ro, *n.* a proper name.
o-gun-gun, *n.* a kind of tree.
o-gu-rò-do, *n.* (standing erect), a kind of bird.
o-ki-ti-kpò, *n.* name of a tree.
o-ki-yan, *n.* a small animal which lodges under
 rocks.
o-kpe-re, *n.* a bird which is said to be almost
 always asleep.
ò-kpo-kpo, *n.* a kind of banana.
o-lo-fe-re, *n.* name of a bird.
o-lo-gi-ri, *n.* a species of oriole.
o-lo-gū-ni, *n.* a small gregarious bird.
o-lo-kpi-ri, *n.* name of a bird.

- O lu ko nto**, *n.* a proper name.
O ni še, *n.* (a dove), a proper name.
o-ra, *n.* a medicinal tree.
o-ri, *n.* a kind of wild pigeon.
ò-ri, *n.* a large fruit similar to the black bean.
o-ri ẹ ya, *n.* a tribe.
o-ri ọ ya, *n.* a kind of hedgehog.
o-ri...si, o-ri...ya, *v.* to feel lively, be well
 pleased: ọni wọni si, they are delighted, lit. their
 head opens.
o-ri...wu, *v.* to be delighted with the conduct or
 words of an inferior who is much beloved; to yearn.
o-rò, *n.* custom, habit, fashion.
o-ro-fò, *n.* a kind of wild pigeon.
o-ro-gbo, *n.* a kind of kola-nut.
o-ro-rẹ, *n.* the name of a bird.
o-ru-kpa, *n.* the name of a tree.
o-ru-wọ, *n.* a kind of tree, useful for timber.
ò-sin i-wẹ fa, *n.* (the left hand couch), a couch
 of the third rank.
o-sin i-ya-lo-de, *n.* (a wise woman of the left
 hand), a title next to that of ọtọ-iyalode.
ò-sin i-ya-ma, *n.* (the left hand of west), the
 south.
o-se, *n.* name of a tree.
o-si-kpi, *n.* name of a tree.
o-sù-sù, *n.* a kind of prickly bush.
ò-we, *n.* young leaf of the plant ewere.
ò-we a-wọn, *n.* a trailing leguminous plant.
o-we-re-dze-dze, *n.* a kind of trailing shrub.
o-wu a-ke-şẹ, *n.* a kind of cotton with small pods.
o-wu ò-go-do, *n.* a kind of cotton with large pods.

O.

- ọ-bai-ye-dzẹ**. See abaiyedzẹ.
ọ-ba-kán-bí-ke-dzi, *n.* a first cousin on the fa-
 ther's side.
Ọba Ku-so, *n.* the King of Kuso, a title of Shangó
 who was a king of Kuso or Koso in Yoruba, at
 which place he descended alive into the ground,
 and for that reason was deified.
ọ-ba-ni-dzẹ, *n.* See abanidzẹ.
Ọba O-gó, *n.* King of Glogu, a title of God.
ọ-dan-ko, *n.* a species of wild fig-tree.
ọ-dzẹ-rẹ, *n.* a medicinal plant.
Ọ-fa, *n.* a town in Yoruba.
ọ-ka, *n.* the name of a plant employed to cure the
 disease called ọka.
ọ-kpẹ-rẹ, *n.* the pepper-bird.
ọ-kpọn si-bò, *n.* the pine-apple.
ọ-kpọ-tọ ki-ti, *n.* a kind of wild fig-tree.
ọ-lọ i-nọ, *n.* the Kóloşys.
ọ-mọ-là-là, *n.* a great-grandchild.

o-mọ-ri-ka, *n.* the tip of the finger.
 o-mọ-ri o-dó, *n.* a pestle.
 o-mọ-ri o-lọ, *n.* the upper mill-stone.
 o-mọ-tẹ, *v.* (child bends or prostrates), to be taken with the pains of child-birth.
 O-ta, *n.* a town and tribe south of Abokuta.
 o-tọj ga-ba-si, *n.* the north.
 o-tọj i-wẹ-fa, *n.* a eunuch of the second rank.
 o-tọj i-ya-lo-de, *n.* a wise woman of the second rank.
 o-wọ tẹ, *v.* (hand bends or grasps), to attain to, come into possession of: o-wọ tẹ tẹ òlá, he attained to honour.
 o-wọ-wọ, *n.* a bird which lodges in holes.
 O-yan, *n.* name of a tributary of the Ogun.
 o-yẹ, *n.* grey color: ẹsín oyẹ, a grey horse.
 Oyọ, *n.* the capital of Yoruba.
 o-yò, *n.* one who rejoices, a rejoicer.
 o-yò-gò-họ-gò-họ, *n.* a bird so called because its motions are supposed to indicate joy.

R.

ran-hun ran-hun, *n.* perplexity;—*adv.* confusedly.
 ran-kpo (ikpo), *v.* to speak ironically.
 rẹ...mẹ-yan-mẹ-yan, *v.* to crush to atoms.
 rìn...la-ka-ke or le-gi-ni (li), *v.* to tickle.
 ri-rà, *n.* that which is bought or to be bought, &c.
 See rà.
 ri-rẹ, *n.* a quack, &c. *See* rẹ.
 ri-rọ, *n.* the act of forging iron; withering, &c.
 See rọ.
 ri-rún, *n.* a consuming, that which is to be consumed, &c. *See* rún.
 rọ...lo-dzú (li), *v.* to tame, domesticate.
 rú-rú, *adv.* utterly (destroyed or broken to pieces).

S.

sí sẹ, *n.* a cooking, to be cooked, &c. *See* sẹ.
 sí so, *n.* a tying, &c. *See* so.
 sí sùn, *n.* a sleeping, &c. *See* sùn.
 sọ...dẹ-ru (li), *v.* to enslave.
 sọ...dì-čí, sọ...lì lì, *v.* to play a game.
 sọ-dì-mì-lọ tọ, *n.* the solitary yellow monkey.
 sọ...dì ran-hun ran-hun, *v.* to perplex.
 sọ...dọ-mọ (di), *v.* to adapt.
 sọ...dọ-rọ (li), *v.* to enrich.
 su-na-si, *n.* provocation.
 suu-ru, *n.* *See* sũ-ru.

S.

sá-fa, *n.* an iron ring worn on the wrist by hunters.
 sá-gbe-sá-gbe, *n.* a beggar.
 sá-gọn (sẹ), *v.* to be contentious.
 sán-kpa-ná, *n.* *See* sákpáná.
 sá-sá-ba-ku, *n.* the coffee-tree.
 sẹ bai-bai, *v.* to grow dim, to be obscure.
 sẹ gbe-de-gbe-yọ, *v.* to interpret, act as interpreter.
 sẹ-ne-wo, *n.* name of a bird.
 sẹ...ru-bu-tu, *v.* to write.
 sẹ su-na-si, *v.* to provoke.
 sẹ-tán, *adv.* after all;—*v.* to complete.
 sẹ-da ẹ-lẹ-fin, *n.* purple-shaded silk.
 sẹ-da yọ-ri-yọ-ri, *n.* white silk.
 sẹ-kpo-lo-hun, *n.* name of a prickly shrub.
 sẹ...lo-dzu or le-ka-na, *v.* to wink or beckon by way of giving a hint.
 sẹ-ni-fin-ran, *n.* name of a thorny shrub.
 sẹ...ni-fòn, *v.* to suit; to rub or scratch the body of another.
 sẹ...ni-sẹ, *v.* *See* sẹ...ni-sẹ.
 sẹ-sin, *v.* *See* sẹ-sin.
 sí...lẹ-nu, *v.* to open one's mouth, to cause one to open the mouth.
 sín, *v.* *See* sí.
 Sọ-á-mi-de, Sọ-a-nde, *n.* a proper name.
 so-we-ra (sẹ), *v.* to struggle, to make a great effort.
 sọ-fọ-din, *n.* an esculent herb.
 sũ-ru, *v.* to be small, applied to a leaf or bunch.
 sũ-ru, *v.* to be large, applied to a bunch or anything expanded.
 sũ-si, *v.* to care for, to notice, to reply when spoken to.

T.

ta-ki-ri, *n.* elemency.
 tá-ma-han, *v.* *See* támaha.
 tan-ga-lá, *n.* the name of a bird.
 tan-gi-ri, *n.* a running plant, the fruit of which is used in dressing morocco leather.
 ta-ré (iré), *v.* to imprecate evil upon.
 tẹ...ná, *adv.* already: iwọ tẹ de ná? hast thou come already?
 tẹ...rì, *v.* to put under, submerge; hide, suppress.
 ti-a, *n.* *See* tira.
 ti-an-ti-an, *adv.* abundantly.
 ti...so-de (si), *v.* to push out, to exclude.
 ti-won-ti-won, *n.* a wart; the name of a bird.
 tom-bó, an unmeaning word used by children at play, while hopping on one foot: kakalaka tombó! hop along tombó!

tô-ro, *n.* a kind of rat, noted for its fatness.
tô-fô (tù), *n.* to tell mournful news, to bring news that a friend is dead.
tu...džô (odžô), *v.* to dismiss an assembly : tudžo, to disperse, adjourn.

U.

û, *pron.* him, her, it, after a verb ending in 'u.'

W.

wà...lai-ya (li), *v.* to encourage, embolden, strengthen.
wa-kpa, *n.* See warakpa.
wa-kpa-kan (wò), *v.* to squint.
wá-lê (wáh ilê), to come to the ground : odžú rê wálê (his eye came to the ground), he came to himself, after being drunk or crazy.
wẹ-re-wẹ-re, *n.* a dwarf.
wi-li-ki, *n.* leather worn by males.
wo-lu-ha, *n.* among the Mohammedans, family prayer.

wô hin (chin), *v.* to be crook-backed or hunch-backed.
wôŋ dô (ôdo), *v.* to measure the depth of water, to sound.
wô-şô-wô-şô, *n.* the name of a bird.

Y.

yâ-be-dži (ibedži), *v.* to purchase images of the god of twins.
yâ-ha-na (ahana), *v.* to be wild, wicked, lawless.
yan-kô-tô, *n.* an esculent herb.
yan-ran-yan-ran, *adv.* brilliantly.
yan-rin, *n.* an esculent herb.
yan-rin mi-mi or **yi-yin-rin**, *n.* quicksand.
yâ-re (erè), *v.* to make or purchase an image to worship.
yâ-rin, *n.* a disease in fowls.
yi-fô (yi, to turn), *v.* to dress greens for the table.
yin-rin, *v.* to yield or give way under the foot.
yo...lô-hun (li), *v.* to seek to entrap in conversation.
yon-yon, *n.* a plant used for washing horses.
yô-rî, *n.* name of a bird.

PART II.

ENGLISH-YORUBA.

ABA

abast', *adv.* lẹhin, sẹhin.
 aban'don, *v.* fisilẹ.
 aban'donment, *n.* ifisilẹ.
 abase', *v.* rẹlẹ.
 abase'ment, *n.* arẹlẹ, irẹlẹ.
 abas'er, *n.* arẹlẹ.
 abash', *v.* dodžuti, lodžuti, ti ... lodžú.
 abash'ment, *n.* idodžuti.
 abate', *v.* fà, mu ... fà, wawọ.
 abat'ed, *a.* afà.
 abate'ment, *n.* ifà.
 abbre'viate, *v.* ke kuru.
 abbrevia'tion, *n.* ike kuru.
 abbre'viator, *n.* ake kuru.
 abd'icate, *v.* fi oye lẹ.
 abdica'tion, *n.* ifoyelẹ.
 abdo'men, *n.* ikun.
 abdo'minal, *a.* ikun, ti ikun.
 abduction, *n.* igbelọh.
 abet', *v.* See *aíd, help*.
 abet'ting, *n.* òwẹ.
 abet'tor, *n.* ọlẹwẹ.
 abhor', *v.* korira.
 abhor'red, *a.* akorira.
 abhor'rence, *n.* ikorira.
 abhor'rent, *a.* li irira.
 abhor'rently, *adv.* li akorira.
 abide', *v.* gbe, dżoko, wọ.
 abí'dingly, *adv.* li agbe, ni ikpe.
 abil'ity, *n.* agbara, ikpa, okun.
 ab'ject, *a.* atẹni, arẹlẹ.
 abjectness, *n.* tẹni'tẹni, itẹni.
 ab'jected, *adv.* li atẹni.
 abjura'tion, *n.* egún.
 abjure', *v.* še egún.
 abjur'er, *n.* asẹgún.
 a'ble, *a.* lẹ, lera.
 a'ble-bodied, *a.* alagbara, alera.

ACC

ablu'tion, *n.* alowala, iwẹnọ.
 a'bly, *adv.* li agbara.
 abode', *n.* ẹbu, ibudžòko.
 abo'liah, *v.* kparun.
 abo'liahable, *a.* ti á lẹ kparun.
 abo'lisher, *n.* akparun, ẹni ti o kparun.
 aboli'tion, *n.* akparun, ikparun.
 abo'minate, *a.* akorira.
 abo'minate, *v.* korira.
 abomina'tion, *n.* irira.
 abori'ginal, *n.* atetedelẹ.
 abor'tion, *n.* isẹnọ: *to suffer abortion*, sẹnọ.
 abor'tive, *a.* asan.
 abound', *v.* kpọ. See *multiply*, *increase*.
 about', *adv.* kiri, niha.
 about', *prep.* nidi, niditi, niha.
 above', *adv.* leke, lóke, sòke.
 above', *prep.* dżá, leke, lóke, sòke.
 abreast', *adv.* lẹkan'kan, niha.
 abroad', *a.* atú.
 abroad', *adv.* kákiri, kálẹ, lode.
 ab'rogate, *v.* See *repeal*.
 abrupt', *a.* òdžidži, ogán.
 abrupt'ly, *adv.* lòdžidži.
 abrupt'ness, *n.* òdžidži, ogán.
 abscond', *v.* kpanọ, salọh, sa-kpanọ.
 abscond'er, *n.* asalọh.
 ab'sence, *n.* aisi, ẹhin.
 ab'sent, *a.* kòsì, aisi, lẹhin.
 absent', *v.* fákuro, yákuro.
 absentee', *n.* alaisi.
 absolu'tion, *n.* afidži.
 absolve', *v.* fidi.
 absolv'er, *n.* afidži.

absorb', *v.* mọ, mu.
 absorb'able, *a.* ti á lẹ mu.
 absorb'ed, *a.* amu.
 absorb'ent, *n.* agbemú.
 absorp'tion, *n.* amu.
 abstain', *v.* fà ... sẹhin, rọnọ.
 abste'mious, *a.* aronọ.
 abste'miously, *adv.* li aronọ, rọnọrọnọ.
 abste'miousness, *n.* aronọ.
 ab'stinance, *n.* ironọ.
 ab'stinent, *a.* ironọ.
 abstract', *v.* gbe ... lẹh, mu ... lẹh, sẹn.
 abstruse', *a.* dżinlẹ, luha.
 abstruse'ly, *adv.* dżinlẹ, luha-luha.
 abstruse'ness, *n.* adżinlẹ, idżinlẹ.
 absurd', *a.* kò dżana.
 absurd'ity, *n.* aídžana, aítọ.
 absurd'ly, *adv.* laítọ.
 abund'ance, *n.* ifo, ọkpọ, ọkpọ-lokpọ.
 abund'ant, *a.* kpíkọ, kpọ.
 abund'antly, *adv.* li ọkpọ-lokpọ.
 abuse', *v.* bú, fi ... bú, ẹu ... lẹhun.
 abuse', *n.* binabina, ẹbu, iregún.
 abu'ser, *n.* alẹhu.
 abu'sive, *a.* ẹbú, li ẹbú (li, *to have*).
 abu'sively, *adv.* li ẹbú (li, *in, with*).
 abut', *v.* wakpọ.
 abut'ment, *n.* iwakpọ.
 abyss', *n.* ibu, ibubu.
 accede', *v.* See *agree*.

ac'cent, *n.* iwilé.
 accent', *v.* wí lé.
 accept'ed, *a.* awilé.
 accept', *v.* gbà, gbíké, tewógbà.
 accept'able, *a.* atewógbà, dà.
 accept'ably, *adv.* li atewógbà.
 accept'ance, *n.* itewógbà.
 accept'ed, *a.* atewógbà.
 accept'er, *n.* atewógbà.
 ac'cess, *n.* isumọ.
 access'ible, *a.* tí á lè sumọ.
 ac'cident, *n.* abákpadé, èkí.
 accident'al, *a.* akóşeba.
 accident'ally, *adv.* li abákpadé.
 acclama'tion, *n.* ihókùṅ, ihólé.
 accom'modate, *v.* mu ... bá, mu ... bade.
 accom'modating, *a.* ašemu (applied to persons).
 accom'moda'tion, *n.* (room), aye, ibí, wò.
 accom'paniment, *n.* ašínlòh, ibálòh.
 accom'pany, *v.* bá ... lóh, sùp.
 accom'panying, *a.* tí bá wáh or lóh.
 accom'plice, *n.* òwẹ.
 accom'plish, *v.* kpinu, šetán.
 accom'plished, *a.* akpinu.
 accom'plisher, *n.* akpinu.
 accom'plishment, *n.* akpinu.
 accord', *v.* bá ... de, rekpọ.
 accord', *n.* ibáde.
 accord'ance, *n.* ibáde.
 accord'ant, *a.* abáde.
 accord'ing to, *prep.* gege bí.
 accost', *v.* kí.
 account', *v.* rodzọ.
 accountability, *n.* idzísẹ.
 account'able, *a.* ni idzísẹ.
 accou'trements, *n.* itanora.
 accu'mulate, *v.* kó ... dzọ.
 accu'mulated, *a.* akodzọ.
 accumula'tion, *n.* agbasi, akodzọ.
 ac'curacy, *n.* akpé, ikpé.
 ac'curate, *a.* kpé.
 ac'curately, *adv.* kinikini.
 accur'se', *n.* See *curse*.
 accusa'tion, *n.* atíragunú, efi, ešun, ešun.
 accuse', *v.* fi ... lẹ́fẹ́, fi ... bú, fi ... sọy, tíragunú, sọy, sùp.
 accus'ed, *n.* afišun, ełẹ́fẹ́.
 accus'er, *n.* olufišun.
 accus'tom, *n.* ló.
 ache, *v.* fí, ra.
 a'cid, *a.* kan.

acknow'ledge, *v.* dzewó.
 acknow'ledgment, *n.* idzewó.
 acquaint'ance, *n.* adugbo, aladugbo, odzulumó.
 acquit', *v.* dá ... kuro.
 acquit'tal, *n.* idakuro.
 acquit'ted, *a.* adakuro.
 across', *adv.* li elu.
 act, *v.* še.
 act, *n.* aše, iše.
 ac'tion, *n.* aše.
 ac'tive, *a.* munú, yara.
 ac'tively, *adv.* munumunu.
 acti'vity, *n.* imunú, iyara.
 ac'tor, *n.* aše, oluše.
 acute', *a.* gongo, má.
 acute'ness, *n.* agongo, amú, imú.
 adapt', *v.* muba, mu ... bade.
 adapta'tion, *n.* amuba.
 adapt'ed, *a.* bárekpé.
 adapt'edness, *n.* abade.
 add', *v.* bu ... kọy, bumó, busi, fi ... kọy, fi ... si, ka ... kọy, šeni si.
 add'er, *n.* olubukọy.
 add'ing, *n.* abukọy.
 addi'tion, *n.* abukọy, abumó, eni, ibusi.
 addi'tional, *a.* alakọy.
 ad'dle, *v.* še obu.
 ad'dled, *a.* obu.
 adhere', *v.* da ... kpònmó, da ... mó, fà ... mó, faramó, mó, rẹ.
 adhe'rence, *n.* awanú, idakpé, mó.
 adhe'rent, *a.* amó.
 adhe'sion, *n.* imó.
 adhe'sive, *a.* amó.
 adhe'siveness, *n.* imó. For other roots, see *adhere*.
 adieu', *adv.* See *farewell*.
 adjoin', *v.* faramó, gbè.
 adjoin'ing, *a.* afaramó, ifaramó.
 adjourn', *v.* tu ... ka.
 adjura'tion, *n.* afibú, ifibú.
 adjure', *v.* fi ... bú.
 adjust', *v.* kpakalza, yà.
 ad'mirable, *a.* ni iyin.
 ad'mirably, *adv.* tolo.
 admire', *v.* yin.
 admit', *v.* gbà, gbà ... nilé.
 admit'tance, *n.* igbà.
 admo'nish, *v.* kilọ.
 admoni'tion, *n.* akilọ, ikilọ.
 admo'nitor, *n.* onikilọ.
 ado', *n.* ariwo.
 adopt', *v.* gbà, gba ... še.

adorn', *v.* še ... lẹ́fẹ́, šesọ, wẹ.
 adorn'ing, *n.* oşo.
 adrift', *a.* fò, afò.
 adult', *n.* ágba.
 adul'terate, *v.* lùlù, da ... lu, lu.
 adul'terated, *a.* abulà, adalu.
 adul'teration, *n.* abula.
 adul'terer, *n.* adó.
 adul'teress, *n.* kpanšaga.
 adul'terous, *a.* aladò oníşẹ kpanšaga.
 adul'tery, *n.* òdži, kpanšaga.
 advance', *v.* fi ... šadzu, kọrisi, šadzu.
 advance', *n.* iwadzu.
 advance'ment, *n.* afišadzu, ifišadzu.
 advan'tage, *n.* ayaní.
 advanta'geous, *a.* šẹ ayaní.
 ad'vent, *n.* atibò.
 ad'versary, *n.* ọta.
 ad'verse, *a.* odi si, še odi si.
 adver'sity, *n.* ikpondu.
 advice', *n.* adamọran.
 advise', *v.* bá ... rò, damọran, gbimó, lamọran.
 advi'sedly, *adv.* See *considerately*.
 advi'ser, *n.* adamọran, onida-mọran.
 ad'vocate, *v.* gbà ... wi, bẹbẹ fu, šikpe fu.
 ad'vocate, *n.* abẹbẹ, alagbàso, ašemu, ełẹ́bẹ.
 adze, *n.* ake gboro.
 afar', *adv.* li okere.
 affair', *n.* òran.
 affect', *v.* kpa, dọy.
 affec'tion, *n.* afẹ, ifẹ.
 affec'tionate, *a.* onife.
 affec'tionately, *adv.* li afẹ, fi ifẹ.
 affirm', *v.* tennumó.
 affirma'tion, *n.* itenumó.
 afflict', *v.* foro, kpon ... lodzú.
 afflict'ed, *a.* olukpondu.
 afflic'tion, *n.* ikpondu, wahala.
 afflu'sion, *n.* ibóniwọy.
 afloat', *v.* li afò.
 afoot', *adv.* bá tí ẹşẹ: *he went on foot*, ó bá tí ẹşẹ lóh.
 afraid', *a.* alyafò, bẹru.
 afresh', *adv.* titen, toy.
 after, *adv.* lehin, sehin.
 afternoon', *n.* odzọ aley, aro-mólẹ́, idzískpadé.
 afterwards, *adv.* igbehin, ni gbehin.

again', *adv.* dehin, ÷we, kpada, ton, wè.
against', prep. sí, tí.
age, n. ogbo.
aged, a. arugbo, ogbo.
agent, n. adžele, asčhinde, aso-
 dzu.
aggress', v. firan.
aggressor, n. onifiran.
agitate, v. ru, ru...soke.
agitated, a. aru, ru.
ago', adv. kodža.
agonize, v. šó awayá.
agony, n. awayá iwayá-idža.
agree', v. bade, bare, diinó, rě, rěkpò, šòkan tēsi.
agree ment, n. abikawani, iba-
 de : *a secret agreement*, adimò.
aground', adv. gún, tó.
ague, n. odžòdžò.
ah', interj. aa.
ahead', adv. lí iwadžu, sí iwa-
 džu.
aid, v. dže...lowe, gbe, ran...
 lowe.
aider, n. elegbe, oluranlowe.
ail, n. še, dòn : *ě še ọ? what ails*
there?
aim, v. sá, sòy, sùn, wòn.
air, n. afele, efufu.
air, v. kpatefe.
air'y, a. onifele.
akin', a. ba...tán, tán.
alarm', v. deruba, dagiri.
alarm', n. idagiri, ididži.
alas', interj. aa, áša, yé.
albi'no, n. afin.
ale, n. ọtí.
a'lien, n. adžedži.
alienate, v. ši...luíya.
alight', v. bá.
alike' (be), v. áyato, bákaná,
 dabi, dzo.
alive', a. alaiyé, aláyè, áye,
 layè.
Al'coran, n. alkurani.
all', a. gbogbo, dede, ogbo : *at*
all, rara, arara.
allegory, n. akawe.
alliance, n. ibarẹ.
alligator, n. ọtí.
all-see'ing, n. arigungbogbo.
allure ment, n. ẹtan.
Almigh'ty, n. Obugidži, Ban-
 gidži.
almost', adv. fere ọfere.
alms, n. itorẹ ànn, ọrẹ ànn, sará,
 sarhá.

aloft', adv. lóke, sòke, leke.
alone', a. nikan, nikanšoso.
alongside', adv. niba.
aloof', adv. okere : *to stand*
aloof, takete.
aloud', adv. kunjun.
alrea'dy, adv. ná, nẹ.
also, conj. kpehu.
al'tar, n. idžebọ, kpekpe.
altogether, adv. kpatakpata.
al'ways, adv. nigbagbogbo.
ambuscade', n. baba, ila, ido-
 na.
am'bush, v. bāmọlẹ, dena, ro-
 gun.
am'bush, n. abāmọlẹ, adena.
amen', adv. amin.
amend', v. toy...še.
amend'ment, n. atonše.
a'miable, a. niwa.
amid', amidst', prep. larin.
amiss', a. šíše.
among', prep. larin, ninó, šarin,
 sinó.
amount' to, v. dža sí.
a'mulet, n. onde, tira, ọgun.
an'cestor, n. italemo, babá.
an'chor, v. dọkọdura, dọkoro.
an'chor, n. idokoro.
an'cient, n. igbani.
an'ciently, adv. nigbani, ni-
 lailai.
an'cientness, n. oghologbo.
and, conj. ọn, sí, atí, tí, dehin.
an'gel, n. malika.
an'ger, n. ibinó, idinó.
an'ger, v. bí...ninó.
an'gle, n. ọgon.
an'gry, v. binó, ru, runó : *an an-*
gry man, abinó.
an'kle, n. kokose.
anni'hilate, v. sọ...dì ásan.
annoy', v. dà...lara, yọ...
 lenu.
annoy'ance, n. idžaba, lála.
anoint', v. kun, kpara, ta, fi
 ororo yan.
anoint'ed, n. ọtí to á tí ororo
 yan.
ano'ther, pron. ọmírán, mí-
 ran, mírẹ, omírán, omunikedži.
an'swer, v. dāhun, da...lōhun.
an'swer, n. esi, ilahun.
ant, n. erun : *different kinds are*
called, ẹra, esa, idžalóh, ikandu,
 ikan, ọta.
antece'dent, n. asadžu.
antelope, n. the various kinds

are called, agbari-gba, agberrin,
 egbin, ekulu, era, etu, gaba, ma-
 šegbin, otolo, esuo.
anti'cipate, v. budža, daba.
anticipa'tion, n. abudža, itowọ.
an'tidote, n. akporó.
anxi'ety, n. adžo, aniyán, idaro,
 itara.
anxious, a. alaniyan, tadžu, še
 adžo, džiyan.
anxiously, adv. fi adžo.
a'ny, a. ọtí.
a'ny-one, pron. ọn kán.
a'ny-thing, n. ohunkodun.
apart', adv. lí akpakan.
apart ment, n. yara.
ape, n. inaki, ọro.
apiece', adv. fú olukuluku.
apo'logize, v. šikpe, wawí.
apo'logy, n. awawí, išikpe.
appa'rel, n. aso, ilòra.
appa'rent, a. hàn, tí o hàn.
appari'tion, n. arididži.
appeal', v. tí ọran lóh.
appear', v. fura...hàn, hàn, lá,
 le, yọ, yodžu, yori.
appear'ance, n. áwe, odžá.
appearing, a. ilá.
appease', v. tu, tu...ninó.
appertain', v. tori.
app'etite, n. isim.
applaud', v. hokun.
applause', n. ihokun.
apply', v. fi, fi sí.
appoint', v. fi...džẹ, fi...še,
 ran...lòh, sòndi, yàn : *to ap-*
point a day, dadžo.
appoint'ed, a. ayàn : *appointed*
day, adadžọ.
appoint ment, n. ilána, ifidže.
appraise', v. sokpankpa.
apprehen'sion, n. ọnó, ọnó.
apprehen'sive, a. šadžo, šonó.
approach, v. sọninó, sunó, tò.
a pron, n. alayekan, ibante.
ar'cher, n. akpofin, akporiki,
 tafatafa.
ar'gue, v. džiyan.
arise', v. diđe, nde : *to arise be-*
fore day, dadži.
aristo'cracy, n. fada.
ark, n. ọko.
arm, n. akpa.
arm, v. di...hamọra : *to arms!*
 ẹlẹ.
armed, a. hamọra.
arm'let, n. adžode, džińu, šafin,
 šaba.

ar'mor, *n.* ihamora.
 arm'pit, *n.* abeya, abiya, iya.
 ar'my, *n.* agbagun, ogun.
 around', *prep.* ká.
 around', *adv.* ká, kálé.
 arouse', *v.* dži...dide, džinde.
 arraign', *v.* bi...ledžó.
 arrange', *v.* tò.
 arrangement', *n.* itò.
 arri'val, *n.* atide.
 arrive', *v.* bǎ, de, džas, tò.
 ar'row, *n.* ofa.
 ar'tery, *n.* isan.
 art'ful, *a.* alayidayida.
 as, *adv.* ba, bi, biènikpé, bi...ti.
 ascend', *v.* gòke, gori.
 ascen'sion, *n.* igòke.
 ascertain', *v.* ridi.
 ashamed', *a.* ššin, tidžu, ti...
 lodžu.
 ash'es, *n.* eru, labulabu.
 ashore', *a.* gunje.
 aside', *adv.* li akpakan.
 ask, *v.* bère, bi, bi...lebi, bi...
 lere.
 asleep', *a.* asun, nsun.
 ass', *n.* ketekete.
 assassina'tion, *n.* amolekpa.
 assault', *v.* ba...ni dżamba, dá,
 da...nigi, kolu.
 assemble', *v.* dari...džó, gba
 ...džó, džó, kpé, kpé...džó.
 assen'bly, *n.* adžó, akpedžó:
*an assembly for a feast, adžó-
 džekpó, adžómokpó.*
 assent', *v.* balhun.
 assist', *v.* bá...še, glá, gbe,
 ran...lowo.
 assist'ance, *n.* ibaše, iranlowo.
 assist'ant, *n.* abaše, abaniše.
 asso'ciate, *v.* kegbe, šegbe,
 šore.
 asso'ciate, *n.* alabadže, egbe.
 assort', *v.* kawó.
 assort'ment, *n.* owó.
 assume', *v.* mawò.
 assu'rance, *n.* igbekéle.
 assure', *v.* fi or mu...dadžu.
 assu'redly, *adv.* dadžúdadžu.
 asth'ma, *n.* fere.
 asthma'tic, *n.* alafere.
 asto'nish, *v.* enu ya, yanu, ya
 ...lenu, há še.
 asto'nishment, *n.* há, iyanu.
 astray', *adv.* yakpa.
 asun'der, *adv.* bató.
 at, *prep.* leba, li, ni, si, ti.
 athirst', *a.* onglic gbe.

atone', *v.* še etutu.
 atone'ment, *n.* etutu.
 attach', *v.* fi...mó.
 attach'ment, *n.* afimó.
 attack', *v.* džalù, kolà.
 attain', *v.* owó tò.
 attain'ing, *n.* atini.
 attempt', *v.* kusa, sà.
 attempt', *n.* isà.
 attend', *v.* dà, fódžuto, fódžusi,
 fiyesi, kiyesi, kodžusi, mudžuto.
 atten'dance, *n.* ibálóh, isin.
 atten'dant, *n.* amóra.
 atten'tion, *n.* afiyesi, akiyesi,
 ifetisi, igbó.
 at'tic, *n.* adža.
 attract', *v.* kunfa.
 attrac'tion, *n.* okunfa.
 at'tribute, *n.* iwà.
 au'dible, *a.* ti á lè gbo.
 austere', *a.* onròrò, ròrò.
 au'thor, *n.* olúkpileš, oniši.
 author'ity, *n.* olá.
 au'thorize, *v.* fi olá lè.
 avail', *v.* ère dže, džère.
 a'varice, *n.* okandžua.
 avari'cious, *a.* okokandžua.
 avenge', *v.* gbesin, wadžo.
 aveng'er, *n.* olugbesan.
 a'venue, *n.* okpokpo, orere.
 aver'sion, *n.* alfe.
 avert', *v.* yi...kuro, yi...kpa-
 dà.
 avoid', *v.* sa kuro.
 await', *v.* durode.
 awake', *v.* dži: to awake sud-
 dently, tadži.
 awake', *a.* adzi, aisun.
 aware', *a.* mǎ.
 away', *adv.* kuro, lóh, nǎ.
 awe, *v.* eru.
 awe, *v.* deruba.
 awe'ful, *a.* li eru.
 awhile', *adv.* sa, ša.
 awk'ward, *a.* gígó, gǎ.
 awk'wardly, *adv.* teteré.
 awk'wardness, *n.* gígó.
 awl, *n.* olu.
 axe, *n.* áke, akeke, edon.

B.

baboon', *n.* akiti, obo.
 ba'by, *n.* omó-agbo, omó-owó.
 ba'chelor, *n.* akpon, ogi.
 back, *n.* ehin: back of a fur-
 nace, dagin.

back, *adv.* lehin, sehin.
 back'bite, *v.* sorolehin.
 back'biter, *n.* alenini, asorole-
 hin.
 back-door', *n.* čburu.
 backed, *a.* abehin.
 backslide, *v.* fá...sehin.
 back'ward, *adv.* lehin, lehin-
 lehin, sehin.
 bad, *a.* buru, buburu.
 bad'ness, *n.* buburu.
 bag, *n.* abò, akpo, lába.
 bag'gage, *n.* eru.
 bai'liff, *n.* ikpefon, olokpa.
 bait, *v.* fi...wǎ.
 bake, *v.* di, di, yan.
 ba'ker, *n.* alákara.
 ba'lance, *n.* ogba.
 bald, *a.* kpári, akpári.
 bale, *v.* (water) gbón; (to pack),
 di...li oketè.
 bale, *n.* oketè.
 ball, *n.* isú, iwóšò, ota.
 ball, *v.* sú, di...li osú.
 bamboo', *n.* okpagan, (wine-
 palm) akpako.
 bana'na, *n.* ègède.
 band, band'age, *n.* odža, agba-
 dža, éka.
 ba'nish, *v.* lé kuro or džade.
 bapt'ism, *n.* itèbomi.
 baptize', *v.* tǎbomi.
 barba'rian, *n.* alagbede.
 bar'ber, *n.* onigbálžamó.
 bard, *n.* akúnyungbà.
 bar'gain, *v.* delun, kpínu.
 bar'gain, *n.* adelun, arosilè,
 arotèlè.
 bark, *v.* gbó.
 bark, *n.* ekpo.
 barn, *n.* ahere.
 bar'el, *n.* agba.
 bar'ren, *a.* agàn, šagàn, ase-
 kpon, seču, yagan, sekpon, iron-
 gun, aseču, (said of land) asale,
 akpara, sakpara.
 bar'renness, *n.* See barren.
 bar'ter, *v.* kparó, kpašikparó.
 baste, *v.* gan.
 bathe, *v.* luwé.
 bath'house, *n.* baluwé.

- bat'tle**, *n.* idzakpati, ogun.
bat'tle-axe, *n.* gamugamu.
bawl, *v.* kighé.
bawling, *n.* ikighé, ifó.
be, *v.* mbé, wà, yà, nì, gbé, rì, sí, ée, dī, dḡe.
beach, *n.* ebute, ibadò.
bead, *n.* iléke; *shell bead*, akon; *palm-nut bead*, alagibigha; *fossil—old Egyptian glass bead*, segi.
beak, *n.* kókoro.
beam (*of a house*), *n.* eké.
bean, *n.* ewé, awadḡe, kpo-kpando.
bear, *v.* bí, bíng; *to bear fruit*, so, seso; *to bear a burden, carry*, rù; *to bear with patience, to endure*, rù, kparamḡ.
beard, *n.* irungbon.
beast, *n.* eran, eranko.
beast'ly, *a.* bí eranko.
beat, *v.* lù, bə, tḡ, bilù, kpa.
beautiful, *a.* lí ewa, yandzu, aḡwa, dara.
beau'tify, *v.* še...lḡwa.
beau'ty, *n.* ewa, idara.
because, *conj.* nitorì, nitorì, latorì.
beck'on, *v.* dzuwḡ, fəwəkpḡ, šakpere.
become, *v.* dà, dī. See *suit*.
bed, *n.* ibusun, akete, okpo, kpekpele.
bed'bug, *n.* idon.
bed'fellow, *n.* abanisun.
bee, *n.* oyin, olugbe.
bee'hive, *n.* ilé-oyin.
beef, *n.* eran malù.
beer, *n.* otì, šekete.
bee'tle, *n.* (*a heavy mallet*), alubara, bambam; (*an insect*), obonbon.
be'fall, *v.* ba.
before, *adv.* ki...to, ki...teni, larin kan, niladzu, niwadzu sin, siwadzu.
before, *prep.* iwadzu, lodzu, niwadzu, siwadzu, siwadzu.
before'hand, *adv.* tḡe.
befriend, *v.* še...li oré, še...loré.
beg, *v.* bḡ, bḡbe, šagbe, torp.
beget, *v.* bí, bíng.
beget'er, *n.* obi.
beg'gar, *a.* alagbe, ašagbe, ma-dekoso.
beg'ging, *n.* agbe.
begin, *v.* bḡresi.
begin'ner, *n.* akakoše, olakpileše.
begin'ning, *n.* akòše, ašəšəkoše, atetekoše, ateteše, atikpileše, ikpilḡ, ikpileše, iléše.
begrudge, *v.* kḡn, kḡn.
beguile, *v.* fān, tḡn...dḡe.
beguilement, *n.* itāndḡe.
behave, *v.* hù, hùwà.
beha'vior, *n.* hìlù, iwà, iwà-kwà.
behead, *v.* bə...lorì, bəri.
behind, *a.* lḡhin, šḡhin, šḡhin.
behold, *v.* kiyesh, sawò, wò.
behoove, *v.* yə fū.
be'ing, *n.* iwà.
belch, *n.* ifḡ.
belch, *v.* guḡ.
belief, *n.* iglagbḡ.
believe, *v.* gbà...gbḡ.
believ'er, *n.* olugbḡ, oniglagbḡ.
bell, *n.* ago, agogo, korokoro, šaworo, gbangan.
bell-ringer, *n.* alagogo.
bellows, *n.* ewiri.
bel'ly, *n.* ikun.
belong, *v.* dḡe tì, še tì, torì.
belov'ed, *a.* ayanḡe, ayo, olufé.
below, *prep. and adv.* isalḡ, lodo, nisalḡ.
belt, *n.* lawani, mayati.
bend, *v.* bà, dà, lò, rḡḡ, tḡ, tḡba, tḡ...balḡ, tḡ...bḡre.
beneath, *prep.* labḡ, nisalḡ.
benefac'tor, *n.* ašore, olore.
be'nefit, *v.* da...lere, san.
bene'volence, *n.* ifenì, ànu ofḡ.
bene'volent, *a.* olore ofḡ, olam ofḡ.
benumb'ed, *a.* keti, kotiri.
bereave, *v.* gbà...li (Gen. 43, 14), še...lofo.
bereav'ed, *a.* fo.
bereave'ment, *n.* ofo.
beset, *v.* rə...gbaka.
besides, *adv.* kḡḡlukpeḡ.
besiege, *v.* doti...ka.
bespeak, *v.* bà.
best, *a.* dara dḡù gbogbo lḡh.
bestow, *v.* hàsi.
bestow'er, *n.* aluhàsi.
betray, *v.* dà, fì...hàn, kpa.
betray'er, *n.* onilhàn, oniku-kpani.
betroth, *v.* fə...fu, tḡ...sḡna.
betroth'ed, *a.* aḡsḡna.
bet'ter, *a.* fuyḡ, san.
between, *prep.* karin, ninḡ.
bewail, *v.* kpòhunḡre.
beware, *v.* kiyesh.
bewil'der, *v.* dānu.
beyond, *prep.* kodzà, lōke.
bid, *v.* kpḡ.
bier, *n.* aga-kposi.
big, *a.* tobi, lara.
bill-hook, *n.* ada.
billow, *n.* tere, irumi.
bind, *v.* dḡ, dī, dḡmḡ, deru.
bind'ing, *n.* dīdī, ébo, édi.
bird, *n.* cḡḡḡ; *bird of prey*, akòsa.
bird'-cage, *n.* ilé-cḡḡḡ.
bird'lime, *n.* ate.
bird'shot, *n.* adariya, awaya.
bird'snare, *n.* adzu-akpa, igy-kpa, isoka, kḡḡkpḡ.
birth, *n.* ilá.
birth'day, *n.* idzḡ ilá, odzḡ ilá.
birth'place, *n.* ilá-ilá.
birth'right, *n.* erun ilá.
bit, *n.* gungan, kikini, okete; *a bridle-bit*, idzamu.
bite, *v.* bu...dḡe, bu...šan.
bit'ter, *a.* koro.
bit'erness, *n.* arankun, ikoro, ororo.
black, *v.* dḡ.
black, *a.* adú (bolodḡy).
black'ing, *n.* edú.
black'ness, *n.* dudu.
blad'der, *n.* ilé ato.
blade, *n.* (*of grass*), ehu.
blame, *v.* bá...wì, fì...dḡḡbi, wḡḡ.
blame'less, *a.* aliswí.
blan'ket, *n.* alakiba, kulusu.
blaspheme, *v.* sḡ...egán, sḡro egán.
blasphem'er, *n.* asḡro egán, olusḡro egán.
blas'phemy, *n.* egán.
blast, *v.* fifḡ.
blaze, *n.* gwo-ina.
bleed, *v.* sḡḡḡe gbádḡe, gbà...lḡḡe.
bleed'ing, *n.* isḡḡe, igbádḡe; *a bleeding at the nose*, anurḡn.
bless, *v.* búkḡn, búsi, sure, ware.
bless'ed, *a.* alalukḡn, ibukḡn ní fu.
bless'er, *n.* olúbukḡn, onilusi.
bless'ing, *n.* abukḡn, ibukḡn, ibusi.
blind, *a.* lodzà; *a blind person*, afodzu.
blind, *v.* fə...lodzà; *to blind with brightness*, bodzuyan.
blind fold, *v.* dī...lodzà.

blind'ness, *n.* airiray, ife'dzú.
blis'ter, *v.* lè.
bloat, *v.* wu.
block, *n.* (*cf.* houses), kusata.
block, *v.* dina.
block'head. See *stupid*.
blood, *n.* edže.
blood'guiltiness, *n.* ɛ́sɛ edže.
blood'iness, *n.* edelže.
blood'shed, *n.* itadžes-ilje.
blood'y, *a.* edže, edelže.
bloom, *v.* diže, tu.
bloom, *n.* ina, itana, yetuyetu.
blot, *v.* bá...wòp, kparun.
blot, *n.* abáwòp.
blow, *v.* fɛ, fɔp: *to blow off*, fɛnɔ; *blow away*, fɛlɔh.
blow, *n.* idža: *a blow with the fist*, bende, ɛ́sɛ.
blow'ing, *a.* ifɔp, ife.
blue, *n.* aró, ayinrin, wadži.
blunt, *a.* kú.
bo'a-constrictor, *n.* ɛ́rɛ.
boar, *n.* akò ɛ́lɛdɛ: *a wild boar*, ɛ́gan, amale, ɛ́gan.
board, *n.* akpako, kpako.
boast, *v.* ɛ́sɛ fefe, fudža, halɛ, džanu, yanran.
boast'er, *n.* ahale, onifefe.
boast'ing, *n.* fefe.
boat, *n.* ɛ́kò, ɛ́kpere.
boat'man, *n.* atuko, ɛ́lɛkò.
boat'tail, *n.* akenu.
bo'died, *a.* abara, alara.
bo'dily, *adv.* taratara.
bo'dy, *n.* arí.
bog, *n.* ɛ́rɛ, ira, ɛ́akata.
bog'gy, *a.* akòrɔ.
boil, *n.* ɛ́wɔ.
boil, *v.* bɔ, hó, ru.
boil'er, *n.* ɛ́du.
bold, *a.* gbodžu, laiya.
bold'ly, *adv.* laiberu.
bold'ness, *n.* aliberu, alifoya.
bol'ster, *n.* irora, tintim.
bond, *n.* ɛ́dɛ, ide.
bond, *a.* onde, oloko-ɛ́ru.
bond'age, *n.* ɛ́wɔp, ide, ideni, oko ɛ́ru.
bond'maid, *n.* iwofa ɛ́biri.
bond'man, *n.* iwofa ɛ́kɛnri.
bond'servant, *n.* iwofa.
bond'service, *n.* ɛ́fa.
bone, *n.* egun, egungun.
bo'ny, *a.* elegun.
book, *n.* iwe, tira.
boot, *n.* ɛ́lɛmbin, ɛ́orombin.
boo'ty, *n.* amɔna.

bor'der, *n.* saruba, okpinje, odžu-ilje.
bore, *v.* lu, da...lu.
born, *a.* bibi.
borne, *a.* rinu.
bor'row, *v.* tɔro, win, ɛ́nu.
bor'rower, *n.* atɔro, onitɔro.
bo'som, *n.* owokanaiya.
both, *conj.* atí, medžedžedži.
both'er, *v.* yɔ...lenu.
bot'tle, *n.* igo, afogun, ɛ́kpálaba.
bot'tom, *n.* isale, gbongbo.
bot'tomless, *a.* ainisale.
bough, *n.* aketon, akpa, ɛ́ka, ɛ́tɔn kpeka.
bound, *a.* ide, ni dide.
bound'ary, *n.* okpin, okpinje.
bound'less, *a.* atokpin, ainikpekun.
bow, *v.* foribale, teba, tɛ...bale, ɛ́ri, ɛ́riba.
bów, *n.* ɔrun.
bów'knot, *n.* awotiri.
bów'legged, *a.* awòlɛwòpɛri.
bow'els, *n.* ifɔp.
bowl, *n.* ɛ́kpɔp.
bów'string, *n.* ɛ́sáj.
box, *n.* akpoti, ago, bata.
boy, *n.* omòkɔnri.
boy'hood, *n.* iwà omɔ.
brag, *v.* ɛ́sɛfefe, fudža.
braggado'cio, *n.* kufekufe, afudža.
braid, *v.* bá, dirɔp.
brain, *n.* modumoghu.
brake, *n.* igbɛ.
bran, *n.* egbo, eta.
branch, *n.* See *bough*.
brand, *v.* sàmi si.
brand, *n.* àmi, isàmi.
brand'ed, *a.* alami, onisami si.
brass, *n.* ide.
brave. See *bold*.
brawl, *v.* sɔ, dža.
bread, *n.* ákara; various kinds are called, ɛ́kara, ɛ́kuru, kùduru.
bread'seller, *n.* alákara.
breadth, *n.* igboro, awɛ, ayɛ, ibo.
break, *v.* bá, dá, dža, ɛ́: *to break loose*, džakun, tú; *break out*, ru; *break to pieces*, rún; *break down*, wó; *break up*, tú.
break'fast, *n.* asé-owuro.
breast, *n.* aiya, ige, omu.
breast'bone, *n.* tamkpa.
breast'plate, *n.* awo-aiya.
breast'work, *n.* odi.
breath, *n.* ɛ́ni.

breathe, *v.* mi, mi ɛ́ni, fɛ, gbij.
breath'ing, *n.* ini.
breath'less, *a.* aileni.
breech'es, *n.* See *pantaloons*.
breed, *v.* bí.
breed, *n.* oruko: alakpatà kò bère oruko, *the butcher does not enquire the breed*.
breeze, *n.* afefe, ategun, ɛ́fo.
brew, *v.* kpɔti.
brew'er, *n.* ɛ́lɛtí.
brew'ery, *n.* ɛ́bu-ɛ́tí.
bribe, *n.* abetele.
bri'bery, *n.* abetele, ibetele.
brick, *n.* džikanu.
bride, *n.* iyawo, adelebo.
bridegroom, *n.* ɛ́kò-iyawo.
bridge, *n.* afára.
brid'le, *n.* idžanu.
brid'le, *v.* kò...b idžanu.
brí'er, *n.* egún.
bright, *a.* ɛ́daj, fofó.
bright'en, *v.* ɛ́daj, mu...ɛ́daj.
bright'ly, *adv.* rokiroki.
bright'ness, *n.* idaj, riraj.
bril'liant, *a.* ran, yan.
bril'liantly, *adv.* yan.
brim, *n.* eti.
brim'ful, *a.* kòp di eti.
bring, *v.* mu...wáh, gbe...wáh.
brink, *n.* bebe.
brisk, *a.* yara.
brisk'ly, *adv.* yaya.
bris'tle, *n.* iron gaungang: *a turkey's bristle*, ogbon.
brit'tle, *a.* ɛ́lege.
brit'tleness, *n.* ɛ́ge.
broach, *v.* tu.
broad, *a.* gbòro, nibo.
broad'cast, *adv.* ni gbòro.
broil, *v.* sɔp, sun.
broiled, *a.* sisun.
bro'ken, *a.* dida, ɛ́sɛ; *broken in the bottom*, adžadi.
bro'ken-hearted, *a.* oniròbi-nòdžɛ.
brook, *n.* abetu.
broom, *n.* ɛ́wɔ, ɛ́sá.
broom'sedge, *n.* bɛɛ, mɛɛ.
broth, *n.* onitoro.
bro'ther, *n.* ará, arakɔnri, abàro, egbon.
bro'therhood, *n.* iwa ará.
brow, *n.* iwadžu: *brow of a hill*, gɛɛɛɛɛ.
brown, *a.* kpòg rusurusu.
bruise, *v.* ba.

bruin'ed, *a.* hila, fiŋŋ.
 brute, *n.* ɛranjo.
 bru'tish, *a.* bi ɛranjo.
 buck'et, *n.* kumla.
 bud, *v.* rudi.
 bud, *n.* iŋi, irudi.
 buf'falo, *n.* ɛŋŋ.
 bug, *n.* kòkoro.
 build, *v.* kɛ, kɛlé, mɔ, mɛlé, mɔdi.
 build'er, *n.* akɔlé, amɔlé, dumo.
 bulb, *n.* ɛta.
 bulk, *n.* gbɛgbɛnikɪ.
 bulk'y, *a.* lara.
 bull, *n.* akɔ malù.
 bul'let, *n.* ɛta.
 bul'rush, *n.* ore.
 bul'wark, *n.* odi.
 bunch, *n.* odidi.
 bun'dle, *n.* ábo, idi, iti, iwɔŋ-wɔŋ, yangidi.
 bur, *n.* emɔ.
 bur'den, *n.* ɛrà.
 bur'glar, *n.* abolé, holehole.
 bur'glary, *n.* ibolé, ifilé.
 bu'rial, *n.* isin, siyin.
 burn, *v.* dzó, dzona, dzonirun, dzorun, kun, ran, son, sun, ta.
 bur'nish, *v.* dan, mu...dan.
 burst, *v.* bɛ, ɛan.
 bu'ry, *v.* sin, sinjú.
 bush, *n.* igbɛ, igbòro.
 bu'siness, *n.* isɛ, òran.
 bu'sy, *a.* arodzú, arowò, kù, kposilé.
 bu'sybody, *n.* ofófo, ofoforo, ofofófo.
 but, *conj.* ɛugboɔ, bikòzɛ.
 but'cher, *n.* alakpatá.
 but'ler, *n.* agbòti.
 butt'end, *n.* idi.
 but'ter, *n.* ori amɔ, wagi.
 but'terfly, *n.* labalaba.
 but'tock, *n.* idi.
 buy, *v.* rà, dà.
 buzzard, *n.* gunugumu.
 by, *prep.* lɛba, fi, leti, lodɔ, nikpa, nikpasɛ, siha, niha, ti-kpasɛ.
 by-and-by, *adv.* nigbošɛ, di-gbošɛ.

C.

cackle, *v.* gbe.
 cack'ling, *n.* kɛkɛ.
 cake, *n.* ákara, moimoi, ɔlɛlɛ.

ca'labash, *n.* akoto, igba, kpɔkɔ.
 cala'mity, *n.* ɔfo.
 cal'culate, *v.* šin.
 calf, *n.* ɛgbòro malù.
 ca'lico, *n.* kɛlekú.
 call, *v.* kpɛ, kɛkpɛ, kɔ.
 call, *n.* akesi, ikpɛ.
 cal'lous, *a.* ekò, kangɪ.
 calm, *a.* dákedzɛ, dákeròro.
 calm, *v.* mu...dákedzɛ.
 calm, *n.* idake, idakedzɛ, idakeròro.
 calm'ly, *adv.* šon, tɔlɔ.
 ca'mel, *n.* ibakasiɛ, rakumi.
 camp, *v.* dɔ, tɔlɔ.
 camp, *n.* budo, ibudo.
 can, *aux. v.* lɛ.
 can'did, *a.* awimáiyilun.
 can'dle, *n.* atɔŋkpa.
 can'dlestick, *n.* ɔkpa atɔŋkpa.
 can'dy, *n.* oyin.
 cane, *n.* ikan, tɛtɛgun.
 can'ker, *v.* dakpara.
 can'nibal, *n.* adženia, dženia-dženia.
 can'non, *n.* agbabon.
 canoe, *n.* fatɛlɛ, ɔkɔ, ɔkpɛrɛ.
 cap, *n.* fila, abeti, aramòri, dzò-fylo.
 capa'cious, *a.* gbàgha, tó.
 caprice, *n.* iwákawá.
 capsizé, *n.* dà.
 cap'tain, *n.* olori.
 cap'tivate, *v.* kò...lɔh.
 cap'tive, *n.* (male), igbekun; (female), igbesin.
 capti'vity, *n.* ikogun, ikolɔh.
 caravan, *n.* ero, ɛwɔ, ɔwɔ.
 card'ed, *n.* aburan.
 care, *v.* bodzútó, bódzuwò, nisi, šɛ aniyɔ.
 care, *n.* aniyɔ, itodzú.
 care'ful, *a.* diyan, nani, šɛra.
 care'fully, *adv.* lɛšɛlɛsɛ.
 care'fulness, *n.* ɛsɔ.
 care'less, *a.* nitodzú, alkiyesi.
 care'lessly, *adv.* tɛtɛrɛ.
 caress, *v.* nani.
 car'nal, *a.* ará, ti ará.
 carne'lian, *n.* esu.
 carn'i'vorous, *a.* ɛran abekánu.
 car'penter, *n.* gbɛnagbɛna.
 car'pet, *n.* kinisi.
 car'rier, *n.* aláru.
 car'ry, *v.* rù.
 cart, *n.* kɛkɛru.
 carve, *v.* gbe.

carv'er, *n.* ibuke.
 carv'ing, *n.* ibuke, ike.
 cascade, *n.* ɔšòro.
 case, *n.* ɛran.
 cask, *n.* agba.
 cassa'va, *n.* ɔgɛgɛ.
 cast, *v.* gba...lù, gbɔn, dzá...tilɛ, dzú, šati, šu, wòlza, ta, ta...nɔ, tɛ...bá, tɛ...balɛ, ti...kuro.
 cast'away, *n.* adonɔ.
 cas'trate, *v.* tɛ, wɛ...lɛwa.
 ca'sual, *a.* alakpade.
 cat, *n.* ɛsɛ, ologini, ologbo, yan-hun, yan.
 catch, *v.* mú: catch fire, gbina, dzorun.
 catch'ing, *n.* imu: catching fire, adzorun.
 ca'terpillar, *n.* kòkoro.
 cat'tle, *n.* ɔsin.
 cause, *v.* da...silɛ, sɔ, sɔli.
 cause, *n.* eli, idasilɛ, idi, itori, òran.
 cause'less, *a.* ainidi, lašɛ.
 cau'tion, *n.* kilɔ.
 cau'tioner, *n.* olóbó.
 cave, *v.* yá.
 caw, *v.* hɔn.
 cease, *v.* dá, dabɔ, dake, dase, dekun, kpa, rɔlɛ, šɔ, sunkom, wawò, ye.
 cease'less, *a.* aldá.
 ceil'ing, *n.* adza: ceiling over a grave or pit, adžailɛ.
 cen'sure, *v.* fɛtɛ, fɛ...lɛfɛ, fɛsi, šu...lòhun.
 cen'tipede, *n.* tantani sokɔ.
 cen'tral, *a.* arin, ti arin.
 cen'tre, *n.* arin.
 cer'tain, *a.* danlodzú; certain ones, awɔŋkɔ, mɛlòkɔ.
 cer'tainly, *adv.* dadžuladžú.
 cer'tainty, *n.* aišiyemɛdži.
 cessa'tion, *n.* ɛkun, yiye.
 chaff, *n.* atɔŋ, ɛkpa, iyangbo.
 chaff'fy, *a.* ɛlekpa.
 chagrin', *v.* ya...niha.
 chagrin', *n.* abámɔ.
 chain, *n.* ɛwon.
 chain, *v.* di...lɛwon.
 chair, *n.* aga, ɔgɔn.
 chalk, *n.* ɛfun.
 cham'ber, *n.* iyɛwn, yɛwu.
 cham'leon, *n.* agɛmò, aga-orisa.
 chance, *n.* alakpade, akòšɛbá, alakpade, arinjo, ikòšɛbá.

chance, *v.* ṣalabákpaḍe.
change, *v.* di, kpálókpaḍà, kpa-
 rada, yè, yèra.
change, *n.* ayidà.
change'able, *a.* aláiduro.
chan'nel, *n.* awowo, ibú, ibubu,
 ikpa, kòyroy, kòrò, òna.
chap, *v.* là.
chap'ter, *n.* ori.
cha'racter, *n.* isè.
characteris'tic, *n.* iwà.
char'coal, *n.* edú.
charge, *v.* fírayímò, kagbu : *to*
charge for, diyele.
charge, *n.* ilò, asè, isè.
cha'ritable, *a.* onfèni, olorè
 ànu.
cha'rity, *n.* ifèni, orè fóm.
charm, *n.* tú...lódzú.
charm, *n.* aḍe, ógún, tira.
chase, *v.* dè, lè, tokpa.
cheap, *a.* kpò, kò wò.
cheat, *v.* rè...džè, tándžè, ya
 ...ndžè : *to cheat in play*, šo-
 džoro.
cheat, *n.* ayandžè, iren'idžè.
cheat'er, *n.* aren'idžè : *a cheater*
in play, olžoro.
check, *n.* keke.
checked, *a.* abilá, ètu.
cheek, *n.* eṛeṛe.
cheer, *v.* da...laraya.
cheer'ful, *a.* daraya, tudžuka.
cheer'fulness, *n.* arayá, ida-
 raya.
cheese, *n.* wákasi, warakasi.
cher'ish, *v.* ke.
chest, *n.* aiyá, igè, ókanaiya.
chew, *v.* fi...ron, ron, wè : *to*
chew tobacco, di.
chick'en, *n.* adire, adie.
chide, *v.* lodžumò.
chief, *a.* kpátaki.
chief, *n.* olú, olori.
chief priest, *n.* akpini, idžigbo.
child, *n.* ewe, mndžèsi, omò,
 omòde.
child'hood, *n.* ewe, iwà omò.
child'ish, *a.* bi omòde.
child'ishly, *adv.* džegbedžegbe.
child'less, *a.* aibomò.
chill, *v.* šè...légiri.
chil'iness, *n.* egiri.
chil'ly, *a.* segiri.
chimpan'zee, *n.* inaki, iro.
chin, *n.* àgboṅ.
chip, *n.* asá.
chi'sel, *n.* ikò.

choice, *n.* iwù.
choke, *v.* fè...lodžú, fòṅ, fòṅ-
 kpa, fòṅ...lòròṅ.
choose, *v.* yàn.
chop, *v.* ke, kegí.
chop'per, *n.* akegi.
cho'sen, *n.* ayanfè.
Chris'tian, *n.* nasára.
chro'nicle, *n.* ologbò.
church, *n.* adžò, akpedžò.
churn, *v.* mi wara.
cigar', *a.* saròta.
cim'eter, *n.* agada.
cin'ders, *n.* idaro.
cir'cle, *n.* agbo, ayika.
cir'cular, *a.* alayika.
cir'cumcise, *v.* kolá, kò...
 nilá.
cir'cumcised, *a.* onilá.
circumci'sion, *n.* ilá.
cir'cumstance, *n.* aiyè, iwà,
 ikpa.
cir'cumstanced, *a.* oniwa,
 onikpa.
ci'tizen, *n.* arálè, arálu, olòṭò.
ci'ty, *n.* ilu.
claim, *v.* fi...kpè : *he claimed*
the horse, ófi èsin kpè tí rè.
clam, *n.* ikara.
cla'mor, *n.* ariwo.
cla'morously, *adv.* keké.
clap, *v.* kpakpè, šakpè.
clap'ping, *n.* akpè.
class, *n.* iṛu.
claw, *n.* ekan, ekana.
claw, *v.* džà...lekana.
clawed, *a.* abekana.
clay, *n.* orò, efun.
clean, *a.* awenò, awenò, mò.
clean, *v.* wè, wè...mò.
clean'ly, *adv.* tonitoni.
clean'ness, *n.* aileri, mimò.
cleanse, *v.* fò, wè...mò, wè...mò.
cleans'ed, *a.* awenò.
cleans'ing, *n.* ifò.
clear, *v.* šè...mò : *to clear land*,
 šangbe ; *clear off*, as clouds, tú.
clear, *a.* mò.
clear'ly, *adv.* kede, toto.
cleave, *v.* bunmò, di...mò, fà
 ...mò, faranmò, kumò.
cle'mency, *n.* lākiri.
climb, *v.* gun.
cling, *v.* mò, di...mò.
clip, *v.* rè.
clock, *n.* azo, azogo.
clod, *n.* akpala, ogulutu.
close, *v.* di, kpade, sé.

close, *a.* itosi : *close by*, dedè,
 nitosi, nikusa.
close'ly, *adv.* baruburu, giri,
 girigiri, moja, motimoti, kpín-
 kún, rere, siyisi, timotimò.
clo'set, *n.* akoròṅ, kòlòfin.
cloth, *n.* asò : *dealer in cloth*,
 alašò.
clothe, *v.* dašòbò, šè...lòšò,
 wò...lòšò.
cloth'ing, *n.* asò.
cloud, *n.* àwosama, ikuku, saṅ-
 ma, sama.
cloud'iness, *n.* gndegnde.
cloud'less, *a.* toto.
clo'ven, *n.* èlá.
clo'ven-footed, *a.* èlèšè èlá.
club, *n.* adžoro, ogò, tombá.
clum'sily, *adv.* glagodó, gbòṅ-
 gbòṅ, gbongbòṅ.
clum'sy, *a.* gbogodó.
clus'ter, *n.* olidi.
coadju'tor, *n.* abaniše.
coa'gulate, *v.* di, sùn.
coal, *n.* èšena, oguma, edú.
coarse, *a.* aikuma.
coast, *n.* ebute, iladò.
coast'wise, *n.* ilulu.
coat, *n.* akáso èwu, toro.
cob, *n.* (of corn), girigiri, kiku.
cock, *n.* ákukò : *cock of a gun*,
 agemo.
cock'atoo, *n.* álukò.
cocked, *a.* akò.
cock'roach, *n.* àyan.
co'co'a-nut, *n.* agbòṅ.
cocoon', *n.* akpolukutu, ekuku.
cof'fin, *n.* kposi.
cohab'it, *v.* bá...sùn.
cohabita'tion, *n.* abásún.
coil, *v.* See *wind*.
coin'cidence, *n.* atilá, ila.
co'lander, *n.* adigbaro, adiro.
cold, *n.* amudi, oti, otutu.
cold, *a.* nini, kpótutu, tutu.
co'lie, *n.* owoko.
col'lar, *n.* idiròṅ : *a day's collar*,
 egi.
col'lar-bone, *n.* eka.
collect', *v.* gla, kò, kodžò, rò,
 šndžò.
collect'ed, *a.* akótán.
collec'tion, *n.* akokpò, šisá.
collec'tor, *n.* asišá.
colli'sion, *n.* ikpade lù.
coloniza'tion, *n.* ilo, itèdo.
co'lor, *n.* ase, asè, èsò, àwò.
co'lored, *a.* alawò.

colt, *n.* ɔmɔ ɛ́sɪŋ.
co'lumn, *n.* ɔ́wɔŋ.
comb, *n.* ɔyà : *comb of a house*, roof-ridge, áta.
comb, *v.* yà.
combination, *n.* idawɔkpɔ, idikpɔ.
combine, *v.* dawɔkpɔ.
come, *v.* de, wáh : *to come by*, pass, *se* ; *come down*, sɔ́, sɔ́kale ; *come in*, wɔlɛ, wɔnɔ.
comeliness, *n.* iyɛ.
come'ly, *a.* li ɛ́wa.
com'fort, *v.* de ...lara, rɛ, tɛ ...lorɔŋ, tɔ ...ninɔ.
com'fort, *n.* domdomalyɛ, itunɔ.
com'fortably, *adv.* kpɛtɛ-kpɛɛ.
com'forter, *n.* atuniniŋɔ, olurɛ.
com'forting, *a.* atituniŋɔ.
com'ing, *n.* atibɔ, bɔ, bɔwáh.
command, *v.* kpaśɛ, kpa ...laśɛ, ɛ́lori.
command'er, *n.* ɔlori.
command'ment, *n.* aśɛ.
commence, *v.* kpilɛśɛ, śɛ.
commence'ment, *n.* ibɛrɛ, idasile, ikpilɛśɛ.
commend, *v.* yin, buyin fu.
commiseration, *n.* ánu.
commis'sion, *n.* aśɛ ikɔ.
commit, *v.* fi ...le lɔwɔ.
com'mon, *a.* okporɔ, kpɔ.
commune, *v.* bá ...sɔrɔ.
commu'nicate, *v.* ràn.
compact'ly, *adv.* gbámgbam.
compan'ion, *n.* ɛgbɛ, ɛlɛgbɛ, ɛnikedži, ɛro, odžugba.
compan'ionship, *n.* adžunu.
com'pany, *n.* ɛgbɛ, ɛwɔ.
compare, *v.* farawe, fi ...we.
compar'ison, *n.* iwe.
com'passes, *n.* inakiri.
compas'sion, *n.* ánu, irado, ɛrenu, iyonu.
compas'sionate, *a.* šánú, yó.
compel, *v.* lé ...śɛ.
compel'led, *a.* aláigbado.
compensate, *v.* saɪ fu.
compete, *v.* didže, dułže.
competi'tion, *n.* idže.
complain, *v.* sɔ́, šaroyɛ, śɔśɔ, widžɔ.
complaint, *n.* ɔśɔ.
complete, *a.* kpe, śetan, tɛtɔ.
complete'ly, *adv.* kpatakpata, tɪn.

comple'tion, *n.* akodža, aśetan, itun.
com'plicated, *a.* di.
com'pliment, *n.* ɔki.
comprehen'sible, *a.* ye.
com'rade, *n.* See *companion*.
conceal, *v.* de ...mɔlɛ, fi ...sin.
conceal'ment, *n.* adžinsinsin, ibomɔlɛ.
conceive, *v.* loyún, yún.
concep'tion, *n.* iyun.
concern'ed, *a.* nisi.
concern'ing, *prep.* nidi, nidi, niti, niti, nitori, nitoriti, sikpa, ti.
conch, *n.* karawɔŋ.
conclude, *v.* kpari, kpínu, kpínhuɔ.
conclu'sion, *n.* ikpinu.
con'cord, *n.* isokan.
concord'ant, *a.* śokan.
con'eubine, *n.* ale.
condemn, *v.* dadžólá, da ...lebi, de ...bi, fi ...džélá, (*to death*) fi ...džewɔ alyɛ, si ...ladže.
condemna'tion, *n.* dida ɛbi, ɛbi, idadžólá.
condemn'ed, *a.* džɛbi.
condi'tion, *n.* alyɛ, ilá.
conduct, *v.* hùwá.
con'duct, *n.* hiliù, iwá, ihùwá.
con'ney, *n.* agára, kumbu.
con'federacy, *n.* adakpɔ.
confe'derate, *a.* dakpɔ.
confedera'tion, *n.* idakpɔ.
confer, *v.* ba ...sokpɔ, damɔran.
con'ference, *n.* ibadokpɔ.
confess, *v.* džewɔ.
confes'sion, *n.* idžewɔ.
confidant, *n.* ɔrɛ ɔkay.
confide, *v.* gbekɛlɛ.
con'fidence, *n.* eke.
con'fident, *a.* dadžú, gbodžulɛ.
confine, *v.* di, de.
confirm, *v.* dielesemułɛ, di ...kale, fi ...mulɛ, mulɛ.
confirma'tion, *n.* imule.
con'fiscator, *n.* abole, bolebole.
conflict, *v.* śɛ odi si.
con'fluence, *n.* abadó.
confound, *v.* da ...lámu, kpa ...kpɔ.
confound'ed, *a.* dāmu.
confound'ing, *a.* abudža.
confront, *v.* ko, kɔdžasi, ko ...lodžu.

confuse, *v.* da ...lámu, dāmu, da ...ru, kpa ...niye.
confu'sedly, *adv.* džagbadžagba, džadidžudi, rárú, wuru-wuru.
confu'sion, *n.* ámu, adāmu idāmu, awudžu, rudurudu.
congl'o'merate, *v.* šu.
conglomera'tion, *n.* asu, isu.
con'gregate, *v.* kpɔdžɔ.
congrega'tion, *n.* adžɔ, idžɔ, awudžɔ.
congru'ity, *n.* abade.
con'jecture, *v.* mamɔdža.
con'jure, *v.* kpidaŋ.
connect, *v.* dikpɔ, sokpɔ.
connive, *v.* modžukuro.
con'quer, *v.* dá, śegun, śete.
con'queror, *n.* oluśete.
con'science, *n.* imɔninɔ.
consent, *v.* gbà.
con'sequence, *n.* igbɛhin.
consi'der, *v.* gbɛro, mɛro, ghimɔ, mɛte, šimɔran.
consi'derately, *adv.* tiro-tiro, toyetoye.
considera'tion, *n.* ɛro, igbɛro, ironɔ.
consist'ent, *a.* ibade, abade.
consola'tion, *n.* itu ɛlɔ, itunɔ.
console, *v.* tu ...ninɔ, tu ...lelɔ.
conspi'cuous, *n.* yodžu, yori.
conspi'cuously, *adv.* li gbam-gba.
conspi'racy, *n.* abamɔlɛ, imɔlɛ.
conspi'rator, *n.* amɔlɛ.
conspire, *v.* śɛ amɔlɛ, dirikisi, mɔlɛ, rikisi, šawɔ.
con'stancy, *n.* itirinmɔlɛ.
con'stant, *a.* áidá.
con'stantly, *adv.* li áidá.
constella'tion, *n.* yoye.
con'stitute, *v.* sonidi.
constraint, *n.* itiyadžúśɛ, iyapdžu.
con'sul, *n.* adžɛlɛ.
consult, *v.* bánu, báro, dag ...wɔ, gbɛro, ghimɔ : *consult an orach*, dá ...wɔ.
consulta'tion, *n.* adžórɔ, iláro, idáwɔ.
consume, *v.* dže, džokpa, džonirun, džorun, kparun, rún, tɔ.
con'summate, *v.* kpari, śetan.
con'tact, *n.* agbako.
conta'gious, *a.* rún, onirán, gbɛ.

contain', *v.* gbà.
 condemn', *v.* sẹlẹya.
 contempt', *n.* abukùny, adó, ègag, èya, ilukùny, igàny, ikposi, iwosi, suti.
 contemptible person, *a.* abése.
 contemptuousness, *n.* igàny.
 contend', *v.* dza.
 content'ed, *a.* balè.
 conten'tion, *n.* asagony.
 conten'tious, *a.* asagony, sagan.
 content'ment, *n.* ibalè.
 con'test, *n.* idzadu, idzakpati.
 contigu'ity, *n.* egbe, itosi.
 con'tinence, *n.* imaraduro.
 conti'nual, *a.* se iwadzu.
 conti'nually, *adv.* titi.
 contract', *v.* sonki: *to contract words*, dakpè.
 contrac'tion, *n.* isonki, adakpè, idakpè.
 contrac'tor, *n.* adehun.
 contradict', *v.* bá...džijan, gbo...lenu, dzakoro, dza...nikoro, džijan.
 contradic'tion, *n.* iyan.
 contrarily, *adv.* lodi.
 con'trary, *a.* lo, odi si, ta...laiya.
 contri'bute, *v.* dawó, fisi.
 contri'bution, *n.* idawó.
 contri'butor, *n.* adawó.
 con'trite, *a.* See *humble, meek*.
 contri'tion, *n.* ironókpiwada.
 contri'vance, *n.* ero.
 control', *v.* šakoso.
 control', *n.* akoso, ikawó.
 convene'. See *congregate*.
 conve'nient, *a.* wó.
 conversa'tion, *n.* èro, isòro.
 converse', *v.* sòro.
 convers'ing, *a.* adžoso.
 conver'sion, *n.* iyikpada.
 convert', *v.* kpa...lòkanà, yikpada.
 con'vict, *v.* da...lèšé.
 convince', *v.* so asaye.
 convul'sion, *n.* ororo.
 cook, *v.* sè.
 cook, *n.* alásè, asàsè, asèndžé.
 cool, *v.* fèrì, rò, tu.
 cool, *a.* tu, tutu.
 cool'ly, *adv.* šon.
 cool'ness, *n.* etu.
 co-o'perate, *v.* lá...šé.

co opera'tion, *n.* abase, adzumo.
 co-o'perator, *n.* abanise.
 cop'per, *n.* baba.
 co'pious, *a.* wowo, kpò.
 co'pulate, *v.* dó, šadó.
 copula'tion, *n.* idó.
 co'py, *v.* tokpèrè.
 co'ral, *n.* iyòg.
 cord, *n.* gbara, ošay.
 cork, *n.* edili.
 cork'wood, *n.* afere, afoforo.
 corn, *n.* agbado, oká.
 cor'ner, *n.* eti, igon, ikangun, odžigon, etc.
 corn'floor, *n.* ikpaka.
 corn'silk, *n.* idžere, irokere.
 corn'stalk, *n.* kpòkporò.
 corn'starch, *n.* èko.
 corn'tassel, *n.* ire.
 corpse, *n.* okú.
 cor'pulent, *a.* lura.
 correct', *v.* tó, kpé.
 correct', *a.* kpé.
 corrupt', *v.* bá...džé.
 corrupt'ed, *a.* dibadžé.
 corrupt'ible, *a.* ni ibadžé.
 corrup'tion, *n.* ibadžé.
 corrupt'ness, *n.* abadžé.
 cost, *n.* iye, elo iye rè? *how much did it cost?* ó li owó kpi kpò, or, owó rè kpò, *it is costly*.
 cos'tive, *a.* inò di, inò rè di, *he is costive*.
 cos'tiveness, *n.* idinó.
 cost'ly, *a.* li owó.
 cot'ton, *n.* owú, akéšé.
 cot'ton-seed, *n.* kere owú.
 cot'ton-tree, *n.* šaraba.
 cotyle'don, *n.* awé.
 cotyle'donous, *a.* alawé.
 couch, *n.* ibirogboku, irogboku.
 cough, *v.* luko.
 cough, *n.* iko.
 could, *aux.* lè.
 coun'cil, *n.* adžórò.
 coun'sel, *v.* šimòra.
 coun'sellor, *n.* warifa.
 count, *v.* ká.
 coun'tenance, *n.* odžú.
 coun'ter, *n.* onká.
 count'less, *a.* niniye.
 coun'try, *n.* ilé, ilu.
 cour'age, *n.* aiberu, aifoja, igboja, igbodžú.
 courage'ous, *a.* alaiberu.
 courage'ously, *adv.* fi aiberu.
 course, *n.* èšé, ikpa, òna.

court, *v.* fè, fè...niyawo.
 cour'teous, *a.* onikpèlè.
 co'venant, *v.* dimò.
 co'venant, *n.* adimò, madžemu.
 co'venant-breaker, *n.* atudimò, otumò, otudimò.
 co'ver, *v.* bò, bora, dašgbò, de...molè: *cover with a lid*, de.
 co'vered, *a.* olò.
 co'vering, *n.* ibòra.
 co'vet, *v.* šodžukokoro.
 co'vetous, *a.* odžunla.
 co'vetously, *adv.* fi odžukokoro.
 co'vetousness, *n.* odžukokoro.
 cow, *n.* malù.
 cow'ard, *n.* aberkeru, odžo.
 cow'ardice, *n.* odžo.
 cow'ardly, *adv.* bódžo, lodžo.
 crab, *n.* akàny.
 crab'bed, *a.* onyoro.
 crab'bedness, *n.* iroro.
 crack, *v.* kpa, šan.
 craft, *n.* eru.
 cram, *v.* kí...yó.
 crane, *n.* ošé: *crested crane*, agufon.
 crawl'fish, *n.* ede.
 crawl, *v.* fà, rá, rako, rakòro, wó.
 cra'ziness, *n.* gbèregbère.
 cra'zy, *a.* asinwin, sinwin.
 cream, *n.* ori wara.
 create', *v.* dá, šedá.
 crea'ted, *a.* idá.
 crea'tion, *n.* edá, odžo lwà.
 crea'tor, *n.* edá, onidá.
 crea'ture, *n.* edá.
 cre'dit, *v.* da...láwin, gbà...láwin.
 cre'dit, *n.* àwin.
 credu'lity, *n.* igbòkugbò.
 cre'dulous, *a.* onigbòkugbò.
 creek, *n.* ito.
 creep, *v.* rá, rako, rakòro.
 creep'ing, *a.* ti rakòro.
 crib, *n.* abá, aká, aró.
 crick'et, *n.* autete, édoló, ologayran.
 cri'er, *n.* akede.
 crime, *n.* èšé.
 crim'son. See *scarlet*.
 crisp'ple, *n.* aró.
 crick'le, *v.* da...lèšé, da...laro.
 cro'codile, *n.* qui.
 crook, *v.* See *bend*.
 crook'ed, *a.* aló, wiwo.

crook'edness, *n.* ahió, iwó, wíwó.
crop, *n.* èrè, ikore.
crop'-ear, *n.* aketi.
cross, *n.* agbelèbu.
cross, *v.* bu, rekodža.
cross'bow, *n.* akataykpo.
cross'bowman, *n.* alakataykpo.
cross'ing, *a.* ebu.
cross'road, *n.* abudža òna, akodža òna.
cross'wise, *a.* ebó, ibũbu, nibu, nibubu: *to place crosswise*, ghe ... lebu.
crouch, *v.* lofo.
crow, *n.* kánakána, alukapriy, hphò.
crow, *v.* kò.
crowd, *v.* foykpo, ghati, ha ... laye.
crowd, *n.* adžò, ifoykpo, ihagaga, iwodžò.
crowd'ed, *a.* gaga, bá.
crown, *v.* da ... li ade, de ... lale.
crown, *n.* ade: *of the head*, atari.
crown'ed, *a.* alale.
cru'cible, *n.* kóro.
oru'cify, *v.* kan ... mọ agbelèbu.
cru'el, *a.* kánò, onikánò.
cru'elly, *adv.* fi ikánò.
cru'elty, *n.* adanikpa, ikà, ikánò.
crumb, *n.* erún.
crum'ble, *v.* ra ... kuna.
crush, *n.* kpenšay.
crush, *v.* še ... ni kpenšay.
crust, *n.* ekpa, ihaho, tchiy-gbeša.
cry, *v.* sokun: *cry aloud*, bú, ke, kighé, kpòhunrere.
cry'ing, *n.* ekún.
cu'bit, *n.* igbowó.
cud, *n.* adžekpo.
cud'gel, *v.* da ... nigì.
cud'gel, *n.* kùnnò, olugboro.
cull, *v.* ša ... yan.
cult'ivate, *v.* rò, roko.
cultiva'tion, *n.* iroko.
cult'ivator, *n.* aroko. *See farmer.*
cun'ning, *a.* awon, gbóy, g-ghón.
cun'ningness, *n.* ogbónkpo-gbon.

cun'ningly, *adv.* fi ogbón.
cup, *v.* gbádžé.
cup, *n.* ago, ife.
cure, *v.* šawótán, táy.
cur'ed, *a.* awótán.
curl, *v.* kako, we.
curl, *n.* iwedžé.
cur'rent, *n.* isan, isay ódo.
cur'ry, *v.* gbo, kigrin.
cur'rycomb, *n.* oya ešín.
curse, *v.* fi ... bú, fi ... re.
curse, *n.* ebu, egún, ekpe, gígún, ire, iregun.
curs'ed, *a.* elegun, elekpe: *thou art cursed*, ire ni fu o.
curs'ing, *n.* egun.
cur'tain, *n.* aso tita.
curve, *n.* bí okumare.
curv'ed, *a.* bí okumare, ološumare.
cush'ion, *n.* tintim.
cus'tom, *n.* àra, áša, íše.
cus'tom-house, *n.* bode, ibode, idena.
cus'tom-house officer, *n.* oni-bode.
cus'tomer, *n.* abirà.
cus'toms, *n.* owóbode.
cut, *v.* be, ge, ke, kpa, ràn, rẹ, wó: *to cut in two*, da ... medži, da ... lagbedemedži; *to cut off*, ke ... kuro, ke ... soun, šun, yòyò.
cut'lass, *n.* ida.
cy'cle, *n.* ayidà.
cylind'rical, *a.* šú.

D.

dab, *v.* gay.
dag'ger, *n.* asoró.
dai'ly, *n.* idžógbogbo, odžodžumó, odžodžó.
dai'ly, *adv.* idžógbogbo, lodžodžumó.
dam, *v.* sedò.
dam, *n.* isedò.
dam'age, *v.* še ... ni džamba.
dam'age, *n.* aluši, džamba.
damn, *v.* da ... lebi.
dam'nable, *a.* adžébi.
dam'ned, *v.* džébi, džamú.
damp, *a.* li irin, tutu.
damp'ness, *n.* irin, irinmi, irinjé.
dam'sel. *See maid.*
dance, *v.* džó.
dan'cer, *n.* alarindžó, arindžó.

dan'dy, *n.* bokini, age.
dan'ger, *n.* ewu.
dan'gerous, *a.* lewu, di ewu.
dare, *v.* daša, gbodo.
dare, *n.* ógbodo.
dark, *a.* šu, šisu, šokun.
dark'ly, *adv.* bíri, bíribiri.
dark'ness, *n.* bíri, bíribiri, okun, okunjun.
dash (*down*), *v.* so ... lẹ, fi ... solé, šay ... lẹ, gbe ... šanjé.
daub, *v.* kun, šay.
daught'er, *n.* gbolári.
daught'er-in-law, *n.* ayamọ.
dawn, *v.* modžumọ.
dawn, *n.* afemodžumọ, fadžere, imodžumọ, odžumọ, òpé.
day, *n.* idžó, odžó, odžó.
day'light, *n.* ošán.
daz'zle, *v.* ray ... lodža.
daz'zlingly, *adv.* džeredžere marajumaraj.
dead, *a.* kú, dake, okú, wó.
deaf, *a.* aditi, deti, diti.
deaf'en, *v.* di ... leti.
dear, *a.* wón, šowón, olufé, ayo.
dear'ness, *n.* owoyón.
dearth, *n.* odá.
death, *n.* ikú, okú.
death'like, *adv.* bí okú.
debt, *n.* igbese, gbese, (*ancestral*) adasán.
decay, *v.* ra.
deceit, *n.* agalamaša, arekunda, eni-čtan, oró.
deceit'ful, *a.* šetan.
deceit'fully, *adv.* fi čtan, li čtan.
deceive, *v.* tán, fòndžé, tán ... džé: *deceived*, atitán.
decei'ver, *n.* četan, edale.
de'cent, *a.* bokini.
decide, *v.* kpinn.
deci'sion, *v.* ikpinu, didadžy, imọ.
declare, *v.* wí, tenunọ.
decline, *v.* rẹlẹ, fi.
de'corate, *v.* wé, še ... lošó.
decora'tion, *n.* ošó, owa.
decree, *v.* lánu, lá ... lina.
deep, *a.* džin, gbon, džiggonon, džinle, ogbon.
deep'en, *v.* še ... džin.
deep'ness, *n.* džin, ogbon.
defence, *n.* adó, igbidža.
defend, *v.* dábobó, gbádža: *to defend a cause in court*, gbà ... ró.
defend'er, *v.* adábobó, alábó.

defence'less, *a.* aibò, alaiibò.
 def'iciency, *n.* obukun, ibukun.
 def'icient, *a.* bukun, di.
 defile', *v.* ri, ba...dže, še...
 leri.
 delay', *v.* dżafara, fa...schün,
 rodžü.
 delight', *v.* še didöñ inó, še inó
 döñ.
 delight', *n.* inó didöñ.
 deli' ver, *v.* fi...le lowó, fi...
 šu, ko...fu, šowó, yó.
 deli' verer, *n.* olígbalá, olugbá,
 elegbá.
 delude', *v.* tãñ...dže.
 de'luge, *n.* iköñ omi.
 demand', *v.* bère.
 de'mijohn, *n.* iłé.
 demo'lish, *v.* wó...lulę, kpa-
 nuñ.
 de'mon, *n.* ebilisi.
 den, *n.* ihò, ibodži.
 deni'al, *n.* iyàn.
 dense, *a.* kł.
 den'sity, *n.* iki.
 deny', *v.* dũ, sę, dżiyàn.
 depart', *v.* ya, yera, lóh.
 depend', *v.* gbekéle, gbokanlé.
 depend'ence, *n.* igbékéle.
 depo'sit, *v.* gbe...kálę, kálę.
 deprive', *v.* gbá...lowó.
 depth, *n.* dżindžün, idžinłę,
 ghogghon, ogghon, ibu, ibubu.
 deride', *v.* yosuti si.
 deri'sion, *n.* iyosuti si.
 descend', *v.* sọ, sọ...kalę, bę,
 wọñ.
 descend'ant, *n.* omọ, (*in plu-*
ral) iru omọ.
 descent', *n.* isokale, gęgęre.
 describe', *v.* sọ or wi bi...ti ri.
 desert', *v.* salólh.
 de'sert, *n.* agandžu, agindžu.
 desert', *n.* ère, igbesa.
 desert'er, *n.* isaysa, asalólh.
 deserve', *v.* dżere, dže.
 desire', *v.* ię.
 desire', *n.* ię.
 desist', *v.* dękun.
 de'solate, *v.* dąhoro, sọ...dą-
 horo.
 de'solated, *a.* ahoro, alahoro.
 de'solateness, *n.* idahoro, ófo.
 desola'tion, *n.* ahoro, idahoro.
 despise', *v.* gàn, kęgàn, šabo,
 bu...kün, šeleya.
 despised', *a.* góggàn, elenini, ęle-
 gęñ.

despi'ser, *n.* alabukün, gani-
 gani, ęlegęñ.
 despoil', *v.* ba...dže, ko...
 lęra.
 de'stitude, *a.* alaiuf.
 destitu'tion, *n.* aini.
 destroy', *v.* ba...dže, lù...
 bole, kparun, kpare, rún.
 destroy'er, *n.* alákparun.
 destruc'tible, *a.* omibadže.
 destruc'tion, *n.* ibadže, afo-
 badže, ahoro.
 detach', *v.* yà...soto, yà...si
 (ise kün).
 detach'ed, *a.* ęlā.
 detail', *v.* róbęre.
 detain', *v.* dą...duro.
 detain'er, *n.* adaduro, adani-
 duro.
 deten'tion, *n.* diduro, idaduro.
 deter', *v.* kọ, daiyafó.
 deve'lope, *v.* dagba, yori.
 de'viate, *v.* yisakpa kún, yi li
 ọna.
 device', *n.* èro, etc, idámoręñ.
 de'vil, *n.* ęsu, ebilisi.
 devise', *v.* humọ, kpete.
 devo'ted, *a.* olufękan si.
 devo'tedness, devo'tion,
 ifękan si, afękan si.
 devour', *v.* kpa...dže, dżęrun,
 mu...dže.
 devour'er, *n.* akpadže, akpa-
 nılže.
 devour'ing, *a.* adžokparun.
 devout', *a.* ifękan si, olufękan si.
 devout'ness, *n.* ayaba.
 dew, *n.* iri.
 dex'trous, *a.* ofe.
 dia'meter, *n.* ibu, ibubu.
 diarrhe'a, *n.* isunų.
 die, *v.* kú, wó.
 dif'fer, *v.* yatọ.
 dif'ference, *n.* oto, iyatọ.
 dif'ferent, *a.* yatọ, iyatọ, lotọ.
 dif'ferently, *adv.* lotọ, li oto.
 dif'ficult, *a.* soro, dęti, gbę,
 kanđi, luba.
 dif'ficulty, *n.* aladže, ahano,
 diwo, inira, okikiriñ, oro, isoro.
 diffuse', *v.* taj...kálę, ró...
 kálę, tu...ká.
 dig, *v.* wà, walę.
 dig'ger, *v.* iwalę.
 di'latory, *a.* dilę, še genegęne,
 dżafara.
 di'latoriness, *n.* ąfara, genę-
 genę, ilile.

di'ligence, *n.* aišemęle.
 di'ligent, *a.* aišemęle, kọ še-
 męle, alaišemęle, alaidżafara.
 di'ligently, *adv.* giri, girigiri.
 dim, *a.* še baibai.
 di'mity, *n.* gę.
 dim'ly, *adv.* baibai.
 din'ner, *n.* asę-ęsán.
 dip, *v.* bọ, kpon, ron, fi...bo,
 te...bo.
 direct', *v.* fęnahàn, dżure, tų-
 kun, tó.
 direc'tor, *n.* afęnahàn, atodžu,
 oluto.
 dirt, *n.* ęgurin, erupke, ęri.
 dirt'y, *v.* kęri, še...lęri.
 dirt'y, *n.* eleri.
 disagre'able, *a.* aiwu, še aiwu,
 yó...lęnu.
 disagree', *v.* še alkpade, še
 aiře.
 disappear', *v.* di ófo, še aihàn,
 wọ.
 disappoint', *v.* dā, dā...lara,
 dā...lodžu.
 disappoint'ed, *v.* didži.
 discern', *v.* ri, woye.
 discern'ment, *n.* iye, oye,
 iwoye.
 discharge', *v.* da...silę, ran
 ...lólh.
 disci'ple, *n.* omọ-ęhin.
 disclose', *v.* šikpaya.
 disclo'sure, *n.* ašikpaya.
 discour'age, *v.* daiyafó, ko...
 lęnu.
 discour'aged, *a.* fọya, afọya.
 disco'ver, *v.* lu, ri.
 disco'very, *n.* aširi, etu.
 discreet', *a.* moye.
 discreet'ly, *adv.* toyetoye.
 discuss', *v.* sọ awiye, wadi.
 discus'sion, *n.* aro iye, aroye,
 iwadi.
 disease', *n.* aisán, aręñ.
 disgrace', *v.* fi...šęsin, še...li
 atę, še nibukün.
 disgrace', *n.* atę, ęte, ibukün,
 ęsin.
 disgraced', *a.* tę.
 disgrace'ful, *a.* ašęa.
 disguise', *v.* kparadā.
 dish, *n.* dasa, awokpokọ.
 disheart'en, *v.* daiyafó.
 disho'nesty, *n.* ogbókógghon,
 arekereke.
 disho'nor, *v.* še...labukün.
See disgrace.

disho'nable, *a.* aìlòlá, ainiyíyí.
disinter', *v.* há.
dislike', *n.* aǎǎ.
dismiss', *v.* òzòwò... lowò, tú.
dismount', *v.* sò, sòkàlẹ.
disobe'dience, *n.* aǎǎgǎgǎ,
 aigbo, aigboran.
disobe'dient, *a.* alaigboran,
 olukotí.
disobey', *v.* kò, ǎe aigbo.
disor'der, *v.* ba... òzò, tu...
 ká, ru... sòkẹ.
disor'derly, *adv.* ǎkpaǎkpa.
disown', *v.* kò, kò... silẹ.
dispatch', *v.* ran, ran... niǎ.
dispel', *v.* tu... ká.
dispense', *v.* kpín... fú.
disperse', *v.* fún... ká.
display', *v.* ǎe fàri hàn.
display', *n.* asehàn, fàri.
dispose', *v.* See *dispense*.
dispo'ser, *n.* onikpín.
disposi'tion, *n.* (*of mind*), iwà.
dispute', *v.* ǎaroye, òzìyan.
disput'ing, *n.* aroye.
dissem'ble, *v.* ǎetan, ǎe ǎetan.
dissem'bler, *n.* ǎetan, aláyi-
 òyí, alá, ǎeiyé.
dissimula'tion, *n.* ǎetan, ǎetan,
 ilodzu.
dis'sipate, *v.* ra: to *dissipate*
heat, cool, be.
dissolve', *v.* yò, fú... yò.
dis'taff', *n.* kẹkẹ.
dis'tance, *n.* idzina, odzina,
 dẓindẓin, okere.
dis'tant, *a.* dẓin, idzina, kanri,
 rere.
dis'tantly, *adv.* tian, li okere.
distil', *v.* rogun, ǎe.
distinct', *a.* gbangba, lotò.
distinct'ly, *adv.* li gbangba.
distin'guished, *a.* hù, oloruko.
distress', *v.* wò, ǎise, ǎe... ni-
 kpòndzu.
distress', *n.* ǎise, ikpòndzu.
distri'bute, *v.* bà... ká, kpín
 ... fú.
distribu'tion, *n.* ikpínfú, iwà.
distri'butor, *n.* odzuwa.
dis'trict, *n.* alá, odo.
disturb'er, *n.* otokpanyan.
ditch, *n.* ǎkpọpọ, ilbo, korowo,
 koto, yara.
dive, *v.* ri.
divide', *v.* bọwọ, da... medẓi,
 da... lagbedemedẓi, kpálá, kpín,
 wari.

divi'der, *n.* alakpín, olukpín.
divine', *v.* ǎanwò, ǎe alawò.
divi'ner, *n.* alawò.
divi'sion, *n.* iyakpa, idanikpa,
 ikpín, odo.
divorce', *v.* kọ... silẹ (Mat. 5,
 31).
divorce', *n.* ikosilẹ.
diz'zy, *a.* ǎoyi.
diz'ziness, *n.* oyi.
do, *v.* ǎe.
do'cile, *a.* leti.
doc'tor, *n.* ologun, oniogun,
 alufá.
doc'trine, *n.* ikọ, ikọkukọ.
do'er, *n.* oluǎe.
dog, *n.* adza: *old dog*, ogi; *will*
dog, adzako.
dog, *v.* dẹlza.
dog'gish, *a.* bi adza, adzagali-
 dẓigan.
domes'tic, *a.* ilẹ, tí ilẹ, osin.
domes'ticate, *v.* sin, rọ...
 lodzu.
domineer', *v.* sin, lò ikpa sí.
done, *a.* tán, ǎetan.
door, *a.* ǎkun, ilekun, ǎse.
do'tage, *n.* ǎran.
dou'ble, *a.* ǎekpo.
dou'ble, *v.* ǎe... nikpo.
dou'bled, *a.* ǎekpo.
dou'ble-dealer, *n.* agábagẹbe,
 ǎeiyé.
doubt, *n.* aniani, iyemedẓi.
doubt, *v.* ǎiyemedẓi, ǎaniani.
doubt'ful, *a.* ǎaniani.
dove, *n.* adaba, ataba.
down, *adv.* lẹ, lelẹ, hùlẹ, niǎ,
 silẹ, nisalẹ, kodo.
down, *n.* (*feathers*), ihuhu.
down'ward, *adv.* sisalẹ.
doze, *v.* sinyo, togbe, wo.
drafts, *n.* didi.
drag, *v.* wọ, ǎan.
dra'gon, *n.* ǎrẹ.
draín, *v.* rogun.
draught, *n.* akokpọ.
draw, *v.* fà, fà... kpada *or* se-
 hín, fà... tí, fà... yò, yò, kpọpọ-
 mi.
draw'er, *n.* ifá.
draw'ing-knife, *n.* ifagi.
drawn, *a.* ofá, fifá, fifayọ.
dread, *v.* kẹwọ, bẹru.
dread, *n.* ọwọ, ileru.
dream, *v.* lá, lá.
dream, *n.* alá, odzú alá, odzú
 ran.

dregs, *n.* gẹdẹgẹdẹ.
dried, *a.* iyangbe, ogbe.
drill, *v.* kpẹro.
drink, *v.* uny, unu, moti.
drink'er, *n.* omoti.
drip, *v.* kún, rọ, semí, sọnni.
drive, *v.* lẹ, dari.
drop, *v.* bo, dza, dẓasi, dẓò, kán,
 rọ, tó.
drop'sical person, *n.* mádimi-
 lórún.
drop'sy, *n.* asọnkọpọ, ogodágbò,
 akolẹ.
dross, *n.* idarọ.
drought, *n.* odá.
drown, *v.* ri.
drum, *n.* ilú: different kinds
 are called, akpínú, báta, dọndọ,
 gangan, gbẹdu, koso, ogidigbo,
 ǎekere.
drum'cord, *n.* ǎkpa.
drum'mer, *n.* olúbata, olú-
 kpínú, ǎe.
drunk, *a.* mekpara, motiyó.
drunk'ard, *n.* omoti, motimoti.
drunk'ennes, *n.* amekpara,
 amodẓi.
dry, *a.* gbe, kirikpa: *to be dry*,
be a drought, dá.
dry, *v.* ǎá, ǎá... lorun *or* sorun.
dry'ness, *n.* gbígbe, okirikpa.
duck, *n.* kpekpẹye.
dull, *a.* ainu, gọ, kú, wuwu.
dull'ness, *n.* ainu.
dumb, *a.* yadi, odi.
dumb, *n.* odi, kẹkẹkpa.
dun, *v.* dogotí, sin.
dun, *n.* ológọ.
dunce, *n.* onyọ.
dung, *n.* iní, igbe.
dung'hill, *a.* ǎtan, erekéti.
du'rab, *a.* tó.
dust, *n.* ekuru, iyekuru, erukpe.
dust'y, *n.* clerukpe, elekuru.
du'ty, *n.* isin-ísẹ, isin.
dwarf, *n.* anani.
dwell, *v.* dẓoko, gbe, tedó.
dwell'er, *n.* agbe.
dwell'ing, *n.* ibadẓoko.
dye, *v.* rẹ, sẹ: *to dye blue*, daro.
dye, *n.* aró, ose.
dys'entery, *n.* ǎrin.

E.

each, *pron.* olukulu.
ea'gle, *n.* íhí.

ear, *n.* eti: *ear of corn*, ɛta.
eared, *a.* alɛti.
early, *adv.* kùtùkùta, tete, lɛfe.
earn, *v.* dzɛre, dzɛ.
ear'nest, *a.* fɔkajsi.
earth, *n.* ilɛ, erukpe.
earth'ly, *a.* clerukpe.
earth'quake, *n.* isɛɛ.
earth'y, *a.* clerukpe.
ease, *n.* itù, itura: *at ease*, lɛɛ.
ease, *v.* rɔ, tɔ.
eas'ily, *adv.* fa, futehite, kpɛɛ.
east, *n.* ilà omu, gabasi, atiwa-
ɛɛɛ.
eas'y, *a.* ayfani, rɔnɔn, ya.
eat, *v.* dzɛ, dzɛhu.
eat'able, *a.* dzidzɛ.
eaves, *n.* ɛnu ɔsɔro, gbagbàro.
ebb, *v.* fa.
ebb'ing, *n.* ifa.
ebb'tide, *n.* isa.
e'cho, *n.* gbɛhɔngbɛhɔn.
edge, *n.* eti, odzù.
e'ducate, *v.* tɔ.
effect', *n.* amuwá, asɛ, idzɛ.
effect', *v.* se.
effe'minate, *a.* bi ɔbiri.
effervesce', *v.* ho.
ef'fort, *n.* owere.
egg, *n.* eyin.
egg'-plant, *n.* ɛikàn.
e'gret, *n.* lekeleke.
eight, *num.* ɛɛɛ, mɛdzɛ.
eighth, *num.* kedzɛ.
eight'y, *num.* ɛgerin, ɔrin.
ei'ther, *conj.* tabi.
e'ject', *v.* su, yin.
e'ject'ed, *a.* ɛn.
elas'tic, *a.* lɛ, lɛɛ, lɔ.
elas'ticly, *adv.* mɛdzámɛ-
dzán.
el'bow, *n.* igbɔnwɔ.
eld'er, *n.* ágbà, agbalágbà, ala-
gbà, ɛgbɔn.
eld'est, *a.* akɔbi, arɛmɔ.
elect', *n.* ayanfɛ.
e'lephant, *n.* adzínaku, ɛrin.
e'levated, *a.* ru.
ele'ven, *num.* ɛkanlá, mɔkanlá.
e'loquent, *a.* lɔro, omisiti, ɔlɔro.
else'where, *adv.* nibomiray.
ema'ciate, *v.* mu...ru, sɔ...
ru.
eman'cipate, *v.* da...sɛɛ.
embark', *v.* wɔkɔ.
embar' rass, *v.* danu.
embell'ish, *v.* fin.

embrace', *v.* fa...mɔra, fɔwɔ-
ko, gba...mɔra.
embroi'der, *v.* ko...ni maikira.
embroi'derer, *n.* agunà.
embroi'dery, *n.* maikira.
em'bryo, *n.* ɔlɛ.
eme'tic, *n.* iriya.
e'migrate, *v.* šatikpo.
e'minence, *n.* elɛ.
emis'sion, *n.* itu dzade.
emit', *v.* tu...dzade.
employ', *v.* kpɛ...se.
employ'ment, *n.* ikpɛse.
emp'tiness, *n.* ásan, ɔfo.
emp'ty, *v.* bɔ, da...nɔ, yi...
danɔ.
emp'ty, *a.* aikón, fo, šofɔ.
emp'ty-handed, *a.* šánpwɔ.
e'mulate, *v.* didzɛ, dudzɛ, fara
...wɔ.
emula'tion, *n.* idzɛ.
ena'ble, *v.* mu...tɔ se, fi agbara
fin.
enact', *v.* là...lɔna, kpase,
sɔlin.
encamp', *v.* dɔ, gun, teɔ: *to*
encamp against, sagati.
encamp'ment, *n.* buɔlo, ibuɔlo,
ido.
encir'cle, *v.* gbadi, yika.
enclose', *v.* ka...mɔ.
encom'pass, *v.* bu...ká.
encoun'ter, *v.* ko...lɔna, kotí.
encour'age, *v.* gbà...niyan-
dzú.
encour'aged, *a.* gberi.
encour'agement, *n.* igberi,
okunfa.
end, *n.* ɛkun, ikù, ikɛhin, ikɛnu,
ɛgbɔn, okpin: *the end of life*,
atubótán.
end, *v.* kpári, kpekun.
endea'vor, *v.* daywɔ.
end'ed, *a.* fin, tán.
end'ing, *a.* akodza.
end'less, *a.* ainikpekun.
endu'rance, *n.* itɔ.
endure', *v.* foriti, kparamà,
gbíyandzu, ran, tɔ, wá.
en'emy, *n.* ɛta, abinokú.
engrave', *v.* fin.
engra'ver, *n.* afin, afina, ibuke:
engraver of calabashes, afingba.
enig'ma, *n.* alɔ.
enig'matist, *n.* akpalɔ.
enjoy', *v.* dzɛ: *to enjoy the*
world, dzáiyɛ.
enlarge', *v.* tɛ, sɔ...digboro.

enlight'en, *v.* se inɔɛ.
enliv'en, *v.* da...laraya.
en'mity, *n.* isɛte, ɛte.
enough', *a.* tɔ.
enrage', *v.* tɔ, mu...Abinɔ.
enrich', *v.* sɔ...dɔrɔ.
en'sign, *n.* asia, okpagun.
enslave', *v.* sɔ...dɛru.
entan'gle, *v.* di, kagba, ko.
entan'gled, *a.* ahámɔra, atá-
mɔra, didzú, há.
entan'glement, *n.* ahámɔ.
en'ter, *v.* bɔ, wɔ, wɔnɔ: *to*
enter a house, wɔlɛ: *enter into*
one, wɔ...lara, wɔra.
entertain', *v.* mu...wɔ, se...
lálɛɛ.
entice', *v.* tán, tɔn...dzɛ.
entire', *a.* ni gbogbo, šokan.
entire'ly, *adv.* daradara, lulu,
kpatakpata, kpi, raurau, šaka,
šasa, tefete, tutu, yanyan.
entreat', *v.* bɛ, bɛɛ, šikpe.
entrea'ty, *n.* ɛbɛ, ibɛɛ, ikpe.
enve'lope, *v.* gbá.
en'vier, *n.* ɔlara.
en'vious, *a.* ɔlara.
en'vy, *n.* hɛ, hɛɛ, idzowu,
ilara, odzúná.
en'vy, *v.* se ilara.
e'paulet, *n.* akán.
epide'mic, *n.* adzaka, adzakáɛ.
e'pilepsy, *n.* warakpa.
epilep'tic, *n.* onwarakpa.
e'poch, *n.* ɔdzɔ isi.
e'qual, *a.* dɛgba.
e'qual, *n.* irɔ, odzúgbà, ɔgba.
equal'ity, *n.* aítara, ɛgbɛra,
ɔgba.
e'quity, *n.* adsege.
equi'vocate, *v.* kpuro.
equivoca'tion, *n.* ɔrɔ.
e'ra, *n.* isi.
era'dicate, *v.* tu...ni gbongbo.
eradica'tion, *n.* itu.
erase' *v.* nɔ...nɔ, kparun.
erect', *v.* gbɛ...rɔ.
erect', *a.* aburo.
erect'ly, *adv.* gangan, šun.
erect'ness, *n.* gangan, ɔrɔ.
erelong', *adv.* kɔ kpe.
err, *v.* šina, šise, yakpa.
er'rand, *n.* isɛ.
erro'neous, *a.* lɛsi, elɛsi.
er'ror, *n.* eší, isise, šisi.
er'rorist, *n.* aládámɔ, ɔšin,
šisi.
escape', *v.* dzabɔ, dzálá, là.

escape', *n.* adzabò, adzàlà, asulà, ilà, yò.
escort', *v.* sìn.
espouse', *v.* fè...fù, fè...sìona.
establish, *v.* di ẹ̀ṣẹ́ mulẹ́, di...kàlẹ́, fi...mulẹ́, gbè...kàlẹ́, kàlẹ́.
established, *a.* di ẹ̀ṣẹ́ mulẹ́, fi ẹ̀ṣẹ́ mulẹ́.
esteem', *v.* fi...kpè nkàṅ.
estimate, *v.* dàylẹ̀, dìyẹ̀lẹ̀.
estranged', *a.* ẹ̀sè iyakpa, ẹ̀sè...lẹ̀mọ.
eu'nuch, *n.* bāfīn, ibafīn, iwẹfa, okobò.
euphor'bia, *n.* ọrọ.
eva'cuatè, *v.* bọsọ, ẹ̀n, yagbẹ.
e'ven, *adv.* ańí, gẹgẹ, maso, lí...tílẹ́, tílẹ́.
e'ven, *a.* kúnà, dọgba.
e'vening, *n.* alẹ́, asúlẹ́, iralẹ́.
event', *n.* abákpaḍe.
e'ver, *adv.* láì, láiláì.
everlast'ing, *a.* ańńkpekun, ańńraiyẹ, ańńtítíláì.
everlast'ingly, *adv.* atáiyẹ-raiyẹ.
e'very, *pron.* dede, gbogbo, olókúlún.
e'vidence, *n.* ídžerí.
e'vident, *a.* hàn dádžú *or* nígbangba.
e'vidently, *adv.* dádžúdadžú, nígbangba.
e'vil, *n.* íbì, tulasín.
e'vil, *a.* báru, búbáru.
e'vil-do'er, *n.* ísgráṅ.
e'vilness, *n.* íbáru.
ewe, *n.* abò agutay.
exact', *v.* bèrẹ.
exact'ly, *adv.* gẹ, gbako.
exag'geratè, *v.* sọ asọdọ́.
exag'geratèr, *n.* alasọdọ́.
exaggera'tion, *n.* abunú, asọdọ́, ọ-ọ.
exalt', *v.* gbè...gá, gbè...leke.
exalt'ed, *a.* gbígbe leke, ọga.
exa'mine, *v.* tọsẹ, wálí.
exam'ple, *n.* akpẹrẹ.
ex'cavate, *v.* wọ.
exceed', *v.* džú, ẹ́ džú.
exceed'ingly, *adv.* fá.
excel', *v.* bóri.
except', *v.* fi...lẹ́ *or* sí akpakun.
except', *conj.* ańí, ańbì, ańyá-ńbì, bíkòsẹ́, bíkòsẹ́kpẹ́.

excess', *n.* asólžú.
exchange', *v.* kpáro, kpańí-kpáro.
excite', *v.* ró.
excite'ment, *n.* sọnsi.
exclude, *v.* tí...sodé.
excommu'nicate, *v.* kọ...lẹ́ *or* sílẹ́.
excuse', *v.* ẹ́ gáfara, wawí.
excuse', *n.* ańwí, awawí, iwawí.
ex'cute, *v.* ẹ́.
execu'tioner, *n.* akpańí, olu-kpa, olukpańí, ọ́džá, ọ́taọ́lọ́-džá, tẹ́tẹ́.
exer'tion, *n.* idagrawó.
exhi'bit, *v.* fi...hán.
exhibi'tion, *n.* ańhán.
exhort', *v.* gbá...ńíyáńdžú.
exhorta'tion, *n.* íyáńdžú.
exist', *v.* múbẹ́, wá.
exist'ence, *n.* iwá.
expand', *v.* tẹgbẹgbẹ.
expect', *v.* dába, fólžasọ́nà, retí.
expecta'tion, *n.* aba, afólžú-sọ́nà.
expect'ing, *n.* aba, afólžú-sọ́nà.
expend'iture, *n.* adžina, ídžina.
expen'ses, *n.* adžina.
expe'rience, *n.* írírí, imọ.
explain', *v.* ladi, rọ́, sọdì, sọyẹ.
explain'er, *n.* akawíyẹ.
explana'tion, *n.* akawẹ, asọyẹ-awíyẹ.
explode', *v.* tú.
expose', *v.* síkpaya.
exposed', *a.* ru.
expound', *v.* tú imọ, sọ itumọ, sọdì.
express', *n.* asingba.
extend', *v.* gbàlẹ́, gbílẹ́, kẹ́, ná.
exten'sion, *n.* ẹ́ta, iga, nínà.
extent', *n.* nínà.
extenua'tion, *n.* ańwí, iwawí.
exter'minate, *v.* kpa...ru.
exter'nal, *a.* ode.
extin'guish, *v.* kpa, kpare, kparun.
extol', *v.* gbè...leke, kokíkí, yín...lọgọ.
extort', *v.* lánlólówọ́gbá.
extor'tion, *n.* írẹdžẹ.
extor'tioner, *n.* alólólówọ́gbá.
extract', *v.* fá...yọ, yín.
extra'vagance, *n.* inaku-mu.

extra'vagrant, *a.* alásólžú, asólžú.
extra'vagantly, *adv.* džaiyẹ.
extrem'ity, *n.* ikapnagun.
exult', *v.* ẹ́gọgọ.
eye, *n.* olžú.
eye, *v.* wọ, fólžuwó, fólžuba.
eye'ball, *n.* eyín olžú.
eye'brow, *n.* hebe olžú.
eye'lash, *n.* ikpenkpédžú.
eye'lid, *n.* ikpenkpédžú.
eye'servant, *n.* olžúafẹ́n, rẹrẹ olžú.
eye'service, *n.* ifólžafẹ́.
eye'witness, *n.* ẹ́lẹ́rí, olžúńí.

F.

fa'bricate, *v.* dáfẹ́.
fabrica'tion, *n.* awólẹ́hú.
face, *n.* olžú.
face, *v.* kọdžisi.
fa'cing, *n.* (door), alugba.
fade, *v.* kpare, rọ́, ẹ́a, ẹ́i, tí.
fa'ding, *a.* íńi.
fa'ces, *n.* igbẹ́, igbọ́sẹ́, imi.
fail, *v.* dá...sú, dá...sẹ́, dẹ́tí, ka, ńákí, tí, tu.
fail'ure, *n.* alúńsẹ́, abati, alá-máhlólẹ́, asẹ́kun, ẹ́tí, idẹ́tí, oki-yíyẹ́.
faint, *v.* dákú.
fair, *a.* (weather), mọ́; (action), tọ́.
fa'iry, *n.* adžá, aroní, ọrọ.
faith, *n.* igbágbọ́.
faith'ful, *a.* alótọ́.
faith'fulness, *n.* otító.
faith'less, *a.* aláigbágbọ́.
fal'con, *n.* asá.
fall, *v.* súbá, bófẹ́: *to fall upon*, dalú, wólú; *fall down*, wólẹ́; *pull into*, as a hole, dží, džán, wó.
false, *a.* eke, lí eke.
false'hood, *n.* írẹ́, alusọ́, eke.
false'ness, *n.* asẹ́leke.
fame, *n.* okíkí.
fa'mily, *n.* ańalẹ́, orílẹ́.
fa'mine, *n.* íyá.
fa'mish, *v.* fóbakpa.
fa'mous, *a.* olókíkí, olorukọ́.
fan, *n.* abẹ́lẹ́, átẹ́, olžúolžú.
fan, *v.* fẹ́: *to fan away*, fẹ́.
fan'cifully, *adv.* bọwólọ́yọ́.
far, *a.* džina, okorẹ́, rẹrẹ, táy.

fare'well, *n.* idaghere: *to bid farewell*, da ghere.

fari na, *n.* gari.

farm, *n.* oko.

farm, *n.* roko.

farm'er, *n.* aghe, aiaroko.

farm'house, *n.* alere.

fash'ion, *n.* alarabara, ara, asa, ise, oro.

fast, *n.* awe.

fast, *v.* gbiawe, dengo, romo.

fast, *adv.* kankan.

fast'en, *v.* dimo, ti.

fast'er, *n.* alawe.

fat, *n.* ori.

fat, *a.* supra: *to grow fat*, sebo.

fa'ther, *n.* baba, oja.

fa'therless, *a.* akanibaba, konibaba.

fatigue, *v.* kpa...lare.

fatigue', *n.* are, ikpura.

fatigued', *a.* gasa.

fat'ness, *n.* ora.

fat'ted, *a.* abokpa.

fault, *n.* ebi, isiše.

fault'finding, *a.* efe.

fault'less, *a.* abše.

fa'vor, *n.* odzurer.

fa'vor, *v.* šelore, šodzurer.

fa'vorably, *adv.* lodzurer.

fear, *n.* eru, iberu, ididzi, idzaiya.

fear, *v.* beru, foya, kony, sa.

fear'ful, *a.* li eru, aleru.

fear'fulness, *n.* ikpaiya.

fear'less, *a.* aiberu, alaiberu.

fear'lessness, *n.* aiberu.

feast, *n.* ase, idana, isase.

feast, *v.* sase, adzo odun.

fea'ther, *n.* iyē.

fea'thered, *a.* gunye, abiyē.

fea'thery, *a.* abiyē.

fee'ble, *a.* hu, kolera.

feed, *n.* idze.

feed, *v.* bo: *to feed upon*, dze...lara.

feed'er, *n.* olubo.

feel, *v.* fowoba.

fel'lowship, *n.* idakpō.

fe'lon, *n.* akadun.

fe'male, *n.* ibo: *female of* beasts, ob.

fence, *n.* akogba, egba.

fence, *v.* kogba.

ferment, *v.* ho.

fer'ocious, *a.* asoro.

fer'ryman, *n.* okoko.

fer'vent, *a.* gboma.

fes'ter, *v.* gbanikey.

fes'tival, *n.* adzo odun.

fetch, *v.* mu, wahi.

fe'tidness, *n.* ilolo.

fet'ter, *n.* adze, šekesekē.

fe'ver, *n.* iba.

few, *a.* adu, die, fefe.

fib, *n.* idafē, irō.

fib, *v.* kpuro.

fi'brous, *a.* yi.

fic'tion, *n.* idaso.

fid'dle, *n.* duru.

fid'dler, *n.* ohiduru.

field, *n.* adzuba.

fierce, *a.* asē.

fierce'ness, *n.* oro.

fi'ery, *a.* munu, onina.

fife, *n.* fere.

fi'fer, *n.* afeyere.

fif'teen, *num.* edogun.

fif'teenth, *num.* kegdogun.

fif'tieth, *num.* oladota.

fifth, *num.* karun, ekarun.

fif'ty, *num.* adota.

fig'tree, *n.* aba, asofeyedze, odun.

fight, *v.* dza.

fight, *n.* idza.

fight'er, *n.* adza.

file, *n.* ayun.

fill, *v.* bu...kōy, fi...kōy, mu...kōy.

fil'ter, *n.* asemi.

fil'ter, *v.* semi, sogmi.

filth, *n.* egurin, egbin, eri, erin, egbin.

filth'iness, *n.* eleri.

filth'y, *a.* bey, eleri, obon.

fin, *n.* lebe.

fi'nal, *a.* asetun.

fi'nally, *adv.* akotan, lakotan.

find, *v.* ba, ri.

find'ing, *n.* atiri.

fine, *v.* ta.

fine, *a.* fele, felefele, kuna, wē.

fine'ness, *n.* iwē.

fin'ger, *n.* ika: *the little finger*, omolun.

fi'nish, *v.* kpari.

fi'nished, *a.* tun.

fi'nisher, *n.* olukpari.

fire, *n.* ina.

fire, *v.* tinabē.

fire'fly, *n.* immamuna.

firm, *a.* aiyi, alaiyi.

fir'mament, *n.* oñufu.

firm'ly, *adv.* giri, girigiri.

firm'ness, *n.* aiye, edo, imulo.

first, *a.* akokan, šiwadzu, tete.

first, *adv.* lekan, lerikan, tete, teteke.

first'born, *n.* akobi, aremo, atetebi.

first fruits, *n.* akoso.

fish, *v.* dedza, kpedza.

fish, *n.* edza.

fish'er, *n.* akpedza.

fish'hook, *n.* iwē.

fist, *n.* ikuku.

fit, *a.* ye.

fit, *v.* ba...bade, muba.

fit'ly, *adv.* gbako.

fit'ness, *n.* abade, eye, ilade, iyē.

five, *num.* arun.

flag, *n.* asia, okpagan.

flake, *n.* iforifo.

flame, *n.* alē, owō-ina.

flannel, *n.* kubusu.

flash, *v.* da, ko.

flat, *a.* bele, belebele, bere, daba, fele, kpelebe.

flat'ness, *n.* ate.

flat'ten, *v.* tē.

flat'ter, *v.* kpōy.

flat'ter, *n.* alasoḍōy, akun-yungba.

flat'tery, *n.* asoḍōy, ekpōy, ōki.

flaw, *n.* idadzi.

fla'vor, *a.* didōy.

flay, *v.* fo.

flea, *n.* egbon, imure.

fledged, *a.* gunye.

flee, *v.* sa, sulō, ri...sa.

flee'ing, *n.* asadi.

flesh, *n.* eray.

flesh'y, *a.* alara.

flick'ering, *a.* šembē.

flight, *n.* asa, ida, osā.

float, *v.* gba.

flock, *n.* agbo, owō, yoyō.

flock, *v.* wē.

flog, *v.* na.

flood, *n.* isan, kikōy omi.

flour, *n.* gum-flour, elubo, wheat-flour, iyēfun.

flou'rish, *v.* gba, gbiē, gbō, ru.

flow, *v.* sōy, sūy, šay.

flow'er, *n.* eda, itana.

flow'ing, *n.* ššay.

flu'ent, *a.* danu.

flute, *n.* fere.

fly, *n.* ešipšip.

fly, *v.* fō.

foam, *v.* hō.

foam, *n.* fofó.
foam'y, *a.* kputu, olofofo.
foe'der, *n.* hahá.
foe, *n.* ɔ́ta: *a* *deadly foe*, ɔ́ta-
 ɔ́kan.
fog, *n.* kúrúkn, owuñuwuñ.
fold, *v.* ká, wé.
fol'low, *v.* tɔ́, tɔ́...lèhín, tɔ́
 ...lèh, tɔ́kpa, tɔ́lè, lèkpa, kè-
 hín, kalòh, gbèhín, bí.
fol'lower, *n.* ɔ́mɔ-ehín.
fol'lowing, *n.* atɔ́lè.
fol'ly, *n.* aígboṅ, aware, iwere.
fon'dle, *v.* tɛ.
food, *n.* ɔ́ndžé, idžé, džidžé, fɛ-
 džéfdžé.
fool, *n.* asiywín, asíwere.
fool, *v.* mu...gɔ, kpa...lokpe.
fool'ish, *a.* še iwere.
fool'ish (be), *v.* were, še iwere.
fool'ishly, *adv.* botiboti, dže-
 gbédžegbe, še iwere, rederele,
 wanyraywanray.
foot, *n.* ɔ́sɛ.
foot'race, *n.* asadidže.
foot'step, *n.* ikpase.
foot'stool, *n.* akpoti-itise, itise.
fop, *n.* oge.
for, *prep.* bá, de, fi, fú, níkpɔ,
 níti, nitori, nitorití, tí.
for, *conj.* nitori, nitorití, sá.
forasmuch, *adv.* bí ɔ́ tí še kpé.
forbear, *v.* dɛ́kɔ.
forbid, *v.* da...lèkɔ, da...
 lɛsɛ, sɔ...lòhín.
force, *v.* lé.
force, *n.* ele.
for'eible, *a.* kpàti.
for'eibly, *adv.* kpatikpati.
fore'finger, *n.* imogundžug.
for'eign, *n.* adžedži.
foreknow'ledge, *n.* amúɔ́tɛ,
 imúɔ́tɛ.
fore'most, *a.* akokan, tí šadžu.
forerun'ner, *n.* asadžu.
foresee, *v.* rí...tɛlɛ.
foreshow, *v.* fi...hán tɛlɛ.
fore'sight, *n.* iwoye.
for'est, *n.* egan, igbo.
foretell, *v.* wí...tɛlɛ.
foretel'ler, *n.* alabadaše.
foretel'ling, *n.* aúšɛ.
fore'ver, *adv.* ábada, bábada, fɛ,
 lá, láilá, títi, títiáyɛ.
forget, *v.* gbagbe.
forget'ful, *n.* kuye, okuye.
forgetfulness, *n.* agbe, igba-
 gbe.

forget'ter, *n.* onigbagbe.
forgive, *v.* dari...dži, fi...
 dži.
forgive'ness, *n.* atidži, idari-
 dži, ifɛsɛdži, ofidži.
fork, *n.* agúndžé: *fork of a tree*,
 akasɔ, kpalaka.
fork, *v.* še akasɔ, ya akasɔ.
for'ked, *a.* makádu.
form, *n.* iwo.
for'mer, *a.* isadžu, tí šadžu.
for'merly, *adv.* níšadžu.
for'mer rains, *n.* akóró.
for'nicate, *v.* šuto, šagbere.
fornica'tion, *n.* agbere.
for'nicator, *n.* asado, asagbere.
forsake, *v.* fi...lɛ, fi...sílɛ,
 kɔ...lɛ, kèhíndási, še...kɛ-
 híndá.
forsa'ker, *n.* akèhíndási.
forsa'king, *n.* okèhíndá.
forth, *adv.* džade, lóh.
fortifeca'tion, *n.* odi, agbara.
for'tified, *a.* obodi.
for'tify, *v.* sagbaraka.
for'tune, *n.* adžé, orobo, šáluga.
for'ty, *num.* ogodži, ódži.
for'ward, *adv.* siwa, siwadžu.
for'ward, *a.* šadžu, asadžu.
fos'ter-child, *n.* agbabɔ.
fos'ter-pa'rent, *n.* obó.
foul, *a.* elɛrɔ, kíkɔ.
found, *v.* sɔ...lɛ.
founda'tion, *n.* ikpílɛ, ikpílɛsɛ,
 itɛlɛ.
foun'tain, *n.* iru, ison, odžason,
 erison.
four, *num.* ɛrín, merín.
four'fold, *adv.* ní merínmerín.
fourth, *num.* kɛrín, ɛkɛrín.
fra'gile, *a.* ɛlegɛ.
frag'ment, *n.* ɛtɛ, ɛlá, ɛrún.
fra'grance, *n.* adžɔ.
fra'grant, *a.* aladžɔ.
fraud, *n.* irendžé.
free, *a.* fá, omira.
free, *v.* da...nile.
free'dom, *n.* ilara, imira.
free'ly, *adv.* fá, tɔ́kɔntɔ́kɔ.
free'man, *n.* alara, omira.
freeze, *v.* sùn.
fresh'et, *n.* amukɔ, ikyáɔ.
fresh'ness, *n.* tutu.
fret'fulness, *n.* inɔ́bábi.
friend, *n.* ɔ́rɛ, ayanɛ, ɛnikedži.
friend'ly, *adv.* bá...rɛ, rɛ.
friend ship, *n.* íbare, írɛ.
fright, *n.* adidži, ididži, idí.

fright'en, *v.* ba...lɛm, deruba,
 da...gírí, da...nielži, daiyafɛ,
 mu...bɛm, dži.
fright'ened, *a.* didži.
frog, *n.* iwe, ɛkpɔbɔ.
from, *prep.* atí, bá, kuro níng,
 níti, nítií, tí, tí, tíh, tíng, torí.
front, *n.* iwadžu.
front'ier, *n.* atetɛba.
front'ing, *a.* ikodžasi.
frown, *v.* fɛ, fɛdži.
fruit, *n.* eso.
fruit'ful, *a.* aleso, eleso.
fruit'fully, *adv.* džígáni.
fruit'less, *a.* aleso.
fr'y, *v.* dí, díɔ, yáɔ.
fulfil, *v.* mu...sɛ.
fulfil'led, *a.* sɛ.
fulfil'ment, *n.* aúšɛ, ašɛ.
full, *a.* kɔ́p, yó.
ful'ly, *adv.* tɔ́pɔ.
ful'ness, *n.* ɛkóɔ, ikɔɔ.
fun'nel, *n.* ɛrɔ.
fu'rious, *a.* šaró.
fur'nace, *n.* ɛbu, ilana, ileru.
fu'nture, *n.* ɛlo, ohun ɛlo.
fur'row, *n.* góɔde.
fu'ture, *n.* ɛhín ɔhí.
fu'ture, *a.* ɔhí, tí mbɔ.
futu'rity, *n.* igba tí mbɔ, ɔdžɔ
 ɔhí.

G.

ga'ble, *n.* ɛkule, ikù, ikùle,
 kolá.
gad'fly, *n.* iru.
gain, *n.* ɛre, ifá, iwadžé: *dis-*
honest gain, erekere.
gain, *v.* džere, dže, wadžé: (*a*
prize), lakɔ.
gain'say, *v.* sɔ́ odi sí.
gait, *n.* ɛrɛ, írɛ.
gall, *n.* ɛrɛrɔ, ílakpa.
gal'lop, *v.* dogírí.
gal'lop, *n.* ogírí.
gang, *n.* ɔwɔ.
gap, *n.* ɛlo.
gape, *v.* yáɔ.
gar'den, *n.* ágbala, ɔgbá.
gar'den, *v.* šogbá.
gar'dener, *n.* olušagba, ɔlogbá.
gar'land, *n.* mariwó.
gar'ment, *n.* alɔra: *loose gar-*
ment, agbada, akáso ɔwu.
gar'nish, *v.* sɛ...lòšɔ.
gate, *n.* ɛmí ɔna, odži ɔna.

gather, *v.* ká, kò, kere, sù.
wàlèkpo, sunj.
gathered, *n.* reri.
gathering, *n.* ikodá, iwedá.
gauze, *n.* òdèg.
gaze, *v.* tédá, tédámọ.
geld, *v.* tẹ.
genealogy, *n.* atirandiran,
atamodọmọ, irandiran.
general, *n.* aṣekakapfọ, ka-
kanjọ.
generalissimo, *n.* arẹ.
generate, *v.* bí, bú.
generation, *n.* atirandiran,
atamodọmọ, iran.
gentle, *n.* kẹfẹr.
gentle, *a.* gẹgẹ, ródá, rora.
gentleman, *n.* alagba.
gentleness, *n.* ẹrẹ, ẹso, kpepe-
kpepe.
gently, *adv.* dèdèdèdè, keke,
kelekele, kpele, kpekepe, kpere,
kpepe.
get, *v.* dze.
ghost, *n.* orọ, iwin.
ghost, *n.* omiran.
gibbet, *n.* alore.
gidness, *n.* oyi.
gift, *n.* ẹlun, ibun, ifun, itẹre,
ọre.
gild, *v.* sù, subọ.
gilding, *n.* asibọ.
gimlet, *n.* ila.
ginger, *n.* atalẹ.
girl, *v.* damure, di hamura, di
... lamure, gbá... lódá, sán,
há... mọra.
girded, *n.* agbadá.
girdle, *n.* agbadá, amure,
igbadá, lawani.
girl, *n.* ikpankoro-omo, omobiri.
girth, *n.* madzere, madzewe,
edza.
give, *v.* bú, lún, dá, fi... fu,
fi... toye, fú, fún, ta... loye.
giver, *n.* olufun, ọlọre.
glad, *v.* yọ.
gladden, *v.* mu... yọ.
glance, *v.* wófir.
gland, *n.* kara.
glass, *n.* dèlè, dèlèlẹ.
gleaning, *n.* ẹsẹ, ilasi.
glen, *n.* koto ọke, ọfo.
glittering, *n.* ẹfo.
globular, *n.* kuburu.
gloomily, *adv.* tutu.
glorify, *v.* da... loye, yin...
loye.

glorious, *a.* ologo.
glory, *n.* ogo.
glory, *v.* sọgo.
glove, *n.* ilawo.
glow, *v.* gbina, kẹ.
glutton, *n.* odzahun.
gluttony, *n.* iwobia.
gnash, *v.* kpahinkeke.
gnat, *n.* motimoti, kantikanti.
gnaw, *v.* ti.
go, *v.* lẹ, rẹ : to go out, dzade ;
go up, gòke, gòrì ; go in, wòle,
wòp.
goat, *n.* akẹ, ẹkiri, ewure, orike.
God, *n.* Olẹrun, Olodumare.
godhead, *n.* iwa-olẹrun.
godlike, *n.* biolẹrun.
godliness, *n.* iwabiolẹrun.
gold, *n.* wura.
gone, *v.* rem, lẹh.
gonorrhea, *n.* atọsi.
good, *a.* dara, rẹ, siay, saan,
sany.
good, *v.* idara.
good-bye, *n.* akilẹh, agbere.
goodly, *adv.* daradara, rẹ, rere.
good-morning, *n.* adzire, aku-
oro.
goodness, *n.* idara, didara, ire,
oro, rere, isawa.
goods, *n.* ẹri.
gore, *v.* gún, kún.
gorgeously, *adv.* dèlèdèlè.
gospel, *n.* ihin rere.
gourd, *n.* the various kinds are
called : ademo, uha, agbe, agbe-
dzolo, akpala, ato, igbodze, igba.
gout, *n.* akedun.
govern, *v.* dzoze, sakoso.
governor, *n.* balẹ.
grace, *n.* olzurere, ọreofe.
gracious, *a.* alore ofe, sòdzu-
rere.
graciously, *adv.* lodzurere.
gradually, *adv.* kẹke.
graft, *v.* lẹ, lẹ.
grain, *n.* woro.
grandchild, *n.* omolodza.
grandfather, *n.* babalá, ba-
bandá.
grandmother, *n.* iyálá, iyanlá.
grape-vine, *n.* molẹwu.
grasp, *v.* di... nla, dá, káwọ.
grass, *n.* ikoriko, koriko, ogbu-
gba.
grasshopper, *n.* alatanakpoke,
ẹga, ẹlẹga.
grassnut, *n.* imọmọ, emu.

grateful, *a.* more.
gratis, *n.* ofe.
gratitude, *n.* more.
gratuity, *n.* ofe.
grave, *n.* ibodzi, ilekpa, isa,
olzuori, kpansa-ile.
gravel, *n.* tara.
gray, *a.* ewu, oyẹ.
grease, *v.* fi ẹrẹ kpa.
great, *a.* gbog, nlá, kpọ.
great er, *adv.* ikpódza.
greatly, *adv.* dzólẹ, sẹ, sọsu.
greatness, *n.* daraduru, inla,
nlánda.
greediness, *n.* iwora, olzulá,
wobia.
gree'dy, *a.* oniwora.
green, *a.* kọkọ, tutu.
greens, *n.* ẹfẹ.
greet, *v.* kí.
greeting, *n.* ikini, kiki.
grief, *n.* arọkan, ẹdọ, iladzẹ,
inbinidze.
grieve, *v.* bá... ninólẹ, bí...
ninólẹ, doro... kánu, kpa... lánu.
grieved, *a.* binólẹ.
grin, *v.* fẹhin.
grind, *v.* lẹ, wẹ.
grinder, *n.* (of beads), alẹleke.
groan, *v.* kerora.
groaning, *a.* irora.
gross, *a.* selọ.
ground, *v.* gúnle, tan.
ground, *n.* ilẹ.
groundless, *a.* ahindi.
ground-pea, *n.* ẹkpa.
group, *n.* yoyọ.
grove, *n.* abusi, osusu : a sacred
grove, igbodu, igbofa.
grow, *v.* dagba, darugbó : to
grow as a plant, fu, ran.
grown, *v.* dagba.
grub, *n.* igongo.
grudge, *n.* agon.
grumble, *v.* sẹ aroye, kọn, kún,
ráhun.
grumbler, *n.* akọsinó.
grumbling, *n.* aroye, ikọsinó.
grunt, *v.* kún.
guard, *n.* ẹfẹ.
guard, *v.* sẹ.
guardian, *n.* olutodza.
guardianship, *n.* idole.
guess, *n.* amólza.
guess, *v.* sẹ amólza, damólza,
mamólza.
guest, *n.* abanidze, akpétzẹ,
alakpétzẹ.

gui'dance, *n.* aḥlàn.
 guide, *v.* še amòma, fònahàn, tó tokun.
 guide, *n.* afònahàn, amòma, atokun.
 guile, *n.* ètan.
 guile'ful, *a.* èlètan.
 guile'less, *a.* ailetan.
 guilt, *n.* ère, èbi.
 guilt'iness, *n.* idžèbi, èlèbi.
 guilt'less, *a.* ailebi.
 guil'ty, *a.* džèbi, šin.
 gui'nea-corn, *n.* okà : *red guinea-corn*, haba; *white guinea-corn*, lomò.
 gui'nea-fowl, *n.* ètu.
 gui'nea-worm, *n.* sòbia.
 gul'ly, *n.* èrè.
 gum, *n.* odžin.
 gums, *n.* èrigi.
 gun, *n.* ibon.
 gun'lock, *n.* okò ibon.
 gun'powder, *n.* ètu.
 gush, *v.* rò, tú.
 gut, *n.* ifon.
 gut, *v.* tufon.
 gut'ter, *n.* odžu-agbara.

II.

ha'bit, *n.* isè, aša.
 habita'tion, *n.* ibudžòko.
 hack, *v.* šá.
 had, *v.* tí.
 ha'des, *n.* ikpo-okú, onun.
 hail, *n.* èwo, wowe, yinyin, nini.
 hair, *n.* iron.
 hair'less, *n.* ailiron.
 hair'pin, *n.* ikoti.
 hair'y, *a.* airon, oniron, liron.
 half, *n.* àbò, idadži, idamedži.
 hall, *n.* bayga, bása.
 ha'lo, *n.* ayika.
 halt, *v.* dèse.
 hal'ter, *n.* ikpèrè.
 ham, *n.* itan.
 ham'let, *n.* ereko.
 ham'mer, *n.* mataká, olù, omò-
 qwu, iyawu.
 ham'mer, *v.* lù fi mataká lù,
 kùp.
 hand, *n.* owò.
 hand'breadth, *n.* ibuatèlèwo.
 hand'ful, *n.* ikòywo.
 hand'kerchief, *n.* gebe, in-
 dzu.

han'dle, *n.* (*cf a kají*), ekun,
 ekukun.
 hand'some, *a.* dara, èlèwà.
 hang, *v.* fi ... ha, fi ... ko, gbe
 ... ha, hàn, kagba, kò, romò, so,
 soloron, sorò, tẹ ... bọ.
 hap'ly, *adv.* seši.
 hap'pen, *v.* šabákpaule, šé.
 hap'piness, *n.* ayò.
 hap'py, *a.* layò.
 ha'rass, *v.* gùn, yò ... lenu.
 hard, *a.* dakpara, kikun, kiri-
 kpa, ko, lé.
 hard'en, *v.* mu ... dakpara, mu
 ... lé.
 hard'ness, *n.* ele, okikirin, eki-
 vikpa, oro.
 hark, *v.* gbò.
 har'lot, *n.* kpanžaga.
 harm, *n.* tulašy, alušin.
 harmat'tan, *n.* oyé.
 har'ness, *v.* ha ... mọra.
 har'nessed (in armor), aha-
 mọra, atamọra.
 harp, *n.* dūrn.
 harp'er, *n.* oludūrn.
 harsh, *a.* džagan, kanò, ròro.
 harsh'ly, *adv.* ramran, ram-
 ranu.
 har'vest, *n.* ikodžo-oko, ikore.
 har'vest, *v.* kore.
 has, *v.* tí.
 hash, *n.* gbè.
 haste, *n.* itara, iwara.
 has'ten, *v.* hò, še iwara, kanydžu,
 ya, yara, šise, tagere, tadžu.
 has'tener, *n.* ikanydžu.
 has'tily, *adv.* kanykay, wiriwiri,
 tára.
 hat, *n.* àkata, akète, atẹ : *a rain*
hat, agbèdži.
 hatch, *v.* kpa.
 hatch'et, *n.* àke.
 hate, *v.* korira.
 ha'tred, *n.* agon, irira.
 ha'ter, *n.* akèri, akorira, ašète.
 have, *v.* li, ni, ri, ti.
 hawk, *n.* awoli.
 hay, *n.* sakasika.
 haz'ard, *n.* idàše.
 he, *pron.* à, i, ó, é, on, on.
 head, *n.* eri, ori.
 head'band, *n.* iweri.
 head'long, gbəngbəy, li ogele-
 mgbe, okiti.
 head'longness, *n.* ogeleomgbe,
 ogelegbe.
 head'man, *n.* obori.

heal, *v.* še dída ará, džina, mu-
 džina, mu ... larala, wò ... dži-
 ma.
 health, *n.* dída ará, say.
 health'ful, *a.* yè.
 health'iness, *n.* yiyé.
 health'y, *a.* lé, lera, onilera,
 sayra.
 heap, *n.* bebe, òkiti, òkitigəy.
 heap, *v.* be, kodžo, šuru.
 hear, *v.* gbəhəy, gbò : *to hear*
news, gbəhəy, gbəhəy; *to hear*
of, gburo, gboran.
 hear'er, *n.* akafetigbò.
 hearing, *n.* gbəgbò, igbò.
 hear'ken, *v.* dèti, dètisiyè, fəti,
 gbòti.
 hear'say, *n.* awigbò.
 heart, *n.* aiyə, òkan.
 hearth, *n.* šro.
 heart'ily, *adv.* tinətinə, tokay-
 tokay.
 heart'wood, *n.* akudin.
 heat, *n.* onun, gbəgbona, onu.
 heat, *v.* fi ... gbona.
 heated, *n.* arii.
 heat'hen, *n.* iworo, kèfəri.
 hea'ven, *n.* oke onun, onun.
 hea'vily, *adv.* ti, kòti.
 hea'vy, *a.* wuwo.
 hedge, *n.* agbinyikágbà, akógbà.
 hedge hog, *n.* oyā.
 heed, *v.* gbò.
 height, *n.* aga, iga, giga, oke :
great height, giga-giga, gongon.
 heir, *n.* adžəy, arole : *heir*
apparent, dawu, magadži.
 hell, *n.* onun akpadi.
 helms'man, *n.* atoko.
 help, *n.* agbà, agbàše, agbàtan,
 aránniləwo, aranjə.
 help, *v.* gbà ... ləwoy, gbè, kpade,
 ran, ranləwo.
 help'er, *n.* abaniše, agbanì, alà-
 baše, alaranše, aránniləwo,
 aranjə, èlègbà, olugbani, olu-
 ranləwo.
 helve, *n.* èrú.
 hem, *n.* iseti.
 hem, *v.* še ... leti.
 he'morrhage, *n.* ogbè inò.
 hen, *n.* agbebe.
 hence, *adv.* nibi, nibiyi, nibin,
 nibinyi.
 hence'forth, *adv.* ati isisiyi-
 kù.
 her, *pron.* à, é, é, i, rə.
 her'ald, *n.* ikiri.

herb, *n.* ewé, ewébé, ewéko, éfo.
 herd, *n.* ewé.
 here, *adv.* ihin, nibí, nibíyí, níhín, níhínýí, sibi, sibiñ, sahínýí.
 hereafter, *adv.* nigbélúñ.
 he'sesy, *n.* adamó, ídamó.
 he'sretic, *n.* aládamó.
 here'tical, *a.* damó, adamó.
 here'tofore, *adv.* rí, nídzéle.
 he'ro, *n.* éga.
 hes'itate, *v.* síyemedzá.
 hew, *v.* ké, kégi.
 hew'er, *n.* ákégi.
 hibis'cus, *n.* ísákpa.
 hic'cough, *n.* síkísíkí, síksík.
 hid (be), *v.* lùmó, kpañ.
 hid'den, *a.* íkọkọ.
 hide, *v.* bá, rí, kpañ, sakpañ.
 hide, *n.* áwọ, bata.
 hid'ing, *n.* íla.
 high, *a.* ga, géle.
 high'ly, *adv.* reke.
 high'wayman, *n.* agaua, alá-bamọlẹ.
 hill, *v.* kọ, kọle.
 hill, *n.* ókọ, okítí ébe.
 hilt, *n.* ekun, ekukun.
 him, *pron.* á, é, é, í, ó, ó, ú, on, óñ.
 him'self, *pron.* oṣnà.
 hin'der, *v.* dína.
 hin'derance, *n.* ídena, íkọsẹ.
 hind'most, *a.* elin.
 hint, *v.* fólzúkpe, lukero, sóbó.
 hint, *n.* obó.
 hint'er, *n.* olóbó.
 hip, *n.* íbadi; *hip-joint*, ígharoko.
 hippopo'tamus, *n.* erinmí, osé.
 hire, *v.* gba...wọ.
 hire, *n.* oya.
 hired', *n.* agbawọ.
 hire'ling, *n.* alagbáše, alagbàrò.
 his, *pron.* rẹ, tẹ, tẹ.
 hit, *n.* íbá, lá.
 hit, *v.* lù.
 hith'er, *adv.* ihin.
 hoarse, *a.* kẹ.
 hoarse'ness, *n.* íkẹ.
 hoe, *n.* okó, ákẹgun okó, aketọ.
 hoe, *v.* rọ, kọ.
 hog, *n.* gẹdẹ.
 hold, *v.* dínu, gbá, mú.
 hold'fast, *n.* alimú.
 hole, *n.* alafó, ího, koto.
 ho'liness, *n.* mimó, iwá mimó.
 hol'low, *a.* wọ.
 hol'low, *n.* éfo, iwọ.

ho'ly, *a.* mọ.
 hom'age, *n.* íbàrí.
 hom'age, *v.* hárí, wárí.
 home, *n.* ilé.
 home'bred, *n.* íbílẹ.
 ho'miny, *n.* egbó.
 ho'nesty, *n.* iwá títo.
 ho'ney, *n.* oro, oyin.
 ho'ney-comb, *n.* afara oyin.
 ho'nor, *n.* íbnyin, olá, òwọ.
 ho'nor, *v.* bolá, bọwọ, báyin, sólá.
 ho'norable, *a.* niyin, ologó, olola.
 hoof, *n.* bata, kpatakò.
 hook, *n.* amú; *a tailer's hook*, amurag, arugogun.
 hoot, *v.* ho.
 hop, *v.* kálakáka.
 hope, *n.* aba, igbẹkẹle, íreti.
 hope, *v.* rẹtí, tamaba.
 horn, *n.* iwo, owo.
 horse, *n.* ẹsin; various kinds are called, abigá, aligárimí, ira.
 horse'man, *n.* ẹlẹsin.
 horse'whip, *n.* lagba.
 hot, *a.* gbóna; *very hot*, boba, dzanjá.
 hot'ness, *n.* arifi.
 hour, *n.* wakati.
 house, *n.* ilé.
 house'hold, *n.* sata.
 ho'ver, *v.* rá, radóbó.
 how, *adv.* bawo, bíbawo, tí, bíti; *how many?* kẹlọ? mọlọ?
 howe'ver, *adv.* lákísé.
 howl, *n.* ikókará, mahuru.
 howl, *v.* kókará.
 hug, *v.* gba...mọra.
 huge'ness, *n.* igágun.
 hum, *v.* kọy, kún.
 hu'manly, *adv.* bíniá.
 hum'ble, *a.* onirẹlẹ.
 hum'ble, *v.* kparamó, rẹ...lẹ.
 hum'bled, *n.* rẹ.
 humi'liate, *v.* rẹ...silẹ.
 hump, *n.* íke.
 hunch'back, *n.* abuke, atẹlẹ-lin, awolin.
 hun'dred, *num.* ogorún, orún.
 hun'ger, *n.* ebí.
 hun'ger, *v.* lebi, ebí kpa.
 hun'gry, *a.* aláiyó.
 hunt, *v.* dẹ, degbe.
 hun'ter, *n.* ọdẹ.
 hur'ry, *v.* še iwara, šira.
 hur'ry, *n.* itara.
 hurt, *v.* fúrakpá, kpa...lara.

hurt, *n.* ibí, ikpalara.
 hus'band, *n.* oko.
 hush, *v.* dake, simi.
 husk, *n.* egbo, iwo.
 hut, *n.* agbo.
 hye'na, *n.* koriko, íkoriko.
 hy'pocrite, *n.* afinósád-zere, afinóschin, afinósode, agaba-gebe.

I.

I, *pron.* emi, mí, mo, me, ñ.
 iden'tity, *n.* aiyato.
 i'dleness, *n.* imẹle.
 i'dol, *n.* oríša.
 idol'ater, *n.* abogígbokpe, abog-ríša, oloríša, iworo.
 if, *conj.* bí, bí...tíle, ílá, kò-šekpe; *as if*, biénikpẹ; *if possible*, boléšebí, boléšékpe.
 ig'norance, *n.* aímoye, aímó, okpe.
 ig'norant, *a.* aímoye, alaimó.
 igua'na, *n.* iwogwọ.
 illi'terate, *a.* alaimogwe.
 ill'na'tured, *a.* okururo, ošonó.
 ill'ness, *n.* okunrọ.
 i'mage, *n.* eré.
 i'mitate, *v.* sındze.
 immatu'riety, *n.* aígbo.
 imme'diately, *adv.* biatigwiyi, kan, kiyán, lẹsekanná, lodžukanjá, odžukanjá, kẹgan.
 immerse', *v.* fi...bomi, ki...bomi, tẹ...bomi, tẹ...bẹ.
 immo'dest, *a.* aítida.
 immor'tal, *a.* alaiku.
 immortal'ity, *n.* aiku.
 impart', *v.* fi...fá.
 impartial'ity, *n.* aísẹgbe, aísó-džúsádžú.
 impa'tience, *n.* iwara.
 impede', *v.* dína.
 imped'iment, *n.* adena.
 impend', *v.* wá.
 importu'nity, *n.* abeiyamu, awiyamu.
 imposi'tion, *n.* ayandze.
 impossibil'ity, *n.* aláise.
 impos'sible, *a.* aísẹ.
 impos'ture, *n.* iyandze.
 im'precate, *v.* táše.
 impreca'tion, *n.* ašẹ, erin, ẹre.
 impri'son, *v.* ba...mọ, seunó.
 impro'per, *n.* aítọ, aídara.
 impro'vident, *n.* aímete.

im'pudent, *v.* be, dadzú, gbo-dzu.
 impure', *a.* aímú.
 impute', *v.* da...mú, fi...mú, ka...si.
 in, *prep.* fi, li, ni, nínú, nítí, kura, sara, tí.
 inabi'lity, *n.* idetí.
 inac'tion, *n.* aísé.
 inadequate, *a.* aító.
 inatten'tion, *n.* aikiyési.
 inatten'tive, *a.* modžukuro.
 in'cessant, *a.* aísini: *incessant* talking, awáidake.
 incline', *v.* fi.
 incomplete', *a.* aíkpe, aísétay.
 incomprehen'sible, *a.* aiyé.
 inconsiderateness, *n.* aíró.
 incorruption, *n.* aídibadže, aíbadže.
 increase', *v.* bísi, kposi, gbałé, gbałé, rý, so...kpikpo, wú.
 in'crease, *n.* abisi, ibisi, asoy-kóy.
 inere'dulous, *a.* koše igbagbó.
 in'cubate, *v.* sába.
 indeed', *adv.* gá-sa, sę, tabi.
 independ'ence, *n.* aísín.
 in'dicate, *v.* fi...háy.
 indifference, *n.* aikiyési.
 indif'ferent, *n.* aikiyési.
 indif'ferently, *adv.* tá, taitai.
 indig'nant, *a.* runó.
 indigna'tion, *n.* irunó, ilinó.
 in'digo, *n.* ęlu.
 indirectly, *adv.* kóikó.
 indiscriminate, *a.* idaru-dakpó.
 indisputableness, *n.* aídži-yay.
 indivi'dual, *n.* oluwaye.
 in'dolence, *n.* inęle.
 in'dolent, *a.* ęenęle.
 induce', *v.* fi...wó.
 indulge', *v.* ke, yé.
 indulg'ence, *n.* ęke, ike.
 indus'trious, *a.* onisę, aísę-męle.
 in'dustry, *n.* aísęmęle, aísi-męle.
 inexcusable, *a.* airiwi, adai-riwi.
 inexpressible, *a.* ailéwi.
 inextinguishable, *a.* aíkpa, ailékpá.
 in'fant, *n.* omę-omę.
 infect', *v.* ráy.

infect'ion, *n.* erin.
 infectious, *a.* aranjuna, lašerín.
 infe'rior, *a.* aísębe.
 in'finite, *a.* aínikpekun.
 infirm', *a.* alálera, kólera, ke-řeđe, ęekęęęle.
 infirm'ity, *n.* alálera.
 inflame', *v.* gbinúkún.
 in'fluence, *a.* aiyá.
 influen'tial, *a.* olóhún.
 informed', *v.* akótún.
 ingraft', *v.* le, ló.
 ingraft'ed, *v.* ałomó.
 ingra'titude, *n.* aímęre.
 ingre'dient, *n.* ęlo.
 inha'bit, *v.* teđó.
 inha'bitant, *n.* agbe, aráílę, aráila.
 inhe'rit, *n.* gbágún, dżogún, kogún, rofe.
 inhe'ritance, *n.* ogún.
 inhe'ritor, *n.* odżogún.
 inhu'man, *a.* aísęnia.
 inhum'i'lity, *n.* ańęle.
 ini'quity, *n.* ęęę.
 ini'tiated, *a.* ęęberi.
 injure, *v.* ba...dže.
 injurer, *n.* abanidže.
 in'jury, *n.* ibadže.
 injus'tice, *n.* aísędodo, aísotó.
 ink, *n.* tardı: *red ink*, ambua.
 in'mate, *n.* abanıgbele.
 inn, *n.* ilé ero.
 in'nocence, *n.* aídžębi, ańęę.
 in'nocent, *a.* aísę, ańęęę, adal-leęę.
 innu'merable, *a.* ańiyę.
 inquire', *v.* bęre, bí...lebi, fi...lę, sę.
 in'quiry, *n.* ilęre.
 in'quisitiveness, *n.* áyay.
 insane', *a.* ęiwere.
 insan'ity, *n.* ewi, gbęreghęre.
 in'sect, *n.* kókoró.
 insert', *v.* bó.
 in'side, *n.* inó, nínó.
 insi'pid, *a.* obu, tę.
 insipid'ity, *n.* ate, okú.
 insist', *v.* kirinó, rý.
 in'solence, *n.* adólžufi.
 in'solently, *adv.* tá, taitai.
 insolv'ent, *v.* fódžúdi, šafo-džúdi.
 inspect', *v.* be...wó, woye.
 inspect'or, *n.* awoye.
 inspira'tion, *n.* ańisi, inisi.
 inspire', *v.* mi si.
 instalment, *n.* adawin.

in'stant, *n.* ogún.
 instantly, *adv.* leęay.
 instead', *prep.* níkpó.
 in'stigator, *n.* ęęębe.
 in'stinct, *n.* ęlá.
 instruct', *v.* kę.
 in'strument, *n.* ęlé, olunęma.
 instrumental'ity, *n.* amuba, imuba.
 insuffi'ciency, *n.* aító.
 insurrec'tion, *n.* irukerulo.
 integ'rity, *n.* iwáńito.
 in'tellect, *n.* inoye, oyé.
 intel'ligent, *a.* dá, anoye, moye, niyanę.
 intelligible, *a.* iyewi.
 intend', *v.* gbęro, kpete, ró.
 intense'ly, *adv.* buraku: *intensely hot*, dżaydžay.
 inten'tion, *n.* ęte.
 in'terest, *n.* ęlé, ęre, ęlá.
 inte'rior, *n.* inó.
 intermed'dle, *v.* da...si, fe-musi.
 intermin'gle, *v.* da...kpó.
 inter'pret, *v.* gbędegbeyo.
 interpreta'tion, *n.* imó, itumó.
 inter'preter, *n.* agbędegbeyo: *interpreter of dreams*, amadá.
 inter'rogate, *v.* bí...lere, da...lebi, sę.
 interroga'tion, *n.* ęlá, ęre.
 intes'tines, *n.* ilęy, owere.
 inti'midate, *v.* da...fódžo, kpa...fódžo.
 in'to, *prep.* nínó, inó.
 introduce', *v.* da...silę, dá...ęu, mu...wó.
 intrust', *v.* šu.
 in'valid, *n.* arńy, abinęy, oló-kuręy, adabukun.
 inven't', *v.* ba...ęu, da...silę.
 invent'or, *n.* abuso, idanę-mę, isi.
 invent'or, *n.* adisi, onisi.
 invert', *v.* dólžude.
 invert'ed, *v.* ałę.
 inves'tigate, *v.* be...wó, fi...lę, ló wadže.
 investiga'tion, *n.* ilęwó, iyę-wó.
 investigator, *n.* ańęrayłę, fe-ibi.
 invisibil'ity, *n.* ańi.
 invita'tion, *n.* ikpedže.
 irascibil'ity, *n.* ęłó fofó.
 i'ron, *n.* irin.

iron'ically, *adv.* *to speak ironically*; ray ikpɛy sɪ, ray ikpɔ.

i'rony, *n.* ikpɛy.

irre'gularly, *adv.* wayrayway-ray.

irrita'tion, *n.* sɔnɔsɪ.

is'land, *n.* adalɔ, idalɔ, erokuṣu.

is'sue, *n.* amiwadi.

it, *pron.* à, â, ê, ċ, ĩ, í, ó, ô, oy, ou, vè.

itch, *n.* toci'tch, ey'ɔy, key'ɔy.

itch, *v.* y'ɔy.

i vory, *n.* ike.

J.

jack'al, *n.* adža-oko.

jack'et, *n.* alukasafa.

jail, *n.* tubu.

jail'er, *n.* onitubu.

jas'per, *n.* esu.

ja'velin, *n.* ɔko.

jaw'bone, *n.* ɛreke, kpari.

jeal'ous, *n.* dzowu, odzowu.

jeal'ousy, *n.* owu, idzowu.

jerk, *v.* dža.

jerk'ed, *n.* (ment), adingbe.

jerk'ing, *n.* adzagadziga.

jest, *v.* šawadi, šɛfɛ.

jest, *n.* šawadi, ɛfɛ, ɛwa.

jest'ing, *n.* asawadi.

job, *v.* dzagbɔ.

job, *n.* aboše.

job'work, *n.* aboše.

jog, *v.* še... nigbowu.

join, *v.* bádákpɔ, da...kpɛmɔ.

joint, *n.* ike, orike: *joint of grass*, ilay.

joist, *n.* ɛkɛ.

joke, *n.* šawadi, ɛwa.

jour'ney, *v.* radžo, rebɪ.

jour'ney, *n.* idžo, ebɪ.

joy, *n.* ayɔ.

joy'ful, *n.* layɔ, alayɔ.

judge, *v.* ba...widžo, dadžo.

judge, *n.* adadžo, onidadžo.

judg'ing, *n.* ibawi.

judg'ment, *n.* idadžo.

jug, *n.* oru.

jug'gle, *n.* kpilɔy.

jump, *v.* bɛ, fɔ.

just, *v.* obotɔ, obotitɔ.

jus'tice, *n.* ɛbolɔ.

justifica'tion, *n.* adalare.

justified, *n.* obulare, dzare.

justifier, *n.* onidalare.

just'ify, *v.* da...lare, dzare.

K.

kaw, *v.* hɔy.

keen, *n.* mɔ.

keen'ly, *adv.* šɪy.

keen'ness, *n.* imu.

keep, *v.* kpamɔ.

keep'er, *n.* olutɔdžu.

kernel, *n.* ɔmɔ.

key, *n.* kɔkɔrɔ, šika.

key'hole, *n.* odžu šika.

kick, *n.* ikpa.

kick, *v.* ta, takpa, tasy, yɔy.

yan...nitete.

kid'napper, *n.* alabamɔle, labamɔle.

kid'ney, *n.* iwe.

kill, *v.* kpa, kpakú.

kiln, *n.* ebu.

kind, *n.* šɛy.

kind, *n.* alarabara, im, onirum.

kin'dle, *v.* dana, kun, tibɔ, ti-

madɔ.

kind'ness, *n.* isɛy, ɔre.

kin'dred, *n.* itay.

king, *n.* oha.

king'dom, *n.* ilɔ oha.

kins'folk, *n.* ara, ibatay.

kins'man, *n.* olutay.

kiss, *v.* fɛmko.

kitch'en, *n.* ilɔ-ase.

knave, *n.* arɛkerɛke.

knav'ishness, *n.* arɛkerɛke.

knead, *v.* kpo, šu.

knee, *n.* ekuy, ekuruy.

knee'pan, *n.* dzangboro.

kneel, *v.* kunlɛ.

knife, *n.* ɔbɛ: *sharp-pointed*

knifɛ, asoro.

knit, *v.* wɔy.

knoek, *v.* dži, džin, kɔy, kan-kun, lɔ.

knot, *v.* sokpa, takoko.

knot, *n.* isokpa, koko, okikirin.

know, *v.* mɔ.

know'ledge, *n.* imɔ, imɔdžu.

knuck'le, *n.* koko-ɔwɔ.

koran, *n.* kuran, akurani.

L.

la'bor, *n.* isɛ.

la'bor, *v.* šisɛ.

la'borer, *n.* asisɛ, onisɛ.

labo'rious, *n.* onisɛ.

lack, *v.* di, kin.

lad'der, *n.* akasɔ.

lade, *v.* kpɔy.

la'dle, *n.* igbako.

lake, *n.* adagay.

lamb, *n.* ɔdɔ agutay.

lam'bent, *n.* geregere.

lame, *n.* amokun.

lame, *v.* mokun.

lame'ness, *n.* imokun.

lament', *v.* kponnere.

lamp, *n.* fatila, titila.

lamp'filler, *n.* ɛrɔ, kɔlɔbo.

lance, *n.* ɛko.

lan'cet, *n.* abɔ.

land, *v.* gun, gunlɛ.

land'ing, *n.* ɛnte.

land'lord, *n.* balɛ.

lan'guage, *n.* ɛde.

large, *n.* tobi, boni, gongoy, nilá,

nilá: *very large*, bonibonɔ, bári.

large'ly, *adv.* kibiti.

large'ness, *n.* igangan.

lasci'viousness, *n.* wɔbia.

last, *v.* kpɛ, kpe.

last, *n.* ɛm, igbelin, ikehin,

kehin, šehin: *the last born*, abi-

kehin; *the last state*, asiwa.

last'ly, *adv.* nikehin.

latch, *n.* eha.

latch, *v.* lá, ti.

late, *adv.* gɛchin, nigɛchin.

late'ly, *adv.* lolɔ, nilolɔ.

late'ness, *n.* igbelin.

lath, *v.* ná, rale, rɛle.

lath'er, *v.* ho, kputu.

lath'ing, *n.* irale.

lat'ter, *n.* ikehin, abikehin.

lat'terly, *adv.* ni lolɔ yi.

lat'ter-rains, *n.* arokuro.

laugh, *n.* ɛrin.

laugh, *v.* rin, ɛrin.

laught'er, *n.* ɛrin.

law, *n.* idasile, ofin.

law'giver, *n.* olodin.

law'less, *n.* kɔlodin, ailodin.

law'yer, *n.* amodin.

lay, *v.* lé, fi...le, tɛ, gbe...ru:

to lay down, ti...le; *lay hands*

on, dawɔlɛ: *lay eggs*, ye, yin.

la'ziness, *n.* ɔle.

la'zy, *n.* le.

lead, *n.* odžɔ.

lead, *v.* dari, fɔ, šin, še amɔwa, tɔ.

lead'er, *n.* atokun, ɛgɛbe.

lead'ing, *n.* itɔ.

leaf, *n.* ewe.

leaf, *v.* ruwe.

leaf'less, *n.* nilwe.

leaf'y, *n.* abewe, ewe, bɔ.

leak, *v.* dzò.
lean, *a.* bente, rù.
lean, *v.* fèhínfí, fi...tí, rò, rómò, tí.
leap, *v.* so.
learn, *v.* kò, kẹkọ.
learn'ed, *a.* akolàà: *learned man*, àlufá, imòdà.
learn'er, *n.* akowe, ẹmí tí nkọ.
learn'ing, *n.* ikọ, ẹkọ.
lea'ther, *n.* àwò, bata, machón.
leave, *v.* fi...lẹ, fi...sílẹ: *to leave off*, dase, yakuro.
lea'ven, *n.* iwukara.
leech, *n.* esusu.
left, *a.* òsín.
leg, *n.* itẹlẹ, tete.
lei'sure, *n.* dilẹ.
lei'surely, *adv.* fà, tẹlẹ, kase.
lend, *v.* sìn, wíy.
length, *n.* igun.
leo pard, *n.* ẹkun, dákumò, ogidan.
le'per, *n.* adete.
lep'rosy, *n.* ẹte.
lep'rous, *a.* lẹte, ẹlẹte.
les'sen, *v.* bù...kùn.
lest, *conj.* kò...máí.
let, *v.* dẹ, dżowo.
le'vel, *v.* tẹ...bẹre.
lewd'ness, *n.* aló.
li'ar, *n.* eke, adeke, adakadeke, ekeke, okobó.
li'berate, *v.* da...sílẹ.
lick, *v.* fà...lù, fà.
lid, *n.* ẹmọri, ọlẹrì: *lids of a book*, kpadí.
lie, *n.* awòlẹhù, eke, ọrọ.
lie, *v.* deke, ẹke, kpurọ.
lie, *v.* (*down*), dubulẹ.
life, *n.* ẹmí, iyè, àyẹ.
life'less, *a.* aiyè.
lift, *v.* gbe.
lift'er, *n.* olugbe.
light, *v.* tana.
light, *n.* imọlẹ.
light, *a.* fẹrẹ, fuyẹ, tátu: *light as day*, mọ.
light'en, *v.* kọ manamaná.
light'ness, *n.* afẹrẹ.
light'ning, *n.* manamaná.
lights, *n.* fọlọfọ.
like, *a.* ba, dabi.
like, *v.* fẹ.
li'ken, *v.* fi...we.
like'ness, *n.* alugbon, awórán, ẹwà.
like'wise, *adv.* kpèlú.

li ly, *n.* different kinds are called, lólógí, osunmẹ.
lime, *n.* eru, ẹfun, tere; (*fruit*), orombo.
li'mit, *v.* sọrokpin.
li'mit, *n.* arokpin.
lin'en, *n.* alá.
lin'ger, *v.* lora, rare.
lin'guist, *n.* agbede, ogbafẹ.
li'on, *n.* kénifí.
lip, *n.* ete.
lis'ten, *v.* dẹtí, dẹtí sílẹ, feti.
lis'tener, *n.* adetisilẹ.
lit'tle, *adv.* díẹ, kinkín, kíun, yẹ.
lit'tle, *a.* kere.
lit'tleness, *n.* kekeke, kekere.
live, *v.* gbàiyè, gbe, wà, wàlayè yẹ.
live'liness, *n.* araya, idaraya.
live'ly, *a.* daraya, ya.
li'ver, *n.* ẹdọ.
liv'ing, *a.* layè.
li'zard, *n.* the various kinds are, adàrikpón, agilítí, alañlan, alamọ, alamọri, amure, okelendzẹ.
lo! *interj.* sawo!
load, *n.* eru.
load, *v.* deru, diru, kí, ní.
loaf, *n.* àkasa.
loafer, *n.* asáenia, dżegudumagudu.
lo'cate, *v.* sọ...lodzọ.
lock, *n.* agalágodo, aluse.
lock, *v.* há, tí: *to lock up*, há...mọ, tí...sino.
lo'eust, *n.* esú: *locust tree*, igba.
lodge, *v.* wò.
lodg'ing, *n.* ọdżọ.
loft, *n.* adza.
loft'ily, *adv.* gígagígá.
log, *n.* ití.
loin, *n.* egbe.
loi'ter, *v.* dżafara.
long, *a.* gígún, gùb, gbàrọ.
long-suffering, *n.* olukpáramọ, olukpamọra, atemọra.
look, *v.* bódzinto, bódzawò, fódzusi, kiyesi, wò, woran, sawó, fidzawo: *to look up*, gbodzawoke.
look'ing-glass, *n.* awodzidzi.
loom, *n.* ofí.
loose, *a.* dẹ, san, sunọ.
loosed, *a.* etu.
loose'ly, *adv.* dẹrẹdẹrẹ.
loos'en, *v.* fà...tu, tí.
loos'ened, *a.* só.

loqua'ciousness, *n.* ayida-yida.
lord, *n.* oluwà.
Lord, *n.* Olagidzi.
lose, *v.* dżunọ, kpandanọ, sọ...nọ.
loss, *n.* egbé, adanọ, iya, ófó.
lost, *a.* fọ, dżunọ, nọ, ẹgbe.
lots, *n.* adiba, gẹgẹ, ibo.
loud, *a.* kikun.
loud'ly, *adv.* gba, gbaí, kará, kikunkikun, kunjun, sanwá, ramran, ramuramu, rará.
louse, *n.* ima.
lous'y, *a.* ima, olina.
love, *n.* afe, ifẹ.
love, *v.* fẹ, kundọ.
lov'er, *n.* olufẹ.
lov'ing-kind'ness, *n.* isenun ifẹ.
low, *a.* bere.
low'er, *v.* ná...sílẹ.
low'ly, *adv.* titẹ.
low'ness, *n.* dżidzín.
luck, *n.* adabákpadẹ, asiki, aware, ifá, orobo.
luck'y, *a.* akósegbá.
lu'cre, *n.* erekere.
lug'gage, *n.* eru.
luke'warm, *a.* lọ, wówọ.
luke'warmly, *adv.* lówowọ, wówowọ.
luke'warmness, *n.* ilọlọ, lówowọ.
lull, *v.* dákẹrọrọ, mu...dákẹrọrọ.
lump, *n.* akodzọ, isu.
lu'nacy, *n.* asiwin.
lu'natic, *a.* oniswin.
lung, *n.* fọlọfọ.
lust, *n.* ifẹkufẹ.
lust, *v.* fẹ...ifẹkufẹ.
lus'tre, *n.* idun.
lus'trous, *a.* dżidza.
lux'ury, *n.* domdomaife.
lye, *n.* aro.

M.

mad, *a.* binọ.
ma'dam, *n.* nana.
ma'den, *v.* mu...binọ.
made, *a.* dida.
mad'man, *n.* hana.
mag'got, *n.* idiy.
mag'istrate, *n.* asọlu.
mag'nify, *v.* gbe...ga, kokiki.
mag'nitude, *n.* itobi.

maid, *n.* ọmọdáj.
 maid'en, *n.* ọmọdán, ọlọmu ẹko.
 maimed, *a.* alabukúń-àrọp.
 maintain'er, *n.* ọlúbo.
 maize, *n.* agbadó, yànggán.
 majesty, *n.* ọlá.
 majority, *n.* ikpódzú.
 make, *v.* dá, fi, d́́, sà, ẹ.
 ma'ker, *n.* ẹlẹda, ọmọla.
 male, *n.* (*of beasts*) akọ.
 malefactor, *n.* ọniṣe buburu, ọrúfij.
 ma lice, *n.* odi.
 mali'cious, *a.* ọlodi.
 mali'ciously, *adv.* fi odi.
 mallet, *n.* ọgbogbo.
 maltreat', *v.* ẹ... nílzámba.
 mam'mon, *n.* ad́.
 man, *n.* ọkọnrí, ẹniá.
 mane, *n.* (*horse's*) gogo, rẹrọ.
 mange, *n.* ẹkúru.
 man'ger, *n.* ibud́.
 man'grove, *n.* ẹgba.
 man'hood, *n.* ágba.
 ma'nifest, *v.* lári.
 mankind', *n.* aráiyé, ẹniá.
 man'ly, *adv.* biọkọpři.
 man'ner, *n.* iṣe, aṣa.
 man'ners, *n.* iṣe, iwà.
 man'slaughter, *n.* ikpani.
 man'tle, *a.* abọra.
 manure', *n.* ilólú, ilédudu.
 ma'nuscript, *n.* rubutu.
 ma'ny, *a.* kpò, ọkpò, kíkípò.
 mar, *v.* ba... d́.
 mare, *n.* abo ẹṣin.
 mark, *v.* kọ, samí.
 mar'ket, *n.* alabod́a, ọd́a.
 mar'ket-day, *n.* ọd́o ọd́a.
 mar'riage, *n.* isoyigi, yigi.
 married, *a.* ọkọlaya, ọkọlobiri.
 mar'row, *n.* mọdumọdu, ọra-egugun.
 mar'ry, *v.* fẹ, gheyawo, soyigi.
 marsh, *n.* ábata.
 mash, *v.* wé.
 mast, *n.* okpo ẹko.
 mas'ter, *n.* babá, oluwá.
 mas'tery, *n.* ikáwó.
 mat, *n.* abà, àyín, ẹni, kẹrẹ, kpakati.
 match, *n.* eró, íṣana.
 mate, *n.* ẹgbé, ẹkédzì.
 mat'ter, *n.* ẹran.
 mat'tock, *n.* iganrin, kólobá.
 mature', *v.* gbó.
 matu'rity, *n.* agbo, igbo, ọgbó.
 may, *aux.* lè, ma.

me, *pron.* mi.
 mead, *n.* fura.
 mea'dow, *n.* kpakpa.
 meal, *n.* asé.
 meal'y, *a.* megbe.
 mean, *n.* (*person*) ad́ad́.
 mean, *v.* d́, kperi.
 mean'ing, *n.* itumọ.
 means, *n.* amubá, imubá.
 mea'sure, *n.* asunwọ, iwọń, ọṣunwọ.
 mea'sure, *v.* wọń.
 meat, *n.* ẹran, ọṣe.
 mecha'nic, *n.* ọniṣona, ọlona.
 med'dle, *v.* da... si, fi ẹnu si.
 med'dler, *n.* afeunsi, aladasi.
 me'diate, *v.* d́ṣe.
 media'tion, *n.* ad́ṣe.
 me'diator, *n.* asenu.
 me'dicine, *n.* ọgun.
 me'ditate, *v.* ẹ aró, ẹ asáro, dódzúkódó, humọ, miéro, rò, roun.
 medita'tion, *n.* aró, asáro.
 me'ditator, *n.* asáro.
 meek, *a.* oninó titẹ, tenó.
 meek'ness, *n.* iwà tutu.
 meet, *v.* bá, dari... d́, kò, kò... lóna, kọṣe-ba, kpa... de.
 meet'ing, *n.* atiba, iba.
 mel'low, *a.* d́.
 melt, *v.* yó.
 mem'ber, *n.* ará, akpa.
 me'mory, *n.* iyé.
 mend, *v.* toń... ẹ, ẹ.
 mend'er, *n.* alatọṣe.
 men'ses, *n.* asé, awasé.
 men'tion, *v.* da, da... rukọ, da... sọ.
 mer'chandise, *n.* ọd́a.
 mer'chant, *n.* asówo.
 mer'ciful, *a.* alánú.
 mer'ciless, *a.* ailánu.
 mer'cy, *n.* ánu.
 mer'it, *n.* itoye.
 merito'rious, *a.* toye.
 mer'rily, *adv.* dukeluke.
 mer'riment, *n.* aráya.
 mer'ry, *v.* daraya.
 mes'sage, *n.* iṣe, ọrọ.
 mes'senger, *n.* alasa, iko, ọṣe.
 me'taphor, *n.* akawe.
 mew, *v.* yaun.
 mid'day, *n.* ọṣangangan.
 mid'dle, *n.* agbedemedzì, arin.
 mid'night, *n.* ọrangand́, ọgan-d́.
 midst, *n.* arin, awud́u.

mid'way, *n.* arin.
 mid'wife, *n.* iyagbà.
 might, *n.* agbara, ikpa.
 might, *aux.* lè.
 might'y, *a.* alagbara.
 mi'grate, *v.* ẹatikpo.
 mil'dew, *n.* ẹbu.
 milk, *n.* wàra.
 milk, *v.* fọy wàra.
 mil'l'stone, *n.* ọlọ.
 mi'mic, *v.* siy... d́.
 mince, *v.* bú... lad́an.
 mind, *n.* ewà, inó, iyé.
 mind, *v.* kiyesi, tódzú.
 mine, *pron.* temi.
 min'gle, *v.* da... lú, lú, kpa... kpò, rókúpò, ru.
 ming'ling, *n.* idakpò, ikpakpò.
 minute', *a.* keún, kiún.
 mi'racle, *n.* iṣe asé.
 mire, *n.* ẹrẹ, kpetẹkpete, kpotọ-kpotọ, ẹ́ata: pig's mire, afọ.
 mir'ror, *n.* d́gi, awódzíd́: a tale mirror, dandán.
 mis'anthrope, *n.* aláifeni.
 misan'thropy, *n.* aifeńi.
 miscar'riage, *n.* iṣenọ.
 miscar'ry, *v.* ẹńọ.
 mis'chief, *n.* ibaiyed́, iwà-ibi, iwà-ika.
 miscoun't, *v.* ẹ́ kà.
 mi'ser, *n.* awọń, ọkand́zua.
 mi'serable, *a.* ọṣiṣe.
 mi'sery, *n.* ọṣi.
 misfor'tune, *n.* alusin, tulásin.
 mishap', *n.* ẹ́.
 misinter'pret, *v.* ẹ́ wi.
 misname', *v.* ẹ́ kpò.
 misplace', *v.* ẹ́ fí.
 miss, *v.* (*in shooting*), batl, lé, soti, ẹ́ki, ẹ́, tase: to miss something lost, fẹ... kun.
 mist, *n.* iní, kúruku.
 mistake', *v.* ẹ́, ẹ́.
 mistake', *n.* alámó, ẹ́.
 mis'tetoe, *n.* afomó.
 mis'tress, *n.* iyà, iyale.
 mi'tigate, *v.* d́, rò.
 mix, *v.* búlú, da... kpò, daru-dakpò, darukpò, rókúpò.
 mix'ture, *n.* adalu, ẹnu, ida-kpò, ikpakpò: indiscriminate mixture, adarudakpò.
 mock, *v.* ẹ́fẹ, siy... d́.
 mock'ery, *n.* ẹ́.
 mock'ing-bird, *n.* awoko.
 mo'del, *n.* akped́zere, akpere.
 mo'derate, *v.* kpa... mọ.

mo'derately, *adv.* niwọ́n.
modera'tion, *n.* ikpamú, ikpa ramú.
mo'dest, *a.* onisadún.
mo'desty, *n.* itidzá, odzúnti.
moham'medan. See mussul-man.
moist'ure, *n.* irin, irinmi, irigle.
molas'ses, *n.* oyin ireke.
molest', *v.* yọ...lenu.
mo'ment, *n.* egún: *in a moment*, ní òdún ká, lí egún.
mo'ney, *n.* owó.
mo'neyless, *a.* ailowó.
mon'key, *n.* different kinds are called, alegha, aware, áyá, edon, oloyo.
mon'ster, *n.* èmò.
mon'strous, alèmbò.
month, *n.* oún.
monthly, *a.* loún.
moon, *n.* osukpa, oún.
Moor, *n.* bature.
moor'ing, *n.* isokò.
morass', *n.* íra, ñakátá.
more, *a.* delin, dzú.
more, *adv.* síbẹ, siwadún.
moreo'ver, *adv.* kpelukpelu.
morn'ing, *n.* áwò, òrò, òwùrò, odzúnú.
morose', *a.* asó, kán, kanra, só.
mor'row, *n.* ola.
mor'sel, *n.* eté, òkele.
mor'tal, *a.* oniku.
mor'tar, *n.* odó.
mor'tify, *v.* ya...niha, rà.
mosque, *n.* maśaláśe.
Most High, *n.* Oga Ogo.
moth, *n.* òla.
mo'ther, *n.* abíamò, iyá, yeye, iyé.
mo'ther-in-law, *n.* ayakò.
mo'therless, *a.* alaiuiyá.
mould'er, *v.* bú, hú, rà.
moult, *v.* re.
mound, *n.* okete, òke.
mount, *v.* gešin, gòke, gòrì, gun.
moun'tain, *n.* òke.
moun'tainous, *a.* olòke, òke.
mourn, *n.* kó ànù, kàni, dà àro, še àro, gbawé, šofò.
mourn'er, *n.* aláwé, ekekun.
mourn'ing, *n.* àro, awé, òfò, ekekun.
mouse, *n.* eluru.
mouth, *n.* enu.

move, *v.* lù, sọ, sọ́n, sún, yí, yín.
mow, *v.* rẹ...mole.
much, *a.* kọ́, ọkọ́, kíkikọ́.
much, *n.* ọkọ́, kíkikọ́.
much, *adv.* gúlgúdí, kóko, kperẹkperẹ, rẹkọ́dza.
mu'eus, *n.* ikon.
mud, *n.* kpetẹkpetẹ, kpetokpeto, šata.
mug, *n.* dzaka.
mule, *n.* ihaka.
mul'tiply, *v.* bísi, kpesi, rẹ.
mul'titude, *n.* ọkọ́.
mur'der, *v.* kpani, kpania.
mur'der, *n.* ikpani.
mur'derer, *n.* akpani, olukpa, olukpani, kpanikpani.
mur'mur, *v.* kọ́n, kún, ránu, kọ́nsinó.
mur'murer, *n.* akọ́nsinó.
mus'cle, *n.* (*shell-fish*), ikaka.
mush, *n.* asaro, dẹngẹ́, wagan.
mush'room, *n.* aikperi.
mu'sic, *n.* órin.
mus'lin, *n.* alá.
musqui'to, *n.* abówoḡán, yam-yam.
mus'sulman, *n.* músulimn, imale.
must, *aux.* ní, kò lè máh.
mute, *a.* odí, aifolun.
mut'ter, *n.* kọ́n, kọ́nsinó.
my, *pron.* mí.
myself, *pron.* emi ná, emi tika-rani.
myste'rious, *a.* dólúle.
myste'riousness, *n.* idzínú.
mys'tery, *n.* awó, egberí, igede, ọ́rọ́ idzínú.

N.

nail, *n.* ísò, ísò irin: *finger-nail*, ekan, ekana.
nail, *v.* kán, kán...mó.
na'ked, *a.* niòhò, niòríhò.
na'kedness, *n.* ihò, ihòhò, ihò-ríhò.
name, *n.* òkò, orukò.
name, *v.* sọ...lí orukò.
named, *a.* dze.
name'less, *a.* ailorukò.
nap, *v.* sunye, wo.
nap'kin, *n.* tobi.
narrate', *v.* rolún.
narra'tion, *n.* ihin, irolún.
nar'rative, *n.* ihin.

narra'tor, *n.* aróhin.
nar'row, *a.* gbóro, há, hí, só-koto, tẹre, toro.
nar'rowness, *n.* ihia.
nas'ty, *a.* kò mó.
na'tion, *n.* ède, orile, orile-ède.
na'tional, *a.* tí orile-ède.
na'tive, *n.* adibí, idibí.
nati'vity, *n.* ilá.
na'tural, *n.* adanidá, danidá, edá, idá.
na'ture, *n.* didá, edá, iwá.
naught, *n.* asún, šaki.
nau'sea, *n.* esne, irindó.
nau'seate, *v.* kpa...lí esne, rin...lẹ́dọ́: *nauseated*, rindo.
na'vel, *n.* dodo, idodo, iwó.
na'vigable, *a.* gbéko.
na'vigate, *n.* tuko.
near, *a.* dídẹ́, fẹ́fẹ́, gbé, nítosí, mọra, niha, sódzì, tẹ́, tí.
near'ly, *adv.* kẹ́sẹ́, šetẹn.
near'ness, *n.* asọ́nmó, etile, igberí, itosí, ikusa.
neat, *a.* bókini, òpín.
neat'ly, *adv.* kinkini.
neat'ness, *n.* afindá.
neck, *n.* gón, oron.
neck'kerchief, *n.* idirón.
neck'lace, *n.* idirón.
need, *n.* alui, inira, olá.
need, *v.* še alaini.
nee'dle, *n.* abere.
need'y, *a.* alaini.
neglect', *n.* da...kọ́dza, fò...kọ́dza.
neglect'ful, *a.* alaikiyeši.
neg'ligence, *n.* aikiyesi.
neg'ligent, *a.* dẹ́, dera, wón.
ne'gro, *n.* enia dudu, adú.
neigh, *v.* yán.
neigh'bor, *n.* aladugbo.
neigh'borhood, *n.* aghegbe, igberiko, sakani.
nei'ther, *conj.* hehẹ́ ní...kò.
nest, *n.* ilé.
net, *n.* àwọ́n.
net'tle-rash, *n.* eghesin.
new'er, *adv.* ododí, odorodí.
new, *a.* titen.
news, *n.* ihin.
news'monger, *n.* alahésò.
next, *a.* atẹ́le, kọ́dži.
next year, *n.* anọ́dun.
nice, *a.* sún, sunu.
nice'ly, *adv.* tontoni.
nick'name, *n.* akadze.
nigh, *prep.* nítosí.

nigh'ness, *n.* itosi.
night, *n.* òru: *the dead of night*, adžín, adžínžín; *by night*, lórú.
night'ly, *adv.* loruloru.
nim'ble, *a.* wára, yara.
nim'bleness, *n.* iyara, iwara.
nim'bly, *adv.* gbẹ̀sẹ̀, werewere, yaya.
nine, *num.* ẹ́sán.
nine'teen, *num.* ọ́kányílógún.
nine'ty, *num.* ádurún.
ninth, *num.* kẹ́sán.
nip, *v.* káń.
nip'pers, *n.* ẹ́mú.
nít, *n.* ero.
no, *adv.* kínléžẹ̀bẹ̀, kúrúmu, nádwó, nń.
no'ble, *n.* olóyẹ.
nod, *n.* tẹ́rì.
noise, *n.* áriwó, ató, atoto: *to make a noise*, kpáriwó, kpato líń.
noise'less, *a.* aikpato.
nois'ily, *adv.* gbáń.
nois'y, *a.* kpato.
no'minate, *v.* kpé.
non'sense, *n.* isòkúńsọ.
noon, *n.* olóžọkariń.
noose, *n.* isẹ́bọ: *to make a noose*, sẹ... bọ.
north, *n.* áriwá.
nose, *n.* imọ.
nos'tril, *n.* ilio imọ.
not, *adv.* hẹ́, í, kí, kò, kọ́, máń, ndán, njọ́, ọ́, ọ́.
no'table, *a.* akiyesi, lú.
no'tableness, *n.* afiyesi.
no'thing, *n.* kosińkọń.
no'thingness, *n.* asún.
no'tice, *v.* bikita, kíyesi.
notwithstanding, *conj.* adí, amọ́kpé.
nour'ish, *v.* ké, te, bọ.
now, *adv.* arowa, biatńjwíyí, eyitawíyí, iwóyí, niwóyí, ná, sá, wé, nigbáyí, isisiyí, nisisí, nisisíyí, wayí.
null, *a.* asún.
numb, *a.* ketiri.
num'ber, *n.* iyẹ, oye.
num'berless, *n.* aláńniyẹ, aláńniye.
numb'ness, *n.* etiri.
nurse, *n.* obọ́, olutọ.
nurse, *v.* bọ, tọ́.

O.

oar, *n.* adžẹ, itọ́kọ, walamí.
oath, *n.* ara, ekpe, ibura.
obe'dience, *n.* ifetisi, igbó.
obe'dient, *a.* eleti, leti.
obey, *v.* gbá... gbọ, gbá... sẹ.
object, *v.* kọ́.
objec'tion, *n.* ikọ́.
oblige, *v.* lé, tẹ... sẹ, tẹ... lí.
obli'vion, *n.* igbagbe.
obscure, *a.* sẹkúnkún.
obscu'rity, *n.* ẹ́gberi.
observe, *v.* wọ́yẹ.
observ'er, *n.* aláfiyesi, aláńi.
ob'stacle, *n.* idina, ologbulu.
ob'stinacy, *n.* amọ́sẹ, iká.
ob'stinate, *a.* agfidi, warọńkí.
obstruct, *v.* dẹna.
obstruc'tion, *n.* idena.
obtain, *v.* džẹ, rí... gbá.
obtuse, *a.* kú, aimu.
occa'sional, *a.* idayedaye, igba-kugba.
occa'sionally, *adv.* idayedaye, idayedaye.
occupa'tion, *n.* isẹ.
occur, *v.* lú.
o'cean, *n.* ọ́kún.
of, *prep.* níti, nítiń, tí.
off, *adv.* hẹ́, lẹ́.
offence, *n.* isọ́rąń.
offend, *v.* sẹ́, džẹ.
offend'ed, *a.* sẹkẹ́híńdá.
offend'er, *n.* isọ́rąń.
offer, *v.* toń.
offer'ing, *n.* ọ́rẹ.
office, *n.* ọ́yẹ.
officer, *n.* idžọ́yẹ, odžọ́yẹ, olóyẹ.
offi'cial, *n.* ọ́lọla.
offi'ciousness, *n.* ilasi.
off'spring, *n.* irunmọ, ọ́mọ.
often, *adv.* nigbakugba.
oh! *interj.* aa! yé!
oil, *n.* adi, oróro.
oint'ment, *n.* ikungra.
ok'ra, *n.* ilá.
old, *a.* arugbó, dagbó, ẹ́ńu, ẹ́ńa-gbo.
old age, *n.* itọ́, oghologbo.
old'en-time, *n.* atidžọ.
old'er, *a.* are, sare.
old'ness, *n.* agbó, láf, láiláí.
o'men, *n.* áńi.
omit, *v.* kọ́džá.
omni'potence, *n.* agbara gbo-gbo.

omni'scient, *a.* amọ́hungbo-gbo.
on, *prep.* ká, lara, lé, leri, lori, sara, sori.
once, *num.* ẹ́kán, lẹ́kán, larin-káń.
one, *num.* á, eni, ẹ́ńi, ní, káń, kọ́-káń, ọ́kán.
on'ion, *n.* alubọ́sá.
on'ly, *adv.* ẹ́gedẹ, ọ́gedẹ, kíkí, masọ, níkán, níkánsošo, kpere, ẹ́sáń, ẹ́sošo.
open, *v.* sẹ́, yá: *to open the door*, síkún.
o'pening, *n.* ẹ́mú, ikpẹ́dži, odžá.
o'penly, *adv.* nigbaugba.
o'penness, *n.* adó.
opportune, *a.* ẹ́akokó.
opportu'nity, *n.* aye, igba, ọ́wọ́lẹ.
oppose, *v.* de... lẹ́na, džakoro, kọ́džadžasi.
oppos'ed, *a.* káń.
op'posite, *a.* ọ́kọkọń, tirisí, kọ́-džasi.
opposi'tion, *n.* odisi.
oppress, *v.* kpọ́yọ́džá.
oppres'sion, *n.* inílara.
oppres'sor, *n.* amihílara.
or, *conj.* níbí, tabí.
o'acle, *n.* alabadaşẹ.
o'range, *n.* orombo.
ordain, *v.* lá... lẹ́na.
or'der, *v.* kpalaşẹ, tọ́.
or'der, *n.* ẹ́şẹ.
or'derly, *adv.* ẹ́şẹşẹ, lẹşẹşẹ, lẹşẹşẹ.
or'dinance, *n.* idasilẹ, ilana.
o'origin, *n.* edí, ilunlẹ́, iwá.
ori'ginal, *a.* atọ́runwáń.
ori'ginate, *v.* humọ́.
or'na'ment, *n.* ọ́şọ.
ornament'al, *a.* loşọ, ọ́loşọ.
or'phan, *n.* ọ́mọ́ okú.
os'prey, *n.* ẹ́şin.
ostenta'tion, *n.* aluwasi.
os'trich, *n.* egoggo.
o'ther, *pron.* mírẹ, mirán, omi-ń, ẹ́lomirán.
o'therwise, *adv.* ayamọ́bí, káka.
ought, *aux.* ba, ibá, ní.
our, *pron.* wa.
ours, *pron.* tiwa.
ourselves, *pron.* ará wa, awa tíkara wa.
out, *adv.* džade, sole.
out'cry, *n.* íkẹ.

outdo', *v.* tẹ.
 out'er, *a.* ode, chin.
 out'going, *n.* òdàde.
 outgrow', *v.* dagba dǎ̀ù.
 out'house, *n.* ilẹ̀ ode.
 outlast', *v.* lẹ̀ dǎ̀ù.
 outrun', *v.* sare dǎ̀ù.
 out'side, *n.* chin, lehin, sehin,
 ode, lode.
 outwit', *v.* kpa...lẹtan.
 o'ver, *prep.* loko, lehin.
 overcome', *v.* sẹ, bori.
 overflow'ing, *n.* akóy'wosilẹ́,
 ikóy'wosilẹ́, gbédugbédú.
 overhead', *adv.* gaugau, katari.
 overlook', *v.* modžukuro.
 overlook'ing, *a.* amodžukuro.
 overrun', *v.* gbilẹ́.
 oversee', *v.* fodžuto.
 overse'er, *n.* akiyesi, alafiyesi,
 alafodžuto.
 oversha'dow, *v.* šidži, šidžibó.
 o'versight, *n.* itodžn.
 overspread', *v.* gbolẹ́.
 overtake', *v.* bá.
 overthrow', *n.* afgbadže, itu.
 overturn', *n.* yi...danž.
 overwhelm', *v.* bó, bó...mó-
 lẹ́, bílú.
 overwhelm'ed, *a.* bílómólẹ́.
 overwise', *a.* amòžlzu, amòžtán.
 owe, *v.* dže, dže...gbese.
 owl, *n.* ogbígbi, owiwi, oyo.
 own, *n.* ni.
 own'er, *n.* nini, olodžú, olú,
 olúwa.
 ox, *n.* malú.
 oys'ter, *n.* kpašá, kpašan.

P.

pacifica'tion, *n.* étutu.
 pa'cify, *v.* tuninó.
 pack, *v.* dẹru, kí.
 pack'age, *n.* okelẹ́, ọ́ọ, waga.
 pack'rope, *n.* ákpa, ọ́bara.
 pad, *n.* akpere.
 pad'dle, *n.* adže, walami.
 pad'die, *v.* wá.
 pad'dler, *n.* atukọ.
 pad'lock, *n.* agadagodo.
 pail, *n.* kuruba.
 pain, *n.* edon, irora, ita.
 pain, *v.* don, ro.
 pained', *a.* omirola.
 pain'ful, *a.* kan.
 paint, *n.* ase, ose, ẹse, aše.

paint, *v.* kún, kpalose, sà.
 pair, *n.* takotabó, modži.
 palace, *n.* alij, agúndžu, akẹ-
 sanj.
 pala'ver, *n.* ọ́fẹ.
 pale, *a.* fura, ronlọ́, ši.
 pale'ness, *n.* iši.
 palm, *n.* atčlewó.
 palm'nut, *n.* ekuro.
 palm'oil, *n.* ekpo.
 palm'tree, *n.* ọ́kpẹ.
 palm'wine, *n.* emọ, ogurú.
 pal'pitato, *v.* fò.
 pal'sied person, *n.* elẹgba.
 pal'sy, *n.* ẹgba.
 pant, *v.* mi hele.
 pantaloons', *n.* akoto, šokoto,
 kabo, kanki.
 pant'ingly, *adv.* hele.
 pa'per, *n.* takardá.
 parade', *n.* aluwasi, fari.
 pa'rasite, *n.* afomó.
 parasol', *n.* ikporun.
 par'boil, *v.* gbára.
 parch, *v.* di, dij, yan.
 par'don, *v.* dari...dži, fi...dži.
 par'don, *n.* idaridži, ifidži.
 pare, *v.* hẹ.
 pa'rent, *n.* abinjo, obi.
 pa'ring, *n.* (gam) ebe.
 park, *n.* ilọ, abata.
 par'lor, *n.* bása, gbanga.
 pa'roquet, *n.* aganran.
 par'rot, *n.* odẹ, ofe, ondere,
 tẹde.
 part, *n.* elẹla, idá, ila, ikpa,
 ikpakun.
 part, *v.* yà, dá, kpa, lá.
 partake', *v.* še adžókpín.
 partak'er, *n.* adžókpín, ala-
 džoni, alabakpin, alakpin.
 par'tial, *a.* onišadžú; to be par-
 tial, šadžusadžú.
 partial'ity, *n.* odžusadžú.
 parti'cipate, *v.* kpín, wari.
 par'ticle, *n.* kinikini, šonžó,
 fontoro.
 parti'tion, *n.* ike, ikele.
 part'ner, *n.* egbe, ekedži: in
 fishing or hunting, alabakpa.
 par'tridge, *n.* akpuro, šukurá.
 par'ty, *n.* ikpa, ode.
 pass, *v.* da...kodža, fò...kọ-
 dža, kodža, lá, rekodža, yikpo.
 pas'sion, *n.* edžanó, idinó.
 pas'sionate, *a.* odinó, šó.
 pass'over, *n.* irekodža.
 past, *a.* kodža, chin.

paste, *v.* fi...mó.
 pas'ture, *n.* kpakpa.
 patch, *v.* lẹ́, lá...le, ran...lu.
 patch, *n.* abulẹ́, ibi-asa.
 patch'work, *n.* iranlu.
 path, *n.* ikpa, ikpase.
 pa'tience, *n.* lakiri, šunu.
 pa'tient, *v.* fiyedenó, mu šunu,
 tebe.
 pa'triarch, *n.* babalá, babaulá.
 patrol', *v.* šode.
 patrol', *n.* išode.
 pat'ter, *v.* kpa báta báta.
 pat'tern, *n.* akpedžure, akpere,
 awoke, idžure.
 paunch, *n.* šaki, ikon.
 pause, *v.* šinú.
 pawn, *n.* ọ́fa.
 pawn'servant, *n.* iwofa.
 pawn, *v.* singbá, sofá.
 pa'paw, *n.* bekpẹ, ibekpẹ, abo,
 šimbo.
 pay, *v.* dá, dawó, san: to pay
 by instalments, dawin.
 pay'ment, *n.* ešun.
 pea, *n.* ere.
 peace, *n.* aláfa.
 peace'maker, *n.* aladžá, omilá-
 dža, ọ́ladža.
 pearl, *n.* iyon.
 peck, *v.* šáj.
 peel, *v.* bó, bú, bọ́, kpa.
 peep, *v.* wó.
 pee'vish, *a.* kaura, radọ,
 šonó.
 pee'vishness, *n.* išo.
 peg, *n.* okun.
 peg, *v.* kún...lẹkan.
 pelt, *v.* sọ...lu.
 pen, *n.* kalamo.
 pe'netrate, *v.* gún, wọ.
 pen'knife, *n.* abẹ.
 pen'ple, *n.* enia.
 pep'per, *n.* ata, atilia, atirere,
 gbongbota, iyere.
 perceive', *v.* moye, wóye.
 perch, *n.* (fish), ikoro, ọ́wéré.
 perch, *v.* bá, lá lo.
 perch'ing, *a.* iyẹ.
 percus'sion-cap, *n.* ero.
 perdi'tion, *n.* egbe.
 per'fect, *a.* kpẹ, kjkkpẹ, tuj.
 perfect'ed, *a.* asẹkpe, tin.
 perfec'tion, *n.* kjkkpẹ.
 perfectly, *adv.* tuj.
 per'forate, *v.* da...lu.
 perform', *v.* gbe, dže.
 perfu'mery, *n.* turari.

perhaps', *adv.* abi, afaimò.
 b'oya, se'si.
 pe'rish, *n.* ewu.
 pe'ril, *n.* gbé, kugbé, ra, rún, se'gbe.
 per'jure, *v.* bekpedže, bura cke.
 per'jury, *n.* ibekpedže.
 permit', *v.* dže, džowo.
 perpendicular, *a.* gan, gan-gan.
 perpet'ually, *adv.* titi.
 perplex', *v.* damu, gó, sú.
 perplexed', *a.* kò lèlè, rólú.
 perplex'ity, *n.* idamu, igó, olžukpón.
 persecutor, *n.* oninobini.
 perseve'rance, *n.* aísini, ite-džú ivandžú.
 persevere', *v.* foriti, se ite-džú, rólú.
 per'son, *n.* enia, eni, ni, olu-waré.
 perspira'tion, *n.* ógún.
 perspire', *v.* lágún.
 persuade', *v.* kpa...niyeda.
 persua'sive, *a.* šofón.
 pertain', *v.* šeti, tori.
 perverse'ness, *n.* odi si.
 pervert', *v.* yi, yi...kpada.
 pervert'er, *n.* afinšedžere, afinšehin, afinšode.
 pes'tilence, *n.* adžaka, adžakale.
 pes'tle, *n.* ónig-odó.
 pet, *v.* kè, kpón, sin, yé.
 peti'tion, *n.* èbe.
 pew'ter, *n.* síniká, tasa.
 philan'thropy, *n.* ifeni.
 physi'cian, *n.* ologun, onišogun.
 phy'sic-nut, *n.* lóbotudžé, šigun.
 piazz'a, *n.* oledé.
 pick, *n.* tu: to pick up, he, ša; pick off, wón.
 picked, *a.* (up), ašá.
 pick'-axe, *n.* iganye.
 pic'ture, *n.* awóran.
 piece, *n.* ešé, idžandža.
 piece, *v.* bulé, ran...mó.
 pierce, *v.* bž, gan, gún, kan...lara.
 pierced, *a.* gigan.
 pierc'ingly, *adv.* šin.
 pierc'ingness, *n.* ikauilara.
 pi'geon, *n.* ejyela, erukuku: white pigeon, alaba šušu; wild pigeon, ataba orekéré.

pil'fer, *v.* džále, šafowóra.
 pil'ing, *n.* akodžé.
 pil'lage, *v.* kpiye.
 pil'lar, *n.* ówón.
 pil'lory, *n.* aba.
 pil'low, *n.* irora, tintim.
 pi'lot, *n.* atoké.
 pim'ple, *n.* ororé, roré.
 pin, *n.* abere.
 pin'cers, *n.* emu.
 pinch, *v.* dža...lekana.
 pine'-apple, *n.* okpaimbó.
 pin'nacle, *n.* agúngan, šonšo.
 pipe, *n.* fere: tobacco-pipe, igusó, ogusó, ikoko-taba.
 pipe, *v.* fón, fónfere.
 pip'er, *n.* afeyfere.
 pis'tol, *n.* asišori, ilékó.
 pit, *n.* ilu, koto, ófin, ógóló, ilibodži, isá: clay-pit, ikudu.
 pitch'er, *n.* orú.
 pi'ty, *n.* ánu.
 pi'ty, *v.* rado, šanu.
 place, *n.* ibi, ikpo, ihin, ikpana, iso.
 place, *v.* ká, ka...si, so...lódžé.
 plague, *v.* yó...lenu.
 plain, *n.* kpetelè.
 plain, *a.* oboro.
 plain'ness, *n.* gbangba.
 plaintiff, *n.* olodisón.
 plait, *v.* bá, wón: to plait the hair, dirón.
 plan, *n.* idamóran.
 plan, *v.* lamoran.
 plank, *n.* akpáko.
 plant, *v.* gbín, ri.
 plan'tain, *n.* agbagba.
 plas'ter, *v.* kpale, kunle, kún.
 plate, *n.* awo, awokpokó, tag-gara.
 plat'ing, *n.* asùbò.
 plat'form, *n.* atibaba.
 plat'ter, *n.* awo-kpokó.
 play, *n.* ire.
 play, *v.* šire.
 play'ful, *a.* wé.
 playfulness, *n.* ašáwada, ašaya.
 plead, *v.* bž, bžbe.
 plead'er, *n.* abèbe ejèbe.
 plead'ing, *n.* ibèbe: special pleading, ašawí.
 plea'sant, *a.* dón.
 plea'santness, *n.* idón.
 please, *v.* dón-mó, wu.
 pleased, *a.* ye.
 pleas'ing, *adv.* žwu.

plea'sure, *n.* afé, inádidžy, žwu.
 pledge, *v.* sefa.
 pledge, *n.* igbowo, ofa.
 plen'tiful, *a.* kpó, kpikpó.
 plen'ty, *n.* okpó, okpólekpó, kpikpó.
 pli'able, *a.* lè.
 plot, *v.* dirikisi, ríkisi, šáwo.
 plow, *v.* tulé.
 pluck, *v.* fa, ká, kán, šidi, tu, yá.
 plump, *v.* yanwe, šušu.
 plump'ness, *n.* owe.
 plun'der, *v.* kpiye, tu.
 plun'der, *n.* ámpóna, ikogun.
 plun'derer, *n.* akpiye.
 plunge, *v.* foribó.
 poock et, *n.* ákpo.
 point, *n.* (sharp) agogorí, gogo, šonšo.
 point, *v.* džure, sá, šón, sún, wón.
 point'ed, *a.* šoró.
 poi'son, *n.* ógun, oró.
 po'ker, *n.* iwana.
 pole, *n.* ógun, okpa.
 police', *n.* išode.
 police'man, *n.* olókpa, olókpa.
 po'lish, *v.* dan.
 pollute', *v.* so...daimó.
 pollu'tion, *n.* aimó, éri.
 pond, *n.* dagun, gun.
 pond, *n.* adagun, ódo.
 pon'der, *v.* dódžukódo, tò.
 pool, *n.* ábata.
 poor, *n.* asišé, ošišé, otoší, talaká, olukpandža.
 popula'tion, *n.* etekolu, agbalu.
 porch, *n.* ilò, ilòro.
 por'cupine, *n.* ilí, oré.
 por'ridge, *n.* asaro.
 port'er, *n.* alaru.
 por'tion, *n.* ejela.
 posi'tion, *n.* ikpo.
 possess', *v.* džogun, ní.
 possess'ing, *n.* atini.
 posses'sion, *n.* anidokpin, anitaj, iní, ilé nini, nini, ohun iní.
 posse'ssor, *n.* onini.
 pos'sible, *a.* šise.
 pos'sibly, *adv.* afaimò.
 post, *n.* okpó.
 postpone', *v.* fiti, yé.
 pot, *n.* amó, ikoko, kólóbo, orula: oil-pot, eba.
 pot'ash, *n.* áro.
 pota'to, *n.* kukunduku.
 pot'sherd, *n.* akpádi.

pot'ter, *n.* ọmọkoko.
 pot'ter's clay, *n.* àmọ.
 pouch, *n.* àkpọ, bírigamí.
 pounce, *v.* kọpsa.
 pound, *v.* gún.
 pour, *v.* (*out*) dà, dà... nù, ta, tù.
 po'verty, *n.* ihale, iya, tẹ̀tẹ̀tẹ̀nì.
 pow'der, *n.* iwase, luru, olo.
 pow'er, *n.* asẹ, ikpá, agbara.
 pow'erful, *a.* alagbara.
 powerless, *a.* nìlagbara.
 prai'rie, *n.* kpakpa, ikpakpa, òdun.
 praise, *v.* báiyin, yé, yin.
 praise, *n.* iyin.
 praised, *a.* niyin.
 prate, *v.* sẹ́rọ̀ botiboti.
 pra'tingly, *adv.* botiboti.
 prawn, *n.* ede.
 pray, *v.* gbadaua, gbadura, kiron.
 pray'er, *n.* (*to God*) adura, (*to idols*) ikpe, (*by rote*) irun.
 preach, *v.* wási, wásu.
 preach'er, *n.* oniwási, oniwásu.
 precede', *v.* sàdžu.
 pre'cious, *a.* kán, wọ́, sẹ́wọ́.
 pre'ciousness, *n.* iyeláye.
 pre'cipice, *n.* ogbon.
 preci'pitately, *adv.* kpá, sún, sún, tukpá.
 prede'stinate, *v.* yàw... tẹ́lẹ́, lùna... tẹ́lẹ́.
 predict', *v.* sọ... tẹ́lẹ́, sọ asọ-tẹ́lẹ́.
 predic'tion, *n.* asọtẹ́lẹ́, aṣẹ.
 pre-exist'ent, *a.* adžibówabá.
 prefer', *v.* fa, fi... sàdžu.
 pre'ference, *n.* iwù.
 preg'nancy, *n.* oyún, aboyún.
 preg'nant, *a.* yún, boyún, lo-yún.
 preme'ditate, *v.* ro... tẹ́lẹ́.
 prepara'tion, *n.* ẹ́sẹ, imura.
 prepare', *v.* dá, mura, kpálemọ́, kpata, kpése.
 prescribe', *v.* dá.
 prepay', *v.* san tẹ́lẹ́.
 pre'sence, *n.* iwadžu, odo.
 pre'sent, *n.* isisiyi, iwoyi.
 pre'sent, *n.* èbùn, ibùn, ifibun, òrẹ, itorẹ.
 present', *v.* fi... torẹ, ta... torẹ.
 pre'sently, *adv.* loṣan.
 preserve', *v.* kpanú: *to preserve life*, sẹ́mí.
 preserv'er, *n.* olókpamọ́.

press, *n.* ilagaga.
 press, *v.* fọ́, kí, kí... mọ́lẹ́, kímọ́.
 press'ed, *a.* akímọ́lẹ́, rín, wù, sùnọ.
 presume', *v.* dàsá, gbọ́do, kugbu.
 presump'tion, *n.* ikugbu.
 presump'tuous, *a.* kogbu.
 presump'tuously, *adv.* kà, kàka.
 pretend', *v.* fi... kpé.
 pret'tiness, *a.* daradara.
 pret'ty, *a.* dara.
 prevail', *v.* bóri, sẹ́gun.
 preva'riate, *v.* yihun.
 prevent', *v.* da... lekun.
 pre'vious, *a.* iwadžu, sàdžu.
 pre'viously, *adv.* harinkun, tẹ́lẹ́, rí.
 pre'viousness, *n.* arín.
 prey, *n.* olun-odo.
 price, *v.* dáyelẹ́, diyelẹ́.
 price, *n.* iye, iyeláye.
 prick'le, *n.* egún.
 pride, *n.* irera.
 priest, *n.* aláwò, álufá, oluwò.
 priest'hood, *n.* oríṣe-alufá, isẹ-oluwò.
 pri'mitive, *a.* ateteko.
 prince, *n.* omọ alade.
 prin'cipal, *n.* kpatakí, olori.
 pri'son, *n.* tubu.
 pri'soner, *n.* aratulu, eṣewọ́, omólẹ́.
 pri'vacy, *n.* abẹ́lẹ́, ikọ́kọ.
 pri'vately, *adv.* níkọ́kọ.
 pri'vy, *n.* salanga.
 prized, *a.* ayọ.
 proba'tion, *n.* idanwò.
 proceed', *v.* nísó.
 proclaim', *v.* kedé.
 proclaim'er, *n.* akede.
 proclama'tion, *n.* ikede.
 pro'digal, *n.* àkpá.
 produce', *v.* rọ́gun, ta.
 pro'fit, *v.* da... lero.
 pro'fit, *n.* egbe, ère, iwadže, aṣfini.
 pro'fitable, *a.* sáṣfini.
 prohi'bit, *v.* dẹwọ́, sọfin, sọ... lofin.
 prohibi'tion, *n.* èwọ́, eṣun, isofin, ofin.
 promenade', *v.* kàwú.
 pro'minent, *a.* gongun, leke, yori.
 pro'mise, *n.* ileri.

pro'mise, *v.* leri, se ileri, se leri.
 pro'mising, *a.* dá.
 promote', *v.* ran... lẹwọ.
 promul'gate, *v.* tan... kalẹ́, wí... kalẹ́.
 pronounce', *v.* sọ.
 proof, *n.* iladi.
 prop, *n.* afehinṣi, alafehinṣi.
 prop, *v.* fehinṣi, tí, tí... lehin.
 pro'pagate, *v.* bísi.
 pro'per, *a.* kpegede.
 pro'perly, *adv.* dólẹ́.
 pro'perty, *n.* nini, okun iní.
 pro'phesy, *n.* asọtẹ́lẹ́.
 pro'phesy, *v.* sọ asọtẹ́lẹ́, sọtẹ́lẹ́.
 pro'phet, *n.* amáfi, wofí.
 propi'tiate, *v.* te, tu... nínú, túnú.
 propitia'tion, *n.* itunú.
 propi'tiator, *n.* atunú.
 propo'sal, *n.* adamòran.
 propose', *v.* damòran, lana.
 propos'er, *n.* onidamòran.
 prosperity, *n.* aláfa.
 pro'strate, *v.* dọbalẹ́.
 prostra'tion, *n.* oḡbalẹ́.
 protect', *v.* dabòbò.
 protract', *v.* fa... gun.
 protrude', *v.* yọ... dẸ́dẹ́.
 protu'berance, *n.* koko.
 proud, *a.* gberaga, agberaga, asẹ́fẹ́, onifẹ́, rera, onirera.
 proud'ly, *adv.* kaša, yan.
 prove, *v.* ládi, lári, sọfi.
 pro'vender, *n.* sàkasàka.
 pro'verb, *n.* owe.
 provide', *v.* kpese... sílẹ́.
 pro'vidence, *n.* ẹ́sẹ, iwoye.
 pro'vince, *n.* igberiko.
 provi'sion, *n.* fẹ́džefẹ́džẹ́.
 provoca'tion, *n.* immibing, oro.
 provoke', *v.* mu... bíńó.
 proxim'ity, *n.* asunmọ́, eti, eba, ikusa.
 pru'dence, *n.* ilóye.
 pru'dent, *a.* olóye.
 prune, *v.* wù.
 prun'ing knife, *n.* ada.
 pry, *v.* (*into*) toḡzúbo.
 pshaw! *interj.* sù!.
 pub'lic, *n.* gbangba.
 public cri'er, *n.* akede.
 pub'lic square, *n.* abàta.
 publi'city, *n.* gbangba.
 publicly, *adv.* nigbangba.
 publish, *v.* ro... kalẹ́, wí... kivi.

puff *v.* fē.
puffed up, *v.* a. ašefefe.
pull, *v.* fā, ká, yó.
pump'kin, *n.* elegéde.
punctually, *adv.* lākoko.
pun'gency, *n.* ita.
pu'nish, *v.* dže...niya, še...niše.
pu'nishment, *n.* atišeniše.
pu'pil, *n.* ɔmɔ-olẓn.
purblindness, *n.* afota.
pur'chase, *v.* rā.
pur'chase, *n.* ɔrā.
pur'chaser, *n.* ɔrā, ɔrā.
pure, *a.* eki, mō.
pure-hearted, *a.* oninifufu.
purge, *v.* šu...ninó.
purification, *n.* awemó.
pu'rify, *v.* dā, wē...mō, wē...nō.
pu'rity, *n.* aileri, fufu, mimó.
pur'ple, *a.* àhuko.
pur'pose, *v.* gbéro, lamòran, kpinn.
purr, *v.* kuykuy.
purse, *n.* alafuta, asunwón, orekese.
pursue, *v.* lé, le...kpa, le...rere, telé.
pus, *n.* aikperi.
push, *v.* bí, wó, sí, tó, tí: *to push down*, bí šulu, tí šulu, tari.
pus'tule, *n.* aroré, roré.
put, *v.* fi: *to put away*, fi...sile, kó...sile; *put down*, fi...balé, fi...lè, fi...sile; *put upon*, fi...lè, bu...ká; *put into*, fi...bó, fi...sinó, fi...wó.
pu'trefy, *v.* rà.
puz'zle, *n.* okpe.
puz'zle, *v.* gó, kpa...lokpe, sù.
puz'zling, *a.* gígó.

Q.

quad'rured, *n.* ɔlesemerin.
quad'ruple, *a.* emerin, ememerin.
quake, *v.* sē.
quan'tity, *n.* iye.
quar'rel, *v.* dẓā, sē, ba...sē.
quar'relsome, *a.* aláš.
quar'ter, *v.* da...merin.
quar'ter, *n.* idamerin.
queen, *n.* ayaba, iyafin.
queer, *a.* emó, lémó.
quench, *v.* kpa.

ques'tion, *n.* èbì, ère, ibi.
ques'tion, *v.* bi...lère, fi...lè.
quick, *a.* yara, wère, šira.
quick'en, *v.* da...loye, dẓi.
quick'ener, *n.* asónidàyé.
quick'ly, *adv.* fū, kan, wiri-wiri.
quick'sand, *n.* iyanrin dide.
qui'et, *v.* bālè, rē.
qui'et, *a.* dakelže, dakerozo, kekelpa.
qui'etly, *adv.* furu, dže, džedže, kaunkau, tēnó.
qui'etness, *n.* ibalé, didake, idake, idakedže, idakerozo.
quill, *n.* iyé.
quit, *v.* dēkun, yē, ye.
quite, *a.* nini.
qui'ver, *n.* akpo, adegunčakpo, aró, ɔbiri.
qui'ver, *v.* mì, wariri.

R.

rab'bit, *n.* agoro, choro.
race, *n.* iran, idile, orilè; idže.
rack'et, *n.* ariwo.
ra'diant, *a.* fofó.
rafter, *n.* eké.
rag, *n.* agisa, akisa.
rag'man, *n.* alagisa.
rage, *v.* dẓā.
rag'ged, *a.* kperèkperè, alagisa.
raiment, *n.* ašó.
rain, *n.* èdẓi, èlẓo.
rain, *v.* rō, rōlẓo.
rain'bow, *n.* ošumäre.
raise, *v.* gbe, gbe...dide: *to raise from the dead*, dẓi...dide, dẓinde.
rais'ing, *n.* agbende.
rake, *v.* ha.
rake, *n.* oha.
ram, *n.* àgbo.
ram, *v.* ki.
ram'ble, *v.* rin...kiri.
ran'cid, *a.* gboku, mešeri.
rancid'ity, *n.* ɔšeri.
rank, *n.* ito.
ran'som, *v.* ra...kpadā, da...nide.
ran'somer, *n.* oludande.
rap, *v.* kàn.
ra'pidly, *adv.* fū.
ra'rity, *n.* akanše.
ras'cal, *n.* dẓagidẓagan.
rasp, *v.* àyuy.
rat, *n.* ekute; different kinds are called, àfè, agó, agoró, ase, asinrin, egbara, imodžo, malāẓẓu, okete.
ratan', *n.* akparon.
rate, *v.* dáyelè, diyelè.
rath'er, *adv.* kuku.
ra'vel, *n.* tú.
ra'ven, *n.* dode.
ra'venous, *a.* akpadže, akpanidže.
ravine', *n.* koto dẓigouroy, idẓigouroy.
raw, *a.* tutu.
raze, *n.* wó...kpalé.
ra'zor, *n.* abé.
reach, *v.* dẓasi, tó.
read, *v.* ká, káwe, kewu.
read'er, *n.* akáwe.
rea'diness, *n.* imura.
read'ing, *n.* akáwe.
rea'dy, *a.* mura.
re'al, *a.* otó.
re'alize, *v.* mō otó.
re'ally, *adv.* sē.
reap, *v.* ká, kore.
reap'er, *n.* olukore.
reap'ing-hook, *n.* šilo.
reappear, *v.* tōy hàn.
rear, *v.* te, tō...dagba.
reascend, *v.* tōy gòke.
rea'son, *n.* iyeno; (*cause*), idi, itori.
rea'son, *v.* soroye, šaroye, sodi.
rea'sonable, *a.* dẓana, niyenó.
rea'soning, *n.* asoye.
reassem'ble, *v.* tōy kpèdžo.
re'bel, *n.* ašoté, olusoté, oloté.
rebel', *v.* rokoy, šeiye, šoté.
rebel'ion, *n.* isoté, oté, eiye.
rebuild, *v.* tōy kó.
rebuke', *v.* bá...wi, fi...kilo.
rebuke', *n.* ibawi.
recall, *v.* kpè...kpadā, tōy kpè.
receive', *n.* gbà, gba...sodo, ri...gbà, tēwəgbà.
receiv'ing, *n.* atigbà.
re'cently, *adv.* nilolò, šéšé, šetōy.
recep'tion, *n.* atigbà, igba.
reck'less, *a.* ahana.
reck'on, *v.* širo, ká.
recline, *v.* guroy, rogbokün.
recollect, *v.* miran, ranti.
re'compense, *n.* ɔwōy, ɔsan.
re'compense, *v.* radi, san.
re'concile, *v.* lāẓẓa, tū.

re'conciler, *n.* aladẓā.
 reconcilia'tion, *n.* étutu.
 recount', *v.* kpítan, ro.
 re'create, *v.* gbá...idurawa.
 re'creating, *a.* atoydā.
 red, *a.* bē, beledẓe, kpóy, kpa.
 kpa, rē.
 redeem', *v.* da...nide.
 redeem'er, *n.* oludande.
 redemp'tion, *n.* ilande.
 red'ness, *n.* ẹkpón, kpukpa.
 reed, *n.* ife, idẓe, iye.
 reel, *v.* dakún, dāwú, káwú.
 reflect', *v.* mote.
 reform', *v.* kpiwadā.
 reform'er, *n.* alatonṣe.
 refrain', *v.* kparamó.
 refresh', *v.* tú...lara, tura.
 refreshment, *n.* itura.
 re'fuge, *n.* abá, asalá.
 refund', *v.* saṅ kpada.
 refuse', *v.* dū, kó.
 re'fuse, *n.* atúnṁ, okáṣu.
 refus'er, *v.* okóṣe.
 regard', *v.* bikita, feti, fódẓúsi,
 ká, wódẓú, sídẓuwó.
 rege'nerate, *v.* tónbí.
 re'gion, *n.* agbegbe, ẹkun, ẹkún,
 íba.
 re'gularly, *adv.* lẹsese, lẹsese.
 rehearse', *v.* ro.
 reign, *v.* dẓoba.
 reign, *n.* idẓoba.
 rein, *n.* okún idẓanu.
 reins, *n.* ọkan.
 reject', *v.* kó, ikuro.
 reject'ed, *a.* asati.
 rejoice', *v.* yó, yóayó, yáyó,
 ẹṣayó.
 rejoice'ing, *n.* (together) adẓoyó.
 relate', *v.* gbá...ró, kpa, ro,
 rohin.
 rela'tion, *n.* ikpele.
 re'lative, *n.* ána, ikpele, olutan,
 ọlutan.
 release', *v.* da...kuro, dẓa...
 nide, dẓowolowó.
 relent', *v.* dọkun.
 relief', *n.* itú.
 relieve', *v.* dẹ...lara.
 reli'gion, *n.* s̄ȳs̄ȳ.
 relin'quish, *v.* fi...silẹ.
 reluct'ance, *n.* atiyandẓuse.
 reluct'ant, *a.* aṣagbodo.
 reluct'antly, *adv.* kofí.
 remain', *v.* kún, síkún.
 remain'der, *n.* abukún, ibukún,
 iyokun.

remains', *n.* akpetā.
 remem'ber, *v.* niran, ranti.
 remem'brance, *n.* niran, iran.
 remind', *v.* ran...niran, ran
 ...feti, sí...niye.
 remis'sion, *n.* ifidẓi.
 remit', *v.* fi...dẓi.
 rem'nant, *n.* akókún, ibukún,
 ilasi; (after eating) adẓekún.
 remorse', *n.* arókan.
 remote', *a.* dẓina.
 remov'e', *v.* dā, sí, sídī, sí nidi,
 síkpo, sí nikpo.
 rend, *v.* fa...ya.
 renounce', *v.* kọ...lẹ, kọ...
 silẹ.
 renova'tion, *n.* akpada.
 rent, *v.* gbá...wó.
 rent, *n.* akpágbeyin, ẹle.
 renuncia'tion, *n.* okéhinlá.
 repair'er, *n.* alatonṣe.
 repair'ing, *n.* atonṣe.
 repeal', *v.* fi...dẓi.
 repeal', *n.* afidẓi.
 repeat, *v.* tón wí.
 repent', *v.* kpiwadā, rouṅkpi-
 wadā, tuba.
 repent'ance, *n.* ironṅkpiwadā.
 repeti'tion, *n.* (of behavior)
 atonhū, (of words) atonwí.
 repen'ish, *v.* lẹ, kón.
 reply', *v.* dahún, fesi, fẹmisi, dẓe.
 reply', *n.* esi, ilahun, idẓe.
 report', *v.* dẓihin, dẓise.
 reproach', *v.* bí...lahun, bo-
 dẓumó, ẓiregun.
 reproach', *n.* ẹgan, ẹtẹ.
 reproof, *n.* abáwí.
 reprove', *v.* bá...wí.
 reputa'tion, *n.* ihin.
 reput'ed, *a.* s̄obi, as̄obi.
 request', *v.* bère, bẹ.
 require', *v.* dī, bère.
 requite', *v.* s̄un.
 res'cue, *v.* gbá...lá.
 resem'blance, *n.* alagbon.
 aworan, dẓidẓo, iran.
 resem'ble, *v.* dabí.
 reserve', *v.* da...s̄i, da...silẹ.
 reserved', *a.* adasí.
 reside', *v.* gbe.
 re'sidence, *n.* ilé.
 re'sident, *a.* agbe, atikpo.
 re'sidue, *n.* iyokun.
 re'sin, *n.* íla, olẓin.
 resist', *v.* gbonu, kodẓudẓa, kọ-
 dẓudẓasi.
 res'olute, *a.* gbodẓulé.

resolu'tion, *v.* ẹtẹ.
 resolve', *v.* kpinu.
 resort', *v.* tẹ.
 respect', *v.* fódẓakpa, dẓaba,
 ká, ká...sí.
 respect', *n.* ikasi, ọwó.
 respect'er, *n.* oluwóẓú.
 respect'fully, *adv.* t̄ȳw̄t̄ȳw̄.
 respond', *v.* dahún.
 respond'er, *n.* elegbe.
 response', *v.* idẓe.
 responsibility, *n.* adabówó.
 rest, *v.* feri, ọyọ, síndi.
 rest, *n.* isin.
 rest'less, *a.* asin.
 rest'lessly, *adv.* h̄is̄im̄i.
 rest'lessness, *n.* ẹkpon, áro.
 restora'tion, *n.* amukpada.
 restore', *v.* bọ...síkpá, mu...
 kpada.
 restrain', *v.* náraduro, kpa-
 ramó.
 restraint', *n.* akoso.
 result, *n.* amuwá.
 resurrect'ion, *n.* adẓinde,
 agbende.
 retail', *v.* sí.
 retail'er, *n.* onisú.
 retalia'te, *v.* radi, saṅ ẹsán,
 wón.
 retalia'tion, *n.* ẹsán, isan,
 ọwón.
 retreat', *v.* bọ.
 retreat', *n.* ẹsá.
 return', *v.* kpada.
 return', *n.* akpada.
 reveal', *v.* fi...hàn, síkpaya.
 reveal'ing, *n.* asíkpayá.
 revela'tion, *n.* asíkpayá, itihàn.
 re'velry, *n.* irele.
 revenge', *v.* gbesan, saṅ...ẹsán.
 re'verence, *v.* bolá, hari.
 re'verent, *a.* hari, ahari.
 re'verently, *adv.* t̄ȳw̄t̄ȳw̄.
 revile', *v.* gán.
 revil'er, *n.* ẹlegan.
 reviv'al, *n.* atonhū, odẓi.
 revive', *v.* t̄ȳgh̄n̄, sí...lodẓú.
 reviv'er, *n.* oludẓi.
 reviv'ing, *n.* odẓi.
 revolt', *v.* s̄eȳye, s̄ote.
 revolt'er, *n.* as̄ote.
 revolve', *v.* yí.
 reward', *v.* saṅ.
 rheumatism, *n.* akuiegbe,
 lakuiegbe.
 rib, *n.* egun ila.
 rice, *n.* mú, sínkafa.

rich, *a.* atilá, lá, olowá, lóró, ọ̀lọ̀rọ, ọ̀lọ̀tọ.
rich'es, *n.* ọ̀lá.
rid'dle, *n.* ọ̀lọ.
ride, *v.* gẹ̀sín, gùn.
ri'dicule, *n.* ẹ́leya, ẹ̀sì, ẹ̀sín.
ri'dicule, *n.* fí... ẹ́fẹ́, fí... ẹ́leya, fí... ẹ̀sín, ẹ́hò, ẹ̀sín, ẹ́fẹ́.
right, *v.* ẹ́sà.
right, *n.* aláre : *right side*, ọ̀tọ.
right, *a.* dogba, ẹ́zàre, ẹ́sà, ẹ́tọ.
right'eous, *a.* aláre, ọ̀lólódó.
right'eousness, *n.* ọ̀lóló, ọ̀lóló, ọ̀lóló.
right'ly, *adv.* ọ̀lóló.
rim, *n.* ẹ́tí.
rind, *n.* ẹ́kpọ.
ring, *n.* ẹ́ka, ẹ́ka, ọ̀rúka.
ring, *v.* lagogo.
ring'leader, *n.* aláserán.
rinse, *v.* ẹ́sì, ẹ́sì... nọ.
ripe, *a.* asógbá, ẹ́tẹ, ẹ́tẹ, ẹ́pọ.
rip'en, *v.* gbó, ẹ́pọ.
ripe'ness, *n.* ẹ́tẹ, ẹ́pọ.
rise, *v.* ẹ́dẹ, ru, wá, (*as a hill*) lúko.
rise, *n.* ihulẹ́.
ris'ing, *n.* (*up*) adzínde, im.
risk, *v.* ẹ́da... ẹ́tẹ.
risk, *n.* ẹ́dà.
ri'val, *n.* ẹ́dà.
ri'val, *n.* ẹ́dà.
ri'valry, *n.* ẹ́dà, ẹ́pọ.
ri'valry, *n.* ẹ́dà, ẹ́pọ.
ri'vulet, *n.* ẹ́dà, ẹ́pọ.
road, *n.* ẹ́pọ, ẹ́pọ.
roam, *v.* ẹ́pọ.
roar, *v.* ẹ́pọ.
roast, *v.* ẹ́pọ, ẹ́pọ.
rob, *v.* ẹ́pọ, ẹ́pọ.
rob'ber, *n.* ẹ́pọ, ẹ́pọ.
rob'bery, *n.* ẹ́pọ, ẹ́pọ.
rock, *n.* ẹ́pọ, ẹ́pọ.
rod, *n.* ẹ́pọ.
rogue, *n.* ẹ́pọ.
roll, *v.* (*of cloth*), ẹ́pọ.
roll, *v.* ẹ́pọ.
roof, *n.* ẹ́pọ, ẹ́pọ.
room, *n.* ẹ́pọ, ẹ́pọ.
room'y, *a.* ẹ́pọ, ẹ́pọ.
roost, *v.* ẹ́pọ.
roost'er, *n.* ẹ́pọ.
root, *n.* ẹ́pọ, ẹ́pọ.
root, *v.* ẹ́pọ.
rope, *n.* ẹ́pọ.
rope'maker, *n.* ẹ́pọ.

rot, *v.* ẹ́pọ, ẹ́pọ.
rote, *n.* ẹ́pọ.
rot'ten, *a.* ẹ́pọ.
rough, *a.* ẹ́pọ, ẹ́pọ.
rough'ly, *adv.* ẹ́pọ, ẹ́pọ.
rough'ness, *n.* ẹ́pọ.
round, *a.* ẹ́pọ.
round, *adv. or prep.* ẹ́pọ.
rouse, *v.* ẹ́pọ, ẹ́pọ.
row, *n.* ẹ́pọ.
row, *v.* ẹ́pọ.
row'er, *n.* ẹ́pọ.
rub, *v.* ẹ́pọ, ẹ́pọ.
rud'der, *n.* ẹ́pọ.
rug'ged, *a.* ẹ́pọ.
rug'gedly, *adv.* ẹ́pọ.
ru'in, *v.* ẹ́pọ, ẹ́pọ.
ru'ins, *n.* ẹ́pọ, ẹ́pọ.
rule, *v.* ẹ́pọ, ẹ́pọ.
ru'ler, *n.* ẹ́pọ, ẹ́pọ.
ru'mor, *n.* ẹ́pọ.
rump, *n.* ẹ́pọ, ẹ́pọ.
run, *v.* ẹ́pọ, ẹ́pọ.
run'away, *n.* ẹ́pọ, ẹ́pọ.
run'ner, *n.* ẹ́pọ.
run'ning, *n.* ẹ́pọ.
rush, *v.* ẹ́pọ.
rush, *n.* ẹ́pọ.
rust, *v.* ẹ́pọ, ẹ́pọ.
rust, *n.* ẹ́pọ.

S.

Sab'bath, *n.* ẹ́pọ, ẹ́pọ : *the Mohammedan Sabbath*, adzímọ.
sab'bath-breaker, *n.* ẹ́pọ.
sack, *n.* ẹ́pọ, ẹ́pọ.
sa'cred, *a.* ẹ́pọ.
sa'crifice, *v.* ẹ́pọ, ẹ́pọ.
sa'crifice, *n.* ẹ́pọ, ẹ́pọ.
sa'crilege (*commit*), *v.* ẹ́pọ.
sad, *a.* ẹ́pọ, ẹ́pọ.
sad'dle, *n.* ẹ́pọ, ẹ́pọ.
sad'dle, *v.* ẹ́pọ, ẹ́pọ.
sad'dle-cloth, *n.* ẹ́pọ, ẹ́pọ.
sad'ness, *n.* ẹ́pọ.
safe, *a.* ẹ́pọ, ẹ́pọ.
safe'ly, *adv.* ẹ́pọ, ẹ́pọ.
safe'ty, *n.* ẹ́pọ, ẹ́pọ.

sail, *n.* ẹ́pọ.
sail, *v.* ẹ́pọ.
sail'ing, *n.* ẹ́pọ, ẹ́pọ.
sailor, *n.* ẹ́pọ.
saint, *n.* ẹ́pọ.
sake, *n.* ẹ́pọ.
salaman'der, *n.* ẹ́pọ.
salí'va, *n.* ẹ́pọ.
salt, *n.* ẹ́pọ, ẹ́pọ.
salt, *v.* ẹ́pọ, ẹ́pọ.
saluta'tion, *n.* ẹ́pọ, ẹ́pọ.
salute, *v.* ẹ́pọ.
salva'tion, *n.* ẹ́pọ, ẹ́pọ.
same, *a.* ẹ́pọ, ẹ́pọ.
sanctifica'tion, *n.* ẹ́pọ, ẹ́pọ.
sanc'tify, *v.* ẹ́pọ, ẹ́pọ.
sand, *n.* ẹ́pọ, ẹ́pọ.
san'dal, *n.* ẹ́pọ, ẹ́pọ.
sand'fly, *n.* ẹ́pọ.
sap, *n.* ẹ́pọ.
sash, *n.* ẹ́pọ, ẹ́pọ.
Sa'tan, *n.* ẹ́pọ, ẹ́pọ.
satch'el, *n.* ẹ́pọ, ẹ́pọ.
sa'tiate, *v.* ẹ́pọ.
sati'ety, *n.* ẹ́pọ, ẹ́pọ.
satisfac'tion, *n.* ẹ́pọ, ẹ́pọ.
sa'tisfied, *n.* ẹ́pọ, ẹ́pọ.
sa'tisfy, *v.* ẹ́pọ, ẹ́pọ.
sauce, *n.* ẹ́pọ.
sauce'pan, *n.* ẹ́pọ.
sau'ey, *a.* ẹ́pọ, ẹ́pọ.
sa'vage, *a.* ẹ́pọ.
save, *v.* ẹ́pọ, ẹ́pọ.
saved, *n.* ẹ́pọ.
sav'ior, *n.* ẹ́pọ, ẹ́pọ.
sa'vor, *n.* ẹ́pọ.
sa'vory, *a.* ẹ́pọ, ẹ́pọ.
saw, *v.* ẹ́pọ, ẹ́pọ.
saw, *n.* ẹ́pọ, ẹ́pọ.
saw'yer, *n.* ẹ́pọ, ẹ́pọ.
say, *v.* ẹ́pọ, ẹ́pọ.
scab'bard, *n.* ẹ́pọ.
scaff'old, *n.* ẹ́pọ.
scale, *n.* (*fish*) ẹ́pọ, ẹ́pọ.
scaly, *a.* ẹ́pọ.
scar, *n.* ẹ́pọ, ẹ́pọ.
scarce, *adv.* ẹ́pọ, ẹ́pọ.
scarce'ly, *adv.* ẹ́pọ, ẹ́pọ.
scar'let, *n.* ẹ́pọ, ẹ́pọ.
scat'ter, *v.* ẹ́pọ, ẹ́pọ.
scat'ter, *n.* ẹ́pọ, ẹ́pọ.

scat'ered, *n.* owara.
 scat'eringly, *adv.* katakata,
 lilili, šaša, tere.
 scent, *n.* orùṅ.
 scent, *v.* gbòrùṅ.
 scentless, *n.* alùfòrùṅ.
 scep'tre, *n.* okpa, okpa oha.
 scho'lar, *n.* akòdžá, ọmọ kẹwá.
 scis'sors, *n.* alumagòdžá, ẹmú.
 scoff, *v.* tí...šé ẹlẹyá, yọ sítí
 sí.
 scoffer, *n.* ẹlẹyá, ẹlẹgún.
 scold, *v.* sọ, bá...sọ, báwí.
 scold'ing, *n.* abáwí.
 scorch, *v.* džona.
 scorn, *n.* ẹyá, ikposi.
 scorn'er, *n.* ẹlẹyá.
 scor'pion, *n.* akéké, akékéréké,
 odžogun.
 scout'drel, *n.* adarékeréke.
 scour, *v.* kpa, fẹ.
 scourge, *v.* ná.
 scowl, *v.* fẹlžn.
 scram'ble, *v.* šegúdagudu, dži-
 džadu.
 scram'bling, *n.* gúdugudu,
 idžadu.
 scrap, *n.* akisa, ida asa, irekpe.
 scrape, *v.* fa, ha, hap.
 scratch, *v.* ká, kó, dža lekama.
 scraw'ny, *n.* hüntá.
 scream, *v.* hay.
 scribe, *n.* akówe.
 scrip, *n.* akpo-agbadagodo. See
satchel.
 scro'fula, *n.* ẹte, odogí.
 scrut'inize, *v.* wadi.
 sculp'ture, *n.* ike.
 scout'le, *n.* alafo.
 scout'le, *v.* lu.
 sea, *n.* agbaní, okun.
 sea'breeze, *n.* ategun.
 sea'-coast, *n.* eti okun.
 seal, *n.* samí sí, di.
 search, *v.* wà.
 search, *n.* atfiri, awari.
 searched, *n.* awatín.
 sea'-shell, *n.* kpékpékun.
 sea'son, *n.* ewò, wakati.
 sea'sonable, *n.* šakoko.
 seat, *n.* ibudžoko, ikpo.
 se'cond, *n.* ekedži, kedži, ateje.
 se'condly, *adv.* lekedži.
 se'cresy, *n.* abelí.
 se'cret, *n.* afowobó, alamú, asiri,
 esi, esiṅ.
 se'cret, *n.* ikpo.
 se'cretly, *adv.* níkọkọ.

se'cret teller, *n.* asoripòdžé,
 asorokéle.
 sect, *n.* iyakpa.
 secta'rian, *n.* oni'yakpa.
 secure, *n.* lá, lálẹwá.
 secu'rity, *n.* ilá, onigbowo.
 sedge, *n.* šege.
 sedi'tion, *n.* iséte; to cause se-
 dition, rolu.
 sedi'tious, *n.* odote.
 seduce, *v.* fá...lẹtan.
 see, *v.* rí, ríran, wò.
 seed, *n.* iru, irugbín, irumo.
 seed time, *n.* igba irugbín.
 see'ing, *n.* atiri, irun.
 seek, *v.* šatéri, wá, wakiri.
 seek'er, *n.* atéri.
 seem, *v.* wò, dabi.
 seen, *n.* ari.
 scor, *n.* olawò.
 seethe, *v.* bọ.
 seize, *v.* gbá...mu.
 seiz'ure, *n.* amuya, ẹmú, igbamu.
 sel'dom, *adv.* idžokanlogbón,
 nidžokanlogbón.
 select, *v.* šá, yán, šá...yán.
 select'ed, *n.* asáyan, ayo.
 self, *pron.* kpakpa, tikalá, ti-
 kará, dá.
 self'conceit, *n.* amòtún.
 self'defence, *n.* igbera.
 self'deni'al, *n.* ikparamo.
 self'ish, *n.* fẹra, onifera.
 self'ishness, *n.* ifera.
 self-willed, *n.* alášedžú.
 self-willed'ness, *n.* ašetinó.
 sell, *v.* tà.
 sel'ler, *n.* otá.
 selv'edge, *n.* eti asó.
 se'micircle, *n.* ošumàré, bió-
 šumàré.
 send, *v.* ran, ran...nišé, ranšé.
 send'er, *n.* oluranšé.
 send'ing, *n.* ríran.
 se'nior, *n.* aré.
 sense, *n.* itunú, iyenó.
 sen'tence, *n.* imú, ikpinu.
 sen'try, *n.* išó.
 se'parate, *v.* da...nikpa, lotó,
 kpala, ya...sótó, yà, yakpa.
 se'parately, *adv.* lotó, sọtó.
 se'parateness, *n.* otó.
 separa'tion, *n.* ẹyá iyakpa.
 se'pulchre, *n.* ibodži.
 serenade, *v.* dadža.
 ser'pent, *n.* edže.
 serv'ant, *n.* ọmọ, ọmọdó,
 iranšé.

serve, *v.* siṅ, šé ti.
 ser'vice, *n.* išé-siṅ, siṅsiṅ.
 ser'vile, *n.* bí ẹmú.
 servi'ty, *n.* iwá ẹmú.
 ser'vitude, *n.* oko ẹmú.
 set, *v.* ba, wò; to set upon, ba
 ...ká, gbe...ká, tí...ká; to
 set down, tí...bale, gbe...kale,
 kale; to set a snare, kẹ, egge.
 set'tle, *v.* tedí; (as water),
 toro.
 set'tlement, *n.* fódžé, itedó.
 se'ven, *num.* odže, modže.
 se'venfold, *n.* lejinmodže.
 se'venteen, *num.* etadibogun.
 se'venth, *num.* ekođže, kedže.
 se'venty, *num.* adžin.
 se'ver, *See* separate.
 severe, *n.* oyororo.
 severe'ly, *adv.* gogo.
 seve'rity, *n.* imu.
 sew, *v.* gún, ran, ranšé.
 shack'le, *n.* šékešéke; neck-
 shackles, adžaga.
 shade, *n.* odé, di, di...ní šé-
 kéšéke.
 shade, *v.* šidži, šidžibó.
 shade, *n.* ibodžin, odžidži, odži-
 džin.
 sha'dow, *n.* adžidžin, odžidži,
 odžidžin.
 sha'dy, *n.* onibodži.
 shake, *v.* gbóṅ, ní, yin; to shake
 hands, bọ, bọ...lọwọ, bọwọ.
 shak'en, *n.* anikpó, ẹgbon.
 shak'y, *adv.* ábatí.
 shak'ing, *n.* imi.
 shall, *aux.* ó, ọ, á, ba.
 shal'low, *n.* kò džin.
 shame, *v.* dođžuti, tí...kílo.
 shame, *n.* esi, esiṅ, itidžu,
 odžuti.
 shame'less, *n.* odadžú, aitiđžu.
 shan'ty, *n.* agó.
 shape, *n.* awo.
 share, *n.* itori.
 share, *v.* kpin, še-adžokpin,
 harí, wá.
 shar'er, *n.* adžokpin, alabakpin,
 aladžuní, odžinwa, olukpin.
 sharp, *n.* mu, gongo.
 sharp'en, *v.* gbe, kpọ, kpọ-
 mu.
 sharp'ly, *adv.* gogo.
 sharp'ness, *n.* imu, mimu.
 shave, *v.* fa, fagbon; to shave
 the head, fari.

she, *pron.* í, ó, óy, ó.
 sheaf, *n.* íbì, írì.
 shear, *v.* rẹ, rẹrẹy.
 shear'er, *n.* olurẹrẹn.
 shears, *n.* alunmāgadži.
 sheath, *n.* akọ.
 shed, *v.* rẹ, wọ: *to shed blood*, ta, tadže, ta... sílẹ.
 sheep, *n.* águnṭan.
 sheep fold, *n.* agbo *or* ilẹ águnṭan.
 sheet, *n.* gogowu.
 shelf, *n.* kpekpe.
 shell, *n.* kpekpe, ikpekpe, ká-kara.
 shelter, *v.* dabòbò, radòbò.
 shelter, *n.* abò.
 shelterless, *n.* aibò.
 shepherd, *n.* oluṣọ-águnṭan.
 she riff, *n.* tẹtẹ.
 shield, *n.* akpata, ganiki, gariki.
 shin, *n.* igun, odzgun.
 shine, *v.* mọ, mọlẹ, rún, ta, tán, tápumọlẹ, tupsag, ti.
 ship, *n.* ẹkọ.
 shipmaster, *n.* ẹlẹkọ.
 shipwreck, *n.* ẹlẹkọ, ifẹkọ.
 shirt, *n.* ẹba, ẹwu, agbaladza.
 shoal, *n.* bẹbe.
 shock, *n.* asati, awò.
 shoe, *n.* batá, kolita.
 shoeless, *n.* lilihiata.
 shoemaker, *n.* arapata, oni-bata.
 shoot, *v.* ta, yinbo, yin... ní-bo: *to shoot a bow*, ta, tafa; *to shoot forth*, ta, takpe.
 shore, *n.* ẹbádó.
 short, *a.* kurn.
 short'en, *v.* mu... kurn, ẹ... kukuru.
 shortness, *n.* kukuru.
 shot, *n.* ọta.
 shotpouch, *n.* mayami.
 should, *aux.* ba, ibá.
 shoul'der, *n.* edžika.
 shoul'der-blade, *n.* ẹkọ.
 shout, *v.* hó, hokun, kọ.
 shouting, *v.* iho: *shouting loudly*, kúlu.
 shove, *v.* sọ, sún.
 show, *v.* fi... hàn, fi... mọ, dzure.
 show, *n.* ẹsọ.
 showing, *n.* ilihàn.
 show'er, *n.* ọwara, wara.
 shrewd, *a.* fi ẹlẹbọ, lozhbọ.
 shrewdness, *n.* ẹglẹbọ.

shriek, *n.* ke goro.
 shril'ly, *adv.* goro.
 shrink, *v.* sọyki.
 shri'vel, *v.* sọyki.
 shri'velled, *a.* dọdọ, kpákpa.
 shroud, *n.* ago.
 shroud, *v.* fi ago we.
 shuck, *n.* ẹfọ, fulufulu.
 shun, *v.* fá... sehín, rí sá, sọyki, yakpasile.
 shut, *v.* kpade, se, semó, há.
 shut (in), *a.* adimó.
 shut'ter, *n.* ẹkun, ilekun.
 shut'tle, *n.* ẹkọ.
 sick, *v.* ńsaisay, rọy: *a sick person*, abirẹy.
 sick'en, *v.* rọy.
 sickle, *n.* šilo.
 sickness, *n.* aisay, arọy, ẹkun.
 side, *n.* akpa, ẹgbẹ, iha.
 sieve, *n.* asẹ.
 siege, *n.* idó, isagati.
 sift, *v.* kú, se.
 sift'er, *n.* konkọsọ, asẹ.
 sigh, *n.* imi ẹdọy.
 sigh, *v.* mi ẹdọy.
 sight, *n.* imay, iray, iri, irina.
 sign, *n.* àmi, ísẹ: *to make a sign*, sọkperẹ, šakperẹ, šakpedzure.
 silence, *v.* kpa... lenmọ.
 silence, *n.* adžin, adžin'džin, aküdžẹ, arere, idake, kẹkẹ.
 silent, *a.* dake, didake; *to be silent*, kpeummọ.
 silently, *adv.* furu.
 silk, *n.* sayyan, šeda.
 silk worm, *n.* tamba.
 sil'ily, *adv.* botiboti.
 silliness, *n.* awere, iwere.
 sil'ly, *a.* were, šiwere, siywin, šaray.
 sil'ver, *n.* fałaka.
 sil'ver, *v.* fi fałaka subọ.
 sil'versmith, *n.* alagbẹde fałaka.
 sim'ilar, *a.* faramọ.
 similitude, *n.* awóran.
 sim'ner, *v.* gbara.
 sim'ple, *a.* šokpe.
 sim'pleton, *n.* alaimoye, alai-niyenó, kẹrẹ, okpe.
 sin, *n.* ẹsẹ.
 sin, *v.* dẹsẹ, gbẹsẹ, šẹ.
 since, *adv.* nigbatí.
 sincer'ity, *n.* ańsetan.
 si'new, *n.* isay.
 sing, *v.* kọy, kọyriy.
 singe, *v.* wí.

sing'er, *n.* akọyriy, olórin.
 single, *a.* okan, nikan.
 sin'gly, *adv.* nikan, nikan šoso, šoso.
 sink, *v.* mún, rí: *to sink into the ground*, wílẹ.
 sinless, *n.* ańlẹsẹ, alailẹsẹ, tai-lẹsẹ.
 sin'ner, *n.* ẹlẹsẹ.
 sip, *v.* fere.
 sister, *n.* arabiri.
 sit, *v.* džeko: *to sit down*, fidibálẹ.
 sit'ting, *n.* ige.
 situa'tion, *n.* ibi, ikpo.
 six, *num.* ẹfa, mefa.
 six'fold, *n.* mefa.
 six'teen, *num.* ẹlinógun.
 sixth, *num.* ẹkẹfa.
 six'ty, *num.* ẹgata, ọta.
 skein, *n.* ikọ.
 ske'leton, *n.* egugun.
 skill, *n.* ẹrọ.
 skil'ful, *a.* niyẹrọ, ẹlẹrọ.
 skil'fulness, *n.* imiẹrọ.
 skim, *v.* rẹ.
 skin, *n.* ará.
 skin, *v.* fọ.
 skip, *v.* fọ.
 skip'per, *n.* idip.
 skull, *n.* agbari.
 sky, *n.* orun.
 sky'light, *n.* ikóro, odzuko.
 slack, *a.* dẹ, ẹlẹ.
 slack'ened, *v.* šó.
 slack'en, *v.* rọ: *to slacken one's pace*, dẹsẹ, kpesemọ.
 slack'ness, *n.* ẹlẹ, isó.
 slam, *v.* še gbagada.
 slam, *n.* gbagada.
 slan'der, *n.* dulumo.
 slan'der, *v.* ba... lorukodžẹ, baruko... džẹ, gbà... dulumọ.
 slan'derer, *n.* abanidžẹ.
 slap, *n.* abara.
 slap, *v.* gba, gba... labara.
 slate, *n.* walá.
 slave, *n.* ẹrú.
 slave'dealer, *n.* atera, tẹruteru.
 slave'holder, *n.* ẹlẹru.
 sla'very, *n.* oko ẹrú.
 slay, *v.* kpa.
 slay'er, *n.* onikpa.
 sleek, *a.* day.
 sleek'ness, *n.* ałay.
 sleep, *n.* idžika, odžá orún, orún.
 sleep, *v.* sún, togbẹ.
 sleep'less, *a.* ańsún.

sleep'y, *a.* orún kọ́nní (*I am sleepy*).

slight, *n.* àlákpayída, idáy.

slen' der, *a.* fọ́y, gígò, gò, gbẹ̀rẹ, tẹ̀rẹ, tírín.

slen' derness, *n.* ésẹ́.

sley, *n.* àsa.

slide, *v.* bọ.

slight, *v.* da... kọ́lzá, fi... dza'ara.

slight'ly, *adv.* sọ.

sling, *v.* fi, gbọ́y.

sling, *n.* kánakána.

slip, *v.* bọ, sí, yó.

slip'pery, *a.* dáy, yó.

slit, *v.* lá.

slope, *n.* gẹ̀rẹgẹ̀rẹ.

slop'ing, *a.* bẹ̀rẹ.

sloth, *n.* àtara, o'le.

sloth'ful, *a.* dera, oní'fara.

slo'ven, *a.* gbọ́y.

slo'venly, *adv.* bọy.

slow, *a.* dza'ara, lora.

slow'ly, *adv.* kpele, kẹ́kẹ.

slow'ness, *n.* àfara.

slug'gish, *a.* lẹ.

slug'gishly, *adv.* goigoi, tiko.

slug'gishness, *n.* aigbo, aiyẹ.

slum'ber, *n.* togbé.

sly'ness, *n.* ayọ́sẹ.

small, *a.* kere, wẹrẹ, wẹwẹ, kíkíní, sòkoto : *a small person*, akere.

small, *adv.* kíbítí.

small'ness, *n.* kekere, kíkíní.

small'pox, *n.* šakpaná.

smart, *v.* ta.

smat'ter, *n.* he... sọ.

smat'terer, *n.* alahésọ.

smear, *v.* kùny.

smell, *v.* gbòrún.

smell, *n.* orún.

smell'ing-bottle, *n.* akošó.

smelt, *v.* kpò, kporín.

smelt'er, *n.* akporín, olukporín.

smile, *v.* rerín wesi.

smite, *v.* kọ́lu, lù, šá.

smith, *n.* alagbẹdẹ.

smith'ery, *n.* agbẹdẹ, arọ.

smoke, *n.* tifi, tii, cfin.

smoke, *v.* tii, tfin, ru.

smok'y, *a.* cfin.

smooth, *a.* dáy, fele, fẹ́fẹ́fẹ́.

smooth, *v.* kùny, tẹ́lzá.

smooth, *v.* dáy, tẹ́ fele.

smooth'ly, *adv.* fẹ́fẹ́fẹ́.

smooth'ness, *n.* idáy, fẹ́fẹ́fẹ́.

smo'ther, *v.* fín.

smug'gle, *v.* yabode.

smut, *n.* adú, dżakawó.

snag, *n.* egún.

snail, *n.* igbín, ikpere, okoto.

snake, *n.* e'elzo, manamana, ọwọ́y, šebe.

snap, *v.* šá, šáki : *to snap the fingers*, taka.

snap'ping, *n.* ití.

snare, *n.* olun didẹ, ege, e'kú, gboro, ikẹkay, ikpeti, mure.

snatch, *v.* dza, takpa.

snatch, *n.* idžakpati.

sneer, *v.* da... kpara.

sneeze, *v.* sún.

sniff, *v.* sọ́nmọ́.

snore, *v.* hẹ́rún, dżeka.

snout, *n.* igi imọ.

snuff, *n.* asára.

snuff, *v.* sọ́nmọ́.

snuf'fers, *n.* ire'na.

so, *adv.* ba, bai, bayi, bom, bẹ́bẹ, gege.

soak, *v.* fi... bọ, fi... bọmí, re.

soap, *n.* e'şẹ.

soar, *v.* rá, fú.

so'ber, *a.* odžá rẹ wale (*he is sober*).

so'berness, *n.* airokọ́lzá.

soci'ety, *n.* egbẹ.

sock'et, *n.* ilio-itẹlẹ.

so'da, *n.* kaun.

so'fa, *n.* ibirẹgbokun.

soft, *a.* dẹ, e'şẹ, fule, kperẹ, rọ́y egerẹ.

soft'en, *v.* mu... dẹ or rọ́y.

soft'ly, *adv.* fulefule, rọ́ra.

soft'ness, *n.* e'şẹ, rọ́y.

soil, *n.* ilẹ.

so'journ, *v.* še átikpo, šátikpo.

so'journer, *n.* átikpo.

sol'dier, *n.* adžagun, dan'kare, dżakare, dżama, omọ́ ogun.

sole, *n.* atelese.

sole, *a.* okay, nikay.

sole'ly, *adv.* nikay.

sole'mn, *a.* rọ́mọ́.

sole'mnity, *n.* irọ́mọ́.

solid, *a.* lẹ, kiki.

some, *pron.* awọ́nkán, di'ş, melokán.

some'thing, *n.* kùní.

some'times, *adv.* nigbakugba.

some'where, *adv.* nibikay.

son, *n.* omọ́, omọ́kọ́nní.

song, *n.* órin.

soon, *adv.* laikpe, nisisiyi.

soot, *n.* dżakawó.

soothe, *v.* tẹ... laiya or lara, tó.

sop, *v.* rọ́y.

sor'cerer, *n.* oso.

sore, *a.* e'şbẹ, odžá.

sorc, *a.* gbekay.

sor'row, *n.* áro, idaro, ánu.

sor'rowful, *a.* onirora, alánu.

sor'ry, *a.* kánu.

sort, *n.* olori'ori, onírúru.

sort, *v.* yán, ya... loto.

sor'tilege, *n.* ibo.

soul, *n.* e'kan.

sound, *n.* ohun.

sound, *a.* aifo, dida.

sound, *v.* dá, gba, ro, ta : *to sound in water, take soundings*, wondó.

sound'ly, *adv.* (asleep), fọ́y-fọ́y.

soup, *n.* e'şẹ.

soul, *n.* e'kan.

source, *n.* idi.

sour'ness, *n.* e'kan.

south, *n.* gánu.

south'ward, *adv.* niha or siha gánu.

sow, *v.* fún, fọ́y... gbín, fọ́ru-rúgbín, gbín, sù.

sow'er, *n.* afọ́rúgbín.

space, *n.* afo, aye, ofurufu.

spac'ious, *a.* alaye, laye.

spade, *n.* e'şkọ́m.

span, *v.* gbaw.

span, *n.* igbani.

Span'iard, *n.* Agnda.

spare, *v.* da... sí, da... silẹ, kun... silẹ.

spared, *n.* adasi, idasi.

spark, *n.* iforifo.

spark'lingly, *adv.* dżererdżere.

spar'row, *n.* awá, itu, olo-gomş.

speak, *v.* fọ́y fọ́hun, sọ́ wi.

spear, *n.* e'şín, e'şko.

spear'man, *n.* e'şeké.

special'ity, *n.* akan'se.

spe'cies, *n.* iru.

speck'les, *n.* e'ştu.

speck'le, *v.* e'ştu.

speck'led, *a.* e'ştu.

spec'tacle, *n.* irina.

spec'tacles, *n.* awó odžá.

speech, *n.* ohun, e'le.

spell, *v.* ká.

spend, *v.* ni, nawó.

spend thrift, *n.* ikpa, awandó, bọ́nkam, rawonawo.

spi'der, *n.* alantakun, alaysasa, elenọ.
spike, *n.* iso, ẹkan.
spill, *v.* ta, ta...silẹ, yidàndẹ.
spin, *v.* ran, ranwu.
spin'ner, *n.* aranjwu, iranjwu.
spi'rit, *n.* afẹfẹ, ẹmi.
spit, *v.* tu, tutọ.
spite, *n.* iwọsi.
spite'ful, *a.* koro, ọrọ.
spite'fulness, *n.* aranjkan.
spit'tle, *n.* itọ.
splint'er, *n.* ẹrún.
split, *v.* be sọsan, lá, sún, tọ.
spoil, *v.* badže, dibadže.
spoiled, *v.* badže, dibadže.
spoil'ing, *n.* ibadže.
spokes'man, *n.* alagbasọ.
sponge, *n.* kanrikan.
spoon, *n.* ẹkọn, ikọn, gọmbọ, sibi.
sport, *v.* wẹ.
spot, *n.* abawọn.
spot, *v.* se...labawọn.
spot less, *a.* aṣabawọn.
sprain, *v.* fi...rọ, rọ.
spread, *v.* mukale, ta, tan kale, tẹ.
spright'ly, *a.* ya.
spring, *v.* hukọ, rẹ, ru.
spring, *a.* orisọn, isọn.
sprin'kle, *v.* wọn, bọmiwọn, bú...wọn, rọdzo.
sprin'kling, *n.* akáwọn, ibómiwọn, ibuwọn.
sprout, *n.* akpadah, ehú, ẹkan.
sprout, *v.* ru, hù dzále.
sprout'ing, *n.* atọnhú.
spur, *n.* oṣan.
spy, *n.* alámi, amí, atọna, awoye, ayoluwọ, ayoniwọ, kelekẹle.
spy, *v.* róna.
spy'glass, *n.* awọ.
squab'ble, *n.* ọlọ, ọkpalaí.
square, *n.* (of a house), asakanilẹ, sàre.
squash, *n.* agbẹdže.
squat, *v.* dákaka, lóso.
squat'ting, *n.* ákaka.
squeeze, *v.* fọn.
squint, *v.* fołžukay wọ.
squirrel, *n.* ikọn, kẹkẹ, ọforo, ọkẹrẹ.
stab, *v.* gún.
sta'ble, *n.* ilẹ iso or ẹsin.
stack, *n.* abà, agbo, asati.
staff, *n.* ọkpa.
staff'bearer, *n.* ọlọkpa, ọlọkpa.

stag'ger, *v.* tagbongbọn.
stag'geringly, *adv.* katakata.
stagnant, *a.* gbokun.
stag'nate, *v.* gbokun.
stain, *v.* kpa...lose.
stain, *n.* abáwọn, ibuwọn.
stain'less, *a.* aṣabawọn.
stair, *n.* akasọ.
stale, *a.* ẹhu, gbokun, kasi, ikasi, obu.
stalk, *n.* kpokporo, igi.
stall, *n.* budže, busó, oriso.
stam'mer, *v.* kolólo.
stam'merer, *n.* akolólo.
stamp, *v.* tẹ, tẹ...mọle.
stand, *n.* ibuduro.
stand, *v.* duro, ro; to stand up, dide, naro.
stand'ing, *a.* diduro, digbaro, idigbaro, ogurodo.
sta'ple, *n.* abà.
star, *n.* irawọ.
starch, *n.* ọgi.
stare, *v.* wọ.
start, *v.* šilóh.
starve, *v.* debikpa, febikpa.
starv'er, *n.* adebikpani, afebi-kpa.
state, *n.* iwà.
sta'tion, *n.* isọ, ikpo.
sta'ture, *n.* iga.
stay, *v.* duro, kpe.
stay'ing, *a.* akpe.
stead, *n.* ikpo.
stead'fast, *a.* se aiyese.
stead'fastly, *adv.* šin, šinšin.
stead'fastness, *n.* aiyese.
steal, *v.* dzále, dza...lòle, dži, džindí.
stealth, *n.* ayese.
steam, *n.* oru.
steam'er, *n.* ẹlẹtin.
steep, *a.* gongon.
steer, *v.* toko.
stem, *n.* kukute.
stench, *n.* ayau.
step, *v.* gbese.
ste' rile, *a.* okusale. See *barren*.
stern, *n.* ọro, asoro.
steward, *n.* iridži.
stew'pan, *n.* kpakuta.
stick, *n.* igi.
stick, *v.* kaymole, rẹ.
stiff, *a.* káka, kake.
stiff'ly, *adv.* kakakaka.
stiff'necked, *a.* waronki.
still, *n.* dže, dzedže.

still, *v.* kpa...roro.
still, *adv.* sibẹ.
still'ness, *n.* idakeroro.
stilt, *n.* gagalo.
sting, *n.* ita, ẹta.
sting, *v.* ta.
stin'giness, *n.* awon.
stin'gy, *v.* se awon, won.
stink, *v.* bú, rún, šayan.
stir, *v.* daru, rò, ru, wú.
stir'ring, *n.* irò.
stir'rup, *n.* ahkembu, okó-asa.
stockade', *n.* aghara.
stock'ing, *n.* ibose.
stocks, *n.* abà.
sto'mach, *n.* aiya.
stone, *n.* okuta, okó.
stone, *v.* so...lokuta.
stone'-cutter, *n.* agbekuta.
stool, *n.* aga, akpoti.
stoop, *v.* bẹrẹ, gọ, tiri.
stoop'ing, *adv.* ibẹrẹ.
stop, *v.* deşe, duro, di; to stop the road, dena.
stop'per, *n.* edidi.
store, *n.* abà.
stork, *n.* ako.
storm, *n.* idži.
sto'ry, *n.* iro.
stout, *a.* lara.
straight, *a.* dogba, gayran, tára, tó.
straight'en, *v.* mu...tọ.
straight'ness, *n.* itọ, ọsanhan, tito.
straight'way, *adv.* eyitawiyi, loṣan.
strain, *v.* bá, gbà, se.
strain'er, *n.* ase, laliro, okiti aro.
strait, *n.* diwọ, inira.
strange, *a.* ẹmọ, adzedži.
stran'ger, *n.* adzedži, adedžo, olódzọ.
stran'gle, *n.* lo...loron.
straw, *n.* kórikó.
stream, *n.* isan.
street, *n.* igboro, ita.
strength, *n.* agbara, okun.
strength'en, *v.* mu...lé, ti...lehin.
stretch, *v.* ná, naga.
stretch'ing, *n.* ena, iyà.
strew, *v.* fe...ka, fọn.
strict'ly, *adv.* lesleso.
strife, *n.* idži, agọn.
strike, *v.* dá, lù, hùle, ro, tí; to strike against, dákàn, gún,

da...mó; *strike with a sword*,
da...lida; *strike with a stick*,
da...nigi; *strike with the fist*,
džilęšę, džilęšę, ki...nibęwę.
string, *v.* sin.
string, *n.* okun, fin.
string'y, *adv.* olókun.
strip, *v.* hó, hó, tu...laş, tu...
mílórilo.
stripe, *n.* ina.
striped, *v.* abilá, řtu.
stripped, *a.* etá.
strive, *v.* džá, lákaka.
stroll, *v.* kiri.
stroll'er, *n.* alawin kiri.
strong, *a.* káka, lé, lera, řę
inokun; *strong man*, akoni, ala-
gbára.
strong'ly, *adv.* kakaraka.
struggle, *n.* awaya, idžakáđi,
iwaya-idža, owere.
struggle, *v.* šę awaya, džowere,
rá.
strut, *v.* yan.
stub'ble, *n.* akekun.
stub'born, *n.* agidi.
stub'bornness, *n.* aigbo.
study, *v.* keko.
stumble, *v.* koşę.
stumbling, *n.* ikošę.
stumbling-block, *n.* adu-
gbolú, dugbolú.
stupid, *a.* ákun, ókun, akun-
reřę gígó, gý, qhę.
stupid'ity, *n.* gígó.
stutter, *v.* kólolo.
stutterer, *n.* akólolo.
subdue, *v.* šę, šę ikáwó.
submit, *v.* forifun, foribále,
tula.
substitute, *v.* fi...likpo, gbi-
kpo.
substitute, *n.* agbikpo.
sub'terfuge, *n.* awawi.
sub'tlety, *n.* erę, ogbonkó-
gboy.
succeed, *v.* bi, telę.
success, *n.* áşiki.
success'ion, *n.* itele.
success'or, *n.* atele.
suc'cor, *v.* gbá, gbá...lęwó.
such, *pron.* iru.
suck, *v.* mọ, mu.
suck'le, *v.* ři omu fu.
sud'den, *a.* šę óđidži, óđi-
dži.
sud'denly, *adv.* lodžidži, kpa,
kperę.

sud'denness, *n.* óđidži.
sue, *v.* fi...şę, şę, sin.
suff'er, *v.* džiya.
suff'erer, *n.* óđiya.
suff'ering, *n.* iya.
suff'icient, *a.* tó.
suff'ocate, *v.* řin.
su'gar, *n.* iye-óibó.
su'gar-cane, *n.* řreke.
suggest, *v.* kpomo.
su'icide, *n.* ikpara.
suit, *v.* bade, ba...şe, řę.
suit'able, *a.* wý, ye.
suit'ableness, *n.* abade, iwo.
sul'try, *a.* moru.
sum'merset, *n.* okiti; *to turn*
a sunmeret, takete.
sum'mit, *v.* ori.
sump'tuous, *a.* adidęn.
sump'tuously, *adv.* didęn-
didęn.
sum, *n.* orun.
sun'rise, *n.* ilá orun.
sun'set, *n.* iwó orun.
sun'shine, *n.* iran orun.
superadd'ed, *n.* awisi.
superintend, *v.* řodžuto, wó,
tedža.
superintend'ence, *n.* aho-
džawó, ibodžawó.
superintend'ent, *n.* alafiyesi,
akufóđžuto.
superior, *n.* are; *to be supe-
rior*, šare.
superior'ity, *n.* išare.
superscrip'tion, *n.* akolé.
supersti'tion, *n.* isiykúşin,
ekokęko.
sup'per, *n.* asę-alę.
supplant, *v.* džá...leşę.
sup'plement, *n.* ekon.
sup'pliant, *n.* onibębe.
sup'plicate, *v.* bę, bebe.
supplica'tion, *n.* řbe, ilębe.
support, *n.* atęhinti.
support, *v.* řehinti, ři, ři...le-
hin.
support'er, *n.* alafęhinti, oni-
řararę.
suppose, *v.* daba, fikpę, koşę-
kpe, šebi, támaha.
suppress, *v.* fi...kpanę, lo-
...mólę.
sure, *a.* da...lodžú.
sure'ty, *n.* onigbawó.
sur'face, *n.* odžú, ori.
sur'ly, *a.* řonę.
surmount, *v.* bóri.

sur'name, *n.* akpelo.
surpass, *v.* bóri, džú, řę...ko-
dža.
sur'plus, *n.* iyokun.
surprise, *n.* sun, idži.
surprise, *v.* bábadža, da...
nidži, wá...řem.
surrender, *v.* tuba.
surround, *v.* bá...ka, fi...
yika, ka...mó, řę...gbaká,
yika.
surround'ing, *n.* abuka, aka-
mó, ayika.
survey, *v.* wó, be...wó.
suspect, *v.* fi...mó.
suspend, *v.* fi...ba, fi...ko,
fi...ři, gbe...ba, řę, sorę.
suspi'cious, *n.* ařęranmó.
suspi'cious, *a.* ařara, řara.
suspi'ciously, *adv.* koiroi.
sustain, *v.* ři...řehin.
swad'dle, *v.* gbá...řolža.
swal'low, *v.* mi, gbe...mi.
swap, *v.* kpaşikpara.
swarm, *n.* okpawęn; *in a*
swarm, řęn.
swarm, *v.* ša.
sway, *v.* ři.
swear, *v.* bura, fi...bu, šekpe.
swear'er, *n.* elekpe.
sweat, *n.* ógin.
sweat, *v.* řagun.
sweep, *v.* gba; *to sweep the*
house, gbalę; *sweep the ground*,
gbalę.
sweet, *a.* idęn.
sweet'ly, *adv.* kanmukamun,
kaunkun.
sweet'meats, *n.* adidęn.
sweet'ness, *n.* didęn, řdęn,
idęn.
swell, *v.* buke, ru, wú.
swell'ing, *n.* wiwu.
swept, *a.* egba.
swift, *a.* yara, iyara.
swift'ness, *n.* iyara.
swim, *v.* wý, lawę.
swin'dle, *v.* řę...dže.
swin'dler, *n.* alayandže.
swine, *n.* eřede.
swing, *v.* ři, řę.
swing'er, *n.* ori.
switch, *n.* orę, kpatię.
swollen, *a.* wiu.
swoon, *v.* daku.
sword, *n.* agbe, bla.
sy'rup, *n.* oyin.

T.

ta'ble, *n.* aga, itafo.
 tack, *n.* isó.
 tail, *n.* iru.
 tai'lor, *n.* arunso.
 tai'loring, *n.* iraniso.
 take, *v.* fi...nu, gbá: *to take*
away, gbe...lôh, ko...lôh;
take up, ko.
 tak'ing, *n.* igbe.
 tale'-bearer, *n.* ofófo, olofofo,
 oloforo.
 talk, *v.* sê, sôro: *to talk about*,
 da...sô.
 talk, *n.* osô.
 talk'ative, *a.* dâni, sôso.
 talk'atively, *adv.* kporokporo.
 talk'er, *n.* alaroye, alaso.
 tall, *a.* ga.
 tall'ness, *n.* agogo, giga.
 tal'on, *n.* ekay.
 ta'marind, *n.* adzagbon.
 tambourine', *n.* sekere.
 tame, *v.* sin, tu...lodzú.
 tame, *a.* mólzú, osu, rýdzú.
 tan'gled, *a.* kiredze.
 tan'ner, *n.* alawô.
 tap, *v.* dži, dzin, tú.
 tar'dy, *a.* lora.
 tar'ry, *n.* kpe.
 task'master, *n.* akonišise.
 taste, *v.* tó, tó...wô.
 tattle, *v.* šofofe.
 tat'ler, *v.* alakadeke, ofofo.
 attoo', *v.* kô, kolá.
 attoo', *n.* ilá.
 attoo'er, *n.* olólá.
 attooed', *a.* onilá.
 taught, *a.* akotán.
 tax, *n.* owôbode.
 teach, *v.* kô, kôni.
 teach'er, *n.* akoni, oluko, olu-
 kôni.
 tear, *n.* omilze, omi edzú.
 tear, *v.* yá, fá...ya.
 teat, *n.* qnu.
 tell, *v.* ro, rôh, wí.
 tell'ing, *v.* ero, iro.
 tem'perance, *n.* ainekôza,
 akparanjo.
 tem'pest, *n.* idzi, efúh, nlá.
 tem'ple, *n.* (*of the fur*), erán;
 (*place of worship*), ile mimó.
 tempt, *v.* day...wô.
 tempta'tion, *a.* idanwô.
 tempt'er, *n.* onidanwô.
 ten, *num.* ewá, mewá.

ten'der, *a.* oronu, rô.
 ten'derness, *n.* ironu.
 tent, *n.* agô.
 tent, *n.* gbeogô.
 tenth, *num.* kôwa: *a tenth part*,
 idanewa.
 te'pid, *See lukewarm*.
 terms, *n.* arosilê, arotelê.
 ter'minate, *v.* kâse, kú, kpe-
 kun, nikpekun, kpín, kpínle.
 termina'tion, *n.* atubótán, ikú.
 ter'rapin, *n.* awon, idzakpa.
 ter'rible, *a.* deru.
 ter'ribleness, *n.* êru.
 ter'rify, *v.* deruba, daiyafô.
 tes'ticle, *n.* êkpôn.
 tes'tify, *v.* gbá...eridze, gbá
 ...leridze, dzeleri.
 tes'timony, *n.* eri, idzerí.
 tex'ture, *n.* irô.
 than, *conj.* dzú: *better than I*,
 dara dzú mi.
 thank, *v.* dukpe, šokpe.
 thank, *n.* êkpé.
 thank'ful, *a.* amore.
 thank'fulness, *n.* adukpe.
 thank'less, *a.* adukpe.
 that, *pron.* ná, ní, eyiná, eyini.
 that, *conj.* kí, kpe, nikpé.
 thatch, *v.* bôlé.
 thatch'er, *n.* bôlelôle.
 thaw, *v.* yô.
 thee, *pron.* iwô, o, rê.
 theft, *n.* ôle.
 their, *pron.* tiwon.
 them, *pron.* awon, nwon, won.
 themselves', *pron.* awon ná.
 then, *adv.* nigbaná.
 then, *conj.* ndze.
 thence, *adv.* tibi.
 thencefor'ward, *adv.* lati ilê
 lôh.
 there, *adv.* ilê, mbê, nilê, sibi,
 ŝhunj.
 there'about, *adv.* nilha ilê,
 nitori rê.
 thereaf'ter, *adv.* lehin igba ná.
 thereby', *adv.* nikpati rê.
 there'fore, *adv.* itori, nitoriná,
 ndzê.
 therein', *adv.* ninô rê.
 these, *pron.* iwonyi, nwonji,
 wonji.
 they, *pron.* awon, nwon, á.
 thick, *a.* kí, nikpon, šun.
 thick'et, *n.* ošúšú, igbe.
 thick'ly, *adv.* kobikobi.
 thick'ness, *n.* iki, ikpon.

thief, *n.* édzikan, ôle.
 thief'ishly, *adv.* dzindi dži-
 ndi.
 thigh, *n.* itan.
 thin, *a.* beje, belebebe, fele, fele-
 fele.
 thine, *pron.* terê, tirê.
 thing, *n.* ienu, kini, nkán, onuj.
 think, *v.* daba, gbéro, rò.
 think'ing, *n.* aba, irô.
 third, *num.* keta: *a third part*,
 idanewa.
 thirst, *n.* ogbge.
 thirst, *v.* longbe.
 thirs'ty, *a.* ogbge gbe mi (*I*
am thirsty).
 thir'teen, *num.* etalá.
 thir'ty, *num.* ogbôn.
 this, *pron.* yi, eyi, eyiji, alayi, ele-
 yi.
 this tie, *n.* ewon.
 thi'ther, *adv.* bolun, nibê.
 thorn, *n.* egún, egun.
 thorn'y, *a.* egegun.
 tho'roughly, *adv.* dzale, dzale
 dzale, šaka, šanšanj, toto.
 those, *pron.* iwôni, wôni.
 thou, *pron.* iwô, o, o.
 though, *conj.* amôkpé, bí, bí
 ...tíle.
 thought, *n.* êro, ete, ironô.
 thought'ful, *a.* šara, ašaro,
 olušaro.
 thought'less, *a.* alairo, aimete.
 thought'lessness, *n.* airo.
 thou'sand, *num.* egberun.
 thrash, *n.* iwô.
 thread, *n.* owú.
 threat, *n.* ilo, ikilo.
 threat'en, *v.* kilô, yanhun.
 three, *num.* eta, meta.
 three'fold, *n.* meteta.
 thresh, *v.* kpáka.
 throat, *n.* onirin.
 throb, *v.* ro.
 throne, *n.* ite.
 throng, *v.* ha...laye.
 thorough, *prep.* dzá.
 throughout', *prep.* dzá, dzá-
 hýdzáhin.
 throw, *v.* dzá, dzunô, so, šonô,
 tanô: *to throw in wrestling*, da
 ...nidza.
 thrush, *a.* elúla.
 thrust, *v.* kiwêbo, gún.
 thumb, *n.* atamkpako, igboro-
 bo.
 thump, *v.* tí.

thun'der, *n.* arā.
 thun'der, *v.* kù, sāj.
 thus, *adv.* haup, behe.
 thwart, *v.* bábulá.
 thy, *pron.* rē.
 thyself, *pron.* iwō ná.
 tick, *n.* egbōy.
 tick'le, *v.* kē...legake, riy.
 tick'ling, *n.* egake, eganī, egi-ni.
 tid'ings, *n.* ihin.
 ti'dy, *v.* fíndú.
 ti'dy, *a.* áfíndú, éleye.
 tie, *v.* di, rà, sāj, so: *to tie to*, somó; *tie loads*, deru; *tie a knot*, sokpa.
 tight, *a.* lé, di.
 tight'en, *v.* fá...lé.
 tight'ly, *adv.* gbáugbam, kpín-kpín.
 till, *conj.* digbati, titi, toni.
 till, *v.* ro, roko.
 till'er, *n.* alaroko.
 tim'ber, *n.* ifi, igi.
 time, *n.* akóko, arin, arínko, ewò, ila, igba, wakati: *Time is flying*, odzò nřò lóh.
 time-server, *n.* odzulafeni.
 ti'mid, *adj.* beruberu, lodzò.
 timid'ity, *n.* odzò.
 ti'midly, *adv.* beruberu.
 tin, *n.* tangara, tasa.
 tin'der, *n.* lewu.
 tin'der-bag, *n.* ákpo-isana.
 tip, *n.* šonšo.
 tip'pler, *n.* omoti.
 tip'sy, *a.* ęti nkpa mi (*I am tipsy*).
 tip'toe, *adv.* tiro.
 tire, *v.* dāsa.
 tired, *a.* āre nře, gāsa.
 tire'some, *a.* lāre.
 tithe, *n.* idamewa.
 ti'tle, *n.* onikō.
 to, *prep.* de, fu, fun, si, sōdō, ti.
 toast, *n.* sun, yan.
 tobac'co, *n.* taba: *African tobacco*, ákíra; *Brazilian tobacco*, džuku.
 tobac'conist, *n.* alašára.
 to-day', *loni*, oni.
 toe, *n.* omose: *great toe*, ikpōri; *little toe*, omōlin.
 toge'ther, *adv.* dzo, džumó, kpō.
 toil, *n.* isē ikpa.
 to'ken, *n.* igbowo.
 to'lerate, *v.* dękun si.

toll, *n.* owóbode.
 toll'gate, *n.* ibode, ęna ibode.
 toll'gatherer, *n.* agbowóde.
 to'mahawk, *n.* ganuganu.
 toma'to, *n.* igbá.
 tomb, *n.* ilé okú, ilękpa.
 to-mor'row, *n.* ęla;—*adv.* lola.
 tongs, *n.* ęmu.
 tongue, *n.* abōy, awōy.
 too, *adv.* kpēlu.
 tool, *n.* clā, ohun ęna.
 tooth, *n.* akoko, eluy, eyin.
 tooth'ache, *n.* ehindōy.
 tooth'less, *a.* akayin.
 top, *n.* ęke, ori: *on top*, sori.
 top'most, *a.* agāugan.
 tor'ment, *n.* isē oró, oró.
 torment', *v.* da...loro, kusi, kponlodzu, šisē oró.
 torment'or, *n.* asoro.
 tor'toise, *n.* awōy.
 tor'ture, *v.* da...loro.
 to'tal, *a.* ętoto, toto.
 total'ity, *n.* ętoto.
 touch, *v.* fowota, fowoba, kán, tó, tó...lara.
 tough, *a.* gbó, yi.
 tough'en, *v.* nu or še...gbó.
 tough'ness, *n.* agbó, egbó.
 towards', *prep.* ikódzusi, loęk-kay, ękọkay, siha, sikpa.
 tow'el, *n.* inędzu, inęse, inęwó, tobi, tobinwó.
 tow'er, *n.* ilé isę, ore.
 town, *n.* ilu.
 track, *n.* ęse, ikpa, ikpase.
 track, *v.* tona, tęse.
 trade, *v.* nadza, šowo.
 trade, *n.* owó, dđza.
 trad'er, *n.* aladzakpa, alarobó, asówó, onisówó.
 tradi'tion, *n.* atówodowo, itan, ęwodówó.
 tradi'tioner, *n.* arokín, ologbó.
 traf'fic, *v.* nadza, šowo.
 traf'fic, *n.* adzakpa, arobó, owó.
 trail, *n.* ilalo, ikpa.
 trail, *v.* tųkpa, tęse.
 train, *v.* tų.
 trai'tor, *n.* aláfihàn, ędálę, onikukpani.
 tram'ple, *v.* tę, tęlę, tęlese, tę...silę, tęmó, tę...mólę.
 tran'quil, *a.* rolę, tóro.
 tran'quillize, *v.* mu...rolę.
 transact', *v.* še.
 transcend', *v.* dđa, bóri, kodza.
 transfi'gure, *v.* kpára...dđa:

he was transfigured, ara tę kpádá.
 transgress', *v.* dāran, šęran, reluy, rufiy, yinliy.
 transgression, *n.* idaran, ire-kpa.
 transgress'or, *n.* alarekódza, arufiy.
 translate', *v.* rę.
 transpa'rent, *a.* mó.
 transplant', *v.* lę, lę.
 transport', *v.* ko...lęh.
 transportation, *n.* ikolęh.
 trap, *n.* ęliti, ęge, ęsónšoy, ikękkošoy, iriy.
 tra'vail, *v.* ríbi.
 tra'vel, *v.* radzò, rebi.
 tra'veller, *n.* aradzò.
 tra'velling, *n.* (together), adzoyin.
 tra'verse, *v.* fá...dđa.
 tread, *v.* tęlę, tęlese, tę...mólę.
 trea'dle, *n.* itęse.
 trea'son, *n.* ęsę oba.
 trea'sure, *v.* il...šura, šura.
 trea'sure, *n.* šura.
 trea'ty, *n.* ikpinu.
 tree, *n.* igi.
 trem'ble, *v.* wá, wárirí.
 trem'bling, *n.* ęwariri.
 trem'blingly, *adv.* riri.
 tre'mulously, *adv.* titi.
 trench, *n.* iyara.
 tres'pass, *v.* dāran.
 tress, *n.* iwedze.
 tri'al, *n.* idaywó.
 tri'angle, *n.* oligon metá.
 tribe, *n.* orilę, ęya.
 tribula'tion, *n.* wahala, tulasin.
 trick, *v.* šagalamaša.
 trick, *n.* agulumasa, arękeré-ke.
 tri'er, *n.* amodze, oludanwó.
 tri'fle, *v.* dđahara.
 tri'fle, *n.* inkanķinķan.
 trig'ger, *n.* akérékéré, ękó.
 tri'nity, *n.* ęmetalękan.
 trip, *v.* ara.
 tripe, *n.* itęy, šaki.
 tri'ple, *a.* metęta.
 tri'umph, *v.* šogo, yó.
 tri'une, *a.* metalękan.
 troop, *n.* ęwó.
 trou'ble, *v.* rü, tų, yo...lenu.
 trou'ble, *n.* wahala, isę, iyomu, lili, odzukupon, idžala, irobi-nęlę, ilanilodzu, idawilara, adžaba, abadžo.

trou'bled, *a.* dzowere, kolelẹ.
 trou'blesome, *a.* yemu.
 trough, *n.* ẹkpẹ.
 trow'cl, *v.* abẹpa.
 trow'sers, *n.* ẹkoto; different kinds are called, abẹnu-ẹbẹgba, alongo, ẹfà, iyegbe.
 true, *a.* titọ, tọ.
 tru'ly, *adv.* lẹtitọ, lẹtọ, nitọtọ, m̀.
 trum'pet, *n.* ikpẹ.
 trum'peter, *n.* onikpẹ, afonkpẹ.
 trunk, *n.* akpoti.
 trust, *n.* ẹgbẹkẹlẹ, ẹgbọ.
 trust, *v.* da... lẹwọ, ẹgbẹkẹlẹ, ẹgbẹkẹlẹ.
 trustee', *n.* ẹgbatolẸ.
 truth, *n.* otitọ, ọtọ, totọ, ititọ, nititọ, dọdọ, dọdọdọ, ododọ.
 truth'ful, *a.* lẹtọ, li ododọ, ododọ.
 truth'less, *a.* aibitọ, aibitọ.
 try, *v.* dap... wẹ, rọdzu.
 tu'ber, *n.* ẹta.
 tum'ble, *v.* togedẹgba.
 tu'mor, *n.* wiwu, ọwo.
 tu'mult, *n.* ẹlẹgini, trikerido, nukerido, irulu; *to make a tumult*, rọkẹkẹ.
 tune, *n.* ọrín.
 tu'nic, *n.* alukasafu, kukunú.
 tur'key, *n.* toloolọ.
 turn, *v.* dà, kpada, kpada... dà, kparidà, yẹ, yẹra, yì, yì... kpada, yikpẹ.
 tur'tle, *n.* awọ.
 tut! *interj.* sít!
 twelfth, *num.* ẹkolẸlì.
 twelve, *num.* edẸlì, medẸlì.
 twen'ty, *num.* ogún.
 twice, *adv.* medẸlì, kmedẸlì.
 twig, *n.* kpatig.
 twi'light, *n.* ifi, ifigig, wiri-wiri.
 twin, *n.* edẸre, ibedẸ.
 twine, *n.* okún t́pín.
 twine, *v.* ká.
 twin'kle, *v.* ẹy.
 twink'ling, *n.* ẹy.
 twist, *v.* kọkọ, keredze, ẹy, wẹ, wẹ... kẹpẹ.
 twist'ed, *a.* lẹ.
 two, *num.* edẸ, medẸ.
 two'-edged, *a.* edolẸ medẸ.
 two'-fold, *a.* medẸmedẸ.
 ty'rannize, *v.* ẹs sísíní.
 ty'rant, *n.* sísíní

U.

udder, *n.* ẹmú.
 ug'liness, *n.* iburu edẸ.
 ug'ly, *a.* buru, kọ dara.
 ul'cer, *v.* itanjpara.
 ul'cerate, *v.* tanjpara.
 umbrel'la, *n.* ẹbẹnibọ, ikporu.
 una'ble, *n.* aile, kọ lẹ.
 unaccep'ted, *a.* aigbà.
 unaccom'modating, *a.* aise-
 nia, awọ, asawọ.
 unaccom'panied, *a.* aisin.
 unaccom'plished, *a.* aisetan,
 aikpin.
 unaccount'able, *a.* aini.
 unadapt'ed, *n.* aibade.
 unadorned', *a.* aiseleso.
 unadul'terated, *a.* ailaibala.
 unani'mity, *n.* olun káp.
 una'nimous, *a.* lolun káp.
 unapproach'able, *a.* aiseyin.
 aiseyin.
 unasked', *a.* aikpẹ.
 unavail'ing, *a.* asin, lasin.
 unbar', *v.* tũ, sũ.
 unbelief', *n.* aigbagbọ, aigbọ,
 aigbagan.
 unbelieve'r, *n.* alainigbagbọ.
 unbelieve'ing, *a.* kọ se igbagbọ,
 aigbagbọ.
 unbelov'ed, *a.* aife, alaiife.
 unbid'den, *a.* aikpẹ.
 unblest', *a.* alainkun.
 unbri'dle, *v.* tu ni idzan.
 unbrot'en, *a.* aife.
 unbuilt', *a.* aikpẹ.
 uneas'ing, *a.* aidi, aiyẹ.
 uncer'tain, *a.* sanfani.
 uncer'tainty, *n.* aniani.
 unchain', *v.* tu... lẹwọ.
 unchange'able, *a.* aikpada,
 aikpada, aidiyato.
 uncha'ritable, *a.* aife, alai-
 feni.
 uncha'ritableness, *n.* aife.
 unci'runcised, *a.* aikolà,
 alaikolà.
 unci'rcumci'sion, *n.* alaikolà.
 unclean', *n.* aini.
 unclean'ness, *n.* aife.
 unclothed', *a.* aibora.
 unconcern', *n.* aibere, aikiyesi.
 uncorrupt'ible, *a.* aidiabale,
 aidiabale.
 uncorrupt'ness, *n.* aidiabale.
 uncount'ed, *a.* aiká.

unco'ver, *v.* sũ.
 uncul'tivated, *a.* airo.
 uncut', *n.* aike, aikpa, aife,
 aidi.
 undaunt'ed, *a.* aibeni.
 undeceit'fulness, *a.* aisetan.
 undefend'ed, *a.* aibó, alaiibó.
 undefiled', *a.* ailaibawọ.
 un'der, *prep.* labe, aisi.
 underneath', *prep.* abẹ, labe,
 isale, aisi.
 understand', *v.* mọ, ridi, ye.
 understand'ing, *n.* iye, iyen.
 oyẹ, imoye.
 understood', *a.* ayetan.
 undertake', *v.* dawolẹ.
 undertak'ed, *n.* adawolẹ.
 undeserv'ed, *a.* aidiye, aidiye.
 unde'viating, *a.* aiyakpa.
 undiscern'ing, *a.* ainiyen.
 undis'ciplined, *a.* aikpẹ.
 undo', *v.* tũ.
 undone', *a.* aise, abadze.
 undoubt'edness, *a.* aisiye-
 medzi.
 undress', *v.* bo aiso lẹ.
 undy'ing, *a.* aiká.
 unea'sy, *a.* doro.
 uneat'ableness, *n.* aidiye.
 une'ducated, *a.* aikpẹ.
 unembar'rased, *a.* aidanu.
 unendu'rableness, *n.* aikpẹ.
 une'qual, *a.* aisegebe.
 une'venly, *adv.* kabakaba,
 yanyan, ẹkisiaki.
 unfair', *n.* aife.
 unfaith'ful, *a.* aisele.
 unfeigned', *a.* aisetan.
 unfin'ished, *a.* asekin, ti.
 unfit', *a.* alaiye.
 unfold', *v.* tũ.
 unforeseen', *a.* aifele.
 unfound'ed, *a.* aini.
 unfre'quent, *a.* kede.
 unfruit'ful, *a.* alaiso, sekpon.
 unfulfilled', *a.* aise.
 ungathered', *a.* aikpẹ.
 ungrate'ful, *a.* aibikpore, afe,
 alainore, fesi.
 unguard'ed, *a.* aise.
 unhap'piness, *n.* adzabá.
 unheal'thy, *a.* aileri.
 unheard', *a.* aigbọ.
 unheed'ed, *a.* aikiyesi.
 unhe'sitating, *a.* aisiyeme-
 dzi.
 unho'liness, *n.* ainiyin.
 unho'ly, *n.* ainiyin.

unhonored, *n.* aṣṣala, aṣṣalaha, aṣṣiyin.
 unhook', *v.* tu.
 unhurt', *n.* aṣṣaklara.
 unhum bled, *n.* aṣṣeḡ.
 u'nicorn, *n.* aḡḡaṣṣere.
 uninfec tious, *n.* aṣṣan.
 uninstruct'ed, *n.* aṣṣakpa.
 unintelligible, *n.* aṣṣe.
 unintelligibility, *n.* aṣṣe.
 unintend'ed, *n.* aṣṣakpa.
 uninvit'ed, *n.* aṣṣakpa.
 u'nion, *n.* aṣṣakpa, aṣṣakpa, aṣṣakpa, aṣṣakpa.
 u'nison, *n.* aṣṣanḡanḡ.
 u'nit, *n.* aḡan.
 unite', *v.* aṣṣakpa, aṣṣakpa, aṣṣakpa.
 u'nity, *n.* aḡan, aḡan.
 univers'ally, *adv.* aṣṣa.
 u'niverse, *n.* aḡaṣṣe.
 unjust', *n.* aṣṣe, aṣṣe.
 unjustifi'able, *n.* aṣṣe.
 unkill'ed, *n.* aṣṣakpa.
 unkind, *n.* aṣṣe, aṣṣe.
 unknown', *n.* aṣṣe, aṣṣe.
 unlaw'ful, *n.* aṣṣe.
 unlearn'ed, *n.* aṣṣe.
 unleav'ened, *n.* aṣṣe.
 unles', *conj.* aṣṣe, aṣṣe, aṣṣe.
 unlike', *n.* aṣṣe.
 unli'mited, *n.* aṣṣe.
 unlov'ing, *n.* aṣṣe.
 unmade', *n.* aṣṣe.
 unmer'ciful, *n.* aṣṣe.
 unmer'cifulness, *n.* aṣṣe.
 unmin'gled, *n.* aṣṣe, aṣṣe.
 unna'tural, *n.* aṣṣe.
 unnum'bered, *n.* aṣṣe.
 unobserv'ing, *n.* aṣṣe.
 unoffend'ed, *n.* aṣṣe.
 unprepared', *n.* aṣṣe.
 unprofit'able, *n.* aṣṣe.
 unproved', *n.* aṣṣe.
 unquench'able, *n.* aṣṣe.
 unquench'ableness, *n.* aṣṣe.
 unrecap'ed, *n.* aṣṣe.
 unrea'sonable, *n.* aṣṣe.
 unredeem'ed, *n.* aṣṣe.
 unreform'ableness, *n.* aṣṣe.
 unrege'nerate, *n.* aṣṣe.
 unreli'able, *n.* aṣṣe.
 unrepent'ing, *n.* aṣṣe.
 unreply'ing, *n.* aṣṣe.

unright'eous, *n.* aṣṣe.
 unright'eousness, *n.* aṣṣe.
 unripe', *n.* aṣṣe.
 unripe'ness, *n.* aṣṣe.
 unrul'iness, *n.* aṣṣe.
 unrul'y, *n.* aṣṣe.
 unsad'dle, *n.* aṣṣe.
 unshel'tered, *n.* aṣṣe.
 unskil'fulness, *n.* aṣṣe.
 unsought', *n.* aṣṣe.
 unsound', *n.* aṣṣe.
 unsta'ble, *n.* aṣṣe.
 unstained', *n.* aṣṣe.
 unsubdu'ed, *n.* aṣṣe.
 unsuit'ableness, *n.* aṣṣe.
 unsuit'ed, *n.* aṣṣe.
 unthank'ful, *n.* aṣṣe.
 untie', *n.* aṣṣe.
 until', *conj.* aṣṣe.
 untill'ed, *n.* aṣṣe.
 un'to, *prep.* aṣṣe.
 untrained', *n.* aṣṣe.
 untrue', *n.* aṣṣe.
 untru'edness, *n.* aṣṣe.
 unwar'ranted, *n.* aṣṣe.
 unwashed', *n.* aṣṣe.
 unwell', *n.* aṣṣe.
 unwil'lingly, *adv.* aṣṣe.
 unwil'lingness, *n.* aṣṣe.
 unwise', *n.* aṣṣe.
 unwit'nessed, *n.* aṣṣe.
 unwor'thiness, *n.* aṣṣe.
 unwor'thy, *n.* aṣṣe.
 unyield'ingness, *n.* aṣṣe.
 up, *prep.* aṣṣe.
 upbraid', *n.* aṣṣe.
 uphold', *n.* aṣṣe.
 uphold'er, *n.* aṣṣe.
 upon, *prep.* aṣṣe.
 up'permost, *n.* aṣṣe.
 up'right, *n.* aṣṣe.
 up'rightly, *adv.* aṣṣe.
 up'roar, *n.* aṣṣe.
 up'root', *n.* aṣṣe.
 up'set, *n.* aṣṣe.
 up'ward, *n.* aṣṣe.

urge, *n.* aṣṣe.
 u'rine, *n.* aṣṣe.
 use, *n.* aṣṣe.
 use, *n.* aṣṣe.
 use less, *n.* aṣṣe.
 u'sual, *n.* aṣṣe.
 uten'sil, *n.* aṣṣe.
 ut'terance, *n.* aṣṣe.
 ut'terly, *adv.* aṣṣe.

V.

va'cancy, *n.* aṣṣe.
 va'cant, *n.* aṣṣe.
 va'cillate, *n.* aṣṣe.
 va'gabond, *n.* aṣṣe.
 vain, *n.* aṣṣe.
 vain ly, *adv.* aṣṣe.
 vale, *n.* aṣṣe.
 val'ley, *n.* aṣṣe.
 va'luable, *n.* aṣṣe.
 va'lue, *n.* aṣṣe.
 va'lue, *n.* aṣṣe.
 va'n'guard, *n.* aṣṣe.
 va'nish, *n.* aṣṣe.
 va'nity, *n.* aṣṣe.
 van'quish, *n.* aṣṣe.
 va'por, *n.* aṣṣe.
 va'riance, *n.* aṣṣe.
 vari'ety, *n.* aṣṣe.
 vaunt, *n.* aṣṣe.
 vaunt'ing, *n.* aṣṣe.
 vegeta'tion, *n.* aṣṣe.
 vehement ly, *adv.* aṣṣe.
 veil, *n.* aṣṣe.
 vel'vet, *n.* aṣṣe.
 vene'rate, *n.* aṣṣe.
 venera'tion, *n.* aṣṣe.
 ven'geance, *n.* aṣṣe.
 ve'nom, *n.* aṣṣe.
 ve'nomous, *n.* aṣṣe.
 ven'ture, *n.* aṣṣe.
 vera'city, *n.* aṣṣe.
 ve'rily, *adv.* aṣṣe.
 ver'min, *n.* aṣṣe.
 ver'tigo, *n.* aṣṣe.
 ve'ry, *adv.* aṣṣe.

ves'sel, *n.* ohun èlò, ohun ilò.
vex, *v.* bá... níńńdžé, bí... níńń, nilara.
vexa'tion, *n.* ibadže, ilánń.
 irukpekepe.
vexed, *a.* bínńdžé, runń.
vi'al, *n.* okpálaba.
vici'nity, *n.* etile.
victor, *n.* olńsete.
vic'tuals, *n.* onńdžé.
view, *v.* wò.
vile, *a.* abese.
vil'ifier, *n.* alébu.
vil'lage, *n.* égure, iléko, ileto, ilukedzi.
vil'lager, *n.* ará ilu, ará iléko.
vin'dioate, *v.* gbídžá.
vindica'tion, *n.* egbe, igbera.
vindi'cative, *a.* asdro.
vine, *n.* okun (*a term applied to all running and climbing plants*).
vi'olence, *n.* agbara, ele, džám-ba, iwá ikpa.
vi'olent, *a.* kpatí.
vi'olently, *adv.* fukefúke, gburu, kpákpa, kpatikpatí, tũ-tũ, titi.
violin, *n.* dũru.
vi'per, *n.* agbádu, kpamọ́le.
vir'gin, *n.* wundia.
virgin'ity, *n.* iwá wundia.
vis'cid, *a.* mó, emó, fà.
vis'cous, *a.* fà.
vi'sible, *a.* hũn.
vi'sibly, *adv.* ni gbangba.
vi'sion, *n.* inap, iran, odžuran.
vi'sit, *v.* be... wò, kesi, wò.
vi'siting, *n.* abodžuwò.
visita'tion, *n.* abẹwò, ibẹwò.
vi'sitor, *n.* akesi, alakesi, awòni.
viva'city, *n.* iyari.
vi'vidly, *adv.* sãn.
vo'cal, *a.* olóhũn.
voca'tion, *n.* isẹ.
voice, *n.* ohun.
void, *a.* ófo, asũn.
void, *v.* se... dasũn.
vo'luntary, *a.* fura, fũ ará rẹ.
vo'mit, *n.* ebí.
vo'mit, *v.* bí, kpe, ru... laiya.
vora'cious, *a.* onńdžekudžé.
vow, *n.* ileri.
vow, *v.* šelerí.
vulture, *n.* akala, igun, tẹntẹ-re.

W.

wad, *n.* (*of a gun*), idžé.
wad, *v.* kì.
wade, *v.* là.
wag, *v.* redi.
wa'ges, *n.* owóšé, oya.
wa'gon, *n.* kekẹru.
wail, *v.* kpóhũn rere.
wail'ing, *n.* ohun rere.
wait, *v.* digbaro, duro.
wake, *v.* dži, tadži.
walk, *v.* rin.
walk, *n.* akporó.
walk'ing, *n.* irin.
wall, *n.* igana, olí, ogiri.
wall, *v.* modí.
walled, *a.* olodi.
wal'let, *n.* ásunwón, oketè.
wal'low, *v.* kpafo.
wan'der, *v.* kírí, rin.
wan'derer, *n.* akiri, alarinikiri, onikiri.
wan'dering, *a.* akiri.
wan'deringly, *adv.* kírí, kírí-kírí, kakiri.
want, *v.* še alainí.
wan'tonness, *n.* asedžũ.
war, *n.* idža, ogun : *which causes war*, adžagunšilẹ.
war, *v.* džagun.
warm, *a.* gbona, ya.
warm, *v.* rana, ya, yama, yàra.
warn, *v.* kilọ.
warp, *n.* irọ.
warp, *v.* tašọ.
war'rior, *n.* adžagun, ologun.
wart, *n.* óli.
wash, *v.* bọ, fẹ, wẹ, ši... nọ : *to wash the face*, bọdžũ ; *wash the body*, lọra, wera.
washed, *a.* awẹnọ.
wash'erwoman, *n.* alagbafẹ, onifẹ.
wasp, *n.* agbọp.
waste, *v.* da... nọ, fi... šofa, šofa, tafala.
wast'er, *n.* áwanọ.
wast'ed, *a.* alánọ, fo.
waste'fulness, *n.* bọnikọnn.
watch, *v.* šó, šona, šora.
watch, *n.* isẹ.
watch'er, *n.* oluše.
watch'fulness, *n.* isora.
watch'man, *n.* ešẹ.
watch'tower, *n.* ore.
wa'ter, *n.* omí, ólo.
wa'ter, *v.* rin.

wa'ter-course, *n.* ódo, ikpa òlo.
wa'ter-melon, *n.* guna, bara.
wa'ttle, *v.* lá.
wat'tle, *n.* toló.
wave, *n.* irumi, tere.
wa'vering, *a.* še wele.
wav'ingly, *adv.* wele.
wax, *n.* ida, òla.
way, *n.* òna, ikpa.
way'layer, *n.* alabamọ́le.
we, *pron.* awa, á.
weak, *a.* alalera, ešekeredẹ, keredẹ.
weak'ly, *adv.* hente.
weak'ness, *n.* ailera.
wealth, *n.* olá, orọ.
wealth'y, *a.* olorọ.
wean, *v.* dža... lẹnu, we, wọy.
wea'pon, *n.* eló.
wear, *v.* wòšọ : *to wear out*, lò... gbó.
wea'ried, *a.* lāre.
wea'riness, *n.* agara.
wea'ry, *v.* da... lagá, rẹ, sá.
wea'ry, *a.* lāre.
wea'ther, *n.* olžo.
weave, *v.* wọy, wónšọ.
weav'er, *n.* alukele, awọnšọ : *weaver's beam*, akabẹ.
wed'ding, *n.* ilí-iyawo.
weed, *v.* ro.
week, *n.* ošẹ.
weep, *v.* sokun.
weep'er, *n.* ešekun.
weep'ing, *n.* ešun.
weigh, *v.* wọn, šiwọn.
weight, *n.* ošuwọn.
weight'ily, *adv.* rinrin.
well, *n.* kanga.
well (it is), *adv.* sian, suan.
well, *adv.* gegge, džodžọ, lehe, kputti, rere, šaunšau, to, tohọ.
wen, *n.* gẹgẹ, koko.
west, *n.* atiwo-orun, yama.
west'ward, *adv.* niha yama.
wet, *a.* tutu.
wet, *v.* rin, wẹ.
weth'er, *n.* ogufe.
wet'ness, *n.* itutu.
whale, *n.* abúnibutáy.
wharf, *n.* elute.
what, *pron.* bítí, ċ, ewó, kí, kíula.
what else? *adv.* ambošin, am-bòtori.
whate'ver, *pron.* kati.
wheat, *n.* alikána.

wheel, *n.* kẹkẹ.
when, *adv.* nìgbà, nìgbati, nì-
 ghawo? ti.
whence, *adv.* bí, nìbiti, nìbo,
 nìboti.
where, *adv.* dà, ibo, ìbisi, nì-
 biti, nìbo, nìboti, sà, sia, wà, tí.
whereas, *adv.* nìbí.
whereby, *adv.* lẹ́bawo.
wherefore, *adv.* nitorinà.
wherever, *adv.* nìbikìbí.
whet, *v.* gbẹ́, kpon, kpọ́n ...
 nu.
wheth'er, *conj.* bí, yala.
which, *pron.* è, ewó, kelo, tí,
 yisi.
while, *adv.* nìgbà, nìgbati.
whip, *n.* lagbà, kpaşan.
whip, *v.* dà, nà.
whipping, *n.* inà.
whirl, *v.* dzo, lori, kpòrì.
whirling, *n.* ilori.
whirlwind, *n.* idži.
whisper, *v.* sọrọ́džédžẹ, sọrọ-
 kẹ́ẹ.
whisperer, *n.* asọrọ́džédžẹ,
 asọrọ́kẹ́ẹ.
whistle, *n.* akpala.
whistle, *v.* sufe.
white man, *n.* ambó, oibó,
 oyibó.
whiteness, *n.* alala, fífú, fufu,
 ifun, tála.
whither, *adv.* nìbo.
whit'low, *n.* atafo.
who? *pron.* ta? tani? *who*, ti.
whoever, *pron.* ènikeni ti.
whole, *n.* oídídí, ọ́tọ́tọ́, tító.
wholly, *adv.* kpatakpata, kpi,
 šaka, tẹ́fẹ́tẹ́fẹ́, tí ... tí.
whoop, *v.* kigbẹ́.
why, *adv.* è še ti, eháše, ehátiše,
 èšẹ́, ẹ́tiše, ewó.
wick, *n.* owú.
wicked, *a.* buru, ọ́wọ́n.
wickedly, *adv.* fura.
wickedness, *n.* iluru, ikà,
 ikakika, isẹ́kaše, iwà lẹ́buru.
wide, *a.* gbàgbà, gbòro.
widely, *adv.* gbẹngbẹ.
wide-mouthed, *a.* abẹnu-
 gbòro.
widen, *v.* nu or še ... gbòro.
widow, *n.* okpó.
width, *n.* ilu, igbòro.
wife, *n.* aya, abilekọ.
wild, *a.* igbẹ́, tí igbẹ́.

wild'cat, *n.* akata, agbó.
wilderness, *a.* agayí-láú, agin-
 dži, idžn.
wildfowl, *n.* ẹ́yẹ́ igbẹ́.
will, *aux.* á, ọ́, ẹ́, ba, dżẹ́.
will, *n.* ifẹ́.
willfulness, *n.* amọ́še.
willfully, *adv.* furafura.
will'ing, *a.* fẹ́, dżẹ́.
will'ingly, *adv.* tinọ́tinọ́.
win, *v.* lakọ.
wind, *n.* afẹ́fẹ́, ẹ́fufu.
wind, *v.* kà dāwú, káwe, káwu,
 wemọ́: *to wind together*, wekpọ́.
wind'ow, *n.* fẹ́rese.
wind'pipe, *n.* igbúngo-ọ́fọ́n.
wing, *n.* akpa, akpa-iyẹ́.
wink, *v.* fọ́džákọ́, šedži.
win'now, *v.* fẹ́, fẹ́ ... nọ́: *win-
 nowed away*, afẹ́nọ́.
wipe, *v.* fa, nọ́: *to wipe off*, nọ́
 ... nọ́.
wis'dom, *n.* ọ́gbọ́n.
wise, *a.* amọ́džú, mọ́raş, amọ́-
 raş, olumọ́ráş, gbọ́n, ọ́lọgbọ́n,
 olóyẹ́.
wisely, *adv.* ọ́gbọ́ngbọ́n, fi
 ọ́gbọ́n.
wish, *v.* fẹ́.
wisp, *n.* iti.
witch, *n.* adžẹ́, alawiká, aró-
 níká, awirin, ošo.
witch'craft, *n.* isẹ́ ošo.
with, *prep.* bá, fi, fu, fun, lẹ́dẹ́,
 kpehu, tí.
withdraw, *v.* fa ... kpadà.
withe, *n.* okùlọ́.
with'er, *v.* kú, rọ́, rọ́džẹ́, šẹ́kpe,
 wọ́wẹ́.
withhold, *v.* dakun, fa ... se-
 hin.
within, *prep.* ninọ́, tinọ́.
without, *adv.* lode, lehin.
without, *prep.* lalú.
withstand, *adv.* de ... lẹ́na,
 kodžnžda.
wit'ness, *n.* ẹ́lẹ́rì, ẹ́rì.
wizard, *n.* alawiká, aróníkà,
 awirin, ošo.
woe, *n.* egbẹ́: *woe unto thee*,
 egbẹ́ ní fú ẹ́.
wo'man, *n.* obiri, obínri.
womb, *n.* inọ́.
won'der, *v.* yamu.
won'der, *n.* ẹ́mọ́, iyamu.
won'derful, *n.* gáša, kpa.
woo, *v.* fẹ́.

wood, *n.* igi.
wood'en leg, *n.* angere.
wood'pecker, *n.* akoko.
woof, *n.* ita, okuku.
wool, *n.* irọ́n agutan.
word, *n.* gbólólhun, ọ́rọ́.
work, *n.* isẹ́.
work, *v.* šisẹ́.
work'man, *n.* oniše.
work'shop, *n.* ilẹ́ isẹ́.
world, *n.* aiyẹ́, araiyẹ́.
worm, *n.* arọ́n, ẹ́džonọ́, ekolo,
 kòkòrò.
worm'eaten, *a.* adža.
worse, *a.* kẹ́.
wor'ship, *n.* isin.
wor'ship, *v.* bo, bọ́gi, foribale,
 lari, sin, te, wari.
wor'shipper, *n.* oluşin.
worth'iness, *n.* ẹ́yẹ́.
worthless, *a.* nykan'nykan.
worth'y, *a.* yẹ́.
would, *aux.* ba, dżẹ́.
wound, *n.* farakpa, kpa ... lara,
 rán, šá, ša ... logbẹ́.
wound, *n.* ọ́gbẹ́.
wran'gling, *n.* asọ́, asọ́kpọ́.
wrap, *v.* fi ... we, gbà.
wrath, *n.* ibinọ́.
wreath, *n.* mariwo.
wrest, *v.* ló.
wres'tle, *v.* dżakadi.
wres'tling, *n.* idža, idžakadi.
wrig'gle, *v.* še owere.
wrig'gler, *n.* oniwere.
wring, *v.* ló.
wrin'kle, *n.* kiwedže.
wrin'kle, *n.* ikiwedže, iwedže.
write, *v.* lantú, kọ́, kowe.
writ'er, *n.* akówe.
writhe, *v.* še owere.
writ'ing, *n.* rubutu, ikowe.
wrong, *a.* alańń.
wrong, *n.* alašótó.
wrong'fulness, *n.* odi.
wrong'ness, *n.* alašótó.

Y.

yam, *n.* isá, abadžẹ́, esuru, gudu-
 gudu, iganjan.
yard, *n.* isabọ́tì.
yarn, *n.* owú.
yawn, *v.* yáp.
yaws, *n.* gbólógi.
ye, *pron.* ẹ́nyin, ẹ́nyì, nyin nyin.

yea, *adv.* aní, kpelukpelu.

year, *n.* ayilá, ódún.

yearly, *a.* ọdọdun.

yearly, *adv.* lọdọdun.

yeast, *n.* iwukara.

yelk. See *yolk*.

yellow, *a.* beledže, šafakpukpa.

yes, *adv.* behe ní, e, eyi, he, heyi, ọhọ.

yesterday, *adv.* ana, lana.

yes'ternight, *n.* ọru ana.

yet, *adv.* sibé.

yet, *conj.* šugbón.

yield, *v.* dẹkun, rọ.

yield'ing, *a.* lẹlẹ.

yoke, *n.* adžaga.

yoke, *v.* di li adžaga.

yolk, *n.* kpukpa eyin.

yon'der, *adv.* ọhun, lọhun, sọhun.

yore, *n.* lailai.

you, *pron.* iwọ; *pl.* nyi, nyin.

young, *a.* titọ.

younger, *a.* abùro.

young'est, *n.* abikẹhin.

young'ster, *n.* balaga.

your, *pron.* iwọ, rẹ; *pl.* ẹnyin, tẹnyin.

yourself, *pron.* iwọ ná.

youth, *n.* balaga, ewe, ikpere, okpekpe.

Z.

zeal, *n.* itara, igbona.

zeal'ot, *n.* onitara.

zeal'ous, *a.* gbona.

zeal'ously, *adv.* gbonaghona, tasatasa.

ze'nith, *n.* katari, akatari.

ze'phyr, *n.* ọfẹ.

E R R A T A .

GRAMMAR.

Page	4,	line	15,	for	aimò,	read	ahuaò.
"	4,	"	38,	"	asò,	"	asò.
"	5,	"	38,	"	èsé,	"	èsé.
"	6,	"	26,	"	èsé,	"	èsé.
"	34,	"	9,	"	emi kò ri or ò (ri) bi ?	"	emi kò (or ò) ri bi ?
"	38,	"	25,	"	isodé,	"	isodé.
"	56,	"	16,	"	òran	"	òran.

DICTIONARY.

Page	6,	col.	b,	line	9,	for	abénagbòro,	read	abénagbòro.
"	8,	"	a,	"	23,	"	ádire,	"	adire.
"	8,	"	b,	"	27,	"	adzagun,	"	adzagun.
"	8,	"	b,	"	47,	"	adzedzi (bis),	"	adzedzi.
"	9,	"	a,	"	31,	"	adzorin,	"	adzorin.
"	9,	"	b,	"	17,	"	afinòschin,	"	afinòschin.
"		"		"		"	afinòsode,	"	afinòsode.
"	10,	"	a,	"	5,	"	<i>knows the head,</i>	"	<i>knows not the head.</i>
"	10,	"	a,	"	27,	"	agbabon (ibon)	"	agbabon (ibon).
"	10,	"	b,	"	24,	"	agbedzolo,	"	agbedzolo.
"	11,	"	b,	"	36,	"	aiku (bis).	"	aiku.
"	12,	"	a,	"	23,	"	ainniye,	"	ainnye.
"	13,	"	b,	"	28,	"	akórò,	"	akórò.
"	15,	"	a,	"	30,	"	alaikola,	"	alaikola.
"	15,	"	b,	"	14,	"	alaiye,	"	alaiye.
"	15,	"	b,	"	29,	"	alakpédzè,	"	alakpédzè.
"	16,	"	b,	"	17,	"	dele 'alufá,' the definition of which belongs to the preceding word 'alufá.'		
"	18,	"	b,	"	12,	"	asánkòy,	read	asánkòy.
"	19,	"	a,	"	34,	"	asayan,	"	asayan.
"	20,	"	a,	"	20,	"	atidzarun,	"	atidzarun.
"	21,	"	b,	"	1,	"	ayansebi,	"	ayansebi.
"	21,	"	b,	"	27,	"	ayun,	"	ayun.
"	22,	"	a,	"	46,	"	obangidzi,	"	obangidzi.
"	23,	"	b,	"	29,	"	mólé,	"	mólé.
"	25,	"	a,	"	38,	"	dè alya,	"	dè alya.
"	28,	"	b,	"	33,	"	leri,	"	leri.
"	30,	"	b,	"	37,	"	<i>inflection,</i>	"	<i>inflection.</i>
"	31,	"	b,	"	47,	"	edó (bis),	"	edó.
"	33,	"	b,	"	1-4,	"	eni,	"	eni.
"	36,	"	a,	"	20,	"	še-ey,	"	še-ey.
"	36,	"	b,	"	26,	"	menses,	"	nucius.
"	43,	"	a,	"	17,	"	ifihau,	"	ifihau.
"	44,	"	b,	"	34,	"	ikoyolu,	"	ikoyolu.
"	46,	"	a,	"	30,	"	mu,	"	mú.
"	47,	"	b,	"	30,	"	oro,	"	oró.

Page 48, col. a, line 39, for itowò,	read itowò.
" 49, " a, " 20, " iyangbo,	" iyangbo.
" 49, " b, " 51, " <i>adv.</i>	" a.
" 53, " a, " 3, " lōkanḁà,	" lōkanḁà.
" 53, " b, " 2, " owò,	" owò.
" 63, " b, " 5, " orilẹ,	" orilẹ.
" 63, " b, " 29, " ami,	" àmi.
" 64, " b, " 37, " odzò,	" ọdṣò.
" 66, " b, " 8, " idzinlẹ,	" ídẓinlẹ.
" 67, " a, " 37, " eḁò,	" ẹḁò.
" 68, " a, " 8, " rẹ . . . lẹ,	" rẹ . . . lẹ.
" 69, " a, " 32, " sagadaga,	" sagadagbà.
" 70, " a, " 20, " si . . . ndzẹ,	" sìn . . . dẓẹ.
" 70, " b, " 8, " sọ . . . di,	" sọ . . . dī.
" 70, " b, " 21, " sọ . . . di,	" sọ . . . dī.
" 71, " a, " 34, " mu,	" mú.
" 71, " b, " 2, " šala,	" šaba.
" 71, " b, " 12, " šaisan,	" šaisán.
" 72, " a, " 17, " šawotan,	" šawótán.
" 72, " a, " 26, " moḁẹ,	" moḁlẹ.
" 73, " b, " 16, " šiwo,	" šiwo.
" 74, " b, " 38, " laiya,	" laiya.
" 75, " b, " 13, " tẹlẹ,	" tẹ . . . lẹ.
" 75, " b, " 24, " tẹri, tẹriba,	" tẹrī, tẹrība.
" 76, " b, " 41, " tẹdo,	" tẹḁo.
" 77, " a, " 20, " <i>hearer's</i> ,	" <i>hearer's</i> .
" 78, " a, " 52, " woran,	" wòran.
" 78, " b, " 17, " wọlẹ,	" wọlẹ.
" 79, " a, " 5, " yabode,	" yabode.
" 79, " a, " 51, " ya . . . soto,	" yà . . . sọtò.

NOTE.—It is hoped that the reader will make these corrections before using the book; and that he will find some excuse for the number of them, mostly relating as they do to the accentual and diacritical marks, in the fact that in noting these we have as yet to depend in great measure on the ear.

