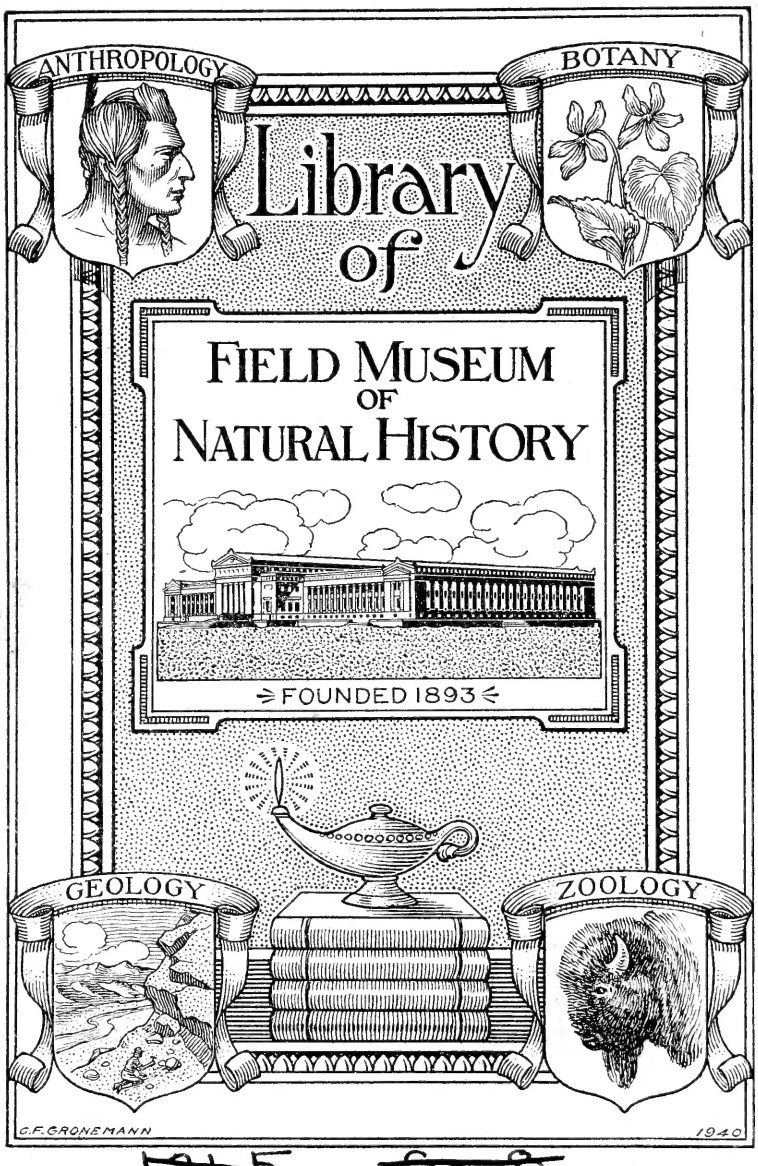

ANTHROPOLOGY
BOTANY
Library
of
FIELD MUSEUM
OF
NATURAL HISTORY
FOUNDED 1893
GEOLOGY
ZOOLOGY
C.F. GRONEMANN
1940

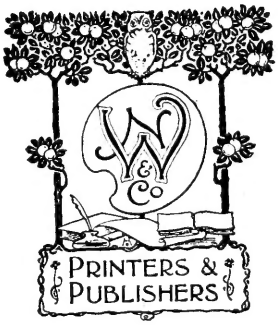
THE TRANSACTIONS

OF THE

SOUTH AFRICAN PHILOSOPHICAL SOCIETY.

VOLUME X.

TRANSACTIONS AND PROCEEDINGS.


W & Co.
PRINTERS &
PUBLISHERS

TRANSACTIONS

OF THE

SOUTH AFRICAN PHILOSOPHICAL SOCIETY.

VOLUME X.

1897–8.

WITH TEN PLATES.

CAPE TOWN:
PUBLISHED BY THE SOCIETY.

1898.

CONTENTS.

LIST OF MEMBERS

OF THE

SOUTH AFRICAN PHILOSOPHICAL SOCIETY,

JULY 31, 1898.

1895. Alston, G., Gardens, Cape Town.
1897. Alston, E. G., Van Wyks Vlei, Carnarvon, C.C.
1890. Amphlett, G. T., Standard Bank, Cape Town
1886. Anderson, T. J., Kenilworth, Cape Town.
1897. Anderson, G. E. C., M.D., 47, Burg Street, Cape Town.
1877. Arderne, H. M., The Hill, Claremont, Cape Town.
1895. Baker, H., Castle Co. Chambers, Adderley Street, Cape Town.
1897. Barker, C. N., Malvern, D'Urban, Natal.
1885. Beck, J. H. M., M.D., Rondebosch, Cape Town.
1897. Beattie, J. C., D.Sc., F.R.S.E., South African College, Cape Town.
1897. Black, R. Sinclair, M.B., Robben Island, near Cape Town.
1883. Bodkin, A. A., M.A., Diocesan Coll., Rondebosch, Cape Town.
1877. Bolus, H., F.L.S., Kenilworth, Cape Town.
1897. Brauns, H., M.D., Ph.D., Port Elizabeth, C.C.
1898. Breyer, H. G., M.D., School of Mines, Pretoria, Z.A.R.
1897. Brown, F. N. Dimock, M.R.C.S.E., Hilton College, Maritzburg, Natal.
1878. Buchanan, E. J., Hon. Justice, Claremont, Cape Town.
1898. Churchill, F. O. F., Chalfort, Gillets, Natal.
1896. Cooper, A., Richmond, Natal.
1894. Corstorphine, G. S., B.Sc., Ph.D., South African Museum, Cape Town.
1896. Cowper, Sydney, Claremont, Cape Town.
1895. Cregoe, J. P., P.O. Box 1420, Johannesburg, Z.A.R.
1895. Crowhurst, J. W., F.R.C.V.S., Stellenbosch, C.C.

1895. Currey, C., Department of Agriculture, Cape Town.
1890. Dodds, W. J., M.D., Mowbray, Cape Town.
1898. Drege, J. L., Port Elizabeth, C.C.
1877. Ebden, Hon. A., Rondebosch, Cape Town.
1897. Eddington, A., M.B., Graham's Town, C.C.
1898. Edwards, A., Diep River, Cape Town.
1896. Evans, M. S., F.Z.S., D'Urban, Natal.
1890. Fairbridge, W. G., 133, Longmarket Street, Cape Town.
1877. Finlay, W. H., M.A., F.R.A.S., Royal Observatory, Cape Town.
1898. Fick, W., Roeland Street, Cape Town.
1877. Fisk, Rev. G. H. R., C.M.Z.S. (*Honorary*), Church House, Cape Town.
1892. Fletcher, W., P.O. Box 79, Cape Town.
1892. Fourcade, H. G., Agricultural Department, Cape Town.
1895. Fuller, E. B., M.B., C.M., F.R.C.S.E., Church Square, Cape Town.
1877. Fuller, T. E., M.L.A., Mowbray, Cape Town.
1895. Gilchrist, J. D. F., M.A., B.Sc., Ph.D., South African Museum, Cape Town.
1879. Gill, David, C.B., LL.D., F.R.S., F.R.A.S., Royal Observatory, Cape Town.
1895. Goodenough, Lieut.-Gen. Sir William H., K.C.B., R.A., F.G.S., Erinville, Rondebosch, Cape Town.
1897. Graham, F. G. C., Somerset East, C.C.
1895. Gregory, Dr. A. J., Colonial Office, Cape Town.
1877. Guthrie, F., LL.B., Rondebosch, Cape Town.
1896. Gunning, J. W. B., Ph.D., Staats Museum, Pretoria, Z.A.R.
1898. Hamilton, T. H., Railway Electrical Works, Cape Town.
1891. Heenan, R. W. Hammersley, M.E.C.E., Port Elizabeth, C.C.
1897. Hewat, M. L., M.B., Mowbray, Cape Town.
1889. Howard, R. N., M.B., Port Nolloth, C.C.
1897. Hugo, D. de Vos, M.B., Worcester, C.C.
1896. Hugo, Hon. J. D., Worcester, C.C.
1891. Hutcheon, D., F.R.C.V.S., Department of Agriculture, Cape Town.
1897. Hutchins, D. E., F.R.M.S., Kenilworth, Cape Town.
1895. Impey, Dr., Overbeek Square, Cape Town.
1883. Janisch, N., Colonial Office, Cape Town.
1889. Juta, Hon. Sir Henry, B.A., Q.C., Kenilworth, Cape Town.
1892. Kannemeyer, J., Dr., Burghersdorp, C.C.
1896. Kitching, C. McGowan, M.D., Burg Street, Cape Town.
1895. Kolbe, Rev. F. C., B.A., D.D., St. Mary's Presbytery, Cape Town.

1898. Leibbrandt, The Rev. H. C. Vos, House of Parliament, Cape Town.
1877. Lightfoot, The Ven. Archdeacon, B.D., Bree Street, Cape Town.
1888. Lindley, J. B., M.A., LL.B., Claremont, Cape Town.
1892. Lithman, K. V., Dock Road, Cape Town.
1895. Littlewood, E. T., M.A., B.Sc., High School, Wynberg.
1895. Lounsbury, C. P., B.Sc., Department of Agriculture, Cape Town.
1897. McPherson, J. W. C., M.B., Stellenbosch, C.C.
1897. Mally, L., 8, Shortmarket Street, Cape Town.
1897. Manikus, J. F., M.D., 57, Grave Street, Cape Town.
1885. Marloth, R., Ph.D., M.A., Church Street, Cape Town.
1887. Marchand, Rev. B. P., B.A., Rondebosch, Cape Town.
1897. Marshall, G. A. K., F.E.S., F.Z.S., P.O. Box 56, Salisbury, Rhodesia.
1896. Mayer, C., Stellenbosch, C.C.
1897. Meiring, I. P. de H., Worcester, C.C.
1896. Morrison, J. T., M.A., F.R.S.E., Victoria Coll., Stellenbosch, C.C.
1898. Mollengraaff, G. la F., Ph.D., Pretoria, Z.A.R.
1892. Muir, T., LLD., M.A., F.R.S.E., Education Office, Cape Town.
1880. Muller, The Rev. H., East London.
1895. Olive, W. T., M.Inst., C.E., 4, National Bank Chambers, St. George's Street, Cape Town.
1884. Péringuey, L., F.E.S., F.Z.S., South African Museum, Cape Town.
1895. Purcell, W. F., Ph.D., South African Museum, Cape Town.
1895. Raffray, A. (Chev. de la Légion d'Honneur), Kloof Street, Cape Town.
1894. Riet, B. Van der, Ph.D., M.A., Victoria Coll., Stellenbosch, C.C.
1892. Roberts, A. W., F.R.A.S., Lovedale, Victoria East, C.C.
1887. Robinson, Miss L. A., All Saints' School, Sea Point, Cape Town.
1895. Rogers, A. W., B.A., F.G.S., South African Museum, Cape Town.
1882. Rose, J. E. B., Sea Point, Cape Town.
1897. Ross, A., F.Z.S., P.O. Box 1461, Johannesburg, Z.A.R.
1890. Ryan, P., Rosebank, Cape Town.
1895. Saunders, H. P., Cape Town.
1877. Saunders, J., Sea Point, Cape Town.
1896. Schreiner, The Hon. W. P., Q.C., Rondebosch, Cape Town.

1890. Schönland, S., Ph.D., M.A., Albany Museum, Graham's Town, C.C.
1878. Schunke-Holloway, H. C., F.R.G.S., Plaisir de Merle P.O., Paarl, C.C.
1895. Schwarz, E. H. L., Assoc. R. Coll. Sc., South African Museum, Cape Town.
1896. Sclater, W. L., M.A., F.Z.S., South African Museum, Cape Town.
1877. Silberbauer, C. F., 4, Liesbeck Villas, Rondebosch, Cape Town.
1877. Smidt, H. de, B.A., Colonial Office, Cape Town.
1877. Smith, Hon. C. Abercrombie, M.A., Audit Office, Cape Town.
1877. Southey, Hon. Sir R., K.C.M.G., Wynberg, C.C.
1896. Stark, A. C., M.B., Eccleston, Torquay, England.
1883. Stewart, T., F.G.S., M.Inst. C.E., St. George's Chambers, Cape Town.
1897. Stewart, C., Meteorological Department, Cape Town.
1878. St. Leger, F. Y., B.A., M.L.A., Newlands, Cape Town.
1897. Sutton, J. R., P.O. Box 142, Kimberley, C.C.
1898. Tennant, David, Kenilworth, Cape Town.
1895. Thomson, W., M.A., B.Sc., F.R.S.E., University Chambers, Cape Town.
1883. Tooke, W. H., Agricultural Department, Cape Town.
1896. Tredgold, C. H., Buluwayo, Rhodesia.
1896. Treleaven, F., Plein Street, Cape Town.
1887. Trimen, R., F.R.S., F.L.S. (*Honorary*), F.Z.S., Entomological Society of London, Chandos Street, London, W.
1895. Trotter, A. P., B.A., M.I.E.E., Post Office, Cape Town.
1898. Trotter, Lieut.-Col. J. K., R.A., The Castle, Cape Town.
1895. Turner, G., M.B., Colonial Office, Cape Town.
1896. Veale, H. B., M.B., Pretoria, Z.A.R.
1897. Versfeld, J. J., L.R.C.S., Stellenbosch, C.C.
1877. Villiers, The Right Hon. Sir J. H. de, K.C.M.G., P.C., Wynberg Hill, Wynberg, C.C.
1898. Waggett, The Rev. P. N., M.A., Mission House, Chapel Street, Cape Town.
1892. Westhofen, W., Public Works Department, Cape Town.
1878. Wiener, L., Newlands, Cape Town.
1898. Wilman, Miss M., Kenilworth, Cape Town.
1897. Wood, J. Medley, Berea, D'Urban, Natal.

ERRATA, VOL. IX. PART 2.

IN MR. FOURCADE'S NOTE ON THE THREE-POINT, OR POTHENOT'S, PROBLEM.

Page 51, line 6, *for* a, *read* a.
,, ,, ,, 7, *for* A, *read* B.
,, ,, ,, 9, *for* β from C and B, *read* b from C and A.
,, 52, ,, 5, *for* C, *read* c.
,, 53, ,, 2 from foot, *for* tan—^{1} m, *read* $\tan^{-1} m$.
,, ,, foot of page, delete March, 1898.
,, 53, add: When $m > 1$, let $m_1 = \frac{1}{m}$; then $y = \frac{m_1 B - A}{m_1^2 + 1}$, $x = m_1 y$.

PROCEEDINGS

OF THE

SOUTH AFRICAN PHILOSOPHICAL SOCIETY.

ORDINARY MONTHLY MEETING.

Wednesday, October 25, 1897.

THOMAS STEWART, F.G.S., M.I.C.E., President, in the Chair.

Twelve members present.

Dr. MACPHERSON, Dr. J. C. BEATTIE, and Mr. J. MEDLEY WOOD were duly elected ordinary members of the Society.

Dr. VERSFELD, Dr. R. S. BLACK, Dr. M. HEWAT, and Messrs. ALEX. ROSS and F. GRAHAM were nominated for election as ordinary members.

The following donations to the Library were announced:

Geological Survey of Canada, Report of, Vol. VIII., 1895.

Geological Survey of Canada, Maps to accompany Annual Report, New Series, Vol. VIII., 1895.

Transactions of the Royal Society of South Australia, Vol. XXI., Part 1, 1897. Adelaide.

Journal and Proceedings of the Royal Society of New South Wales, Vol. XXX., 1896. Sydney.

Memoirs and Proceedings of the Manchester Literary and Philosophical Society, Vol. XLIV., Part 4. Manchester, 1896–97.

Proceedings of the Royal Society of Victoria, Vol. IX., New Series, 1897. Melbourne.

Records of the Australian Museum, Vol. III., No. 2. Sydney, 1897.

Journal of the Manchester Geographical Society, Vol. XII., No. 79. Manchester, 1896.

Annals of the Queensland Museum, No. 3. Brisbane, 1897.

Decades Plantarum Novarum Austro-Africanarum, R. Schlechter, Journal of Botany, 1897.

Scottish Geographical Magazine, Vol. XIII., Nos. 8, 9. Edinburgh, 1897.

Bulletin of the Johns Hopkins Hospital, Nos. 75–78. Baltimore, 1897.

Report of the Australian Museum, 1896. Sydney, 1897.

Meteoreisen-Studien, V., von E. Cohen. Wien, 1897.

Sitzungsberichte d. K. Akad. der Wissenschaften, 1–80. Wien, 1896.

Bulletin de la Soc. Impér. d. Natural. d. Moscou, No. 4, 1897. Moscow.

Memorias y Revista de la Soc. cientif., "Antonio Alzate," 1–4. México, 1896.

Boletin Mensual del Observatorio Meteorologico Central de México, Part 3, 1897. México.

La Feuille des Jeunes Naturalistes, Nos. 322, 323. Paris, 1897.

Ueber ein angebliches Meteoreisen von Walker Co., Alabama, von E. Cohen.

Vierteljahrsschrift d. Naturforsch. Gesellsch. in Zürich, Part 2, 1897. Zürich.

Jahrbücher der K. K. Central-Anstalt für Meteorologie und Erd-Magnetismus, 1894–96. Wien.

Dr. Kolbe exhibited some Natal plants which had been experimented upon by the Trappist Brothers with a view to their being used in the manufacture of paper.

Mr. Raffray referred to Dr. Calmette's antivenous toxin. It has been found to remain active after a year, and it will withstand a temperature of 40° C., but should be kept away from the light.

Dr. Black's paper on "The Morphology and Conditions of Growth of a Fungus Parasitic on Locusts in South Africa" was then read.

Ordinary Monthly Meeting.

Wednesday, November 24, 1897.

Thomas Muir, LL.D., M.A., F.R.S.E., Vice-President, in the Chair.

Twenty-one members present.

Dr. Versfeld, Dr. M. Hewat, Dr. R. S. Black, Messrs. Alex. Ross, and F. Graham were duly elected ordinary members of the Society.

Dr. G. A. F. Molengraaff, State Geologist, Pretoria, and the Rev. H. C. Vos Leibbrandt, Keeper of the Colonial Archives, were nominated for election as ordinary members.

Dr. J. C. Beattie read a paper on "The Hall Effect," and gave a demonstration of the Tesla experiments, which was very successfully carried out.

Ordinary Monthly Meeting.

Wednesday, January 26, 1898.

Thomas Stewart, F.G.S., M.I.C.E., President, in the Chair.

Thirteen members present and five visitors.

The Rev. H. C. Vos Leibbrandt, Keeper of the Colonial Archives, and Dr. G. A. F. Molengraaff, State Geologist, Pretoria, were elected ordinary members.

The following additions to the Library were announced:

La Feuille des Jeunes Naturalistes, Nos. 325, 326, 1897; No. 327, 1898.

Mémoires de l'Académie Impériale des Sciences de St. Pétersbourg, Eighth Series, Vol. III., Nos. 7 and 8; Vol. IV., No. 2, 1896.

Bulletin de l'Académie Impériale des Sciences de St. Pétersbourg, 1895, Fifth Series, Vol. III., Nos. 2–5; 1896, Fifth Series, Vol. IV., Nos. 1–5, Vol. V., Nos. 1 and 2; 1897, Vol. VII., No. 2.

Proceedings of the American Philosophical Society, Vol. XXXVI., Nos. 133–155, 1897. Philadelphia.

Journal of the Cincinnati Society of Natural History, Vol. XIX., No. 2, 1897.

Proceedings of the California Academy of Sciences, Third Series, Zoology, Vol. I., Nos. 1–3; Geology, Vol. I., No. 1; Botany, Vol. I., No. 1, 1897. Second Series, Vol. VI., 1896.

Proceedings of the Indiana Academy of Sciences for 1894 and 1895. Indianopolis, 1895–96.

Transactions of the Texas Academy of Sciences for 1897. Austin, 1897.

Proceedings of the Davenport Academy of Natural Sciences, Vol. VI., 1889–97. Davenport, 1897.

The American Anthropologist, Vol. X., Nos. 4, 6, 7. Washington, 1897.

Bulletin of the Johns Hopkins Hospital, Vol. VIII., No. 80, 1897.

Johns Hopkins University Circulars, Vol. XVII., No. 132.

Boletin Mensual del Observatorio Meteorológico Central de México, July, September, 1897.

Actes de la Société Scientifique du Chili, Vol. IV., 1896, Parts 4, 5; Vol. VII., Parts 1–2. Santiago, 1897.

Proceedings of the Royal Society of Victoria, Vol. X., New Series, Part 1. Melbourne, 1897.

Meteorological Observations made at the Adelaide Observatory during 1894. Adelaide, 1897.

Scottish Geographical Magazine, Vol. XIII., Nos. 11, 12, and index, 1897; Vol. XIV., No. 3, 1898.

Journal of the Manchester Geographical Society, Vol. XII., Nos. 9–12, 1896; Vol. XIII., Nos. 1–3, 1897.

Bulletin of the Geological Institution of the University of Upsala. 1897.

Mr. W. L. Sclater read a paper on "Portions of the Cross or Memorial Pillar erected by Bartholomew Diaz near Angra Pequena, in German South-West Africa."

In the remarks made after the reading of the paper, Dr. Marloth asked if the exact spot at Angra Pequena had been marked when the fragments were removed, and suggested that the Society should take some steps to secure the proper marking of the spot.

Mr. St. Leger stated that he believed the St. Croix stone was still partly in existence, and he also urged the advantage of having the site marked.

In reply to Mr. S. Cowper, Dr. Corstorphine stated that no similar limestone occurred near Angra Pequena, and that the rock resembled the European secondary limestone very considerably, and had most probably been brought by Diaz from Europe.

The President, in thanking Mr. Sclater on behalf of the Meeting, said that the question of marking the sites should not be allowed to drop, and that the Society might well do something in the matter.

Ordinary Monthly Meeting.

Wednesday, February 23, 1898.

Thomas Stewart, F.G.S., M.I.C.E., President, in the Chair.

Twelve members present and six visitors.

Messrs. J. H. Hamilton, L. Drege, Dr. Breyer and Miss M. Wilman were elected ordinary members.

The following additions to the Library were announced:

Journal of the Cincinnati Society of Natural History, Vol. XIX., No. 3.

Proceedings of the California Academy of Sciences. Zoology, Third Series, Vol. I., No. 4. Geology, Third Series, Vol. I., No. 2.

Occasional Papers of the California Academy of Sciences, V., 1897.

The American Anthropologist, Vol. X., Nos. 5, 8–10, 1897.

Bulletin of the Johns Hopkins Hospital, Vol. VIII., No. 81.

Bulletin de la Société Impériale des Naturalistes de Moscou, No. 2, 1897.

La Feuille des Jeunes Naturalistes, No. 328, February, 1898.

Annals of the Cape Observatory, Vol. III. Cape Photographic Durchmusterung, Vol. I.; Vol. VI. Solar parallax from Heliometer observations of new planets, Vol. I.; Vol. VII. Solar parallax from observations of Victoria and Sappho.

Dr. Gill, in calling attention to Vols. III., VI., and VII., of the Annals of the Cape Observatory, presented by the Lords Commissioners of the Admiralty, said that perhaps a few words in connection with them would not be without interest to the Members of the Society.

Vol. III. represents the first volume of a work entitled the "Cape Photographic Durchmusterung," and contains the places and magnitudes of 152,000 stars between Declinations 19° S. and 37° S. Vols. IV. and V. of the Cape Annals will contain the positions and magnitudes of all stars to about the 10th magnitude from 37° of S. Declination to the South Pole, and the three volumes together will contain the places of 450,000 stars, thus completing for the whole heavens the work begun by Argelander at Bonn, in 1852; and carried by his successor Schönfeld to 23° South Declination. The work has been thus arranged to overlap the work of Schönfeld for the sake of comparison. Vol. IV. has been passed through the press, but is not yet issued. Vol. V. is in the hands of the printer. The history of this work is perhaps familiar to many of the Members. When the Great Comet of 1882 appeared, the observatory was entirely unprovided with photographic appliances. Dr. Gill obtained the aid of Mr. Allis, of Mowbray, and by attaching his camera to one of the equatorials so as to follow the diurnal motion, very sharp pictures of the comet and the neighbouring stars were obtained. Interesting as the pictures of the comet were, the point which riveted Dr. Gill's attention was the large number of star images

which were sharply depicted on the plate. He had long been considering the best means of completing Argelander's Survey of the Heavens, and photography seemed to be the means of doing it. Accordingly, with the aid of a grant from the Government Grant Fund of the Royal Society, the services of Mr. Woods were secured. and the work was begun in 1884. When in 1887 the International Scheme for the "Carte du Ciel" was arranged, the Royal Society seemed to think that Dr. Gill's less ambitious plan need not be completed. He (Dr. Gill) did not take this view, especially as Prof. Kapteyn, of Groningen, had already undertaken the more laborious part of the work, viz., the measurement of the plates and their reduction, and he resolved to carry out the work. The international programme was naturally a much more ambitious one, but it would be at least fifty years before it could be carried to completion, and meanwhile some such complete nomenclature of all stars likely to be used for the ordinary purposes of the astronomer was a pressing necessity for the astronomer in the southern heavens. The work having been completed, the Lords Commissioners of the Admiralty undertook its publication, and the first volume was now before the Society. The other two would soon follow.

Vols. VI. and VII. represent work of an entirely different kind. They contain the observations made on the minor planet *Iris* in 1889, on the minor planets *Victoria* and *Sappho* in 1890, with the heliometers at the Cape, Yale, Liepzig, Göttingen, and Bamberg, and of meridian observations of these planets and comparison stars made at twenty-two different observatories. The whole of this work was based on plans which Dr. Gill had proposed for determining the great fundamental constants of astronomy, viz., the Solar Parallax and the Mass of the Moon. The meridian observations had been discussed by Dr. Auwers, of Berlin, the heliometer observations of *Iris* by Dr. Elkin, and those of Victoria and Sappho by Dr. Gill. The whole of this labour had resulted in the following figures:—

Parallax of the sun $8{\cdot}''802 \pm 0{\cdot}005$ probable error.

Mass of the moon in terms of the earth, $\frac{1}{81{\cdot}702}$.

And these values have been adopted for international use at the Paris Conference of Astronomers in 1896.

The value of the solar parallax was the fundamental constant of astronomy, and apparently in the judgment of his colleagues these observations and this discussion had solved a problem which all the numerous Transit of Venus expeditions of 1761, 1769, 1874, and 1882 had failed to solve, viz., to determine the mean distance of the sun within $\frac{1}{1000}$ part of its amount.

Dr. Muir drew the attention of those interested in Bushman drawings to the desirability of examining the soil at the foot of any rock on which such drawings might be found, and especially if the place seemed suitable as a haunt or as a refuge. To show the importance of this suggestion, he instanced the result of a hurried examination made by himself at the base of a rock near Molteno about five years ago, and he now exhibited a number of interesting objects obtained in the same manner in the Oudtshoorn division, and recently handed over to him by Mr. Blore, surveyor.

Mr. Alston exhibited and read some notes on some Euphorbiæ, one of which showed a remarkable instance of fascination, and one of which he thought might prove well worthy of acclimatisation in certain parts of the Karoo. Mr. Alston said: "This Euphorbia (*E. cervicornis*) seems to be limited, as to range, to the brak Karoo slopes stretching between the Olifant's and Orange Rivers, and west of the Kamiesbergen and the high Bushmanland plateau. I am told that it does not grow on the Kamiesbergen where the water is fresh, and it certainly does not grow in the sandy waste immediately bordering the coast. It is probably the most valuable natural botanical production in Namaqualand, a district noted for its curious flora. It is gratefully eaten by cattle, and without it farmers and transport-riders would be badly handicapped in moving from place to place in time of drought. Unfortunately it is in imminent danger of eradication. Left to itself, its large beet-shaped root is quite safe, and its crown of dwarf stems nearly so. Moreover, it seeds freely, each little stemlet carrying its one, two, or more globular seed-vessels. Less clever than the plant, farmers sacrifice it to their want without mercy, but never sow a seed save by accident. The whole plant, heavily charged with a bland, milky sap, is ruthlessly chopped out of the ground and carried off by the waggon-load in order to feed hungry cattle on the farm itself, or to supply them with food when on the way to the coast or the village for supplies, starting in a dry season with a full load of the plants, say to Port Nolloth or Hondeklip Bay. At each outspan a sufficiency is roughly chopped up with a heavy knife or light axe for the immediate use of the draught cattle, and a like portion is commonly stored, perhaps in a gravel-pit, perhaps only alongside a bush. At the port the last lot is used, the waggon is loaded with grain or merchandise, and the return journey is only made possible by utilising the little stores of *E. cervicornis* at the outspans along the way. Cattle become so accustomed to being fed

with this plant near the waggons, that they do not willingly stray in search of local herbage, but after three or four days' course of the plant salt, or its equivalent, seems to become a necessity, and they will for a little while graze voraciously on the bushes growing in the brak river-beds, returning, however, to the waggons in the hope of getting their usual rations. The habits of this plant seem to promise well for its easy naturalisation in other Karoo districts, and an attempt to achieve this end is well worth the making by our stock farmers. The local name of the plant is Olifant Melkbosch; the roots grow to a considerable size, and the crown of stems often exceeds a foot in diameter.

Dr. GILCHRIST, the marine biologist, exhibited a collection of flat-fishes (*Pleuronectidæ*) from various localities in the Colony. The collection was complete as far as the known species of these fish in the Colony was concerned, but besides it contained one, and possibly two species new to science. The collection comprised the following: (1) *Ænoglossus capensis*, Blgr., a new flat-fish found in False Bay by the Government trawler. It is allied to the British "Scald fish." (2) *Solea bleekeri*, the nearest approach to the sole, of northern waters that is found in the Colony. The specimen was found by the Civil Commissioner, Knysna, and kindly forwarded. (3) *Achirus capensis*, Kaup., of which nothing was known of its habits until now. It is found in great quantity at a very young stage in Muizenberg Vlei, but, curiously enough, no adult specimen was found during the investigations of the Government steamer. (4) *Synaptura pectoralis*, Kaup., the Port Elizabeth sole, which may be readily distinguished from (5) *Synaptura microlepis*, Blkr., by the fact that in the former the right pectoral fin is longer than the head, and in the latter it is shorter. (6) *Cynoglossus capensis*, Kaup., which occurs in abundance in False Bay, but does not grow to a large size. It is normally a "left-handed" sole, and is more lightly coloured on the upper side than any of the others, the pectoral fins are absent as in *Achirus capensis*. In the collection was also another specimen from Knysna, which is probably a new species. There are thus six, and probably seven, kinds of valuable flat-fish found in colonial waters, and in view of the present defective knowledge of the marine resources of the Colony there may be others. It has indeed been reported from the Kowie that the valuable fish the turbot has been found.

Dr. GILCHRIST explained at length the evolution of the shape of the sole.

Ordinary Monthly Meeting.

Wednesday, March 30, 1898.

Thomas Muir, LL.D., M.A., F.R.S.E., Vice-President, in the Chair, nineteen members present, and eight visitors.

Colonel Trotter, the Rev. P. N. Waggett, and Messrs. W. Fick, F. O. F. Churchill, and D. Tennant, junr., were nominated for election as ordinary members.

The following accessions to the Library were announced:

The Scottish Geographical Magazine, Nos. 2, 3.

Eighth Report of the Missouri Botanical Gardens. St. Louis, 1897.

Actes de la Société Scientifique du Chili, Vol. VII., Part 4. Santiago, 1897.

La Feuille des Jeunes Naturalistes, No. 329, 1898.

Catalogue de la Bibliothèque, ibid., 1898.

Bulletin of the Johns Hopkins Hospital, Baltimore, No. 82.

Memoirs and Proceedings of the Manchester Literary and Philosophical Society, 1897–98, Vol. XLII., Part 1.

Icebergs in the Southern Ocean, by H. C. Russell. Sydney, 1897.

E. Cohen. Ueber das Vorkommen von Eisencarbid (Cohenit) im terrestrischen Nickeleisen von Niakornak bei Jakobshavn in Nord-Grönland; Ueber ein neues Meteoreisen von Ballinoo, am Murchison fluss, Australien; Ein neues Meteoreisen von Beaconsfield, Colonie Victoria, Australien.

Annals of the Queensland Museum, No. 4. Brisbane, 1897.

Boletin Mensual del Observatorio Meteorologico Central. Nov. Table.

Upsala Universitets Arsskrift. Mathematik och Naturvetenskap, 1868–76, 28 Parts.

Festskrift Wilhelm Lilljeborg, af Svenska Zoologer. Upsala, 1896.

Zur Ornithologie Kameruns nebst einigen Angaben über die Saugethiere des Landes, von Ungve Sjöstedt.

Der Wal Svedenborg's, von Carl W. S. Aurivilius. Stockh., 1888.

Forty-four pamphlets and theses presented by the Library of the Upsala Royal University.

Professor Morrison gave an exhibition of Joly's process of colour photography, and discoursed at length on the principles on which it is based.

Mr. Foucarde exhibited stone implements found in the neighbourhood of Knysna, one of which was of a shape hitherto unknown.

Mr. Lounsburg exhibited specimens of a Coccid, *Orthesia insignis*, newly discovered in the Colony, although known in Natal for several years. It might prove to be a very destructive pest.

He also exhibited specimens of another Coccid of the genus *Margarodes*, which attacks the vines here as it does in Chili. The damage hitherto done out here is, however, not very serious, whereas in Chili it is said to be very great.

Ordinary Monthly Meeting.

Wednesday, April 27, 1898.

Thomas Stewart, F.G.S., M.I.C.E., President, in the Chair.

Mr. Arthur Edwards was nominated for election as ordinary member. Colonel Trotter, the Rev. P. N. Waggett, and Messrs. W. Fick, F. O. F. Churchill, and D. Tennant were duly elected ordinary members of the Society.

The following additions to the Library were announced:

Neujahrsblatt herausg. v. d. Naturforsch. Gesellschaft., 1898, C. Zürich.

Vierteljahrsschrift d. Naturf. Gesellsch. in Zürich, Parts 3, 4, 1897, pub. 1898.

The Scottish Geographical Magazine, Vol. XIX., No. 3, 1898.

Memoiras y Revista de la Socied. Cientific., 'Antonio Alzate,' Parts 5–12, 1896–97.

Report of the Sixty-seventh Meeting of the British Association, held at Toronto, August, 1897. London, 1898.

Tuberculosis and the Public Health, by G. L. Mullins, M.A., M.D. Sydney, 1898.

Records of the Geological Survey of New South Wales, Vol. V., Part 4, 1898.

New South Wales Department of Mines and Agriculture: Notes on Chronic Iron Ore, by J. C. Carne; Notes on the Occurrence of Tungsten Ores in New South Wales, by T. E. Carne.

Liversidge, A. Five papers read at the Australasian Association for the Advancement of Science. Brisbane, 1895.

Bulletin of the Johns Hopkins Hospital, Vol. IX., Nos. 83, 84, 1898.

Dr. Corstorphine read Mr. F. F. Churchill's paper on "The Geology of the Drakensberg."

Ordinary Monthly Meeting.

Wednesday, June 29, 1898.

Thomas Stewart, F.G.S., M.I.C.E., President, in the Chair.

Mr. W. L. Sclater gave notice that at the next meeting he would move that in future the meetings of the Society be held in the afternoon, either at 4.30 or 5 p.m., and that the day of meeting be changed to Friday.

Messrs. Chas. T. Holland (Buluwayo), C. F. Juritz, J. C. Watermeyer, and C. L. W. Mansergh (Cape Town), were nominated for election as ordinary members.

Mr. Arthur Edwards was duly elected an ordinary member of the Society.

Mr. W. L. Sclater exhibited the following specimens:

I. Skin of *Helogale parvula*, discovered by Wahlberg many years ago in the interior of Kaffraria, and apparently not obtained since until rediscovered in the Waterberg District in North-West Transvaal, whence came the present specimen, the property of the Staats Museum, Pretoria.

II. Skin of *Sciurus palliatus*, the red squirrel of Zululand. The specimen was obtained by Messrs. Woodward Bros., in the Umgoye Forest, and presented to the South African Museum, where the species was hitherto unrepresented.

III. *Stactolæma woodwardi*, Sharp, a new Barbet from Zululand, also obtained from Messrs. Woodward Bros.

The President exhibited a block of Syenite from the neighbourhood of Johannesburg.

The following additions to the Library were announced:

Proceedings of the Royal Society of Edinburgh, Vol. XXI., Sessions 1895–97, 1896–97. Published 1898.

The Scottish Geographical Magazine, Vol. XIV., Nos. 5, 6.

Proceedings of the Royal Physical Society, Session 1896–97.

Proceedings of the Scottish Microscopical Society, Vol. II., No. 2, Session 1896–97.

Memoirs and Proceedings of the Manchester Literary and Philosophical Society, Vol. XLII., Part 2, 1897–98.

La Feuille des Jeunes Naturalistes, Nos. 330–332.

Liste des Périodiques compulsés pour l'élaboration de la Bibliographia geologica. Bruxelles, 1898.

La Classification Décimale Appliquée à la Bibliographia Geologica.

Bulletin de la Société des Sciences Naturelles de l'Ouest de la France, Vol. VI., Part 4, 1896; Vol. VII., Parts 1–3, 1897.

Etude sur les Fourmis, les Guèpes et les Abeilles ; 12th and 13th Notes, by C. Janet.

Les Fourmis, by the same.

Sur les Rapports de *l'Antennophorus uhlmanni*, avec le *Lasius mixtus*.

Sur les Rapports du *Discopoma comata* avec le *Lasius mixtus*, by the same.

Vierteljahrsschrift d. Naturf. Gesellsch. in Zürich, 1898, Part 1.

Die geologische Landesaufnahme Belgiens, von Dr. R. Michael.

Boletin de la Academia nacional de Ciencias in Cordoba, Vol. VIII., Part 3, 1897.

Boletin de la Real Academia de Ciencias y arles de Barcelona, Vol. I., No. 6, 1893.

Boletin Mensual del Observat. Meteorol. Centr. d. Mexico.

Bulletin of the Johns Hopkins Hospital, Vol. IX., No. 85.

Johns Hopkins University Circular, Vol. XVII., No. 134.

Messrs. A. W. Rogers and E. H. L. Schwarz read a paper upon "Notes on the Recent Limestones occurring on parts of the South and West Coasts of Cape Colony."

REPORT OF SECRETARY.

Since the last annual meeting, eight ordinary meetings have been held, and two papers, one on geology and one on geography, have been read. These will appear in the Transactions for 1897–98. During the year one member has died, two have resigned, two have rejoined, and eighteen have been elected, making a total of 121, or an increase of twenty-one ordinary members on that of the previous year. The books and pamphlets received in exchange are also a little on the increase, and so is the number of societies to which the Transactions are sent. A card catalogue of the books, pamphlets, &c., is now being prepared, and the books are now lodged in the Cape Town Public Library, and will soon be available to members and others. Mr. R. Trimen, F.R.S., has been asked to represent the Society at the Zoological Congress being now held at Cambridge, and has consented to do so. The sending of a delegate was decided upon by the Council on the representation of the Right Hon. Mr. Chamberlain. Two parts forming vol. ix. of the Transactions have been issued during the year, containing 207 pages and 4 plates; part i. of vol. x., consisting of 130 pages and 4 plates, has also been issued; proofs of part ii. of the same volume have been partly corrected, and the manuscript of part iii. of the same volume has been sent to the printers. This vol. x. will comprise three parts, and consist of 500 pages, and will be illustrated by 8 plates and numerous diagrams. The Council has decided to add to the Transactions of the year a *résumé* of scientific publications bearing on South Africa. The said *résumé* for 1897 and the first half of 1898 will appear in part iii. of volume x.

According to the treasurer's statement there was a credit balance of £408.

L. Péringuey, *General Secretary.*

THE HON. TREASURER IN ACCOUNT WITH THE SOUTH AFRICAN PHILOSOPHICAL SOCIETY.

July 1, 1897, *to June* 30, 1898.

Receipts.	£	s.	d.	Expenditure.	£	s.	d.
To Balance at Bank, June 30, 1897	315	7	5	By Printing Transactions	96	1	0
,, Subscriptions	205	5	1	,, Preparing Plates for ditto	6	4	0
,, Sale of Publications	43	12	9	,, Freight of ditto	9	9	9
,, Contribution from De Beers Company towards publication of paper on "Mud Rushes" ...	5	0	0	,, Notices of Meetings, Stationery, &c.	19	14	10
				,, Purchase of Deed Boxes	4	9	0
				,, Attendance at Meetings	5	0	0
				,, Petty Cash, Postages, &c.	18	5	10
				,, Bank Charges	1	2	9
				,, Balance at Bank, June 30, 1898	408	18	1
	£569	5	3		£569	5	3

(Signed) W. L. Sclater, *Hon. Treasurer*, *August* 27, 1898.

We, the undersigned members of the South African Philosophical Society, hereby declare that we have examined the above account, compared the receipts with the counterfoils of the receipt-book, the cash payments with the vouchers, and the balance with the Bank Pass Book, and have found the same correct.

(Signed) M. Wilman, W. F. Purcell, } *Auditors.*

TRANSACTIONS

OF THE

SOUTH AFRICAN PHILOSOPHICAL SOCIETY.

DESCRIPTIVE CATALOGUE OF THE COLEOPTERA OF SOUTH AFRICA.—Part III.

By L. Péringuey, F.E.S., F.Z.S., &c.,

Assistant Director South African Museum.

(Read November, 1896.)

Family PAUSSIDÆ.

Buccal aperture opening downward, labrum not much developed, labial palpi three-jointed, maxillary palpi four or five-jointed, maxillæ with one inner lobe or not, short, hooked at tip, falciform or bifid, ligula horny, concave inwardly, convex outwardly, without paraglossæ, edged with bristles or setæ, both palpi and ligula hiding the mouth or not; mentum with two sharp lateral, nearly parallel lobes, median part slightly aculeate; head large and with a distinct neck (*Hylotorus* excepted); antennæ varying in number of joints from ten to two; eyes large, lateral; prothorax either entire on the upper side or nearly divided in two; elytra long, covering the abdomen; pygidium large, declivous, all the coxæ contiguous and provided with trochanters; legs short, robust, nearly always more or less compressed, sometimes broadly dilated; tarsi five-jointed; pro-, meso-, and metasternum simple; abdomen with five segments, four only of which are visible.

The habits of the singular insects included in this family are now sufficiently known.

They are myrmecophilous, and although occasionally met with in the open, the place where they should be looked for is in ants' nests

in the vicinity of the heaps of larvæ brought to the surface of the formicarium for warmth. In the neighbourhood of Cape Town, where four species occur, their formicarium is generally covered with a large stone. Raffray (' Matériaux pour servir à l'étude des Paussides ') says that almost all the Abyssinian species live with a very small black ant with red thorax, and that only *Paussus Curtisi* and *Hylotorus Blanchardi* are met with a small yellowish *Atta*. In South Africa I know of three kinds of ants, among which *Paussidæ* are found, and the range of two of them is very wide.

Plagiolepis fallax harbours *Pentaplatarthrus paussoides*. The formicarium of this species is occasionally very large, and the number of *P. paussoides* found in one nest has been known to exceed eighty. Three more beetles are found with this ant—*Thorictus capensis*, Pér., *Cossyphodes Bewicki*, Woll., and *Eupsalis vulsellata*.

Mr. C. N. Barker, of D'Urban, Natal, has sent me an example of *Cerapterus concolor* which he found dead, but still limp, being dragged to the nest by workers of this ant.

Herr Guienzius, who collected for a number of years round D'Urban, says, as quoted by Westwood (' Thesaurus Entomologicus Oxoniensis,' p. 73), that with few exceptions " all the specimens which he had taken were found in ants' nests, living with species which are carnivorous: *Cerapterus*, *Pleuropterus* and *Pentaplatarthrus*, with different larger species, but the true *Paussi* seem to live only with small species of ants ; he had found, indeed, as many as seven distinct species of *Paussi* living with one and the same species of ants."

I am not aware that *Cerapterus* has been found, except by Guienzius in ants' nests in South Africa, and the fact of the dead specimen above mentioned being dragged to the nest does not necessarily imply that it was being brought back to its former abode, although I have related the occurrence of a somewhat similar case, but the *Paussus* (*P. Burmeisteri*) was alive. (" Notes on three Paussi," Trans. Entom. Soc. Lond., 1883, p. 138.)

Pheidole capensis, or *Pheidole punctulata*, harbours *Paussus cultratus*, *P. cucullatus*, *P. Schuckardi P. Burmeisteri*, *P. Linnei*, and *P. Klugi*. I do not know of any other myrmecophilous beetle harboured by this or (?) these ants.

Acantholepis capensis harbours *Paussus lineatus*, and also two other beetles—one of the few South African *Clavigeridæ*, *Fustigerodes majusculus*, Pér. ; and a *Ptinus* spec. nov.

The *Paussidæ* are occasionally found flying at the hottest time of the day, but they may be said to be crepuscular or nocturnal. The numerous examples of *Cerapterus* (two kinds) submitted to me or

received at the Museum have always been caught coming to the lights in houses or at the camp fire. This is also the case with *Pleuropterus* (two kinds) and other *Paussus;* and the specimens thus caught are mostly males.

However, because these insects are found in ants' nests, it does not follow that they are of use to the ants in the way that *Aphidæ* are, and *Clavigeridæ* are said to be. I have kept in captivity for a lengthy period a good many examples of three *Paussi* (*P. Burmeisteri*, *P. Linnei*, and *P. lineatus*) as well as *Pentaplatarthrus paussoides*, and I never saw the ants attending to them at all. The *Paussi* are carnivorous and are feeding on the young larvæ, but rather than drag them away by force, the nurses prefer removing the heap of larvæ and eggs from their reach.

I have suggested (Proc. Entom. Soc., Lond., 1886, p. xxxvi) that either the crepitating power of the beetle is so well known to the ants that they make a virtue of necessity, or that they are so much accustomed to the presence of *Paussi* in their colonies through hereditary consciousness of that crepitating power that they no longer struggle against the intruders. This latter view, if correct, seems to go far in explaining why so many species of *Paussi* are found in the nests of ants belonging to the genus *Pheidole*.*

It might be objected that *Paussi* kept under unusual conditions in an artificial formicarium might adapt themselves to the conditions obtaining therein and devour the larvæ for want of the ordinary staple food, but the appetite of the examples under my observation was as keen when introduced into the formicarium as later on. I have in two instances caught *Paussus* munching away ants' larvæ in *ants' nests*.

The anatomy of the buccal organs shows, I think, unmistakably that the diet of the *Paussi* must consist of something soft; the mandibles are, it is true, long, sharp, and more or less falcate at tip, but this is not so much for the purpose of seizing the prey as of use for mating. It is by means of these organs that the male catches hold of the discoidal cavity in the prothorax of the female, and the small pads of flavescent hairs which, I believe, are *always* present in fresh examples of the genus *Paussus*, are also probably connected with copulating purposes. The jaws (*maxillæ*) are decidedly feeble, the internal lobe is seldom set with rigid spines, and they are, as a rule, deeply incised, or bifid, and eminently adapted for slow manducation accompanied by suction, such as I found to be the case with the

* *Paussus Favieri*, one of the two European species, and occurring in Southern France, Spain, and Algeria, is also found in the nests of a *Pheidole*, *P. megacephala;* and the other, *P. turcicus*, with *Pheidole pallidula*.

three kinds of *Paussus* which I kept in captivity. While in the act of taking food the labial palpi hang at right angles with the mouth, and no movement of the jaws is visible; in fact it was only by using a very shallow formicarium that I was able to watch the *Paussi* taking food.

It is difficult to detect the sexes of *Paussidæ* from external characters, and, with a few exceptions, dissection is the only means available. I have already stated that the males seize hold of the prothoracic cavity of the female with their jaws for mating, but this prothoracic cavity is common to both sexes in *Paussus*, and there are other genera where this prothoracic cavity is wanting, but in those all the tarsi are dilated and covered underneath with dense, short papillæ. It is well known that many male *Carabidæ* and *Hydrophilidæ* have the front, and sometimes the intermediate, tarsi provided with such cusp-like development in order to maintain the female for mating purpose, but in *Cerapterus* these papillæ occur in both sexes; of that there can be no doubt—I have proved it by dissection. It is, however, possible to recognise the female by means of the slight acumination of the median part of the apex of the pygidium. I have not yet met with the female of *Arthropterus*, but Raffray states that in this sex the tarsi are ciliate underneath, and it yet remains to be seen if in *Pleuropterus*, the other South African genus having no excavated prothorax, the tarsi of the female are papillose underneath. In *Paussus Curtisi* the antennal club is a little longer in the male than in the female, but in *P. planicollis*, an Abyssinian species, it is longer in the female than in the male.

When touched either by the hand or with a straw the *Paussidæ* crepitate, and the detonation is accompanied by the discharge of a caustic fluid which not only stains the finger as iodine or lunar caustic would, but the whole body of the insect as well as its immediate neighbourhood is covered with a bright yellow fluid, which becomes pulverulent almost immediately, and slowly disappears. Free iodine is reported to have been found in the discharge of a Javanese species, *Cerapterus quadrimaculatus*.

I am rather inclined to think that the detonation is produced by the contact of the fluid with the air, because, although expelled from behind, the anterior part of the animal is immediately covered by the yellow pulverulence, and is, therefore, in the centre of the explosion.

Raffray, in his 'Recherches anatomiques sur le *Pentaplatarthrus paussoides*,' has given a masterly account of the secreting and detonating organs of this Paussid. He finds that the organ for the secretion of the caustic fluid is really a duplicate one, one on each side of the body, independent from one another, and situated far

from the rectum and anus and not connected; it opens in the upper part of the lateral angle of the pygidium, and consists of a sub-pyriform vesicle partly adhering to the tergite of the copulating clasper, and opens in a pore situated near the last stigmata, but underneath it; the sides are inflated near the opening, and have two apophyses provided with a powerful fascicle of muscles; on the top of this vesicle is a compressed, membranaceous, short tube transversely fibrous, acting as vas deferens, and ending in a large trilobate bladder of thick texture supporting a coiled vessel of moderately large diameter and consisting of two concentric tubes. This vessel, which is the secreting one, is not connected with any gland, but free and immerged in the adipose tissues.

The position of the *Paussidæ* in the systematic arrangement of the *Coleoptera* has been much discussed. Burmeister gave as his opinion that they were true *Adephaga*. It is known that among the *Carabidæ* the genus *Ozaena* has the same crepitating power as the *Paussidiæ*, and as Lacordaire says: "Not only *Ozaena* has on each elytron the peculiar lateral, posterior tubercle, but it has also another character in common, *i.e.*, the trochanters project from the internal edge of the posterior coxæ." The crepitating power of *Brachinides* is well known, and most of the *Truncatipennes* exude from the anal segment a fluid, the emission of which, however, is seldom accompanied by a detonation; *Harpalides* do the same, and under certain circumstances some of them crepitate also. Two South African species, *Stenolophus capensis* and *Acupalpus terminalis*, do occasionally detonate, and send a small column of whitish smoke when seized. I am not aware of any other Coleopterous insect included in other families that possess this detonating power, and this in itself might be an inducement to bring the *Paussidæ* in the vicinity of the *Carabidæ*, had not Raffray shown that whereas the digestive system as well as the male genital armature are like that of the Carabidous beetles, the nervous system is very dissimilar, the *Carabidæ* having twelve ganglia, of which six are abdominal, while the *Paussidæ* have seven ganglia, of which one only is abdominal.

Paussidæ can thus be considered as a very distinct family, greatly modified by the diet and habits acquired through parasitism or mess-mating, but having more affinities with the *Carabidæ* than with any of the other families of the order *Coleoptera*.

They occur in Europe, South America (Brazil), Asia, Ceylon, Java, Australia, Madagascar, and Africa, and now number 223 species included in 16 genera. They are represented in Africa by 7 genera, 2 of which are peculiar to this part of the world, and 92 species, while of these 6 genera and 46 species are now

known to occur in South Africa. The discovery of no less than 15 new species from 1885 to date leads me to believe that this number will be much increased ultimately.

Synopsis of Genera.

Labial and maxillary palpi free, not hiding the buccal cavity.

Antennæ ten-jointed, joints not fused.

Ligula ovate, large; maxillæ with a distinct outer lobe; all tarsi with the four basal joints papillose underneath in both sexes .. .. *Cerapterus.*

Ligula very small, triangular; maxillæ without outer lobe *Arthropterus.*

Antennæ ten-jointed, all joints but the basal one fused; maxillæ bilobate .. .. *Pleuropterus.*

Antennæ six-jointed, all joints but the basal one fused; maxillæ without outer lobe .. .. *Pentaplatarthrus.*

Labial and maxillary palpi hiding the buccal cavity.

Antennæ two-jointed.

Head with a neck, no groove in front for the reception of the antennal club .. .. *Paussus.*

Head without neck, a groove in front for the reception of the antennæ .. .. *Hylotorus.*

GEN. CERAPTERUS, Sweder.,
Vetensk. Ac. Handl., ix., 1788, p. 203.

Orthopterus, Westw.
Euthysoma, Jas. Thoms.

Head short, subelongato-quadrate, dilated behind the eyes, which are very large and prominent, narrowed into a very distinct neck; mandibles moderately long, falciform; mentum with the lateral lobes not much developed; ligula large, ovate, spatuliform, convex, finely grooved longitudinally in the centre, upper edge set with bristles; basal joint of labial palpi annuliform, second subconical, short, third much inflated, bell-shaped, truncate and hollow at tip; maxillary palpi four-jointed, apical joint as long as the two preceding ones together and subacuminate; maxillæ with an elongato-ovate membranaceous lobe, short, hooked at tip and pectinate along the inner edge; antennæ ten-jointed, basal joint subquadrangular, the others compressed, set transversely, joined in the centre only, and nearly four times as broad as long; prothorax transverse, slightly rounded laterally and nearly twice as broad as long; elytra elongato-quadrate, slightly tuberculate laterally at the apex; legs short, massive, much compressed; apical part of tibiæ hollowed so as to partly receive the tarsi; tarsi dilated, the two basal joints fused, all

four thickly papillose underneath in both sexes, the fifth long, very slender, claws also long, slender and simple.

The genus is also represented in the West Coast of Africa (Sierra Leone, Guinea, Rio Grande), and in India (Pondichery), Ceylon, and Java.

Synopsis of Species.

Antennæ elongate, curving slightly outwards, transverse joints closely set together .. .. *Smithi.*

Antennæ not curved and shorter, transverse joints not closely set together .. .. *concolor.*

CERAPTERUS SMITHI, MacLeay,

Smith's Illustr. Afric. Annul., p. 74, pl. iv., fig. 1; Westw., Arcana Entom., vol. ii., p. 7, pl. xlix., fig. 4; Raffray, Matér. Etud. Pauss., pl. xvii., 7–10.

Var. *Concolor*, Schaum., Wiegm. Archiv., 1850, vol. ii., p. 169.

Chestnut brown, shining; elytra with a U-shaped flavescent band on each side of the apical part; head plane on the vertex, frontal part punctured, each puncture bearing a long seta, no impression on the vertex; basal joint of antennæ deeply punctured, densely pubescent, transverse joints pilose on both sides but more densely on the upper; prothorax twice as broad as long, a little rounded laterally, with the edges densely ciliate all round, smooth on the upper part, finely grooved longitudinally in the middle, the groove interrupted at an equal distance from base and apex, and rather plane than convex; elytra elongato-quadrate, smooth with a few short, seriated flavescent hairs on the discoidal part, denser and longer laterally; pygidium not very declivous, moderately punctured and very briefly pubescent; legs with moderately dense punctures bearing a long flavescent bristle. Length 13–15½ mm.; width 6¼–7 mm.

Hab. Transvaal (Potchefstroom, Rustenburg), Damaraland, Ovampoland, Zambezia (Buluwayo).

CERAPTERUS CONCOLOR, Westw.,

Proc. Linn. Soc., ii., 1849, p. 55.

Closely allied to the preceding species, but differentiated by the shape of the antennæ, which are not quite so long, not curved outwardly at all, and the transverse joints of which are more separated from one another than in *C. Smithi;* the head and prothorax are alike, and the elytra also, but the U-shaped apical patch is sometimes hardly distinguishable or entirely absent.

C. concolor, Sch., given in the Munich Catalogue, as well as in Raffray's list, as a variety of *C. Smithi*, might prove to be identical

with the present species, but this I have not been able to ascertain. I had imagined that *C. concolor*, owing to the shorter antennæ and their straighter shape, was the female of *C. Smithi*, of which MacLeay has given an excellent figure, but on dissection I have found that these specific characters hold good in both sexes. Length 11½–14 mm.; width 5–6 mm.

Hab. Natal (D'Urban), Zambezia (Zambeze Falls, Salisbury), Zululand (Eshowe), Swazieland.

CERAPTERUS LACERATUS, Dohrn,

Stett. Ent. Zeit., 1891, p. 388.

"Not very well preserved, but yet so far recognisable that it can be plainly described, is another *Paussid*, the habitat of which, nearer than South Africa, I am not aware of. The half of the right posterior elytron and several tarsi are wanting. However, as I have waited eight years in vain for a second specimen, I describe mine as follows: *Paussus* (*Cerapterus*) *laceratus;* brownish red; elytra moderately shining and having a fulvous lunule towards the apex; eyes black; prothorax shining; elytra slightly wider than the prothorax and elongate. Length 15 mm.; width 4 mm.

"Through the shape of the well-preserved antennæ the animal is connected with *C. Smithi*, *Lafertei;* this confirms its African origin. It differs from these two species in having a somewhat more slender facies; the fulvous lunule at the end of the elytra, as well as the characteristic antennæ and tarsi, show the animal to be unmistakably a *Cerapterus*. The species of that genus in my collection (*C. Smithi*, *concolor*, *Lafertei*) are all dark brown, nearly black, but *C. laceratus* is light reddish brown; this and a somewhat narrower prothorax give it a more slender appearance. I have no doubt that it is specifically different."

GEN. ARTHROPTERUS, MacLeay,

Smith's Illustr. Afric. Annul., 1838, p. 75.

Head and antennæ as in *Cerapterus;* maxillæ without outer lobe, not hooked at tip but with six sharp teeth along the inner edge; ligula very small, triangular; legs compressed, anterior tarsi of male not much dilated, papillose underneath, posterior and intermediate slightly less papillose underneath and more villose laterally, those of the female ciliate underneath; prothorax somewhat cordiform; head with two round depressions on the vertex.

This genus has several representatives in Australia, and another species is recorded from Abyssinia.

ARTHROPTERUS KIRBYI, Westw.,
Proc. Ent. Soc., 1864, p. 189; Thesaur. Entom. Oxon., p. 79, pl. xvi., fig. 1.

Chestnut brown, glabrous, shining; antennæ long, the transverse joints of equal width, except the second one, closely set, and hardly pubescent; head with two deep impressions on the vertex close to the eyes; prothorax subelongato-quadrate, marginate, slightly sinuate above the basal angle and with a lateral impression on each side, smooth, not fringed with hairs, and with a narrow median longitudinal groove reaching neither base nor apex; elytra straight laterally and not much broader at the base than the prothorax, but gradually ampliated till the apex, where they are not truncate, but gradually rounded off, quite smooth and hairless, with an elongated flavescent lateral patch above the subtuberculated fold, the posterior margin is also narrowly flavescent, and the suture has a very narrow line of the same colour ascending from the apex to a little past the median part; the tibiæ are moderately broad and compressed, and the anterior ones a little arcuate inwardly.

The only specimen that I have seen (male) differs a little from the figure given by Westwood. The two impressions on the vertex are not in front of the eyes, but at about the median part and close to them; the prothorax is of the same colour as the head and elytra, and not flavescent, and has no trace of two discoidal round impressions, and the elytra are not truncate behind, but sloping and gradually rounded from the posterior subtuberculated part of the fold. There is little doubt however that the two specimens belong to one species. Length 7 mm.; width 3 mm.

Hab. Natal (D'Urban).

GEN. PLEUROPTERUS, Westw.,
Trans. Linn. Soc., xviii., 1841, p. 585.

Heteropaussus, Jas. Thoms.

Head elongato-quadrate, not dilated behind the eyes, but slightly constricted there and prolonged into a neck not much narrower than the head; maxillary palpi quadri-articulate, second joint as long as the two following, apical one subacuminate; maxillæ with a very short, subrudimentary outer lobe, inner lobe hooked at tip and pluridentate along the inner edge; ligula convex, broad, ovate, convex outwardly and carinate in the centre; labial palpi triarticulate, last joint swollen, subelongato-ovate and subacuminate; labrum sharply triangular; antennæ compressed, ten-jointed, basal joint subelongato-quadrate, the other joints transverse, partly or completely fused

together; prothorax transverse with the sides recurved; elytra elongate, parallel, costate or partly costate, and projecting a little beyond the pygidium; legs slender, the tibiæ especially; intermediate coxæ irregular in shape and femora compressed; tarsi long; in the male the four basal joints of every tarsi are thickly papillose underneath, the first basal joint is small, the second is dilated, elongato-quadrate, and longer than the following two together; posterior tibiæ of male slightly sinuate. I have not seen any female example as yet.

Besides the two South African species, two more are recorded from Africa (Senegal, Congo), and one from Ceylon.

Synopsis of Species.

Elytra with four rounded costæ on each side, testaceous with two discoidal longitudinal bands on each side .. .. *alternans.*

Elytra with a short basal costa, black, with the suture, a short basal band, a post-median sinuate patch and the posterior margin light testaceous .. .. *hastatus.*

PLEUROPTERUS ALTERNANS, Westw.,

Proc. Linn. Soc., ii., 1849, p. 56; Thesaur. Entom. Oxon., p. 74, pl. xvi., fig. 2.

Head, antennæ, prothorax, and legs reddish brown; elytra testaceous and having on each side two broad, longitudinal dorsal black bands uniting above the apex; head deeply punctured and densely bristly; antennæ with short, squamiform hairs, very closely set together and united by a broad node, basal joint and also the long outer spur of the second joint slightly pilose; prothorax nearly twice as broad as long, almost straight in front, sinuate laterally with the posterior angle penicillate, depressed on the lateral part of the disk, subgibbose in the middle, finely grooved longitudinally and with the posterior median part excavate, with the sides of the excavation produced in a triangular projection rounded at tip; elytra with the shoulders rounded, elongate, parallel, and having on each side six distinct costæ, the two dorsal ones of which are more raised than the other two, the second dorsal costa is the only one that reaches the base; lateral and posterior margins with a few rigid setæ; pygidium glabrous with a fringe of very short bristles; femora nearly glabrous; tibiæ setulose. Length 9–10 mm.; width 4–4¼ mm.

Hab. Natal (D'Urban, Eshowe). Is said to have been captured in Mozambique and at Lake N'Gami.

P. HASTATUS, Westw.,
Proc. Linn. Soc., 1849, p. 57; Thesaur. Entom. Oxon., p. 74, pl. xvi., fig. 3.

Palpi, antennæ, and legs dark chestnut brown; head and prothorax varying from dark brown to piceous red; elytra black with a basal dorsal elongated flavescent patch, and a diagonal post-median transverse one reaching from one median part of the disk to the other, and much narrowed on each side of the suture, the posterior margin has also a moderately broad band, which narrows and ascends along the suture as far as the transverse dorsal band; head very rugose, pilose, and with two round tubercles at the apical part of the vertex; antennæ briefly pilose, with the hairs longer on the basal joint and on the inner and outer angles of the second one, joints very closely set, and seemingly fused altogether; prothorax twice as broad as long, slightly sinuate in front with the sides rounded, recurved, sinuate in the posterior part, with the basal angle slightly sloping and penicillate, discoidal part moderately plane, and with a narrow longitudinal groove; sides depressed; posterior part very broadly excavate for nearly two-thirds of the width, and with a small tubercular projection at each end; elytra with the shoulders a little rounded, thickly but briefly pubescent, very faintly striate, but with a very well-developed basal, round costa, reaching only one-sixth of the length; pygidium punctulate, briefly pubescent, and with a thick fringe of short hairs on the margins. Length $10\frac{1}{2}$–$10\frac{3}{4}$ mm.; width $4\frac{1}{2}$ mm.

Hab. Natal (D'Urban, Upper Districts). Female unknown.

GEN. PENTAPLATARTHRUS, Westw.,
Trans. Linn. Soc., xvi., 1833, p. 616; Raffray, Matér. Etud. Pauss., pl. xvii., figs. 17, 18, 21.

Head elongato-quadrate, surrounding the eyes behind; neck very short; maxillary palpi quadri-articulate, basal one conical, shorter than the other three, second as long, thicker than the apical one, which is subacuminate; maxillæ broad, short, not hooked at tip, but fringed with bristles in the inner and outer edges, and without any trace of outer lobe; labial palpi triarticulate, apical joint as long as the two preceding ones, swollen truncate and hollowed at tip; labrum in the shape of a broad triangle; mandibles straight at the base as far as the median part, and diagonal from there to the apex, which is very sharp; antennæ six-jointed, basal joint irregular, a little incurved, the other five joints flat, transverse, fused together, second joint one-fourth the length of the third; prothorax spinose

laterally, tuberculate in the anterior part, excavate behind; elytra elongato-quadrate, with the shoulders not rounded, truncate behind; pygidium perpendicular, triangular, deeply excavate on the dorsal part, and with the declivity convex, the upper margin incised in the middle, with the incision filled with a yellow pubescence; femora and tibiæ compressed, dilated; tarsi neither dilated nor papillose.

Two species of this genus have been lately described, from the East Coast of Africa (Dar-es-Salaam and Somaliland), which, judging from the description, are very closely allied to the two South African species. I have also seen a very large example from the Zanzibar mainland, in the collection of Mr. R. Oberthur.

Synopsis of Species.

Elytra totally chestnut brown .. .. *paussoides.*
Elytra with a broad median transverse infuscate band, and a narrower supra-apical one .. .. *natalensis.*

PENTAPLATARTHRUS PAUSSOIDES, Westw.,
Trans. Linn. Soc., xvi., 1833, p. 619, pl. xxxiii., figs. 1–14; Arcana Entom., ii., p. 38, pl. lviii., fig. 2.

Chestnut brown, shining; antennæ squamose; head deeply punctured, with the punctures squamose, elongato-quadrate and with a broad, deep impression on the vertex, neck not narrower than the head, and more closely punctured; prothorax subcordate, with the anterior part ridged, the ridge high, broadly incised in the centre, with the lobes divaricating, and also on each side where the incised part is developed in a lateral blunt spine; the anterior part of the ridge has two deep impressions; the median part has a deep excavation edged on each side by a narrow, rounded ridge, and produced up to the base in a deep, broad groove; it is nearly glabrous; elytra elongato-quadrate, slightly rounded at the humeral angle, truncate behind, roughly and irregularly punctured, and very briefly pubescent; in the outer and posterior margins there is a series of short setæ, and two at the tip of the posterior declivity; legs briefly setulose. Length 6–7½ mm.; width 2½–3¼ mm.

Hab. Cape Colony (Cape Town, Stellenbosch, Carnarvon, Beaufort West).

PENTAPLATARTHRUS NATALENSIS, Westw.,
Proc. Linn. Soc., ii., 1849, p. 57.

In shape and sculpture *P. natalensis* can hardly be distinguished from *P. paussoides*, but it is always larger, and the elytra, instead of

being of a uniform colour all over, are distinctly redder, and have a broad median transverse dark band, sometimes piceous black, as well as a narrower one edging the apex; owing to the larger size, the punctures on the elytra are also deeper and coarser, and so far as I know *P. natalensis* does not occur in the Cape Colony proper, whereas I have not recorded *P. paussoides* from anywhere else. Length $8\frac{1}{2}$–$9\frac{1}{2}$ mm.; width $3\frac{1}{2}$–4 mm.

Hab. Free State (Vaal River), Transvaal (Potchefstroom), Ovampoland (Okovango River).

Gen. PAUSSUS, Linn.,
Bigæ Insect., Upsal, 1775, p. 7.

Maxillary palpi four-jointed, the second longer and wider than the others, labial palpi three-jointed, the apical joint longer than the others and more or less acuminate at tip; maxillæ without internal lobe, short and bifid; ligula transverse, sometimes slightly sinuate, always setose at tip, concave inwardly, convex outwardly, and covering, with the palpi, the buccal cavity; head declivous in front, more or less elongato-quadrate, dilated behind the eyes, and narrowed into a distinct neck; vertex with either a conical, sometimes penicillated, spine, ridges, depressions, or prominences bearing two small fossæ; eyes reniform or oval, with the posterior part of the head edging the eye, projecting often and sometimes aculeate; antennæ two-jointed, the basal joint thick, more or less quadrate, the second one varying much in shape; prothorax either transverse or cordiform, in which case it is incised laterally and impressed transversely, or made bipartite by a deep, transverse, sinuous groove, but having always on each side a small patch of dense, short, flavescent hairs; elytra elongato-quadrate, parallel or subparallel, not much convex, covering the whole abdomen except the pygidium, and having on each side of the apical angle a small but very distinct ridged tubercle; they are more or less deeply punctulate and pubescent, the pubescence being sometimes reduced to squamiform scattered hairs, but are not striate; legs short, compressed, bristly, setulose or squamose; femora claviform, subclaviform or compressed; tibiæ either subcylindrical, moderately compressed or dilated; tarsi five-jointed, joints of anterior pair bristly underneath in both sexes.

From the diversity of characteristics given in this diagnosis, it is seen how difficult of arrangement the species of *Paussus* will prove to be. The extraordinary shape of the second joint, or antennal club, is probably the means of identifying the species. No antennal

clubs are exactly alike, and they vary in shape from a more or less regularly lenticular, round, oval, oblong, laminiform to cylindrical; the outer margin is often ampliate, excavate, or grooved, in which case the edges of the hollowed margin are more or less setigerous, and they have also on either the upper declivity, or on both sides, transverse striæ, which might perhaps imply that the articulations have become fused together.

Few South African *Paussus* can be said to have a close ally, excepting *P. lineatus* and *P. Afzelii*, which are however very distinct; *P. Schaumi* and *P. Germari*, which will probably prove to be identical; and *P. cucullatus* and *P. ruber*. If the shape of the maxillary palpi were taken into consideration, the South African species could be divided in eight groups :—

1. Second joint of maxillary palpi about equal to or a little shorter than the two following, subcylindrical, curving a little outwardly, and tapering slightly from base to apex: *P. Humboldti, damarinus, mimus, spinicoxis, propinquus, rusticus, manicanus, fallax, Bohemani.*

2. Second joint longer than the other two following: *P. signatipennis.*

3. Second joint shorter than the two following; apical joint of maxillæ long, and nearly tapering from base to apex: *P. cultratus.*

4. Second joint as long as the other two, but twice as wide; last joint of maxillary palpi short, elongato-ovate: *P. lineatus, Afzelii.*

5. Second joint elongato-quadrate, or curved outwardly from base to middle, and diagonal from there to apex, truncate at tip, where it is broader than the two following: *P. cylindricornis, Schuckardi, Curtisi.*

6. Second joint nearly straight inwardly, much swollen and rounded outwardly, the two joints following small, narrow: *P. Klugi, cucullatus, Burchellianus, ruber, cochlearius, viator, Linnei Burmeisteri, Marshalli.**

7. Second joint broadly inflated, nearly hexagonal, irregularly rounded outwardly and deeply incised at base, inwardly: *P. granulatus.*

8. Second joint broadly quadrate: *P. Schaumi, Germari.*

Where the second joint is inflated it is slightly convex outwardly and concave inwardly.

To the first group belong all species with a conical spine on the vertex of the head, whether with bipartite prothorax or not. The second contains only one species, as does the third; but these species are strikingly distinct, as is also the case in groups seven and eight;

* In *P. Marshalli* the second joint is broader and more quadrate inwardly, and the two joints following are longer.

in group five are three species with cylindrical antennal club, but there is a little difference between *Curtisi* and *cylindricornis*, but they agree in having the second joint broader at tip than the third, and truncate, while the sixth group includes all species with bipartite prothorax, the anterior part of which is ridged, lenticular, or in the shape of a broadly truncate one.

This arrangement is, however, somewhat artificial, but in order to make the identification easier I have adopted another one which is more artificial still, but which, I hope, will facilitate the identification.

Synopsis of Species.

I.

Head with a conical spine on vertex.

a.

Club of antennæ more or less ovate, but always sinuate in the posterior margin, thickened in the centre, and a little longer than broad.

b.

Prothorax impressed transversely and constricted laterally in the centre, but with the anterior part not much more raised than the posterior.

c.

Posterior tibiæ compressed but slender, femora moderately clavate.

Club of antennæ very thick, hardly marginate behind, and with four longitudinal, shallow striæ on the upper part of the outer declivity; prothorax quadrate, divided in two parts of nearly equal size by a deep, transverse impression .. .. .. *humboldti.*

Club much thickened in the posterior part, bisinuate outwardly and having four longitudinal striæ on the upper and under parts of the outer declivity and indenting the edges of the outer margin, which is slightly scooped; prothorax rounded laterally, constricted behind and deeply impressed in the middle *damarinus.*

Club subelongate, not very thick and of nearly equal thickness, anterior margin nearly straight .. .. *mimus.*

Club subelongate, with five deep striæ on the outer declivity, outer margin deeply grooved, both edges with five impressions .. *dohrni.*

Club subelongate, acutely marginate all round and having on both sides of the outer declivity four longitudinal striæ not indenting the outer margin; prothorax with the anterior angles rounded, the sides nearly straight, and with a deep median cavity .. .. *spinicoxis.*

Club subelongate, not much convex, sharply carinate all round and without any striation in the outer declivity; median part of prothorax deeply impressed .. .. *propinquus.*

Club lenticular, carinate all round, outer margin with three very small indentations in the middle; prothorax with a shallow median impression, and very deeply constricted laterally .. .. *rusticus.*

Club of antennæ globose, carinate all round, and without any striation on the outer declivity; prothorax nearly parallel and with a deep, transverse impression .. .. *arduus.*

c c.

Femora very slender at base and strongly clavate at apex; tibiæ incurved.

b b.

Prothorax bipartite, anterior part perpendicular and much higher than the posterior.

Club thick, rounded, sharply marginate inwardly, produced in a sharp, recurved spine at the tip, posterior margin nearly straight, slightly grooved, upper and under parts of the outer declivity with four shallow striæ, the intervals of which dent slightly both edges .. .. *bohemani.*

Club thick, rounded, sharply marginate inwardly, sinuate at tip, outer part sinuate at apex and base with the basal angle long and sharp, margin slightly grooved, and with two faint impressions in the groove, no striæ on the outer declivity .. .. *fallax.*

II.

Head without a vertical, conical spine; pygidium not bristly.

a.

Club of antennæ thickened, longer than broad, outer margin neither grooved nor scooped.

b.

Prothorax impressed transversely, anterior part not much more raised than the posterior.

c.

Posterior tibiæ compressed but slender.

Club oblong, outer margin not sinuate; prothorax constricted laterally past the middle, and with a deep, median, transverse impression .. .. *manicanus.*

Club elongato-ovate, outer margin bisinuate and incised at the base above the basal outer spur; prothorax constricted laterally, and with only a very slight transverse median impression .. .. *inermis.* *aristoteli.*

a a.

Club long, more or less laminate and ensiform.

b b.

Prothorax bipartite, the anterior part much more raised than the posterior.

c.

Posterior tibiæ slender.

(Elytra ferruginous red.)

Club long, not much curved outwardly, apex rounded and slightly narrower than the base; elytra with a black diagonal band, a post-median patch and an apical spot of the same colour *signatipennis.*

(Elytra blue black, edged with ferruginous.)

Club long, broad, slightly curved, outer margin broadly grooved, groove alveolate, upper edge with six serrations, intervals of serration setulose .. .. *concinnus.*

Club a little thicker in the outer than in the inner part, a little curved, not narrower at apex than at base and having a narrow groove in the outer margin reaching from the base to two-thirds of the length .. .. *schaumi.*

Club similar to the preceding one, but a little shorter and a little narrower at apex.. .. .. *germari.*

c c.

Posterior tibiæ broadly dilated.

(Elytra piceous black, edged with ferruginous.)

Club subensiform, very long, outer margin with a moderately wide groove reaching from the base to near the apex, edges of the groove faintly notched .. .. *raffrayia.*

a a a.

Club long, narrow, recurved, outer margin deeply scooped from base to past the median part or near the apex, upper edge subdenticulate.

c.

Posterior tibiæ slender.

(Elytra blue black, edged with ferruginous.)

Club with four impressions on the upper posterior declivity crenating the upper edge of the outer margin, outer basal angle long and sharp .. .. *lineatus.*

Club with six impressions crenating the upper edge of the outer margin, lower edge of posterior groove sinuate, outer basal short, sharp .. .. *afzelii.*

a a a a.

Club scythe-shaped.

Club compressed, outer margin not grooved, basal angle long and sharp; prothorax with a deep, round impression on each side, anterior part not much raised .. .. *cultratus.*

Club rounded, not compressed, more lanceolate than falciform but curved, swollen at base and narrowed in a very sharp point, no outer basal spur; prothorax nearly cleft in two in the median part; elytra with a deep supra-lateral groove on each side .. .. *granulatus.*

a a a a a.

Club straight, narrow, sublaminiform.

c c.

Posterior tibiæ broadly dilated.

Club sharp in the inner part and thicker in the outer, the margin of which is broadly grooved from base to apex with six impressions in the groove, and six denticulations in the upper edge .. .. *klugi.*

a a a a a a.

Club of antennæ broad, dilated, and broadly excavated outwardly.

c c.

Posterior tibiæ broadly dilated.

Head with a raised elevation on the vertex and two small pits, inner margin of club lamelliform and with four striæ, outer

margin broadly excavate for nearly all the length and striate on the upper declivity as well as in the excavation, outer basal angle broad; anterior part of prothorax lenticular, incised in the middle, but not aculeate laterally .. .. *cucullatus.*

Head plane and with two small tubercles on vertex; club as in the preceding species but with the apical part a little more acuminate and with the outer basal angle sharper and longer; anterior part of prothorax with a sharp lateral spine .. .. .. *ruber.*

Club compressed and laminate for half the length, the outer margin broadly scooped out at the apex, the upper edge with five slightly projecting ridges; anterior part of prothorax subaculeate laterally .. .. *cochlearius.*

Club with the inner margin sharp, quadri-impressed, a little sinuate, outer margin scooped from base to apex, and with five striæ denting slightly the edges; anterior part of prothorax not aculeate .. .. *viator.*

c.

Posterior tibiæ slender.

Club with two basal striæ in the inner margin, outer margin broad, excavate and with five ridges in the excavation projecting as a rounded denticulation beyond the edges, basal outer angle as long as the whole base, narrow and cylindrical; anterior part of prothorax with a sharp spine on each side.. .. .. *burchellianus.*

Club laminate in the inner and basal margins, with the outer margin enlarged and broadly excavate from the basal angle to the apex, lower edge of the excavation broader than the upper, the latter sinuate near the apex, both edges slightly striate inwardly; head with four rounded tubercles on vertex; posterior tibiæ a little dilated in the median part .. .. *rugiceps.*

Club curving outwardly, convex in the anterior part, broadly scooped in the posterior one, the lower edge of which is slightly sinuate, while the upper one is briefly subdentate; hind tibiæ slender .. .. *degeeri.*

a a a a a a a.

Antennæ thick, deeply and broadly grooved across the upper part.

c.

Posterior tibiæ not dilated.

Club with two small, closely set sinuations on the inner margin, basal part nearly straight, apical part of upper surface broadly grooved diagonally .. .. *linnei.*

c c.

Posterior tibiæ broadly dilated.

Club with the inner margin slightly bi-impressed, the outer one strongly bisinuate, upper surface with a broad but not deep excavation near the apex and a deep impression about the median part .. .. *burmeisteri.*

a a a a a a a a.

Antennæ long, slender, cylindrical.

c.

Posterior tibiæ slender.

Club a little bent outwardly in the median part, slightly thickened at tip and with two very small teeth at the apex of the outer margin, basal part deeply incised .. .. *curtisi.*

Club very long, straight, slightly thickened at tip, outer basal angle sharp, moderately long .. .. *cylindricornis.*

Club moderately long, apical part of outer margin very slightly grooved, outer basal angle not projecting .. .. *schuckardi.*

Head without a vertical spine.

Pygidium with thick, stiff bristles.

Club massive, broadly excavate in the posterior part, and with a thick tuft of hairs at the apical part of the excavation .. *marshalli.*

P. HUMBOLDTI, Westw.,

Plate XIII., fig. 11.

Trans. Entom. Soc. Lond., 1852, p. 90; Thesaur. Entom. Oxon., 1874, p. 83, pl. xix., fig. 11.

P. ayresi, Pér., Trans. S. Afric. Phil. Soc., vol. iii., 1885, p. 83, pl. i., fig. 5.

Head, antennæ, legs, and prothorax piceous red, elytra and pygidium ferruginous red; head with a very long and sharp conical tubercle; antennal club thick, somewhat oval, carinate all round, inner margin slightly sinuate, outer angle produced in a moderately long, sharp, stout, slightly curving spine; it is thicker in the middle, and has four shallow striæ extending on the upper part of the outer declivity from about the median part towards the apex; the club is smooth in the basal part only, the rest is very briefly pubescent; prothorax divided in two by a broad transverse grooved impression; the anterior part is a little emarginate in the centre and truncate behind, the posterior is as broad as the anterior, but a little less abruptly truncate, and somewhat angulate laterally; elytra subparallel, shining, and with regular series of very short, slightly flavescent, moderately closely set hairs; tibiæ compressed, broad, but not dilated. Length 11–11½ mm.; width 4½–4¾ mm.

Hab. Natal (D'Urban), Transvaal (Rustenburg).

P. DAMARINUS, Westw.,

Thesaur. Entom. Oxon., 1874, p. 84, pl. vii., fig. 9.

Piceous red, with the posterior part of the elytra from the median part castaneous; head with a sharp, long, conical spine; antennal club thick, but a little compressed in the basal part of the inner declivity, marginate all along the inner apical part and slightly sinuate near the apex, slightly incurved near the apical part, which thus appears as if it were a little curved, posterior margin

grooved for two-thirds of the length, with the edges dented slightly by the intervals of four shallow striæ occurring on both upper and under sides of the outer declivity; prothorax with the transverse median impression reaching from side to side, and with a lateral flavescent pubescence; anterior part rounded laterally, narrowing from base to apex and slightly emarginate in the centre, posterior part bi-impressed in the centre and constricted laterally at base; elytra parallel, covered with closely set, briefly pubescent punctures; tibiæ slender. Length $10\frac{3}{4}$ mm.; width $4\frac{1}{2}$ mm.

Hab. Transvaal (Rustenburg), Bechuanaland.

P. MIMUS.

The colour and shape of head and prothorax are as in *P. damarinus*, but the shape of the antennal club is different; it is not so thick in the posterior part, the inner margin is sharper, nearly straight, the emargination of the posterior part is not so pronounced, the grooved part is deeper, and the striæ better defined and indent more the edges of the groove; instead of being smooth and shining they are very finely granulose, opaque, and glabrous; the spur of the outer angle is a little longer and less curved.

The shape of the club is intermediate between that of *P. damarinus* and *P. dohrni*, but it is not setose as in the latter, nor is the posterior margin grooved from base to apex. Length $10\frac{1}{2}$ mm.; width 4 mm.

Hab. Transvaal (Rustenburg).

P. DOHRNI, Westw.,

Trans. Entom. Soc. Lond., 1852, p. 93; Thesaur. Entom. Oxon., p. 92, pl. xvii., fig. 12.

Dark chestnut; elytra covered with a very brief, closely set pubescence; head as in the two preceding species; antennal club longer than broad, thick, setulose, carinate in the anterior and apical margins, the former very slightly sinuate above the base, posterior part broadly grooved from end to end, and with a lateral yellow pubescence; posterior declivity with four broad striæ on both sides, the intervals of which indent the edges of the groove; prothorax shaped as in *P. damarinus* and *P. mimus*, but the anterior part is more regularly rounded laterally.

I have not seen this species, and the diagnosis here given is made from the excellent figure given by Westwood in the "Thesaurus Entomologicus Oxoniensis." The characters distinguishing this species from *P. damarinus* and *P. mimus* are the broader and longer groove in the posterior part of the club, and also the striæ on both

sides of the posterior declivity, which are broader and deeper. Length 8 mm.

Hab. Natal, teste Westwood.

P. SPINICOXIS, Westw.,
Proc. Linn. Soc., ii., 1849, p. 59; Thesaur. Entom. Oxon., p. 84, pl. xviii., fig. 7.

Ferruginous red; head with a sharp, conical spine on the vertex; antennal club very briefly pubescent, moderately thick, subelongato-ovate, carinate from the base of the anterior margin to the posterior one, the latter with a faint groove, posterior part of the declivity with four longitudinal, shallow striæ on each side, reaching but not indenting the rounded posterior margin; prothorax transversely impressed in the middle from side to side, and with a lateral yellow pubescence, anterior part rounded, attenuate laterally towards the neck and not emarginate in the centre of the basal part, posterior part deeply scooped in the middle almost up to the base; elytra elongate, nearly parallel, closely punctured, and glabrous; pygidium closely punctured; anterior femora subclavate; intermediate coxæ with a very small spinous process at the base. Length 7–8½ mm.; width 2½ mm.

Hab. Natal (D'Urban, Maritzburg), Transvaal (Rustenburg), Zambezia (Buluwayo), Mozambique (Rikatla).

P. PROPINQUUS, Pér.,
Plate XII., fig. 7; Plate XIII., fig. 7.
Trans. S. Afric. Phil. Soc., iv., 1886, p. 83.

Chestnut colour, subopaque; head briefly pubescent, and with a sharp, conical spine on the vertex; antennal club subelongato-ovate, moderately thick, and sharply carinate from the angle of the inner margin to the posterior basal angle, which is produced in a short, subtruncate tooth; it is finely granulose, and has a series of very short bristles on each side of the posterior margin; prothorax with a median subdiagonal transverse impression; anterior part convex, a little more raised than the posterior one, rounded laterally, punctulate, and covered with moderately long bristles, posterior part briefly pubescent, a little narrower than the anterior, and with a shallow median depression; elytra a little lighter in colour than the head and prothorax, and covered with a closely set and dense reddish pubescence; legs densely bristly. Length 8–9 mm.; width 3–3¼ mm.

Hab. Transvaal (Bloemhof, Potchefstroom, Heildeberg, Pretoria), Bechuanaland.

P. RUSTICUS, Pér.,
Plate XIII., fig. 10.
Trans. S. Afric. Phil. Soc., iii., 1885, p. 82.

Reddish, shining; head with a very conspicuous conical spine on the vertex; antennal club subelongato-ovate, moderately thick, inner and apical margins carinate, the former nearly straight, outer margin slightly emarginate near the apex, also carinate, but with three very small and hardly noticeable dents in the median part of the carina; posterior basal angle not longer than the anterior; prothorax with a very shallow transverse median impression reaching from side to side, and much constricted laterally in the middle, anterior part convex, subcordiform, briefly pubescent, posterior part narrower than the anterior, subcylindrical, and without any median impression; elytra parallel, very finely and closely punctured, each puncture bearing a very short hair; posterior tibiæ slightly dilate. Length $8\frac{1}{2}$ mm.; width 3 mm.

Hab. Transvaal (Rustenburg).

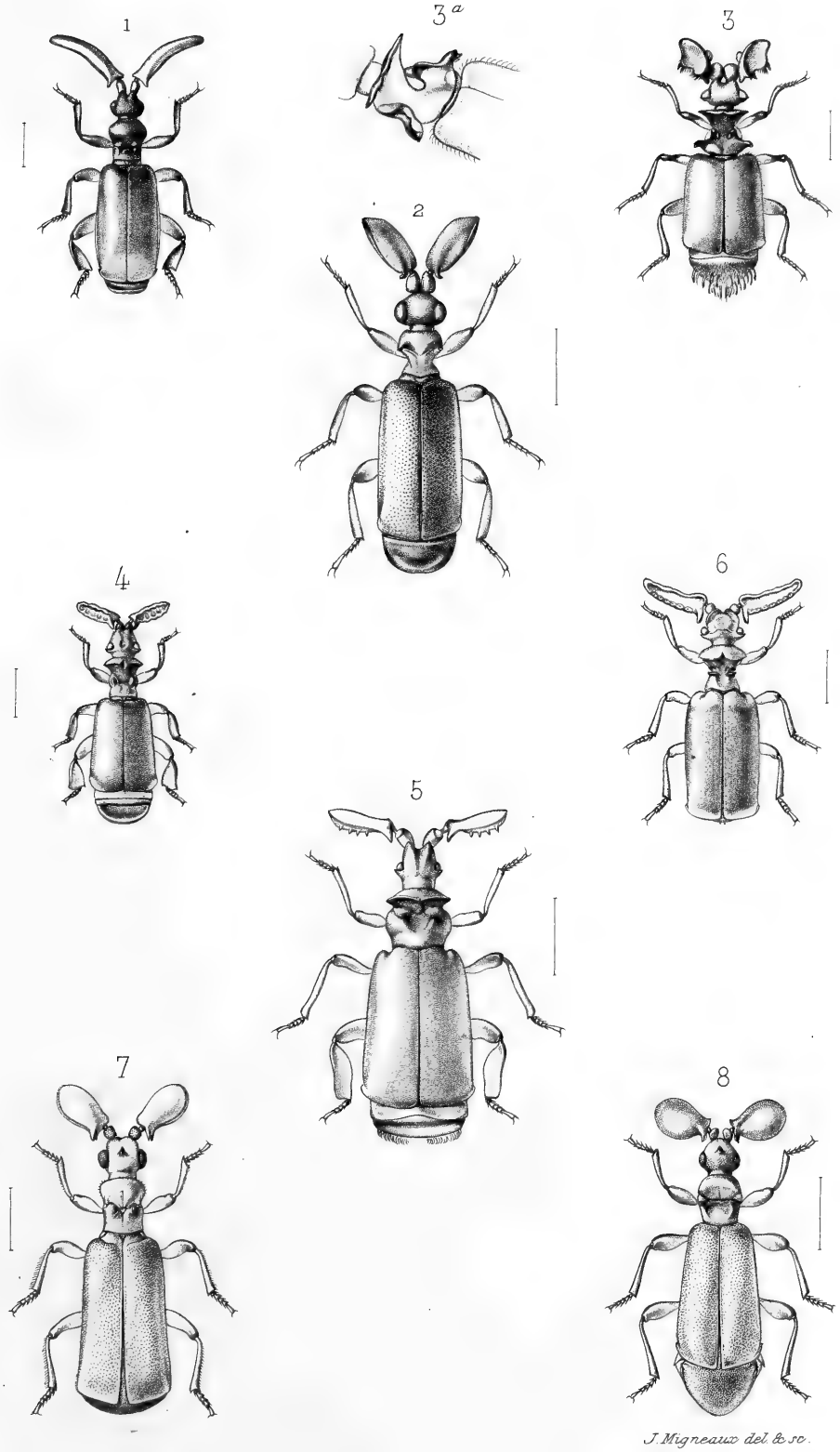
P. ARDUUS, Pér.,
Plate XII., fig. 8; Plate XIII., fig. 6.
Trans. Entom. Soc. Lond., 1896, p. 149.

Red, shining; head with a long conical tubercle on the vertex; smooth, but slightly punctured behind; antennal club short, thick, convex on both sides, carinate all round, depressed at the base with the basal outer angle produced in a long, sharp, slightly recurving spine, no longitudinal impression in the posterior declivity; prothorax smooth, with a deep transverse impression reaching from side to side and having a yellow pubescent patch at each end, anterior and posterior part equally broad, the anterior a little more raised than the posterior, the sides nearly parallel; elytra elongate, subparallel, smooth, and very closely punctured, the punctures in the anterior part being deeper and broader than those behind; tibiæ slender. Length 8 mm.; width $2\frac{1}{2}$ mm.

Hab. Zambezia (Manica).

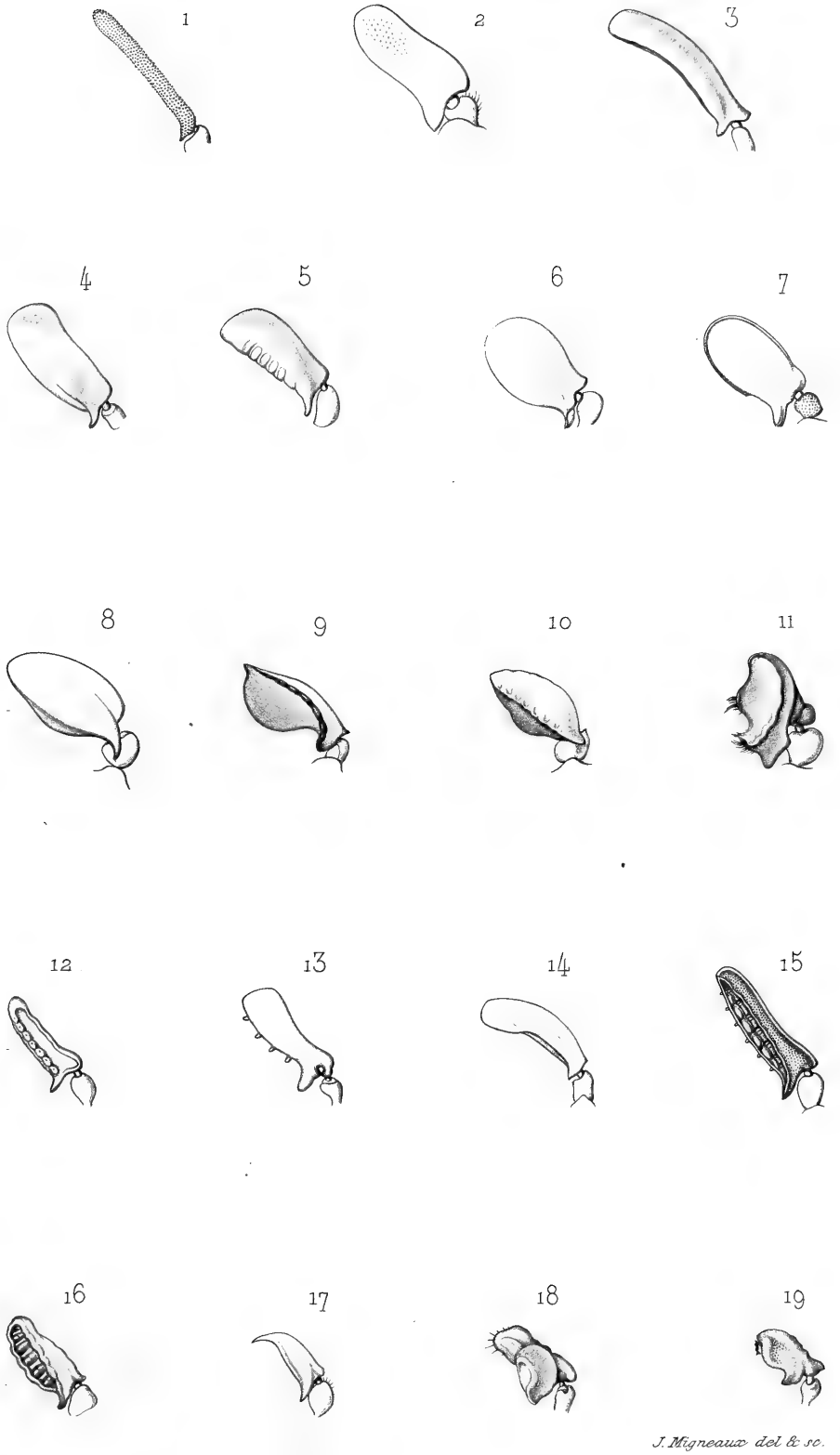
P. FALLAX, Pér.,
Trans. S. Afric. Phil. Soc., vi., 1892, p. 108.

Head, antennæ, and prothorax chestnut brown; elytra lighter red; head pubescent, and with a short, conical tubercle on the vertex; antennal club shining, slightly pubescent, subovate, carinate all along the inner and apical margins, but emarginate at the apical



1	Paussus	Raffrayi	5	Paussus	Barberi
2	„	manicanus	6	„	concinnus
3	„	Marshalli	7	„	propinquus
4	„	viator	8	„	arduus

Imp. J. Taneur.



J. Migneaux del & sc.

Paussus

1 cylindricornis 5 lineatus 9 rugiceps 13 Barberi
2 signatipennis 6 arduus 10 rusticus 14 Germari
3 Raffrayi 7 propinquus 11 Marshalli 15 Klugii
4 manicanus 8 Humboldi 12 concinnus 16 viator
17 cultratus 18 Linnei 19 Burmeisteri

Imp. J. Taneur.

part of the outer margin, which is grooved, although neither deeply nor broadly, from the emargination to the outer angle, which is produced in a long, triangular spur; prothorax cleft in two by a very deep groove, having a small flavescent patch on each side; anterior part setose, much raised, thick, sloping towards the neck, and constricted laterally; posterior part deeply excavated in the central part, and bituberculate on each side; elytra subparallel, punctured, punctures deep and setigerous; tibiæ slender, arcuate; femora strongly clavate, and very slender at base. Length 5 mm.; width $1\frac{4}{5}$ mm.

Hab. Transvaal (Potchefstroom).

PAUSSUS BOHEMANI, Westw.,
Trans. Entom. Soc. Lond., 1855, p. 83; Thesaur. Entom. Oxon., p. 93, pl. xviii., fig. 9.

Light brick-red, turning to flavescent in the elytra; head pubescent, and with the whole posterior part raised in a sharp, conical spine; antennal club shining, briefly pubescent, thick, semicircular in the inner part, which is not carinate and ends in a sharp point at the apex, outer margin narrowly but deeply grooved from the apical recurved spine to a short distance from the basal angle, which is produced in a long, slightly recurved spine; prothorax cleft in two by a very deep transverse groove, having a small flavescent patch on each side, anterior part much raised, compressed, thin, nearly perpendicular, carinate at tip, and has a very long pubescence, posterior part deeply excavate in the central part, and bituberculate on each side (Westwood, *loc. cit.*, has given a good side-view figure of the prothorax of this species, but the prothorax of the insect (fig. 9) is not at all correct); elytra punctulate, each puncture bearing a very long hair; pygidium with a long pubescence; tibiæ arcuate, femora strongly clavate, and very slender at base. Length $5\frac{1}{4}$ mm.; width 2 mm.

Hab. Cape Colony (Kimberley).

PAUSSUS MANICANUS, Pér.,
Plate XII., fig. 2; Plate XIII., fig. 4.
Trans. Entom. Soc. Lond., 1896, p. 149.

Reddish brown, shining: head quite flat and smooth on the vertex; antennal club glabrous, shining, long as the head and prothorax, nearly oblong, a little narrower at apex and base than in the middle, compressed but thick in the median part, carinate all round and with the posterior angle produced in a sharp, moderately recurved

spine; prothorax constricted laterally past the median part and with a shallow median transverse impression, having a very small flavescent patch on each side but not incising the lateral parts, the anterior part is depressed, hardly more raised than the posterior, and has a median longitudinal shallow impression, the posterior part is nearly plane, and not impressed in the centre; elytra parallel deeply and closely punctured, each puncture bearing a very short, flavescent seta; femora a little swollen; tibiæ slender. Length 8½–9 mm.; width 3 mm.

Hab. Zambezia (Manica, Buluwayo).

P. INERMIS, Gerstäck,

Monatsb. Berl. Acad., 1855, p. 268; Peter's Reis. n. Mossamb., 1862, p. 268, pl. xv., fig. 12; Westw., Thesaur. Entom. Oxon., p. 95, pl. xix., fig. 5.

Reddish brown, moderately shining; head plane; antennal club subovate, but deeply emarginate in the posterior margin near the apex, carinate all round, not grooved behind, basal part nearly straight, but with a narrow transverse incision in the outer apical angle, the external part of which is produced in a moderately long recurved spine; prothorax elongato-cordate, faintly impressed transversely at about the median part, anterior part convex, posterior part not depressed; elytra subparallel, very closely and finely punctured and briefly pubescent; tibiæ slender. Length 8 mm.

Hab. Mozambique (Tette).

This description is made from the figure in Westwood's 'Thesaurus Entomologicus Oxoniensis.' I am not aware that this *Paussus* has been met with since its capture by Dr. Peters, 1842–1848. The type is in the Berlin Museum.

PAUSSUS ARISTOTELI, Jas. Thoms.,

Archiv. Entom., i., 1856, p. 403, pl. xxi., fig. 2.

"Light chestnut brown; head projecting, strongly and suddenly depressed behind; eyes large, rounded; basal joint of antennæ elongate, second very large, dilate, subconical, or claviform, wider at the base which has a curved spine in the outer angle; prothorax subcordiform, wider in the middle with the anterior angles rounded, divided in the middle by a transverse line, median longitudinal line not much noticeable; elytra at least three times as long as the prothorax and broader at the base, rounded at the humeral angle, nearly truncate at the apex, and with two slight projections on the suture after about the fourth part of the length, dorsal part slightly punc-

tured; legs strong; abdomen punctured, the other parts of the body smooth." Length 8 mm.

This species, which I have not seen, is evidently a close ally to *P. inermis;* but judging from the figure, the club is more compressed, the spur is longer, but apparently also incised, the elytra are more thickly pubescent than in both the figures of *inermis*, and the anterior part of the prothorax is more dilated.

Hab. Natal, teste Thomson, and Port Natal and Abyssinia, teste Raffray.

PAUSSUS SIGNATIPENNIS, Pér.,

Plate XIII., fig. 2.

Trans. S. Afric. Phil. Soc., iii., 1885, p. 83, pl. i., fig. 4.

Brownish red, moderately shining; head, prothorax, elytra, and legs densely pubescent; head hexagonal, plane, a little scooped at apex; penultimate joint thick, flattened, very pilose; antennal club compressed, sublamelliform, as long as the head and anterior part of prothorax put together, nearly as broad as the anterior part of the head, curving outwardly, carinate in the inner margin, slightly emarginate at about the median part in the posterior margin, which is not grooved thickly but briefly pubescent, outer angle produced in a more or less rounded spur; prothorax bipartite, anterior part much raised, almost perpendicular behind, broadest in the middle, sides narrow and ridge shape, posterior part with three longitudinal impressions separated by two median ridges, lateral walls raised and tuberculated at apex above the small flavescent patch; elytra subparallel, somewhat roughly punctured and having a dense, long, greyish pubescence; they are of the same colour as the prothorax and more shining than the head and prothorax, and have on each side a narrow black band running diagonally from under the humeral angle to a short distance of the median part of the suture, a subquadrate patch of the same colour in the posterior part, and the apical part of the suture is also edged with black; tibiæ compressed, slightly dilated. Length 8 mm.; width $2\frac{1}{2}$ mm.

Hab. Transvaal (Potchefstroom).

PAUSSUS CONCINNUS, Pér.,

Plate XII., fig. 6; Plate XIII., fig. 12.

Trans. Entom. Soc. Lond., 1896, p. 150.

Head, prothorax, and legs brick-red; elytra black, edged with red at the base and apex; head and prothorax glabrous, the former edged in front on the vertex with a high semicircular ridge which is broadly emarginate in the middle and reaches from eye to eye,

posterior part raised above the neck into a ridge higher than the anterior one, and with a median and two lateral sinuations; median part of head plane, and with a broad depression above each eye partly edged by a very narrow groove which extends also along the posterior raised part; antennal club long, broad, compressed, as long as the base of the prothorax, slightly curving in the inner edge, which is distinctly marginate and has besides a distinct raised line running parallel to it, outer margin broadly grooved from base to apex, and having seven round alveolæ as well as six obtuse serrations on the upper edge, the intervals of which bear each a short yellowish seta, outer basal angle of the club long and sharp; prothorax bipartite, the anterior part much raised, short, abruptly truncate, deeply incised in the centre and on each side, and with a deep transverse impression, the posterior part is narrower than the anterior, and has the shape of a truncate cone, broadly scooped out in the anterior median part, with each side of the incision produced in a sharp, short tubercle; elytra closely set with very short, greyish hairs, but very indistinctly punctured; femora not clavate; tibiæ straight, not thickened. Length 6 mm.; width $2\frac{1}{2}$ mm.

Hab. Zambezia (Salisbury).

PAUSSUS SCHAUMI, Westw.,

Trans. Entom. Soc. Lond., 1852, p. 94; Thesaur. Entom. Oxon., p. 94, pl. xix., fig. 6.

P. novaculatus, Pér., Trans. S. Afric. Phil. Soc., vol. iii., 1885, p. 84, pl. i., fig. 6.

Head, antennæ, prothorax, and legs brownish red; elytra dark blue, with a broad basal band and a narrow apical line brownish red; head with two high longitudinal ridges running from the neck to the apex, finely aciculate, briefly pubescent; antennal club compressed, curving outwardly, distinctly pedunculate at base, as long as the head and anterior part of prothorax put together, carinate in the inner margin, curving outwardly, posterior part a little thicker than the anterior, with the outer margin grooved from one-third of the length to the basal part, the outer angle of which is short and sharp, basal joint elongato-quadrate; prothorax with the anterior part in the shape of a short, broadly truncate cone, scooped on each side, produced in the centre of the transverse impression in two narrow ridges nearly connected across the impression with two similar ones in the posterior part, which divide it into three shallow cavities, the external walls of the posterior part end in a round, blackish tubercle surrounded by the yellow pubescent patch, the

surface of the whole prothorax is distinctly though very briefly pubescent; elytra subparallel very finely aciculate and with a few scattered very short hairs; legs moderately slender; pygidium not incised in the posterior margin. Length 8 mm.; width $3\frac{1}{4}$–$3\frac{1}{2}$ mm.

Hab. Cape Colony (Vaal River).

PAUSSUS GERMARI, Westw.,

Plate XIII., fig. 14.

Trans. Entom. Soc. Lond., 1852, p. 94; Thesaur. Entom. Oxon., p. 94, pl. xix., fig. 2.

The only difference between *P. schaumi* and *P. germari* seems to consist in the shape of the antennal club, which is a little shorter, a little narrowed towards the apical part and slightly less curved outwardly owing to the outer margin being slightly straighter, the base of the club is much less conspicuously pedunculate, and the space between the two occipital ridges has a faint triangular impression, a trace of which is found in *P. schaumi;* the sculpture and shape and colour of prothorax and elytra are the same as in *schaumi.* Length $6\frac{1}{2}$ mm.; width $2\frac{1}{2}$ mm.

Hab. Natal, teste Westwood.

This species occurs also in Abyssinia; a specimen from that locality agrees very well with Westwood's figure, except that the clava is entirely reddish brown.

PAUSSUS LINEATUS, Thunb.,

Plate XIII., fig. 5.

Act. Holm., 1781, p. 171, pl. iii., figs. 4–5.

P. parrianus, Westw., Trans. Entom. Soc. Lond., 1847, p. 29, pl. ii., fig. 3; Thesaur. Entom. Oxon., p. 91, pl. xvii., fig. 7.

Dark red, moderately shining; elytra blue black, broadly edged all round with dark red; head flat on the vertex, but with the margins raised all round, slightly aciculate and very briefly pubescent, neck very distinct; antennal club much recurved, as long as the head and the anterior part of the prothorax together anterior margin sharp and carinate, posterior part thicker, outer margin carinate from the apex to one-fourth of the length, deeply scooped from there to the base, the outer angle of which ends in a sharp, long spur, the upper edge of the scooped margin has four striations with raised intervals serrating the edge, the lower edge is not dented, and between the end of the groove and the apex there is a small rounded marginal semicircular projection; the first joint

is elongato-quadrate, nearly twice as long as broad, and like the club hardly pubescent; prothorax bipartite, lenticular, with the edges not very sharp, incised in the centre and laterally so as to look quadri-tuberculate, and raised higher than the posterior, which has two median longitudinal impressions separated by a double ridge, with the lateral walls hardly raised, sloping towards the median transverse impression, which has a small, black tubercle on each side next to the small flavescent patch; elytra subparallel, finely shagreened and very briefly pubescent; legs slender. Length 5–6 mm; width 2–2¼ mm.

Hab. Cape Colony (Cape Town and environs).

PAUSSUS AFZELII,

Trans. Entom. Soc. Lond., 1855, p. 82; Thesaur. Entom. Oxon., p. 96, pl. vii., fig. 6.

P. laetus, Gerstäck, Stett. Zeit., 1867, p. 430.

Very similar to *P. lineatus* in shape, sculpture, and colouring, but the shape of the antennal club and of the prothorax is different; the former has the same shape, but is longer and curves more backward, and the posterior declivity on the upper part has six longer striæ instead of four, with the intervals rounded and denting the upper edge; basal spur sharp but not long; the latter is also bipartite, but the anterior raised part is not so lenticular, it is deeply incised in the middle, but not laterally, and the walls of the posterior part are a little more raised and there is only one broad median impression. Length 6–6½ mm.; width 2¼–2½ mm.

Hab. Transvaal (Rustenburg, Leydenburg); occurs also in Abyssinia.

PAUSSUS CULTRATUS, Westw.,

Plate XIII., fig. 17.

Proc. Linn. Soc., 1849, p. 52; Thesaur. Entom. Oxon., p. 86, pl. xix., fig. 1.

? *P. plinii*, Thoms., Arch. Entom., i., 1857, p. 403, pl. xxi., fig. 3.

Light testaceous, shining; head, thorax, and elytra briefly pubescent; head convex on vertex, elongato-quadrate; first joint of antennæ elongato-quadrate and hollowed in the upper part, club compressed, long, falciform, with both inner and outer margins sharp, the inner one nearly straight for two-thirds of the length and sharply curved, inner margin slightly sinuate past the median part, apical part narrowed and very sharp; prothorax with a deep impression on each side of the median part and with a small pubescent yellow patch on each side, anterior part not more raised than the posterior

one, which is slightly narrower; elytra parallel and covered with densely set shallow setigerous punctures; tibiæ slender. Length $4\frac{3}{4}$–5 mm.; width 2 mm.

Raffray is of opinion that *P. cultratus* and *P. plinii* are two different species, which he distinguishes by the shape of the antennal club which is nearly alike, but "in *P. plinii* it is longer, narrower, and more falciform, decreasing gradually from base to tip, and the more regular curve belongs to a circle of a wider diameter, and, therefore, the point is longer, more slender and sharper, while in *P. cultratus* the club looks like an elongate square with the sides nearly parallel as far as the tip, which is suddenly curved to form a shorter and more obtuse point." He adds that he possessed the two species.

It is quite true that the figure given by Westwood of the club of *P. cultratus* is broader in proportion to the length than that of *P. plinii*, and that I have not seen any example as yet absolutely similar, but I think that the latter as differentiated by my excellent friend Raffray is the male, and that Westwood has exaggerated the width of the club in his figure of *P. cultratus*.*

Hab. Natal (D'Urban, Maritzburg, Estcourt, Frere), Transvaal (Potchefstroom, Pretoria).

PAUSSUS GRANULATUS, Westw.,
Proc. Linn. Soc., ii., 1849, p. 58; Thesaur. Entom. Oxon., p. 86, pl. xvii., fig. 5.

Light, testaceous glabrous, moderately shining; head granulose and with two small rounded depressions, one on each side of the ocelli; first joint of antennæ swollen at base, a little attenuate at tip, club rounded, swollen at base and tapering gradually into a sharp point with a seta at tip, falcate, and without any basal outer angle; prothorax bipartite, anterior part nearly perpendicular, narrow, emarginate in the middle, and also, but not so deeply, laterally, median excavation very wide, posterior part excavate and with only the lateral subtuberculate walls left; elytra subelongato-quadrate and with a supra-lateral, deep and broad groove running from the humeral angle to the apex, carinate outwardly, and with a faint silky white tinge, the discoidal part of the elytra is granulose and darker than the general colour, and the sides are not so closely granulose; the inner edge of the intermediate and posterior tibiæ are sinuate inwardly, the latter inflated. Length 4 mm.; width 2 mm.

Hab. Cape Colony (Port Elizabeth, Grahamstown), Transvaal (Pretoria).

* Dr. C. A. Dohrn has expressed also (Zur. Literat. d. Pauss. Stett. Ent. 1887, Zeit., p. 317) an opinion similar to mine.

PAUSSUS RAFFRAYI, Pér.,
Plate XII., fig. 1; Plate XIII., fig. 3.
Trans. Entom. Soc. Lond., 1896, p. 150.

Piceous black, with the apical part of the elytra and the tarsi reddish brown; head rugulose, with the anterior part deeply impressed in the centre, and the walls of the impression raised in two short tuberculiform processes, posterior part bi-impressed; club of the antennæ subensiform, very long, compressed, external margin with a moderately wide groove reaching from the base to near the apex, both edges of the groove faintly notched; prothorax bipartite, the anterior part raised, smooth, the median transverse cavity wide and deep and having two yellow pubescent patches in the centre, posterior part depressed and with three tuberculated indentations; elytra subparallel, shining, moderately punctured, each puncture with a very short, greyish hair; anterior and intermediate tibiæ slender, posterior tibiæ broadly dilated and flattened. Length 5 mm.; width $1\frac{1}{2}$ mm.

Hab. Natal (Frere).

PAUSSUS KLUGI, Westw.,
Plate XIII., fig. 15.
Trans. Entom. Soc. Lond., p. 85, pl. ix., fig. 2; Arcana. Entom., vol. ii., p. 183, pl. xci., fig. 4.

Ferruginous or piceous red, moderately shining, very briefly pubescent; head plane on the vertex, with a median longitudinal groove, posterior part with two slight protuberances; club elongate, very little shorter than head and thorax together, laminiform, carinate all along the inner and apical margin, posterior part thicker than the anterior, broadly grooved from base to apex, the groove with seven impressions on the lower part and with six sharp, short, briefly setigerous teeth projecting beyond the edge, upper edge not denticulate; prothorax bipartite, anterior part lenticular, but more convex in front than behind, slightly emarginate in the centre and subangular laterally, median incision very deep and broad, posterior part as broad as the anterior, lateral walls short and sharp, median part with three small impressions divided by two smooth, not much raised tubercles; elytra subparallel and with a very brief and scattered pubescence; posterior tibiæ much dilated, triangular, the anterior and intermediate ones slender. Length 6 mm.; width 2 mm.

Hab. Natal (Maritzburg, Estcourt, Frere), Transvaal (Waterberg). In the examples from Estcourt and Frere the colour is piceous red instead of being ferruginous.

Paussus cucullatus, Westw.,

Proc. Linn. Soc., ii., 1849, p. 59; Thesaur. Entom. Oxon., p. 93, pl. xviii., fig. 6.

Chestnut red, shining, nearly glabrous; head with an elevation on the vertex, encircled by a sharp ridge, and bearing two very small tubercles; club short, broad, with the anterior part compressed, sharp, and with four deep, narrow striæ, outer margin broadly and deeply excavate for nearly the whole length, and with the internal part of the excavation with six moderately deep transverse striæ, the intervals of which form a blunt serration on both edges; prothorax bipartite, the anterior part in the shape of a thin disk, slightly angular laterally, and not incised in the median part, posterior part with the lateral walls sloping at apex and not much raised, median part moderately excavate and with no longitudinal impressions; elytra subparallel, almost glabrous; femora and tibiæ very much compressed and inflated, the posterior tibiæ more dilated than the others. Length $4\frac{1}{2}$ mm.; width $1\frac{3}{4}$ mm.

Hab. Cape Colony (Uitenhage, Albany, Port Elizabeth), Natal (Estcourt, Maritzburg, Frere).

Paussus ruber, Thunb.,

Vet. Acad. Handl., 1781, t. 2, p. 170.

Reddish brown, moderately shining; head plane and with two very small tubercles on the posterior part; club somewhat similar in shape to that of *P. cucullatus*, but it is not quite so much dilated, the striæ of the inner margin are not so deep, and the excavated part of the outer margin is not so broad, the striæ in the excavation are deeper, but the intervals, although more convex, hardly dentate the edges; the prothorax bipartite, anterior part lenticular, incised in the middle and distinctly spinose laterally, posterior part bituberculate in the centre, lateral walls sharp and well defined; elytra parallel, nearly glabrous; all the tibiæ are dilated, but the posterior ones are much broader than the others. Length $4\frac{1}{2}$–5 mm.; width 2–$2\frac{1}{4}$ mm.

Hab. Cape Colony (Vaal River, Sterkstroom), Zambezia (Limpopo River).

Paussus cochlearius, Westw.,

Trans. Entom. Soc. Lond., vol. ii., p. 88, pl. ix., fig. 6; Arcana Entom., vol. ii., p. 189, pl. xciv., fig. 3.

Chestnut brown, briefly but thickly pubescent, subopaque; head plane in the centre, carinate transversely in the anterior edge and with two diagonal ridges behind diverging from the central part

towards the hind part of the eyes; basal joint of antennæ broad, subquadrate, club laminiform for half the length, apical part of the outer margin dilated, scooped out, and having internally five striæ with rounded intervals serrating the lower edge, and also, but in a lesser degree the upper one, outer basal angle moderately long and sharp; prothorax bipartite, the anterior one lenticular and emarginate in the centre and laterally, posterior one depressed in the centre, walls sharp and not tuberculate; elytra subparallel; tibiæ of all legs compressed and broad. Length $5\frac{1}{4}$ mm.; width 2 mm.

Hab. Transvaal (Potchefstroom), Natal (Estcourt), Cape Colony (Uitenhage).

PAUSSUS VIATOR, Pér.,
Plate XII., fig. 4; Plate XIII., fig. 19.
Trans. Entom. Soc. Lond., 1896, p. 151.

Piceous black, opaque, with the antennæ and legs very dark red; head with three short impressions in the middle of the vertex, the median one of which is the deepest and is bounded by two short ridges; inner margin of the club sharp, quadri-impressed, a little sinuate at tip, the outer one dilated, broadly scooped out from apex to base with the outer basal angle moderately long and sharp; the cavity of the outer margin has six striæ, the rounded intervals of which serrulate the two edges; prothorax bipartite, with the anterior part lenticular and incised in the centre, posterior part long, lateral walls sloping towards the transverse incision, median part slightly incised longitudinally; elytra parallel, nearly glabrous; tibiæ compressed, broad, the posterior ones much dilated. Length 5 mm.; width $1\frac{1}{2}$ mm.

Hab. Natal (Frere, Estcourt).

PAUSSUS BURCHELLIANUS, Westw.,
Trans. Entom. Soc. Lond., 1869, p. 319; Thesaur. Entom. Oxon., p. 92, pl. xvii. fig. 10.

Chestnut brown, moderately shining; head pubescent, plane in the centre, but raised in a small protuberance behind, apex raised in a transverse ridge; club carinate for half its length in the inner margin and with three marginal impressions, the basal one of which is broader and deeper than the others, outer margin broadly dilate and scooped out, and having five deep striæ extending from one edge to the other with the intervals raised, rounded, serrating both the edges, those on the lower one slightly penicillate at tip, outer basal angle very long and cylindrical; prothorax briefly pubescent, bipartite, anterior part perpendicular with the median part lamini-

form, subquadrate, broadly emarginate in the centre, lateral part spinose, posterior part depressed in the anterior part with the lateral walls tuberculate; elytra parallel and covered with a long subflavescent pubescence; tibiæ slender. Length 5 mm.; width 2 mm.

Hab. Cape Colony (Albany, Sterkstroom).

PAUSSUS RUGICEPS, Pér.,

Plate XIII., fig. 9.

Trans. S. Afric. Phil. Soc., iv., 1886, p. 82, pl. i., fig. 4.

Elytra piceous red, antennæ, head, prothorax, and legs dark red; head rugose, and with a high prominence divided in two by a deep groove and tuberculose at each end; club slightly pubescent, a little curved, inner margin sharp, not impressed, outer margin dilated, broadly and deeply scooped out from apex to base, outer angle sharp and moderately long, cavity smooth, but with five faint serrations on both edges; prothorax bipartite, anterior part laminiform, subrectangular laterally and with the anterior face sloping, posterior part only a little depressed in the central part, walls not much raised and tuberculate; elytra parallel, very finely aciculate and with regular series of very short, distinct greyish hairs; legs briefly setulose; anterior and intermediate tibiæ moderately slender, posterior ones ampliate, but not broader at the apex than at the base. Length 5 mm.; width 2 mm.

Hab. Transvaal (Rustenburg).

The antennal club is nearly similar to that of *P. Degeeri.*

PAUSSUS DEGEERI, Westw.,

Trans. Entom. Soc. Lond., 1855, p. 82; Thesaur. Entom. Oxon, p. 93, pl. xviii., fig. 12.

Fulvous, elytra finely punctured and covered with very short yellowish setæ; head moderately wide and having two small rounded equidistant tubercles between the eyes; antennal club oblong, curved, anterior margin sharp, rounded at apex, posterior one grooved, the groove elongate, subpyriform, the upper edge with five small rounded tubercles, lower edge a little wider than the upper and simple; prothorax sub-bipartate, anterior part hardly broader than the head, angular, raised, subemarginate in the middle with the outer sides angular, posterior part narrower and with the outer sides raised and parallel, grooved tranversely at about the median part, but not deeply, and having in the middle two contiguous tubercles; elytra much larger than the prothorax, subparallel; legs elongate, slender. Length 6½ mm.

Hab. Caffraria.

I have not met yet with this species, and the description here given is culled from Westwood's.

PAUSSUS BURMEISTERI, Westw.,
Plate XIII., fig. 16.

Trans. Entom. Soc. Lond., ii., p. 86, pl. ix., fig. 3; Arcana Entom., vol. ii., p. 171, pl. lxxxix., fig. 2.

Opaque and set with squamiform hairs; head, antennæ, prothorax, and legs dark brown; elytra deep chestnut brown; head with an occipital protuberance with a narrow rounded ridge enclosing a small pit; club thick, longer than broad, carinate all round, inner margin slightly bi-impressed, the outer one strongly bisinuate, apical part of the upper surface deeply and broadly scooped transversely near the apical part, the lower edge of the cavity slightly serrulate and very deeply impressed at about the median part, outer basal angle short and sharp; prothorax bipartite, anterior part in the shape of a broadly truncate cone, incised in the middle, posterior part with a very deep median impression and with four small tubercles, two in the middle and one at the apex of each lateral wall; elytra subparallel, set with distant seriated squamiform hairs; all tibiæ dilated, the posterior ones broader than the others. Length 6 mm.; width 2 mm.

Hab. Cape Colony (Cape Town).

PAUSSUS LINNEI, Westw.,
Plate XIII., fig. 18.

Trans. Linn. Soc., xvi., p. 634, pl. xxxiii., fig. 22; Arcana Entom., ii., p. 169, pl. lxxxviii., fig. 4.

Chestnut brown, head and prothorax a little darker, hind part of the head raised in a small prominence containing two small pits close to one another and with edges carinate; basal joint of antennæ thick, elongato-quadrate; club thick, broad at the base, which is sinuate, with the outer angle sharp but not spinose, inner margin compressed, outer part swollen and broadly and deeply scooped out transversely between the apex and the median part, the excavation is concave and the external wall thin, incurved, and slightly pubescent along the edge; prothorax bipartite, anterior part lenticular, very slightly emarginate in the centre and subsquamose, posterior part deeply excavate in the middle and with two small median and one lateral subtuberculiform processes; elytra subparallel, shining, subsquamiform; legs slightly pubescent; all tibiæ compressed, somewhat broad, but not dilated. Length 4 mm.; width $1\frac{1}{4}$ mm.

Hab. Cape Colony (Cape Town, Oudtshoorn).

Paussus barkeri, Pér.,

Plate XII., fig. 5; Plate XIII., fig. 13.

Trans. Entom. Soc. Lond., 1896, p. 152.

Reddish brown with very short pubescence all over; head with two median carinæ aculeate in front and overlapping the point of insertion of antennæ, these two ridges diverge slightly from the middle of the vertex and have a narrow groove ceasing abruptly above the neck, which is very short and not constricted; basal joint of antennæ quadrate, very thick; club moderately long, not compressed, deeply sinuate in the inner part, which, like the rounded apical part, is acutely marginate, outer part also sinuate and having on the margin four very distinct teeth bearing several very short setæ, while the apical angle is developed into a long, broad, blunt spur, the inner part of which curves so as to form a short tooth corresponding to a similar tooth situated on the opposite part of the base; the joints of the antennæ are covered with closely set, very short, squamiform hairs; prothorax bipartite, the anterior part ridged, slightly grooved in the centre, posterior part as broad as the anterior with a broad median depression nearly reaching the base; elytra subparallel, covered with very short, closely set hairs, apparently thicker than those on the prothorax and without punctures; pygidium thickly pubescent and with a fringe of long, thickly set, yellowish hairs; anterior and intermediate femora and tibiæ slender, posterior femora and tibiæ dilated and compressed. Length 9 mm.; width 3½ mm.

Hab. Natal (D'Urban).

Paussus curtisi, Westw.,

Proc. Entom. Soc. Lond., 1864, p. 190; Thesaur. Entom. Oxon., p. 84, pl. xviii., fig. 11; Raffray, Matér. Etude Pauss., p. 32 pl. viii., figs. 35, 36.

Chestnut brown, subopaque, glabrous; head with two sharp, median ridges in the anterior part uniting in the centre with the apex of a bisinuate, subtriangular one which reaches from side to side in the posterior part, and another but shorter one in the base adjoining the neck, there is also a lateral one running above the eye, these ridges enclose thus three deep impressions in the anterior part and two smaller ones in the posterior; the genæ are distinctly aculeate; antennæ densely squamiform, basal joint elongato-quadrate club long, slender, cylindrical, curving, slightly thickened at the tip, which is carinate, outer margin with a very short groove and two small teeth at the apex only, base deeply incised, outer angle blunt; prothorax bipartite, anterior part in the shape of a broadly truncate

cone, broadly emarginate in the middle, posterior part divided by a deep, narrow, transverse groove, deeply impressed up to the base, lateral walls not tuberculate; elytra elongate, glabrous; tibiæ very little compressed, nearly cylindrical; legs densely squamiform. Length 8 mm.; width 2½ mm.

Hab. Transvaal (Potchefstroom), Natal (Estcourt), Cape Colony (Port Elizabeth); occurs also in Abyssinia.

PAUSSUS CYLINDRICORNIS, Pér.,

Plate XIII., fig. 1.

Trans. S. Afric. Phil. Soc., iii., 1885, p. 81, pl. i., fig. 2.

Reddish brown, subopaque; head slightly squamose with two median ridges reaching from the apex to the posterior part, which is slightly raised and has two contiguous pits on each side of the head, and running above the eye is a shorter ridge running from the neck to some distance from the apex; eyes prominent and not bordered by the genæ; antennæ densely squamose, basal joint short, quadrate, club long, nearly cylindrical, a little compressed at the tip, which is very slightly ampliate and carinate in the rounded part, base not incised, outer angle moderately long and sharp; prothorax bipartite, anterior part in the shape of a broadly truncate cone, widely emarginate in the middle and shorter than the posterior one, which is broadly grooved longitudinally in the centre, both parts are slightly squamose; elytra elongate, parallel and covered with densely set, squamiform, subflavescent hairs; legs bristly; tibiæ linear. Length 8½ mm.; width 2½ mm.

Hab. Transvaal (Rustenburg), Bechuanaland.

PAUSSUS SCHUCKARDI, Westw.,

Proc. Entom. Soc. Lond., ii., p. 87, pl. ix., fig. 4; Arcana Entom., vol. ii., p. 187, pl. xcii., fig. 5; Raffray, Matér. Etud. Pauss., p. 32, pl. viii., figs. 30, 31.

Reddish brown, subopaque; head grooved in the central parts with the edges of the groove rounded, raised and reaching the posterior part, above the eye there is also a small ridge on each side, and the space between this supra-ocular ridge and the median one is depressed, genæ projecting a little; antennæ densely squamiform, basal joint thick, elongato-quadrate, club quite cylindrical, not quite truncate at tip, the apical margin carinulate; prothorax deeply impressed tranversely in the middle but not exactly bipartite, anterior part nearly rounded but still slightly more raised than the posterior, which has a moderately broad, not very deep longitudinal impression; elytra elongate, subparallel with squamiform hairs not densely set;

legs very briefly pubescent; tibiæ linear. Length $6\frac{3}{4}$–7 mm.; width $2\frac{1}{2}$–$2\frac{3}{4}$ mm.

Hab. Cape Colony (Grahamstown, Vaal River, Queenstown), Transvaal (Bloemhof, Rustenburg).

In the female the antennæ are a little shorter than in the male.

PAUSSUS MARSHALLI, Pér.,
Plate XII., fig. 3; Plate XIII., fig. 11.
Trans. Entom. Soc. Lond., 1896, p. 153.

Reddish brown, shining, elytra thickly pubescent; vertex of the head nearly plane, posterior part ridged above the neck and along the outer sides; basal joint of antennæ quadrate, nearly as large as the head, club broad, massive, inner margin carinate with a short, round basal spur not projecting much, outer margin broadly hollowed with the edges bisinuate, acute at the apical part of the cavity, and bearing on each side a dense tuft of long, yellowish hairs, basal outer spur very broad and subquadrate; prothorax bipartite, the anterior part compressed in a sharp ridge, slightly emarginate in the centre and subaculeate laterally, the posterior part hollowed anteriorly and with a triangular longitudinal groove, and the outer sides produced in a carina sinuate in the middle, sharp in the anterior part, and with the posterior part forming a long tooth standing at an angle with the base, both the points of the lateral carina having a distinct tuft of hairs; elytra short, subparallel; pygidium with short pubescence and having in the middle three transverse rows of long and very thick bristles; legs slender, anterior femora not thickened. Length $5\frac{1}{2}$ mm.; width $2\frac{1}{2}$ mm.

Hab. Natal (Frere, Estcourt).

Mr. A. E. Haviland writes that he found this species drowned in a trough in company with two kinds of ants.

PAUSSUS BRAUNSI.

Chestnut brown, moderately shining; head hardly pubescent, not depressed in the centre, and having two small ocelli-like cavities in the posterior part; antennæ very slightly and very briefly pubescent, inner margin of the club sinuate in the middle, sharply carinate, and without any transverse impression, outer margin broadly dilate, and scooped out from apex to base, cavity with four striæ, the intervals of which are raised but hardly indenting the edges, basal angle produced in a long spur, subquadrate at base and cylindrical from the middle to the apex; prothorax bipartite, and similar in shape to that of *P. burchellianus* and *P. cucullatus;* posterior part of the disk briefly pubescent; elytra parallel, shining, and having regular series of very short, pallid hairs, outer and posterior margins fringed

with a series of long, thick bristles, curving backwards on the outer margin; pygidium with a few short bristles on the lower edge; legs slender, briefly pubescent, anterior and intermediate femora very slender at base, but not clavate, almost cylindrical like the tibiæ, posterior ones compressed and only slightly dilated, posterior tibiæ also slightly dilated and compressed. Length $3\frac{1}{3}$ mm.; width $1\frac{1}{4}$ mm.

In shape the posterior margin of the club is nearly similar to that of *P. burchellianus* and *P. cucullatus*, but it is less broadly scooped than in both these species, and the basal spur is shorter than in the first-named species and not entirely cylindrical, the shape of the anterior margin is however very different, being sublinear owing to a median sinuation, and not impressed transversely; the disposition along the outer and posterior margins of thick, recurved, stiff bristles is unique among the South African *Paussi*, of which it is also the smallest.

Discovered in the nest of *Pheidole capensis* by Dr. Brauns at Port Elizabeth, Cape Colony.

Gen. HYLOTORUS, Dalman,
Analect. Entom., 1823, p. 103.

Head round, with two large fossæ on the vertex excavated in front for the reception of the antennæ, the latter are two-jointed, the first joint is very small, the other lanceolate; maxillary palpi four-jointed, second joint very broad, rounded outwardly, sinuate inwardly, maxillæ without outer lobe, bifid at tip; last joint of maxillary palpi long, attenuate and rounded at tip; prothorax subcylindrical, attenuate behind; elytra subparallel; first abdominal segment very wide, second and third very small, third wider than the preceding and emarginate; legs short, broad, compressed, the femora grooved so as to allow the insertion of the laminated inner part of the tibiæ when retracted; tarsi short, equal.

Two species other than the South African one are known—one from Sierra Leone, and the other from Abyssinia.

Hylotorus hottentotus, Westw.,
Thesaur. Entom. Oxon., p. 81, pl. xvii., fig. 1.

Chestnut red, glabrous, moderately shining; head rugulose and with two impressions on the vertex containing a round tubercle perforated at tip; eyes not projecting, reniform; no neck; prothorax cylindrical, posterior part narrowed from the middle to the base, discoidal part with a linear, transverse, shallow impression; elytra a little rounded at the shoulder, straight laterally and a little ampliate from the shoulder to the apex, smooth and glabrous. Length 6 mm.; width 3 mm.

Hab. Natal (Maritzburg).

POSTCRIPT.

[The species described below belongs to the genus *Paussus*, Linn. See page 15.]

Paussus elizabethæ.

Ferruginous red, moderately shining; head foveate, the foveæ shallow and bearing a short greyish seta, vertex with a slightly conical protuberance in the posterior part and two parallel elongate, ocelli-like, deep pits, with smooth raised edges in front of the conical protuberance, and in the centre of the vertex; basal joint of antennæ very rugose and bristly, club swollen, anterior margin compressed, narrow, the anterior edge with a series of yellowish distant setæ on each side, upper part with three deep transverse impressions situated between the base and the median part, posterior margin broadly dilated and deeply scooped, with the basal angle sharp but moderately long, both the upper and lower edges of excavation are symmetrical, but the upper edge has six serrations and the lower one five only, and less conspicuous, the concave part has six broad grooves on each side; thorax rugose, setulose, anterior part in the shape of a disk, very narrowly incised in the centre, and angular laterally, posterior part with the lateral walls sloping, and the median part raised in the centre and grooved longitudinally; elytra rugulose, and with closely set series of moderately long flavescent hairs, outer margins of pygidium clothed with long decumbent pale flavescent hairs; tibiæ of all legs compressed and dilated. Length $4\frac{1}{4}$ mm.; width $1\frac{1}{2}$ mm.

Allied to *P. cucullatus*, and distinguished at once by the shape of the ocelli and the subconical protuberance on the vertex of the head; the antennal club is of nearly the same shape, but not so broad outwardly, and the anterior margin is narrower, and has three transverse impressions instead of four, and the edge of the lower margin of the excavation does not project beyond the upper edge as it does in *P. cucullatus;* it differs also by the setulose elytra, and the fringe of decumbent hairs on the outer margins of the pygidium.

Hab. Cape Colony (Port Elizabeth). Captured by Dr. Brauns.

INDEX TO FAMILY PAUSSIDÆ.

BIBLIOGRAPHY TO FAMILY PAUSSIDÆ.*

Dalman, J. W.

Analecta Entomologica. Holmiæ, 4to, 1823.

Dohrn, Dr. C. A.

Zur Literatur der Paussiden. *Entom. Zeit. Stett.*, vol. xlviii., 1887, *pp.* 316–318. *Loc. cit.*, 1890; *loc. cit.*, 1891, *p.* 388.

Gyllenhal, L.

Schönherr's Synonymia Insectorum. Appendix, 2 vols., Skara, 1817.

Linné, C. von

Bigæ Insectorum (Diopsis, Paussus). *Resp. Andr. Dahl. Decbr.* 1775. Upsaliæ, Edman. 4, *pp.* 7, c. tab.

Péringuey, L.

Notes on three Paussi. *Trans. Entom. Soc. Lond.*, 1883, *pp.* 133–138.

Notes on some Coleopterous Insects of the Family Paussidæ. *Proceedings Entom. Soc. Lond.*, 1886, *pp.* xxxiv.–xxxvii.

* First Contribution to the South African Coleopterous Fauna. *Trans. S. Afric. Philos. Soc.*, vol. iii., 1885.

* Second Contribution to the South African Coleopterous Fauna. *Loc. cit*, vol. iv., 1888.

* Fourth Contribution to the South African Coleopterous Fauna. *Loc. cit.*, vol. vi., 1892, p. 108.

Raffray, A.

Matériaux pour servir à l'étude des Coléoptères de la famille des Paussides. *Extr. d. Archiv. d. Museum*, 1887, *pp.* 308–359 and 1–52.

Thomson, Jas.

Catalogue des Paussides de la Collection de Mr. James Thomson. *Musée Scientifique*, *pp.* 67–72. Paris, 8vo, 1860.

* Archives Entomologiques, 2 vols., 1858. Paris, 8vo.

Thunberg, C. P.

Beskrifning pa tvänne nya insecter (Paussus ruber, lineatus). *Vetensk. Acad. Handl.*, 1775, vol. xxxvi., *pp.* 254–260; *ibid.*, 1781, t. 2, *pp.* 168–171.

Westwood, O.

Description of some new or but imperfectly known species belonging to the Coleopterous Family Paussidæ. *Trans. Entom. Soc. Lond.*, vol. ii., 1837–1840, *pp.* 84–98.

Arcana Entomologica, vol. ii. London, 1843–1845.

Description of a new species of Paussus from Southern Africa. *Trans. Entom. Soc. Lond.*, 1847, *pp.* 29–32.

Description of seventeen new species of the Family Paussidæ. *Proceedings Linnean Society*, ii., 1849, *pp.* 55–60, 1850; ii., *pp.* 100–101.

Description of three new species of Paussus. *Proceedings Entom. Soc. Lond.*, 1864, *pp.* 189–190.

Description of new Exotic Coleoptera. *Trans. Entom. Soc. Lond.*, 1869, *pp.* 315–320.

Thesaurus Entomologicus Oxoniensis. Oxford, 1874, 4to, 205 *pp.*, 40 pl.

*The works already quoted in the Bibliography of the other families are prefaced by an asterisk.

DESCRIPTIVE CATALOGUE OF THE COLEOPTERA OF SOUTH AFRICA.—Part IV.

By A. Raffray, Memb. Ent. Soc. of France, &c.

Family PSELAPHIDÆ.

The *Pselaphidæ* have in South Africa a very singular faunistic distribution. They appear to be divided in two faunas : one which I call the Cape fauna proper, the other is a general African one : the first seems to be merely restricted to the Cape Peninsula, the second one extends from Mashunaland to Natal.

Unfortunately many parts of South Africa may be considered as unexplored so far as the collection of these minute insects is concerned, and the neighbourhood of Cape Town is the only place where the *Pselaphidæ* have been thoroughly searched for by Mr. Péringuey and myself. They have also been collected in Mashunaland by Mr. G. A. K. Marshall, in Natal by Messrs. Marshall and A. E. Haviland, and in Bechuanaland and the Transvaal by Mons. E. Simon.

Thirty-one genera and seventy-six species are now known to occur in South Africa, and of these fifteen genera and sixty-nine species are not met with anywhere else, so far as our knowledge of these insects goes.

The distribution of these 31 genera and 76 species in South Africa and other parts of the world may prove of interest.

6 genera are found in every part of the world, Europe included, *i.e.* :—

1 *Bryaxis*. It is very doubtful if this genus occurs in South Africa ; the locality of the unique specimen recorded is unknown.

3 *Euplectus*, *Ryxabis*, and *Pselaphus* occur in Mashunaland and Natal, but not at the Cape.

1 *Reichembachia* is found in Mashunaland, Natal, and the Cape.

1 *Ctenistes* occurs in Natal and at the Cape.

1 genus is found in every part of the world, Europe excepted, *i.e.* :—
Tmesiphorus at Natal.

1 genus is found in Northern and Eastern Africa, *i.e.* :—
Marellus ; it has been met also in Natal.

1 genus occurring in Eastern and Western Africa, *i.e.* :—
Ognocerus occurs also in the Transvaal.

3 genera, *Zethopsus*, *Batrisodes*, and *Odontalgus*, represented in East Africa and Asia, are found respectively in Mashunaland and Natal, in Natal only, and in Natal and at the Cape.

3 genera, *Asymoplectus*, *Raffrayia*, and *Trabisus*, which are East African, are represented, the first in Mashunaland and the Cape Colony, the second at the Cape and in Natal, and the locality of the third, although not recorded exactly, is a South African one.

1 genus, *Syrbatus*, a distinctly American one, is represented in Mashunaland.

15 genera are found exclusively in South Africa, of which—
1, *Batoxyla*, is peculiar to Mashunaland.
1, *Novoclaviger*, is peculiar to Mozambique.
2, *Fustigeropsis* and *Commatocerodes*, are peculiar to the Transvaal.
1, *Dalmina*, is peculiar to the Cape and Natal.
10, *Faronidius*, *Prodalma*, *Trimyodites*, *Anoplectus*, *Xenogyna*, *Pselaphocerus*, *Pselaphischnus*, *Laphidioderus*, *Pseudotyrus*, *Fustigerodes*, are peculiar to the Cape Colony.

Out of 16 genera occurring at the Cape (*Reichembachia*, *Ctenistes*, *Odontalgus*, *Asymoplectus*, *Raffrayia*, *Dalmina*, *Faronidius*, *Prodalma*, *Trimyodites*, *Anoplectus*, *Xenogyna*, *Pselaphischnus*, *Laphidioderus*, *Pselaphocerus*, *Pseudotyrus*, *Fustigerodes*), and of which 10 are peculiar to the Cape, 2 are found in every part of the world, 3 are found in other parts of Africa, and 1 occurs also in Natal.

It is worthy of note that the genus *Raffrayia*, which seems to be a very distinct feature of the Pselaphid fauna of the Cape, where it is represented by 17 species, has only one representative in Abyssinia and another one in Natal ; and the genus *Odontalgus* is represented at the Cape by a very aberrant form.

Out of the 12 genera occurring in Natal (*Euplectus*, *Reichembachia*, *Ctenistes*, *Tmesiphorus*, *Marellus*, *Zethopsus*, *Batrisodes*, *Odontalgus*, *Raffrayia*, *Dalmina*, *Novoclaviger*, *Pselaphus*), 5 occur in every part of the world, 3 in different parts of Africa, 2 in other parts of Africa and Asia, 1 in the Cape, and 1 only is peculiar.

Out of the 6 genera occurring in Mashunaland (*Euplectus*, *Reichembachia*, *Zethopsus*, *Asymoplectus*, *Syrbatus*, *Batoxyla*), 2 occur in every part of the world, 1 in other parts of Africa and Asia, 1 in America, 1 at the Cape, and 1 is not recorded from anywhere else.

Thus out of 16 genera in the Cape Colony, 10 are special; out of 12 genera in Natal, 1 is special; out of 6 genera in Mashunaland, 1 is special; and 5 of the 12 genera occurring in Natal are also found at the Cape; 2 out of the 5 found in Mashunaland occur also at the Cape.

If we now examine the species, we notice that the isolation of the Cape fauna from that of other parts is still more clearly marked.

Out of the 76 species known to occur in South Africa, 7 of which only are found in other parts of Africa, 2 are from Abyssinia, 2 from the West Coast of Africa, and 3 from Zanzibar. Of the 2 Abyssinian species, 1, *Reichembachia circumflexa*, occurs also in Mashunaland and Natal; the other, *Odontalgus vespertinus*, is also met with in Natal. Out of the 2 species from the West Coast, 1, *Reichembachia picticornis*, is met in Mashunaland and Natal, and the other, *Ctenistes imitator*, in Natal; the 3 Zanzibar species, *Zethopsus sulcicollis*, *Tmesiphorus rugicollis*, *Pselaphus longiceps*, are also met with in Natal.

The Cape Colony species number 45, all special; Natal 14, 7 of which are peculiar to that country; and Mashunaland 14, 12 of which are not as yet recorded from elsewhere.

Shape of body variable; elytra short; abdomen free and consisting of six tough segments; maxillary palpi oftener big and quadriarticulate, occasionally inconspicuous and with only one joint, but always provided with a small apical appendage; labial palpi small, biarticulate; coxæ and trochanters variable in shape; tarsi always trijointed, with the first joint extremely small, and having one or two claws either equal or unequal.

The family *Pselaphidæ* is very closely allied to the *Staphylinidæ*, and is seemingly a degenerate form of the latter. It is, however, differentiated from the *Staphylinidæ* by the following characters: the abdomen consists of six segments (except in the male of some species, which have a seventh segment), fused together and therefore immovable; the labial palpi have never more than two joints, and the last joint is provided with at least one small appendage; the

last joint of the maxillary palpi is always provided with an apical appendage.

So far as is now known few species are recorded from South Africa. This scarcity is caused by the dryness of the climate. In tropical climes, where damp heat and moisture prevail, the *Pselaphidæ* are very numerous. But although not numerous, they are peculiar to that part of the world, and the South African fauna is a very isolated one, except for the eastern part, where an affinity with the Zanzibar fauna does undoubtedly exist.

Pselaphidæ are found under stones, more especially where the ground is clayey and schistaceous, under the bark of trees, dead leaves, those of oaks especially, in moss, flying at sunset in marshy places, and in ants' nests.

The family is divided into two sub-families, PSELAPHIDÆ GENUINÆ and CLAVIGERIDÆ, divided by the following distinctive characters :—

Maxillæ and paraglossæ spiculose; elytra simple at apex	PSELAPHIDÆ.
Maxillæ and paraglossæ with a long pubescence; elytra and abdomen plicate at base and fasciculate..	CLAVIGERIDÆ.

PSELAPHIDÆ.

All the trochanters short, insertion of the femur on the trochanter lateral, base of femur touching, or nearly so, the coxæ	PSELAPHIDÆ BRACHYSCELIDÆ.
Median trochanters (sometimes the anterior and posterior ones also) long, insertion of the femur on the trochanter apical, and consequently always at a great distance from the coxæ	PSELAPHIDÆ MACROSCELIDÆ.

Synopsis of Tribes.

PSELAPHIDÆ BRACHYSCELIDÆ.

A 2. Hind coxæ prominent and conical; body more or less elongate and depressed.	
B 2. Middle coxæ prominent and conical; tarsi with two claws of generally the same size	FARONINI.
B 1. Middle coxæ globular, not prominent.	
C 2. Tarsi with a single claw	EUPLECTINI.
C 1. Tarsi with two claws of very unequal size, the internal one very small, and sometimes hardly apparent	TRICHONYNI.
A 1. Hind and middle coxæ globular, not prominent, the hind coxæ sometimes a little triangular and depressed.	
B 2. First ventral segment very short, always more or less hidden under the hind coxæ or the metasternum.	
C 2. Tarsi with two very unequal claws; hind coxæ somewhat triangular and depressed (but neither prominent nor conical)	BATRISINI.

C 1. Tarsi with a single claw; hind coxæ decidedly globular .. Bryaxini.
B 1. First ventral segment large, always longer than the hind coxæ; antennæ geniculate, the first joint very long .. .. Goniacerini.

Pselaphidæ Macroscelidæ.

A 2. First ventral segment large, longer than the hind coxæ; tarsi with a single claw .. .. Pselaphini.
A 1. First ventral segment short, more or less hidden under the hind coxæ or the metasternum.
B 2. Epistoma more or less notched, prominent laterally; pubescence short and squamose .. .. Ctenistini.
B 1. Epistoma simple and not prominent laterally; pubescence generally long and hairlike, and when short never squamose .. .. Tyrini.

So far as is now known the following tribes have no representatives in South Africa: *Bythinini, Cyathigerini, Hybocephalini, Schistodactylini, Arhytodini.*

Tribe FARONINI.

Raffray, Rev. Entom., 1890, pp. 82 and 84.

Body linear and depressed; antennæ hardly clubbed at tip; middle and hind coxæ conical and prominent; first ventral segment conspicuous; tarsi with two equal claws.

In general facies the insects included in this tribe are very much like some *Staphylinidæ* of the group *Homalini.* They are somewhat rare, but numerous in New Zealand; they have a few representatives in the South of Europe, in Algeria, and in North America, and only one species is known from South Africa.

Gen. FARONIDIUS, Casey,

Trans. Entom. Soc. Lond., 1887, p. 381; Raffray, Rev. Entom., 1893, p. 3.

Elongate, somewhat depressed; head transverse, without temporal prominences; antennal tubercle large; eyes large, set backward; maxillary palpi middling, second joint clavate, third a little shorter than the preceding one, fourth more than twice as large, ovate, not particularly acuminate at tip, very briefly pilose and with a hardly noticeable apical appendage; antennæ moderately long, moniliform, hardly thickened at tip; prothorax subhexagonal, more attenuate in front than behind, and impressed; elytra much longer than the prothorax and depressed; abdomen strongly marginate and having on the dorsal side five clearly defined segments and on the under side six in the female and seven in the male; metasternum large, sub-

quadrate and convex; legs hardly long; intermediate and posterior coxæ approximate; both claws of tarsi of equal length.

The genus is allied to both *Sagola* and *Faronus*, and differs mostly from them by the eyes, which are very large and situated near the posterior angle of the head. It includes only one species.

FARONIDIUS AFRICANUS, Casey,

Trans. Entom. Soc., Lond., 1887, p. 382, c fig. (male); Raffray, Rev. Entom., 1893, p. 4, pl. 1, fig. 15 (female).

Moderately elongate, depressed, testaceous red, with the antennæ, palpi, and legs testaceous, covered with a moderately dense flavous pubescence; head much transverse and without any posterior angles; eyes large; antennal tubercle prominent, narrow, depressed, and slightly canaliculate; vertex little raised transversely; antennæ half the length of the body, not distant from one another at base, stout, first joint elongate, subcylindrical, second ovate, third smaller, subquadrate, fourth to eighth briefly oblong and slightly decreasing in length, ninth to tenth subquadrate, eleventh oblong and acuminate at tip; prothorax as long as broad, a little wider than the head and eyes, much attenuate in front, rounded laterally in the median part and sinuate from there towards the base, lateral foveæ large, the median one small, and joined by a strong, transverse and arcuate sulcus to two minute, oblong, basal foveæ; elytra more than twice the length of the prothorax and a little longer, sutural stria pluripunctate at base, dorsal stria extending as far as the median part and pluripunctate at base, between the striæ are four punctures disposed in a line; abdomen nearly equal in length to the elytra, the three basal segments gradually increasing in length. The male is distinct from the female; the antennæ are half the length of the body, the joints from the fourth to the tenth inclusive are slightly decreasing in length, and from the fifth to the ninth, a little angular internally, and obliquely subemarginate externally at apex; seventh ventral segment small and with a quadrate median impression. Length 1·30–1·60 mm.

This insect is rather variable, especially in size; it is in the large-size males that the intermediate joints of the antennæ are more or less angular internally; in the females of small size the joints are slightly thicker towards the tip. The median impression of the prothorax is somewhat quadrate with the lateral offshoots very short.

Hab. Cape Colony (Wellington, Stellenbosch, Newlands, Cape Town).

Tribe EUPLECTINI.

Raffray, Rev. d'Entom., 1890, pp. 82 and 91.

Body elongate, more or less depressed; antennæ distant at base or approximate; maxillary palpi variable, sometimes recumbent in an upper fovea; prothorax more or less cordate; elytra variable; abdomen with five conspicuous segments on the upper part and six underneath, sometimes even seven in the male; intermediate coxæ globose, not prominent; posterior ones conical; first ventral segment more or less conspicuous; tarsi triarticulate, with the basal joint very small; one single claw.

This tribe includes a large number of minute insects found in marshy places throughout the world.

The characters of the genera are subject to a great deal of modification, and therefore very inconsistent.

Gen. ZETHOPSUS, Reitter,

Ent. Monatsbl. 1880, p. 85; Raffr., Rev. Entom., 1887, p. 50.

Zethus, Schauf. Nunq. Otios. 11, p. 249.—*nom prevec.*

Linear, depressed; head transverse behind, with a large antennal tubercle in front and a large, superior fovea for the reception of the palpi on each side; eyes placed laterally and backward; maxillary palpi quadriarticulate, first joint inconspicuous, second large, slender at base and strongly clavate, third inserted on the side of the second, smaller and irregular, fourth transverse, irregularly ovate and inserted in the middle of the preceding one; antennæ ten-jointed, first joint large, second much bigger than the following, third to ninth inclusive moniliform, transverse, tenth largest of all, globose or briefly ovate; prothorax more or less cordate, impressed; elytra subquadrate; abdomen elongate, marginate; legs short; intermediate coxæ close to the posterior ones; first joint of the tarsi subconical, second hardly noticeable, third large and with a single claw.

This genus is a most peculiar one; the joints of the palpi fold on each other into a deep fovea situated on the upper surface of the head on each side of the frontal tubercle; the abdominal sexual indices are wanting, but sometimes the frontal tubercles of the male show some difference from those of the female.

It is more largely represented in the Indo-Malayan region than in Africa. I have, however, captured several species in Zanzibar, and one occurs in Mashunaland.

Zethopsus laticeps.

Ferruginous, entirely smooth and shining, and covered with a brief, pallid pubescence; head large, transverse, with the antennal tubercle three times as wide as the vertex, slightly rounded at apex and impressed in the middle; first joint of antennæ simple, second quadrate, third to ninth inclusive smaller, transverse and compact, tenth largest of all, subglobose, hardly acuminate; prothorax narrower than the head, cordate, with a large double median transverse fovea, lateral foveæ transverse, the discoidal fovea well distinct and rounded; elytra subquadrate and convex, bifoveate at base and with the external fovea sulciform; abdomen longer than the elytra and a little narrower, first three dorsal segments broadly and deeply impressed at base with the impression filled with an ochreous squamose pubescence; fourth joint a little larger than the preceding ones. Length 1·10 mm.

Owing to the very large frontal tubercle, this species is closely allied to *Z. latifrons*, Raffr., from Zanzibar, but in this last-named species the prothorax is punctured and the antennæ are longer and the two first joints as well as the last one longer and broader.

Hab. Zambezia (Salisbury).

Zethopsus sulcicollis.

Chestnut brown, with a slight flavous pubescence; antennæ and legs red; head and prothorax with scattered punctures; head not much transverse; antennal tubercle broad, deeply sulcate, dentate inwardly and faintly sulcate on the vertex; the two basal joints of the antennæ quadrate, the first one larger than the others, the third to the ninth inclusive moniliform, transverse, the tenth large, ovate; prothorax subcordate, longer than broad, and having a wide, geminate, median fovea, somewhat shallow, the sides are robust and and there is a deep discoidal sulcus in the anterior part; elytra hardly longer than broad, wider than the prothorax, slightly convex, rounded laterally, and having at the base two large oblong foveæ; sutural stria entire, dorsal one wanting; first three dorsal segments broadly impressed; tibiæ, especially the intermediate ones, slightly thickened in the middle outwardly and arcuate inwardly; female unknown. Length 1·20 mm.

Hab. Natal, also Zanzibar.

Z. sulcicollis differs from the preceding one by the less broad frontal tubercle and the deep groove in the anterior part of the disk.

Gen. PRODALMA.

Body oblong, subconvex; head large; antennæ distant from one another, eleven-jointed, club little swollen, last joint larger than the others; palpi moderately large, first joint hardly noticeable, second slender and clavate at tip, third ovate, minute, fourth large, slightly securiform and acuminate at tip; prothorax cordate, sulcate transversely and bifoveate; elytra short, attenuate at shoulders, but dentate, lateral margin sulcate, sutural stria entire, dorsal one abbreviate; first dorsal segment of abdomen larger than the others, female with six ventral ones, male with seven, seventh segment of the male very minute and tuberculate; intermediate and posterior coxæ approximate; metasternum convex and slightly transverse; tarsi thick, first joint very minute, second large, thickened at tip, third smaller, cylindrical, one claw.

In general facies this genus is very different from *Euplectus*, and nevertheless the generic characters are much the same; the last joint of the maxillary palpi is much larger and a little oblique inwardly. One species only is included in this genus.

Prodalma capensis,

Plate XVI., fig. 19.

Entirely rufous; antennæ and legs testaceous, covered with a long pilosity not closely set; head large, convex, and a little broader than long, rounded behind, slightly attenuate in front, with the frontal part truncate, and having two foveæ situated between the eyes as well as two oblique sulci connected with a well-marked, transverse frontal sulcus; vertex carinate; antennæ moderately elongate, the two basal joints larger than the others, the second one briefly ovate, third somewhat conical, fourth to eighth inclusive moniliform, seventh and eighth transverse, tenth larger, transverse, eleventh large, briefly ovate, acuminate; prothorax a little broader than the head and especially longer, very cordate, and having two lateral foveæ and a transverse sulcus slightly narrowed; elytra not longer than the prothorax and a little broader at apex, slightly rounded laterally and attenuate at base, without shoulders but minutely dentate at the humeral angle, bifoveate at base and with the dorsal stria shortened before the median part; abdomen slightly more attenuate at base than the elytra, slightly arcuate laterally; first dorsal segment much larger than the others, impressed transversely at base; anterior femora thicker than the others.

Male: Antennæ much thicker; elytra bisinuate at apex; third to fifth ventral segment short, equal, sixth large, incised at apex, seventh minute, tuberculose; eyes larger.

Female: Antennæ slender; eyes minute; elytra truncate, straight at apex; third to fifth ventral segment decreasing in size, sixth large, transversely triangular. Length 1 mm.

The seventh ventral ring in the male seems to be reduced to a strong tubercle situated in the centre of a depression at the apex of the preceding segment, but it is, I think, without doubt a true segment.

I have found two examples only: one, a female, in the Platklip Stream at the foot of Table Mountain, and one male at Newlands, also at the foot of Table Mountain.

Gen. TRIMIODYTES.

Subelongate and hardly convex; head large; antennæ distant at base, moniliform, and with an inconspicuous club; palpi moderately elongate, the two basal joints slightly thickened at apex, third minute, fourth large, fusiform, subelongate and acuminate; prothorax cordate, transversely sulcate and trifoveate; elytra little elongate, without shoulders and not dentate, marginal sulcus deficient, sutural stria entire, dorsal one short; abdominal segments equal, the second ventral one larger than the others; intermediate and posterior coxæ approximate; tarsi large, first joint very small, second conical, third cylindrical; a single strong claw.

This genus is very closely allied to *Prodalma*, from which it differs by the more elongate body, the elytra having neither humeral tooth nor subepipleural groove, the first dorsal segment equal in size to the following, and the longer tarsi.

Trimiodytes palustris,

Plate XVI., fig. 18.

Totally chestnut red; the legs, antennæ, and palpi red, with scattered yellowish hairs; elytra darker than the rest of the body; head large, slightly attenuate in the anterior part, frontal part little oblique on each side, vertex slightly convex, briefly and indistinctly carinate, and having two small distant foveæ placed nearly before the eyes, merging into one another and joined in the anterior part by two round sulci; eyes small, median; antennæ elongate, stout, with the first joint bigger than the others, the second ovate and larger than the others, the third suboblong, slightly obconical, fourth to eighth inclusive moniliform, ninth a little bigger and slightly transverse, tenth larger than the preceding, eleventh ovate, truncate at base, acuminate at apex; prothorax a little narrower than the head, strongly cordate, slightly sinuate behind the median part and having deep but not broad lateral foveæ, median one large, shallow,

subtriangular, transverse sulcus narrow, and base itself impressed transversely; elytra a little broader and longer than the prothorax, attenuate at base, sides very little rounded, deeply bifoveate at base, dorsal stria not reaching the median part; abdomen almost equal in length to the elytra and attenuate behind; metasternum convex; legs sufficiently long, femora little thickened; tibiæ not quite straight, slightly thickened at apex. Male unknown. Length 1·10 mm.

Hab. Cape Colony (Muizenberg).

Gen. EUPLECTUS, Leach,
Zool. Miscell., iii., 1817, p. 80.

Elongate, sublinear; head large; maxillary palpi moderately long, first joint not conspicuous, second slightly clavate at tip, third minute, fourth ovate, acuminate; club of antennæ triarticulate; prothorax cordate and having three foveæ joined by a transverse sulcus, discoidal fovea unconnected with the others; elytra moderately elongate, bifoveate at base, dorsal stria conspicuous, short; abdomen elongate, first three dorsal segments of same size as the first, fourth much larger, male with seven segments on the under side, female with six; first ventral segment depressed at apex between the coxæ, second to fourth subequal, fifth smaller, sixth much larger than the preceding one, arcuate and hardly ampliate laterally, seventh large, rhomboid, and more or less sulcate or subcarinate longitudinally; posterior and intermediate coxæ approximate; tarsi moderately slender, first joint minute, second elongate, slightly arcuate and hardly thickened, third cylindrical; a single claw.

The distinguishing characters of this genus are: fourth dorsal segments very wide, basal one in the abdominal part flattened in the apical part, sixth larger than the second, arcuately concave and not ampliate laterally, seventh one without operculum in the male.

The genus is largely represented in Europe and North America, and has few representatives in Africa. These insects live, as a rule, in marshy places.

Euplectus discoidalis.

Elongate, moderately convex, rufous, with the antennæ and legs paler, briefly and sparsely pubescent; head large, attenuate for a short space, frontal sulcus transverse, strong, entire; eyes large, two large foveæ and two straight sulci; vertex briefly sulcate next to the neck; antennæ short, slightly thickened, the two basal joints quadrate, third to eighth inclusive moniliform, ninth slightly, tenth

much transverse, eleventh briefly ovate and obtusely acuminate; prothorax of nearly the same width as the head, subcordate, more attenuate behind than in front, obtusely dentate laterally, beyond the median part and alongside a large lateral fovea, median fovea small, transverse sulcus angular, discoidal fovea free, deep, rounded, base bifoveate; elytra elongate with the shoulders quadrate, not attenuate at base, sides slightly rounded towards the median part, basal part with two large foveæ, dorsal stria more or less abbreviated and situated at about one-third of the width; first three dorsal segments of abdomen short, the two basal ones impressed transversely in the middle of the basal part, fourth twice as long; metasternum sulcate; tibiæ slightly thickened externally beyond the median part.

Male: Fourth, fifth, and sixth ventral segments impressed transversely, seventh large, strongly triangular at apex, and having a longitudinal, entire, and slightly arcuate carinule.

Female: Sixth and last ventral segment large, acuminate at tip, last dorsal one very small and acutely dentate at tip. Length 1·40 mm.

This species is closely allied to *E. africanus*, Raffr., from Zanzibar and Abyssinia, and is to be distinguished by sexual characters only; in *E. africanus* male the ventral segments have no impression, the seventh is smaller and more rounded; in the female the last ventral segment is rounded and the last dorsal one not dentate.

Hab. Rhodesia (Salisbury).

Euplectus quadriceps.

Very similar to the preceding species; differs in the shape of the head, which is not at all narrowed in the anterior part, and is thus nearly square; the antennæ are thicker, the tenth joint not so transverse, and the last one is more elongate, nearly straight laterally and is rounded at tip.

The sexual differences are very marked in the male, the fourth ventral segment of which is obtusely angular and projects a little over the following one, which is deeply and transversely impressed under the apical angular edge of the fourth, the sixth is impressed in the centre, and the seventh bears only at tip a small elongate tubercle; in the female the last dorsal segment has no tooth, and the last joint of the antennæ is quadrate.

Hab. Rhodesia (Salisbury).

E. africanus from Zanzibar and Abyssinia, *E. discoidalis* and *E. quadriceps* from South Africa, are so closely allied to one another that they might be taken for one and the same species but for the

sexual characters, which differ greatly in the male as well as in two of the females.

Gen. ASYMOPLECTUS.

Elongate, depressed, parallel; head large; antennal club tri-articulate; prothorax more or less trapezoid with all the angles rounded, three foveæ connected by a transverse sulcus, the discoidal fovea frequently wanting; elytra subelongate, bifoveate at base and without dorsal stria; abdomen more or less elongate, first two dorsal segments equal, third and fourth larger, principally in the male, which has seven ventral segments, and the female six, the first one between the coxæ is carinate, the second to fourth inclusive sub-equal, fifth smaller in male, sixth nearly invisible in the middle but conspicuous and irregular laterally, seventh large, carinate; in the female the fifth joint is a little smaller, and the sixth large, sub-triangular; the other characters are as in *Euplectus*.

This genus is closely allied to *Euplectus* and *Bibloplectus;* it differs from both by the first ventral segment being strongly carinate from base to apex; in the male the sixth segment is almost entirely hidden in the median part, but wide and more or less irregular laterally; the third and fourth dorsal segments are much larger than the others, while the fourth one is larger in *Euplectus*, and in *Bibloplectus* they are all of about the same size. Owing to the shape of the prothorax and the absence of dorsal stria on the elytra it resembles much more *Bibloplectus* than *Euplectus*.

The genus occurs only in Africa; it includes *Euplectus antennatus*, Raffr., from Abyssinia, and six South African species.

Asymoplectus discicollis, Raffr.,
Plate XVI., fig. 21.

Bibloplectus discicollis. Rev. Entom., vi., 1887, p. 53.

Elongate, piceous black or brown; elytra more or less reddish brown; antennæ and legs testaceous or red, covered with a pale pubescence; head of a moderate size, attenuate in front, and broad between the eyes, bifoveate, and having two not particularly oblique sulci joined with a transverse anterior one, vertex minutely impressed near the neck; antennæ moderately robust, the first two joints larger than the others and the second ovato-quadrate, third to eighth moniliform, ninth to tenth a little larger, increasing in length and transverse, eleventh moderately ovate and obtusely acuminate; prothorax a little larger than the head, suborbicular, conspicuously foveate on each side and having a transverse sulcus angular in the middle and produced behind in a subelongate, small fovea; elytra

broader than the prothorax and much longer, parallel laterally, quadrate at the shoulders and subdentate, and having three foveæ at the base, the external one of which is much smaller than the others and now and then more or less sulciform; abdomen longer than the elytra; metasternum convex, sometimes obsoletely impressed; tibiæ slightly thickened externally behind the middle.

Male: Third dorsal abdominal segment nearly twice as large as the preceding one, fourth a little smaller than the third, fourth ventral one obtusely angular in the middle, totally and deeply impressed, fifth much smaller, very angular in the middle, median part of the sixth inconspicuous, but with an arcuate sulcus on the right side, dentate at apex, left side wider, much dentate and incised, seventh with an arcuate longitudinal ridge; intermediate and posterior trochanters slightly angular.

Female: Third and fourth dorsal segments only a little longer than the preceding ones, the fifth ventral one one-quarter shorter, sixth large, triangular, and sometimes slightly impressed. Length 1·10–1·30 mm.

In my original description I mistook the female for the male.

Hab. Cape Colony (Stellenbosch).

Asymoplectus irregularis,

Plate XVI., fig. 23.

Rather convex, chestnut brown, with a moderately soft grey pubescence; head small and short; antennæ thicker, club larger and the eleventh joint with a longer point; prothorax longer than broad, more attenuate in the anterior than in the posterior part, and having a nearly straight transverse sulcus much extended behind in the median part; elytra having the sides much rounded and an external fovea briefly sulciform; first dorsal abdominal segment impressed in the middle at base; tibiæ little thickened.

Male: Third dorsal segment nearly three times the size of the preceding one, fourth smaller; fourth ventral one slightly sinuate in the middle and minutely impressed at apex, fifth nearly straight, sixth very small in the median part and with a round incision, right side wide, truncate at apex and strongly bidentate, left side deeply incised at apex, seventh much rounded at apex and having a slightly arcuate longitudinal carina, and near it a slight depression; metasternum hardly impressed.

Female: Third dorsal segment not twice as large as the preceding one, fifth ventral segment shorter by one-half than the fourth, sixth large, subtriangular, rounded at apex and slightly impressed. Length 1·20 mm.

Larger and more convex than *A. discicollis*, and of a much lighter colour.

Hab. Rhodesia (Salisbury).

Asymoplectus caviventris,
Plate XVI., fig. 22.

Moderately depressed, black or piceous black, sometimes with the discoidal part of the elytra brown; antennæ and legs red; head smaller than in *A. discicollis*, more elongate than in *A. irregulari;* antennæ as in *A. discicollis*, the last joint is, however, a little longer; prothorax briefly subovate, longer than broad, more attenuate in the anterior than in the posterior part, the transverse sulcus angulate in the middle and extended behind; disk with a sulciform fovea or an abbreviated sulcus more or less obsolete; elytra not much broader than the prothorax, rounded for a short space laterally and having a briefly sulciform, external fovea.

Male: Third dorsal segment of abdomen thrice as broad as the preceding one, fourth a little smaller than the third; fourth ventral segment slightly sinuate at apex and transversely impressed in the middle, fifth incised in the middle in such a way as to form an angle, sixth with the right side sinuate, left side obtusely and widely incised and also obtusely dentate; seventh elongate, carinate, obtusely acuminate at apex; metasternum at times obsoletely impressed; anterior femora much thickened.

Female: Third dorsal segment merely a little larger than the preceding one, the fifth ventral one shorter than the others by one-half, sixth large, triangular, much acuminate at tip. Length 1·20–1·30 mm.

The distinctive character of this species is the discoidal impressions of the prothorax which are never entirely obliterated.

Hab. Cape Colony (Cape Town, Newlands, Stellenbosch).

Asymoplectus luctuosus,
Plate XVI., fig. 26.

Elongate, somewhat narrow and depressed; piceous black; elytra sometimes with the disk dark brown; antennæ and legs brown, covered with a short, sparse, decumbent pubescence; head large, longer than broad, slightly attenuate in the anterior part; antennæ similar to those of *A. discicollis*, but with a larger club; prothorax not broader than the head, a little longer than broad, nearly straight laterally and with all the angles rounded, nearly evenly attenuate in both the anterior and posterior part; lateral foveæ small, the

transverse sulcus not deep, little angular and briefly produced behind.

Elytra a little broader than the prothorax, moderately elongate, parallel laterally with the shoulders quadrate; external fovea large but hardly sulciform; abdomen a little broader behind than at base.

Male: Third dorsal segment not twice as long as the preceding one, fourth nearly equal to the third; of the ventral ones the fourth is hardly sinuate at apex, the fifth deeply foveate in the middle, the sixth is impressed in a circular manner and slightly asymmetrical and obsoletely sinuate laterally, seventh large, triangular, obtusely carinate at apex; metasternum at times inconspicuously impressed.

Female: Third and fourth dorsal segments merely a little larger than the preceding one, fifth ventral one shorter than the fourth by one-half, sixth large, transversely triangular and acuminate at tip. Length 1–1·10 mm.

This species is smaller, more slender and more parallel than the others, and the ultimate ventral segment in the male is less irregular in shape.

Hab. Cape Colony (Cape Town, Stellenbosch).

ASYMOPLECTUS ATERRIMUS,
Plate XVI., fig. 25.

Shorter and broader than the other species, black or piceous black, now and then paler on the disk for a short distance; head large, more attenuate in front than behind, temporal prominences rounded, the foveæ between the eyes larger than the others, the sulci inconspicuous; antennæ shorter and much thicker than in the other species, club less conspicuous; prothorax similar in shape to that of *A. discicollis*, but rather narrower than the head; elytra a little broader than the prothorax, slightly elongate and rounded for a short space; abdomen convex, declivous and much rounded at apex.

Male: Third dorsal segment nearly twice as large as the preceding one, fourth ventral one hardly sinuate at apex and with a minute median tubercle, fifth with the median part broadly depressed transversely and deeply incised circularly, seventh brief, obtuse at tip and with a straight longitudinal carina; metasternum slightly impressed; intermediate and posterior trochanters slightly angular.

Female: Abdomen less convex, third dorsal segment only a little larger than the preceding one, fifth ventral not quite half the size of the preceding sixth transverse, and with the apex obtuse and nearly rounded. Length 1·10–1·30 mm.

This species is shorter and broader than the others, and the ventral segments are symmetrical.

Hab. Cape Colony (Cape Town, Newlands).

ASYMOPLECTUS ATRATUS,
Plate XVI., fig. 24.

Moderately elongate, parallel, depressed, piceous; antennæ and legs testaceous red; head large, attenuate in front; foveæ large and sulci slightly arcuate; antennæ moderately short, joints increasing perceptibly from the third to the apical one and much thickened at apex, while the club, however, is little conspicuous; prothorax slightly cordate and subequal in width to the head; elytra hardly rounded laterally, external fovea sulciform; abdomen moderately short, convex and declivous, obtusely triangular at apex.

Male: Third dorsal segment hardly double the length of the preceding one, fourth much deflexed, the fourth ventral one with a longitudinal carina from end to end, sixth symmetrical, tuberculate in the middle and with the sides simple and oblique, seventh rhomboidal, obsoletely carinate; metasternum convex.

Female, perhaps of this species: Rufous brown (immature); head large; third dorsal segment of abdomen hardly larger than the preceding one, fifth ventral one shorter by more than one-half than the fourth, sixth transverse and rounded at apex. Length 1 mm.

This species is different from the others by its smaller size; the antennæ are shorter, and gradually thickening from the third joint to the tip, so that the club, although of good size, is not so conspicuous. I am not sure, although I believe it, that the female here described belongs to the same species; the head is somewhat larger than in the male.

Hab. Cape Colony (Newlands. I have seen one example only of each sex).

GEN. ANOPLECTUS.

Short, broad, depressed; head large, antennal club hardly conspicuous, triarticulate; prothorax cordate, trifoveate, and having a strong transverse sulcus, longitudinal sulcus not conspicuous; elytra subquadrate, bifoveate at base and without dorsal stria; first to fourth abdominal dorsal segments subequal, first ventral one carinate between the coxæ, second to fourth subequal, fifth minute, sixth small in the middle and ampliate laterally; male with a seventh rhomboidal one, depressed and with a slightly oblique raised line.

This genus has great affinities with *Euplectus*, *Asymoplectus*, and *Bibloplectus*. It differs from *Euplectus* in having the dorsal segments of the abdomen very nearly equal, the basal ventral one strongly carinate, the sixth not wider in the middle than the fifth and no dorsal stria on the elytra; the shape of the dorsal part of

the abdominal segments and the much shorter body differentiate it from *Asymoplectus*, and the distinctive characters which separate it from *Bibloplectus*, which has also the dorsal part of the abdominal segment subequal, are the much smaller sixth ventral segment, and in the male the seventh one which has no operculcum, a strong characteristic of *Bibloplectus*, the basal joint strongly carinate, the much shorter body, and the decidedly cordate prothorax.

Anoplectus niger.

Black, or piceous black; antennæ, palpi, and legs brown (now and again the coxæ, the mouth, and the under part of the abdomen are more or less rufous brown); body covered with a very short, sparse, moderately soft pubescence; head short, attenuate in front with the sides oblique, frontal part with a large, transverse sulcus between the eyes, two strong foveæ and some short sulci; it is slightly sinuate behind near the neck, and impressed in the middle in the shape of an incision; antennæ moderately slender, the two basal joints much larger than the others, the second one ovato-quadrate, third to eighth moniliform, ninth to tenth a little larger than the others and slightly transverse, eleventh briefly ovate and obtusely acuminate; prothorax hardly broader than the head, briefly cordate, lateral foveæ large, median one small, transverse sulcus strong, angular, longitudinal one nearly entire but slender and nearly obsolete; elytra longer than broad and a little broader than the prothorax, subparallel laterally, bifoveate at base, humeral fovea strong, dorsal sulcus wanting, posterior margin fringed with a whitish squamose pubescence; abdomen a little longer than the elytra and somewhat abruptly attenuate at apex; legs moderately robust.

Male: Fifth ventral segment short, sixth subequal in the centre, emarginate triangularly, faintly tuberculate on each side and slightly sinuate, seventh large, depressed, and having a longitudinal, slightly raised oblique line; intermediate tibiæ with a minute apical spur; metasternum more or less depressed.

Female: Metasternum convex, fifth abdominal ventral segment hardly smaller than the preceding one, sixth large, triangular. Length 1–1·20 mm.

Hab. Cape Colony (Stellenbosch).

Gen. XENOGYNA.

Elongate, subparallel, subconvex; head moderately elongate, slightly attenuate in front; eyes moderately large; maxillary palpi moderately long, second joint small, clavate at tip, third small,

globose, fourth fusiform, moderately acuminate; antennæ short, thick, intermediate and penultimate joints transverse; prothorax subcordate and with three foveæ, transverse sulci connected with one another, base with several punctures; elytra moderately elongate, subparallel, dorsal stria short; first four abdominal ventral segments subequal, both sexes with six ventral segments, the first one with a triangular depression between the coxæ, the second to the fifth gradually decreasing; prosternum carinate, posterior coxæ near one another.

The facies is that of *Euplectus*, but the prosternum is carinate. Its nearest ally is the North American genus *Eutyphlus*.

Xenogyna heterocera,

Plate XVI., fig. 17.

Pale ferruginous, and with a brief, pallid pubescence; head longer than broad, slightly attenuate in front, and having two foveæ as well as strong, nearly straight sulci joined with a frontal transverse sulcus, placed behind the eyes, vertex slightly convex, sinuate behind and incised in the middle; antennæ short, thick, first joint subelongate, subcylindrical, second briefly ovate, third globose, slightly transverse, intermediate ones different in each sex, eleventh short, truncate at base, acuminate at apex; prothorax a little broader than the head, subcordate, and having the sides crenulate, lateral foveæ distant from the margin and much larger than the median one, transverse sulcus hardly deep, slightly angulate in the middle, base with several small foveæ; elytra a little broader than the prothorax, much longer than broad, subparallel laterally with the shoulders rounded, bifoveate at base, sutural stria entire, the dorsal one attenuate before the middle; abdomen nearly equal in length to the elytra, first dorsal segment impressed transversely at base, last dorsal one quadrate at apex.

Male: Third joint of antennæ transverse, fourth to fifth twice as broad as the preceding ones, produced inwardly, very transverse, the fifth one thicker than the fourth, sixth to eighth transverse, nearly equal in size to the third one, ninth a little larger, transverse, tenth broader and thicker than the ninth; apical margin of the third ventral segment minutely but acutely bituberculate, sixth transversely depressed at base; metasternum depressed; elytra not attenuate at base and with the shoulders quadrate. Length 1·40 mm.

Female: Fourth to ninth joints of antennæ decreasing in length but increasing in width, tenth a little thicker than the others, club

almost inconspicuous; elytra slightly attenuate at base and without any humeral angle; eyes smaller than in male. Length 1·30 mm.

The female is smaller and less robust than the male—an unusual case. Found in mosses.

Hab. Cape Colony (Cape Town).

Gen. RAFFRAYIA, Reitter,
Verh. Naturf. Ver. Brünn, xx. p. 198.

Body subelongate, more or less parallel; head variable; antennæ short and thick, joints pluridentate, intermediate ones sometimes compressed, club hardly distinct; maxillary palpi strong, first joint inconspicuous, second elongate, a little incurved, strongly clavate at apex, third subtriangular, minute, fourth fusiform, large, attenuate at tip and provided with a minute, short, and obtuse appendage; prothorax more or less cordate, foveate and sulcate; elytra with a humeral angle which is most often attenuate, but nevertheless more or less dentate and having a sulcate lateral margin; abdomen broadly marginate, both sexes with six ventral abdominal segments, the first dorsal one larger than the others or equal; posterior coxæ approximate; tarsi triarticulate, the first joint small, the second thicker and subobconic, third subcylindrical and more slender than the others, two claws differing much in size.

This genus was established by Reitter for *Trichonyx antennatus*, Raffr., from Abyssinia. It is a very distinct one, but allied to the European genus *Trichonyx*. Its distinctive feature is the presence of one or two rings of minute tubercles on each antennal joint.

The sexual characters vary in each species, and the eyes, the under part of the head, the epistoma, the elytra, and the inferior segments of the abdomen are subject to modification. These sexual characters vary even in the same species, and there are cases of dimorphism in the male, the more developed ones having the normal characters of their sex, while others less well developed are similar to the female except for the last ventral segment, which displays the usual sexual marks of the male sex; in other cases certain females have the characteristics of the male.

Owing to the antennæ being very often compressed, a very careful examination is needed for ascertaining their true shape.

With the exception of *Raffrayia antennata*, which occurs in Abyssinia, all the other species inhabit South Africa, and are particularly abundant both in number of species and examples in the neighbourhood of Cape Town. They are found under bark and stones, but more especially in sifting the dead leaves of the oak-tree.

Synopsis of Species.

A 2. First dorsal segment of the abdomen much larger than the others.
B 2. Antennæ slightly clavate, the penultimate joint (more especially the ninth) larger than the intermediate ones .. *caviceps.*
B 1. Antennæ without club, the two penultimate joints (especially the ninth) smaller than the intermediate ones.
C 2. Third joint of the antennæ strongly transverse .. .. .. *deplanata.*
C 1. Third joint of the antennæ at least as long as or longer than broad, triangular or globose, never transverse.
D 2. Prothorax entirely without longitudinal sulcus.
E 2. Head big and thick, rounded, the sulci shallow, arcuate, the carinate on the vertex obsolete and very short .. .. .. *incerta.*
E 1. Head smaller, sides oblique, sulci deep, large and oblique, the carinula of the vertex long and strong.
F 2. Antennæ more slender, ninth joint globose, tenth scarcely transverse, both much smaller than the intermediate ones *variabilis.*
F 1. Antennæ much shorter and thicker, ninth joints slightly and tenth strongly transverse, very little larger than the intermediate ones .. .. *calcarata*
D 1. Prothorax with a longitudinal sulcus more or less complete, but never totally wanting even in the least developed specimens.
E 2. Prothorax strongly cordiform, as long or nearly as long as broad, longitudinal sulcus more or less obsolete, transverse or angulate in the middle; shoulders generally attenuated in both sexes.
F 2. Antennæ more slender, ninth joint globose, colour generally darker, piceous brown .. .. *armata.*
F 1. Antennæ much thicker, ninth joint transverse, colour ferruginous, sometimes the shoulders are quadrate in both sexes .. .. *nasuta.*
E 1. Prothorax very little cordate, broader than long, longitudinal sulcus complete and well marked, transverse one straight, shoulders very quadrate in both sexes .. .. .. *cruciata.*
A 1. First dorsal segment of abdomen not larger than the following ones.
B 2. Antennæ with the joints (at least the intermediate ones) transverse.
C 2. Prothorax with a longitudinal sulcus more or less obsolete, and sometimes reduced to an oblong fovea in the anterior part of the base.
D 2. Prothorax transversely ovate, not cordiform .. .. *laticollis.*
D 1. Prothorax cordiform, at least as long as broad.
E 2. Longitudinal sulcus deep and well defined .. .. *rugosula.*
E 1. Longitudinal sulcus more or less interrupted or obsolete.
F 2. Broad; antennæ with intermediate joints slightly transverse, ninth and tenth nearly quadrate; prothorax ampliated on the sides; elytra slightly longer than wide, ferruginous or testaceous .. .. *majorina.*
F 1. More slender; antennæ with the intermediate joints and also the ninth and tenth very transverse; prothorax longer, not ampliated on the sides; elytra longer than broad; colour generally dark with the feet rufous .. .. *bicolor.*

C 1. Prothorax without any longitudinal channel, the antebasal fovea wanting or round.
D 2. Head without any frontal transverse sulcus.
E 2. Broad and convex; prothorax slightly cordate, broader than long; elytra not much longer than wide .. .. *natalensis.*
E 1. Narrow, depressed; prothorax much cordate, longer than broad; elytra much longer than broad.
F 1. Larger; head scarcely narrowed in front, sulci deep and very oblique; prothorax sinuose on the sides close to the transverse sulcus .. .. *pilosella.*
F 2. Smaller; head strongly narrowed in front, sulci fine, little arcuated and less distant from each other; prothorax regularly cordate without sinuosity on the sides .. .. *abdominalis.*
D 1. Head with a deep transverse sulcus on the frontal part, dividing in two the tubercules bearing the antennæ.
F 2. Head large, quadrate; antennæ little compact, ninth joint quadrate, tenth very little transverse .. .. *nodosa.*
E 1. Head smaller, longer than wide.
F 2. Ferruginous or rufous; antennæ compact and rather short, tenth joint very transverse .. .. *microcephala.*
F 1. Black; antennæ longer and slender, joints third to seventh only slightly transverse, eighth to tenth quadrate .. .. *obscura.*
B 1. Antennæ elongate, joints quadrate or even longer than wide *longula.*

Raffrayia caviceps,

Plate XVI., fig. 1.

Elongate, rufous or rufo-ferruginous, with the antennæ and legs paler, covered with a pale pubescence; head slightly attenuate in front, sides oblique, two large foveæ between the eyes and two strong oblique sulci connected in the anterior part, vertex slightly raised and carinate lengthways from apex to base; antennæ rather elongate, club triarticulate, first joint cylindrical, second ovate, third obconic, fourth to tenth transverse, the fifth a little larger than the following ones, while the joints are decreasing from the fifth to the eighth inclusive, ninth and tenth larger than the preceding ones, eleventh briefly ovate, truncate at base, strongly acuminate at apex; prothorax neither longer nor broader than the head, equal in length and breadth, oblongo-cordate, more attenuate in front than behind, lateral foveæ large, longitudinal sulcus obsolete, the transverse one strong, not quite straight; elytra as long as broad, base not attenuate, shoulders well defined, dentate, oblique, sides hardly rounded, dorsal sulcus short; first dorsal segment of abdomen larger than the others, and having two slightly diverging carinulæ reaching to and enclosing one-third of the width of the discoidal part; legs rather elongate and slender; metasternum convex and having a median, minute fovea close to the coxæ.

Male: Under side of the head near the mouth deeply excavated in a quadrate form, posterior part of the upper part having a raised

area transverse, trisinuate in the anterior part and carinated longitudinally in the middle; last ventral segment slightly impressed; posterior tibiæ with an extremely minute inner spur. Length 1·60 mm.

Female unknown.

Found under the bark of dead trees.

Hab. Cape Colony (Cape Town, Stellenbosch).

Raffrayia deplanata,

Plate XVI., fig. 5.

Oblong, depressed, rusty red, with the legs testaceous, covered with a rather dense pubescence; head much attenuate in front, somewhat retuse and sinuate close to the neck, median part slightly incised, two minute foveæ placed between the eyes, which are also small, sulci shallow; antennæ short and rather thick, first joint large, subcylindrical, second large, obconic, third to tenth transverse, fifth somewhat larger than the others, ninth and tenth less transverse, eleventh larger than the preceding ones, briefly ovate, truncate at base, nearly cone-shaped, and strongly acuminate; prothorax strongly cordate, broader than the head and with the sides slightly sinuate, lateral foveæ very large, longitudinal sulcus strong, abbreviated in the anterior part, the transverse one also strong and sinuate; elytra little elongate, hardly attenuate at base, rounded but still quadrate, bluntly and minutely dentate, sides slightly rounded, dorsal sulcus broad, deep but short; first dorsal abdominal segment larger than the others and transversely impressed at base; legs moderately short; metasternum convex, simple.

Male unknown.

Hab. Cape Colony (Cape Town). I have seen one example only, found by sifting dead oak-leaves.

Raffrayia incerta,

Plate XVI., fig. 4.

Oblong, moderately convex, ferruginous or rufo-testaceous, and with a rather long and dense pubescence; antennæ and legs paler at tip; head short, rounded laterally, rather depressed, attenuate in the anterior part and having behind the eyes, which are very small, two shallow foveæ as well as two light, arcuate sulci, vertex briefly carinate near the neck; antennæ little elongate, first joint large, cylindrical, second ovate, slightly obconic, third transverse, triangular, fourth to eighth compressed, strongly transverse, fifth to eighth decreasing in size, ninth nearly globose, tenth slightly

larger than the preceding ones and transverse, eleventh subglobose, nearly conical and strongly acuminate; prothorax larger than the head, cordate, rounded laterally and not at all sinuate behind, lateral foveæ slightly elongate, transverse sulcus strong, slightly arcuate; elytra broader than the prothorax, short, shoulders rounded not angular, hardly dentate, sides rounded, dorsal sulcus short; abdomen longer than the elytra, slightly attenuate at base; first dorsal segment large, impressed transversely at base but not conspicuously; legs moderately strong; metasternum obsoletely impressed near the coxæ.

Male: Last ventral segment larger than the others, broadly but not deeply impressed. Length 1·30–1·40 mm.

This species will be easily distinguished by the rounded head with the sulci thin, shallow, and arcuate, the antennæ decreasing in size from the median to the apical joints, and the intermediate ones which are compressed.

Found by sifting dead oak-leaves.

Hab. Cape Colony (Cape Town neighbourhood).

Raffrayia variabilis,
Plate XVI., fig. 3.

Closely allied to the preceding species and very much like; head convex with the sides oblique, rectilinear, sulci strong, broad, deep, rectilinear, oblique, vertex moderately raised between the sulci and carinate lengthways; antennæ slender, intermediate joints less transverse and compressed than in the preceding species; prothorax narrower, less rounded laterally; elytra a little narrower and less rounded laterally.

Female: Eyes very minute; elytra attenuate at base, without humeral angles and rounded laterally; metasternum convex and simple. Length 1·20 mm.

Male, typical form: Eyes large; under part of head deeply excavate transversely, bottom part of excavation finely and transversely carinate in the anterior part with the posterior edge produced in the middle and carinate; elytra rather elongate, hardly attenuate at base, humeral angle subquadrate and well defined; last ventral segment impressed. Length 1·20–1·30 mm.

Male (var. β): Similar to the type form; head also excavate underneath, but eyes as small as in the female; elytra less quadrate at the humeral angles.

Male (var. γ): Entirely similar to the female; head not excavate underneath, last ventral abdominal segment impressed. Length 1·20 mm.

R. variabilis is very closely allied to *R. incerta*, and it is difficult

to ascertain which is the female; the head, however, is distinctly smaller in that sex, the sides are oblique, not rounded, the sulci are much larger and more distinctly marked and also not arcuate; the antennæ are not so broad, and the prothorax neither so broad nor so rounded.

This species exhibits a very peculiar and extremely rare case of polymorphism in the male sex, of which we know three forms, two of which are very distinct from that of the female owing to the large and deep excavation on the under side of the head, but the third form is almost entirely similar to the female, except that the shape of the ventral segments of the abdomen assume the concave form peculiar to the male, and that the last segment is impressed. Such males are hardly distinguishable from the females, unless the penis protrudes.

Very abundant in the neighbourhood of Cape Town (Newlands), together with *R. incerta*. Typical males are not so numerous as the females, and of the two varieties of that sex β and γ appear to be very scarce.

Raffrayia nasuta,
Plate XVI., fig. 10.

Oblong, somewhat convex, ferruginous, rufous or testaceous, covered with a pale pubescence; legs and last joint of antennæ lighter in colour; head rather large, slightly rounded on the sides, attenuate in front, sulci strong, oblique, vertex with a long carina; eyes minute; antennæ short, thick, first joint shorter than usual, second quadrate, rounded, third slightly transverse, eleventh briefly ovate, subconical, and abruptly acuminate; prothorax cordate, a little broader than the head, convex, slightly sinuate laterally behind, lateral foveæ elongate, median sulcus variable in length, sometimes obsolete, the transverse one strong, angular in the middle; elytra longer than broad, rugosely striate transversely but in a desultory manner, attenuate at base, shoulders absent, dorsal sulcus strong, disappearing in the median part; first dorsal ventral segment large, hardly impressed transversely at base; metasternum convex and simple. Length 1·40 mm.

Female: Head truncate in the anterior part, sulci connected in front.

Male: Frontal part of head slightly produced between the antennal tubercles, anterior sulci not connected; under side of head with a large fovea, much transverse, geminate, and the posterior margin of which is sinuate; last abdominal ventral segment obsoletely impressed.

Var. β. Similar to the type; elytra having in both sexes the shoulders noticeable, a little rounded, but still quadrate; eyes large.

The shape of the elytra vary extremely; in the type form both sexes are attenuated at base without prominent shoulders, and the eyes are small; in the variety β the elytra are not attenuated at the base in both sexes, and the shoulders are very marked, and square, and the eyes are much larger.

Whilst in *R. variabilis* polymorphism occurs only in the male, in *R. nasuta* it is conspicuous in both sexes, but the characteristics of the sexes do not vary, and form β must be considered as a mere variety.

It is easy to distinguish the male of this species by the projecting frontal part and the excavation on the under side of the head.

R. nasuta is closely allied to *R. armata*, both having a longitudinal sulcus in the prothorax, but it differs in being smaller and of a lighter colour, the head is longer, the antennæ stouter, and the prothorax less transverse.

Common in the neighbourhood of Cape Town (Newlands, Table Mountain). The variety β is much rarer, and seems so far to be only found at Newlands.

Raffrayia calcarata,

Plate XVI., fig. 6.

Very closely allied to *R. variabilis* and *R. incerta*, and differs merely by the sulci on the head being less oblique, the antennæ thicker and shorter and the joints more moniliform, the tenth is slightly and the ninth very transverse; shoulders oblique, better defined; the impression on the first dorsal abdominal segment is much more conspicuous, and narrower than the third part of the width of the disk.

Male: Metasternum depressed, last ventral segment much sinuate at apex; intermediate tibiæ with a long, strong, oblique inner spur a little before the apex.

Female: Metasternum convex, tibiæ without spur.

Only a few examples found in the vicinity of Cape Town.

The three species *R. incerta*, *R. variabilis*, and *R. calcarata* are very closely allied; the male of *variabilis* is at once distinguished by having the under part of the head impressed; in *calcarata* and in *incerta* the under part of the head is not impressed, but in the former the intermediate tibiæ have a very long spur, which is entirely wanting in the latter.

The females are not so easily distinguished. *R. incerta* differs from both *R. variabilis* and *R. calcarata* in being larger, more

depressed and more pubescent; the head is larger and flatter and the sulci more slender and arcuate; the intermediate joints of the antennæ are also more transverse and depressed than in the other two species. *R. variabilis* and *R. calcarata* are very similar; both have the sides of the head linear and oblique, the sulci deep, broad, oblique, not arcuate; the difference between the two is found in the antennæ. In *R. variabilis* they are rather elongate and slender, not compact, each joint having the appearance of being pedunculate, the ninth one is globose, and the tenth slightly transverse, whilst in *R. calcarata* they are shorter, stouter, and more compact, being rather moniliform, and the ninth and tenth joints more transverse; in *R. variabilis* the transverse impression at the base of the first dorsal segment is very feeble, but extends in width to more than half the segment; in *R. calcarata* the same impression is narrower than a third of the width, but it is better defined, as it consists of two foveæ united by a transverse depression.

R. calcarata seems to be rare, whilst *R. incerta* and *R. variabilis* are very abundant.

Raffrayia armata,

Plate XVI., fig. 2.

Oblong, rather convex, ferruginous, brown or piceous; covered with a greyish pubescence; antennæ and legs rufous; head broader than long, attenuate in the anterior part, sides oblique, between the eyes, which are not large, two foveæ, sulci deep, oblique, convex in front, antennal tubercles sulcate traversely, vertex with a long carina; antennæ little elongate, second joint briefly ovate, third very briefly triangular, fourth to eighth transverse, briefly decreasing, ninth subglobose, tenth larger, transverse, eleventh subglobose, nearly cone-shaped and acuminate at tip; prothorax transverso-cordate, broader than the head, longitudinal sulcus shallow, lateral foveæ slightly elongate, transverse sulcus deep with the median part angulate; elytra moderately elongate, slightly attenuate at base, humeral angles oblique, obtusely dentate, dorsal sulcus disappearing before or at the median part; first dorsal segment of the abdomen larger than the others, and more or less impressed transversely at base. Legs robust.

Male: Head with two transverse excavations underneath, the anterior one larger and deeper than the posterior one, which is divided by a longitudinal carina; metasternum and also the last ventral segment broadly impressed; intermediate trochanters slightly mucronate inwardly at base.

Female: Metasternum convex, head simple underneath. Length 1·30–1·50 mm.

This species is found in company with *R. incerta* and *R. variabilis*, but both sexes are easily distinguished from them by the longitudinal sulcus of the prothorax, which is more or less clearly defined but never entirely wanting, and also by the larger size and darker colour. The males are at once differentiated by the impressions on the under side of the head.

Hab. Cape Colony (Newlands—neighbourhood of Cape Town).

RAFFRAYIA CRUCIATA,
Plate XVI., fig. 7.

Oblong, rather convex, ferruginous, clothed with a moderately long flavous pubescence, last joint of antennæ of a paler hue; head attenuate in front, sides oblique, between the eyes, which are moderately large, are two foveæ, the two sulci are little elongate, but oblique, the vertex is carinate; antennæ short, thick, second joint quadrate, third briefly triangular, fourth to eighth strongly transverse and decreasing, ninth slightly transverse, smaller, tenth slightly transverse, larger than the preceding one, eleventh subquadrate at base, cone-shaped at apex and acuminate; prothorax broader than the head, narrower than long and slightly cordate, lateral foveæ sulciform, longitudinal sulcus deep, entire, the transverse one straight; elytra subquadrate, hardly attenuate at base, shoulders nearly quadrate and dentate, vaguely and sparsely rugose; abdomen longer than the elytra, first dorsal segment large, deeply impressed transversely at base, the impression covering a third of the disk.

Male: Metasternum and last ventral segments impressed, the first slightly, the second broadly.

Like *R. armata* and *R. nasuta*, *R. cruciata* has a longitudinal sulcus on the prothorax, but it is deeper, more defined, and similar in size to the transverse one, which is straight, both sulci cutting thus into one another at right angles. The size is larger, the antennæ stouter, the prothorax less cordiform, the elytra shorter, with the shoulders well marked and nearly square.

This species seems rare. I have seen only one pair, which I found under stones near Cape Town.

RAFFRAYIA MAJORINA (female), Raffr.,
Plate XVI., fig. 8.
Rev. Entom., 1887, p. 44; pl. 11, figs. 4, 5.

R. pallidula (male), Raffr., *loc. cit.*, p. 44.

Oblong, robust, ferruginous, rubro-ferruginous or rufo-testaceous, covered with a flavous pubescence, legs rufous; head little attenuate,

moderately elongate, two large foveæ behind the eyes and also two slightly arcuate sulci connected in front, antennal tubercles foveate, vertex sinuate and slightly impressed near the neck ; antennæ thick, second joint subquadrate, third briefly obconical, fourth to tenth hardly decreasing in width, fourth to eighth large, and ninth to tenth less transverse and subquadrate, eleventh not broader than the preceding one, but much longer, truncate at base, acuminate at apex ; prothorax hardly longer than the head but broader, ampliated laterally in a rounded shape at about the median part, constricted and sinuate from there to the posterior part, lateral foveæ strong, as is also the transverse sulcus, which is angulate in the median part, median fovea strong, longitudinal sulcus more or less defaced and abbreviate, sometimes obliterated, intermediate fovea merely sulciform ; elytra more or less obsoletely and dispersedly rugoso-punctate, sometimes nearly smooth, longer than broad, shoulders defined, oblique, and dentate, sides slightly rounded, dorsal sulcus disappearing towards the median part ; abdomen shorter than the elytra, first dorsal segment not longer than the others, the two carinules very diverging and little distant at base.

Male : Posterior trochanters with an inward, short, compressed, incurved tooth, intermediate and anterior ones slightly angulate at base, intermediate tibiæ with a short apical spur ; last ventral abdominal segment strongly impressed, and slightly tuberculate in the middle of the base ; metasternum impressed.

Female : Last ventral segment of abdomen compressed on each side and having a small, horn-like process at apex, last dorsal one obtusely tuberculate at tip ; metasternum convex. Length 1·90–2 mm.

This species varies much in colour, the longitudinal sulcus of the prothorax is also variable, being at times entirely absent, or reduced to an oblong, median fovea. Not having had at first a long series of examples to examine, I was led through these variations to believe that there were two different species, *i.e.*, *majorina* and *pallidula ;* but I have been able since to examine more specimens, and I have ascertained that the two are only one species.

With this species begins the group in which the first dorsal segment of the abdomen is not larger than the following ones.

Hab. Cape Colony (environs of Cape Town—Rondebosch). Rare. Found under bark at foot of dead pine-trees.

Raffrayia bicolor,

Plate XVI., fig. 14.

Rather elongate and parallel, little convex, piceous or rufous

brown; elytra sometimes red, and antennæ and legs rufous, covered with a sparse, decumbent pubescence; head rather elongate, hardly attenuate in front, somewhat sinuate laterally, two foveæ behind the eyes, sulci slightly arcuate and joined in front, vertex briefly carinate; antennæ strong, first joint elongate, cylindrical, second subquadrate, third very briefly subtriangular, fourth to eighth much transverse, compressed, ninth to tenth less transverse, eleventh moderately short, subrotund at base, acuminate at tip; prothorax not longer than the head, but a little broader, cordate, narrowed and sinuate past the middle, lateral foveæ large, transverse sulcus little angular, longitudinal sulcus more or less attenuate in front and behind; elytra rather elongate with the sides subparallel, the shoulders oblique and dentate, the base with three foveæ, dorsal sulcus ending abruptly in the median part; abdomen rather elongate, a little narrowed at base, first dorsal segment not larger than the others, narrowly but deeply impressed at base.

Male: Third ventral segment impressed on each side and fasciculate, last one deeply impressed. Length 1·50 mm.

This species is easily distinguished by its elongate and parallel form, the strong antennæ, and the longitudinal sulcus of the prothorax which may be reduced to a longitudinal fovea on the disk. The colour is very variable.

Rare. I have found two specimens only, in mosses.

Hab. Cape Colony (Cape Town).

RAFFRAYIA RUGOSULA, Raffr.,
Rev. Entom., 1887, p. 46.

Subelongate, rufous brown or ferruginous, covered with a yellowish pubescence; head and prothorax densely subrugose; elytra more or less vaguely punctate at base; head slightly attenuate in front, bifoveate between the eyes, with the two sulci little oblique and strong, vertex carinate; antennæ short, thick, first joint large, subcylindrical, second very little smaller, subquadrato-ovate, third to ninth moniliform, slightly transverse, ninth a little smaller, tenth transverse, a little larger, eleventh larger, briefly ovate and with the apex somewhat cone-shaped; prothorax cordate, a little longer than the head, much broader, rounded laterally before the median part, sinuate past the middle, trifoveate, lateral foveæ large; transverse sulcus in the shape of a comma, longitudinal sulcus median, strong, attenuate in front, base with two foveolæ; elytra a little longer than broad, subparallel laterally and not attenuate at base, shoulders oblique, dentate, dorsal sulcus reaching the median part; first dorsal segment of abdomen a little shorter than the pre-

ceding ones, and with a moderately deep transverse impression at base; head rugoso-punctate underneath.

Male: Anterior and intermediate trochanters briefly dentate, intermediate tibiæ with a short apical spur; last ventral segment of abdomen totally and deeply concave and trisinuate at tip. Length 1·50–1·80 mm.

Not so broad as *R. laticollis*, the prothorax is not transverse, and the punctuation on the head and prothorax is very striking.

Very rare.

Hab. Cape Colony (Stellenbosch).

Raffrayia laticollis,
Plate XVI., fig. 16.

Oblong, rather broad, rufous or rufo-ferruginous, covered with a longer and denser yellowish pubescence; head rather large, attenuate in front, sides oblique, behind the eyes, which are rather large, are two large foveæ and two oblique sulci, vertex carinate; antennæ short, thick, second joint ovate, third very briefly triangular, fourth to eighth transverse, of nearly the same size, ninth much less transverse, tenth transverse, eleventh subquadrate at base, slightly cone-shaped at tip and acuminate; prothorax much broader than the head, and also much broader than long, rounded laterally, narrowed behind the median part and slightly sinuate, lateral foveæ broad and slightly sulciform, transverse sulcus angulate in the middle, median fovea minute, and longitudinal sulcus shortened in the anterior part; elytra longer than broad, not attenuate at base, shoulders oblique and dentate, sides slightly rounded, dorsal sulcus disappearing in the median part; abdomen shorter than the elytra, segments short, the first one narrowly impressed at base. Length 1·60 mm.

Male: Antennæ a little longer and more slender; intermediate tibiæ with an inner, moderately obtuse spur, posterior ones ciliate and with a sharp apical spur; last ventral segment totally and strongly depressed transversely, last dorsal segment large and convex; metasternum impressed.

Female: Last ventral segment impressed in the middle and on each side.

Easily distinguished by its massive shape, and the broad, nearly transverse prothorax, the longitudinal sulcus of which is well marked, but ends abruptly a little after the median part.

Apparently rare.

Hab. Cape Colony (neighbourhood of Cape Town, Stellenbosch).

RAFFRAYIA ABDOMINALIS.

Elongate, somewhat depressed, rufo-testaceous, with the antennæ and legs testaceous, briefly but densely pubescent; head attenuate in the anterior part, somewhat rounded laterally, and having two sulci slightly arcuate and near to one another, ending behind in minute foveolæ, and in front in a single, large frontal fovea; eyes small, placed on the under part of the head; antennæ rather elongate, first joint elongate, cylindrical, second subquadrate and longer than broad, third to seventh strongly transverse and slightly increasing, especially lengthways, eighth smaller and transverse, ninth slightly transverse, tenth more transverse, eleventh cone-shaped; prothorax larger than the head, cordate, and having on each side a large fovea and a minute, transverse sulcus very narrow in the median part; elytra much longer than broad, subparallel laterally; dorsal sulcus obsolete and attenuate towards the middle; abdomen a little shorter than the elytra, dorsal segments subequal.

Male: The second basal segment of the dorsal part of the abdomen is a little larger than the others, densely and briefly covered with a subsquamose pubescence, apical margin a little angulate and fasciculate along the median part, third segment shorter by one-half, deeply incised in the middle, a little excavate, the bottom of excavation filled with fascicles of long hairs; metasternum slightly depressed, last ventral segment very much depressed. Length 1·10 mm.

Closely allied to *R. pilosella*, but the head is smaller and narrower in front, the size is also smaller; the shape of the abdomen in the male is very peculiar.

Hab. Cape Colony (neighbourhood of Cape Town).

RAFFRAYIA PILOSELLA,

Plate XVI., fig. 15.

Elongate, subparallel and depressed, rufo-ferruginous, densely but briefly pubescent; antennæ and legs rufous; head large, subquadrate, a little attenuate in front, and having two oblique sulci, vertex finely carinate; eyes large; antennæ slender and long, first joint elongate and cylindrical, second subquadrate, third briefly triangular, fourth to eighth slightly transverse and a little decreasing in length, ninth subglobose, hardly transverse, tenth a little broader and transverse, eleventh short, subconical and acuminate; prothorax a little broader than the head, strongly cordate, sinuate laterally past the middle, lateral foveæ sulciform, median one minute, transverse sulcus strong, angulate in the median part; elytra elongate, hardly attenuate at base, shoulders moderately rounded and obtusely dentate, dorsal sulcus evanescent towards the median part; first dorsal segment

of abdomen transversely and moderately deeply impressed at base, the impression narrower than a third of the disk; legs robust.

Male: Metasternum flattened, last ventral segment transverse, strongly impressed, posterior tibiæ with a brief but sharp spur at apex. Length 1·50–1·60 mm.

Easily distinguished by the large, nearly square head, the antennæ more slender than in the other species, the very cordate prothorax nearly dentate laterally close to the lateral fovea, the long elytra, and the much thicker, but short pubescence.

Raffrayia natalensis,
Plate XVI., fig. 9.

Oblong, rather broad, chestnut red, covered with a pale pubescence; head small, much attenuate in front, and having between the eyes, which are large, two foveæ and two slightly arcuate sulci joining before the depressed forehead; antennæ moderate, a little clavate at apex, second joint quadrate, third ovate, fourth to eighth subquadrate and transverse, ninth quadrate, tenth a little larger, subquadrate and transverse, eleventh large, truncate at base, slightly cone-shaped and acuminate; prothorax much larger than the head, nearly as broad as long, cordate, somewhat deeply sinuate past the median part near the lateral foveæ, which are wide and deep, transverse sulcus deep, angulate in the middle; elytra a little longer than broad, slightly rounded laterally, hardly attenuate at base, shoulders oblique, obtusely dentate, dorsal sulcus evanescent towards the median part; abdomen almost longer than the elytra, first segment with two large carinules diverging much, and inclosing the fourth part of the width of the disk. Female. Length 2·10 mm.

One of the largest species of the genus. In general appearance it resembles *R. rugosula*, but differs much on account of the head being smaller and the antennæ somewhat clavate at tip; the prothorax is not so wide, and the longitudinal sulcus is totally wanting.

Hab. Natal (Escourt). One example only.

Raffrayia nodosa,
Plate XVI., fig. 11.

Oblong, rather thick, ferruginous, covered with a flavous pubescence, legs and apical part of antennæ rufous; head small, quadrate, nodose on each side in front, and having between the eyes, which are large, two foveæ, sulci hardly joined in the anterior part, transverse frontal tubercle deep, antennal tubercles oblique laterally, vertex subconvex, simple, neck with a hardly perceptible

carina; antennæ somewhat elongate, first joint cylindrical, second subquadrate, third to eighth slightly transverse and little decreasing in size, ninth to tenth subquadrate, last one moderately elongate, somewhat cone-shaped and acuminate at tip; prothorax much larger than the head, more attenuate in front than behind, rounded laterally in the middle, lateral foveæ slightly elongate, median one deep, minute, transverse sulcus deep, angulate in the middle; elytra hardly as long as broad, not attenuate at base, shoulders oblique, well defined and dentate, sides slightly rounded, dorsal sulcus evanescent in the middle, first dorsal segment not larger than the others, impressed between two short carinules, little diverging, and inclosing a third of the discoidal width.

Male: Metasternum impressed longitudinally, and the last ventral segment impressed transversely at tip; posterior trochanters obtusely angular, intermediate ones briefly spinose near the base. Length 1·50–1·60 mm.

Head small, square, with the antennal tubercles robust and divided in two by a deep transverse groove; the anterior part of the tubercle obliquely cut laterally, the frontal part is abruptly narrowed.

Hab. Cape Colony (neighbourhood of Cape Town—Newlands).

Raffrayia microcephala,

Plate XVI., fig. 12.

Oblong, rather thick and convex, ferruginous or rufo-ferruginous, covered with a somewhat dense yellowish pubescence; legs and antennæ red at apex; head and prothorax sometimes closely rugoso-punctate, sometimes smooth; head small, longer than broad, slightly attenuate in front, and having between the eyes, which are large and placed behind the middle, two foveæ, the sulci are a little oblique, hardly joined in front, the antennal tubercles are robust and divided by a transverse sulcus, the vertex is carinate; antennæ robust, first joint elongate, cylindrical, second quadrate, third to tenth transverse, subequal, except the eighth, which is somewhat smaller, last one short, somewhat cone-shaped and abruptly acuminate; prothorax much larger than the head, cordate, sub-convex on the disk, lateral foveæ strong, elongate, median one minute, deep, transverse, sulcus deep, angulate in the middle; elytra hardly longer than broad, not attenuate at base, shoulders oblique, noticeable and dentate, sides little rounded, dorsal sulcus strong, ending in the median part; first dorsal segment of abdomen strongly impressed between two more or less short carinæ, not much divergent and inclosing one-third of the disk.

Male: Metasternum and also last ventral segment broadly impressed.

Female: Metasternum convex, last dorsal segment minutely tuberculate at apex. Length 1·40–1·60 mm.

Closely allied to the preceding species, but the head is longer, slightly narrowed in front, with the tubercles much smaller; the prothorax is cordiform and very variable; in some specimens the head and prothorax are coarsely punctured, in others they are smooth.

Not rare in the neighbourhood of Cape Town and Newlands. The examples from Newlands have generally the head and prothorax punctured, and those from Cape Town smooth.

Raffrayia obscura.

Somewhat elongate, not much thickened, black, with a rather dense but brief pubescence, a few of the hairs dispersed, long and recurved; legs and antennæ piceous, last joint of the former lighter, tarsi and palpi testaceous; head small, elongate, slightly attenuate in front, two foveæ between the eyes, which are large, sulci oblique, antennal tubercles divided by a strong, transverse sulcus, vertex somewhat convex, briefly carinate close to the neck; antennæ rather elongate, a little thickened but not at all at apex, first joint elongate, cylindrical, second quadrate, third to seventh slightly transverse, eighth to tenth subquadrate, eleventh middling, subturbinate and acuminate; prothorax much broader, hardly longer, cordate, lateral foveæ large, median one minute, transverse sulcus strong, angulate, impressed at base; elytra large, shoulders well defined, oblique, obtusely dentate, slightly rounded laterally, strongly bifoveate at base, dorsal sulcus shortened in the middle; abdomen a little smaller than the elytra, dorsal segments equal and having the carinæ short, inclosing only the fourth of the length of the disk, and having between them a deeply impressed space.

Male: Head subgibbose underneath and slightly impressed on each side before the eyes; metasternum deeply sulcate longitudinally, last ventral segment slightly impressed. Length 1·50 mm.

Resembles much *R. microcephala*, but differs by the darker colour, the longer head, the more slender antennæ and the shorter and more approximate abdominal dorsal carinulæ.

Hab. Cape Colony (neighbourhood of Cape Town—Muizenberg Vlei). One male only.

RAFFRAYIA LONGULA, Raffr.,
Plate XVI., fig. 13.
Rev. Entom., 1887, p. 45.

Elongate, parallel, ferruginous red, shining, briefly and sparingly flavo-pilose, antennæ and legs paler; head moderately elongate, slightly attenuate in front, and having two large foveæ placed past the eyes, sulci little oblique, shallow, vertex carinate, antennal tubercles incised laterally; antennæ slender and elongate, first joint robust, second quadrate, third suboblong, fourth to tenth quadrate, hardly increasing in width, ninth a little longer, eleventh moderately elongate, truncate at base; prothorax strongly cordate, broader than the head, rounded laterally, emarginate past the middle and narrowed, from there slightly sinuate; lateral foveæ large, deep, median one smaller, transverse sulcus angulate; elytra elongate, not much broader than the prothorax, parallel laterally, shoulders oblique, well defined and minutely dentate, dorsal sulcus a little longer than the others, the two carinæ very short and inclosing hardly the third part of the length of the disk.

Male: Head broadly and deeply impressed laterally on each side underneath; ventral abdominal segments deeply impressed transversely, the sixth impressed in an oblong shape and sinuate at apex, third to fourth with a sharp point on each side, trochanters with a very short tooth at base, posterior ones armed with a slightly sinuate, apical spine, intermediate tibiæ briefly spurred at apex.

Female unknown. Length 2·40 mm.

This species is the largest of the genus, and is easily distinguished by its long and parallel form and slender antennæ.

Hab. Cape Colony (Stellenbosch). Seen one example only.

GEN. DALMINA, Raffr.,
Rev. Entom., vi., 1887, p. 46.

One constant characteristic, but an important one, distinguishes this genus from *Raffrayia*, viz., the joints of antennæ have no spines or tubercles, the body is generally longer and more slender, the intermediate joints of the antennæ are in both sexes always a little larger than the others, and they have sometimes a distinct median node.

So far as is known the genus *Dalmina* is exclusively a South African one.

DALMINA GLOBULICORNIS, Raffr.,

Rev. Entom., 1887, p. 47, pl. ii., figs. 6 & 7; Rev. Entom., 1890, pl. iii., fig. 40.

Oblong, piceous black, covered with a somewhat flexible greyish pubescence, elytra red, legs and antennæ rufous, and in immature specimens entirely testaceous; head moderately short, attenuate in front, sides and frontal part punctulate, two foveæ between the eyes which are large, sulci little oblique and connected in the frontal part which is depressed, vertex subconvex, simple; first joint of antennæ rather large, second subquadrate, third ovate, fourth to fifth variable in both sexes, sixth to eighth subquadrate and transverse, ninth to tenth equally long but a little narrower and hardly transverse, eleventh not thicker than the preceding one, merely twice as long and acuminate at tip; prothorax longer than the head and a little broader, cordate, and having two lateral foveæ, transverse sulcus distinctly angular; elytra moderately elongate, slightly rounded laterally, dorsal sulcus strong, attenuate before the median part; abdomen shorter than the elytra, moderately convex, and declivous at apex, first dorsal segments subequal; metasternum foveate in the centre close to the posterior coxæ; legs moderately long.

Male: Fourth and fifth joint of antennæ much larger than the others and forming a large node, the fifth joint being, however, the larger of the two and bi-impressed inwardly; elytra elongate, shoulders oblique and developed, trochanters of the forelegs with a basal spine moderately long and slightly recurved; anterior and intermediate tibiæ with a short spur, the spur longer in the posterior ones; metasternum broadly impressed, last ventral segment deeply impressed.

Female: Fourth and fifth joint of antennæ a little more robust than the following ones, fifth a little larger than the fourth; elytra shorter, attenuate at base, shoulders almost wanting; metasternum convex. Length 1·50–1·60 mm.

The colour of this species in both sexes, and also the shape of the fourth and fifth joints of the antennæ in the male, makes this species very conspicuous.

Hab. Cape Colony (Cape Town, Newlands, Stellenbosch).

DALMINA GRATITUDINIS.

Oblong, subparallel, castaneous, more or less infuscate or pallid, legs, antennæ, and palpi rufous, body covered with a sparse, flexible greyish pubescence; head attenuate in front, temporal angles

rounded, two foveæ between the eyes and two anterior sulci joined in the frontal part; antennal tubercles conspicuous, antennæ strong, differing in each sex, last joint testaceous; prothorax cordate, larger than the head and sinuate past the middle owing to the presence of a lateral fovea; transverse sulcus very angular; elytra attenuate at base, shoulders oblique, sides slightly rounded, base bifoveate, sutural stria entire, discoidal sulcus broad but short, the three first abdominal segments decreasing very little in length.

Male: More parallel than the female, and paler, disk of elytra redder; first joint of antennæ a little larger than the others, conical, second ovate, third nearly transverse, fourth a little longer than the preceding one, slightly produced inwardly, sharp underneath, fifth largest of all, transverse, irregularly rounded inwardly, produced outwardly and obtuse, sixth to tenth quadrate, slightly transverse, each one of them slightly larger than the third, last one hardly broader than the penultimate one, but longer, ovate, truncate at base and acuminate at tip; elytra nearly twice the length of the prothorax, less attenuate at base than in the female, shoulders oblique and very well defined; metasternum plane, foveate at apex, last ventral segment much impressed in an oblong shape; posterior tibiæ with an apical spur.

Female: More attenuate in front, darker chestnut red all over; first three joints of antennæ similar to those of the male, fourth trapezoidal, slightly transverse, not longer than the preceding one, but broader, fifth of the same shape as the preceding one but nevertheless a little larger, sixth to tenth smaller, slightly transverse, ultimate one as in the male; elytra shorter, attenuate at base, and almost without shoulders; metasternum slightly convex, minutely foveate; legs simple. Length 1·60–1·80 mm.

Allied to *D. globulicornis*, which has also a node in the median part of the antennæ, but whereas the node in this species is formed by the dilatation of the fourth and fifth joints, in *D. gratitudinis* it is the fifth joint alone which is so dilated.

Hab. Cape Colony (Stellenbosch—banks of the river. February).

Dalmina concolor.

Oblong, thick, entirely chestnut brown, covered with a brief, greyish pubescence, antennæ and legs rufous; head short and attenuate in front, broad, slightly transverse, two foveæ not much apart from one another, sulci straight and coalescing in the frontal part, which is a little depressed, posterior part a little retuse; antennæ of moderate size, first joint large, second quadrate, third obconical and a little narrower, fourth quadrate, fifth quadrato-

elongate and a little larger, sixth and seventh similar to the fourth, eighth quadrate and a little smaller, ninth to tenth quadrate, a little larger than the seventh, eleventh a little thicker than the preceding one, ovate, truncate at base and sharply acuminate at tip; prothorax longer than the head and a little broader, nearly as broad as long, rather short, strongly cordiform and having two lateral foveæ and a much smaller median one, transverse sulcus slightly angular; elytra not much elongate, attenuate at base, no shoulders, dorsal sulcus strong at base but disappearing towards the median part; abdomen longer than the elytra, little convex and attenuate at tip; metasternum simple; legs of moderate size. Female: Length 2 mm.

Differs from the female of *D. globulicornis* by its larger size, the shorter and broader head, the more slender antennæ and the colour.

Hab. Natal (Frere).

DALMINA IRREGULARIS.

Oblong, more slender than the others, piceous, elytra and antennæ brownish, the latter paler at tip, covered with a sparse greyish pubescence, legs rufous brown; head of moderate size, a little longer than broad, attenuate in front, and having between the eyes two foveæ, sulci oblique joining in the depressed frontal part, vertex convex; antennæ somewhat elongate, first joint large, second quadrate, third a little narrower, obconical, fourth quadrato-elongate, fifth also quadrato-elongate but larger, slightly produced inwardly, sixth smaller by one-fourth, and quadrate, seventh and eighth quadrate and larger, ninth and tenth equally broad but shorter and transverse, eleventh not broader, rather elongate, obtusely acuminate and slightly sinuate outwardly; prothorax larger than the head, a little longer than broad, cordate, and having three foveæ, the transverse sulcus is strongly angular, and the very base is impressed; elytra rather elongate; shoulders oblique, distinct, dorsal sulcus deep and disappearing towards the median part; abdomen longer than the elytra and a little narrower, somewhat convex; metasternum much impressed; legs of moderate size, trochanters of the posterior ones with a short spine directed backwards, anterior and intermediate tibiæ with a short spur, last ventral segment of abdomen very much impressed. Male. Length 2 mm.

This species, the female of which is unknown, is greatly differentiated from *D. concolor* by the head and prothorax which are longer than broad as well as by its more slender shape. It resembles more *D. globulicornis*, but the shape of the fourth and fifth joints of the antennæ are not dilated in a node as in the last-named species.

Hab. Natal (Frere).

DALMINA ELEGANS,
Plate XVII., fig. 1.

Elongate, slender, ferruginous, covered with a flexible, sparse, flavous pubescence, tibiæ, tarsi, and palpi, as well as the tip of the antennæ, paler; head hexagonal, equally attenuate in front and behind, moderately depressed, bifoveate behind the median part, the two sulci slightly arcuate, vertex with a long carinule; eyes of moderate size, median and prominent; antennæ elongate, first joint cylindrical, second briefly ovate, third to eighth decreasing, having nearly the same shape but less transverse, and serrate inwardly, third one transversely ovate, and all attenuate at base and apex, ninth and tenth subconical, ninth rather elongate and narrower, tenth shorter and thicker, eleventh hardly larger, suboblong, truncate at base, acuminate at tip; prothorax of nearly the same size as the head, very cordate, with the sides sinuate behind the median part, longitudinal sulcus strong, shortened in front and behind, the transverse one hardly angular, lateral foveæ strong; elytra little elongate, attenuate at base, no shoulders, dorsal sulcus very short; abdomen a little longer than the elytra, rather convex, first dorsal segment slightly larger than the others, and transversely impressed at base; legs elongate, slender; head irregular underneath, impressed in a subtriangular shape in the middle, and having in each side of the anterior part a squamose, depressed area, it is nodose in the median part near the neck, fasciculate and broadly foveate on each side; metasternum convex; last ventral segment impressed and much sinuate at apex. Male. Length 2 mm.

This species differs much from the others owing to the peculiar shape of the head, the much longer antennæ, the joints of which are isolated from one another, the longitudinal sulcus of the prothorax, and the long and slender legs.

Hab. Cape Colony (neighbourhood of Cape Town, Newlands).

Tribe BATRISINI.

The distinctive characters of the tribe are as follows: Median and hind coxæ globular and not prominent, the latter somewhat depressed and triangular, approximate or very little distant from each other; first ventral segment of abdomen concealed under the metasternum or the coxæ, or, when the latter are not quite approximate, looking like a small notch; two very unequal claws to the tarsi.

The other parts of the body are most variable, but it can be said that as a rule in the African insects the body is rather elongate and somewhat cylindrical, the antennæ very distant at base, and the

abdomen more or less immarginate, the first segment only having a carinule, which in some cases is entirely wanting.

Some species from Asia and America have a very globular body the abdomen is nearly entirely marginate, and the frontal part prolonged in a long and narrow tubercle bearing antennæ geniculate like those of *Curculionidæ*.

This tribe is perhaps the most numerous of the family, and is largely represented in the tropical parts of Asia and America; they are rare in Europe, in Australia, and in Africa, and so far only four species are known as occurring in South Africa.

One of these four belongs to a genus exclusively African, and met with in Eastern Africa from Abyssinia to Zanzibar; another is, strange to say, the only representative in the Old World of a genus numerous and widely distributed in America. No explanation of this is possible, but there can be no doubt whatever as to the close relationship of this African insect to its American congeners; the third one belongs to a new genus also more closely allied to an American genus than to any other; the fourth belongs to a genus very numerous in the Indo-Malayan region, but having only very few representatives in Africa.

Gen. BATOXYLA.

Elongate, cylindrical; head equal, depressed, attenuate, retuse behind; eyes large, placed backwards; antennæ distant at base, thick, moniliform, club large, triarticulate; prothorax cordate and without sulci; elytra elongate, without striæ, shoulders oblique and well developed; abdomen shorter than the elytra, immarginate, first dorsal segment much larger than the others; posterior coxæ distant, second ventral segment longer than the following ones, first ventral segment conspicuous; legs hardly elongate and rather thick.

This new genus is very closely allied to *Batoctenus*, Sharp, from Central America, and differs only by the head being attenuate in the frontal part, and not at all nodose above the insertion of the antennæ, which are stouter and have a large club; the elytra are without striæ, whereas *Batoctenus* has three; the first dorsal segment of the abdomen is much larger, and the abdomen is entirely without margins.

Batoxyla punctata,

Plate XVII., fig. 4.

Ferruginous, subopaque, totally covered with large, ocellate, but shallow punctures, briefly and sparsely pubescent, the pubescence pallid; head depressed slightly on the upper part and having two minute foveæ between the eyes on the vertex; first joint of antennæ

strong, second subquadrate, third to eighth moniliform, slightly transverse, club large, ninth and tenth trapezoid, subtransverse, eleventh truncate at base and a little narrower than the preceding one, thickened at apex and obtusely acuminate; prothorax larger than the head, cordate, foveate on each side past the median part; elytra much longer than broad, bifoveate at base, shoulders oblique, subdentate, sides subparallel, no striæ; abdomen shorter than the elytra, first dorsal segment much larger than the others, tri-impressed at base and bicarinate in the middle; metasternum depressed, last ventral segment broadly but not deeply foveate. Male. Length 1·90 mm.

Hab. Zambezia (Salisbury). Two examples.

GEN. BATRISUS, Aubé,
Mag. Zool., 1833, p. 45.

This genus, *sensu proprio*, has no representative in Africa.

SUB-GEN. TRABISUS, Raffr.,
Rev. Entom., 1890, p. 110; *loc. cit.*, 1894, p. 230.

Body oblong, head more or less trapezoidal, eyes median; antennæ distant at base and with eleven joints; maxillary palpi moderate, first joint inconspicuous, second slightly elongate, third minute, fourth elongate, fusiform, but at times falciform; prothorax cordate, trisulcate lengthways; first dorsal segment of abdomen large, unicarinate only on the side of the base, the other segments immarginate.

This genus differs from *Batrisus* proper by the much more slender form of the ultimate joint of the maxillary palpi, and the first dorsal abdominal segment having one simple and short carina at base, the abdomen being otherwise immarginate laterally.

This sub-genus, which includes about nine species, is exclusively African.

TRABISUS DREGEI, Aubé.

Batrisus dregei, Aub., Ann. Soc. Ent. France, 1844, p. 82.

Oblong, chestnut brown, clothed with a yellowish pubescence; head broad, transverse, and having in front a large transverse impression joined laterally to two foveæ; vertex raised, transverse, punctate behind, briefly carinate; last joint of palpi elongate, fusiform, sinuate and slightly falcate; antennæ robust, joints subcylindrical oblong, eighth small, ninth and tenth larger, eleventh much longer, acuminate; prothorax cordate, a little narrower than the head, median longitudinal sulcus nearly absent, lateral foveæ

joined by a transverse sulcus with a large, cruciform, median fovea, base bifoveate on each side; elytra subquadrate, somewhat convex, shoulders high, slightly oblique and obtusely carinate, rounded laterally, trifoveate at base, sutural stria entire, dorsal one short; first dorsal segment of abdomen nearly twice as long as the following one, and very briefly unicarinate at base; legs strong, femora thickened, tibiæ slightly incurved; metasternum impressed and sulcate; head broadly excavate in a subquadrate form, the margin of the excavation sharply tuberculate close to the median part of the mouth; intermediate trochanters thickened at apex, last ventral segment impressed transversely. Male. Length 3·20 mm.

This description is made from Aubé's original type, formerly in Reiche's collection and now in mine. Aubé mentioned (Ann. Soc. Ent. France, 1844, p. 82) another example belonging to Schaum's collection, but no other has been recorded from that time.

This extremely rare insect was discovered at the Cape by Drege, but the exact locality is unknown, and I am not aware that it has been met with again.

Gen. ARTHMIUS, Le Conte,
Bost. Journ., vi., p. 91.
Raffr., Rev. Entom., 1894, p. 231.

Sub-Gen. SYRBATUS, Reitt.,
Verh. Naturf. Ver. Brünn., xx., p. 205.
Raffr., Rev. Entom., 1894, p. 231.

Body suboblong, rather convex; head quadrate or transverse; eyes placed behind the median part; last joint of palpi ovate, acuminate; antennæ much separated; prothorax cordate, sulcate longitudinally on the sides, median sulcus always wanting, and the transverse one placed before the base; elytra quadrato-elongate and without shoulders in the female and with more or less prominent ones in the male, dorsal stria wanting; abdomen with a rather abrupt declivity behind, broad, marginless, first dorsal segment very large.

This sub-genus differs only from *Arthmius* by having two longitudinal sulci on the sides of the prothorax, whereas there are no sulci in *Arthmius;* this difference is really not important.

Arthmius, as well as *Syrbatus*, was formerly considered as belonging to the genus *Batrisus*, to which it is indeed very closely allied, but the old genus *Batrisus* has now become so large and consists of so many heterogeneous elements that it has become necessary to divide it into several distinct genera, from among which *Arthmius* is one of the best characterized. It differs from *Batrisus*

in the shape of the head, which is more quadrate; the eyes are always placed beyond the median part; the prothorax has no median sulcus; the elytra no discoidal striæ; the abdomen is entirely without margin, and the first segment is very large, and the others abruptly declivous.

The head of the male bears generally some foveæ, spines, or tubercles; the shape of the elytra is different from that of the female, the shoulders being more or less prominent in the male, and rounded and obsolete in the female.

Both *Arthmius* and *Syrbatus* are largely represented in America, and the finding of this genus in South Africa was quite unexpected and is of great interest.

Syrbatus mashuna.

Plate XVII., fig. 3.

Oblong, moderately convex, chestnut brown, antennæ rufous at apex, likewise the legs, body covered with a brief fulvous pubescence; head large, quadrato-transverse, sinuate laterally before the middle, frontal part truncate perpendicularly, nearly completely excavate, the excavation trilobate and briefly setose at bottom, with the posterior lobe much larger than the others, frontal part delicately and sinuously sulcate, and briefly carinate lengthways; antennæ very distant at base, third to seventh joints oblong, slightly decreasing in length, eighth quadrate, ninth to tenth larger than the others, subquadrate, eleventh large, truncate at base, ovate, acuminate; prothorax narrower than the head, cordate, and having two lateral sulci and a transverse one, angular in the middle, base impressed on each side; elytra a little longer than broad, slightly rounded laterally, shoulders oblique, somewhat prominent, base trifoveate; abdomen a little shorter and narrower than the elytra; first dorsal segment foveate on each side but neither deeply nor broadly; legs strong, tibiæ slightly incurved, the intermediate ones have a minute apical spur; metasternum deeply depressed, last ventral segment strongly impressed. Male. Length 1·80–2 mm.

Several males have been captured near Salisbury, but no females; the latter probably remain at the roots of grass, while the former were caught flying at sunset in their search for a mate.

Gen. BATRISODES, Reitter,

Vehr. Naturf. Ver. Brünn., xx., p. 205.

Body oblong, head large, quadrate, eyes large and situated behind in an angle, last joint of palpi fusiform; antennæ moderately elongate, club most often more or less triarticulate; prothorax

cordate, trisulcate lengthways but sometimes bisulcate; elytra more or less rounded at the shoulders, or oblique, sutural stria entire, dorsal one shortened; abdomen a little narrower than the elytra, immarginate, obtuse and abruptly declivous at apex, first dorsal segment by far the largest, the others being hardly conspicuous at first sight.

This genus, which was formerly included in *Batrisus*, is a very distinct one, owing to the large size of the head, the position of the eyes, and the first dorsal segment very much larger than all the others put together.

Numerous in the Indo-Malayan region; few only are recorded from Africa (West Coast, Gaboon, Abyssinia, East Coast).

Batrisodes natalensis,
Plate XVI., fig. 20.

Oblong, rufous, shining, covered with a short pallid pubescence; head large, quadrate, sinuate laterally, frontal part deflexed, slightly raised on each side above the insertion of the antennæ, transversely sulcate in front, and having two large foveæ nearly before the eyes, which are large; antennæ elongate, third to eighth joints suboblong, seventh a little longer, ninth to tenth larger, ovate, eleventh larger, ovate, acuminate; prothorax broader than the head, strongly cordate, rounded laterally, trisulcate longitudinally and unisulcate transversely, base bifoveate; elytra large, slightly rounded laterally, subconvex, shoulders oblique and obtusely dentate, dorsal stria nearly straight, abbreviated before reaching the apex; abdomen a little shorter than the elytra, attenuate at apex, first dorsal segment large, bi-impressed at base, median impression larger than the others, transverse, broadly and deeply excavate at apex, the anterior margin of the excavation is deeply bisinuate, the apical one bituberculate, the bottom has a median transverse laminiform process with a tubercle above it in the median part; metasternum hardly sulcate; legs elongate, all the femora thick, slightly sinuate behind, all tibiæ nearly straight. Male. Length 1·20 mm.

Hab. Natal (Frere). Three examples.

Tribe BRYAXININI.

Body generally short and more or less globose and convex; antennæ eleven-jointed, separate at base, head generally flat, trapezoid, bearing no antennal tubercles; the maxillary palpi are well developed, but never of large size, the first one concealed, as usual, in the mouth, the second one more or less elongate, curved and clavate at tip, the third small, globular, and triangular, fourth

ovate and acuminate—these organs vary to a certain extent; the abdomen is nearly always more or less marginate, the hind coxæ far apart, and the first ventral segment concealed under the metasternum; the tarsi have one single claw; the under part of the head bears nearly always a large, more or less obtuse, longitudinal carina.

This tribe is widely distributed throughout the world, but it has, comparatively speaking, few representatives in South Africa.

Gen. RYBAXIS, Saulcy,
Bullet. Metz., xiv., 1876, p. 96.

Body short, convex; antennæ eleven-jointed; maxillary palpi of moderate size, second joint clavate at tip, third globose, minute, fourth briefly oblong, obtusely acuminate; prothorax cordate and with three foveæ connected by a transverse sulcus; elytra with a sutural and a dorsal stria, the latter more or less abbreviate, lateral margin sulcate inwardly; abdomen marginate.

Owing to the epipleural sulcus of the elytra and the transverse sulcus of the prothorax, this genus has been removed from *Bryaxis*.

Rybaxis circumflexa, Raffr.

Bryaxis circumflexa, Raffr., Rev. d'Entom, 1882, p. 24.

Little convex, chestnut red, shining, covered with a very short pubescence; head rather elongate with the sides nearly straight, slightly attenuate in front, trifoveate, anterior fovea not so deep nor as well defined as the others; antennæ elongate, slender, third to seventh joints subelongate, decreasing in length, eighth nearly quadrate, club triarticulate; prothorax much broader than the head, nearly as long as broad, subcordate, lateral foveæ large, median one small, transverse sulcus angular; elytra a little longer than broad, slightly attenuate at base, shoulders oblique, noticeable, bifoveate at the base with the discoidal stria more or less abbreviate in the apical part, nearly straight or slightly sinuate at apex; first abdominal segment carrying two carinulæ diverging much, and more or less apart; legs strong, femora thickened, tibiæ hardly arcuate.

Male: Antennæ long, joints much elongate, ninth to tenth subcylindrical, slightly conical, more than twice as long as broad, eleventh oblong, much elongated; third ventral segment with a median, minute, compressed tubercle; last segment hardly impressed; intermediate trochanters obtusely dentate inwardly at base; apical margin of the elytra bisinuate.

Female: Antennæ shorter than in the male, joints ninth and tenth smaller, truncate in an obconical form, eleventh oblong and a little

shorter; apical margin of the elytra truncate in a nearly straight line. Length 2·30–2·50 mm.

This species is apt to vary somewhat; the discoidal stria of the elytra is more or less abbreviate at tip; when longer than usual it is slightly arcuate at the end; when short it is straight; the carinulæ of the abdomen are always oblique and diverging, but they are more or less apart from each other; the size of the body varies very much. I have some examples from Abyssinia which are only 1·90 mm. in length, while others reach 2·80 mm.; I have not noticed so much difference in size among the South African examples.

This species seems to have a wide distribution in Africa.

Hab. Natal (Frere), Zambezia (Salisbury), Abyssinia.

Gen. BRYAXIS, Leach,
Zool. Miscell., iii., 1817, p. 85.

This genus is nearly similar to the preceding one, but the body is generally more parallel, the foveæ on the prothorax are of equal size and free, as there is no transverse sulcus, and the lateral margin of the elytra are not sulcate.

Bryaxis seems to be confined to Europe and the African and Asiatic Mediterranean shores (palæarctic fauna) and North America. Its occurrence in South Africa is doubtful, the only two specimens as yet recorded from this locality being two examples which I have obtained from Mr. Boucard, and reputed to have come from South Africa; these two specimens are females of a well-known European species (*B. hæmatica*).

It must be said, on the other hand, that this identical species is found also in North America, where it is, however, so rare that it is unknown to the American entomologists. I have in my collection Dejean's type of *B. obscura*, Dej., from North America, which is completely identical with *B. hæmatica*. This species is not rare in all the temperate parts of Europe, and I have discovered in Algiers a slight variety.

That the two specimens alluded to are females of *B. hæmatica* seems to me indubitable, but we must not necessarily infer that the case is proven, because in many cases the females of different species of *Bryaxis* are so similar that they are almost indistinguishable, while the males of these same species are very different. If the male is ever discovered in South Africa it may prove to be a different species, or perhaps a mere variety, such varieties being already known (var. *perforata*, Aubé; *tuberiventris*, Raffr.).

BRYAXIS HÆMATICA, Reichenb.,
Monogr., p. 52, pl. ii., fig. 12.

Entirely rufo-ferruginous, covered with a rufous pubescence; head short, trifoveate, eyes large; antennæ rather thick, third to seventh joints briefly oblong, decreasing in length, eighth quadrate, ninth and tenth larger than the preceding ones and increasing, quadrate, transverse, eleventh large, ovate, acuminate; prothorax a little broader than the head and eyes, more attenuate in front than behind, and having three large, disconnected foveæ, the median one of which is a little smaller than the other two; elytra subquadrate, slightly attenuate at base, shoulders little noticeable, base bifoveate, dorsal stria straight but not produced beyond the third of the length; first dorsal segment large and with two nearly straight and subparallel, well-defined carinulæ reaching lengthways the third part of the disk and inclosing nearly one-third of the width; legs robust. Female. Length 1·70 mm.

Hab. South Africa (?).

SUB-GEN. REICHENBACHIA, Leach,
Vigor's Zoolog. Journ., vol. ii., 1826, p. 451.

This subdivision of the genus *Bryaxis* differs only from it by the more convex, globular form of the body and the very small median fovea in the prothorax.

Taken in themselves the characteristics above mentioned cannot be said to be generic, but it has been found advisable to divide the old genus *Bryaxis*, which comprises now several hundred species, into groups, and to give each group a name in order to facilitate the study.

It is always difficult, and in some instances nearly impossible, to identify with certainty an isolated female, and this difficulty holds good with the South African *Reichenbachia*.

The country in the world where this sub-genus is most abundant is Tropical America, then comes the Indo-Malayan region, the palæarctic fauna, and South Africa. Australia has no representative.

REICHENBACHIA SULCICORNIS, Raffr.,
Annal. Soc. Entom. Franc., 1895, p. 389.

Oblong, thick, ferruginous, covered with a subflexible pubescence; legs and antennæ rufous, the latter infuscate at tip; head longer than broad, trifoveate, frontal fovea larger than the others; antennæ strong, third to sixth joints oblong, sixth a little shorter, seventh quadrate, eighth slightly transverse, ninth to tenth a little larger

than the preceding, and increasing, transverse, eleventh large; prothorax rather broad, lateral foveæ distant from the margin, the central one very minute; elytra subquadrate, slightly attenuate at base, trifoveate, dorsal stria nearly straight, abbreviate before the apex; first dorsal segment of the abdomen with carinulæ variable in length, always diverging and inclosing at the base one-fourth of the width of the disk; metasternum moderately raised and depressed.

Male: Last joint of antennæ larger than the others, oblong, and having underneath a strong, sulciform fovea; intermediate tibiæ with an apical spur, last ventral segment broadly but obsoletely impressed.

Female: Last joint of antennæ ovate. Length 1·50–1·60 mm.

Allied to *R. picticornis*, Reitt.; in the male the antennal club is very different; it is difficult to distinguish the female from that of the last-named species, but the penultimate joint of the antennæ is decidedly more transverse, and the last one shorter and stouter.

Hab. Bechuanaland (Vryburg), Zambezia (Salisbury).

REICHENBACHIA PICTICORNIS, Reitt.,
Deutsch. Entom. Zeit., 1882, p. 188, pl. ix., fig. 6.

Oblong, dark ferruginous, hardly pubescent, legs and antennæ light rufous, the latter, principally in the male, dark at tip; head subquadrate, trifoveate; antennæ of moderate size; third to sixth joints oblong, subcylindrical, seventh much shorter, nearly quadrate, the others variable in each sex; prothorax nearly as broad as long, broader than the head, more attenuate in front than behind, lateral foveæ of moderate size, distant from the margins, the median one minute and suboblong; elytra subquadrate, slightly attenuate at base and trifoveate, shoulders hardly conspicuous, dorsal stria abbreviate before the apex, slightly arcuate and curving slightly outward at tip; first dorsal segment of abdomen with little conspicuous carinula, shorter than half the length of the discoidal part, diverging and covering a quarter of the width; posterior tibiæ slightly incurved; metasternum rather convex.

Male: Antennal club large, piceous, covered with a denser greyish pubescence, eighth joint broader and shorter than the preceding one, transverse, ninth a little broader than the eighth and more than twice as long, transverse, tenth longer, subquadrate, eleventh oblong, truncate at base, acuminate at tip; intermediate tibiæ with an obtuse, hardly discernible spur at tip, last ventral segment depressed transversely; metasternum abruptly impressed at apex.

Female: Antennal club much smaller than in the male, ultimate

joint hardly infuscate, eighth joint quadrate, ninth a little larger, quadrate, tenth larger than the preceding one, quadrate, eleventh ovate, hardly thickened, truncate at base and acuminate at tip. Female: Variety β. (?) Antennæ more slender than in type, piceous at tip, and with the eighth, ninth, and tenth joints slightly transverse. Length 1·50–1·60 mm.

Hab. Natal (Frere), Zambezia (Salisbury), and also the West Coast of Africa.

In the South African examples the colour is darker, and the last joint of the antennæ entirely dark, whilst in the West Coast specimens the ultimate joint is dark at the base only, and in the female the antennæ are entirely of the same colour; this is, however, only a local variety.

The diagnosis of the female var. β is made from one example; it is impossible to decide if it belongs to a distinct species or not. The habitat of that example is Zambesia (Salisbury).

Reichenbachia decipiens.

Closely allied to both *R. sulcicornis* and *R. picticornis*, but the only example I have seen being a male, proves to be a very distinct species. The colour is a little lighter, the antennæ more slender, the third to sixth joints long, subcylindrical, seventh much shorter than the sixth, but still longer than broad, eighth quadrate, ninth a little longer than eighth, quadrate, tenth larger and very slightly longer than broad, eleventh fusiform, rather elongate and slender; the carinulæ of the abdomen are more definite and less divergent; the intermediate trochanters have a very small acute tubercule at base; the metasternum is broadly depressed, and the last ventral segment is broad and impressed. Male. Length 1·70 mm.

Hab. Zambezia (Salisbury).

Reichenbachia subpubescens.

Oblong, not very thick, ferruginous, covered with a moderately dense and long greyish pubescence, under side of abdomen and antennæ infuscate at tip, legs rufous; head longer than broad, hardly attenuate in the anterior part, trifoveate; posterior foveæ transverse; antennæ slender, joints third to sixth elongate, seventh much shorter, eighth quadrate, ninth hardly broader, but longer, tenth larger, briefly ovate, eleventh of moderate size, ovate, acuminate; prothorax a little broader than the head, rounded laterally, more attenuate in the anterior than in the posterior part, lateral foveæ of moderate size, greatly distant from the margin, median one punctiform; elytra moderately elongate, hardly attenuate

at base, trifoveate, dorsal stria straight, much attenuate before the apex; abdominal carinulæ hardly divergent, reaching lengthways the median part of the disk, and across a fifth of the width; metasternum broadly impressed, anterior trochanters, and also the intermediate ones with a minute but acute tubercle at base; anterior tibiæ sinuate inwardly before the apex, posterior ones arcuate, last ventral segment with a minute tubercle at base and totally impressed. Male. Length 1·59 mm. One example.

Hab. Natal (Frere).

I have also seen two females, which I describe as possible varieties of the present species, as I do not deem it prudent to consider them as distinct species owing to the small number of examples examined, but I would not be surprised if the discovery of the male sex would prove them to belong to a distinct species.

Female: Var. β vel. spec.(?) Thicker, unicolor; antennæ entirely infuscate, joints ninth and tenth more quadrate, dorsal stria slightly arcuate inwardly. Length 1·40 mm. One example from Zambezia (Salisbury).

Female: Var. γ vel. spec. (?) Antennæ thicker, entirely rufous, dorsal stria slightly arcuate; carinulæ of the abdomen shorter and very near each other. Length 1·40 mm. One example from Zambezia (Salisbury).

Reichenbachia discreta.

Rather broad and thick, covered with a subflexible pubescence; legs rufo-testaceous, antennæ rufous, head, prothorax and elytra very slightly punctulate; head longer than broad, not attenuate in front, deeply and equally trifoveate; antennæ moderately elongate and slender, joints seventh to tenth elongate, decreasing in length, eighth subquadrate, but nevertheless a little longer than broad, ninth hardly larger, trapezoidal, tenth more trapezoidal, eleventh ovate, strongly acuminate; prothorax broader and shorter than the head, sides rounded, lateral foveæ of moderate size, distant from the suture, the median one much smaller than the others; elytra rather broad and slightly depressed, a little attenuate at base and bifoveate, shoulders not prominent, dorsal stria entire, arcuate and ending in the sutural angle; abdomen a little broader than the elytra, carinula slightly diverging and reaching to half the length of the disk and inclosing more than one-quarter of the width; metasternum hardly impressed; posterior tibiæ slightly incurved. Female. Length 1·80 mm.

Although I have seen only one female example, I do not hesitate

in considering it as a very distinct species, differing in many points from the preceding ones.

Hab. Zambezia (Salisbury).

Reichenbachia afra.

Somewhat short and broad, ferruginous, covered with a subflexible pubescence, legs reddish; head a little longer than broad, and having three foveæ, the anterior of which is larger than the others and oblong; antennæ short, thick, variable in both sexes; prothorax broader than the head, not longer, lateral foveæ moderate, distant from the margin, median one smaller; elytra subquadrate, hardly attenuate at base and tripunctate, dorsal stria slightly arcuate, and shortened at some distance from the sutural angle.

Male: Third to sixth joints of antennæ briefly oblong, decreasing in length, seventh and eighth quadrate, ninth strongly transverse, slightly produced inwardly, tenth a little broader than the preceding one but twice as long and transverse, eleventh very large, subglobose, truncate at base and broadly but not deeply impressed and the impression very shining, obtusely acuminate at tip; abdominal carinæ parallel, and inclosing a third of the width of disk; metasternum obtusely gibbose laterally; intermediate tibiæ provided with a long strong ante-apical spur.

Female: Third to fifth joints of antennæ briefly oblong, sixth quadrate, seventh to eighth slightly transverse, ninth and tenth transverse, increasing in size, eleventh briefly ovate, truncate at base, oblique externally towards the apex and obtusely acuminate; carinula of abdomen slightly divergent, shorter than in the other species, and inclosing hardly the fourth part of the width of disk; metasternum simple. Length 1·50 mm.

This species may at once be distinguished from the others by the short body and thick antennæ.

Hab. Zambezia (Salisbury). One pair only.

Reichenbachia diversa, Raffr.,
Rev. Entom., vi., 1887, p. 36.

Short, rather thick, piceous or piceous red, elytra sometimes of a lighter colour on disk, legs obscure red; head subquadrate, slightly attenuate in the anterior part, trifoveate, anterior fovea larger than the others and oblong; antennæ thick, third joint a little longer than the others, fourth and sixth subovate, others variable in both sexes; prothorax hardly broader than the head, lateral foveæ distant from the margin, the median one punctiform; elytra large, slightly attenuate at base and bifoveate, shoulders well defined,

dorsal stria slightly incurved and abbreviate before the apex; carinulæ of abdomen short, more or less divergent and inclosing the third part of the width of disk; posterior tibiæ incurved, intermediate ones slightly sinuate; metasternum not depressed.

Male: Antennæ thicker than in the female, and more clavate, seventh joint of antennæ hardly transverse, eighth and ninth much transverse, increasing gradually and slightly produced inwardly, tenth much larger than the others, trapezoidal, slightly transverse, eleventh large, ovate, strongly dentate inwardly at base; intermediate tibiæ very briefly spurred at apex; metasternum and last ventral segment slightly depressed.

Female: Antennæ very much less clavate than in the male, seventh joint quadrate, eighth a little transverse, ninth and tenth increasing in size, trapezoidal, slightly transverse, eleventh ovate, obtusely acuminate at tip. Length 1·40–1·60 mm.

Hab. Cape Colony (neighbourhood of Cape Town, Stellenbosch).

Male: Var. *β*. Much smaller than the type form, 1·20 mm., completely rufous.

Hab. Neighbourhood of Cape Town (Mowbray).

Reichenbachia peringueyi.

R. diversa var. *unicolor*, female, Raffr., Rev. Entom., vi., 1887, p. 36.

Oblong, piceous red, legs and antennæ rufous at base; antennæ of moderate size, third to sixth joints oblong, sixth ever so little shorter, seventh quadrate, eighth to tenth transverse, gradually increasing, eleventh ovate, slightly oblong; lateral foveæ of the prothorax distant from the margins and not much larger than the median one; elytra as long as broad, little attenuate at base and trifoveate, dorsal stria hardly arcuate, and stopping abruptly without reaching the apex; abdominal carinulæ extremely short, slightly diverging and inclosing a fifth of the width of the disk.

Male: Ninth and tenth joints of antennæ broader and more transverse than in the female, eleventh suboblong; intermediate tibiæ with an apical, rather strong spur, last ventral segment slightly depressed transversely. Length 1·30 mm.

This species is very closely allied to *R. diversa;* having only one female for my original description, I described it at first as possibly a variety of the afore-named species; I have since obtained the male, and it proves to be a very distinct species, smaller and more slender than the others.

Hab. Cape Colony (Stellenbosch).

REICHENBACHIA ACHILLIS, C. Schauf.,
Catalog. Tijdschr. Ent., xxxi., p. 20.

Bryaxis crassipes, Raffr., Rev. Entom., vi., 1887, p. 36.

Rather elongate, piceous black, elytra red, legs and antennæ brown, body with a hardly noticeable pubescence, and shining; the colour turns sometimes to red all over, principally in the female; head subquadrate, foveæ shallow, anterior one larger than the others; antennæ rather elongate, third to sixth joints elongate, seventh much shorter, eighth quadrate, ninth larger, quadrate, tenth trapezoidal and larger, eleventh large, ovate, acuminate; prothorax larger than the head, rather elongate, oblique at base, lateral foveæ placed close to the margin, of moderate size, median one minute, base punctulate; elytra somewhat elongate, slightly attenuate at base and trifoveate, shoulders little pronounced, dorsal stria nearly entire and slightly bisinuate; abdomen shorter than the elytra, carinulæ extremely short.

Male: Antennæ more slender and longer than in the female; anterior tibiæ slightly dilated in the middle inwardly and more or less minutely tuberculate before the apex, intermediate ones slightly sinuate inwardly and with a strong spur at tip, posterior ones arcuate, all the femora thick; metasternum strongly and broadly impressed, minutely bituberculate close to the intermediate coxæ; fourth and third ventral segments with a large, oblong fovea reaching also the tip of the second one, ultimate segment rugoso-punctate, having a deep subtriangular fovea at the base, and impressed transversely at apex. Length 1·80 mm.

Female: Antennæ a little shorter than in the male, legs not so thick; metasternum slightly impressed, last ventral segment rugoso-punctate, second dorsal one acutely mucronate in the middle of the apical part. Length 1·60 mm.

Hab. Cape Colony (Stellenbosch). Rare.

Female: Var. *bimucronata*. Second and third dorsal segments sharply spinose in the middle of the apical part; sometimes the first segment is very briefly spinose in the median part of the apex. Length 1·40–1·60 mm.

Hab. Cape Colony (Muizenberg, in the neighbourhood of Cape Town).

This female variety (*bimucronata*) is a very interesting one, because dimorphism is extremely rare among females, and I know of no such occurrence in the whole family. I have captured also the male of this variety, which does not show the slightest difference with the typical male captured with the typical female. It is also

worthy of note that this variety does not occur with the type form, which seems so far to be restricted to Stellenbosch, while the former has only been met with at Muizenberg, where I found several females and one male at the foot of grass; but on the slopes of Table Mountain I have met with some female examples in which the little spine on the first dorsal segment has disappeared; and this is to a certain extent a transitory form between the type and the variety *bimucronata*.

Tribe GONIACERINI.

Body variable in shape; head elongate and provided with an antennal tubercle, depressed laterally in front and more or less dilated; eyes placed forward; antennæ geniculate; maxillary palpi of moderate size; abdomen marginate; first ventral segment of abdomen conspicuous, and projecting over the posterior coxæ, posterior and intermediate coxæ apart from each other; one tarsal claw provided with a setiform appendage.

In this tribe the antennæ are geniculate as in the *Curculionidæ*, and not unlike therefore *Metopius* from America, but they are greatly differentiated by other characteristics.

The insects included in this tribe are not numerous, and seem to be exceedingly rare; they occur in America and Africa, but are much more numerous in America, and four species included in two genera were so far known from Abyssinia, Zanzibar, and the Gaboon; but my friend Mons. Eugène Simon, the well-known arachnologist, who visited South Africa in 1892, has discovered a fifth one in the Transvaal. These five species are known from single specimens only, three of which I have myself captured in Abyssinia and Zanzibar flying at sunset.

Gen. OGMOCERUS, Raffr.,
Rev. Entom., vol. iii., 1882, p. 7.

Body oblong, somewhat depressed; head provided with a frontal tubercle, depressed laterally in front; eyes set forward; antennæ geniculate, elongate, eleven-jointed, club triarticulate; maxillary palpi moderate, triarticulate, first joint rather elongate, slightly incurved, thickened at tip, second smaller, third briefly fusiform; abdomen broadly marginate; legs somewhat elongate; first joint of antennæ minute, second and third subcylindrical, third longer than the others.

Some species included in the genus (*O. giganteus*, *agymsibanus*) are among the largest known *Pselaphidæ*.

Ogmocerus rugosus, Raffr.,
Ann. Soc. Ent. Franc., 1895, p. 390.

Somewhat elongate and depressed, ferruginous, slightly covered with a yellowish pubescence, entirely rugoso-punctate, more so on he head and prothorax; head subparallel laterally, and having on the vertex two tomentose foveæ, antennal tubercle moderately broad and depressed, and having a tomentose fovea on the summit; antennæ rather thick, geniculate, first joint very long, one-half the length of the antennæ, sinuate, second one globose transversely, third to sixth transverse, seventh a little larger, transverse, globose, eighth to tenth transverse, increasing in width, eleventh very briefly ovate; prothorax slightly cordate, having a longitudinal sulcus and a large fovea past the median part, transverse sulcus obsolete; elytra subquadrate, subdepressed, with the sides nearly parallel, base bifoveate, dorsal stria abbreviate past the median part; abdomen longer than the elytra, subconvex; legs robust; metasternum hardly impressed. Female. Length 3·50 mm.

This species is smaller than the others, the punctures are really small, tubercles larger on the head and prothorax and smaller on the elytra and abdomen.

Hab. Transvaal (Hamman's Kraal near Pretoria).

Tribe PSELAPHINI.

Head long and narrow; antennæ clavate; maxillary palpi generally unusually long; prothorax more or less ovate; elytra more or less triangular; abdomen with a broad margin, first segment very developed behind the hind coxæ, but hidden from view by a pale, glandular pubescence; tarsi always with a single claw.

This tribe is well represented in Europe and Australia, but has only a few representatives in Africa.

Gen. PSELAPHUS, Herbst,
Käf., iv., 1792, p. 106.

Elongate, attenuate in front; head elongate, more or less sulcate; maxillary palpi very long and slender, first joint filiform and shorter than the second, which is also filiform, but clavate at tip; third minute, subglobose or triangular, fourth long, filiform, strongly clavate at tip; antennæ elongate, club triarticulate; prothorax oblong; elytra much attenuate at base, ampliate behind; first dorsal abdominal segment large; legs elongate, slender, first tarsal joint minute, second clavate at tip, third cylindrical, a single claw.

The genus is represented in every part of the world.

PSELAPHUS LONGICEPS, Raffr.,
Rev. Entom., vi., 1887, p. 33.

Chestnut red, very shining, smooth, briefly nigro-setose here and there on the prothorax and elytra, the setæ more numerous on the abdomen; legs paler; palpi testaceous; head strongly elongate, four times longer than broad, subparallel laterally, neither broadly nor deeply sulcate in front, abruptly raised close to the eyes, and obsoletely bispinose; palpi much elongate, and with a few whitish setæ, last joint slightly sinuate, neither strongly nor abruptly clavate, apex of the clava sulcate; antennæ reaching further than the base of the elytra, first joint elongate, subcylindrical, closely punctured, second subquadrate, a little longer than broad, third longer, oblong, fourth to eighth shorter, obconical, ninth to tenth much larger, obovate, ultimate one large, obovate, acuminate; prothorax hardly shorter than the head, a little broader, attenuate in front and behind, very slightly sinuate on each side before the base, and without any sulcus or fovea; elytra once and a half longer than the prothorax, much broader, much attenuate at base; shoulders oblique, well defined, sides slightly rounded, covered at apex with long, black setæ, as well as with a glandular ochreous pubescence, sutural stria subcarinate, entire, the dorsal one close to the suture; abdomen hardly broader than the elytra and a little shorter; metasternum and abdomen simple underneath. Female. Length 1·40 mm.

Allied to *P. filipalpis*, Reitt., from the Gold Coast, but differs by its larger size and more slender form.

Hab. Natal (Frere); one example. Occurs also in Zanzibar.

GEN. PSELAPHISCHNUS.

Not much elongate, attenuate in front; head elongate; maxillary palpi much elongate, first joint filiform, short, second filiform, clavate at tip, third minute, subtriangular, fourth large, globose at base, from there filiform and subulate for a great length; antennæ thickened, joints transverse; abdomen broad and broadly marginate, first dorsal segment larger than the others; legs thick and short.

Resembles much *Pselaphus*, but is much shorter and broader, the margin of the abdomen is also broader, the antennæ are thick, and the maxillary palpi very different, the last joint instead of being clavate at the apex is clavate at the base and thin and sharp at tip.

PSELAPHISCHNUS SQUAMOSUS,
Plate XVII., fig. 2.

Chestnut brown, totally covered with ochreous squamæ; palpi

testaceous, tarsi red; head slightly attenuate in front, sulcate longitudinally, and having two obsolete foveæ set in the middle between the eyes, vertex slightly convex, cheeks glanduloso-squamose behind; antennæ thick, first joint large, slightly obconical, second a little narrower, quadrato-transverse, third to eighth smaller than the others, equal to each other and transverse, ninth a little larger, transverse, eleventh large, much truncate at base, obtuse at apex; prothorax ovate, convex, a little broader than the head, sinuate at base, truncate, two lateral foveæ and a median minute one; elytra triangular, not broader at base than the prothorax, oblique laterally, more than three times broader at apex, apical margin with very pale glandulose squammæ; abdomen longer than the elytra, slightly rounded laterally and a little broader, very broadly marginate, rounded at apex, first dorsal segment larger than the others, and with the median apical part having an acute, straight tubercle; metasternum convex, first ventral segment covered with a whitish glandulose pubescence, second one large; abdomen slightly concave underneath; legs slightly compressed. Male.

This very fine insect, owing to the squamose pubescence and short and triangular elytra, is not unlike *Pselaphus opacus*, Schauf., from the Amazon.

Hab. Cape Colony (Cape Town and neighbourhood).

Tribe CTENISTINI.

Head provided with an antennal tubercle, cheeks more or less dilated in front in a tubercle; maxillary palpi conspicuous, most often penicillate; first ventral segment of abdomen hidden by the posterior coxæ; claws double and equal in size; the pubescence is always squamose.

This tribe differs from the *Pselaphini* by the mucronate sides of the head in the anterior part, the first ventral segment of the abdomen is short, and more or less covered by the hind coxæ, the two claws of the tarsi are equal, and the pubescence is always squamose.

This tribe is found everywhere. The insects belonging to it are generally met with in damp or swampy places, and may be caught flying at sunset; some are found under stones, others in ants' nests.

Gen. LAPHIDIODERUS, Raffr.,
Rev. Entom., 1887, p. 20.

Subelongate, subdepressed; head provided with a strong antennal tubercle; epistoma with the sides angular and dilated; antennæ

approximate at base, thick, clavate at apex, similar in each sex; maxillary palpi large, first joint inconspicuous, second subelongate, arcuate, clavate at tip and provided with an apophyse, third oblong, angular externally and with an apophyse, fourth oblong, dilated at base, provided with an apophyse and strongly acuminate at tip; prothorax subpentagonal, tuberculate and foveate; elytra short, dorsal and sutural striæ entire; abdomen large, broadly marginate; legs long, femora clavate; tibiæ slender; posterior coxæ very much separated; intermediate and posterior trochanters elongated, clavate; tarsi subelongate and having two equal claws; head armed underneath with a long, strong, recurved spine under the eye.

Very closely allied to the African genus, *Desimia*, Reitt., and more especially to the American one, *Ctenisis*, Raffr., but differs from both by the antennæ having a three-articulated club in both sexes, instead of the long cylindrical four-jointed club of the male in *Desimia* and *Ctenisis*. It differs also from *Ctenisis* by the shape of the antennæ and that of the palpi, the third and fourth joints of which are not transverse.

This genus is purely a South African one, and includes only two species closely allied to each other.

LAPHIDIODERUS CAPENSIS, Raffr.,
Rev. Entom., 1887, p. 21, pl. i., figs. 2, 3.

Piceous red or obscurely rufous, shining, covered all over with sparse ochreous squamæ, all the foveæ and the sutural part with yellowish glandulose squamæ; head subelongate, strongly depressed, narrowed in the anterior more than in the posterior part; antennal tubercle large, subdivided, minutely foveate at base, two large foveæ between the eyes, which are large; antennæ reaching the median part of the elytra, gradually clavate, all the joints as broad as long, penultimate ones increasing, eleventh oblongo-ovate, obtuse at tip; prothorax longer than broad, attenuate in front with the sides not quite straight, and having three longitudinal deep sulci reaching further than the median part, base depressed transversely; elytra not longer than the prothorax, attenuate at base, little oblique laterally, deeply bifoveate at base, sutural and dorsal striæ strong and entire; abdomen once and a half longer than the elytra, first dorsal segment a little shorter than the following one; metasternum deeply sulcate; anterior tibiæ much arcuate.

Male: Antennæ with the eighth to tenth joints increasing in size, eleventh oblong, club quadri-articulate; metasternum having on each side a large subconical tubercle acute at tip.

Female: Eighth joint of antennæ a little shorter than the pre-

ceding one, ninth and tenth increasing in size, little elongate, eleventh oblongo-ovate; metasternum having on each side an ovate depressed tubercle not acute at tip. Length 1·60–1·80 mm.

Mr. Péringuey discovered this species near Cape Town in the galleries of an ant (*Bothroponera pumicata*). I have found it in nearly the same locality under stones, and there were no ants; it is abundant in June and July on the slopes of the Lion's Rump in Cape Town.

LAPHIDIODERUS BREVIPENNIS.

Closely allied to the preceding species, but the head is more elongate; antennæ shorter, eighth to tenth joints a little longer than broad, slightly transverse, eleventh oblong, acuminate at tip; prothorax shorter than broad, sulci shorter, not reaching the median part; elytra almost shorter than the prothorax, much transverse, attenuate at base, slightly rounded laterally, dorsal stria arcuate; abdomen twice as long as the elytra; metasternum sulcate.

Male: Last joint of antennæ hardly longer than the others, club triarticulate; metasternum having on each side an ovate tubercle ending in a minute tooth.

Female: Metasternum having on each side an ovate tubercle not sharp at tip. Length 2 mm.

Hab. Cape Colony (environs of Cape Town, Mowbray); two examples.

This species is so very much like the preceding one that a comparative diagnosis may prove useful.

Capensis.	*Brevipennis.*
All the joints of the antennæ longer than broad, antennal club of male four-jointed.	Joints eighth, ninth, and tenth transverse; antennal club of male trijointed.
Prothorax longer than broad, basal sulcus longer than half the length.	Prothorax as broad as long, basal sulcus shorter than the prothorax by half the length.
Elytra short, transverse, longer than the second dorsal segment of the abdomen.	Elytra very short, very transverse, not longer than the second dorsal segment of the abdomen.
Abdomen once and a half as long as the elytra.	Abdomen twice the length of the elytra.
Metasternum of the male with two conical and acute tubercles.	Metasternum of male with two flat tubercles bearing a small tooth behind.

Gen. CTENISTES, Reichenb.,
Monogr. Pselaph., 1816, p. 75.

Head elongate, provided with an antennal tubercle, cheeks obtusely tuberculate in front; antennæ of the male with the third to seventh joints minute, moniliform, eighth to eleventh cylindrical and forming a large elongate club, those of the female sensibly increased towards the apex and the club triarticulate; maxillary palpi large, the last three joints provided with an apophyse, and the third and fourth very transverse; prothorax more or less obconical; elytra moderately elongate; abdomen marginate; legs rather elongate.

The genus is represented in every part of the world.

Ctenistes australis, Raffr.,
Rev. Entom., 1887, p. 25.

Fulvous, elytra, legs, and palpi paler, body covered with ochreous squamæ; head oblong, trifoveate; antennal fovea much smaller than the others, oblong; eyes very large; palpi short, second joint slightly arcuate and a little clavate at apex, third and fourth transverse, ovate, appendages short; prothorax a little longer than broad and subconical, hardly rounded laterally, briefly foveate at base; elytra little elongate and little attenuate at base, sides slightly rounded, shoulders oblique, dorsal stria entire, slightly arcuate; second dorsal segment of the abdomen twice as long as the first. Length 1·90–2·20 mm.

Male: More slender, smaller and paler than the female; first and second joints of the antennæ larger than the others, third to seventh very minute, moniliform, eighth equal in length to the seven preceding ones, ninth nearly shorter by one-half, tenth a little longer than the ninth, eleventh equal to the preceding and acuminate.

Female: Thicker, larger and darker than the male; antennæ thick, nearly one-third shorter than in the male, the first two joints larger than the following ones, third longer, oblong, fourth to sixth almost of equal size and slightly shorter than the third, seventh nearly twice as long as the preceding one, eighth much smaller than the sixth, the three apical ones the largest of all, clavate, ninth subglobose, tenth subquadrate, eleventh nearly twice as long as the tenth, oblong, acuminate at tip.

In this species the palpi are smaller than usual and the last two joints ovate and transverse; it resembles *C. zanzibaricus*, Raffr., but it is smaller and lighter in colour; the female is very unlike the male being larger and darker.

Hab. Cape Colony (Stellenbosch, Paarl), Natal (Frere, Escourt).

CTENISTES IMITATOR, Reitter,
Deutsch. Ent. Zeit., xxvi., 1882, p. 179.

Fulvous, elytra paler, palpi testaceous, body covered with ochreous squamæ; head elongate, trifoveate, anterior fovea a little smaller than the others; antennal tubercle hardly sulcate; eyes large; palpi long, second joint arcuate at apex and clavate, third subequal in length and width and produced in a very angular shape outwardly, fourth fusiform, transverse, appendages long; prothorax a little longer than broad, slightly conical, hardly rounded laterally, base with oblong foveæ; elytra rather elongate, oblique laterally, attenuate at base, oblique at shoulders, dorsal stria entire, hardly arcuate; abdomen with the dorsal segment hardly twice the length of the first.

Female: Antennæ slender, elongate, third to sixth joints elongate, slightly decreasing in length, seventh longer than the third, eighth subglobose, ninth ovate, nearly twice the thickness of the seventh but nearly equal in length, tenth hardly thicker than the preceding one but longer, eleventh equal in length to the two preceding ones put together but hardly thicker, subcylindrical, acuminate. Length 2·26 mm.

This species differs from the preceding one by the more elongate head, the much more slender antennæ, the elytra more narrowed at base and more arcuate laterally.

I cannot detect any appreciable difference between a Natal example and Reitter's type from the Gold Coast, except that it is more densely squamose and that the antennæ are very slightly longer, but in the absence of the male it is not possible to consider it as a distinct species.

Hab. Natal (Frere); one female. Originally described from Western Africa (Gold Coast).

GEN. ODONTALGUS, Raffr.,
Rev. Mag. Zool., 1877, p. 8, pl. iii., fig. 5.

Short, thick, convex; head provided with an antennal tubercle, cheeks hardly tuberculate in front, a palpal fovea underneath; eyes more or less conspicuously divided by a squamose canthus; first joint of maxillary palpi inconspicuous, second large, elongate, strongly clavate, third smaller, subtriangular, fourth large, elongate and very much clavate; antennæ elongate or thick, club of the male triarticulate, that of the female biarticulate, eighth joint smaller than the others; prothorax subconical, tuberculate; elytra much broader than the prothorax, carinate; abdomen marginate; intermediate coxæ little distant, posterior ones very far apart; metasternum

large; all the trochanters elongate; tarsi with two claws equal in length.

The general facies is very different from that of *Ctenistes;* it is much shorter and thicker, and the shape of the palpi is entirely different.

The geographical distribution is somewhat peculiar. I first discovered two species in Abyssinia (one of which has been also found since in Natal), another one inhabits West Africa (Gold Coast), a fourth one occurs in Zanzibar, but the genus is also met with in Sumatra and Borneo.

ODONTALGUS VESPERTINUS, Raffr.,
Rev. and Mag. Zool., 1877, p. 9.

Short, thick, chestnut brown or piceous, body covered with greyish squamæ, palpi and tarsi rufo-testaceous, foveæ and sutures filled with glandular whitish squamæ; head depressed, strongly trifoveate, antennal tubercle slightly sulcate; antennæ rather thick, first joint large, subelongate, second larger than the following ones, subcylindrical, third slightly obconical, equal in length to the preceding one but more slender, fourth to seventh shorter and decreasing a little in length, eighth minute, very transverse, the other differing in each sex; prothorax slightly conical, sinuate laterally, with several impressions and having four tubercles arranged in the shape of a cross, the three anterior ones are the largest and oblong, the posterior one is very much smaller and rounded; elytra broader than the prothorax, subquadrate with the sides slightly rounded and ampliate beyond the median part, hardly attenuate at base, shoulders oblique, well developed, base bifoveate and broadly although obtusely tricarinate lengthways (suture included); abdomen abrupt behind, first dorsal segment a little larger than the others, and the basal three slightly and bluntly carinate in the middle of the apical part; anterior trochanters tuberculate at tip.

Male: Antennal club triarticulate, ninth joint subquadrate with the angles rounded, tenth similar but a little larger, eleventh broader and more than twice the length of the preceding one, subcylindrical, rounded at tip; metasternum very deeply excavate all over, bottom of excavation foveate in the anterior part, sulcate in the posterior and filled with glandulose squamæ, sides with an erect dentiform tubercle before the median part; whole of abdomen deeply concave underneath, second segment foveate in the middle, apical one dentate on each side; last dorsal segment obtusely carinate in the middle and slightly impressed on each side.

Female: Club of antennæ biarticulate, ninth joint hardly larger

than the seventh, transverse, tenth much larger, slightly transverse, eleventh large, ovate; metasternum raised and plane, very much sulcate lengthways in the middle, glanduloso-squamose, and with another slender transverse anterior sulcus; abdomen slightly convex underneath, last dorsal segment depressed. Length 1·50–1·60 mm.

I cannot detect any difference between the South African and the Abyssinian forms, except that the latter is a trifle larger (1·70 mm.). The striking sexual characters of the metasternum and abdomen are exactly the same.

Hab. Natal (Frere). Very abundant in Abyssinia.

ODONTALGUS COSTATUS,
Plate XVII., fig. 9.

Stout, much attenuate in front, chestnut brown, totally covered with ochreous squamæ and set with large, shallow, sparse and squamæ-bearing punctures, palpi and tarsi testaceous; head longer than broad, sinuate laterally, vertex subgibbose and obsoletely trisulcate, frontal part with a large median foveæ; eyes large, divided by a squamose canthus; antennæ strong and thick, first joint large, second slightly transverse, third to ninth very transverse, tenth larger, eleventh large, ovate, obtuse at tip; palpi a little short; prothorax narrower than the head, eyes included, irregular and plurigibbose, much constricted laterally in front and having five foveæ; elytra shorter than the prothorax and twice as broad, rounded at the shoulders, sinuate laterally, obtusely but strongly tricostate, external costa abbreviate a little before the median part, intermediate one entire, oblique towards the shoulders and sinuate from there, internal one entire, slightly arcuate, suture hardly raised, bifoveate at base; abdomen stouter than the elytra, first dorsal segment depressed at base and more densely squamose, tricostate and bituberculate at apex, second and third with five tubercles, median tubercle distant from the apex and larger than the others, fourth segment strongly unituberculate in the middle, fifth inflexed and simple underneath; metasternum smooth and shining, delicately sulcate longitudinally and having close to the intermediate coxæ a large, squamose fovea, and on each side a large, triangular compressed tooth; second and third ventral segments moderately smooth in the middle and shining, the fifth one deeply emarginate in an arcuate form; femora thick, sulcate inwardly, anterior and intermediate tibiæ hardly sinuate while the posterior ones are strongly so. Female. Length 1·60 mm.

The facies of this insect is very different from that of the other *Odontalgus;* the antennæ are thick, and the joints transverse, the tubercles on the prothorax are very prominent; the carinæ on the

elytra are much stronger, and there is no trace of lateral stria; the segments of the abdomen are provided with tubercles, which are absent in the other species. At first sight one feels inclined to consider this insect as belonging to a genus distinct from *Odontalgus*, but a close inspection reveals no generic difference.

Hab. Cape Colony (Cape Town, slopes of Table Mountain and Lion's Rump). Apparently very rare.

Tribe TYRINI.

Body variable, mostly always attenuate at tip; head provided with a more or less conspicuous antennal tubercle, cheeks simple laterally in the anterior part; first ventral segment hidden by the posterior coxæ or the metasternum; abdomen most often marginate; intermediate trochanters always elongate, the others often so; claws of tarsi double, equal in length or subequal; pubescence always simple, mostly always elongate, sometimes short, but never squamose.

This tribe is closely allied to the preceding one, and differs chiefly by the hair-like pubescence and the non-prominent sides on the frontal part of the head.

The tarsi have two equal claws generally, but in some few insects from the Malayan Archipelago and Australia these claws are unequal.

The tribe includes most of the finest and largest *Pselaphidæ*, and is better represented in Africa than anywhere else, but it is also pretty numerous in Asia and Australia. One of the most important genera, *Centrophthalmus*, more numerous in Asia but extending also in Africa to the East and West Coasts, Abyssinia, and Algiers, is not found in South Africa.

Gen. TMESIPHORUS, Le Conte,

Bost. Journ. Nat. Hist., vi., 1850, p. 75.

Sintectes, Westw.

Oblong, head elongate and with an ocular canthus underneath more or less produced and spinose; maxillary palpi strong, first joint inconspicuous, second arcuate, clavate and appendiculate, third more or less oblong, angular in the median part outwardly and appendiculate, fourth dilated externally, acute at tip; antennæ strong, club triarticulate; prothorax more or less cordate; elytra more or less briefly costate; abdomen marginate, bi- or tri-carinate, and sometimes without carinæ at all; posterior coxæ apart, tarsi rather elongate, third joint a little longer than the second, claws double, equal; pubescence variable, long or extremely short.

Species of this genus occur in North America, Australia, Asia, and

Africa, but they vary considerably; most of the Asiatic species have a long, soft pubescence, and have no abdominal carinæ, whilst the Australian, American, and African ones as well as few Asiatic have a very short, bristly pubescence, and two or three carinæ on the first dorsal segment of the abdomen, which impart to them a totally different appearance.

Few species are known from Africa, where they seem to be rare.

Tmesiphorus rugicollis.

Oblong, piceous red, elytra chestnut red, and antennæ ferruginous or entirely ferruginous or rufous, palpi and tarsi testaceous, body covered with a pubescence having a somewhat golden tinge; head very closely rugoso-punctate, longer than broad, constricted in front of the antennal tubercle, which is ampliate and deeply divided, and having between the eyes two large foveæ, slightly transverse; between these the vertex is carinate vertically, and raised transversely behind, the infra-ocular canthus obtuse; third joint of palpi briefly oblong, angular outwardly in the middle, appendiculate, fourth broadly and roundly dilated; antennæ robust, first joint large, cylindrical, second quadrate, third to eighth a little smaller than the others, third to seventh slightly transverse, the eighth more so, club large, ninth and tenth trapezoidal, tenth a little larger and slightly transverse, eleventh truncate at base, ovate, obtuse at tip; prothorax closely rugoso-punctate, subcordate, subgibbose, rounded laterally in front, and from there sinuate on account of a large fovea situated on the side, having in the median part above the base an acute tubercle and an oblong, basal fovea, the bottom of which is smooth; elytra robust, sparsely punctured, subquadrate, slightly transverse, with the shoulders oblique, clavate, bifoveate at base and obtusely costate in the disk; this costa is abbreviate above the apex, and the suture costiform; abdomen larger than the elytra, slightly rounded laterally, somewhat convex, the two first segments tricarinate; legs strong, anterior tibiæ thickened in the middle and arcuate.

Male: Ninth joint of antennæ depressed inwardly, tenth totally and broadly excavate, dentate inwardly, and less so outwardly, eleventh ovate, neither deeply nor broadly impressed, more or less unidentate; metasternum convex, deeply sulcate behind; second ventral segment of abdomen impressed in the middle at apex, third minutely tuberculate at apex, these tubercles more or less approximate. Length 2·50–2·60 mm.

Hab. Natal (Frere), Zanzibar mainland (Lindi).

I had at first considered this species as identical with *T. collaris*, Raffr., and the description of the male which I gave in the ‘Revue

d'Entomologie,' 1887, p. 28, refers to this species and not to *T. collaris* proper; I deem it advisable therefore to give a comparative description of the two species.

T. collaris.

Head longer, slightly narrowed before the antennal tubercle, which is but little dilated, foveæ between the eyes smaller than in *rugicollis*.

Canthus under the eye produced in a long and sharp spine.

Last joint of maxillary palpi narrowly produced outwardly at apex, long, and very acuminate.

Male: Last joint of antennæ with only one large depression at base, ending at tip in a single, more or less compressed tooth.

Second and third ventral segments very slightly impressed.

Length 2·40–2·60 mm.

Hab. Island of Zanzibar, and on the mainland, Bagamoyo and Mikindani.

T. rugicollis.

Head shorter, much narrowed before the antennal tubercle, which is much more dilated; foveæ between the eyes larger and much more transverse, separated from each other by a carinule.

Canthus under the eye short and obtuse.

Last joint of maxillary palpi roundly dilated outwardly, apical part short, acuminate.

Male: Last joint of antennæ with two transverse and compressed teeth, or small carinæ, the interval between them filled by a transverse depression.

Second ventral segment with a strong impression, third one with two small tubercles at base.

Length 2·50–2·60 mm.

Hab. Natal (Frere), Zanzibar mainland (Lindi).

Gen. PSELAPHOCERUS, Raffr.,
Rev. Entom., vi., 1887, p. 28.

Thick, convex, attenuate in front; head with a broad, robust antennal tubercle; antennæ strongly and irregularly clavate, first joint subelongate, cylindrical, smaller than the following ones; palpi strong, first joint inconspicuous, second rather elongate, slender at base, much dilated in a triangular form, third triangular, more or less dilated outwardly either obtusely or in an apophyse, fourth more or less transversely triangular, and acuminate inwardly at tip; prothorax longer than broad, narrowed in front and foveate laterally; elytra large, convex, attenuate at base, ampliate behind, discoidal stria short; abdomen large, marginate, first dorsal segment hardly longer than the others; metasternum long, slightly raised; posterior

coxæ hardly approximate; legs somewhat elongate, tarsi elongate, second and third joints subequal, two equal claws.

This genus is purely South African, and includes some of the large species of *Pselaphidæ*. It can be divided into two groups, containing each two species, and in each one of these two groups the maxillary palpi are exactly similar.

First Group.	
Third and fourth joints of the maxillary palpi obtusely produced outwardly; seventh joint of antennæ very large, ninth and tenth much smaller and equal	*peringueyi, diversus.*
Second Group.	
Third and fourth joints of the maxillary palpi narrowly and sharply produced outwardly in the shape of an appendage, seventh joint of the antennæ much smaller than the others, while the ninth is larger than the seventh and tenth..	*heterocerus, antennatus*

In general appearance these insects are very closely allied to each other, and the maxillary palpi being identical in the same group, it is rather difficult to distinguish the female of different species, while the difference in the shape of the antennæ makes the identification of the male comparatively easy.

Pselaphocerus peringueyi, Raffr.,

Plate XVII., fig. 10.

Rev. Entom., 1887, p. 29, pl. xvii., figs. 10 & 11.

Stout, attenuate in the anterior part, rufous, elytra lighter in the disk, shining, smooth, hirsute, the hairs brown and long, palpi testaceous; head subquadrato-elongate, plane, with two minute foveæ placed behind the eyes, middle of frontal part slightly impressed; antennæ robust, thick, first joint elongate, cylindrical, second nearly quadrate, third to fifth longer and slightly increasing in length, sixth quadrate, slightly transverse, the others different in each sex; prothorax larger than the head, irregularly ovate, somewhat abruptly attenuate in front, slightly dilated before the median part, and having laterally, a little past the median part, a transverse fovea filled with whitish glandulose hairs; elytra very much attenuate at base, shoulders well defined and oblique, base with two foveæ, filled at bottom with whitish glandulose squamæ, dorsal sulcus slightly oblique, short; abdomen of nearly the same size as the elytra; metasternum little impressed; trochanters and anterior femora strongly but obtusely tuberculate.

Male: Narrower behind; seventh joint of antennæ large, pro-

duced outwardly and rounded, eighth minute, lenticular, ninth to tenth large, lenticular, eleventh truncate at base, short, obtuse at tip, depressed, transversely excavate inwardly, and incised laterally also inwardly.

Female: Broader behind; seventh joint of antennæ a little larger than the others, subquadrate, eighth minute, transverse, ninth to tenth large, transverse, eleventh briefly ovate and obtuse at tip. Length 2·70–3 mm.

Hab. Cape Colony; somewhat common in Cape Town and neighbourhood—Newlands, Constantia.

Pselaphocerus diversus,
Plate XVII., fig. 11.

Nearly similar to the preceding species; the colour is more uniform and generally darker.

Male: Seventh joint of antennæ large, irregularly trapezoidal, hardly produced outwardly and rounded for a short space, eighth minute, transverse, ninth and tenth large, transverse, eleventh ovate, truncate at base, obtusely acuminate at tip, obliquely and broadly excavate inwardly, and with an ante-apical and squamose, longitudinal irregular carinule.

Female: Seventh joint of antennæ hardly broader than the preceding one, but nearly twice as long, eighth a little smaller than the sixth, and more transverse, ninth to tenth large, slightly transverse, eleventh ovate, obtusely acuminate; size of the male.

In both sexes the eighth, ninth, and tenth joints of the antennæ are much less transverse than in the male of *P. peringueyi*, the seventh is somewhat quadrate, whilst in *peringueyi* it has a triangular shape, the last one is neither so short or so broad, and the sculpture of the under part is quite different; in the female the seventh joint is longer but not broader, whilst in *peringueyi* it is broader and nearly quadrate, the eighth, ninth, and tenth are much less transverse, and the last one regularly ovate.

This species is much rarer than the preceding one. I have found only a few specimens near Cape Town on the Kloof Road, on the Camp's Bay side.

Pselaphocerus heterocerus, Raffr.,
Plate XVII., fig. 12.
Rev. Entom., 1887, p. 30, pl. i, figs. 8 & 9.

Suboblong, rufous, shining, smooth, body covered with long brown hairs, palpi testaceous; head elongate, somewhat plane, slightly

constricted in the anterior part towards the antennal tubercle, which is subdivided, and having behind the median part two minute foveæ and two oblique very nearly obliterated sulci; eyes set towards the middle; first joint of antennæ long, cylindrical, slightly sinuate, second elongato-quadrate, third to fifth elongate, subcylindrical and slightly increasing in length, sixth quadrate, the others different in each sex; prothorax oblong, rather abrupt and more attenuate in front, nearly straight laterally, outer sides with a large, transverse fovea filled with whitish glandulose hairs; elytra rather elongate, slightly attenuate at base, shoulders oblique and well pronounced, two foveæ filled with whitish glandular hairs at base, dorsal sulcus short; abdomen shorter than the elytra; metasternum rather convex, hardly impressed; anterior trochanters and femora tuberculate.

Male: Seventh joint of antennæ a little longer than the preceding one, obtusely but strongly produced outwardly at apex, eighth not narrower than the sixth, but lenticular, ninth large, subquadrate, slightly transverse and rounded at angles, tenth much smaller, tranverse, eleventh rather elongate, truncate at base, acuminate at apex, slightly compressed, slightly produced inwardly and incised before the base, depressed inwardly and deeply excavated in a subrotund way.

Female: First to fifth joints of antennæ a little shorter than in the male, sixth to seventh quadrate, eighth transverse, ninth to tenth larger than the others, transverse, eleventh ovate and obtusely acuminate. Length 2·90 mm.

This species is very rare.

Hab. Cape Colony (environs of Cape Town, Constantia), Stellenbosch.

Pselaphocerus antennatus,
Plate XVII., fig. 13.

This species is very similar to the preceding one, and differs only in the following points: The head is not quite so long, and the foveæ are larger but nearly obliterated; the first to fifth joints of antennæ are a little shorter and thicker; the prothorax has a well-defined notch on each side before the median part.

Female: Sixth joint of antennæ tranverso-quadrate, seventh more than twice larger than the preceding one, transverso-quadrate and slightly produced externally at apex, eighth lenticular, ninth large, transverse, rounded externally, tenth a little narrower and slightly transverse, eleventh truncate at base, attenuate at tip and obtuse, depressed inwardly and with the side almost roundly excavated.

Female unknown.

Hab. Cape Colony (neighbourhood of Cape Town, Newlands). Very rare; one example.

Gen. MARELLUS, Motschulsk.,
Bullet. Mosc., 1851, iv., p. 483.

Body oblong, attenuate in front; head transverse, antennal tubercle long, narrow; eyes large; maxillary palpi elongate, first joint conspicuous, second elongate, clavate at tip, third shorter, more or less obconical, fourth elongate, fusiform or filiform; antennæ elongate, club large, triarticulate; prothorax cordate and provided with a transverse sulcus and lateral foveæ; abdomen marginate; legs elongate, slender, posterior coxæ distant; tarsi elongate, second to third joints subequal, claws double, equal.

This genus seems to be exclusively African, and is found in Algeria, Egypt, Abyssinia, Zanzibar, and Natal, but examples are always rare.

Marellus granosus.

Totally rufous, granular, covered with an extremely short pubescence; head convex, transverse, antennal tubercle narrow and moderately elongate, sulcate longitudinally; third joint of palpi obconical, fourth in the shape of a long spindle, acuminate; antennæ elongate, first joint elongate, cylindrical, second a little thicker than the following ones, thicker, elongate and cylindrical, third to seventh elongate, subcylindrical, a little decreasing in length, eighth quadrate, ninth to tenth oblong, slightly obconical, tenth a little thicker and shorter, eleventh oblong, obtusely acuminate; prothorax cordate, abruptly attenuate in front, rounded laterally before the median part, and sinuate from there, two large lateral foveæ, the median one of which is minute, transverse sulcus straight, obsolete; elytra elongate, slightly attenuate in front, slightly oblique laterally, shoulders oblique and well defined, base bifoveate, sutural stria entire, dorsal sulcus short; abdomen shorter than the elytra, broadly marginate, the two first segments equal; metasternum strongly and broadly excavated, minutely carinate laterally, intermediate coxæ tuberculate inwardly; legs slender, femora slightly thickened; tibiæ not quite straight. Male. Length 1·40–1·50 mm.

In this species the last joint of the maxillary palpi is fusiform, as in *M. biskrensis*, but more acuminate; the prothorax is longer, less broad and less rounded in the anterior part; the elytra have more raised and more oblique shoulders; the metasternum is much more excavated and carinate on each side. It differs much more from *M. filipalpus*, Raffr., from Kilwa (Zanzibar mainland), in which the

last joint of the palpi is elongate, slender, and filiform, the antennal club longer and the frontal tubercle shorter and thicker; the elytra are also more convex. In shape it resembles much *M. palpator*, Raffr., from Abyssinia, in which the elytra are also long and coarsely granulated, but in this last-named species the last joint of the palpi is cylindrical and slender, the prothorax shorter, and the antennal club longer.

Hab. Natal (Frere). One male example.

Gen. PSEUDOTYCHUS.

Body globose, attenuate in front; head subtriangular, provided with an antennal tubercle; eyes set behind; palpi moderate, first joint inconspicuous, second arcuate and slightly clavate, third small, fourth much larger, ovate, slightly securiform, acuminate; antennæ not quite approximate at base, club triarticulate; prothorax cordate, trifoveate and sulcate transversely; elytra convex, much attenuate at base and bifoveate, sutural stria entire, dorsal one wanting; abdomen convex, marginate, first dorsal segment larger than the others; metasternum convex, first ventral segment hidden by the metasternum, second large; legs of moderate size, posterior coxæ very far apart, intermediate trochanters a little elongate, but the insertion of the femora is, however, at the apex, the others short; first joint of tarsi minute, second produced inwardly, third much longer, claws double and equal.

This genus is very interesting; the intermediate trochanters are shorter than usual in this tribe, but they are nevertheless clavate, and the femur is inserted at the apex; the palpi are like those of *Bryaxis*, and the general facies is very much like that of the European genus *Tychus*, from which it is far removed by the elongate intermediate trochanters, the first ventral segment hidden by the metasternum and the two equal tarsal claws. It undoubtedly belongs to the *Tyrini* tribe, but it is an aberrant form.

Pseudotychus nigerrimus,

Plate XVII., fig. 5.

Black, shining, set with long but very sparse hairs; antennæ, palpi, and legs testaceous; head convex, subtriangular, antennal tubercle quadrate, transverse; antennæ robust, the first two joints a little larger than the others, third to seventh a little longer than broad, subcylindrical, eighth quadrate, ninth to tenth larger, quadrate, slightly transverse, eleventh ovate, truncate at base, obtusely acuminate at tip; prothorax much broader than the head, strongly cordate, more attenuate in front than behind, and having three foveæ of

which the median is the smallest, and joined by an angular, transverse sulcus; elytra moderately short, more than twice as broad as the prothorax at apex, much attenuate at base, rounded laterally, shoulders obliterated, base bifoveate; abdomen larger than the elytra; femora slightly thickened, tibiæ straight, slightly clavate at tip; metasternum transverse, slightly convex, foveate close to the intermediate coxæ, broad at apex and truncate in a straight line; last ventral segment a little longer than the preceding one, and obsoletely impressed transversely. (Sex uncertain.) Length 1·40 mm.

Hab. Cape Colony (Cape Town neighbourhood, Newlands). Three examples.

Sub-Family CLAVIGERIDÆ.

The *Clavigeridæ*, in spite of their peculiar facies, which makes them easily distinguishable, even by beginners in entomology, from the true *Pselaphidæ*, do not in fact differ very much, and they appear to be a degraded form of the latter. However, the head, antennæ, mouth, abdomen, and sternum show some difference; the head is more or less conical with the lateral part of the epistoma always more or less dilated laterally; the antennæ are thick, short, and comprise never more than six joints, the first of which is concealed under the frontal part in a lateral fovea in which the antenna is inserted, the ultimate joint is always larger than the others, and, except in very few cases, truncate at tip; the mouth is very rudimentary and consists of long fascicles of soft hairs adapted for suction; the maxillary palpi are not visible, and have been found to consist of one joint only in such genera as have been dissected; the first dorsal segments of the abdomen coalesce, so that it has three dorsal segments on the upper part, while underneath it consists of the normal number; the intermediate coxæ are always apart, the metasternum being produced between them; this is a somewhat abnormal feature, because when the intermediate coxæ are apart, which is seldom the case in the *Pselaphidæ*, it is the mesosternum which is produced backwards between the coxæ; the posterior coxæ are always very broadly separated, and the trochanters of all the legs are very long and clavate, the femora being inserted on the apex of the trochanters and very remote from the coxæ; the base of the abdomen is always more or less, but generally very much, excavated, and each side is provided with large fascicles of hairs; these fascicles are always connected with tegumentary glands secreting a liquid of which, it is supposed, the ants, among which the *Clavigeridæ* are always found, are very fond. Some of these insects (*Claviger*, *Adranes*) are entirely eyeless.

Clavigeridæ are rare, but they occur in every part of the world, and are found in ants' nests; at times, however, they leave the formicaria at sunset, and are found climbing on plants in meadows.

In Madagascar some of the most curious species live in the nests built in trees by an ant (*Cremastogaster* spec.). I am sure that a methodical and careful search in ants' nests in South Africa will lead to the discovery of many more species than those known to occur.

Synopsis of Genera.

A 2.	Antennæ four-jointed.	
B 2.	Head broader and rounded at tip, hind margin of the abdominal excavation tridentate; second and third dorsal segments comparatively large	*Fustigeropsis.*
B 1.	Head more or less acuminate at tip; abdominal excavation simply tuberculate or fasciculate on each side; second and third dorsal segments small.	
C 2.	Abdominal excavation not tuberculate, and having on each side a fascicle of hairs connected with a larger fascicle at the external angle of the elytron, the apical margin of which is only slightly oblique	*Novoclaviger.*
C 1.	Abdominal excavation having on each side a very strong, long, compressed tubercle fitting in a fasciculated notch on the external angle of the elytra	*Fustigerodes.*
A 1.	Antennæ five-jointed.	
	Head short, acuminate in front; abdominal excavation fasciculate and strongly carinate on each side	*Commatocerodes.*

Gen. FUSTIGEROPSIS, Raffr.,
Rev. Entom., 1890, pp. 164 and 167.
Commatocerus, Raffr., olim.

Antennæ quadri-articulate, elongate, last joint long, clavate at tip; head broader in front and rounded, anterior part of cheeks dilated in a triangular form; posterior margin of antennæ slightly marginate in the middle and fasciculate; abdomen long, first dorsal segment deeply impressed at base and tridentate, second and third conspicuous; legs somewhat elongate.

This genus contains only one species.

Fustigeropsis peringueyi, Raffr.,
Plate XVII., fig. 8.

Commatocerus Peringueyi, Raffr., Rev. Entom., 1887, p. 19, pl. i., fig. 7.

Elongate, chestnut brown or rufo-testaceous, sparsely pilose; head elongate, very finely shagreened, sinuate in front of the eyes, ampliate and rounded in front, deeply foveate on each side; antennæ

once and a half longer than the head, first joint hardly conspicuous, second subtransverso-quadrate, third obconical and a little longer than broad, fourth elongate, cylindrical, clavate at tip and truncate; prothorax cordate, very finely shagreened and having a few dispersed punctures; median part of base foveolate; elytra with remote, granulose hair-bearing punctures, attenuate at base, well developed at the shoulders, having a hardly conspicuous sutural stria and two short folds connected with the base and diverging, posterior margin sinuate, slightly incised and fasciculate in the median part; abdomen longer than the elytra, attenuate behind, slightly narrower at base, first segment large, marginate, deeply excavate transversely at base, the excavation with a strong trilobate margin, the lateral lobes are slightly fasciculate, and the second and third moderately large; legs elongate, hardly thickened, simple. Length 2·20 mm.

The antennæ are more elongate, and the second and third dorsal segments much larger than in most of the *Clavigeridæ*.

I have seen two examples only (female), which are not in very good condition.

Hab. Transvaal (Potchefstroom).

Gen. FUSTIGERODES, Reitt.,
Deutsch. Ent. Zeit., 1884, p. 168.

Antennæ quadri-articulate, less elongate than in *Fustigeropsis*, last joint more or less cylindrical or slightly conical; head short, attenuate in front, anterior part of cheeks dilated but nearly straight, posterior margin of elytra more or less oblique and with a slightly nodose fascicule; first dorsal segment of abdomen deeply impressed transversely at base, and having on each side a large process, depressed at tip and hardly fasciculate, second and third hardly conspicuous on the upper side.

This genus has been established by Mr. Reitter for an undescribed insect, the habitat of which was not known, and which proved afterwards to be identical with *Commatocerus capensis*, Pér.

The genus *Commatocerus* has caused a good deal of confusion, which I have tried to remove in a critical discussion in the 'Revue d'Entomologie,' 1890, pp. 166 and 167.

Fustigerodes capensis, Pér.

Commatocerus capensis, Pér., Trans. S. Afric. Phil. Soc., 1888, p. 84; Raffr., Rev. Entom., 1890, pl. iii., figs. 19, 19[1].

Elongate, rufous or chestnut brown, sparsely setose; head thick, attenuate in front, very rugosely punctate, foveolate on each side at

the back of the eyes; antennæ longer than the head, first joint inconspicuous, second minute, third transverse and a little narrower than the following one, fourth elongate, subcylindrical, slightly attenuate at base and equally slightly at apex, truncate; prothorax rounded, very rugoso-punctate, longitudinal sulcus strong and ending in a pre-basal large fovea, lateral foveæ large; elytra convex, suture depressed, sutural stria entire, broadly bi-impressed at base, discoidal stria delicate, arcuate and a little attenuate behind the middle, the other fold is short and subhumeral, the posterior margin is a little oblique, placed close to the external angle, subnodose and fasciculate; abdomen large, rather convex, somewhat rounded at apex, first dorsal segment excavated transversely at base, and provided on each side with a large, elongate process, depressed at tip legs strong, intermediate femora with a large, triangular tooth at base, intermediate tibiæ with an inward sharp tubercle placed at a long distance from the apex.

In this species the last joint of antennæ is cylindrical, attenuate at base, and slightly thicker about the median part, more especially if seen sideways.

Hab. Cape Colony (Grahamstown).

FUSTIGERODES MAJUSCULUS, Pér.,
Plate XVII., fig. 7.

Commatocerus majusculus, Pér., Trans. S. Afric. Phil. Soc., 1888, p. 84.

Elongate, chestnut red, a little setose; head short, linear, thick, very rugose, punctured, the punctures subocellate, triangular and attenuate in front, deeply foveate behind the eyes; antennæ short, first joint inconspicuous, second subtransverse, third slightly obconical, fourth attenuate at base, straight, sensibly increased towards the apex, rugose and thickly setose; prothorax slightly transverse, more attenuate in front than behind, very rugose and punctured, punctures subocellate, median longitudinal sulcus strong and ending in a large basal fovea, lateral foveæ of moderately size; elytra of a lighter colour that the rest of the body, moderately elongate, convex, suture depressed, sutural stria entire, base strongly bi-impressed, discoidal stria, or rather fine fold, slightly arcuate and attenuate in the middle, posterior margin oblique, nodoso-fasciculate in the middle at a distance from the external angle; abdomen large, very convex, rounded a little laterally and a little broader than the elytra, deeply impressed at base and having on each side a ciliate, large, elongate process depressed at tip, rugose and bicarinate; legs robust.

Male: Intermediate femora excavate inwardly at base and armed with an inner very large, triangular, compressed tooth; intermediate tibiæ minutely dentate inwardly before the apex.

Length 2·40–2·60 mm.

This splendid insect differs from *F. capensis* by the larger size and the shorter antennæ, the last joint of which is slightly conical.

Hab. Cape Colony (neighbourhood of Cape Town, Newlands). Found in the nest of *Acantholepis capensis*.

Gen. NOVOCLAVIGER, Wasmann,

Kritisch. Verzeich. Myrmec. Termitoph. Arthrop., p. 214.

Antennæ quadri-articulate, first joint inconspicuous, second to third minute, fourth rather elongate, slightly clavate, truncate at tip; head slightly attenuate in the anterior part, cheeks dilated in a nearly straight line in front; elytra with the posterior margin entire and with the very external angles strongly fasciculate; first dorsal segment with a large, transverse, simple fovea, cicatricose and fasciculate on each side, second and third hardly conspicuous on the upper side.

Closely allied to *Fustigerodes*, Reitt.; the antennæ are similar to those of *F. majusculus*, but the apical part of the elytra is simple and slightly oblique, whilst the external angle itself is fasciculate; the lateral processes of the abdomen are wanting, and replaced by a fascicle of hairs.

Novoclaviger wroughtoni, Wasm.,

Plate XVII., fig. 6.

Loc. cit., p. 215.

Elongate, rufo-testaceous, body covered with moderately dense, flavous, setose hairs; head and prothorax closely punctate, the punctures very rough; head subcylindrical, slightly attenuate in front and foveate laterally beyond the eyes; antennæ a little longer than the head, second joint minute, third twice as long as the preceding one and longer than broad, fourth elongate, slightly clavate, truncate at apex; prothorax nearly globose, more attenuate in front than behind, canaliculate longitudinally, lateral foveæ and also the median one moderately large; elytra longer than broad, very slightly rounded laterally, base with two folds, apical margin deflexed and slightly oblique, external angles raised and with conspicuous golden-yellow fascicles of hairs; abdomen a little longer than the elytra, rounded laterally, disk subglobose, the whole base impressed transversely, cicatricose on each side close to the margin and fasciculate; legs of moderate size.

Male: Abdomen impressed longitudinally underneath, femora of the intermediate legs with a triangular tooth of moderate size underneath, anterior tibiæ with an extremely small tooth set before the apex. Length 1·90 mm.

Wasmann states, *loc. cit.*, that this insect has been discovered in Delagoa Bay by Mr. C. Wroughton; the habitat, however, does not seem to be a correct one. Mr. Wroughton, of the Indian Forest Department, while on a visit to the Cape and Natal, collected a good number of ants, and sent to the South African Museum some duplicates of his captures, among which was one example of the *Novoclaviger*, above described, and said by him to have been found in Natal, examples of which had been forwarded to Wasmann. There can be no doubt about the identity of the insect sent by Mr. Wroughton to the South African Museum and Wasmann's type, as I have received from the latter one of his types which I have compared with the example in the South African Museum, and they are absolutely identical. The habitat of the insect is therefore Natal, in all probability, and not Delagoa Bay.

Gen. COMMATOCERODES, Pér.,

Trans. S. Afric. Phil. Soc., 1888, p. 85; Raffray, Rev. Entom., 1890, pp. 164–168.

Oblong, rather thick, antennæ elongate and five-jointed, first joint inconspicuous, second transverse, third to fourth subquadrate, fifth much elongate, clavate; head short, triangular in the anterior part, and acuminate, cheeks strongly dilated in front; margin of elytra simple; first dorsal segment of abdomen very much impressed transversely at base, strongly plicate and fasciculate on each side, second and third conspicuous on the upper part.

This genus is very different from the preceding one owing to the antennæ, which are really five-jointed, and much longer, the short and broad head, and the strongly plicate abdominal excavation, fasciculate on each side

Commatocerodes raffrayi, Pér.,

Loc. cit., p. 86, pl. 1, fig. 3; Raffray, Rev. Entom., 1890, pl. iii., fig. 26, 26[1].

Oblong, short, and thick, chestnut brown, very briefly setulose; head and prothorax closely and roughly punctured, the punctures subocellate; head short, broad, thick, triangular and acuminate at tip, obsoletely foveate laterally behind the eyes, which are set backwards; antennæ hardly shorter than the head and prothorax

together, fourth joint rugose, setose, clavate at tip, truncate and slightly sinuate outwardly; prothorax hardly longer than the head, transverse; elytra very minutely shagreened and punctulate, a little broader than long, apical margin straight and simple, external angles long, setose, sutural stria entire, triplicate at base; abdomen longer than the elytra and a little broader at base, first dorsal segment very much excavated transversely at base, the excavation carinate on each side and fasciculate, lateral margin broader at base and slightly incised externally, narrowed at tip; second segment conspicuous, transverse, and having a minute tubercle on each side of the base, third segment longer than the others, apex elongate and curving upwards; legs of moderate size, simple, somewhat elongate and setose. Female. Length 2·50 mm.

This species is a very singular one. The only example known is a female, and the darker patch of the apical part of the abdomen, mentioned by Mr. Péringuey in his description, is caused by the dried-up ovaries which are seen through the transparency of the teguments; a case occurring often in all light-coloured *Pselaphidæ*. I presume that the recurved protuberance of the last dorsal abdominal segment is also a characteristic of the female.

Hab. Transvaal (Potchefstroom).

POSTSCRIPT.

[The species described below belongs to the genus *Dalmina*, Raffr. See page 78.]

Dalmina elizabethana.

Oblong, moderately thick, bright red with the last joint of antennæ lighter in colour, and covered with a short, depressed, pallid pubescence; head longer than broad, slightly attenuate in front, and having between the eyes two large foveæ and two sulci slightly arcuate and joined in the anterior part; antennæ with long setæ little elongate, first joint short, thick, second a little shorter, quadrate, third narrower by nearly half and a little longer than broad, fourth scarcely longer but nearly twice as broad, irregularly transverse and slightly produced inwardly, fifth large, irregularly transverse, with the internal basal angle produced underneath and mucronate, sixth much smaller than the fourth and transverse, seventh equal in width to the preceding one, but longer and less transverse, eighth similar to the sixth, sixth, seventh, and eighth joints slightly produced inwardly, ninth and tenth hardly smaller than the

preceding one and transverse, eleventh hardly broader, truncate at base, acuminate at apex and slightly turbinate; prothorax broader than the head, cordate, sinuate laterally past the middle, lateral foveæ large, median transverse sulcus much angulate, median fovea almost wanting; elytra much broader than the prothorax, longer than broad, slightly rounded laterally, shoulders oblique, little prominent, base with two foveæ, dorsal sulcus disappearing before reaching the median part; metasternum minutely foveate in the posterior part; legs of moderate size, posterior trochanters slightly produced and aculeate at apex, posterior tibiæ a little thickened and with an apical spur; last ventral segment neither broadly nor deeply impressed. Male. Length 1·80 mm.

Closely allied to *D. globulicornis;* the fourth joint of the antennæ is also thicker than the fifth, although not quite as much thickened, but these two joints do not unite to form a knob as in *D. globulicornis*, and the shape of the fifth joint is more rounded; it differs from *D. irregularis* in the form of the fourth and fifth joints, which are transverse instead of being elongato-quadrate; it cannot be mistaken for the male of *D. concolor* because the head is longer than broad, whereas in the latter it is transverse, and the joints of the antennæ are longer than broad; it cannot be compared with *D. gratitudinis*, the fifth joint of which is much more dilated, while the fourth is hardly so. In short, in both *D. globulicornis* and *D. elizabethana* two joints, the fourth and fifth, are dilated, but in the former these two joints form a common, slightly rounded node by the superposition of the anterior and posterior margins respectively, whereas in the latter these two joints are very free and distant from one another; the colour is also much darker in *D. globulicornis*. Female unknown.

Hab. Cape Colony (Port Elizabeth).

INDEX TO FAMILY PSELAPHIDÆ.

BIBLIOGRAPHY TO FAMILY PSELAPHIDÆ.

Aubé, C.

Pselaphorum Monographia cum Synonymia extricata. *Magas. d. Zool.*, 1833. Nos. 78–94, *pp.* 71, 17 pl.

Révision de la famille des Psélaphiens. *Annal. Soc. Entom. d. France*, 1844, *pp.* 73–156.

* Herbst, J. F. W.

Natursystem aller bekannten in- und auslandischen Insecten, 1785–1806, 8vo, 2 vols. Käfer, vols. i.–x.

Leach, W. E.

On the Stirpes and Genera composing the family Pselaphidæ. *Vigor's Zoolog. Journ.*, 1825, vol. ii., *pp.* 445–453.

The Zoological Miscellany. London, 1814–1817, 3 vols. 8vo.

Le Conte, J. L.

On the Pselaphidæ of the United States. *Boston Journ. Nat. Hist.*, 1850, vol. vi., *pp.* 64–110.

Motschulsky, V. de

Enumération des nouvelles espèces de Coléoptères rapportées par Mr. de M. de son dernier voyage. *Bull. d. Mosc.*, 1851, iv., *pp.* 479–511.

* Péringuey, L.

Second Contribution to the South African Coleopterous Fauna. *Trans. S. Afric. Phil. Soc.*, vol. iv., 1888, *pp.* 67–194.

Raffray, A.

Description d'espèces nouvelles de la famille des Psélaphides. *Revue et Magas. d. Zoologie*, 1877, *pp.* 279, 298, 1 pl.

Psélaphides nouveaux ou peu connus. *Revue d'Entom.*, i., 1882, *pp.* 1–16, 25–40, 49–64, 73–85, pls. i. and ii.

Psélaphides nouveaux ou peu connus. *Revue d'Entom.*, vol. vi., 1887, *pp.* 18–56, 61–62, 2 pl.

Etudes sur les Psélaphides. *Revue d'Entom.*, vol. ix., 1890, *pp.* 1–28, 81–220, 264–265, 3 pl.

Voyage de Mr. E. Simon dans l'Afrique Australe: Psélaphides. *Annales Soc. Entom. de France*, 1895, *pp.* 389–390.

Reichenbach, H. S. L.

Monographia Pselaphorum. Lipsiæ, 1816, 8vo, *pp.* 79, 2 pl.

Reitter, Ed.

Beitrags zur Kenntnifs der Pselaphiden und Scydmæniden von West Africa. *Deutsch. Entom. Zeit.*, xxvi., 1882, *pp.* 177–195, 2 pl.

Ueber die bekannten Clavigeriden Gattung. *Deutsch. Entom. Zeit.*, vol. xxviii., 1884, *pp.* 167–168.

Versuch ein. systemat. Eintheil. der Clavigeriden und Pselaphiden. *Verhand. d. naturforsch. Vereines in Brünn*, vol. xx., *pp.* 177–211.

Saulcy, F. de

Species des Paussides, Clavigérides, Psélaphides et Scydménides de l'Europe et des pays circonvoisins. *Bullet. Soc. d'Hist. Natur. de Metz*, xiv., 1876, *pp.* 25–100.

Schaufuss, C.

Catalogus synonymicus Pselaphidarum adhuc descriptarum. *Tijdschr. Ent.* xxxi., 1888, *pp.* 1–104.

Wasmann, E.

Kritisches Verzeichniss der Myrmecophilen und Termitophilen Arthropoden. Berlin, 1884, 8vo, 231 *pp.*

ADDENDA TO FAMILY PSELAPHIDÆ.

Tribe EUPLECTINI.

(p. 49.)

Gen. TRIMIODYTES.

(p. 52.)

Trimiodytes setifer.

Oblong, subparallel, somewhat convex, obscurely ferruginous; antennæ and legs rufous; palpi testaceous; it is clothed with a hardly discernible pubescence, but has, however, some long erect scattered setæ. Head trapezoid, attenuate in front, with the frontal part truncate and slightly produced in the middle, bifoveate anteriorly, transversely sulcate and having between the eyes two large foveæ joined by a deep furrow to the transverse frontal sulcus; eyes of moderate size; antennæ also of moderate size, and with the two basal joints larger than the others, third to ninth inclusive moniliform and slightly decreasing in length, but with the fifth a little larger, tenth a little larger the preceding ones, slightly transverse, eleventh ovate, truncate at base, acuminate and subturbinate at apex; prothorax nearly smaller than the head, very cordiform, with the outer sides rounded before the median part and sinuate after the lateral fovea, which is large; the transverse sulcus is sinuate, and the median fovea smaller than the others; elytra elongate, subparallel, shoulders defined and oblique, base broadly bifoveate, sutural stria abbreviated before the median part; abdominal segments equal; legs of moderate size; anterior femora a little thickened; metasternum convex, simple; second ventral segment larger than the others, third to fifth inclusive decreasing, sixth large, transverse, convex. Female. Length 1·20 mm.

This second species of a genus, restricted hitherto to the Cape Peninsula, and which seems to take the place of the *Trimium* of Europe and the *Actium* of America, differs from *T. palustris*, Raffr., by its stouter and more parallel facies; the head is proportionally less large and is shorter, the frontal part is provided with a small obtuse

projection, and the elytra have well-defined shoulders instead of being obliterated as in *T. palustris*.

Hab. Stellenbosch (Cape Colony). A single example captured in February on the banks of the river.

Tribe BATRISINI.

(p. 82.)

Gen. BATRISUS.

(p. 84.)

Subgen. APOBATRISUS, Raffr.,
Soc. Ent. d. France, 1896, p. 235.

This subgenus is distinguished from *Trabisus*, Raffr., and *Probatrisus*, Raffr., by the sensibly narrower smaller head, a little compressed laterally, and having underneath on each side a deep carina edging laterally a depression intended for the reception of the palpi, which are flagellate as in the two above-named subgenera, which character, coupled with the very large abdominal segment having no lateral carina, differentiates them from the true *Batrisus*, Aubé. The value of the prothoracic sulci as a character is not important because they vary; they are very well defined in *Batrisus* and *Trabisus*, which have three, and in *Probatrisus*, which has one only, and disappear almost entirely in *Apobatrisus*. In one species of the latter there is none; in another it is replaced by a sulciform fovea.

This subgenus was established for a species from Gaboon; but another species has lately been discovered in the Cape Colony.

Apobatrisus rufus.

Oblong, rufo-testaceous, entirely covered with rough punctures, and clothed with a brief but dense fulvous pubescence. Head narrower than the prothorax, attenuated in front, with the frontal part sulcate transversely, retuse behind, and having between the eyes two foveæ more distant from one another than from the eyes; antennæ short, robust, joints third to eighth inclusive decreasing in length, eighth nearly transverse, ninth and tenth larger than the others and transverse, eleventh ovate, acuminate at tip; prothorax nearly triangular and broadest near the anterior angles, slightly transverse, lateral foveæ placed at a great distance from the outer side, transverse sulcus hardly well defined, median fovea smaller than the others, disk with a sulciform fovea, base bifoveate; elytra broader than the prothorax, and longer than broad, outer sides slightly rounded, shoulders raised,

dorsal sulcus deep but very short; abdomen slightly narrowed at base, rounded laterally, first segment very large, hardly carinulate laterally at the base, but trifoveate, with the median fovea transverse, more than twice as broad as the lateral ones, and limited on each side by a short carinule; legs short, moderately thick, all the tibiæ slightly thickened, the posterior ones incurved; last ventral segment large, simple; metasternum plane, obsoletely sulcate. Female. Length 2·20 mm.

This species is very distinct from *A. gabonicus*, Raffr. The colour is much lighter, the prothorax is broadest at the very apex, the transverse sulcus is almost lost, and the discoidal fovea sulciform. One example only.

Hab. Cape Colony (? Beaufort West).

Tribe BRYAXININI.

(p. 87.)

Gen. REICHENBACHIA.

(p. 90.)

Reichenbachia rivularis.

Dark castaneous; antennæ and legs lighter; palpi pale testaceous; body clothed with a greyish pubescence. Head of moderate size, a little longer than broad, attenuate in front, and having three equal foveæ; antennæ somewhat shorter and elongate, joints third to fifth inclusive elongate, sixth also elongate, but a little shorter, seventh longer than broad, eighth slightly transverse, ninth a little longer, quadrate, tenth wider, slightly transverse, eleventh suboblong, acuminate at tip, and truncate at base; prothorax larger than the head, much attenuate in the anterior part, and moderately so in the posterior, basal median fovea slightly oblong, base punctate; elytra large, attenuate at base, shoulders subnodose, base trifoveate, dorsal stria slightly arcuate inwardly and abbreviated before the apex; the carinules of the first abdominal segment are a little divergent, include the fourth part of the disk, and reaching to about one-third of the length; metasternum obtusely tuberculate at base close to the intermediate coxæ, and broadly depressed; last ventral segment paler, strongly foveate, the fovea subquadrate; trochanters simple, intermediate tibiæ very briefly spurred at apex, posterior ones slightly incurved and thickened towards the apex. Male. Length 1·80 mm.

This new species resembles the female of *R. diversa*, Raffr., and still more the male of *R. Peringueyi*, Raffr. In both these species the third

to the fifth joints inclusive are only twice as long as broad, the sixth is hardly longer than broad, the seventh is quadrate, and the eighth transverse. In *R. rivularis* the joints three to five are three times as long as broad, the sixth twice as long as broad, and the seventh a little longer than broad; the abdominal striæ are as in *R. Peringueyi*, and not so distant as in *R. diversa*; the prothorax is less narrowed behind than in both these species. In comparison with the male of *R. Peringueyi*, it is of larger size, the metasternum is noticeable on account of the basal blunt tubercle, the fovea of the last ventral segment is larger, and the apical spur of the intermediate tibiæ is not so robust. It cannot be compared to the male of *R. diversa*, the last antennal joint of which is provided with an inward tooth, entirely absent in *R. rivularis*.

Hab. Cape Colony (Stellenbosch). One example, captured at the foot of grass growing on the banks of the river.

[The above additions to the family *Pselaphidæ* were too late to be included in the Index, pp. 123, 124.]

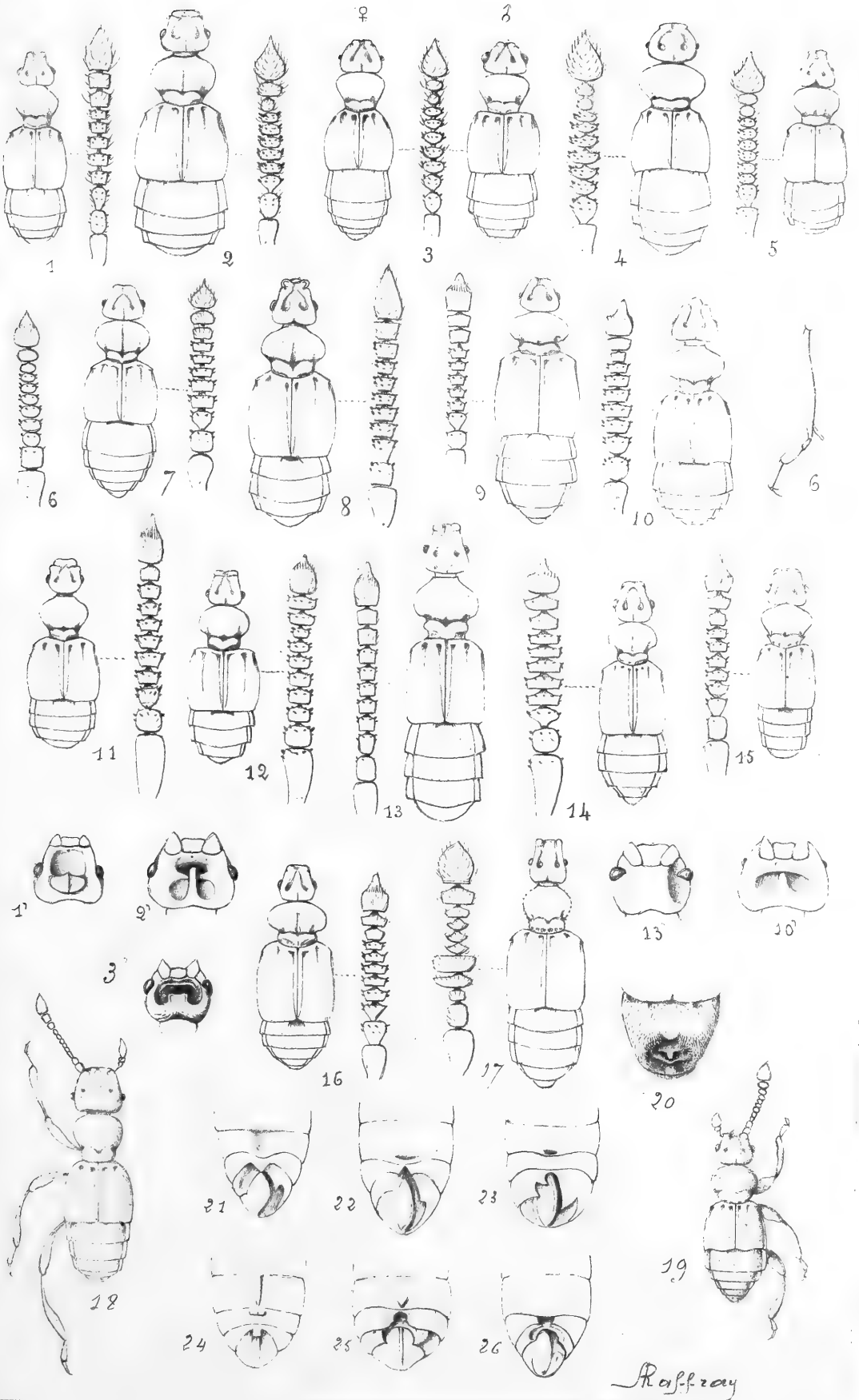
EXPLANATION OF PLATES.

Plate XVI.

1. Raffrayia caviceps, Raffr., 1[1] ♂ underside of the head.
2. ,, armata, Raffr., 2[1] ,, ,,
3. ,, variabilis, Raffr., ♂, ♀ 3 ,, ,,
4. ,, incerta, Raffr.
5. ,, deplanata, Raffr.
6. ,, calcarata, Raffr., antennæ, 6[1] intermediate tibia of ♂.
7. ,, cruciata, Raffr.
8. ,, majorina, Raffr.
9. ,, natalensis, Raffr., ♂.
10. ,, nasuta, Raffr., ♂ 10[1] underside of the head.
11. ,, nodosa, Raffr.
12. ,, microcephala, Raffr.
13. ,, longula, Raffr., 13[1] ♂ underside of the head.
14. ,, bicolor, Raffr.
15. ,, pilosella, Raffr.
16. ,, laticollis, Raffr.
17. Xenogyna heterocera, Raffr., ♂.
18. Erimiodytes palustris, Raffr.
19. Prodalma capensis, Raffr., ♂.
20. Batrisodes natalensis, Raffr., ♂, upper side of the abdomen.
21. Asymoplectus discicollis, Raffr., ♂ last ventral segment.
22. ,, caviventris, Raffr., ♂ ,,
23. ,, irregularis, Raffr., ♂ ,,
24. ,, atratus, Raffr., ♂ ,,
25. ,, aterrimus, Raffr., ♂ ,,
26. ,, luctuosus, Raffr., ♂ ,,

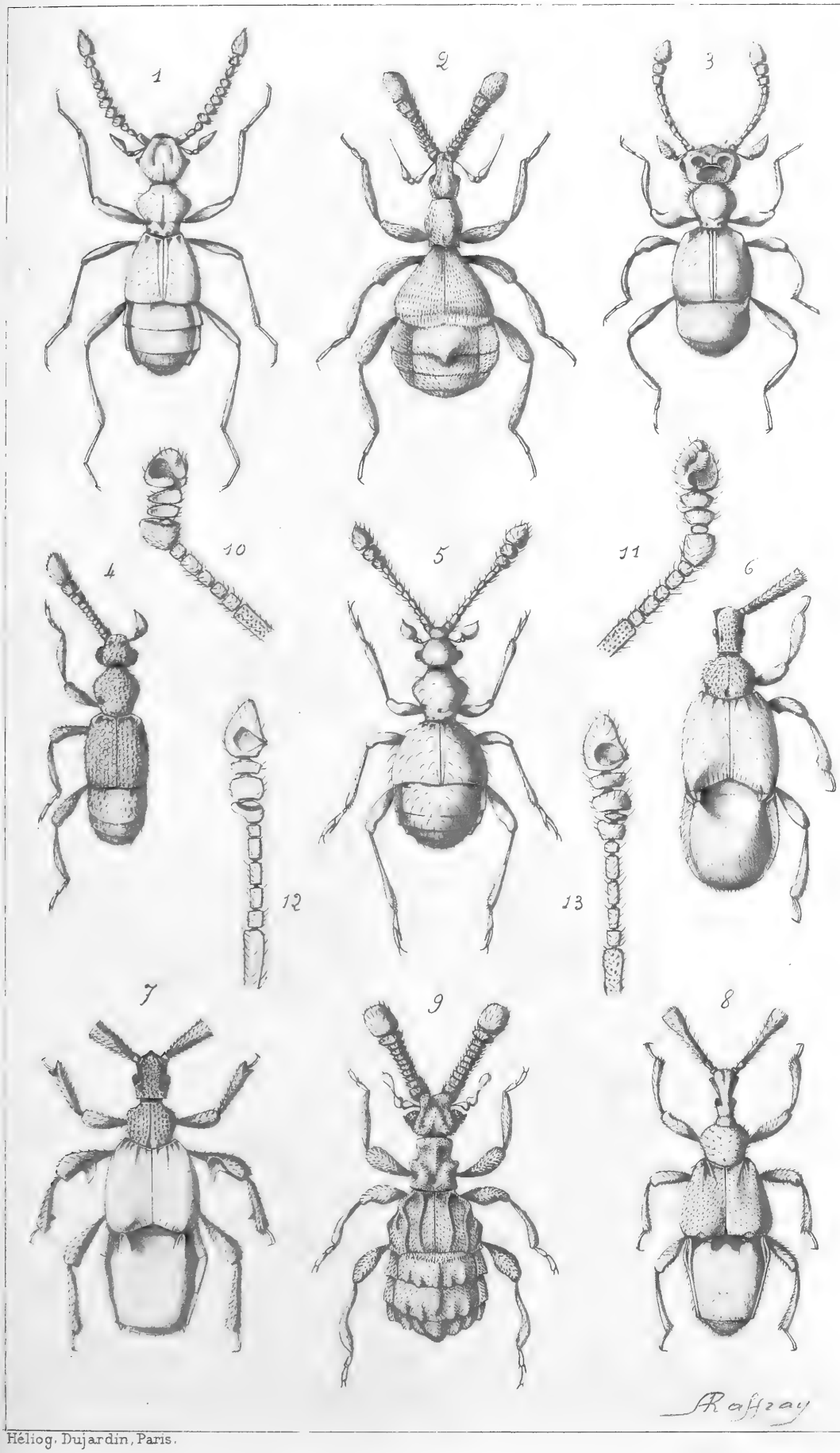
Plate XVII.

1. Dalmina elegans, Raffr., ♂.
2. Pselaphischnus squamosus, Raffr.
3. Syrbatus Mashuna, Raffr., ♂.
4. Batoxyla punctata, Raffr.
5. Pseudotychus nigerrimus, Raffr.
6. Novoclaviger Wroughtoni, Wasmann, ♂.
7. Fustigerodes majusculus, Péringuey, ♂.
8. Fustigeropsis Péringueyi, Raffr. ♀.
9. Odontalgus costatus, Raffr.
10. Pselaphocerus Péringueyi, Raffr., ♂ antenna.
11. ,, diversus, Raffr., ♂ ,,
12. ,, heterocerus, Raffr., ♂ ,,
13. ,, antennatus, Raffr. ♂ ,,



Héliog. Dujardin, Paris.

Pselaphidœ



Héliog. Dujardin, Paris.

Pselaphidœ

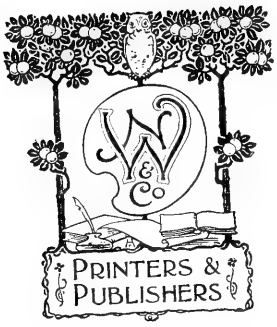
THE TRANSACTIONS

OF THE

SOUTH AFRICAN PHILOSOPHICAL SOCIETY.

VOLUME X.—PART 2.

BOOKS RELATING TO SOUTH AFRICA.


W & Co
PRINTERS &
PUBLISHERS

TRANSACTIONS

OF THE

SOUTH AFRICAN PHILOSOPHICAL SOCIETY.

BIBLIOGRAPHY OF BOOKS, PAMPHLETS, MAPS, MAGAZINE ARTICLES, &c., RELATING TO SOUTH AFRICA, WITH SPECIAL REFERENCE TO GEOGRAPHY. FROM THE TIME OF VASCO DA GAMA TO THE FORMATION OF THE BRITISH SOUTH AFRICA COMPANY IN 1888.

By H. C. Schunke Hollway, F.R.G.S., F.S.A.

1 Di Benigno, M. 'Lettera a Francesco Affaitati scritta da Mozambico il 3 Aprile, **1503.**'

MS. in the Marcus Library at Venice. It contains much valuable information. Benigno was the companion of Vasco da Gama on his second voyage.

2 A letter written by the **King of Portugal** in **1505** to the King of Castile (Ferdinand), of which there exists an Italian translation.

It gives an account of Vasco da Gama's second voyage to Calicut.

3 'Esmeraldo de situ orbis,' feito e composto por **Duarte Pacheco Pereira,** cavaliero da Caza del Rey dom Joam o 2° de Portugal, &c.

MS. of the year 1505 in the libraries of Evora and Lisbon. It gives interesting data on the hydrography of Africa. Pacheco travelled in April, 1503, to India with Albuquerque, and remained afterwards for some time in Eastern and Western Africa.

4 Waltzemüller's 'Cosmographiæ introductio cum quibusdam geometriæ ac astronomiæ principiis.'

St. Dié, 1507 (Strassburg, 1509; Venice, 1535 and 1545).

5 'Itinerarium Portugallensium e Lusitania in Indiam et inde in Occidentem,' &c.

Mediolani, 1508. Very interesting work; contains an account of the voyages of Cada Mosto, and notes on Portuguese voyages.

6 Buchamer, Jobst. 'Newe vnbekanthe landte. Und eine newe weldte in kurtz vergangener zeythe erfunden.'

Nürenbergh, 1508. German translation of Zorzi's collection of Travels. Contains also voyages of the Portuguese to Africa.

7 'Carta Marina Portugalensium.'

1503 (?) (Strassbourgh Ptolemæos, 1513; Lelewel's Atlas.)

8 Boëmus, J. A. 'Omnium gentium mores, leges et ritus Africam, Asiam et Europam descr.'

Aug. Vindelic, 1520; 1620; Strassburg, 1538; Friburgæ, 1536, 1541, 1570; Lugduni, 1536, 1620. In Italian: Venetia, 1543, 1585; English: London, 1609.

9 Roselli's Map of Africa.

1532.

10 'Les premières œuvres de **Jacques de Vaulx,**' pilote par le Roi en la Marine.

1533. MS. in the National Library in Paris. Contains a very old French Map of Africa. (*Vide* Santarem's Atlas, Tab. xvi.)

11 'Weltbuch. Erst Theil von newen erfundenen Landschafften. Wahrhafftige Beschreibunge aller Theil der Welt,' &c. Durch **Seb. Franck von Wörd.** Ander Theil von Schiffahrten. Wahrhafft Beschreibunge aller und mancherley sorgfältiger Schiffahrten, anch viller unbekannten Landschafften, Insulen, Königreichen, &c. Durch **Ulr. Schmidt von Straubingen.**

Tübingen, 1533; Frankfurt, 1567; Dutch: Amsterdam, 1558, 1562. Gives a good deal of information on Africa.

12 Gemma Frisius' Map of Africa.

1540. In the *Bibliothèque Nationale* in Paris.

13 Portolana of **Baptisa Agnese** of the year **1545.**

Contains (sheet 7) Map of coast region of Southern Africa.

14 Map of Africa in the Venetian Ptolemæos of the year **1548.**

From Portuguese sources.

15 Ramusio, M. Giov. Batt. 'Raccolte delle navigationi et viaggi nelle quali, con relazione fedelissima si descrivono tutti quei paesi, che da gia 300 anni fin ora sono stati scoperti,' &c.

Venezia, 1550, 1556, 1559. Tom. iii. Venezia, 1561, 1563, 1583, 1603, 1606, 1613. Not all editions are equally complete. Vol. i. contains a Map of Africa, then follow: 'Della descrittione dell' Africa e delle cose notabile che quiui sono per Giovan Leone Africano,' Cadamosto's 'Navigatione nell' Africa,' Vasco di Caman's (Gama's) 'fatta oltra il capo di Buona esperanza,' Barthema's 'Itinerario,' Franc. Alvarez 'Viaggio fatto nell' Ethiopia.' Vol. iii. p. 370 *et seq.* (edition of 1606) contains a Map of Western Africa entitled, 'Parte de la Africa.' Ramusio's Map of Africa is based on Portuguese discoveries.

16 Portuguese Manuscript Atlas in the National Library, Paris, of the period **1540–1554,** with a Map of Africa.

17 Joaõ de Barros. 'Asia: dos feitos que os Portûgueses fizeram no descubrimento e conquista dos mares e terras do Oriente.'

Dec. i. Lixboa, 1552. Dec. ii. ibid. 1553; Dec. iii. ibid. 1563; Dec. iv Madrid, 1615, and Lixboa, 1615; Dec. v. Lixboa, 1612; Dec. vi. Madrid, 1614; Dec. vii. Lixboa, 1616; Dec. viii. ibid. 1673; Dec. ix. ibid. 1736; Dec. x. ibid. 1788; Dec. xi. still in manuscript; Dec. xii. Paris, 1645. Italian: Venezia, 1561–1562. Dec. i. chiefly on Western Africa. Celebrated work, giving the history of Portuguese explorations. In 1611 Philip II. ordered the posthumous manuscripts of J. B. Lavanha Barros to be published, among them 'Decada da Africa.'

18 Pratt, W. 'The Description of the Country of Aphrique, translated from the French.'

London, 1554.

19 Tramezini's Map of Africa.

1554.

20 Guillaume le Testu's Manuscript Atlas of the year **1555.**

Tab. 18 an interesting Map of Africa. Le Testu was a French pilot.

21 Watreman, W. 'Fardle of fashion contening the manners and customs of Africke and Asie.'

London, 1555.

22 Diego Homen's Carta nautica, **1558.**

The original in the British Museum, London. (In 1860 Count Livradio published a facsimile.) Diego Homen was cartographer in Venice.

23 Diegi Homen Cosmographi opus **1561.**

Manuscript in the K. K. Hofbilliothek in Vienna. Sheets 4, 5, 6, on Africa.

24 'Recueil de la diversité des habits qui sont de présent en usage tant ès pays d'Europe, d'Asie, d'Afrique,' &c.

Paris, 1562.

25 Paul Forlani's Map of Africa.

Venetia, 1562. In the National Library, Paris, and in the British Museum, London.

26 Naufragio da nao S. Benito e de **Fernan Alvarez Cabral** no Cabo da Boa-Speranca.

1564.

27 'Il disegno della geografia moderna dell' Africa. Composta per. **G. di Castaldi.**' 7 foglie.

Venetia, 1564. (In the British Museum.)

28 Ferrando Bertelli. Map of Africa.

1565. (In the British Museum.)

29 Map of Africa in the British Museum, entitled: 'Nelle presenti tre Tavole sono descritte . . . Africa, Arabia, India, &c., **N. Nelli.**'

Venice (?) 1565.

30 Toscanella, Orazio. 'I nomi antichi e moderni delle provincie, città, monti, &c., dell' Europa, Asia, Africa.'

Venetia, 1567.

31 Ortellius, Abrah. 'Theatrum Orbis Terrarum.'

Antverpiæ, 1570 (and 1607). Contains a large Map of Africa.

32 Surius de Lubeck. 'Histoire.'

Paris, 1573. Contains in many places information on the geography of Africa.

33 Marmol Carvajal, Luys del. 'Primera parte de la descripcion general de Africa, &c.'

Three parts. I. and II. Grenade, 1573; III. Malaga, 1573 and 1599. One of the most important works on Africa. A French edition by Perrot d'Ablancourt, Paris, 1667, with Maps by Sanson.

34 Cosmographie des **Belle-Forest.**.

Paris, 1575. With interesting Map of Africa.

35 Centellas de, Joach. 'Voyages et conquestes des roys de Portugal es Indes d'Orient, Éthiopie, Mauritanie d'Afrique et d'Europe.'

Paris, 1578. Important work, giving an account of what the Portuguese kings did for the exploration of Africa.

36 Orosius, P. 'Chronica, d. i. Wahrhaffte eigentliche und kurtze Beschreibung des Umbkreiss und Gelegenheit der gantzen Welt, so in 3 Theil nämlich in Africa, Asia, und Europa abgetheilt.' Translated from the Latin by H. Bohner.

Frankfurt, 1581.

37 Maffei, S. J. 'Historiarum indicarum Libri XVI.'

Florence, 1605. Anvers, 1583. Contains data of Portuguese explorations in Africa.

38 Correa, Gaspar. 'Lendas da India.'

Manuscript removed from India to Europe in 1583, and printed only in 1858 at Lisbon. Translated into English for the Hakluyt Society in 1869, and published in London under the title, 'The Three Voyages of Vasco da Gama and his Viceroyalty.'

39 Osorius, H. 'Histoire de Portugal contenant les entreprises, &c. . . . tant en la conqueste des Indes Orientales, qu'es guerres d'Afrique,' &c.

Paris, 1587.

40 Pigafetta's Map of Africa (based on Lopez).

1591. Important document.

41 Corte-Real, J. 'Naufragio e lastimoso successo da Manoel de Souza,' &c.

Lisbon, 1594. Account of a shipwreck at the Cape and the coast of Natal.

42 Mercator's celebrated Atlas.

1595.

43 Linschoten, Jan Huyghen van. 'Beschryvinge van de gantsche Custe van Guinea, Manicongo, Angola, Monomotapa, &c. . . . als oock de ghelegentheyt van 't vaste landt van de Cabo de boa Esperança, langhs Monomotapa, Zefala, tot Mossambique toe,' &c., &c.

Amstelredam, 1596, 1614, 1623. Interesting work. In Latin, 1599, at the Hague, under the title, 'Navigatio et ittinerarium in orientatem Indiam et descriptio totius Guineæ tractus, Congi, Angolæ et Monomotapæ,' &c., &c. A French edition in 1638, Amsterdam. English, under the title, 'The Voyage of John Huyghen Linschoten to the East Indies. The first Book of his 'Itineraria.' In 2 vols. Vol. I. edited by Dr. Burnell; vol. II. by Mr. P. A. Tiele (Hakluyt Society), London, 1886.

44 Houtman, Cornelius. 'Verhaal van de Reyse bij de Hollandtsche Schepen gedaen naer Oost-Indien,' &c.

Middleborgh, 1597, 1598. Contains information on the Cape.

45 Od. Lopez. 'Relatione del Reame di Congo,' &c., &c.

English: 1597, London; Latin: Frankfort, 1598; German: Frankfort, 1609; Dutch: Amsterdam, 1658.

46 De Bry. 'Collectiones,' &c.

Tom. II., 'Pars Indiæ orientalis,' contains a Map of Mozambique and a chapter, 'De Caffrorum militia.' Frankfort, 1599.

47 'The Principal Navigations, Voyages, Traffiques, and Discoveries of the English Nation, made by sea or overland to the remote and farthest distant quarters of the Earth,' &c., by **Richard Hakluyt.**

London, 1599 and 1600. Celebrated collection of works, and one of the principal sources of the history of African exploration. Especially important is Part II. (*Vide* Publications of the Hakluyt Society, London.)

48 Map of Africa, by **Andrea Vavassore**, of the **16th** century.

49 Map of Africa, without title **(1600?).**

Cologne, in the British Museum.

50 Map of Africa, by **A. di Arnoldi.**

(Sienna, 1600?), in the British Museum.

51 Leo, John (Johannes Leonis Africanus). 'A Geographical Historie of Africa.' Translated and collected by **John Pory.**

With a description of places undescribed by John Leo (contains account of Caffraria and Monomotapa). London, 1600.

52 Neck, J. C. van, and **Warwyk, R. W. van.** 'Journael ofte Daghregister,' &c.

Amsterdam, 1601. Contains notes on Mauritius and Mozambique.

53 Guillaume Levasseur's Map of Africa, framed at Dieppe in **1601.**

In the Dépôt général des cartes de la marine. (*Vide* Santarem's Atlas, Tab. XVIII.)

54 Borri, Ch. 'Relazione a sua Santità delle cose dell' India Orientale del Giappone, della China, dell' Ethiopia, dell' isola di San Lorenco (Madagascar), dell' regno di Monomotapa et della terra incognita Australe.'

MS. of 1603, containing instructions to Missionaries; it is supposed to exist still in the Vaticana or in the archives of the Propaganda at Rome.

55 San Roman, A. 'Historia general de la India Oriental, los descubrimentos y conquistas que han hecho las armas de Portugal en el Brazil y en otras de Africa y de la Asia,' &c.

Valladolid, 1603.

56 Warwyk, van W., and **Weert de, S.** 'Historische verhael Van de Reyse gedaen in de Oost Indien,' &c.

(De Bry, K. R. VIII. 1607.) Notes on the Cape of Good Hope and Mauritius.

57 Matelief, de Jonge, C. 'Historiale ende ware beschryvinghe van de reyse naer de Oost-Indië, Uytgetrocken in Mayo, 1605. Mitsgaders de belegeriwgh voor Malacca, als oock den slach teghen de Portug. Armade.'

Rotterdam, Jan Jansz, 1608. 4to. Tiele, No. 165.

58 F. Guerreiro. 'Indianische newe Relation, erster Theil; was sich in der Goanischen Prouintz und in Monomotapa, Mogor, &c., zugetragen, aus der Portugiesischen sprach verteutscht.'

Augspurg, 1608; Oppenheim, 1614.

59 Joaõ dos Santos. 'Primeira parte de Ethiopia oriental em que se da relacam dos principaes reynos desta regiao dos costumes, ritos et abusos de sens habitadores, das animaes, bichos et feras . . . de varias guerras entre Christianos, Mauros et Gentios.'

Evora, 1608. French, under the title, 'Histoire d'Ethiopie Orientale,' Paris, 1648, 1688. Important work on Eastern Africa. The first part contains a description of Eastern Africa, the second an account of the mission of the Dominicans among the Kafirs on the Zambesi. (Dos Santos had been in Eastern Africa as a missionary.) Pinkerton, folio edition of 'Father Joano dos Santos' History of Eastern Ethiopia,' 1814.

60 P. de Jarrie. 'Histoire de choses mémorables avenues tant ès Indes orientales, qu'autres pays de la découverte des Portugais,' &c.

Bordeaux, 1609. Latin, under the title, 'Thesaurus rerum Indicarum, in quo christianæ ac catholicæ religionis tam in India orientali, quam aliis regionibus Lusitanorum opera detectis, ortus, progressus, incrementa, ad annum usque 1600 recensentur. Additæ sunt passim earundam regionum chorographicæ, quam historicæ descriptiones.' Coloniae, 1615. Important work on the Portuguese Missions of the 16th century. Lib. III. c. 1 contains data obtained from Lopez and other authorities on the sources of the Nile, Zaïre, and Zambesi.

61 'The fardle facions, conteining the ancient maners and lawes of the peoples enhabiting the two parts of the Earth called Africke and Asie,' by **Joannes Aubanus Boemus.** Translated by **W. Waterman.**

London, 1609.

62 Fernandez, Alonso. 'Historia ecclesiastica de nuestros tiempos.'

Toledo, 1611. Contains information about the Mission of the Dominicans among the Kafirs.

63 De Bry. 'Collectiones,' &c.

Tom. IX., 'Indiæ orientalis pars.' With Map of the Island of Mozambique. Frankfurt, 1612–13.

64 Mercatoris, Gerh. 'Atlas sive Cosmographicae meditationes de fabrica mundi et fabricati figura.'

Amsterdam, 1613. Editions by Hondius 1623, 1630; German, 1633, and by Janssonius (1621, 1632, 1634).

65 'Pvrchas his pilgrimage. Or relations of the world and the religions observed in all ages. And places discouered from the Creation vnto this present. In foure Partes. This first containeth a Theological and Geographical historie of Asia, Africa, and America, with the Islands Adiacent, &c., by **Samvel Purchas.'**

London, 1613, 1614, 1617; 1625–26. Purchas contains II. 1–851 a translation of Leo Africanus; pp. 851–873, a 'Collection of things most remarquable in the history of Barbary'; pp. 873–874, 'the dominions and forteresses which the King of Spain upon the iles and main land of Africa and of the great Turkes'; v. pp. 619–791, 'Africa of Aegypt, Barbary, Libya, Numidia and the Land of the Negros.'

66 Davity, Pierre. 'États, Empires, et Principautés du Monde.'

6 vols. 1614 (in 13 editions). Latin by Ludwig Gottfried, Frankfurt, 1638 and 1649. Vol. v. contains a 'Description de l'Afrique,' based on excellent information. About this 'Description' v. Bulletin de la Société de Géographic de Rochefort, 1879, No. 1, or the Bulletin de la Soc. de Géographie de Paris, 1879, pp. 358–367.

67 'Ragguagli di missione nelle provincia di Goa . . . e nell' Africa.'

Roma, 1615.

68 Scribanus, C. 'Den vernieuwden Nederl. Waersegger, &c. Als oock den heelen Africaenschen handel.'

Amsterdam, 1620.

69 Almada, F. V. de. 'Tratato do successo que teve naõ S. Joaõ Battista, e jornado que fez a gente que della escapon desde trinta e tres graos na Cabo da Boa Esperanza onde fez naufragio ate Zofala vindo sempre marchando por terra.'

Lisboa, 1625.

70 Sanson, Nicholas. 'L'Afrique en plusieurs cartes et plusieurs traités de géographie et d'histoire.'

Paris, 1625. A well-arranged geographical work on all parts of Africa. 18 coloured maps.

71 Herbert, Sir Thomas. 'Some years travels into divers parts of Asia and Afrique describing especially the two famous empires, the Persian and great Mogul.'

London, 1626 (revised and enlarged 1638, 1655, 1677. French: Paris, 1663. Dutch: Dordrecht, 1658).

72 Smith, John. 'Travels in Europe, Asia, Africa, and America,' &c.

London, 1630.

73 'Voyages d'Afrique faits par le commandement du roy, où sont contenues les navigations des français entreprises en 1629 et 1630 sous le commandement du commandeur de **Rasilly.'**

1632. Important geographical work dedicated to Richelieu. Contains 'Description de l'Afrique.'

74 Duran, A. 'Cercos de Mozambique, defendidos por D. Estevan de Abajde.'

Madrid, 1632.

75 Hondius, Henry. 'Atlas ou Representation du Monde Universel.'

Amsterdam, 1633. Contains one large Map of Africa, drawn by Henry Hondius, date 1631.

76 Blaeu, W. J., 'Théatre du Monde ou nouvel Atlas,' &c.

Amsterdam, 1638 and 1645–55 (2 and 5 vols.), and 'Atlas Major sive Cosmographia Blaviana.' Amsterdam, 1662. IX. Africa, 13 Maps. Blaeu's Globus appeared in 1599–1603. The 'Théatre,' appeared in many editions.

77 Africæ nova descriptio. Auct. **G. Janssonius.**

Amsterdam, 1640 (?)

78 Lithgow, W. 'Rare adventures and painefull travailes from Scotland to the most famous kingdomes in Europe, Asia, and Africa.'

London, 1640, 1682. Dutch: Amsterdam, 1652, 1653, 1694, and 1705.

79 Vasconcellos, Antonio, M. de. 'Africa conquistada pe los Portuguezes.'

Lisboa, 1641.

80 'Begin ende Voortgangh van de Vereenighde nederlandsche geoctroyeerde Oost-Indische Compagnie, vervattende de voornaamste Reijsen bij de Inwoonderen derselver Provincien derwaerts gedaen.'

2 vols. Amsterdam, 1646.

81 'Journael van de voyagie gedaen met drie Schepen genaemt den Ram, Schaep, ende het Lam, gevaren uijt Zeelandt, van der Stadt Camp-Vere, naer Oost-Indien onder't beleyt van den Heer Admirael **Joris van Spilbergen,** gedaen in de jaren 1601, 1602, 1603, and 1604.'

Contained in the collection of voyages entitled, 'Begin ende Voortgangh van de Vereenighde Nederlandsche geoctroyeerde Oost-Indische Compagnie.' Separately published, Amsterdam, 1648,

82 'Eerste Schipvaert der Hollanders naer Oost-Indien met vier Schepen onder't beleijdt van **Cornelis Houtman** uijt Texel gheghaen, anno 1595.'

Separately printed in 1648, Amsterdam, but also contained in the collection of voyages entitled, 'Begin ende Voortgangh,' &c.

83 Vincent de Blanc. 'Voyage au quatre parties du Monde . . . aux royaumes de Fez, de Maroc, de Guinée et dans toute l'Afrique intérieure, depuis le cap de Bonne-Espérance jusqu'à Alexandrie par les terres de Monomotapa, du Prêtre Jean et d'Egypte, &c., publié par P. Bergeron.'

Paris, 1649. Troyes, 1668. Dutch: Amsterdam, 1654.

84 'Africa vetus,' auctore **N. Sanson.** Parisiis, **1650.**

Amstelodami, 1730 (?)

85 'Afrique,' par **N. Sanson.**
1650.

86 'Totius Africæ Tabula.' Authore J. **Danckerts.**
Amstelodami, 1650.

87 'Daghverhaal van **Jan van Riebeek,** de Gouverneur van de Kaap de Goede Hoop.'
1651. Ed. by the Hist. Soc. of Utrecht.

88 'Klare ende Korte Beschrijvinge van het Land aan Cabo de Bona Esperance.' Published by **Jodocus Hondius.**
Amsterdam, 1652. A reprint in the Zuid-Afrikaansche Tijdschrift September and October, 1880.

89 Kaart van de Saldanhabaij.
1653. MS. in the Netherlands Royal Archives.

90 Kaart van het Dassen Eylandt.
1653. MS. in the Netherlands Royal Archives.

91 Plan van het fort de Goede Hoop, met profil.
1653. MS. in the Netherlands Royal Archives.

92 Plan als voren, en opstand.
1653. MS. in the Netherlands Royal Archives.

93 Affteykeningh van de Taeffelbay so men in 't fort staet, met aenwijsinge van de vlacke landerijen, seer schone weyden ende bouwlanden, sijnde voor d' Generale Nederl. Geoctr. Oost-Indische Comp. in possessie genomen by Jan van Riebeeck, door last van d' Ed. Heeren Bewindh. der gem. Comp., gesticht het fort de Goede Hoop. 1652.
Received from the Cape in 1653. MS. in the Netherlands' Royal Archives.

94 Kaart van de Saldanha-Tafel-Houtbaij en Baij Fals. Dassenen Robbeneiland.
1654. MS. in Netherlands Royal Archives.

95 Kaart Van de Tafelbaij en het Robben Eyland.
1654. Compaslijnen gedrukt by W. Blaeu. MS. in the Netherlands Royal Archives.

96 Kaartje van het Dassen Eylandt.
1654. MS. in the Netherlands Royal Archives.

97 Kaartje van het Robben Eylandt.
1654. MS. in the Netherlands Royal Archives.

98 Plan van het redout Duijnhoop.
1654. MS. in the Netherlands Royal Archives.

99 Plan van het fort de Goede Hoop met de daarvoor gelegen Hoornwerken bij gelegen gebouwen, tuinen enz.
1654. MS. in the Netherlands Royal Archives.

100 De Vries, D. P. 'Korte historiael ende journaels aenteijkeninge van verscheijden voyagiens in de vier deelen des Wereldts Ronde, als Europa, Africa, Asia ende America gedaen.'
Hoorn. 1655.

101 A new, plaine and exact Mapp of Africa, described by **N. J. Visscher** and corrected according to J. Blaeu by R. Walton.
London, 1655 (?)

102 Kaartje van de Tafelen Houtbaijen met het Dassenen Robben eiland.
1656. MS. in the Netherlands Royal Archives.

103 Kaartje van het Dassen Eylant.
1656. MS. in the Netherlands Royal Archives.

104 Kaartje van het Robbeneyland.
1656. MS. in the Netherlands Royal Archives.

105 Kaart van de bergen achter de Kaap.
1656 (?) Four sheets. MS. in the Netherlands Royal Archives.

106 Kaart van het fort de Goede Hoop en de daarom heen gelegen landen, tusschen de Tafelbaai en Baai Fals.
1656 (?) Received in 1656 from the Cape. MS. in the Netherlands Royal Archives.

107 Plan van het Fort de Goede Hoop.
1656. MS. in the Netherlands Royal Archives.

108 Plan als voren, en opstand.
1656. MS. in the Netherlands Royal Archives.

109 Plan van het fort de Goede Hoop, 's Comps. tuijnen en bij gelegen gebouwen, stallingen enz.
1656. MS. in the Netherlands Royal Archives.

110 Plan als voren.
1656. MS. in the Netherlands Royal Archives.

111 Caerte van de twe gedane Lantreijssen aen de Cabo de Bonne Esperance a° 1657 ende 1658.
Six sheets with notes. 1658. MS. in the Netherlands Royal Archives.

112 Kaart als voren.
Two sheets. 1658. MS. in the Netherlands Royal Archives.

113 De Flacourt, Etienne. 'Dictionaire de la langue de Madagascar avec quelques mots du langage des sauvages de la baie de Saldanha au Cap de Bonne Esperance.'
Paris, 1658.

114 Paskaert van zee-custen van Angola en Cimbebas van Rivier de Galion tot C. de Bona Esperança.
Amsterdam, 1659. With small Map, 'De Kust van de Kaap de Goede Hoop.

115 Caerte aenwijsende de Lantreijsen in 't Lant gedaan enz.

1659. Four sheets. MS. in the Netherlands Royal Archives.

116 'Journael gehouden door **Pieter Jansz van Middelburgh** en eenige vrijwillige vrije luijden, om te soecken eenige vreemde natie waermede men eenige handel ofte negotie soude cunnen drijven tot dienst van de Comp.'

1659, MS. in the Netherlands Royal Archives.

117 Plan van 's Comps. fort de Goede Hoop, tuinen en huizingen zoo mede het afgemeten gedeelte tot het begin van een stad voor de vrijlieden.

1659. MS. in the Netherlands Royal Archives.

118 Caarte van de Lantreijsers.

1660. MS. in the Netherlands Royal Archives.

119 Saar, Johan Jacob. 'Reisbeschrijving naar Oost Indien, enz.'

(Saar visited Table Bay in 1659.) 1660. Amsterdam, 1672.

120 Kaart van de Knot tusschen de St. Helena Baij en Baij Fals. (32° to 34° 33′ S. L.)

De Compaslijnen gedrukt bij William Blaeu. This Map contains notes on Saldanha bay. 1660. MS. in the Netherlands Crown Archives.

121 Zeespiegel van de Tafelbaij, tot de Saldanhabaij, waarin landverkenningen van de Caep S. O. 8 mijl, van de Kust van de Saldanha baij tot de Taeffelbaij uijtter zee, Oostelijck daervan sijnde enz.

1660. MS. in the Netherlands Crown Archives.

122 Kaart van de Saldanhabaij met de daarin liggende Eilandjes enz.

1660. With description and sailing directions. MS. in the Netherlands Royal Archives.

123 'Africæ accurata Tabula,' ex officina **G. A. Schagen.**

Amsterdam, 1660.

124 'Novissima et perfectissima Africæ descriptio,' Auctore **J. Danckerts.**

Amstelodami, 1660 (?)

125 Daghverhael van de reijse naer de Namaquas door **Pieter van Meerhoff.**

1661. MS. in the Netherlands Crown Archives.

126 Caerte, verbeterde, groot bestek, van de Tafelbaij en de buijten Rhee ofte anckergronden.

1661. With a separate view of the Cape Mountains. MS. in the Netherlands Royal Archives.

127 Plan nader, als voren.

Received from the Cape 1661. MS. in the Netherlands Royal Archives.

128 Kaartje van Houtbaijs omtrek en gronden.

1662. De Compas lijnen gedrukt met aanteekeningen. MS. in the Netherlands Royal Archives.

129 'Journael gehouden in't Fluijtschip 't Waterhoen, van de Caep de Goede Hoop naer Mosambique, Schipper **Pieter Willemsz.**

1662. MS. in the Netherlands Royal Archives.

130 'Journael gehouden bij mij **Frederic de Smit,** van de heen en weder reijse gedaen in 't lant van Africa, bij Pieter Cruijthoff Corporael van de Adelborsten,' &c.

1662–63. MS. in the Netherlands Royal Archives. Contains also instructions for this journey.

131 'Instructie voor den Sergeant **Jonas de la Guerre.** Vertreckende van hier als Hooft met eenich vrijwillig volck landwaertin, omme te onderstaen off met oft sonder hulpe van de ontdeckte volkeren, de Namaquas aen een seecker groote Rivier Vigiti Magna genaemt comen en daer verrichten van 'tgeen hem in desen opgeleijt wort.'

1663. MS. in the Netherlands Royal Archives.

132 'Journael gehouden bij mij **Pieter van Meerhoff** van de heen ende weder reijse gedaen in 't land van Africa bij den Sergeant Jonas de la Guerre,' &c.

1663–64. MS. in the Netherlands Royal Archives.

133 Kaart van de Tafelbaai, het Robben Eiland, de Klip de Walvisch, benevens aanwijsing waar eenige schepen gebleven zijn. De compaslijnen gedrukt bij W. Blaeu.

1663–64. MS. in the Netherlands Royal Archives.

134 Grondteijckening van het voorwerk aan de N. zijde van 't fort de Goede Hoope, met de nodige gebouwen darin gestelt.

1663–64. MS. in the Netherlands Royal Archives.

135 Bleijs-Wijck, van. 'Korte Beschrijvinge van de Fluijt, Nieu-Delfshaven, uitgetvaren uijt de Maze den 3 December, **1668**, naer Oost Indien. Van het gene voorgevallen is tusschen een Turck schip genaemt den "Dadel Boom," voerende 34 Stukken, zijnde den Admiraal van Algiers, dewelke op den 17 dito zijn slaegs geraakt ende haer geluckige uijtkomst tot de Cabo de Bonne Esperanse. Omschreven door D. V. Bleijs-Wijck, assistent op de zelve fluijt Nieu-Delfshaven.'

Delf. 1664.

136 Blaeu, Joan. 'Grooten Atlas oft Werelt Beschrijving.

Vol. 8 contains Maps of Africa. 1665.

137 Plan van het fort de Goede Hoop, met het begonnen niewe project voor een Vijfhoek, aanley van de stad enz.

1665. With notes. MS. in the Netherlands Royal Archives.

138 Carneiro, A. M. 'Regimente de pilotos e roteiro das navegaçoens de India Oriental movamente emendado a acrecentado com o roteiro de Sofala ate Mozambique,' &c.

Lisboa, 1642 and 1665–66.

139 Doncker, Hendrik. 'Zee Atlas of Water-Waerelt.'

Amsterdam, 1666. Contains a Map of the West Coast of Africa from the Equator to the Cape of Good Hope, 1659; and a Map of the East Coast from the Cape of Good Hope to the Red Sea, 1660.

140 A new and most exact Map of Africa. Described by **N. Visscher,** and corrected according to J. Blaeu and others.

J. Overton. London, 1666.

141 A new and most exact Map of Africa and the Islands thereunto belonging, by **W. Hollar.**

1666.

142 Portuguese Manuscript Map of **Texeira Albornus** of the year **1667,** with interesting Map of Africa.

Dépôt général des cartes de la marine in Paris.

143 Goos, Pieter. 'Zee Atlas ofte Water-Wereld.'

Amsterdam, 1668. Contains a large chart of the coast from Cape Verde to the Cape of Good Hope; another from Cape Negro to Mossel bay, with cartoons of the coast and country from St. Helena Bay to Cape False, and Vlees Bay or Agoa de S. Bras; and a large chart of the coast from the Cape of Good Hope to the Red Sea.

144 Dapper, Ol. Dr. 'Nauwkeurige beschrijving der Afrikaansche gewesten van Egypten, Barbarijen, Libijen, Biledulgerid, Negroslant, Guinea, Etheopiën en Abysinniën.'

Amsterdam, 1668 and 1676. German, under the title, 'Umbständliche und Eigentliche Beschreibung von Africa, und denen darzu gehörigen Königreichen und Landschaften, als Egypten, Babarien, Libyen, Biledulgerid, dem Lande der Negros, Guinea, Ethiopien, Abyssinia, und der Afrikanischen Insuln: zusamt deren verscheidenen Nahmen, Grentzen, Städten, Flüssen, Gewächsen, Thieren, Sitten, Trachten, Sprachen, Reichthum, Gottesdienst und Regierung,' &c. (With maps and illustrations.) Amsterdam, 1670. French, under the title, 'Description de l'Afrique, contenant Les Noms, la Situation et les confins de toutes ses Parties, leurs Rivières, leurs Viles, et leurs Habitations,' &c. Amsterdam, 1686. Very important work.

145 Giro del Mondo de dottor D. Gio. Francesco **Gemelli Carreri.**

Venezia, 1669–71, 1729. The first Part of this collection of works contains, 'Viaggi d'Africa, 1719.' French: Paris, 1719; English: London, 1704 (Churchill's Collection of Voyages and Travels.)

146 Journael ofte daghregister gehouden bij den Corporael **Jeroniemus Croes** enz. naer de Obiquaes en Hessequas, om met deselve natie de verhandelingh, door de aen hem daertoe medegegeven coopmanschappen, en 'tgeen verder ten dienste en tot profijt van d'E. Comp. soude mogen strecken te bevorderen.

MS. in the Netherlands Royal Archives. 1669.

147 Thijssen, Joh. 'Journaal mitsgaders verhaal van den toestand der plaetsen van Oost Indien die de Edele Compagnie aldaar besit, den 20 July, 1669, door den heer Thijssen, Commandeur van de laeste O. I. Retourvloote aan de Staeten-Generaal overgelevert. 16 bladzijden.

Rotterdam, 1669.

148 'L'Afrique de Marmol, par **N. Perrant d'Ablancourt,** traduite de l'espagnol.'

Translated by the Duke of Angoulême. Paris, 1667.

149 Beschrijving der Reizen naar Oost-Indien van **Volkert Evertsen.**

Translated from the German. Amsterdam, 1670. Evertsen visited the Cape on his way to India in 1655, and on his homeward voyage in 1667.

150 Memoriael van d'ondersoeckinge gedaen in Saisquas land bij de Cleijne rivier omtrent de Vogel Struijsbaeij, gelegen van de Caep veertich mijlen, gedaen by ons assayeurs **Theunis van de Sande** en **Philip Windsch.**

MS. in the Netherlands Royal Archives. 1670.

151 Reglement ter vergaderingh van de seventhienen (de gen. Ned. O. I. Comp. representerende) gearresteert, waerop de Cameren sullen vermogen de luijden en familien haer voorcomende te transporteren en over te brengen met de schepen bij haer uit te rusten nae de Cabo de Bonne Expérance, 't eylandt Mauritius, Batavia oft Ceylon, nae ieders genegentheijt soude mogen strekken 28 Aug., 1670.

1670. MS. in the Netherlands Royal Archives.

152 Ogilby, John. 'Africa : being an accurate description of the Regions of Aegypt, Barbary, Lybia and Billadulgerid, The Land of the Negroes, Guinee, Aethiopia, and the Abyssines, With all the Adjacent Islands, either in the Mediterranean, Atlantick, Southern or Oriental Sea, belonging thereunto. With the several Denominations of their Coast, Harbors, Creeks, Lakes, Cities, Towns, Castles, and Villages. Their Customs, Modes, and Manners, Languages, Religions, and inexhaustible Treasure; With their Governements and Policy, Variety of Trade and Barter, And also of their wonderful Plants, Beasts, Birds and Serpents, &c. Collected and translated from most Authentick Authors.'

London, 1670. With many Maps and Illustrations. Important work.

153 Kaart van de Kust van Africa, tusschen Sierras de St. Thomé en Cabo de Bona Esperanza.

1670. MS. in the Netherlands Royal Archives.

154 Witt, F. de. 'Atlas minor.'

Amsterdam, 1670. Contains 163 Maps, among which several of Africa and one 'Oceanus Æthiopicus.'

155 Novissima et perfectissima Africæ descriptio, per **F. de Witt.**

Amstelædami, 1670. (?)

156 Over het aandoen van de baai Os medos de Cura aen de vaste Oost Kust van Africa gelegen.

1671. MS. in the Netherlands Crown Archives.

157 Verhaal van drije voornaame Reizen naar Oost Indien, van J. J. Saar; Volkert Evertz; en Albrecht Herpest, &c. Van **J. H. Ghaze.**

Maker Vertaelt, 1671.

158 Fontana. 'Monumenta Dominicana ad annum, 1652.'

Romæ, 1675. Some account of the work accomplished by the Order of the Dominicans in South Africa.

159 Vermeulen, G. 'Gedenkwaerdige voyagie naar de O. Indie in 1668–74.'

Amsterdam, 1677. Chaps. 1–3, on the Canary Islands and the Cape of Good Hope.

160 'Some Years' Travels into Divers Parts of Africa and Asia the Great,' by Sir Thomas Herbert, Bart.

London, 1677.

161 Totius Africæ Tabula, auctore **F. de Witt,** cum ejusdem Tabula Alphabetica.

1680.

162 Schreyer, Joh. 'Reisebeschreibung von 1669–1677 handelnd von unterschiedenen Africanischen und barbarischen Völkern, sonderlich derer au den Caput bonae spei, sogenannten Hottentoten.'

Leipzig, 1681. Interesting, giving information from personal observation about the Hottentots.

163 Faria e Susa, Manoel. 'Africa Portugueza.'

Lisboa, 1681.

164 Neijn, Pieter de. Lusthof der Huwelijken, behelsende verscheyde seldsame ceremonien en plechtigheden, die voor desen by verscheijde Natien en Volkeren soo in Asia, Europa, Afrika, als Amerika in gebruik zijn geweest, als wel die voor meerendeel noch hedendaegs gebruijkt ende ouderhouden werden; mitsgaders desselfs Vrolijcke Uijren, uijt verscheide soorten van Mengel-Dichten bestaande; door P. de Neijn, Rechtsgeleerde voor desen Fiscaal in dienst der E. E. Oostindise Compagnie aan Cabo de Boa Esperance.

Amsterdam, 1681, 1697.

165 Kaart wegens de Land-tocht van de Caap de Goede Hoop, na de Amaquas, alsmede van de Caap voorn. na de Caap das Aguilhas in den jare **1682.**

With references. MS. in the Netherlands Royal Archives.

166 Journael van de landtocht gedaen by d'E. Vaendrich **Oloff Bergh,** Sargianten **Christoffel Henningh** enz., gehouden bij de Stuijrluijden **Reijnier Damie** en **Rosierich Hermansz,** in den jare **1682.**

MS. in the Netherlands Royal Archives.

167 Mentzelius, Ch. 'Index nominum plantarum universalis Europ., Asiat., African, et Americanorum.'

Berolini, 1682.

168 Ross, A. 'Les religions du monde ou démonstration de toutes les religions et hérésies de l'Asie, Afrique, Amérique et de l'Europe.' Trad. par Th. la Grue.

Amsterdam, 1682. Pp. 100–165 on Africa.

169 Rapport van den Vaendrich **Oloff Bergh** en andere gecommitteerden, spreekende van eenige verhinderinge haer op haere reijse na de Cralie van de Namaquas voorgekomen, &c.

1683. MS. in the Netherlands Royal Archives.

170 Als voren, wegens de gesteltheijt van seeckere cloove in 'tgeberghte van de Namaquas aen 'tvaste land van Afrika.

1683. MS. in the Netherlands Royal Archives.

171 Kaart van de Tafel Bhaij ofte Bhaij de Goede Hoope, **1685.** Compaslijnen gedrukt bij W. Blaeu.

MS. in the Netherlands Royal Archives.

172 Extract uij't Dagregister gehouden bij den Opperstuurman **Pieter Clarton,** op 't schip Jan en Maria, gaende van Madagascar na de Cust van Monomotapia de la Goa.

1685. MS. in the Netherlands Royal Archives.

173 Wilhelmi ten Rhijne. Daventriensis Ampl. Soc. Indiæ Orient. Medici, a consiliis justiciæ, Schediasma de Promontorio Bonæ Spei ejusve tractus incolis Hottentotis. Accurante brevesque notas addente Henr. Screta a Zavorziz.

Scafusii, 1686; Basiliæ, 1716.

174 Model van een Bergwerck of Mijne.

With notes. 1686. MS. in the Netherlands Royal Archives.

175 Tachard, Guy. Voyage de Siam des Pères Jésuites, Envoyés par le Roy aux Indes et à la Chine, avec leurs Observations Astronomiques et leurs Remarques de Physique de Géographie, d'Hydrographie, et d'Histoire.

Paris, 1686. 'Par ordre exprez de Sa Majesté.' Père Tachard visited the Cape in June, 1685, and in 1686.

176 Description de l'Afrique, traduite du flamand d. **O. Dapper.**
Amsterdam, 1686.

177 Cowley, Capt. A Voyage Round the Globe, made by the Author in the years 1683 to 1686.
London, 1687.

178 Kaart van de Houtbaaij, Baij Fals en omliggende landen, alles ontdeckt en afgepeilt door den Heer Commandeur **Simon van der Stel.**
1687. With a description. (33° 40′ to 35° S. L.) MS. in the Netherlands Royal Archives.

179 A new Mapp of Africa, by **J. Overton** and **P. Lea.**
London, 1687 (?) Contains, in addition to information obtained from Dutch Maps, data from British observations.

180 Stukken in de resolutien der Staten van Holland van **1688** betreffende eene vestiging van Piemontoische Dalluijden aan de Kaap de Goede Hoop:
2nd ed., pp. 202, 332, 344, 346.

181 Dagregister gehouden in't Vaertuijg de Centaurus, zeilende van de Caeb na't land van Terra de Natal.
1687–88. MS. in the Netherlands Royal Archives.

182 Dagregister gehouden bij den Vaendrich **Isacq Schrijver,** op sijn land-togt na de Inquahase Hottentots, beginnende den 4 January en eijndigende den 10 April, **1689.**
MS. in the Netherlands Crown Archives.

183 Instructie waerna sig **Pieter Jansz Timmerman** en verdere officieren, bescheijden op's Comp. Galjoot de Noord, gaende van de Kaep de Goede Hoop na de Bhaijen Natal en de la Goa hun sullen hebben te rigten.
1689. MS. in the Netherlands Royal Archives, also in the Cape Archives.

184 Caronelli, V. 'Afrique, selon les relations les plus nouvelles.'
1689. (Coronelli was a Venetian cosmographer.)

185 Africæ accurata Tabula, ex officina **N. Visscher.**
Amsterdam, 1689 (?)

186 Père Tachard. Second Voyage.
Paris, 1689 (again visited the Cape). With Plates and Map of South Africa.

187 Plan van het Fortres de Goede Hoop, **1691.** Met aanwijzingen van dezen vijfhoek.
MS. in the Netherlands Royal Archives.

188 Berni, S. 'Lettera dei paesi della Cafreria e di Mozambico nell' Africa,' in Zani's 'Genio Vagante.'
Letters of the year 1655. Parma, 1691–93.

189 Silleman, Daniel and Lourens **Thijssen.**. Ongeluckig of Droevigh verhaal van't Schip de Gouden Buijs Enkhuijzen.
1694.

190 Gerrit van Spaan. 'Afrikaansche Wegwijzer.'
Rotterdam, 1694, 1695.

191 Description des éléphants et de l'île de Bonne Espérance.
1696.

192 Nieuwe Paskaert van de Zeekusten van Guinea, van Cabo Verde tot Cabo de Bona Esperanca.
1696.

193 Platte grond van het Ziekenhuis of Hospitaal aan de Kaap de Goede Hoop, Vervaardigd in de 17e eeuw.
Received from the Cape in 1697. MS. in the Netherlands Royal Archives.

194 Dampier, William. A new Voyage round the World.
2nd ed. 2 vols. London, 1697. Dutch: Amsterdam, 1717.

195 Las Casas, Ph. 'Relation des voyages que les Espagnols ont faits dans l'Inde Orientale.'
Amsterdam, 1698. Refers in many places to African travels.

196 Ovington. 'Voyage to Surat in the year 1689. With a description of the islands of Madeira and St. Helena.'
London, 1898.

197 W. Mal. 'Van diverse eylanden hoe die zich opdoenen. Geheel India en het lant onder den Grooten Mogol, Asia, het Zuidlant, America, d'West Indiën, d'Cabo Goede Hoop, soo ver als die vaste kust dan streckt, Africa, Europa.
Folio MS. of 146 pp. of 1699. Contains also sketches of the coasts, &c. Catal: Nijhoff CVIII., No. 81.

198 Overbeek, Arnout van.
In an appendix to this writer's 'Rijm-Wercken' will be found an account of a visit to the Cape in 1668. The author was the first to purchase land from Hottentot chiefs in South Africa. 1699.

199 Frejke, Christopher, and **Christopher Schweitzer.** 'A relation of two several voyages made into the East Indies.'
With notice of the Dutch East India Company, and visits to the Cape of Good Hope from 1680 to 1686. From the Dutch, London, 1700. Original edition in Dutch, Utrecht, 1694.

200 Carte générale de l'Afrique, chez **P. Mortier.**
1700 (?)

201 L'Afrique distinguée en ses principales parties . . . par **Sanson.**
2 feuilles. Paris, 1700.

202 Paskaart van't Zuidelijkste gedeelte van Africa, vertoonende de Saldanha Baij, de Baij de Goede Hoop en de Baij Falso enz.

Amsterdam, J. Van Keulen. Met vignet. 32° 50′ to 35° S. L. **17th Century.** MS. in the Netherlands Royal Archives.

203 Kaart van de Zuidkust van Afrika van Saldanha Baai tot Baai Natal.

Amsterdam, J. Van Kenlen. 30° 10′ to 37° S. L. **17th Century.** With cartoons, 'Vervolg van de Kust' (Z. O.) 27° 30′ to 30° 10′ S.L.; 'De Mosselbaai'; 'Paskaart van de baai de Lagoa gelegen op de Cust van de Cafras tusschen de 25 en 26 gr. Z. Br.' MS. in the Netherlands Royal Archives.

204 Kaart van de Zuidkust van Afrika van de Saldanha baaij tot Baaij Natal enz.

Amsterdam, J. van Keulen. Hierop afzonderlijk Mosselbaai (30° 30′ to 37° S. L.). MS. in the Netherlands Royal Archives. **17th Century.**

205 Kaart van de kust en eenige baaijen aan de Kaap de Goede Hoop, tusschen de Saldanha Baij en Vleisbaij.

Amsterdam, J. Van Keulen. Hierop afzonderlijk: Het Dassen eiland; Looding in de nabijheid van genoemd eiland. MS. in the Netherlands Royal Archives. **17th Century.**

206 Kaart van de Tafelbaaij, vertoonende de Reede van Caap de Goede Hoop.

Amsterdam, J. van Kenlen. Netherlands Royal Archives. **17th Century.**

207 Paskaart van de Costa de Caffres, tusschen Cabo Negro en Cabo de Bona Esperance.

Amsterdam, J. v. Keulen. Cart: De Saldanhabaaij. Netherlands Royal Archives. **17th Century.**

208 Pascaert van de Lagoa en vervolg van de Z.O. Kust tot Terra des Fumos.

MS. in the Netherlands Royal Archives. **17th Century.**

209 Kaart van de Landtreijs van de Cabo de Bon Esperance Noordwaarts tot aan de Buffels rivier. Vervaardigt in de 17e eeuw. 28° tot 34° 40′ Z. Br.; 36° 20′ to 39° 20′ L. De Compas lijnen gedrukt bij Wilh. Blaeu, met een schaal der vergrootende breedte enaanteekeningen.

2 bladen. MS. in the Netherlands Royal Archives. **17th Century.**

210 Kaapsche Kust en rif van Aguilhas 32° to 37° Z. Br; 0° 40′ L. W. to 7° 45′ L. O.

MS. in the Netherlands Royal Archives. **17th Century.**

211 Saldanha—Tafelbaaijen, De—en Baai Fals met de tusschen gelegen Kust.

Amsterdam, J. van Keulen. 33° 4′ to 34° 36′ Z. Br. Met Carton: Het Dassen eiland met opgave der dieptens en der gronden. Netherlands Royal Archives. **17th Century.**

212 J.C.F.A., Kaart van de Kust en eenige baaijen aan de Kaap de goede Hoop tusschen de Saldanha Baij en Vleisbaij.

MS. De Compaslijnen gedrukt bij Ja. en Casp. Loots te Amsterdam. Hierop afzonderlijk de Saldanhabaai. Netherlands Royal Archives. **17th Century.**

213 Kaart der uitgegeven landerijen vervaardigd in de 17e eeuw.

10 bladen. MS. in the Netherlands Crown Archives. **17th Century.**

214 Kaart van de Kaap en de landerijen tot aan het France quartier enz.

Detailed Map with directions and notes. MS. in the Netherlands Royal Archives. **17th Century.**

215 Plan van 't Fort de Goede Hoop, 's Comps. tuijn en eenige publique en particuliere gebouwen daaromtrent.

MS. in the Netherlands Royal Archives. **17th Century.**

216 Plan of the Company's Settlement at Rio de la Goa.

MS. in the Netherlands Crown Archives. **17th Century.**

217 Carte particulière des Costes du Capo de Bone Esperance, &c.

Amsterdam, P. Mortier. **17th Century.**

218 Carte particulière des Costes de l'Afrique qui comprend le Pays de Caffres, &c.

Amsterdam, P. Mortier. Carton: Sofala. Netherlands Royal Archives. **17th Century.**

219 Carte particulière des Costes de l'Afrique Depuis Cabo Ledo Jusques au Cap de Bone Esperance, &c.

Amsterdam, P. Mortier. Carton: Baye de Saldagne. **17th Century.**

220 Carte particulière des Costes de l'Afrique qui comprend le Pays de Caffres, &c.

Amsterdam. **17th Century.**

221 Paskaerte van Cimbebas en Caffares streckende van Catambela tot Cabo de Bona Esperanca.

Amsterdam, L. Renard. Netherlands Royal Archives. **17th Century.**

222 Paskaerte van Catambela tot Cabo de Bona Esperanca.

Amsterdam, R. and J. Ottens. Carton: de ommelanden van de Caap de Goede Hoop met de Saldanha, Tavel en Falso Baien in Groot Bestek. Netherlands Crown Archives. **17th Century.**

223 Kaart van de Kust ven Afrika, tusschen Cabo das Voltas (?) en Rio de la Goa.

MS. in the Netherlands Royal Archives. **17th Century.**

224 Kaart van de Kust tusschen Cabo de Bon Esperance en Rio de la Goa.

MS. in the Netherlands Royal Archives. **17th Century.**

225 Kaart van de Oost Kust van Afrika tusschen Baij de la Goa tot twee graden benoorden Terra de Natal.

MS. in the Netherlands Royal Archives. 17th Century.

226 Nicolaas de Graaff. 'Reyzen naar de vier gedeelten des weerelds.'

Hoorn, 1701. 2nd ed., Hoorn, 1704. Translated into French under the title, 'Voyages aux Indes Orientales et en d'autres lieux de l'Asie, 1719.' The work contains an account of the traveller's ascent of Table Mountain, with measurement of altitude, &c. De Graaff was in Table Bay in 1640, 1669, 1672, 1676, 1679, 1683, and 1687.

227 Mémoire pour servir a' l'histoire des Indes orientales, contenant une description des isles du Cap Verd, de St. Helene, du Cap de bonne esperance, de l'isle de Ceylon, par un membre de la Compagnie Françoise des Indes.

1702.

228 John Churchill and **Awnsham.** 'A Collection of Voyages and Travels,' printed from Original Manuscripts, others now first Published in English.'

6 vols. London, 1704, 1709–1710, 1714, 1732, 1744–1746. French: Paris, 1722.

229 Navigantium atque itinerantium bibliotheca; or, a complete collection of voyages and travels (commonly called **Harris's** Collection).

London, 1705. Contains travels in Africa.

230 'Klagtschrift in den jare 1706.'

Among folio pamphlets of the Dessinian Collection. S.A. Public Library. (Accusation of W. A. van der Stel, Governor of the Cape.)

231 Korte Deductie van **Willem Adriaen van der Stel,** gewesene extraordinaris Raat van India en Gouverneur aen Cabo de bon Esperance; tot destructie ende wederlegginge van alle Klaghten, die eenige vrijluijden van de voorz. Cabo aen de Edele Achtbare Heeren Bewinthebberen van de Oost Indische Compagnie over hem hadden gedaen.

Published in Holland, 1706.

232 Shillinge, Andrew. Kort Dagverhaal van de Zee-Togt na Suratte en Fasques in de Golf van Persien, gedaen in het jaar 1620 en vervolgens.

Translated from the English. Leiden, 1707.

233 Maxwell, John. 'An Account of the Cape of Good Hope.'

Paper furnished to the Royal Society of London and published in the Philosophical Transactions for 1707.

234 Leguat, François. De gevaarlijke en zeldzame Reijzen van den Heere François Leguat met zijn bijhebbend Gezelschap naar twee Onbewoonde Oost Indische Eylanden, gedaan zedert den jare 1690 tot 1698 toe.

Utrecht, 1708. (One chapter on the Cape.) French, under the title, 'Voyages et adventures . . . en deux îles désertes des Indes Orientales avec la relation des choses remarkables, qu'ils ont observées par l'île Maurice . . . an Cap de Bonne Espérance, dans l'île St. Hélène, &c. London and Amsterdam, 1708.

235 Jaillot's Atlas (prepared for the Dauphin of France).

Amsterdam, 1708 (?) Contains, besides other Maps of Africa, an interesting Map of South Africa and a Map of the Cape Colony, including the French Settlement.

236 Schouten, Wouter. 'Reijstogten naar en door Oost Indien.'

2nd ed. Amsterdam, 1708. 4th ed., 1780. Contains an account of a visit to the Cape in 1658 and 1665.

237 Thornton's Map of Africa, **1708.**

238 K. J. Slotsboo. 'Kaart van de verdeeling in vier gedeelten van het land vergelegen.'

1709. MS. in the Netherlands Royal Archives.

239 Dicelius. 'Navigationes at Promontorium Bonæ Spei atque ex illis fructus optimi.'

Lipsiæ, 1709.

240 Map of Africa, by **H. Moll.**

2 sheets. London, 1710 (?)

241 Ludolph, Job. 'Commentarius de Vita Scriptisque ac meritis illustris viri Jobi Ludolfi, Consiliarii quondam Serenissimorum Saxoniæ Ducum intimi, viri per eruditum orbem celeberrimi. Auctore Christiano, Junckero, Dresd. Historiographo Ducali Saxo-Hennenbergico. In appendice adjectæ sunt tum Epistolæ aliquot clarorum virorum tum etiam Specimen Linguæ Hottentotticæ, nunquam alias at noticiam Germanorum perlatæ.'

Leipsiæ et Francofurti, 1710. Appendix No. II. contains the first Hottentot Vocabulary published.

242 Bogaerts, A. 'Historische reizen door d'Oostersche deelen van Asia en 'tgeen aan Kaap de Goede Hoop in 1706 is voor gevallen,' &c.

Amsterdam, 1711. Boek I. Hooftdeel VIII. contains a description of the Cape of Good Hope and the Dutch Colony; Boek III. Hooftdeel VII. an historical account of the ill-treatment received by some of the principal vrijburgers of the Cape during the presence of the Return-Fleet. A continuation of this account is contained in the 'Aanhangsel der Kaapsche Zaken.'

243 Stukken betreffende het op de rivier van Quilimane verongelukte Schip Baarsande.

1711. MS. in the Netherlands Royal Archives.

244 Meten, J. van. Kaart van een gedeelte van de Kust bij Mozambique ter hoogte van 18° Z. Br. met de rivier Quelimana waar het schip Baarsande in het jaar **1711** is verzeilt.

MS. in the Netherlands Royal Archives. Cartoon: de Rivier van Quilemane benevens zeilaanwijzingen.

245 J. van der Heiden en **A. Pas.** Contra-Deductie ofte grondige Demonstratie van de valsheit der uitgegevene Deductie bij den Ed. Heer Willem Adriaan van der Stel, raad extraordinaris in Ned. India, waarin niet alleen begrepen is een naauwkeurig Historisch Verhaal van al 'tgeene de Heer van der Stel in den jare 1706 heeft werkstellig gemaakt, om de Vrijburgeren aan de Kaaz 'tonder te brengen: maar ook een beknopt Antwoort op alle in gemelde Deductie en deszelfs schriftelijke Verantwoordinge, voorgestelde naakte uitvluchten, abuseerende bewijsstukken, en andere zaken meer, strekkende tot verificatie van't klachtschrift in den jare 1706 an Haar Wel Edele Hoogachtbarheden, de Heeren Bewinthebberen ter Illustre Vergadering van Zeventien afgezonden; zijnde gesterkt door veele authenticque en gerocolleerde Bewijsstukken, waar van de origineele of authenticque Copijen in hebben de twee gemachtigden van eenige der Kaapsche inwoonderen Jacobus van der Heiden en Adam Pas.

Amsterdam. N. ten Hoorn, 1712. Fol.

246 Neutrale Gedagten over zekere Korte Deductie die den Edelen Heer Willem Adriaan van der Stel heeft believen in openbaaren Druk uit te geven, tot verantwoording van zijn gedrag in het Gouvernement aan Cabo de Bon Esperance.

No date or place of publication.

247 'Instructie voor **Roeland Roos,** opperstuurman enz. op't Galjoot de Postlooper, gaende van hier om de Oost van Africa na Terra di Natal enz.'; also: 'Journael gehouden in genoemde Galjoot op desselfs reijs naer Terra di Natal.'

1714. MS. in the Netherlands Royal Archives.

248 K. J. Slotsboo, E. Walraven en **Cochius.** Kaart van het Land Constantia, zoo als het in 1685 aan den Heer Simon van der Stel in eigendom is verleend en bij hermeting is bevonden.

1717. MS. in the Netherlands Royal Archives.

249 Dapperus. Exoticus d. i. Dapper's Africa, America, und Asiatische Curiositäten, zusammengetragen von **D. C. Maendling.**

Frankfurt und Leipzig, 1717, 1718.

250 Broek, van der. XXV. Jaarige Reisbeschrijving naar Afrika en Oost Indien.

Leenwarden, 1717.

251 Purry, Jean Pierre. 'Mémoire sur les Pais des Cafres et la Terre de Nuijts. Par raport à l'utilité que la Compagnie des Indes Orientales en pourroit retirer pour son Commerce.

—— Second Mémoire sur le Pais des Cafres et la Terre de Nuijts. Servant d'éclaircissement aux propositions faites dans le premier, pour l'utilité de la Compagnie des Indes Orientales.

Amsterdam, 1718.

252 Kolben, Pet. 'Caput bonæ spei hodiernum d. i. vollständige Beschreibung des Vorgebirges der guten Hoffnung.'

Nürnberg, 1719; Frankfurt, 1745. Dutch: Amsterdam and Haarlem, 1727 (beautiful edition). English: London, 1731. French: Amsterdam, 1741.

253 R. W. Cochius. Plan ter versterking van het fortres de Goede Hoop.

1720. MS. in the Netherlands Royal Archives.

254 —— Plan of the same with 'Profiel en beschrijving.'

1720. MS. in the Netherlands Royal Archives.

255 Keulen, Joh. van. 'Nieuwe Pas Kaart van de Kust van Guinea en Brasilia, van Cap Verde tot de Cap de Bon Esperance en verders van Rio de Berbice,' &c.

Amsterdam, 1720.

256 De Foe, Daniel. 'The voyages and adventures of Captain Robert Singleton.

London, 1720. A novel, but contains a sufficiently correct description of Southern Africa.

257 Totius Africæ nova representatio, qua etiam origo Nihil ex veris RR. PP. Missionariorum relationibus ostenditur a **J. B. Homanno.**

Norembergæ, 1720.

258 Feustel, Christ. Jac. 'Ausländischer Staats — und Handlungo—Spiegel, worinnen von denen vornehmsten merkwürdigkeiten der ausser Europa gelegenen Staaten . . . Vorschlag einer Colonie im Lande der Kaffern und die neueste Nachricht von Sogno im Königreich Congo.'

Leipzig, 1720.

259 Aftekeninge van Comps. post aen Rio d'Lagoa, afgepeijlt en opgemaakt door **Jacob du Bucquoi.**

1721. MS. in the Netherlands Royal Archives.

260 Bucquoi, Jacob du. 'Caart van de rivier Lagoa, leggende in de baij de la Goa,' &c.

1721. MS. in the Netherlands Royal Archives. With notes.

261 —— Paskaart van de Baij Lagoa gelegt naar een Compas dat met 20° Noordwestering verbetert is; **1721.**

262 —— Kaart van Baij de la Goa benevens het eiland St. Maria.

1721. MS. in the Netherlands Royal Archives.

263 Rapport en journael van de reijs gedaen naer de Houtbosschen gelegen aen de rivier Sonder Eijnd over het Hottentots en Hollands gebergte, door **Martinus Bergh** en **Jan Thobias Revius.**

1725. MS. in the Netherlands Royal Archives.

264 Valentijn, François. 'Beschrijvinge van de Kaap der Goede Hoop met zaaken daar toe behoorende. In Oud en Nieuw Oost Indië,' &c. Deel v, Stuk 2.

Amsterdam, 1726. Valentijn gives also the following accounts in full, pp. 54–89: 'Dagregister van de Voyagie naar het Amaquasland onder Simon van der Stel. 25 August, 1685 tot 26 January, 1686.' 'Dagverhaal van den Landdrost Johannes Starrenburg, gehouden op zijn landtogt na de Gounemaas, Grigriquaas Namacquaasche Hottentots enz. 16 October tot 7 December, 1705.' pp. 90–102. Vol. v., part II. book x. chap. IV.

265 Koninck, J. de. Kaart van het inkomen en de gesteldheid der baeij van Rio de Lagoa, Eijlandjes, Rivieren, Banken, &c.

1726. MS. in the Netherlands Royal Archives.

266 —— Caert van's Comps. nieuw aangekochte Landen aen Rio de la Goa.

1726. With Notes. MS. in the Netherlands Royal Archives.

267 Isaak van Es. Kaart van de Saldanhabaij met alle deszelfs diepten en gronden.

1729. With description. MS. in the Netherlands Royal Archives.

268 Kaart van de Baai Fals met aanwijzing der ankerplaatsen enz.

1730. MS. in the Netherlands Royal Archives.

269 Instructie voor de Overheden van het schip Jagtrust, gaende van de Kaep de Goede Hoop naar Rio de la Goa en van daar langs de Kust tot aan Zanzibar.

1730. MS. in the Netherlands Royal Archives.

270 L'Afrique divisée en ses principales parties . . . par . . . **Sanson.**

Amsterdam, 1730 (?)

271 Africa Polyglotta scribendi modos gentium exhibens (Syllabarum Äthiopum, opera G. Henselii delineata.

Nürnberg, 1730 (?)

272 Kaart van het Robben Eijland met opgave der dieptens enz.

1731. MS. in the Netherlands Royal Archives.

273 Kaart van het Dassen Eiland met alle daarin zijnde diepten en gronden enz.

1731. MS. in the Netherlands Royal Archives.

274 Kaart van de Tafel—en Houtbaij met alle daarin zijude diepten en gronden enz.

1731. With copy of 'instructions.' 2 sheets. MS. in the Netherlands Royal Archives.

275 Schriftelijke consideratien van den Kaepsche Equipagie-Meester, over het doen van den togt ter nadere ontdekking van de Oost Kust van Africa, met daarbij behoorende stukken.

1731. MS. in the Netherlands Royal Archives.

276 Antonio, Galvão. 'Tratado de todas os descobrimentos.'

Lisboa, 1731. Contains a good deal about Portuguese explorations in Africa.

277 'Memorie voor den Gezaghebber **Jochem Otto** enz., gaende ter visitatie van deze Africaensche Oost Kust en Terra di Natal,' &c.

1732. MS. in the Netherlands Royal Archives.

278 Kaart van de Mosselbaaij en bijgelegen rivieren op de Kust.

1734. MS. in the Netherlands Royal Archives. With this: Een Journaal van den Gouverneur. Jan de la Fontaine naar deze baai, &c.

279 Dagregister gehouden op de voyagie van den Gouverneur van de Kaap, **Jan de la Fontaine** over land naar de Mosselbaaij en verder naar het Hotteniquas bosch in de Maand July, **1734.**

MS. in the Netherlands Royal Archives.

280 Brinkman, Jan. Kaart van de Lagoa baay.

1737. MS. in the Netherlands Royal Archives.

281 Burmanni, Joannis. Med. Doc., &c., in Horto Medico Amsteladamesi Botanices Professoris Rariorum Africanarum Plantarum, advivum delineatarum. Iconibus ac descriptionibus illustratarum.

Amsterdam, 1738.

282 J. H. van den Berg. Kaart van de Saldanhabaij met de Eilanden, Klippen, banken, reven daarin gelegen, benevens aanwijzing der diepten, ankerplaatsen, &c.

1738. With this: Een Memorie van J. H. van den Berg, &c. MS. in the Netherlands Royal Archives.

283 Deductie van **Huijbert van Rijk.** Fiscaal over de Noord—en Zuijdkusten van Afrika, overgelevert aan bewindhebberen der West-Indische Maatschappij.

1739.

284 Kaart van de Tafelbaai, waarin eene voorstelling der wijze waarop men kan vertuijen om Klare Kluizen te houden.

MS. 1743. With this: Aanmerkingen over het vertuijen ter rheede van Cabo de Goede Hoop in de Tafelbaai. Netherlands Royal Archives.

285 Heijdt, Johann Wolfgang. 'Allerneuster Geographischer und Topographischer Schauplatz von Afrika und Ost-Indien, od. ausführe. und wahrh. Vorstellung, &c.

Wilhelmsdorff and Nürnberg, 1744.

286 de Bucquoi, Jakob. Aanmerklijke Ontmoetingen in de Zestien Jaarige Reize naa de Indien.

Haarlem, 1744. Gives an account of the formation of a Dutch trading station at Delagoa Bay.

287 Lade, Rob. 'Voyage en differentes parties de l'Afrique, de l'Asie et de l'Amérique,' &c., traduist de l'Anglais par l'Abbé Prévost.

Paris, 1744.

288 Plan van fortificatien aan de Kaap de Goede Hoop.

1745. MS. in the Netherlands Royal Archives.

289 Marre, Jan de. 'Bespiegelingen over God's Wijsheid in 't Bestier der Schepselen, een Eerkroon voor de Caep de Goede Hoop.'

Amsterdam, 1746.

290 'A new general collection of voyages and travels.'

London, 1744–1747. 8 vols. with 300 Maps. Contains also African travels.

291 'L'Afrique, suivant les observations de **M. Hass** et les Jésuites,' par **le Rouge.**

1747.

292 Greven, J. 'A general Collection of voyages and travels, consisting of the most esteemed relations, &c., comprehending everything remarkable in its kind in Europe, Asia, Africa, and America . . . so as to form a complete system of modern geography and history.'

London, 1745–47. Vol. I. contains 'Voyages to several parts of Africa'; Vol. II. 'Voyages to Guinea and other parts of Africa,' &c.; Vol. III. 'Voyages to Africa.'

293 'Berigten van de Silvermijn gelegen aan de Simonsbergh.'

1743–48. MS. in the Netherlands Royal Archives.

294 Het Ontroerd Holland, of Kort Verhaal van de Voornaamste Onlusten, oproeren, oneenigheden die in de Vereenigde Nederlanden in voorige tijden, en allerbijzonderst in de laatste jaaren zijn voorgevallen.'

Harderwijk, the first vol. in 1748; two more subsequently. Vol. I contains 'Een beknopte Historie van de Opschuddingen aan Cabo de Goede Hoop.'

295 Lojardièrés. "Reisebeschreibung nach Africa auf die Küste der Caffern 1686, von ihm selbst in französischer Sprache beschrieben und aus dem franz. MS. übersetzt, mit Anmerkungen.

Frankfurt a.O., 1748. The original MS. was not printed.

296 'Africa,' par le **Sieur d'Anville.**

4 feuilles. Paris, 1749.

297 'Africa.'

London, 1750 (?). Map in the British Museum.

298 P. van der Spuij. 'Dankaltaer, Gode ter eere opgericht; of eene plegtige redevoering ter gelegentheid van 's Ed. Comps. 100—jarige possessie des Gouvernements van Cabo de Goede Hoop.'

Utrecht, 1752.

299 C. D. Wentzel. Korte schets van de Marsch, gehouden op de togt in den jare 1752, ter ordre van den Wel. Ed. Gestrengen heer Gouverneur Rijk Tulbagh, ondernomen ter ontdekking der hier aan Cabo de Goede Hoop binnenwaarts leggende landen en daarinne woonende Volkeren.

1752. 30°. 40′–34° 30′ Z. Br.; 37° 50′–46° 50′ L. 5 bladen. A detailed Map excellently drawn. MS. in the Netherlands Crown Archives.

300 Instructie voor en journaal van de Land-togt, onder het bevel van den Vaendrig **Beutler**, &c.

1752. MS. in the Netherlands Royal Archives, with chart in the Cape Archives.

301 N. Struick. 'Werken.'

Amsterdam, 1753. 2 e deel. Contains pp. 155 e.s. 'Nieuwe Geographische ontdekkingen,' giving latitude and longitude of the Cape, height of mountains at the Cape, and other observations.

302 Nicola Louis de la Caille (Abbé): In the volume for the year 1751 of the Mémoires de l'Académie Royale des Sciences.

Paris, 1755. There are three papers by the Abbé de la Caille: 1. Suite des Observations faites au Cap de Bonne-Espérance pour la parallaxe de la Lune. 2. Diverses Observations astronomiques et physiques faites au Cap de Bonne-Espérance. 3. Relation abrégée du Voyage fait par ordre du Roi au Cap de Bonne-Espérance. Also Sir Thomas Maclear's 'Verification and extension of Lacaille's Arc of Meridian,' Vol. I. pp. 1–65.

303 Instructie voor den Schipper **Hans Hermansz** gaende met de Hoeker de Hector naer de baeij St. Augustijn op Madagascar, mitsgaders na omstandigheid van saken ook van daer naer Rio de la Goa, &c., ter opsporing van het Schip de Naerstigheid. Also: Missioen en bijlagen van den Capitein Luitenant Schouman vaerende het schip de Naerstigheid (uit de baai van Rio de la Goa).

1758. MS. in the Netherlands Royal Archives.

304 Caart, waare platte, van Cabo de Goede Hoop, met alle fortificatien, Redouten en Batterijen.

1760. MS. in the Netherlands Royal Archives.

305 Relaas overgegeven aan den Gouverneur aan de Caap de Goede Hoop, door den Burger **Jacobus Coetzee Jansz.,** nopens de door hem gedane togten in en door het land der Groote Amaquas.'

1760. MS. in the Netherlands Royal Archives.

306 Francken, Jacob. Rampspoedige Reize van het O. I. Schip De Naarstigheid, in de terugreize van Batavia over Bengale naar Holland.

Haarlem, 1761. Contains an account of the country about Delagoa Bay.

307 Instructie waarna den Capitein der 4e Comp. Burger Dragonders aan Stellenbosch, **Hendrick Hop,** nevens de verdere persoonen gaande ter ontdekking van 'tbinnenwaarts ten noorden van hier leggende land, zich gedurende dezen tocht zullen hebben te gedragen.'

1761. MS. in the Netherlands Royal Archives.

308 Berigt van den Burger Chirurgijn **Carel Christoff Rijkvoet,** behelzende de gesteldheid van het gebergte en de daarin gevonden ertsen dewelke op den jongst gedane togt door het land der Namaquas zijn otdekt geworden.

1761–62. MS. in the Netherlands Royal Archives.

309 'Dagregister gehouden op den Landtocht gedaen door het Land der Kleine en groote Namaquas, onder het Commando van den Capiteijn der Burger Cavallerie **Hendrik Hop,** om het binnenwaarts ten noorden van Caap de Goede Hoop leggende land nader te ontdekken. Gehonden door **C. F. Brinck.**

1761–62. MS. in the Netherlands Royal Archives.

310 Rapport over eenige wetenswaardige zaken op dezen togt opgemerkt, door **F. Roos** en **Petrus Marais.**

1761–62. MS. in the Netherlands Royal Archives.

311 Nicola Louis de la Caille. Journal Historique du Voyage fait au Cap de Bonne Espérance par feu M. l'Abbé de la Caille de l'Académie des Sciences. Precédé d'un Discours sur la vie de l'auteur, suivi de remarques et de réflexions sur les coutumes des Hottentots et des Habitans du Cap. avec figures.

Paris, 1763.

312 Du Bois, J. P. T. Vies des Gouverneurs Généraux avec l'abrégé de l'histoire des Etablissemens Hollandois aux Indes Orientales.

The Hague, 1763.

313 Hedendaagsche Historie of Tegenwoordige Staat van Afrika, waarin uitmunt de Beschrijving van Barbarie, Senegal, Guinee, de Kaap der Goede Hoop, &c.

Published by Isaak Tirion. Amsterdam, 1763.

314 A. Vosmaer. Beschrijving van dieren.

Amsterdam, 1766.

315 Hemmy G. De Promontorio Bonæ Spei.

Hamburg, 1767.

316 Bergius, Petrus, Jonas. Descriptones Plantarum ex capite Bona Spei.

Stockholm, 1767.

317 C. F. Brink. Plan en Caart van het fort en Vlek an Cabo de Goede Hoop, so als het in het jaar **1767** is gefortificeert en betimmert.

Detailed Map with directions. 1767. 2 sheets. MS. in the Netherlands Royal Archives.

318 Historische Verhaal der Oost-Indische Compagnie van de Nederlanden.

2 vols. Arnhem, 1768.

319 N. L. Burman. 'Prodromus floræ Capensis.'

As appendix to his 'Flora Indica.' Lugd., Bat., et Amst., 1768.

320 Relaas door de in 1770 van de Hoeker de Snelheid, op de Kust omtrent Rio de la Goa achtergelaten doch sedert opgedaagde, daarbij vermiste stuurlieden en matrozen.

1770–71. MS. in the Netherlands Royal Archives.

321 C. F. Brink. Plan en Caart van het fort en Vlek an Cabo de Goede Hoop, &c., met eenige veranderingen.

1772. MS. in the Netherlands Royal Archives.

322 Geschichte eines Hottentotten.

Halle, 1773.

323 De Pages. Voyage vers le Pole du Sud.

1773. Visited Cape Town and surrounding country.

324 C. van der Hoop. Aanwijzing om ten alle tijde des jaars van Kaap de Goede Hoop het eiland Ceylon te bezeilen.

Amsterdam, 1773. Fol.

325 Reise eines Königlichen französischen Officiers nach den Inseln Frankreich und Bourbon, dem Vorgebirge der guten Hoffnung N.S.W. nebst vielen Bemerkungen über die Naturhistorie und den Menschen. Aus dem französischen übersetzt und mit einigen Anmerkungen versehen. Zweij Theile, mit Kupfern.

Altenburg, 1774.

326 Thunberg, Carol. Pet. 'Prodromus Plantarum Capensium, in Promontorio Bonæ Spei.'

Upsaliæ, 1772–75.

327 Wolradi Wolthemadii Apotheosis.

Amsterdam, 1775.

328 Abbe Proyart. Histoire de Loango, Cacango et autres Royaumes d'Afrique.

Paris, 1776.

329 An account of three Journeys from Cape Town into the Southern Parts of Africa in 1772–3–4; undertaken for the Discovery of New Plants, towards the Improvement of the Royal Botanical Gardens at Kew by **Francis Masson** one of his Majesty's Gardeners.

Contained in the 14th Vol. of the Abridged Edition of the Phil. Trans. of the Royal Society of London. 1776.

330 Kindersley, Mrs. 'Letters from the Island of Teneriffe, Brazil, the Cape of Good Hope, and East Indies.'

1777.

331 Nieuwe Algemeene Beschrijving van de Kaap de Goede Hoop. 2 vols.

This is Kolbe's work abridged and corrected. Amsterdam and Haarlem, 1777.

332 C. F. Brink. Niewste en beknopte beschrijving van de Kaap de Goede Hoop, nevens een dagverhaal, gehouden op den landtogt door het land der kleine en groote Namacquas op bevel van den gouverneur wijlen den Heer Rijk Tulbagh door een gezelschap van lxxxv. personen onder aanvoering van den Kapitein Hendrik Hop, om binnenwaarde ter noorden van de Kaap de Goede Hoop liggende landen nader te ontdekken.

Amsterdam, 1778. With Plates.

French edition under the title, 'Description nouvelle du Cap de Bonne Espérance avec un journal historique d'un voyage de terre, fait par ordre du Gouverneur feu Mr. Rijk Tulbagh dans l'intérieur de l'Afrique; par une caravane sous le commandement du Capitaine Mr. Henri Hop (avec des notes de J. A. N. Allamand). Amsterdam, 1778.

333 R. J. Gordon. Teekeningen van de Kaap de Goede Hoop, Simons Baai, Baai Fals, &c.

1777–78. Ministerie van Oorlog, the Hague.

334 Neue kurzgefasste Beschreibung des Vorgebirges der guten Hoffnung. Nebst dem Journal eines Landzuges in das Innerste von Afrika durch das Land der grossen und kleinen Namaquas. Mit Anmerkungen der Herren Allamand und Klockner. Aus dem Holländischen, mit einigen Anmerkungen des Uebersetzers. Zwei Stucke mit Kupfern. Mit chursächsischer freyheit . . . Leipzig, in der Weygandschen Buchhandlung, 1779. (This is a translation of **C. F. Brink's** work.) Drittes Stuck. Enthaltend einige Zusätze des Uebersetzers nebst der Herren Sparrman und Masson's Nachrichten vom Cap. Mit einem Kupfer. Mit kursächsischer freyheit.

Leipzig, 1779.

335 Cook, James (Capt.). A voyage towards the South Pole and round the World, performed in his Majesty's ships *Resolution* and *Adventure* in the years 1772–1775.

3rd ed., London, 1779. Contains some remarks on the Cape; there are also some remarks on the Cape in Capt. Cook's account of his last voyage.

336 Paterson, William. 'A Narrative of four Journeys into the Country of the Hottentots and Caffraria in the years 1777, 1778, and 1779.

London, 1779 and 1790. In German under the title: 'Reisen in das Land der Hottentotten und Kaffern, während der Jahre 1777, 1778, und 1779.' Berlin, 1790.

337 Instructie voor de overheden van het fregatschip Jagtrust om zich in het doen van de reijze naar Madagascar en Rio de la Goa na te gedragen.

1779. MS. in the Netherlands Royal Archives.

338 Joh. van Kenlen. See Atlas der Küsten von Afrika.

Amsterdam, 1780.

339 J. P. Purry. 'Aanmerk-betreffende de Kust der Kaffers en het land van Pieter Nuijtz, ten opzichte van de nuttigheid voor den Kooph. der O. I. Compagnie.'

Amsterdam, 1780.

340 W. Schouten. Reijstogten naar en door Oost Indien.

4th ed. Amsterdam, 1780. 2 vols. Chapters I. and XVII. contain a description of the Cape, Mauritius, Madagascar, St. Helena, and Ascension.

341 Raynal, Guillaume Thomas. 'Histoire Philosophique et Politique des Etablissemens et du Commerce des Européens dans les deux Indes.'

Many editions. In 10 vols. with Atlas, Geneva, 1782. (Some parts on the Cape.)

342 W. C. Boers (Independent Fiscaal van het Gouvernement aan Kaap de Goede Hoop). Verantwoording tegen de memorie van J. van Reenen.

1782. Fol.

343 Van Reenen, Artoys, Roos en **Heyns.** 'Memorie . . . van beklag en doleantie der burgerije van de Caap de Goede Hoop, over de oppressien hun aangedaen . . . en over den particulieren handel van 's Compagnie's dienaaren aldaar.'

Amsterdam, 1783.

344 F. Bernard. 'L'Afrique Hollandaise, tableau historique et politique de l'état de la colonie du Cap de Bonne Espérance,' &c. En Hollande, 1783.

In Dutch under the title, 'Nederlandsch Afrika of historisch en staatkundig tafereel van den oorspronkelijken staat der volkplantinge aan de Kaap de Goede Hoop, vergeleken met den tegenwoordigen staat dier volkplanting.' Uit het Fransch vertaald door B. J. Artoys. Leiden, 1783.

345 Memorie van **J. van Reenen** en anderen als vrijburgeren aan Cabo de Goede Hoop, aan Bewinth. der Ned. O. I. Comp., contin. derzelver beklag over den Kwijnenden staat der burgers aldaar.

Amsterdam, 1783. Fol.

346 Sparrman, Anders. 'Resa till Goda Hopps—Udden. Sódra Pol-kressen och Omkring Jordklotet sampt till Hóttentott och Caffer-Landen.'

1772–76. With Map and Plates. Stockholm, vol. I. 1783; vol. II. 1802. In German under the title: 'Reise nach dem Vorgegebirge der Guten Hoffnung. Berlin, 1784. Uebersetzt von Groskurd.' In English: A Voyage to the Cape of Good Hope, towards the Antarctic Polar Circle, and round the World; but chiefly into the Country of the Hottentots and Kafirs from the year 1772 to 1776. 1st. ed. Dublin, 8vo, 1785. 2 vols. 2nd ed. London, 4to, 2 vols., 1786. In Dutch: 'Reize naar de Kaap de Goede Hoop, de Landen van de Zuid Pool en Rondom de Waerald; doch voornaamlijk der Hottentotten en Kafferen in de jaaren 1772 to 1776.' 2 vols. Amsterdam, 1787.

347 A narrative of the two sailors lately arrived in England, who were wrecked in the *Grosvenor* on the coast of Caffraria, August 4, 1782. Containing a particular description of the hardships they endured and the dangers they escaped, besides an account of the country, the extraordinary manners of the inhabitants, and other very interesting particulars relative to the miraculous preservation of one of the sailors; the finding of an infant buried alive in the sand on the seashore, and an old man whom they found exposed to the ferocity of the wild beasts in the woods, &c.

London, 1783.

348 Alleman, Rudolph S. Lebensgeschichte des gewesenen Kapitans der Miliz, &c., &c., in Diensten der Holl. Ostind Kompagnie auf dem Vorgebirge der guten Hoffnung. N.B.—The writer is O. F. Mentzel.

Glogan, 1784.

349 Instructie van de eijgenschap der winden ende courssen te houden in het vaarwater tusschen Nederland en Java, Geapprob. in 1783.

Amsterdam, 1784. Part 6: 'Instructie op het andoen van de Tafelbaai.' Part 10: 'Van de Kaab naar Ceylon.'

350 Kaapsche Geschillen.

4 vols. Printed in 1785. Official documents of the period from March 1, 1779, to July 28, 1785, and connected with a deputation sent from the Cape to Holland.

351 Dalrymple, Alexander. 'An account of the loss of the *Grosvenor*, Indiaman, commanded by Captain John Coxon, on 4th Aug., 1782, with a relation of the events which befel those survivors who have reached England, viz., Robert Price, Thomas Lewis, John Warmington, and Barney Larey, being the Report given in to the East India Company.'

2nd ed. London, 1785.

352 Körperliche Verschiedenheiten des Negers vom Europäer, von **Sömmering.**

Frankfurt, 1785.

353 Mentzel, O. F. Beschrybung des Vorgebürges der Guten Hoffnung.

2 vols. Glogau, 1785.

354 Extracten uit het Register der Resolutien der Vereenigde Nederlanden. Cabo de Goede Hoop.

3 vols. 1785 (?) Folio.

355 Gewichtige aanmerkingen over de Klagten en bezwaren der Kaapsche burgers.

Delft, 1786.

356 Dagregister gehouden in het schip Meermin ter opsporing der achtergebleven retourschepen Overduijn, Harmonie en Zeeduijn van de Kaap naer Rio de la Goa, Madagascar en Mosambique, zoo mede tot het aenkoopen van Slaven.

1785–87. MS. in the Netherlands Royal Archives.

357 Plan van Cabo de Goede Hoop met de situatie en vestingwerken die sig rondomme dit Vlek bevinden. Vervaardigd in de 18e eeuw.

1786. MS. in the Netherlands Royal Archives.

358 Sonnerat. Voyage.

Dutch translation, Leiden, 1786, entitled: Reize naar de Oost Indien en China in de Jaaren 1774–81 op last des Konings van Frankrijk gedaan door den Heer Sonnerat. (Contains one chapter on the Cape.)

359 W. Th. Raynal. Gesch. der Besitzungen und Handlung der Europäer in beiden Indien.

Kempten, 1786.

360 Stoll, Caspar. Representation des Spectres et des Mantes.

Amsterdam, 1787.

361 Memorie tot het onderzoek van de bezwaren der Klagende en redres verzoekende burgerij van Cabo de Goede Hoop.

Delft, 1787.

362 François Dumeni. Plan van de Tafelbaaij aan de Kaap de Goede Hoop.

With compass bearings and important notes. MS. in the Netherlands Royal Archives. 1787.

363 Sels, J. Kaart der Tafel Baaij van Kaap de Goede Hoop.

Amsterdam, F. W. Greebe, 1784. G. H. van Keulen, 1788.

364 Huijsers, Ary. 'Beknopte Beschrijving der Oost Indische Etablissementen.'

Utrecht, 1789. Several pages on the Cape.

365 Callan, J. 'An account of a voyage made from the Cape of Good Hope to Botany Bay.'

1789.

366 Le Vaillant, François. 'Voyage dans l'Intérieur de l'Afrique, par le Cap de Bonne Espérance, dans les années 1780, 1781, et 1782.'

Paris, 1790. Translated into Dutch.

English editions: (1) 'Travels from the Cape of Good Hope into the Interior parts of Africa, including many interesting anecdotes. With elegant plates descriptive of the country and inhabitants.' Transl. by Mrs. Helme. 2 vols., 1790.

(2) 'Travels into the Interior parts of Africa by way of the Cape of Good Hope in the years 1780–85.' Illustrated with twelve elegant copper plates. 2 vols., 1790.

367 'Le Vaillant's erste und zweite Reise in Südafrika.'

Berlin, 1790.

369 Carter, George. 'A narrative of the Loss of the *Grosvenor*, East Indiaman, which was unfortunately wrecked upon the Coast of Caffraria on the 4th of August, 1782. Compiled from the examination of John Hynes' journey, one of the unfortunate survivors.'

London, 1791.

370 Stoll, C. Aanhangsel van het uitlandsch voorkoomende in de drie werelddeelen Asia, Africa, America, naar het werk betiteld 'les Papillons Exotiques.'

Amsterdam, 1791.

371 J. W. Wernick. Plan van 's Ed. Comps. stal met het daaragter liggend plein.

1791. With notes. MS. in the Netherlands Royal Archives.

372 J. W. Wernick. Plan van 's Ed. Comps. Landgoed 't Nieuwland, gelegen onder 't Caapsch district Bezuijden den Windberg enz.

1791. MS. in the Netherlands Royal Archives.

373 J. H. Redelinghuis. 'De eerloosheid ontmaskerd in eene openbare verdediging van zijn gedrag tegen de mishandelingen zijner gewezene lastgevers en de representanten der Klagende burgerij van de Kaap de Goede Hoop.'

Amsterdam, 1792.

374 J. S. Stavorinus. 'Reize van Zeeland over de Kaap de Goede Hoop naar Samarang, Macassar, Amboina, Suratte, gedaan in de jaaren 1774–1778,' &c.

Leijden, 1792. With Maps.

375 Riou, Capt. Edward. 'A Journal of a Journey from the Cape of Good Hope, undertaken in 1790 and 1791 by Jacob van Reenen and others of his countrymen, in search of the wreck of the Honourable the East India Company's ship, the *Grosvenor*, to discover if there remained alive any of the unfortunate sufferers. With additional Notes and a Map.'

London, 1792. Translated into Dutch and published at Leiden, 1793, and Amsterdam, 1801, under the title: 'Dagverhaal van eene reis van de Kaap de Goede Hoop in de binnenlanden van Afrika in 1790 en 1791, door Jacob van Reenen en anderen, om te ontdekken of er nog eenige van de schipbreukelingen van het schip *Grosvenor* in leven mochten zijn.' Uitgegeven door E. Riou.

376 Staat der Generale Nederlandsche Oost Indische Compagnie, behelzende Rapporten van de Heeren Haar Ed. Groot. Mog. Gecommitteerden **G. J. Doijs,** Baron **van der Does,** Heer **van Noordwijk,** Mr. **P. H. van de Wall,** Mr. **J. Rendorp,** Heer **van Marquette,** en Mr. **H. van Straalen,** als mede Nader Rapport van gemelde Heeren gecommitteerden, en Bijlaagen.

2 vols. Amsterdam, 1792.

377 J. S. Stavorinus. 'Reize van Zeeland over de Kaap de Goede Hoop naar Batavia, Bantan, Bengalen enz. gedaan in de jaren 1768–1771.

Leijden, 1793. With Maps. Contains a description of the Cape. Stavorinus visited the Cape in 1768, 1771, 1778; Simons Bay in 1774.

378 Thunberg, Charles Peter, M.D. 'Travels in Europe, Africa, and Asia performed between the years 1770 and 1779.

Translated from the Swedish publ. London, 1795. Vols. I. and II. on Africa.

379 'The Annual Register or View of History, Politics, and Literature.'

Publ. in London. Contains in the volume for 1795 despatches, copied from the *London Gazette* concerning the conquest of the Cape Colony, from the officers commanding the English Expedition. The volume for 1796 contains despatches concerning the capture of the Dutch fleet in Saldanha Bay, &c. &c.

380 Wadström. 'Versuch über die Kolonien,' translated by Zimmermann.

Leipzig, 1796.

381 Geogr.-statist. Uebersicht der sämtlichen holländischen Besitzungen in Ost und West Indien.

Rostock und Leipzig, 1796.

382 Le Vaillant François. 'Second Voyage dans l'Intérieur de l'Afrique, par le Cap de Bonne Espérance dans les années 1783, 1784, et 1785.

Paris, l'an 3 de la République une et indivisible. 1796. In English under the title: 'New Travels into the Interior parts of Africa by the way of the Cape of Good Hope in the years 1783–84 and 85.' Illustrated with a Map delineating the route of the author's present and former travels, and with twenty-two copper plates. 3 vols. 1796.

—— 'Voyage dans l'Intérieur de l'Afrique dans les années 1783–85.' Paris (no date).

—— 'Voyage dans l'Intérieur de l'Afrique par le Cap de Bonne Espérance.' Nouvelle edition, revue; corrigée et considerablement augmentée par l'auteur. Ornée de vingt figures en tailledouce, dont huit n'avaient pas encore paru. Paris (no date).

383 Masson, Francis. 'Stapeliæ Novæ, or a collection of several New species of that Genus, discovered in the Interior parts of South Africa.'

Coloured Plates. 1796.

384 James, Silas. 'A Narrative of a Voyage to Arabia, India,' &c., containing, amidst a variety of information, a Description of Saldanha Bay,' &c.

London, 1797.

385 A. J. Sluijsken. Commissaris van de Kaap de Goede Hoop, Verbaal gehouden zedert het arrivement der Engl. vloot onder den Admiral Sir George Keith Elphinstone, 10 Junij, 1795, 's Hage.

1797

386 C. L. Neethling. Onderzoek van 't verbaal van A. J. Sluijsken en verdediging van 't gedrag der Caapsche Burgerij.

1797.

387 Voyages to the East Indies by the late **John Splinter Stavorinus,** Esq., Rear Admiral in the service of the States General. Translated from the original Dutch by Samuel Hull Wilcocke. With Notes and Additions by the Translator. The whole comprising a full and accurate account of all the present and late Possessions of the Dutch in India and at the Cape of Good Hope.

London, 1798.

388 De St. Pierre, J. H. Bernardin. 'A Voyage to the Isle of France, the Isle of Bourbon, and the Cape of Good Hope, with Observations and Reflections upon Nature and Mankind.'

Engl. translation. London, 1800.

389 Paskaart, Nieuwe Wassende Graadige, van de Kusten van Guinea en Brasilia, strekkende de Kust van Afrika van Cabo Verde tot Cabo de bonne Esperance, &c.

Amsterdam, J. van Keulen. 18th century. MS. in the Netherlands Royal Archives.

390 Plans en opstanden van eenige gebouwen aan de Kaap de Goede Hoop.

18th century. MS. in the Netherlands Royal Archives.

391 Kaart van de Tafelbaai met aanwijzing der ankerplaatsen.

18th century. MS. in the Netherlands Royal Archives.

392 Barrow, John. 'Account of Travels in the Interior of Southern Africa.'

London, 1801.

393 Degrandpré, L. (officier de la marine française). 'Voyage à la Côte occidentale d'Afrique fait dans les années 1786 et 1787 ; suivi d'un voyage fait au Cap de Bonne-Espérance contenant la description militaire de cette colonie.'

2 vols. Paris, 1801.

394 Het gebed, de wet en geloofsbelijdenis (oraison Domin. Décalogue, Confess. apost.), in het Hottentotsch en Nederlandsch.

Zwolle, 1801.

395 Damberger, Christian Frederick. 'Travels in the Interior of South Africa from the Cape of Good Hope to Morocco from the year 1781–97, through Kaffraria, the kingdoms Mataman, Angola, Massi, Mineeningi, Muschako, &c. Likewise across the Great Desert of Sahara, and the Northern parts of Barbary.'

Map and coloured plates. 1801.

396 Nederburgh, S. C. 'Verhandeling over de Vragen of, en hoe verre het nuttig en noodzakelijk zijn zoude de Oost Indische Bezittingen van dezen Staat, ofte sommigen derzelven, te brengen op den voet der West Indische Volksplantingen,' &c.

Hague, 1802. Contains some remarks on the Cape.

397 Nederburgh, S. C. Echte Stukken betreffende het volbragt onderzoek der verrichtingen van de Generaal Commissie in den jare 1791 benoemt geweest over de O. I. Bezittingen van den Staat en de Kaab de Goede Hoop, benevens den Finalen Uitslag van hetzelve.

Hague, 1802.

398 De Jong, Cornelius. Reizen naar de Kaap de Goede Hoop, Ierland, en Noorwegen in de jaren 1791 tot 1797.

3 vols. Haarlem, 1802.

399 Extract uit de Kaapsche courant van 27 Febr. 1802; reis der Commissie door het Gouvernement naar de binnenlanden gezonden, speciaal hun reis naar de Boetshoeanas (Briquas).

Letterbode, 1802. II. 1.

400 Regeling van den geneeskundige dienst bij de troupes d. Bat. republ. aan de Kaap Goede Hoop.

1802.

401 Andrews, H. C. Coloured Engravings of Heaths. The Drawings taken from Living Plants only.

In Latin and English, with 288 coloured plates (many Cape heaths). 4 vols. Folio. 1802.

402 Hoogendorp, G. H. van. 'Stukken over Oost Indie.'

2 vols. 1795—1803.

403 Schriftelijk relaas door den 's lands Kapitain **S. Dekker,** commandeerende het fregat *Medemblik*, wegens 'tvoorgevallene tusschen hem, den Adm. Gen. Elphinstone en den Ed. Heer A. J. Sluijsken à Cabo de Goede Hoop. Met bijlagen.

1803.

404 W. S. van Rijneveld. Aanmerkingen over de verbetering van het vee aan de Kaap de Goede Hoop.

Printed by A. Rubert at Cape Town. 1804.

405 Hogendorp, G. H. van. Memorie over den tegenwoordigen staat van den Handel en de culture in de O. I. Bezitt. met Aanhangsel over de Kaapsche wol.

Amsterdam, 1804.

406 Percival, Robert. 'An account of the Cape of Good Hope, containing an historical view of the original settlement by the Dutch, its capture by the British in 1795, and the different policy pursued there by the Dutch and British Governments. Also a sketch of its geography, productions, the manners and customs of its inhabitants, &c. With a view of the public and commercial advantages which might be derived from its possession by Great Britain.'

1804. In French, Paris, 1806.

407 Daniell. 'African scenery and animals.'

Two parts, imp. fol. 30 coloured plates with letterpress descriptions. London, 1804.

408 London Missionary Society, Transactions of, &c.

1804.

409 Kemp, J. Th. v. d. Journaal van zijn verblijf aan de Kaap de Goede Hoop en Natuurlijke Historie van het land der Kaffers.

Dordrecht, 1804.

410 Reize in de Binnen-Landen van Zuid-Afrika. Gedaan in den jaare 1803 door **W. H. B. Paravicini di Capelli,** Kapitein aide de camp bij den Gouverneur (J. W. Janssens) van de Caap de Goede Hoop.

MS. in the possession of the writer's grandson, W. H. B. Paravicini di Capelli of Utrecht. Gives an account of a journey from Algoa Bay to Kaffraria and back to Graaff Reynet, and of a journey to Saldanha Bay and St. Helena Bay. 1805.

411 Schouwburg van in en uitlandsche reistogtjes aan de Kaap de Goede Hoop, uit brieven van een voormalig Bataafsch ambtenaar aldaar in **1805.**

412 Hoogendorp, G. H. van. 'Political View of the Northern and Eastern Districts of the Cape of Good Hope.'

2 vols. Amsterdam, 1805.

413 Semple, Robert. 'Walks and Sketches at the Cape of Good Hope, to which is subjoined a journey from Cape Town to Plettenberg's Bay.'

2nd. ed. enlarged, 1805.

414 Van de Graaf, C. J. 'Memorie en aanmerking de Caap de Goede Hoop concernerende, 1780–1795 en **1806.**

MS. S. A. P. Library. 76 sheets, with Maps.

415 Potters. Lotgevallen en Ontmoetingen op eene mislukte Reize naar de Kaap de Goede Hoop.

3 vols. 1806.

416 Truter, P. J. and **William Somerville.** 'An account of a Journey to Lactakoo, the residence of the Chief of the Booshuana nation, being the remotest point in the interior of Southern Africa to which Europeans have hitherto penetrated. The facts and descriptions taken from a manuscript journal.'

Map and coloured Plates. (Printed as an Appendix to Barrow's 'Voyage to Cochin China.') 1806.

417 F. Baron von Bouchenröder. Berigt nopens de volkplanting de Kaap de Goede Hoop, met aanmerk. en wederlegging van verkeerde informatien, principen, &c., van S. C. Nederburgh en J. de Mist.

Amsterdam, 1806.

418 F. Baron von Bouchenröder. Reizen in de binnenlanden van Zuid-Afrika in 1803, met oogmerk om te onderzoeken in hoeverre de baaijen en havens langs de Z. O. Kust geschikt zijn tot den zeehandel en de landerijen tot cultuur.

Amsterdam, 1806. With Map.

419 'Gleanings in Africa, exhibiting a faithful and correct view of the manners and customs of the inhabitants of the Cape of Good Hope and surrounding country, with a full and comprehensive account of the system of agriculture adopted by the Colonists, soil, climate, natural productions, &c., &c. Interspersed with observations and reflections on the state of Slavery in the Southern extremity of the African Continent, in a series of letters from an English officer during the period in which the country was under the protection of the British Government.'

Illustrated with engravings. 1806.

420 Carmichael, Capt. Diary of Residence at the Cape in 1806.

Published in Hooker's Botanical Miscellany. 1807.

421 Thunberg, C. P. 'Flora capensis.'

Upsala, 1807.

422 Le Vaillant, François. 'Histoire Naturelle des Oiseaux d'Afrique.'

6 vols. Paris, 1806–8.

423 Salt, Henry. Views in St. Helena, the Cape, India, Ceylon, Abyssinia, and Egypt

Coloured Atlas folio, with description. 1809.

424 Alberti, Lodewijk. 'De Kaffers aan de Zuidkust van Afrika, Natuur en geschiedkundig beschreven.

Amsterdam, E. Maaskamp. 1810.

425 Dr. Smith's system of Modern Geography.

1811. (On Eastern Coast of Africa, Sofala, Delagoa Bay, Natal, &c.)

426 Lichtenstein, H. 'Reisen im Südl. Afrika,' in den Jahren 1803, 1804, 1805 und 1806.

Berlin, 1811. English translation entitled: 'Travels in South Africa in the years 1803, 1804, 1805 and 1806.' Translated from the German by Anne Plumtree. Dutch translation by W. Goede. Dordrecht, 1815. The first part contains an account of the journey of Comm. de Mist, and in the introduction by Ds. Goede there is mention of the missionary Van der Kemp. With illustrations. 1812 and 1815.

427 Halloran, Lawrence. Proceedings, including original correspondence, official documents, &c., duly attested and authenticated as correct extracts from the records of the Court of Justice at the Cape of Good Hope, in a criminal process for a libel, instituted at the suit of Lieut.-Gen. the Hon. H. O. Grey, and by order of the Right Hon. Earl of Caledon, Governor of the Colony, against Lawrence Halloran, D.D., late Chaplain to His Majesty's Forces in South Africa.

London, 1811.

428 Lopez, Thomé. 'Noticias para Historia e Geografia das Nações ultramarinas.'

Lisboa, 1812.

429 Turnbull, John. Voyage round the World in 1800–1804; including visits to Cape of Good Hope, Botany Bay, and the Islands in the Pacific Ocean.

1813.

430 Pinkerton, John. Collection of Voyages and Travels.

17 vols. 1814. Vol. xvi. 1, Thunberg's description of the Cape of Good Hope.

431 Grand, G. F. 'Narrative of the life of a gentleman long resident in India, comprehending a period the most eventful in the history of that country with regard to the revolutions occasioned by European interference, and interspersed with interesting anecdotes and traits characteristical of those eminent persons who distinguished themselves at that juncture.'

Cape of Good Hope. Printed for the Author. 1814.

432 Campbell, Rev. John. 'Travels in South Africa, undertaken at the request of the Missionary Society.'

1815.

433 Fisher, Richard Barnard. The importance of the Cape of Good Hope as a Colony to Great Britain.

8vo. 1816.

434 De Jong van Rodenburgh. Aanteekeningen op een reis naar het Lief-Engelenbad aan de Olifants rivier, nabij de Kaap de Goede Hoop.

Vaderlandsche Letteroefeningen. 1818, II 562.

435 Latrobe, Charles J. 'Journal of a Visit to South Africa in 1815 and 1816, with some account of the Missionary Settlement of the United Brethren near the Cape of Good Hope.'

Map and Coloured Plates, 4to. 1818. 2nd. ed, 1821.

436 Murray, H. 'Historical account of discoveries and travels in Africa from the earliest ages to present time.

2 vols., 8vo. Edinburgh, 1818.

437 'An Account of the Colony of the Cape of Good Hope, with a view to the information of Emigrants.'

8vo. 1819.

438 Robertson, G. A. A Compendious Account of the Cape of Good Hope, its Productions and Resources, being an appendix to his work, 'Notes on Africa,' particularly those parts which are situated between Cape Verd and River Congo.

1819.

439 Keith, Sir G. M. 'A Voyage to South America and the Cape of Good Hope, in His Majesty's brig *Protector*.

London, 1819.

440 Valentia, George, Viscount. 'Voyages and Travels to India, Ceylon, the Red Sea, Abyssinia, and Egypt in the years 1802, 3, 4, 5, and 6.'

Contains an account of the Cape, with a plate of the Waterfall at French Hoek. 4to. 3 vols. 1809–20.

441 Daniells, S. Sketches, representing the Native Tribes, Animals, and Scenery of Southern Africa, from Drawings made by the late Mr. Samuel Daniells, engraved by William Daniells.

Fol. 1820.

442 Shaw, Barnabas. 'Memorials of South Africa.'

8vo. 1820 (and 1841).

443 Thunberg, Carol. Pet. Flora Capensis.

2 vols., 8vo. Hafniæ, 1818–20. Stuttgardiæ, 1823.

444 Stout, Capt. Benj. 'Cape of Good Hope and its Dependencies.'

London, 1820.

444a Berigten over de eilanden Tristan d'Acunha door een rustend zee officier.

Amsterdam, 1820.

445 Ueber den **Marquis d'Etourville** und seine Reisen in's Innere des südl. Afrika's.

Geogr. Ephemeriden, 1821, ix.
—— Nouvelles Annales des Voyages, t. 10, 1821.

446 Meteorological Diary kept at Cape Town, Zwartland, Stellenbosch, Tulbagh, Swellendam, Uitenhage, and Bathurst.
Cape Town, 1821.

447 Backhouse, James. 'Extracts from Letters of —— while engaged on a religious visit to Van Diemen's Land, New South Wales, and South Africa, accompanied by Geo. W. Walker.'
With Maps. 8vo., 2 vols. 1821.

448 'Three Voyages of **Capt. Cook** Round the World.'
Longman & Co. Vol. I. 1821.

449 Robertson. Notes on Africa.
London, 1821.

450 Notes on the Cape of Good Hope made during an excursion in that Colony in the year 1820.
8vo. 1821.

451 Ritter, C. Erdkunde.
Berlin, 1822.

Travels in the Interior of Southern Africa by **W. I. Burchell,** Esq.
London, 1822.

452 Meteorological Diary kept at Cape Town, Zwartland, Stellenbosch, George, Swellendam, and Uitenhage.
Cape Town, 1823.

453 Bird, William Wilberforce. 'State of the Cape of Good Hope in 1822.' By a Civil Servant.
With Plan. 8vo. London, Murray, 1823.

454 Theunissen. Reis door Z. Afrika.
Ostende, 1824. With Map.

455 Cruse, Guilelmus. 'De Rubiaceis Capensibus præcipue de genere Anthospermo.'
Dissertatio Inauguralis. 4to. Berlin, 1825.

456 De Lima, J. Suasso. Geschiedenis van de Kaap de Goede Hoop.
Cape Town, 1825.

457 Ukert. Erdbeschreibung von Afrika.
Weimar, 1825.

458 Grant, P. Warden (Lieutenant Bengal Revenue Service Department). 'Considerations on the State of the Colonial Currency and Foreign Exchanges at the Cape of Good Hope. Comprehending also some Statements relative to the Population, Agriculture, Commerce, and Statistics of the Colony.'
8vo. Cape Town, 1825.

459 Vrolik, G. Beschouwing van het verschil der bekkens in onderscheidene Volksstammen.

Amsterdam, 1826.

460 Fairbairn, John. Condensed Edition of the first eighteen numbers of the South African Commercial Advertiser, from January 4 to May 5, 1824.

With Preface. 8vo. Cape Town, 1826.

461 A letter on the government of the Cape of Good Hope, and on certain events which have occurred there of late years, under the administration of Lord Charles Somerset, addressed most respectfully to Earl Bathurst, by Lieut.-Gen. Sir Rufane Donkin.

London, Carpenter & Son, Old Bond Street. 1827. Republished by G. Greig, Cape Town, Cape of Good Hope.

Dutch translation of the above: "Een Brief over het Gouvernement van de Kaap de Goede Hoop onder het Bestuur van Lord Charles Somerset. Uit het Engelsch Vertaald.'

Important supplements to the above, with a letter from Sir R. S. Donkin to the Rt. Hon. R. Wilmot Horton. Republished by G. Greig, Cape Town, 1827.

The translation of this pamphlet has this title-page: Belangrijke Bijvoegsels tot Eenen Brief over het Gouvernement van de Kaap de Goede Hoop onder Lord Charles Somerset; geaddresseerd aan Lord Bathurst, door Luit.-Gen. Sir R. Donkin; waarby gevoegd is Een brief van Sir R. Donkin aan den Hoog Ed. Hr. R. Wilmot Horton.

Op nieuw uit gegeven door G. Greig. 8vo. Kaapstad, 1827.

462 Thompson, George. 'Travels and Adventures in Southern Africa.'

London, 1827.

463 Phillips, T. 'Scenes and Occurrences in Albany and Caffreland, South Africa.'

With Coloured Plate. 8vo. 1827.

464 Trotter, John (Bengal Civil Service). A letter addressed to W. Robertson, Esq., and the other members of a Committee nominated on the part of the Mercantile Body of the Cape of Good Hope, to draw up a Report on the state of the Commerce, Finances, and Agriculture of that Colony, for the consideration of His Majesty's Commissioners of Inquiry.

Folio. Calcutta, 1828.

465 Philip, John. 'Researches in South Africa; illustrating the civil, moral, and religious condition of the Native Tribes, including journals of the Author's Travels in the Interior. Together with detailed accounts of the proceedings of the Christian Missions, exhibiting the influence of Christianity in promoting civilisation.'

With Maps and Plates. 2 vols., 8vo. 1828.

466 Pringle, Thomas. 'Ephemerides; or, Occasional Poems written in Scotland and South Africa.'

With Notes. London, 1828.

467 Teenstra, M. D. 'De vruchten myner werkzaamheden, gedurende mijne reize over de Kaap de Goede Hoop naar Java, en terug, over St. Helena, naar de Nederlanden.'

Groningen, 1828–29. 2 vols. Vol. I. contains an account of the Cape of Good Hope. Vol. III. appeared in 1830.

468 Ebner. Reise nach Süd Afrika.

Berlin, 1829.

469 Boniface, C. 'Relation du Naufrage du Navire Français l'Eole, sur la côte de la Caffrerie.'

Cape Town, 1829.

470 Rose, Cowper. 'Four Years in South Africa.'

8vo. 1829.

471 Prospectus ter oprigting van een Atheneum aan de Kaap de Goede Hoop.

8vo. Cape Town, 1829.

472 Knox, Robert. 'An Examination of the merits of a variety of Plans for reducing the danger to which Human Life, Shipping, and Merchandize are exposed in Table Bay.'

4to. 1830.

473 Bannister, J. W. 'Humane Policy; or, Justice to the Aborigines.'

London, 1830.

474 Bannister, J. W. On Emigration to Canada and Cape of Good Hope.

1831.

475 Wright, Rev. William. 'Slavery at the Cape of Good Hope.'

8vo. London, 1831.

476 J. T. van der Kemp. Levensberigt van — Med. Doct. en zendeling in Zuid Afrika.

Groningen. 8vo. 1831.

477 Baird, Sir D. Memoirs of —

2 vols., 8vo. With Portrait. Contains an account of the capture of the Colony of the Cape of Good Hope in 1806. London, 1832.

478 Smuts, Johannes. 'Dissertatio Zoologica inauguralis, exhibens enumerationem Mammalium Capensium.' (Tribus tabulis adjunctis.)

4to. Lugd. Batav., 1832.

479 'Service Afloat: Journal of an Officer under Capt. Owen on the West Coast of Africa.'

2 vols., 8vo. 1833.

480 Carlos José Caldeira. 'Apontamentos d'una Viagem de Lisboa a China e da China a Lisboa.'

Lisbon, 1833. Contains a detailed description of Benguela, Massamedes, and Angola.

481 'Wetten der Maatschappy ter uitbreiding v. beschaving en letterkunde.'

8vo. Cape Town, 1833.

482 Kay, Stephen. 'Travels and Researches in Caffraria, describing the character, customs, and moral condition of the tribes inhabiting that portion of Southern Africa, with historical and topographical remarks, illustrative of the state and prospects of the British settlements in its borders, the introduction of Christianity, and the progress of civilisation.'

With Map and Plates. 8vo. 1833.

483 The Reports of the **Cape of Good Hope Philanthropic Society** for aiding deserving slaves and slave children to purchase their freedom.

This Society was established in Cape Town in 1828. The Annual Reports 1828–1833. Cape Town. 8vo.

484 Owen, Capt. W. F. W. 'Narrative of Voyages to explore the shores of Africa, Arabia, and Madagascar, performed in H.M. ships *Leven* and *Barracouta*.'

With Maps and Plates. 2 vols., 8vo. 1833.

485 'Het Nederduitsch Zuid-Afrikaansch Tydschrift.'

Cape Town, 1824–35. 12 parts, 8vo. Containing original articles on South Africa in Dutch.

485a 'The South African Journal,' 1824–1835 (?). Cape Town.

Printed for the editors at the Government Press and published by W. Bridekirk, jun., Cape Town; S. and G. Underwood and Longman and Co., London, and A. Constable & Co. and D. Brown, Edinburgh. Price $2\frac{1}{2}$ rix dollars.

486 Pringle, Thomas. African Sketches.

12mo. 1834.

487 Boie, Hendrik. 'Levenschets van en hulde aan zijne deugden en verdiensten, benevens eenige door hem geschrevene brieven, gedurende zijne reis en verblijf in Oost Indie.' Door J. A. Susanna, Administrateur van het Rijksmuseum van Natuurrlijke Historie te Leiden.

With Portraits. 8vo. Amsterdam, 1834. Contains an account of the Cape and its Natural History.

488 Boyce, William B. Grammar of the Kafir Language.

4to. Grahamstown, 1834.

489 Holman, James. 'A Voyage Round the World.'

4 vols., 8vo. The second volume contains an account of a visit to the Cape, with illustrations of Table Bay, Algoa Bay, and Drakenstein Waterfall. London, 1834.

490 Steedman, Andrew. 'Wanderings and Adventures in the interior of Southern Africa.'

With Illustrations. 2 vols., 8vo. 1835.

491 Pringle, Thomas. 'Narrative of a Residence in South Africa.'

With a Biographical Sketch of the Author, by Josiah Condor. New edition. 8vo. 1835.

492 Cape Cyclopædia, with life of **Christina Louisa Thom** and **George Schmidt,** first missionary to the Hottentots.

Cape Town, 1835.

493 Eklon, C. F. C., and **Zeyker.** Enumeratio Plantarum Africæ Australis extra tropicæ.

8vo. Hamburg, 1835.

494 Boteler, Capt. Thomas. 'Narrative of a Voyage of Discovery to Africa and Arabia performed in H.M. ships *Leven* and *Barracouta* from 1821–1826, under the command of Capt. F. W. Owen, R.N.'

Illustrated. 2 vols., 8vo. 1835.

495 'South African Quarterly Journal.'

Cape Town. First and Second Series. Contains several contributions on Natural History of South Africa by Dr. Andrew Smith. 2 vols., 8vo. 1833–35.

497 Moodie, John Wedderburn Duncan. 'Ten Years in South Africa, including a particular description of the Wild Sports of that Country.'

With Plates. 2 vols., 8vo. 1835.

498 Meyer, Ernest F. H. Commentariorum de Plantis Africæ Australioris quas per octo annos collegit observationibusque manuscriptis illustravit. Joannes Franciscus Drege.

8vo. Lipsiæ. 1835.

499 Chijs, J. Th. v. d. Fragment uit zijne twaalfjarige reizen en lotgevallen (Kaap de Goede Hoop, Java en Mauritius, 1823–1835).

In *Vriend des Vaderlands*, IX. 1835. pp. 225–384.

500 Papers relative to the Conditions and Treatment of the Native Inhabitants of South Africa, within the Colony of the Cape of Good Hope and beyond the Frontier of that Colony.

Parts I. and II.: Hottentots and Bosjesmen, Caffres, Griquas. Folio. 1835.

501 Lieut.-Col. Napier's 'Excursions in South Africa.'

1835 or 1836.

502 Reports of **Aborigines Committee** of House of Commons.

1835–36.

503 Gardiner, Capt. 'A Journey to the Zoolu Country.'

London, 1836.

504 Isaacs, Nathaniel. 'Travels and Adventures in Eastern Africa,' &c.

1836.

505 Papers relative to the late **Caffre War,** and Death of Hintza; also Copies of the Instructions given to the Lieut.-Governor of the Frontier Districts.

1836.

506 Kunze, Gustavus. Acotyledonearum Africæ Australis extra tropicum sitæ, imprimis Promontorii Bonæ Spei Recensis nova, e Dregei, Ekloni et Zeyheri aliorumque peregrinatorium collectionibus aucta et emendata.

Particula I. Filices Linnaci Complectens. 8vo. Halæ, 1836.

507 Fawcett, John. 'Account of an Eighteen Months, Residence at the Cape of Good Hope in 1835.'

8vo. Cape Town, 1836.

508 Martin, Montgomery. 'History of Southern Africa, comprising the Cape of Good Hope, Mauritius, Seychelles,' &c.

8vo. 1836.

509 'A Narrative of the Irruption of the Kafir Hordes into the Eastern Province of the Cape of Good Hope 1834–35,' by the Editor of the *Grahams-Town Journal.*

Grahamstown, 1836.

510 Alexander, Sir James Edward. 'Narrative of a voyage of Observation among the Colonies of Western Africa in the flagship *Thalia*, and of a campaign in Kaffirland on the Staff of the Commander-in-Chief in 1835.'

With Map and Plates. 2 vols., 8vo. 1837.

511 Kay, Stephen. 'A Succinct Statement of the Kafir Case,' &c.

London, 1837.

512 Polson, Lieut. N. 'A Subaltern's Sick-Leave, or rough notes of a visit in search of health in China and the Cape of Good Hope.'

8vo. Calcutta, 1837.

513 Pringle, Thomas. Schetsen en Tafereelen uit Zuid Afrika, door wijlen den Secretaris van het Genootschap ter afschaffing van den Slavenhandel : uit het Engelsch.

Groningen, 1837.

514 Archbell, J. Grammar of the Bechuana Language.

8vo. 1837.

515 Justus. 'The Wrongs of the Caffre Nation, with an Appendix containing Lord Glenelg's Despatches to the Governor of the Cape of Good Hope.' By Mackenzie Beverley.

8vo. 1837.

516 Krauss, Christ. Ferd. Friedrich. Beitrag zur Kenntniss der Corallineen und Zoophiten der Südsee, nebst Abbildungen der neuen Arten.

4to. Stuttgart, 1837.

517 Moodie, D. List of Official documents explanatory of the relations between the Colonists of the Cape of Good Hope and the Independent Native Tribes, . . . 1767–1834. With report of the Committee to the Subscribers' Fund for Printing and Publishing the Documents of Evidence relative to intercourse of Colonists and Cape Government with Native Tribes.

Cape Town, 1838.

518 Alexander, Sir James Edward. 'Expedition of Discovery into the Interior of Africa through Great Namaqualand and Damaraland.'

2 vols., 8vo. 1838.

519 Henderson. Refraction of Stars near the Horizon, observed at the Cape of Good Hope.

Astron. Trans., 1838.

520 Bannister, J. W. Memoir respecting British Interests and Interests of the Native Tribes at and near Natal in S. E. Africa.

1 vol., 8vo. 1838.

521 Harvey, William Henry. The Genera of South African Plants, arranged according to the Natural System.

8vo. Cape Town, 1838.

522 Harris, Capt. W. C. 'Narrative of an Expedition into Southern Africa during the years 1836 and 1837 from the Cape of Good Hope through the Territories of the Chief Moselekatse,' &c., &c.

Bombay, Printed at the American Mission Press. 1838. Another edition was printed in London by John Murray, Albemarle Street, 1839.

523 Boyce, William B. Notes on South African Affairs from 1834 to 1838, with Reference to the Civil, Political, and Religious Condition of the Colonists and Aborigines.

Grahamstown, 1838.

524 Herschell, Sir J. Observations on the Comet of Halley, made at Feldhausen, Cape of Good Hope.
Astron. Trans., 1838.

525 Matthews, Patrick. 'Emigration Fields, the Cape, Australia, and New Zealand.'
8vo. 1839.

526 Antonio de Saldanha de Gama. Memoria sobre las colonias de Portugal, situadas na costa occidental d'Africa.
Paris, 1839.

527 Pringle, Thomas. Poetical Works of—
With a Sketch of his Life by Leitch Richie, with Portrait. London, 1839.

528 Mastijn, Rev. H. Journal and Letters.
8vo. London, 1839.

529 Martin, R. M. British Colonial Library. Comprising the Cape of Good Hope, Mauritius, and Seychelles.
London, 1839.

530 Harris, Capt. W. C. 'Portraits of the Game and Wild Animals of South Africa, delineated from life in their native haunts during a Hunting Excursion from the Cape Colony as far as the tropic of Capricorn in 1836 and 1837, with Sketches of the Field Sports.'
Drawings on Stone (Coloured) by Frank Howard. Atlas fo. . . . 1840. 5th ed., 1852.

531 Maclear, Sir Thomas. Account of the Fall of a Meteoric Stone in the Cold Bokkeveld, Cape Colony.
Phil. Trans., 1840.

532 Maclear, Sir Thomas. Astronomical Observations made at the Royal Observatory, Cape of Good Hope.
Cape Town, 1840.

533 McQueen's Geographical Survey of Africa.
8vo. 1840.

534 De Emigranten—Expeditie of dagverhaal van de expeditie der emigranten te Port Natal tegen den Zoolas-Koning Dingaan, in Jan. en Feb., 1840. Kaapstad ten Kantoore van den **Zuid-Afrikaan.**

535 Maclear, Sir Thomas. On the Position of La Caille's Stations at the Cape of Good Hope.
Astron. Trans., 1840.

536 Moodie, D. Correspondence between Donald Moodie, Esquire, Compiler and Editor of the 'Cape Records,' and the Rev. John Philip, D.D., Author of 'Researches in South Africa,' relative to the production for publication of alleged "Official Authority" for

the statement that "in the year 1744 the whole race of Bushmen or Hottentots who had not submitted to servitude was ordered to be seized or extirpated."

8vo. Cape of Good Hope, 1841.

537 Philip, Robert. The Life, Times, and Missionary Enterprises of the Rev. John Campbell.

With Portrait, 8vo. 1841.

538 Casalis, Eugène. Études sur la langue Séchuana.

Paris, 1841.

539 Ohrig, G. G. De uitgewekenen te Port Natal.

With Map. Amsterdam, 1841.

540 Collins, Col. Richard. Report upon the Relations between the Cape Colonists and the Kafirs and Bushmen in 1808–9.

Cape of Good Hope, 1841.

541 Nees ab Esenbeck. Floræ Africæ Australioris Illustrationes Monographicæ. I. Gramineæ.

Glogaviæ, 1841.

542 T. Arbousset and **F. Daumas.** 'Relation d'un Voyage d'Exploration au Nord-Est de la Colonie,' &c.

Paris, 1842.

543 Moffat, Rev. Robert. 'Missionary Labours and Scenes in South Africa.'

London, 1842.

544 'Gleanings from the South, East, and West.'

8vo. 1843.

545 Dohne, Jacob Ludwig. Das Kafferland und seine Bewohner.

Berlin, 1843.

546 Meyer, W. von. Reisen in Süd-Afrika während der jahre 1840–41.

Hamburg, 1843.

547 Chase, John Centlivres. 'The Cape of Good Hope and the Eastern Province of Algoa Bay, &c., &c., with statistics of the Colony.' Edited by Mr. J. S. Christopher.

With Map and Illustration. 12mo. 1843.

548 —— The Natal Papers. A reprint of all Notices and Public Accounts connected with that Territory, including a Description of the country, and a History of Events from its Discovery in 1498 to the mission of the Hon. H. Cloete, LL.D., &c., in 1843. In two parts, with an Appendix, including a brief review of the steps taken by Sir Benjamin D'Urban, G.C.B., &c., late Governor of the Colony, for the Tranquilization of the Frontier, especially as regards the Emigration of Farmers.

8vo. Grahamstown, 1843.

549 Swart, Jakob. Het inzeilen der Tafelbaai aan de Kaap de Goede Hoop.
Amsterdam, 1843.

550 Krauss, Ferdinand. Die Südafrikanischen Crustaceen: Eine Zusammenstellung aller bekannten Malacostraca. Bemerkungen über deren Lebensweise und geographische Verbreitung, nebst Beschreibung und Abbildung mehrer Arten. Mit IV. litographischen Tafeln.
4to. Stuttgard, 1843.

551 Drége, Jean François. Zwei pflanzengeographische Documente von —, nebst einer Einleitung von Dr. E. Meyer, Prof. in Königsberg (Besondere Beigabe zur Flora 1843, Band II.).
8vo. With Map. Ragensburg, 1843.

552 Changuion, Dr. A. N. E. De Nederduitsche Taal in Zuid-Afrika hersteld.
8vo. Cape Town, 1844.

553 Morrell. 'Narrative of a voyage to the South and West Coast of Africa, containing the information whence originated the present trade in Guano found on certain islands on that Coast, with a Prefatory Advertisement by Lieut. Petrie, R.N., and an Appendix on the chemical history of Guano; Analysis of numerous samples and tables of the relative value of both the African and Peruvian kinds.'
With Illustrations. 8vo. 1844.

554 Bain, A. G. On the Discovery of the Fossil Remains of Bidental and other Reptiles in South Africa.
Pamphlets. 1844.

555 Backhouse, James. 'A Narrative of a Visit to the Mauritius and South Africa.'
8vo. 1844.

556 Tams, G. 'Die Portugiesischen Besitzungen in Süd-West Afrika.'
With a Preface by C. Ritter. Hamburg, 1845.

557 Marryat, Capt. 'The Mission, or Scenes in Africa.'
A novel. 2 vols., 8vo. 1845.

558 Harding, W. Proclamations and Ordinances from 1806–44.
3 vols., 8vo. 1838–45.

559 McQueen, James. Notes on African Geography.
Journal of the Royal Geographical Society, 1845.

560 Krauss, Dr. Ferdinand. 'Beiträge zur Flora des Caps und Natal.'
8vo. Regensburg, 1846.

561 Methuen, Henry H. 'Life in the Wilderness, or Wanderings in South Africa.'

With Illustrations. 8vo. 1846.

562 Sutherland, Lieut.-Col. 'Memoirs respecting the Kaffirs, Hottentots, and Bosjesmans of South Africa.'

Cape Town, 1845–46.

563 Lima Lopes de. 'Possessoes Portuguezas no Ultramar.'

3 vols. Lisbon, 1844–46.

564 Tancred, Aug. Jos., D.D. Letters to Sir Peregrine Maitland, &c., on the present Kaffir War.

Cape Town, 1846.

565 Délegorgue, Adolphe. 'Voyage dans l'Afrique Australe notamment dans le territoire de Natal, dans celui des Cafres Amazulous, et Makatisses et jusqu'au Tropique du Capricorne exécuté durant les annés 1838–44.' Accompagné de dessins et de cartes.

8vo., 2 vols. Paris, 1847.

566 Herschell, Sir J. 'Results of Astronomical Observations at the Cape of Good Hope.'

4to. 1847.

567 Harvey, Wm. H. 'Nereis Australis, or Algæ of the Southern Ocean,' being Figures and Descriptions of Marine Plants collected on the Shores of the Cape of Good Hope, Tasmania, New Zealand, and the Antarctic Regions, deposited in the Dublin University.'

Royal 8vo. 1847.

568 Lauts, G. 'De Kaapsche landverhuijzers of Neerlands afstammelingen in Zuid-Afrika.'

Leiden, 1847. With Map, 8vo.

569 Swart, J. 'Kaart van Zuid-Afrika met onderscheidene plans volgens W. F. Owen.'

Amsterdam, 1847.

570 Barrow, J. Autobiography of—

With Portrait. 8vo. London, 1847.

571 Notes on the Cape of Good Hope, by A. Bengali. With an appendix for the benefit of Indian invalids visiting the Colony.

16mo. Calcutta, 1847.

572 Riebeeck, J. van. Dagverhaal. Journal du fondateur et premier Gouverneur de la Colonie Hollandaise du Cap de Bonne Espérance, publié par la Société Historique, à Utrecht 1651.

8vo. Utrecht, 1848.

573 Krauss, F. 'Die Südafrikanischen Mollusken. Ein Beitrag zur Kenntniss der Mollusken des Kap und Natal landes, und zur geographischen verbreitung derselben mit Beschreibung und Abbildung der neuen Arten. Mit sechs Steintafeln.'
4to. Stuttgard, 1848.

574 Fitzpatrick, James L. 'The Cape of Good Hope Literary Magazine,' **1847–48.**
8vo. Cape Town.

575 Wahlberg, J. A. Insecta Caffrariæ.
Two parts, with Addenda. 8vo. Holmiæ, 1848 and 1857. Contains a geographical account of Wahlberg's collecting trips.

576 Nicholson, George. 'The Cape and its Colonists; with hints to settlers in 1848.'
With Frontispiece. 8vo. 1848.

577 Correspondence relative to the Establishment of the Settlement of Natal. Presented to Parliament in July, 1848.
1848.

578 Ward, Mrs. H. 'Five Years in Kafirland.'
2 vols., 8vo. 1848.

579 Bunbury, Charles I. F. 'Journal of a Residence at the Cape of Good Hope,' &c.
London, 1848.

580 Kaffir Tribes.
Imperial Blue Books, 1847 and 1848.

581 Knudsen. 'Gross Namaqualand.'
Barmen, 1848.

582 de Vooght, M., Wed. Stucki. 'Reis naar, en verblijf aan de Kaap de Goede Hoop en te Natal in 1846 en 1847.'
With Portrait. 8vo. Kampen, 1849.

583 Struijk, M. en A. van Vierhouten. 'Beantwoording der prijsvraag: Wat weet gij van de Britsche Kaapkolonie?'
1849. Tydschr. v. aank. onderwijzers, xiv. 271.

584 Correspondence relative to the Establishment of the Settlement of Natal and the recent Rebellion of the Boers.
Presented May 3, 1849.

585 Napier, Lieut.-Col. E. Elers. 'Excursions in South Africa, including a History of the Cape Colony, an account of the Native Tribes,' &c., &c.
2 vols., 8vo. 1849.

586 Correspondence with Governors of Colonies on Transportation and Removal of Convicts.
1849.

587 Ward, Harriet. 'Past and Future Emigration, or the Book of the Cape. Edited by the Author of 'Five Years in Kafirland.''

London, 1849.

588 Smith Dr. (afterwards **Sir Andrew).** Illustrations of the Zoology of South Africa, consisting chiefly of figures and descriptions of the objects of Natural History, collected during an expedition into the interior of South Africa in the years 1834–35 and 36, fitted out by the Cape of Good Hope Association for exploring Central Africa.

Royal 4to., 4 vols. 1849.

589 Gray, Robert, Bishop of Cape Town. 'The Church in the Colonies.' No. XXII., Diocese of Cape Town. Part I., A Journal of the Bishop's Visitation Tour through the Cape Colony in 1848.

With Map. 16mo. 1849.

590 Barnard, Lady Anne. Extracts from the Journal of a Residence at the Cape of Good Hope, and of a short Tour in the Interior.

Vol. 3, 'Lives of the Lindsays.' 8vo. London, 1849.

591 Angas, George French. The Kaffirs, illustrated in a series of drawings taken among the Amazulu, Amaponda, and Amakosa Tribes. Also Portraits of the Hottentot, Malay, Fingo, and other races inhabiting Southern Africa, together with sketches of landscape scenery in the Zulu Country, Natal, and the Cape Colony.

Coloured Plates and Wood Cuts. Atlas folio. 1849.

592 Roupell, Mrs. 'The Flora of South Africa,' by a Lady.

Atlas folio. With Coloured Plates. 1849.

593 Cumming, Ronaleyn Gordon. 'Five Years of a Hunter's Life in the Far Interior of South Africa, with Anecdotes of the chase and notices of the Native Tribes.'

With Map and Illustrations. 2 vols, 8vo. 1850. A new edition appeared in 1855 under the title 'The Lion Hunter in South Africa.'

594 Berncastle. 'Voyage to China with a Description of the Cape of Good Hope.'

With Frontispiece. 2 vols., 12mo. London, 1850.

595 Byrne. 'Emigration to Natal.'

12 mo. 1850.

596 Appleyard, Rev. J.W. 'The Kafir Language, comprising a sketch of its history, which includes a general classification of South African dialects, ethnographical and geographical; Remarks upon its nature, and a Grammar.'

8vo. King Williamstown. 1850.

597 Parlby, Mrs. (*alias* Fanny Parkes). 'Wanderings of a Pilgrim in search of the Picturesque, during four-and-twenty years in the East, with revelations of Life in the Zenana.'

Illustrated with sketches from Nature. Royal 8vo. The second volume contains an account of a residence at the Cape, and coloured plates of a Bush-woman and a Kafir warrior. 1850.

598 McQueen, James. 'Notes on the present state of the Geography of some parts of Africa.'

1850.

599 Stanger, W., Surveyor-General. Map of the District of Natal, showing approximately the number and situation of the grants, under the proclamations of 1843 and 1848, and the situation of native locations, &c.

September, 1850.

600 Correspondence relating to the Settlement of Natal, in continuation of Papers of May 3, 1849.

Presented August, 1850.

601 Christopher, J. S. 'Natal, Cape of Good Hope, a Grazing, Agricultural, and Cotton-growing Country, comprising descriptions of this well-endowed country, from the year 1575 to the present time.'

8vo. 1850.

602 Despatches relative to the Reception of Convicts at the Cape of Good Hope, January 31, **1850.**

603 Sketches of some of the various classes and Tribes inhabiting the Colony of the Cape of Good Hope and the Interior of Southern Africa, with a brief account descriptive of the manners and customs of each.

With Illustrations. 4to. 1851.

604 'Transport Voyage to Mauritius and back, touching at the Cape of Good Hope and St. Helena.' By the author of 'Paddiana,' &c.

8vo. 1851.

605 Bleek. De Nominum Generibus Lingunum Africæ Australis.

Bonn. 1851.

606 Report of the Aborigines Committee, 1851. 'Kafir Tribes.'

Parliamentary Blue-book. 1851.

607 Correspondence with the Governor of the Cape of Good Hope, relative to the Assumption of Sovereignty over the Territory between the Vaal and Orange Rivers, May 15, **1851.**

608 Freeman, J. J. 'A Tour in South Africa, with notices of Natal, Mauritius, Madagascar, Ceylon,' &c.
8vo. 1851.

609 Further Correspondence relative to the Settlement of Natal in continuation of Papers of August, 1850.
Presented July 30, 1851.

610 Copies and Extracts of Correspondence relative to the Kaffir Tribes between the years 1837 and 1845.
1851.

611 Napier, Lieut.-Col. E. Elers. 'The Book of the Cape; or, past and Future Emigration.' Edited by Mr. Ward.
8vo. 1851.

612 'Magnetical and Meteorological Observations.'
Cape of Good Hope (Sabine). 1 vol. 1851.

613 Adderley, C. B. Statement of the Present Cape Case, addressed to the Society for Reform of Colonial Government.
1851.

614 Hudson. 'A Feature of South African Frontier Life.'
12mo. Port Elizabeth, 1852.

615 Godlonton, R., and **Irving's** 'Narrative of the Kafir War of 1850–51–52.
8vo. Grahamstown, 1852.

616 Duff, George A. S. 'African Miscellany of Historic, Narrative, and Descriptive Sketches, Tales, Poetry,' &c.
8vo. Part I. Cape Town, 1852.

617 Bain, A. G. On the Geology of South Africa. With Map and Illustrations, and Report of Messrs. Sharpe and Salter on the Palæozoic Fossils of South Africa.
In Transactions of the Geological Society. 1852.

618 Faure, Rev. Dr. Abraham. 'Redevoering bij het Tweede Eeuw-Feest ter herinnering aan de Vestiging der Christelijke Kerk in Zuid Afrika.
Kaapstad. 1852.

619 Barter, C. Dorp and Veld.
1 vol., 8vo. 1852.

620 Cloete, Henry. Three Lectures on the Emigration of the Dutch Farmers from the Colony of the Cape of Good Hope, and their settlement in the District of Natal.
Pietermaritzburg, J. Archbell and Son, 1852.

621 Prins Hendrik der Nederlanden aan de Kaap.
Biang-Lala, a magazine published in the Dutch Indies. 1852. II. 48.

622 Further Papers relative to the Establishment of a Representative Assembly at the Cape of Good Hope, June 28, 1850; May 19, 1851; February 3, 1852; December 23, **1852.**

623 Cole, A. W. 'The Cape and the Kafirs; or, Notes of five years' residence in South Africa.'

8vo. 1852.

624 Grey, Earl. 'The Colonial Policy of Lord John Russell's Administration.'

2 vols., 8vo. London, 1853.

625 Galton, Francis. 'The Narrative of an Explorer in Tropical South Africa.'

With Coloured Maps, Plates, and Woodcuts. 8vo. 1853.

626 Merriman, Archdeacon. 'The Kafir, the Hottentot, and Frontier Farmer.'

22mo. London, 1853.

627 'Past and Present State of the Kafirs: Report of a Commission appointed by the Government of Natal.'

8vo. Pietermaritzburg, 1852–1853.

628 Dayman and Simpson, Lieuts. Chart of the South Coast of Africa from Cape Hanglip to Dyer's Island, surveyed by—

629 —— Dyer's Island to Struijs Bay.

1853.

630 Pappe, Dr. L. Synopsis of Edible Fishes at the Cape of Good Hope.

Cape Town, 1853.

631 Further Correspondence relative to the State of the Orange River Territory, in continuation of Papers of May 15, 1851.

Presented May 31, 1853.

632 'Case of the Cape of Good Hope and its Constitution.'

1853.

633 Leupe, P. A. Iets naders over Jan van Riebeeck.

Contains letters dated March 5 and May 17, 1657. Utrecht, 1853. Kronijk v. h. Hist. gen. IX. 454.

634 Ewart, Jakob. Veranderingen en vermeerderingen in de Kustlichten in Zuid Africa, &c.

Amsterdam, 1853. Verhandelingen, &c., XIII. p. 1.

635 Correspondence with the Governor of the Cape of Good Hope relative to the State of the Kafir Tribes, and to the Recent Outbreak on the Eastern Frontier of the Colony.

Three parts bound in one. 1851–53.

636 Armitage, Rev. Eden., M.A. Lecture delivered at Maritzburg on the Botany of Natal.

December, 1853. Appendix to Chapman's 'Travels.'

637 Changuion, Dr. Geschiedenis der Fransche Protestantsche Vlugtchlingen van de Herroeping van het Edict van Nantes tot op onzen tijd.

1 vol., 8vo. Kaapstad, 1854. This is almost a literal though abbreviated translation of 'The History of the French Protestant Refugees,' by Charles Weiss. With an appendix treating of the Huguenots at the Cape, important portions of which are not historically correct. See Weiss's English edition by Frederik Hardman. 1 vol., Demy 8vo. London, 1854.

638 Lauts, G. 'Geschiedenis van de Kaap de Goede Hoop, Nederlandsche Volkplanting, 1652–1806.'

With Vignette. 8vo. Amsterdam, 1854.

639 'Correspondence of **Lieut.-Gen. the Hon. Sir George Cathcart, K.C.B.**

1852–54.

640 Changuion, Dr. A. N. E. Bezwaren tegen het oprigten eener theologische kweekschool in deze (Z-Afrika) volksplanting.

A series of letters which appeared originally in the *Zuid-Afrikaan.* Cape Town, 1854.

641 Pappe, Dr. L. 'Silva Capensis, or a description of South African Forest Trees and arborescent shrubs, used for technical and economical purposes by the Colonists of the Cape of Good Hope.'

Cape Town, 1854.

642 Schultheiss. Die Bewohner der Ost-Küste Süd-Afrika's.

Berlin, 1854. Further Correspondence relative to the State of the Orange River Territory, in continuation of Papers of May 31, 1853. Presented, April 10, 1854.

643 Fleming, Rev. Francis. 'Kaffraria and its Inhabitants.'

1854.

644 Stuart, J. De Hollandsche Afrikaanen en hunne republiek in Zuid Afrika.

With Map. Amsterdam, 1854.

645 Swart, Jakob. Nieuwe opgaven van kustlichten in Zuid Afrika, &c.

Amsterdam, 1854.

646 Grant, Rev. Lewis. 'Zululand, or life among the Zulu Kafirs in Natal and Zululand, South Africa.'

8vo. 1854.

647 Petermann, Dr. A. Karte zur Uebersicht der wichtigsten Enbdeckungen im Innern Süd-Afrika's in den jahren 1849–1853.

Petermann's Mittheilungen, Tafel 5. 1855.

648 Moodie, Donald (compiler of the 'Cape Records'). South African Annals, 1652–1795.

Chap. I., European Population. Chap. II., Saxon Nomads. Pietermaritzburg, May and Davis, 1855.

649 —— 'A Voice from the Kahlamba.' Origin of the Bushmen.

Pietermaritzburg, May and Davis, 1855.

650 —— Lecture on the early visits of Europeans to Natal, A.D. 1685–1690.

Pietermaritzburg, May and Davis, 1855,

651 —— Cape History and Science.

Pietermaritzburg, 1855.

652 Bell, Surveyor-General Charles D. Reports by— on the Copper Fields of Little Namaqualand, and **Commander M. S. Nolloth,** of H.M.S. *Frolic,* on the Bays and Harbours of that Coast.

Parliamentary Bluebook, 1855.

653 Rykloff van Goens aan de Kaap de Goede Hoop in 1657 (with introduction by P. A. Leupe).

's Gravenhage, 1855.

654 Blancheton, M. Exposition Universelle, 1855. Colonie de Cap de Bonne Espérance.

Vade Mecum. Cape of Good Hope. 8vo. Cape Town, 1855.

655 Holden, William C., Rev. 'History of the Colony of Natal, South Africa, to which is added an Appendix containing a brief history of the Orange River Sovereignty and of the various races inhabiting it; the Great Lake N'gami, Commandoes of the Dutch Boers,' &c.

With three Maps and nineteen Illustrations on wood and stone. 8vo. 1855.

656 Murray, R. W. 'Limner, or Sketches in the Cape Parliament.'

8vo. Cape Town, 1855.

657 King, W. R. 'Campaigning in Kaffirland, or Scenes and Adventures in the Kaffir War of 1851–52.'

2nd ed. With Maps and Illustrations. 8vo. 1855.

658 Brown, George. 'Personal Adventures in South Africa.'

With Illustrations. 8vo. 1855.

659 Berghans, Hermann, jun. Die Colonie Natal und die Süd-Afrikanischen Freistaaten.

Petermann's Mittheilungen, p. 273. 1855.

660 Bleek, Dr. Unter den Kaffern. Auszüge aus der Reisenden Tagebuche vom 31 Mai bis 17 Aug., **1855.**

Petermann' Mittheilungen. 1855. Pp. 361–363.

661 —— Ankunft in Natal in 1855.

Petermann's Mittheilungen, p. 271. 1855.

662 —— Reise nach Ost-Afrika.
Petermann's Mittheilungen, p. 145. 1855.

663 Holden, Rev. William C. 'The Past and Future of the Kafir Tribes.'
London, 1855.

664 Gumprecht, Dr. T. E. Zur Kunde von Süd Afrika.
Zeitschr. für Allgem. Erdkunde. 1855. v. p. 200.

665 Cooley, W. D. Dr. Livingstone's Reize vom Fluss Liambey nach Loanda, 1853 und 1854.
Petermann's Mittheilungen, p. 311. 1855.

666 Mason, G. H. 'Life with the Zulus of Natal.'
London, Longmans, 1855.

667 Petermann, Dr. A. Die neuesten Forschungen in Süd-Afrika—der Ngami—See und der Liambey-Fluss.
Petermann's Mittheilungen, p. 41. 1855.

668 —— Karte zur Uebersicht der wichtigsten Entdeckungen im Innern Süd-Afrika's in den jahren 1849–53.
1855.

669 Watts, J. Alfred. Map of the Colony of Natal compiled and lithographed by—
1855.

670 Ausdehnung der Süd-Afrikanischen Freistaaten.
Petermann's Mittheilungen, p. 377. 1855.

671 Süd-Afrika. Neue Goldländer.
Petermann's Mittheilungen, p. 119. 1855.

672 Solomon, Rev. Edw. Two Lectures on the Native Tribes of the Interior, delivered before the Mechanics' Institute, Cape Town.
1855.

673 Colenso, Bishop. 'Ten Weeks in Natal: a Journal of a First Tour of Visitation amongst the Colonists and the Zulu Kafirs of Natal.'
Post 8vo. Cambridge, 1855.

674 —— 'Remarks on the proper Treatment of cases of Polygamy.'
8vo. Pietermaritzburg, 1855.

675 Arrowsmith. Map of South Africa, showing the routes of the Rev. Dr. Livingstone, between the years 1849–**1856.**

676 Der Ngani—See und die Wüste Kalahari. Nach **Ch. T. Andersson.**
Petermann's Mittheilungen, p. 103. 1856.

677 Dayman, Lieut. Chart of Algoa Bay (Bird Island by **Capt. Skead.)**
1856.

678 —— 'Chart, Cape Reciffe to Keiskama River, including Algoa Bay.
1856.

679 Dr. Bleek's Forschungen in Natal, 18th of August, 1855–30th of April, 1856.
1856. *Petermann's Mittheilungen*, p. 362.

680 Cloete, H. De landverhuizing der Hollandsche boeren uit de Kaap de Goede Hoop en hunne nederzetting in Natal.
Cape Town, 1856.

681 Cloete, Henry. Five Lectures on the Emigration of the Dutch Farmers from the Colony of the Cape of Good Hope and their settlement in the district of Natal, until their formal submission to Her Majesty's authority in the year 1843. Delivered to the Natal Society at Pietermaritzburg.
Cape Town, 1856.

682 Fleming, Rev. Francis. 'Southern Africa, a Geography and Natural History of the Country, Colonies, and Inhabitants. From the Cape of Good Hope to Angola.'
8vo. London, 1856.

683 Dr. Livingstone's Neue Reise in's Innere von Afrika.
Petermann's Mittheilungen, p. 114. 1856.

684 Erforschung Inner Afrika's durch **Magyar László.**
Petermann's Mittheilungen, p. 36. 1856.

685 Die Mündung des Flusses Nourse.
Petermann's Mittheilungen, p. 117. 1856.

686 Walter, Charles. 'The Cape of Good Hope and the Kaffir Question.'
Cape Town, 1856.

687 Tindall, Rev. Henry. Two Lectures on Great Namaqualand and its inhabitants, delivered before the Mechanics' Institute.
Cape Town, 1856.

688 Entdeckung der Guelle des Zambesi-Flusses.
Pet. Mitth., p. 486. 1856.

689 Bailey, T. B. 'Notes on the Horse Sickness at the Cape of Good Hope in 1854–55.'
8vo. Cape Town, 1856.

690 Andersson, Charles John. Lake Ngami.
8vo. 1856.

691 Gray, Bishop. 'Three Months' Visitation by the Bishop in the Autumn of 1855, with an account of his voyage to the Island of Tristan d'Acunha.'

8vo. 1856.

692 Cathcart, Sir George. Correspondence relative to the Military Operations in Kaffraria.

8vo. 1856.

693 Watermeyer, E. B. Three Lectures on the Cape of Good Hope under the Government of the Dutch East India Company.

8vo. Cape Town, 1857.

694 Tindall, Rev. H. A Grammar and Vocabulary of the Namaqua Hottentot Language.

Cape Town, 1857.

695 Correspondence between the Committee of the South African Auxiliary Bible Society and various Missionaries and others relative to the translation, printing, and circulation of the Scripture in the Native Languages of South Africa, and more especially in the Native Dialect, with the resolutions of the Committee thereon. Printed by order of the Committee.

8vo. Cape Town, 1857.

696 Arrowsmith, John. Map to illustrate a visit to Moselekatse, King of the Matabele, by the Rev. R. Moffat in 1856.

1857.

697 de Villas Boas Truaño. On the Decline of Monomotapa (Mana-mtapa).

Boll. e Annaes do Con. Ultram. 1857. No. 43.

698 Rietbergen, D. C. Beschrijving der vuren en Zeilaanwijzingen voor de Zuidkust van Afrika van Algoa tot de Tafelbaai, Zoomede opgave van tarieven, regten enz.

Rotterdam, 1857.

699 Castelnan, fr de. On the Earthquake at the Cape of Good Hope of the 14th of August, **1857**.

Comptes Rendus, February 1.

700 Campbell, James. Remarks on the Geography and Hydrography of South-western Africa.

Proc. Roy. Geog. Soc. London, No. VIII. 1857.

701 Dr. Bleek's neue Lanfbahn in Süd-Afrika.

Pet. Mitth., p. 266. 1857.

702 Buyskes, P. J. De havenwerken in de Tafelbaai.

With Plate. Amsterdam, 1857. *Verhandelingen*, enz. XXXII. 1 afdeel, p. 432.

703 Adams, H. G. 'Dr. Livingstone, his Life and Adventures.'
London, Houlston and Wright. 1857.

704 Elpis. Algemeene Tijdschrift van Zuid-Afrika, onder medewerking van P. E. Fame, S. Hofmeyer, G. W. A. van der Linden, J. Murray.
Cape Town, 1857.

705 Economist, Port Elizabeth, Algoa Bay.
1857.

706 Bleek, Dr. W. H. I. Researches into the relations between the Hottentot and Kafir Races.
Cape Monthly Magazine, May, 1857.

707 Aus einem Briefe des **Dr. Bleek** an Dr. M. Haug.
Zeitschrift der deutschen morgenländ Gesellschaft, Heft. 2. 1857.

708 'De Hollanders aan de Kaap de Goede Hoop.'
Amsterdam, 1857.

709 Dr. Bleek's Reise in das Zululand.
Pet. Mitth. 1857. P. 49.

710 Düben, Freiherr Gustav von — Erinnerungen an **Johann August Wahlberg.** Aus dem Schwedischen von **Wilh. Peters.**
Zeitschrift für allgemeine Erdkunde, April, 1857.

711 Livingstone, David. 'Missionary Travels and Researches in South Africa, including a Sketch of sixteen years' residence in the interior of Africa, and a journey from the Cape of Good Hope to Loanda on the West Coast, then across the continent, down the river Zambesi to the Eastern Ocean.'
With Portrait. Maps by Arrowsmith, and numerous Illustrations. London, 1857.

712 —— Explorations into the Interior of Africa.
Journal of the Roy. Geogr. Soc. London, vol. 26. 1857.

713 Map to illustrate **Dr. Livingstone's** Routes.
1857.

714 Dr. Livingstone's Reisen in Süd-Afrika.
Pet. Mitth. 1857. P. 91.

715 Döhne, Rev. J. L. Zulu Kafir Dictionary etymologically explained, with Copious Illustrations and Examples preceded by an Introduction on the Zulu Kafir Language.
Cape Town, 1857.

716 Dr. Livingstone über die gesellschaftlichen und politischen Verhältuisse der Afrikanischen Völker Stämme.
Ausland, No. 8. 1857.

717 Dr. Livingstone.
Proc. of the Roy. Geogr. Soc., No. VII. 1857.

718 Letsulatebe, der Bechuana Häuptling am Ngami See.
Pet. Mitth. 1857. P. 209.

719 Moffat, Rev. R. Visit to Moselekatse, King of the Matabele.
With Map. *Journal of the Roy. Geogr. Soc.*, vol. 26. 1857.

720 Moffat's Besuch beim König von Matebele.
Ausland, No. 21. 1857.

721 Malte-Brun., V. A. Resumé historique des explorations faites dans l'Afrique Australe de 1849–1856, par le **Rev. Dr. D. Livingstone.**
Nouvelles Annales de Voyages, April, 1857. With Map.

722 Nachrichten über **Ladislaus Magyar.**
Pet. Mitth. 1857. P. 149.

723 Extracts from the Journal of **Captain M. S. Nolloth,** of H.M.S. *Frolic.*
Naut. Mag., January and May, 1857.

724 Map of the Coastlands of Natal.
1857.

725 Die Nomenclatur afrikanischer Flüsse.
Pet. Mitth. 1857. P. 526.

726 Regenmenge in Natal.
Pet. Mitth. 1857. P. 527.

727 Tod des schwedischen Naturforscher's **Joh. Aug. Wahlberg.**
Pet. Mitth. 1857. P. 207.

728 Die Victoriafälle, das Wunder Süd Afrika's.
Pet. Mitth. 1857. P. 523.

729 Shooter, Rev. Jos. 'The Kafirs of Natal and the Zulu Country.'
London, 1857.

730 Petermann, A. Karten-Skizze von Afrika zur vergleichenden Uebersicht der Reisen Dr. Barth's und Dr. Livingstone's (nebst Carton: Der Zambesi-Strom, nach den Forschungen Dr. Livingstone's in den Jahren 1851–1856).
Pet. Mitth., Taf. 3. 1857.

731 Hahn, C. Hugo. Grundzüge einer Grammatik des Hereró (Im westlichen Afrika), nebst einem Wörterbuche.
Berlin, 1857.

732 Pappe, L. 'Floræ Capensis Medicæ Prodromus, an Enumeration of South African Plants used as Remedies by the Colonists of the Cape of Good Hope.'

8vo. 2nd edition. Cape Town, 1857.

733 History of the Basutos of South Africa, by the Special Commissioner **(Mr. J. M. Orpen)** of the *Cape Argus.*

Cape Town, 1857.

734 Further Papers relative to the State of the Kafir Tribes : July, 1855 ; June, 1856 ; March, 1857 ; August, 1857.

Bound in 1 vol. 1857.

735 Capper, H. 'The Cape of Good Hope and Natal.'

8vo. London, 1858.

736 Somerset. 'Adventures of Mrs. Colonel Somerset in Caffraria during the War.'

8vo. 2nd ed. 1858.

737 Armstrong, Lord Bishop of Grahamstown. Memoir by Rev. J. T. Carter, with an Introduction by Samuel, Lord Bishop of Oxford.

With Portrait. Post 8vo. Oxford, 1858.

738 Behm, E. Süd Afrika im Jahre 1858. Eine Geographische Skizze der neu erforschten Regionen des Innern. Vornehmlich nach Dr. D. Livingstone.

Pet. Mitth., 1858. P. 177.

739 Andersson, Charles J. 'Reisen in Süd West Africa bis zum See Ngami in 1850–54. Aus dem schwedischen.'

With Map. Leipzig, Costenoble, 1858.

740 'Catalogue of **Sir George Grey's** Library.' Part 1. 'Philology,' by **W. Bleek,** Phil. Dr.

1858.

741 Dijk, Jan van. 'Lotgevallen van een Ned. Kolonist in de binnenlanden van Zuid-Afrika.'

Rotterdam, 1858.

742 Watermeyer, E. B. 'De Kaap de Goede Hoop onder het bewind der Hollandsche Oost-Indische Compagnie.'

Cape Town, 1858.

743 Calderwood, Rev. M. 'Caffers and Caffer Missions, with preliminary chapters on the Cape Colony as a Field for Emigration and Basis of Missionary Operations.'

London, 1858.

744 Dr. W. Bleek's Arbeiten in Süd Africa, and **Dr. Livingstone** am Kap.

Pet. Mitth., p. 418. 1858.

745 Dr. W. Bleek's Untersuchungen über Hottentotten und Kafir.
Pet. Mitth., p. 418. 1858.

746 'Meteorologische Beobachtungen am Kap der Guten Hoffnung.'
Pet. Mitth., p. 42. 1858.

747 Irons, W., Secretary to the Cape Town Mechanics' Institution. 'The Settlers' Guide to the Cape of Good Hope and Colony of Natal. Compiled from original and authentic materials.'
With Map. London, 1858.

748 Die Hottentotten-Stämme und ihre geographische Verbreitung im Lichte der Gegenwart.
Pet. Mitth., Heft II. 1858.

749 Die Hereró in Süd Afrika und ihre Nachbarvölker.
Pet. Mitth., p. 349. 1858.

750 Hahn und Rath. Reise der Missionäre —— zu dem Cunene Fluss.
Pet. Mitth., p. 42. 1858.

751 Frédoux, F. Quelques mots sur les Béchuanas.
Bull. de la Soc. Géogr. de Paris, Nov., 1858.

752 Giftige Fische am Kap der guten Hoffnung.
Pet. Mitth., p. 256. 1858.

753 Cortambert, M. C. E. 'Esquisse de la Géographie, de l'ethnographie et de l'histoire naturelle d'une partie de l'Afrique Australe intérieure.'
Paris, 1858.

754 'Missions-reisen und Forschungen in Süd-Afrika. Autorisirte vollständige Ausgabe für Deutschland von **Dr. David Livingstone.** Aus dem Englischen von Dr. Herm. Lotze.'
Leipzig, 1858.

755 Livingstone's astronomische Positionem in Süd-Afrika.
Pet. Mitth., p. 255. 1858.

756 Ladislaus Magyar. Seine beabsichtigte Rückkehr und sein Reisewerk.
Pet. Mitth., p. 169. 1858.

757 Moffat, Robert. Journey from Little Namaqualand Eastward along the Orange River, the Northern Frontier of the Colony, &c.
Proc. of the Geogr. Soc. London, June, 1858.

758 'Practical Remarks on the Colony of Natal.'
1858.

759 Albrecht Roscher's Reise nach Inner Afrika.

Pet. Mitth., pp. 344 and 515. 1858.

760 Aus den Briefen des Süd-Afrikanischen Reisenden **Prof. Wahlberg.**

Pet. Mitth., p. 414. 1858.

761 Coast Charts of Africa: South East Coast, Entrance of the River St. John or Umzimvubu, surveyed by **Mr. F. Skead,** assisted by **Mr. M. P. Auret,** 1857.

Admiralty Maps. May 4, 1858.

762 Proceedings of the Commission appointed to inquire into the Past and Present State of the Kafirs in the district of Natal, and to report upon their future Government, &c., for the information of his Honour the Lieut.-Governor.

2 Parts. Natal, 1858.

763 Pappe, L., and **Rawson.** 'Synopsis Filicum Africæ Australis: an Enumeration of the South African Ferns hitherto unknown.'

8vo. Cape Town, 1858.

764 Drayson, Capt. A. W. 'Sporting Scenes among the Kafirs of South Africa.'

8vo. 1858.

765 Anderson, John Corbet. 'To India and back by the Cape. By a Traveller. With numerous drawings on wood and stone by ——, from sketches by the author and others.'

4to. Croydon, 1859.

766 Bell, Sydney S. 'Colonial Administration of Great Britain.'

8vo. 1859.

767 Bishop Colenso. 'First Steps in Zulu.'

8vo. 1859. Another edition Maritzburg and Durban, 1871.

768 —— 'An Elementary Grammar of the Zulu-Kafir Language.'

Ekukanyeni, dated Bishopstowe, March 18, 1859. 8vo.

769 Andree, K. 'Südafrika und Madagascar geschildert durch die neuesten Entdeckung's reisenden.'

Leipzig, 1859.

770 Kiesewetter, Fr. 'Erforschungsreisen im Innern Afrika's. In Schilderungen der bekanntesten älteren und neueren Reisen, insbesondere der grossen Entdeckungen im Südlichen Afrika während der Jahre 1840–56 durch Dr. David Livingstone.'

Leipzig, 1859.

771 Gogh, J. van. 'De stormen nabij de Kaap de Goede Hoop in verband beschouwd met de temperatuur der zee.'

Amsterdam, 1859. With 2 Plates and 7 Tables.

772 Magyar, Ladislaus. 'Reisen in Süd-Afrika in den Jahren 1849–57. Aus dem ungarischen von J. Hunfalvy.'

Pest., 1859. Leipzig, 1860.

773 Schrumpf, Ch. 'Süd-Afrikanische Reisebilder. Tagebuch meiner Rückreise aus dem Innern Süd-Afrika's nach der Kapstadt in 1857.'

Strassburg, Berger-Levrault and Sohn, 1859.

774 Harvey, Wm. H. 'Thesaurus Capensis, or Illustrations of the South African Flora, being Figures and Brief Descriptions of South African Plants selected from the Dublin University Herbarium.'

Vol. I. Dublin, 1859.

775 Mann, Robert J. 'The Colony of Natal, an Account of the Characteristics and Capabilities of this British Dependency, published under the authority of the Government Immigration Board, for the guidance and information of Immigrants.'

8vo. 1859.

776 Grout, Rev. Lewis. 'A Grammar of the Zulu Language. accompanied with a Historical Introduction, also with an Appendix.'

8vo. Natal and London, 1859.

777 Hall, Henry. 'Manual of South African Geography.'

Cape Town, 1859.

778 Noble, John. 'Fransche Hoek, or the Story of our Pilgrim Fathers.'

1860.

779 Loew, Herm. 'Die Dipteren. Fauna Südafrika's, Erste Abtheilung mit zwei Tafeln.'

4to. Berlin, 1860.

780 Andersson's Reise nach dem Cunene.

Pet. Mitth., p. 116. 1860.

781 Andersson, C. J. On South Africa.

Proc. R. Geogr. Soc., vol. IV. 1860.

781a. The Cape and South Africa.

Quarterly Review, July, 1860.

782 Cassalis, E. 'Les Bassoutos, ou vingt-trois années de séjour et d'observations au Sud de l'Afrique.'

Paris, Meyrueis & Co., 1860.

783 Chaix. Étude sur l'etnographie de l'Afrique.
Soc. de géogr. Genève, Memoires I. 1860.

784 Bleek, W., Phil. Dr. 'Reynard the Fox in South Africa.'
1850–60.

785 Hall, H. Aardrijkskundig handboek van Zuid-Afrika. Mit Kaart. (Uit het Engelsch.)
Rotterdam, Bazendijk, 1860.

786 Hahn, Dr. H. 'Geschichte der Kathol. Missionen seit Jesus Christus bis auf die neueste zeit.'
Bd. II. Köln, 1860.

787 Godlonton, R. *The Eastern Province Monthly Magazine*, published by — Grahamstown.
Contains very interesting articles during 1850–60.

788 Cooley, D. 'Inner Africa Laid Open.'
1860.

789 Cumming, Gordon. 'La vie au désert. Cinq ans de chasse dans l'Intérieur de l'Afrique méridionale; publié **Alex. Dumas.'**
Paris, Levy Frères, 1860.

790 Dr. Livingstone's Erforschung des Shiré Flusses und Shirwa Seés in Süd-Afrika, April, 1859.
Pet. Mitth., p. 149. 1860.

791 Ladislaus Magyar's Erforschung Inner Afrika's.
Pet. Mitth., p. 227. 1860.

792 Ladislaus Magyar. Über die grossen Seen Inner-Afrika's.
Pet. Mitth., p. 114. 1860.

793 Das Swaziland in Süd-Ost Afrika und **Merensky's** Reise.
Pet. Mitth., p. 404. 1860.

794 Skead, F. 'Africa S.W., S., and S.E. Coasts. Robben Island to the Cape of Good Hope'; 'Cape of Good Hope to Struijs Point.'
Cape Town, Saul Solomon & Co., 1860.

795 Shaw, W. 'The Story of my Mission in South Eastern Africa, comprising some account of the European Colonists, with extended Notices of the Kafir and other Native Tribes.'
London, Hamilton, 1860.

796 Dr. Albrecht Roscher's Tod.
Pet. Mitth., p. 403. 1860.

797 Zeithammer, Anton O. Rückblicke auf die Geschichte geographischer Erforschung Süd-Afrika's. **Ladislaus Magyar's** Reise-Unternehmungen. Separat-Abdruck aus den Mitth. der K. R. geogr. Gesellschaft 4 Jahrg.

Wien, 1860.

798 Zerrenner, C. 'Reise des Ingenieurs **A. Thies** nach den Kupferbergwerken Namaqua Land's in Süd-Afrika.'

Freiberg, Engelhardt, 1860.

799 Williams, Ch. 'Narrative and Adventures of Travellers in Africa.'

New York, Dick and Fitzgerald, 1860.

800 Ward, Harriet. 'The Cape and Kaffirs.'

London, 1860.

801 McLeod, Lyons. 'Travels in Eastern Africa, with the Narrative of a Residence in Mozambique.'

2 vols., 8vo. 1860.

802 Correspondence between the Governor of Natal and the Colonial Office with respect to £5,000 reserved from the General Revenues of the Colony for the disposal of the Crown.

August, 1860.

803 Brockhoven, A. C. Gids voor landverhuizers naar de Kaap de Goede Hoop. Uit de beste bronnen samengesteld en met eenige belangrijke, op ondervinding gegronde aanmerkingen over de voordeelen dezer kolonie voor emigratie vermeerderd.

Amsterdam, 1860.

804 Singular Adventures of **Gerrit Cornelis van Bengel,** principally at the South Eastern Coast of the Cape of Good Hope in the years 1747–58. Compiled and edited from posthumous papers by Advocate **Simon Proot,** LL.D. Printed by van der Post Bros.

Utrecht, 1860.

805 Bleeker, P. Over eenige vischsoorten van de Kaap de Goede Hoop. Natuurk. tijdsch. vor Ned Indië xxi. 49.

Batavia, 1860.

806 —— Description de quelques espèces de poissons du Japon, du Cap de Bonne Espérance et de Surinam, conservés au Museé de Leide.

Tijdschr. v.d. Dierkunde ii.

807 —— Sur une nouvelle espèce de Cynaptura du Cap de Bonne Espérance.

1860.

808a Andersson, Ch. J. 'The Okavango River: a Narrative of Travel, Exploration, and Adventure.'

London, Hurst and Blackett, 1861.

808b Andersson, Ch. J. Der Okavango Strom. Entdeckungs reisen und Jagdabenteuer in Süd West Afrika Deutsch van H. Hartmann.

Leipzig, Gerhard, 1862.

809 Chapman, James. Notes on South Africa.

Prov. R. Geogr. Soc., vol. v. No. 1. 1861.

810 Cullingworth, J. 'Guide to the Colony of Port Natal.' With Map. London, 1861.

811 Meurant, L. H. Zamenspraak tusschen Klaas Waarzegger en Jan Twijfelaar, over het onderwerp van Afscheiding tusschen de Oostelijke en Westelijke Provincie.

Cradock, 1861.

812 Noble, R. 'Prince Alfred's progress through South Africa in the year 1860.'

Illustrated. Cape Town, 1861.

813 Scherzer, Dr. Karl. 'Narrative of the Circumnavigation of the Globe by the Austrian frigate *Novara*, undertaken by order of the Imperial (Austrian) Government in the years 1857, 1858, and 1859.'

3 vols, royal 8vo. 1861.

814 Nachrichten von dem Elephantenjäger **F. Green** und Vorgänge im Okavango-Lande in Süd-West Afrika.

Pet. Mitth., p. 356. 1861.

815 Merensky and **Grützner**. Tagebuch der Reise von Leijdenburg zu den Swazi.

Berliner Missionsberichte, No. 9 and 10. 1861.

816 Meidinger, H. 'Die Süd-afrikanischen Kolonien England's und die Freistaaten der Holl. Boeren in ihren neuesten Zuständen.'

Frank. a. M., Sauerländer, 1861.

817 Peters, W. C. H. Naturwissenschaftliche Reise nach Mossambique in den Jahren 1842–48.'

Berlin, G. Reimer, 1861.

818 Sà da Bandeira, V. de. Zambezia e Sofàlla, mappa coordenata sobre numerosos documentos antigos e modernos portuguezes e estrangeiros.

1861.

819 'Zambesi Fluss: Traurige Nachrichten vom—*Calwer Missionsblatt.*'

April, 1861.

820 Dr. Livingstone's Reise am Zambesi im Jahre 1860.

Pet. Mitth., p. 223. 1861.

821 Livingstone's neueste Schicksale und Entdeckungen.
Ausland, No. 19, pp. 453–485. 1861.

822 Dr. Livingstone's Fahrt auf dem Rovuma-Fluss im Frühjahr 1861.
Pet. Mitth., p. 355. 1861.

823 Süd und West-Afrika: Allgemeine Missions-Überschau; nach den Berichten von 1860.
Missions Nachrichten der Ost-Indischen Missions Anstalt zu Halle, Heft 1., 1861.

824 Namaqualand. Aus Missionar **Kleinschmidt's** Tagebuche.'
Berichte der Rhein. Miss Gesell., Feb., 1861.

825 Schrumpf, C. Süd-Afrikanische, Kap und Atlantische See-Bilder. Mit Anhang: Die Bassuto, wie sie sind.
Strassburg, Berger-Levrault, 1861.

826 Lorck's Hausbibliothek. Bd 64: Süd-Afrika und Madagascar geschildert durch die neueren Entdeckungs Reisenden.
Leipzig, 1861.

827 Kop, Prof. Dr. A. Ueber die Kupfererz-Lagerstätten von Klein-Namaqualand und Damara Land, ein Beitrag zur Entwickelungsgeschichte der Kupfererze.
Neues Jahrbuch für Mineralogie, Heft v. pp. 513–550. 1861.

828 Laws, H. W. Mosselbay as a Harbour of Refuge.
Naut. Mag., Nov., 1861.

829 Arbuthnot, J. 'Emigrant's Guide Book to Port Natal.'
Aberdeen, King, 1862.

830 Drayson, A. W. 'Tales at the Outspan, or Adventures in the Wild Regions of Southern Africa.'
With Illustrations. 8vo. 1862.

831 Ente, W. K. Natal en Nieuw-Gelderland en de vooruitzigten der Kolonisatie aldaar, Arnhem, Tjeenk Willink.
1862.

832 Bleek, Dr. W. H. J. 'A Comparative Grammar of South African Languages.'
Part 1., Phonology. Cape Town, J. C. Juta; London, Trübner, 1862.

833 Beijer, J. Journaal gehouden van Port-Elizabeth (Algoa-Baai) naar Reddersburg (Oranje-Vrijstaat).
Kaapstad, Saul Solomon; Groningen, P. Beijer, 1862.

834 Dove, H. W. Über das Klima von Port-Natal.
Zeitschr. für allgemeine Erdkunde, Juni, 1862, pp. 447–451.

835 Salles Ferrera, Fr. de Angola. Diario da viagem para S. José de Encoge em 1854.

Annaes do Conselho Ultramarino. 1862.

836 Kirk, J. Report on the natural products and capabilities of the Shiré and lower Zambesi valleys.

Proc. R. Geogr. Soc. London, vol. VI., No. 1. 1862.

837 Jacobs, A. 'L'Afrique nouvelle. Récents voyages, état moral, intellectuel et social dans le continent noir.'

Paris, Didier, 1862.

838 Macqueen, J. 'Journey from Inhambane to Zoutpansberg by **Joaquim de Santa Rita Montanha.**

With Map. *Journ. R. Geogr. Soc. London*, pp. 63–68. 1862.

839 Mossamedes. Estatistica do districto, relativa ao anno de 1860.

Bolet. e Annaes do Conselho Ultramarino. Lisboa, 1862.

840 Port Natal, a complete Map of the Colony of—, containing the divisions of the farms, quantities and owners' names from the most recent surveys.

London, Algar, 1862.

841 Külb, P. H. Die Reisen der Missionäre. 2 Abth. Missionsreisen nach Afrika vom Anfang des 16 bis zum Ende des 18 Jahrhunderts.

Regensburg, Manz, 1862.

842 Sylva, da. Observaçoes sobre os bocas do Zambese.

Bolet. e Annaes do Cons. Ultram., Lisboa, No. 103, Dec., 1862.

843 Sanderson, J. Notes to accompany the Sketch-maps of the Zulu and Amatonga countries, and of the Country between Aliwal North and Natal.

With Map. *Journ. R. Geogr. Soc. London*, pp. 335–339. 1862.

844 March, G. 'Directions for S. and S. E. Coasts of Africa, Robben Island to Natal.'

London, Hydrogr. Office, 1862.

845 Moçambique, Productos de.

Bolet. e Annaes do Consel. Ultram. Lisboa, 1862.

846 Welwitsch, Dr. Fr. On the Botany of Benguela, Mossamedas, &c., &c., in S. Western Africa.

Journ. of the Linnean Soc. 1862.

847 Sà da Bandeira, Vicomte de. Notes sur les fleuves Zambeze et Chire et sur quelques lacs de l'Afrique orientale.

Bull. de la Soc. de Géogr. de Paris, Juin, 1862.

848 Chart, East Coast of Africa: River Rovuma. Sketch Survey by **D. May,** 1861.

London, Hydrogr. Office, 1862.

849 Dr. David Livingstone's Brief an **Dr. H. Barth** am Bord des Pioneer im Fluss Zambesi den 18 Feb., 1862.

Zeitschr. für allgem. Erdkunde, Juli, 1862. Pp. 65–68.

850 Dr. A. Roscher's Tagebuch über seine Reise nach dem Lufidji, 6 Feb.—24 März,' 1859.

Pet Mitth. 1862. P. 1.

851 Petermann, Dr. A. Karte von Kongo und Angola.

Tafel 17. *Pet. Mitth.* 1862.

852 Boyce and **Davis.** 'A Grammar of the Kafir Language,' by W. B. Boyce.

3rd. ed., augmented and improved with exercises, by W. T. Davis. Small 8vo. 1863.

853 Robinson, J. 'Natal, a practical Guide to that British Dependency in South-eastern Africa.'

8vo. Durban and London, 1863.

——'A few words about Natal,' *Naut. Mag.*, July, 1863. Pp. 376–379.

854 Schauenburg, E. Die berühmtesten Entdeckungsreisen zu Land und See bis auf die neueste Zeit in geschichtlichen Darstellungen. Süd Afrika.

Lahr, 1863.

855 Schultze, Dr. R. Die Neger in Angola. Character, Aberglaube, Ceremonien, Gebräuche, Tracht.

Das Ausland, 1863.

856 Wilmot, A. 'A historical and descriptive account of the Colony of the Cape of Good Hope.'

London, Algar, 1863.

857 Itinerario de Quelimane a Tete pelo Zambeze, 1860. Noticias do districto de Tete. Noticias do districto de Quelimane.

Bol. e Annaes do Consel. Ultram, No. 111, August, 1863.

858 Süd-Afrika zur Darstellung der Gebiete der Berliner Missions-Gesellschaft.

With eight Maps. Halle, 1863.

859 Slave Trade correspondence with British Commissioners at Sierra Leone, Havana, the Cape of Good Hope, New York and Loanda, in 1862.

Fol., 200 pp. London, 1863.

860 Baldwin, W. Ch. 'African Hunting, from Natal to the Zambesi, Lake Ngami, Kalahari, from 1852–60.'

London, Bentley, 1863.

861 Wyman, J. Observations on the Skeleton of a Hottentot.

Proc. Boston Soc. Nat. Hist. 1863.

862 Dr. Livingstone's Fahrt auf dem Nyassa Sec.

Pet. Mitth. 1863. P. 107.

863 Livingstone's Expedition to Lake Nyassa in 1861–63.

Journ. R. Geogr. Soc. London, vol. xxxiii. 1863. Pp. 251–276.

864 Africa, East Coast. Chart of Mouths of the River Zambesi. Surveyed by **Capt. Skead,** 1858–61.

London, Hydrogr. Office, 1863.

865 Sà da Bandeira, Viscomte de e **Fernando da Costa Leal.** Map of Angola. 2 Sheets.

Lisbon, 1863.

866 Baines, Th. 'Explorations in South-West Africa, being an account of a journey in the years 1861 and 1862, from Walvisch Bay on the Western Coast to Lake N'gami and the Victoria Falls.'

8vo. With three Maps. London, Longmans, 1864.

867 Transvaal.

Das. Ausland, No. 25, pp. 590–591. 1864.

868 —— *le Tour du Monde.*

No. 226. 1864.

869 Müller, Dr. Fr. Die Sprachen Afrika's. Mit Bezug auf **W. H. I. Bleek's;** 'A comparative Grammar of South African languages.'

Oestr. Wochenschrift für Wissenschaft, Kunst und öffentliches Leben, Bd. 4, pp. 1058–1062. 1864.

870 Bowker, J. Mitford. 'Speeches, Letters, and Selections of the late—'

8vo. Grahamstown, 1864.

870a Kemp, D. C. v. d. Levensgeschiedenis van den, Med. Dr. J. Th. v. der Kemp, Zendeling in Zuid-Afrika.

With Portrait. 1798–1811. Amsterdam, 1864.

871 Mackenzie, Bishop. 'Memoir of—' by **Henry Goodwin, D.D.**

2nd. ed. 8vo. London, 1864.

872 Mocambique, Aquas thermaes do Matiquite.

Bol. e Annaes do Conselh. Ultram., No. 105. 1864.

873 Dove, H. W. Ueber das Klima von Süd-Afrika.
Zeitschrift für Allgem. Erdkunde, Dec., 1864, Pp. 477–481.

874 Vegetabilische Produkte Afrika's.
Das Ausland, No. 29, pp. 685–688. 1864.

875 Tenzl, Prof. E. Bericht über einige der wichtigsten Ergebnisse der Bereisung der Portugiesischen Kolonie von Angola in West-Afrika in den Jahren 1850–1860 durch Herrn **Dr. Frdr. Welwitsch.**
Vienna, Gerald, 1864.

876 Skead, F. Sailing directions. Yzervark Point to Mosselbay, South Africa.
Naut. Mag., June, 1864. Pp. 329–333.

877 Castro, de M. Rios de Senna. Sua descripcão desde a barra de Quilimane ate ao Zumbo.
Bol. e Annaes do Cons. Ultram., Nos. 71, 72, and 73. 1864.

878 Mühry, A. Die Meeresströmungen an der Südspitze Afrika's.
Pet. Mitth., p. 34. 1864.

879 Chart, Africa, South, S.E. and East Coast, from the Cape of Good Hope to Cape Guardafui, including the islands in the Mozambique Channel, by **Capt. de Horsey,** 1864.
London, Hydrogr. Office, 1864.

880 Angola. Noticias de algunos dos districtos de que se compõe esta provincia.
Bolet. e Annaes do Conselh. Ultram., Nos. 68, 69, and 70. 1864.

881 Angola. Da communicaçaõ por terra entre —— e a costa oriental de Africa.
Bolet. e Annaes do Conselh. Ultram., Nos. 70 and 71. 1864.

882 Gomes, B. A. Una viagem scientifica em Angola.
Bol. e Annaes do Conselh. Ultram., No. 109. 1864.

883 Ravenstein, E. G. Neueste Karte von Afrika in drei Blättern. Kpfrst.
Hildburghausen, Bibliogr. Inst., 1864.

884 Frédoux, Rev. 'A Sketch of the Se-chuana Grammar.
Cape Town, 1864.

885 Peters, W. C. H. Naturwissenschaftliche Reise nach Mozambique.
Botanik 2^{et} Abth. Berlin, G. Reimer, 1864. (Continuation in 1868.)

886 Dr. Livingstone's Reise nach dem Hochland der Marawi im Westen d. Nyassa. See's. 1863.
Pet. Mitth., p. 233. 1864.

887 Dr. Livingstone. Recent operations on the Zambesi.

Christian Work, a Magazine of religious and missionary information, May, 1864.

888 Livingstone, D. and **Ch.** 'Narrative of an expedition to the Zambesi and its tributaries, and of the Discovery of the Lakes Shirwa and Nyassa, 1858–64.

London, Murray, 1865.

889 Handelsverhältuisse der Kap Kolonie.

Handelsarchiv, Feb., pp. 192–198. 1865.

890 Kirk, J. Notes on the gradient of the Zambesi on the level of Lake Nyassa, on the Murchison Rapids, and on Lake Shirwa.

With Map. *Journ. R. Geogr. Soc London*, vol. xxxv. 1865.

891 Horsey, Capt. de. Sailing directions for the South and East Coasts of Africa.

2nd ed. London, Hydrogr. Office, 1865.

892 Grout, Rev. Lewis. 'Zululand; or Life among the Zulu-Kaffers of Natal and Zululand, South Afrika.'

With Map. London, Trübner, 1865.

893 Harvey, W. H., and **O. W. Sonder.** 'Flora Capensis: being a systematic description of the Plants of the Cape Colony, Caffraria, and Port Natal.'

3 vols., 8vo.
Vol. I. Ranunculaceæ to Connoraceæ.
Vol. II. Leguminosæ to Loranthaceæ.
Vol. III. Rubiaceæ to Campanulaceæ.
Dublin and Cape Town, 1859–65.

894 Bowler, T. W. 'The Kafir Wars.'

London, 1865.

895 Alston's Map of South Africa.

London, 1865.

896 Beitrag zur Karte des Gross-Namaqualandes.

Pet. Mitth., p. 389. 1865.

897 Das Klima von Natal.

Pet. Mitth., p. 237. 1865.

898 Livingstone, D. and **Ch.** Neue Missionsreisen in Südafrika. Aus dem Engl. v. J. E. A. Martin.

Jena and Leipzig, Costenoble, 1866.

899 Thierbilder aus Süd-Afrika.

Pet. Mitth., p. 305. 1866.

900 Das Zerlegen und Verzehren eines Elephanten in Süd-Afrika.

Pet. Mitth., p. 234. 1866.

901 Leyland, J. 'Adventures in the far interior of South Afrika.'

London, Routledge, 1866.

902 Combermere, Viscount. Memoir and Correspondence.

2 vols., 8vo. 1866.

903 Maclean, Colonel. Compendium of Kafir Laws and Customs, by **Dugmore, Warner, Brownlee, Ayliff,** and others, including Genealogical Tables of Kafir Chiefs and various Tribal Census Returns.

8vo. Cape Town, 1858–1866.

904 Robertson, Henrietta. 'Mission Life among the Zulu Kafirs: Memorials of Henrietta Robertson, wife of the Rev. R. Robertson.' Compiled chiefly from letters and journals written to the late **Bishop Mackenzie** and his sisters. Edited by **Anne Mackenzie.**

Illustrated. 12mo. Cambridge, Leighton, Bell & Co., 1866.

905 Castilho, A. M. de. Descripção e roheiro da costa occidental de Africa desde o cabo de Espartel até o das Agulhas.

Lisbon, 1866.

906 Verification and Extension of La Caille's Arc of Meridian at the Cape of Good Hope, by Sir Thomas Maclear, Astronomer Royal, Cape of Good Hope.

2 vols. 1866.

907 Erweiterung der Colonie Natal.

Pet. Mitth., p. 276. 1866.

908 Mauch, Carl. Ein neuer afrikanischer Entdeckungsreisender und seine Kartirung der Süd Afrikanischen Republik.

Pet. Mitth., p. 245. 1866.

909 Bourdiol, H. Les Colonies portugaises.

Bull. de la Soc. de Géogr. de Paris, July, 1866.

910 Baines, T. 'The Victoria Falls of the Zambezi.'

London, Day, 1866.

911 Bowler, T. W. Pictorial Album of Cape Town, with views of Simon's Town, Port Elizabeth, and Graham's Town. From original drawings by ——. With historical and descriptive sketches by **W. R. Thompson.**

12 views lith. oblong 4to. 1866.

912 Holden, W. C. History of Kafir Races.
8vo. London, Grahamstown, and Natal, 1866.

913 De Lacerda, José. Exame dos Viagens do **Dr. Livingstone.**
8vo, with folio Atlas. Lisbon, 1867.

914 Der Cunene Strom von **Fr. Green** erreicht.
Pet. Mitth., No. 1. 1867.

915 Hahn, Theoph. Die Nama-Hottentotten.
Globus, Bd. 12. 1867.

916 Die Transvaalsche Republik in Süd-Africa.
Pet. Mitth., No. 1. 1867.

917 Mann, Dr. R. J. The Physical Geography and Climate of the Colony of Natal.
Proc. R. Geogr. Soc. of London, vol. XXXVII. 1867.

918 Chart of Coast of South Africa, Cape Agulhas to Mosselbay, 1867.
London, Hydrogr. Office, 1867.

919 Chart of Cape of Good Hope, and adjacent coasts, from Hondeklip Bay to Port Natal, with Agulhas Bank. Compiled from latest Admiralty Surveys to 1867.
London, Hydrogr. Office, 1867.

920 Layard, E. L. The Birds of South Africa; a descriptive catalogue.
Cape Town and London, Longmans, 1867.

921 Rohlfs, Gerhard. Die Art der Begrüssungen bei verschiedenen Neger-Stämmen.
Pet. Mitth., IX. 1867.

922 Grundemann, Dr. R. Die Englische Kolonie Natal und das Zululand.
Pet. Mitth., VI. 1867.

923 Wangemann, Dr. Missions Director: Ein Reise-Jahr in Süd-Afrika. Ausführliches Tagebuch über eine in den Jahren 1866–67 ausgeführte Inspektionsreise durch die Missions-Stationen der Berliner Missions-Gesellschaft.
With illustrations. 8vo. Berlin, Wohlgemuth, 1868.

924 Jeppe, Fr. Die Transvaalische oder Süd-Afrikanische Republik, nebst einem Anhang: Dr. Wangemann's Reise in Süd-Afrika, 1866–67.
Pet. Mitth. Gotha, Ergänzungsheft, No. 24. 1868.

925 Uebersicht der Trigonometrischen und Nautischen Aufnahmen im Kaplande bis 1867. Map scale 1:1,800,000.
Pet. Mitth., I. 1868.

926 Die Küsten und Landesvermessung der Kap Kolonie.
Pet. Mitth., I. 1868.

927 Wood, Rev. J. G. 'The Natural History of Man. Africa.'
London, 1868.

928 Der erste Census in der Kap Kolonie, 1865.
Pet. Mitth., I. 1868.

929 Fritsch, Dr. G. Das Klima von Süd-Afrika, mit besonderer Bücksicht auf die Kulturfähigkeit des Landes.
Zeitschr. d. Gesellsch. für Erdkunde, Berlin, 3 Bd. 1868.

930 —— Erläuternde Bemerkungen zur Revision der Grundemann'schen Karte des Bechuana-Landes.
Zeitschr. d. Gesellsch. für Erdkunde, Berlin, 3 Bd. 1868.

931 Skead and **Stauton,** Staff Commanders. Chart, East Coast, Cape St. Francis to Great Fish Point.
London, Hydrogr. Office, 1868.

932 Fritsch, Dr. G. Drei Jahre in Süd Afrika Reise-Skizzen nach Notizen des Tagebuches zusammengestellt.
Breslau, Hirt, 1868.

933 Hahn, Th. Sagen und Mährchen der Ovahereró in Süd-Afrika.
Globus, Bd. XXIII. 1868.

934 Stauton, Staff Commander. Chart of South-East Coast, Kowie River, or Port Alfred, 1867.
London, Hydrogr. Office, 1868.

935 Mann, Dr. Further Notes on the Industries and Prospects of Natal.
Cape and Natal News, London, 7th Dec., pp. 7–10, 20th Dec., pp. 6–10. 1868.

936 Robinson and **Vause.** Map of South-Eastern Africa.
Natal, 1868.

937 Mohr, Ed. Reise und Jagd-Bilder aus der Südsee, Californien und Südost-Afrika.
8vo. Bremen, Schünemann, 1868.

938 Chapman, J. 'Travels in the interior of South Africa; comprising fifteen years' hunting and trading experiences; journeys across the Continent from Natal to Walwich Bay, and visits to Lake Ngami and the Victoria Falls.'
London, Bell, 1868.

939 Petermann, Dr. A. Map. Das Kapland nebst den Süd-Afrikanischen Freistaaten und dem Gebiet der Hottentotten und Kaffern, 1:5,000,000.

Pet. Mitth., I. 1868.

940 Foster, William. *South African Magazine.* A contribution to Colonial Literature. Edited by—

8vo. Cape Town, 1867–68.

941 Thomson, W. R. Poems, Essays, and Sketches. Edited, with memoir, by John Noble.

8vo. Cape Town, 1868.

942 Waller, Rev. H. 'Dr. Livingstone's Last Journals.'

1868.

943 Young, E. D. 'Search after Livingstone.' Revised by **Rev. H. Waller.**

8vo. 1868.

944 Walmsley, Col. H. M. 'The Ruined Cities of Zululand.'

2 vols., 8vo. London, Chapman and Hall, 1869.

945 Hahn, Jos. Die Ovahererό. 2 Abth.

Zeitschr. d. Gesellsch. für Erdkunde, No. 3. Berlin, 1869.

946 Eduard Mohr's Astronomisch-geognostiche Expedition in Süd-Africa.

Pet. Mitth., VIII. 1869.

947 Hübner, Ad. Eduard Mohr'sche Expedition nach Süd-Afrika. Mineralogisch-geognostiche Skizze.

Berg-und Hüttenmännische Zeitung, No. 23. 1869.

948 Skead, Lieut. Chart. Africa, S.E. Coast, Port Elizabeth. 1869.

London, Hydrogr. Office, 1869.

949 Wilmot, A. 'Diamonds and the South African Diamond Fields.'

Cape Town, 1869.

950 Hahn, Theoph. Beiträge zur Kunde der Hottentotten.

Jahresbericht des Vereins für Erdkunde. Dresden, 1869.

951 Národové jizni Afriky.

Matice lidu, 3rd year, No. 2., with Map. Prague, 1869.

952 Karl Mauch's dritte Reise im Innern von Afrika, 8 Mai bis 18 Oct., 1868.

Pet. Mitth., IV. and V. 1869.

953 Archdeacon, Lieut. Chart of S.E. Coast of Africa, Buffalo River, and View. 1868.

London, Hydrogr. Office, 1869.

954 —— Chart, Waterloo Bay to Bashee River. 1868.

London, Hydrogr. Office, 1869.

955 Postal Map of the Colony of the Cape of Good Hope.

Cape Town, J. C. Juta, 1869.

956 Erskine, St. Vincent. Journal of an Excursion to the mouth of the Limpopo.

Proc. R. Geog. Soc. London, vol. XIII. No. v. 1869.

957 Foncin, Prof. L'Afrique Australe d'après les voyages récents.

Conférences de l'association philomatique de Bayonne. Paris, Hachette, 1869.

958 Mann, Dr. Statistical Notes regarding the Colony of Natal.

Journal of the Statistical Society of London, March, 1869.

959 Noble, Prof. 'The Cape and its People,' and other essays by South African writers. Cape Town, J. C. Juta, **1869.** Containing articles by **Dr. W. H. Ross, R. Trimen, Rev. Dr. Stewart, Rev. T. E. Fuller, J. McGibbon,** and **Dr. Bleek.**

960 Adderley, C. B., Sir (Lord Norton). 'Colonial Policy and History.'

8vo. London, 1869.

961 Bleek, Dr. 'Comparative Grammar of South African Languages.'

Part II. 8vo. Cape Town, 1869.

962 MacCarter, Rev. J. 'The Dutch Reformed Church in South Africa.' An Historical Sketch.

16mo., with Frontispiece. Edinburgh, 1869.

963 Milner and **Brierly.** 'The Cruise of H.M.S. *Galatea:* Captain H.R.H. the Duke of Edinburgh.'

Illustrated. 8vo. London, 1869.

963a Ballantyne, R. M. 'Six Months at the Cape.'

8vo. 1870.

964 Bleek, Dr. Reineke Fuchs in Afrika.

8vo. Weimar, 1870.

965 Petermann, Dr. A. Chronologische Uebersicht von Livingstone's Reisen 1840–69. Map 1:12,500,000.

Pet. Mitth., v. 1870.

966 Hübner, Ad. Bergmännisches vom Tatin.

Zeitschr. d. Gesellsch. für Erdkunde zu Berlin, Heft 3. 1870.

967 Petermann, Dr. A. Original Karte der Portugiesischen Reisen in Inner Afrika seit 1498. Nach den Portugiesischen Quellenwerken zusammengestellt.

Scale 1:4,500,000. *Pet. Mitth.*, v. 1870.

968 Natal and Cape of Good Hope. Further despatches from the Lieut.-Governor of Natal and the Governor of the Cape of Good Hope on the subject of the recognition of Moshesh, chief of the Basutos, and of his tribe, as British subjects.

Presented to Parliament, London, with two Maps. 1870.

969 Erskine, St. V. W. 'The Tsetse Fly.'

8vo. Durban, *Natal Mercury* Office, 12 pp. 1870

970 Steytler, J. G. The Emigrant's Guide. The Diamond Fields of South Africa.

8vo. 34 pp., with Map. Cape Town, Saul Solomon & Co., 1870.

971 Africa. Chart of South-West Coast. Saldanha Bay, 1869. 1:48,961.

London, Hydrogr. Office, 1870.

972 Chart. Cape of Good Hope and False Bay, 1869.

London, Hydrogr. Office, 1870.

973 Chart. Cape of Good Hope: Table Bay Breakwater and Docks.

London, Hydrogr. Office, 1870.

974 Stauton. Côte sud d'Afrique entrée de la rivière Kowie (Port Alfred).

Paris, Dépôt de la Marine, 1870.

975 Baur und **Hartmann.** Reise der Brüder—nach Zibi's Land.

Missionsblatt aus der Brüdergemeinde, 1870, June, July, and August.

976 Grundemann. Atlas der rheinischen Missionsgesellschaft, bearbeitet von—

1870.

977 Natal Almanack, Directory and Yearly Register.

Pietermaritzburg, P. Davis, 1870.

978 Original-Karte von **K. Mauch's** Reisen im Innern von Süd-Afrika zwischen Potschefstroom und Zambesi, 1865 bis 1869 nebst Uebersicht aller anderen Forschungen.

Pet. Mitth., I. 1870.

979 Hahn, Th. Die Buschmänner. Ein Beitrag zur Süd-Afrikanischen Völkerkunde.

Globus, Nos. 5–9. 1870.

980 Karl Mauch's Reisen im Innern von Süd-Afrika.

Pet. Mitth., I. 1870.

981 Hahn, Dr. Th. Der Hottentottische Tsu-ï-goa-b und der Griechische Zeus.

Zeitschr. der Gesellsch. für Erdkunde zu Berlin, Bd. v. 1870. Heft. 5, pp. 452–456.

982 Karl Mauch's Reisen im Innern von Süd-Afrika. Wanderungen im Maschonalande nördlich von Inyati und Rückreise von Inyati nach der Transvaal-Republik.

Pet. Mitth., III. 1870.

983 Archdeacon. Côte Sud-est d'Afrique.

Rivière Buffalo. Paris, Dépôt de la Marine, 1870.

984 Beke, Ch. Monuments of the discoveries of the Portuguese in Africa.

The *Athenæum*, 10th Sept., 1870. Pp. 343–344.

985 Griesbach, C. L. Geologischer Durchschnitt durch Süd-Afrika. Mit Profil.

Jahrbuch der K. K. Geogr. Reichsanstalt, 1870. Bd. xx. Heft. 4, pp. 501–504.

986 Geographisches aus der Transvaal Republik. **Karl Mauch's** Reise im Nordwestlichen Theil der Transvaal Republik, 1869; Die Grenzen der Transvaal Republik; Nachrichten von den Goldfeldern und den Reisenden im Norden, &c. Distanz Messungen von **Th. Baines.**

Pet. Mitth., v. 1870.

987 Eine Kartenskizze von **Dr. Livingstone's** neuen Forschungen. Brief an Consul Dr. Kirk in Zanzibar; Depesche an den Earl of Clarendon; Brief an **Dr. Kirk** datirt Ujiji Mai 30, 1869. Bemerkungen; Tabellarische Uebersicht von Livingstone's 30 jährige Reisen in Süd-Afrika, 1840–1869.

Pet. Mitth., v. 1870.

988 Die Sprache der Hottentotten.

Das Ausland, No. 15, pp. 337–343. 1871.

989 Hübner, Adolf. Geognostische Skizzen von den Süd-Afrikanischen Diamanten Distrikten Kapstadt. Juli, 1870. Mit Karte.

Pet. Mitth., VI. 1871.

990 Petermann, Dr. A. Natal und Orange-Fluss Freistaat, &c., mit den Diamant-Feldern. Nach Messungen und Aufnahmen von **Adolph Hübner, Karl Mauch, Eduard Mohr,** &c.

Map, scale 1:1,400,000. *Pet. Mitth.*, VI. 1871.

991 Elton, Capt. F. Extracts from the journal of an exploration of the Limpopo River, undertaken for the purpose of opening up water communication and a more convenient route from the settlement on the Tati River to the sea coast.

4to, 35 pp. Natal, 1871.

992 Missionär **Hugo Hahn's** Reise im Lande der Hereró und Bergdamara in Süd-west Afrika, 1871.

Pet. Mitth., III. 1873.

993 Dunn, E. J. 'Notes on the Diamond Fields.'

8vo, 20 pp. With six Plates. Cape Town, Saul Solomon, 1871.

994 Mohr, Ed. Von Bremen nach dem Mosiwatunja, den Victoria Fällen des Zambesi.

Elfter Jahresbericht des Vereins von Freunden der Erdkunde zu Leipzig, 1871.

995 Eduard Mohr's Reise im Innern von Süd-Afrika, von den Tati Goldfeldern bis zum Zambesi und zurück nach Natal.

Pet. Mitth., V. 1871.

996 De Zuid-Afrikaansche republieken met de diamantvelden.

With Map. Amsterdam, Leyffardt, 1871.

997 Hübner, Adolph. Geognostische Skizzen von den Süd-Afrikanischen Diamanten-Districten von ——, Berg und Hütten Ingenieur Kapstadt, Juli, 1870.

Pet. Mitth., III. 1871.

998 'A Life's Labour in South Africa, the Story of the Life and Work of **Robert Moffat.'**

8vo. London, 1871.

999 The Diamond Fields in South Africa.

12mo., 30 pp. Manchester, Heywood, 1871.

1,000 Hübner, A. Ueber steinerne Befestigungen im Matabele-Gebiet.

Zeitschr. für Ethnographie, III. 1871.

1,001 Ueber Zwergvölker in Afrika.

Pet. Mitth., IV. 1871.

1,002 Baines. Account of ——'s exploration of the gold-bearing region between the Limpopo and Zambesi Rivers. Prepared from Mr. Baines' journals by **Robert James Mann, M.D.**

With Map. *Journ. R. Geogr. Soc. London*, xxxi. 1871. Pp. 100–131.

1,003 Baines, Th. The existence of *The Traveller* (an international journal).

London, Aug. 1, 1872. Pp. 52–53.

1,004 Chesson, F. W. The Dutch Republics of South Africa. Three letters to **R. N. Fowler** and **Ch. Buxton.**

8vo, 63 pp. London, Tweedie, 1871.

1,005 Beke, Dr. Ch. F. Dr. Livingstone's Discoveries.

Cassell's Magazine, September, 1872.

1,006 —— Dr. Livingstone's Discoveries.

The *Athenæum*, 13th July, 1872, pp. 53–54; 3rd Aug., pp. 149–151; 10th Aug., pp. 180–181.

1,007 Burgers, Th. Schetsen uit de Transvaal.

Cape Town, 1872.

1,008 Chapman, Capt. C. 'Voyage from Southampton to Cape Town and back.'

8vo. London, 1872.

1,009 Davis, Rev. W. J. Dictionary of the Kafir Language, including the Kosa and Zulu dialects.

Printed for the Wesleyan Miss. Soc. London, 1872.

1,010 Robinson, John. Notes of Natal.

London and Maritzburg, 1872.

1,011 Breithaupt, H. Ans den Diamantenfeldern Süd-Afrika's.

Globus, xxii., No. 12. 1872.

1,012 Andersson, Ch. J. 'Notes on the Birds of Damaraland and the adjacent countries of South-West Africa. Arranged and edited by **J. H. Gurney.**'

London, 1872.

1,013 Brown, J. C. On the destruction of Forests in South Africa.

Ocean Highways, ed. by **Cl. Markham**, Nov., 1872.

1,014 Grisebach, A. Die Vegetation der Erde nach ihrer Klimatischen Anordnung.

Incl. South Africa. Leipzig, 1872.

1,015 Davis, Rev. W. J. Dictionary of the Kafir Language.
Printed for the Wesleyan Miss. Soc. London, 1872.

1,016 Haverland, G. Ein Besuch bei dem Kaffer Könige Mapoch.
Die Natur., Nos. 40, 41, 43, and 45. 1872.

1,017 Haverland, G. Skizzen einer Reise nach den Diamantenfeldern in Süd-Afrika.
Das Ausland, No. 42. 1872.

1,018 Hasselt, A. W. M. van. Bijdrag tot de Kennis der afrikaansche Pijlvergiften.
Verslagen en Mededeelingen der K. Akademie van Wetenschappen. Afd. Natuurkunde 2 R., VI. 1872.

1,019 Hartmann, R. Einiges über Ursachen und Wirkungen der im älteren und neueren Afrika Statt gehabten und noch gegenwärtig Statt findenden Völkerbewegungen.
Zeitschr. der Gesellsch. für Erdkunde zu Berlin, VII. 1872.

1,020 Fritsch, Dr. G. Die Eingborenen Süd-Afrika's ethnographisch und anatomisch beschrieben.
With Atlas and Map showing migrations of South African Tribes. Breslau, Hirt, 1872.

1021 Markham, C. R. Dr. R. J. Mann's 'Observations on Sandbars at the Mouths of South African Rivers; with remarks on the formation of dams.'
Proc. R. Geogr. Soc., vol. XVI., No. 3, pp. 138–139. 1872.

1022 Mauch's Entdeckungen im südlichen Afrika.
Das Ausland, No. 22, pp. 505–509; No. 23, pp. 532–537. 1872.

1023 Johnston, A. K. Map of **Dr. Livingstone's** Routes, 1866–1872. Scale, 1:9,000,000.
Ocean Highways, ed. by Cl. Markham, July, 1872.

1024 Wangemann. 'Uebersichts Karte über die Englische Missions Arbeit in Süd-Africa.'
Lith. Fol. Berlin, Schropp, 1872.

1025 Duveyrier, H. Les ruines de Zimbabye on Zimbaóe.
Bull. de la Soc. de géogr. de Paris, Nov., 1872.

1026 Duprat, Viscount. The Trade of Mozambique.
Ocean Highways, Dec., 1872.

1027 Delitsch, Dr. O. Das äquatoriale Tafelland in Süd-Afrika nach dem Stande unserer jetzigen Kenntniss.
Aus allen Welttheilen, Oct., 1872.

1028 "Tosser." 'Twelve Months at the South African Diamond Fields.'

8vo, 66 pp. London, Stanford, 1872.

1029 Elton, Capt. Journal of exploration of the Limpopo River.

Proc. R. Geogr. Soc. of London, vol. XVI., No. 2, pp. 89–101, and vol. XLII. 1872.

1030 —— 'Special Reports upon the Goldfield at Marabastad and upon the Transvaal Republic; with full description of routes, mining law,' &c.

8vo, 20 pp. Durban, 1872.

1031 Een, T. G. 'Minnen frau en flerarig vistelae i Sydvestra Afrika.'

Stockholm, Haeggström, 1872.

1032 Neveu, C. République de l'Afrique méridionale ou de Transvaal Boers.

Revue Maritime et Coloniale, Sept., 1872.

1033 Mohr, Ed. Expedition nach Süd-Afrika. Bericht über meteorologische Beobachtungen angestellt in den Jahren 1869 und 1870, in Süd-Ost Afrika von **Adolf Hübner,** Ingen.

Zeitschr. de Gesellsch. für Erdkunde, 4 Hft. Berlin, 1872.

1034 Livingstone's Afrikanische Entdeckungen.

Das Ausland, No. 31, pp. 721–726. 1872.

1035 Livingstone's Discoveries.

With Maps. *Ocean Highways*, ed. by Cl. Markham, Sept., pp. 172–174. 1872.

1036 Payton, Ch. A. 'The Diamond Diggings of South Africa; a personal and practical account. With a brief notice of the new gold field.'

8vo., 244 pp. London, H. Cox, 1872.

1037 Thomas, Thomas Morgan. 'Eleven Years in Central South Africa: A Journey into the Interior; sketch of the recently discovered Diamond and Gold Fields. Umzilkazi, his country and people. A brief history of the Zambezi Missions.'

With Portrait, Map, and numerous Illustrations. 8vo. London, 1873.

1038 Van der Lingen, Rev. 'Herinneringen aan het Leven en de Werkzaamheden van den Wel-Eerw. heer G. W. A. van der Lingen; Leeraar der Nederl. Gereform. Gemeente aan de Paarl.'

8vo. Paarl, 1873.

1039 Allain, E. Baie de Delagoa.

With Map. *Bull. de la Soc. de Géogr. de Paris*, Aug., 1873.

1040 Die Cap Kolonie.

Unsere Zeit, N.F., 9 Jahrg., 10 H. 1873.

1041 Renevier, Prof. E. Renseignements géogr. et géologiques sur le Sud de l'Afrique, extraits des lettres du missionaire P. Berthoud.

Bull. de la Soc. Vaud. des sciences natur, XIII., pp. 384–390. 1873.

1042 Boyle, Fr. 'To the Cape for Diamonds; a story of digging experiences in South Africa, with comments and criticisms, political, social, and miscellaneous upon the present state and future prospects of the diamond fields.'

London, Chapman and Hall, 1873.

1043 Chart of South-East Coast of Africa; Bashee River to Umtamvuna River.

London, Hydrogr. Office, 1873.

1044 Chart of South-East Coast of Africa; Umtamvuna River to Tugela River.

London, Hydrogr. Office, 1873.

1045 Chart of South-East Coast, St. John's or Umzimvubu River.

London, Hydrogr. Office, 1873.

1046 Afrique côte sud-ouest (chart). Baie de Saldanha.

Paris, Dépôt de la Marine, 1873.

1047 W. Q. Iets over den Oranje-Vrijstaat.

Economist, III. p. 961. Amsterdam, 1873.

1048 Cornelissen, J. E. 'On the Temperature of the Sea at the surface near the South Point of Africa.'

Utrecht, 1873.

1049 Report of the Select Committee on Native Affairs.

Cape Town, 1873.

Contains **Mr. J. M. Orpen's** Memoranda on Native Affairs; Extracts from Treaty with the Pondo Chief Faku in 1844; Extract from Treaty with Kreli in 1835; Report of the Commission (Messrs. **Grant, Ayliff and Griffith**) on Kaffrarian Affairs in 1872.

1050 Delagoa Bay. The Arbitration.

With Maps. *Ocean Highways*, February, 1873.

1051 Die Diamantenfelder in Süd-Afrika.

Leipziger Ill. Zeit., No. 1544, 1873.

1052 Elton, Capt. 'From Natal to Zanzibar; with descriptive notes of Zanzibar, Mombasah, the slave trade, **Sir Bartle Frere's** expedition,' &c.
Durban (Natal), 1873.

1053 Körner, Prof. F. 'Süd-Afrika. Natur und Kulturbilder mit einer historischen Einleitung und einer Uebersicht der neueren Reisen.'
Leipzig, Hirt., 1873.

1054 Aus den Briefen Adolf Hübner's über Süd-Afrika.
Globus, XXIII. 1873.

1055 Haverland, G. Expedition nach einem Goldfelde in Zoutpansberg.
Die Natur, 1873, pp. 4, 14, 20, and 38.

1056 —— Luftspiegelungen in Süd-Afrika.
Die Natur, pp. 284–285. 1873.

1057 —— Die landwirthschaftlichen Verhältnisse der Transvaal Republik in Süd-Afrika.
Die Natur, pp. 265–267. 1873.

1058 —— Besuch der Diamantfelder Süd-Afrika's.
Die Natur, pp. 171, 180, 188, 204. 1873.

1059 Hugon, D. Les mines de diamants d' Afrique.
Rev. Scientifique, 22 Nov. 1873.

1060 Hahn, H. Eine Untersuchungsreise im Hererólande.
Berichte d. Rhein. Missionsgesellschaft, Nos. 7, 8, 10, 11, and 12, 1872, and No. 2, 1873.

1061 Livingstone's Letters to Sir Thomas Maclear.
Prof. Noble's *Cape Monthly Mag.*, 1873.

1062 Thomas, Th. M. 'Eleven Years in Central South Africa.'
London, Snow, 1873.

1063 South Africa, Recollections of. By a late Colonist.
Illustrated Travels, ed. by Bates, vol. v. 1873.

1064 Groger, F. Das Vorkommen der Diamanten im Süd-Afrika.
Verhandlungen der K. K. Geolog. Reichsanstalt, 1873, No. 17, pp. 310–312.

1065 —— Skizze über die Gesteinsverhältnisse im südlichsten Afrika.
Verh. der K. K. Geolog. Reichsanstalt, 1873, No. 7.

1066 Carl Mauch's Reisen in Süd-Afrika, 1865–72.
Ergänzungsh. Pet. Mittheil. 1874.

1067 Cooley, W. D. 'Dr. Livingstone and the Royal Geographical Society.'

8vo. London, 1874.

1068 Cora, G. Le regione aurifere tra Zambesi e Limpopo.

With one Map. *Cosmos di Guido Cora*, II., No. 1, pp. 20–27. 1874.

1069 Duprat. The Portuguese Colonies in Africa.

Geogr. Mag., ed. by Cl. Markham, April, 1874, pp. 35–36.

1070 Dunn, E. J. Mode of Occurrence of Diamonds in South Africa.

Quarterly Journal of the Geol. Soc. of London, XXX. Part 1. 1874.

1071 Hope, P. Journey from Natal *viâ* the South African Republic and across the Lebombo Mountains to Lorenço Marques or Delagoa Bay, and thence to the Goldfields near Leydenburg.

Journ. R. Geogr. Soc., vol. XLIV., p. 203–217. 1874.

1072 Hamilton, Ch. Das Volk der Kissamas in Angola.

Globus, XXV., No. 10. 1874.

1073 'Home in South Africa. By a Plain Woman.'

12mo, 158 pp. London, Soc. for Promoting Christian Knowledge, 1874.

1074 Ports de la côte sud-ouest d'Afrique. Baie du Hottentot; Baie Hondeklip ; Baie Rodewal—Port MacDougall. Baie Spencer. Port d'Ilheo.

Paris, Dépôt de la Marine, 1874.

1075 Steinbank. 'Coffee in Natal; its culture and preparation.'

In 2 parts, with Appendices, Diagrams, &c. 12mo, 84 pp. London, Stanford, 1874.

1076 Map of the Cape Colony. To accompany **Mr. Scott's** Report dated May 14, 1874.

Lith. Cape Town, Saul Solomon & Co., 1874.

1077 Bright, H. E. R. The Geology of Basutoland.

Cape Monthly Mag., Oct., 1874.

1078 Colenso, Bishop. 'Langalibalele and the Amahlubi Tribe, being Remarks upon the Official Record of the Trials of the Chief, his Sons and Induna, and other members of the Ama-Hlubi Tribe. By the Bishop of Natal.'

8vo. 1874.

1079 —— 'The History of the Matshana Inquiry, with a Report of the Evidence as taken down by the Bishop of Natal and the Rev. Canon Tonneson.'

8vo. Without printer's name or date, but evidently printed in 1875.

1080 A Trip through Kafirland.
Cape Monthly Mag., Oct., 1874, and March, 1875.

1081 Erskine, St. Vincent. A Journey to Umzila, in South-Eastern Africa.
Proc. of the R. Geogr. Soc., XIX. 1875. No. 2, pp. 110–134.

1082 Drummond, Hon. W. H. 'The Large Game of South and South-East Africa.'
8vo. With Illustrations. Edinburgh, Edmonston and Douglas, 1875.

1083 Holub. Ueber die Reisen des Med. Doctor Emil—in Süd-Africa.
Mitth. der K. K. Geogr. Gesellschaft in Wien, XVIII. 1875. No. 2, S. 82–85.

1084 The Port Elizabeth Directory and Guide to the Eastern Province of the Cape of Good Hope for **1875.**

1085 Karte vom Kapland, by **A. Petermann.** 1:5,000,000 in Stieler's Hand Atlas.
Justus Perthes, Gotha, 1875.

1086 Livingstonia, the new missionfield.
Reformed Presbyt. Mag., April 1, 1875. Pp. 126–130.

1087 Livingstone, David. 'A popular account of Dr. Livingstone's expedition to the Zambesi and its tributaries, and of the discovery of lakes Shirwa and Nyassa, 1858–64.'
Abridged from the larger work. London, Murray, 1875.

1088 Livingstone's 'Reisen in Inner Afrika, 1866–73.' Auszüge aus seinen Tagebüchern.
Pet. Mitth., III. 1875.

1089 Monteiro. On Quissama Tribe of Angola.
Journ. of the Anthrop. Inst. of Great Britain and Ireland, vol. v. 2. 1875.

1090 Merensky, A. 'Beiträge zur Kenntniss Süd Afrika's.
(Geogr., ethnograph., and historical.) 8vo. Berlin, Wiegandh and Grieben, 1875.

1091 —— Eine neue Karte der Süd-Afrikanischen Republic.
Zeitschrift der Gesell. fur Erdkunde zu Berlin, X. 1875. 5 Heft.

1092 Mitchell, Rev. G. Some account of the Baralong—a South African tribe.
The Mission Field, London, August, 1875.

1093 Mohr, Ed. 'Nach den Victoria-fällen des Zambesi.'
2 vols. With Illustr. and one Map. Leipzig, Hirt, 1875.

1094 Noble, J. 'Descriptive Handbook of the Cape Colony, its Condition and Resources.'
Cape Town, Juta, 1875.

1095 Railway from Port Nolloth to O'okiep.
Cape Month. Mag., September, 1875.

1096 Jones, Ch. H. 'Africa. The history of exploration and adventure as given in the leading authorities from Herodotus to Livingstone.'
8vo, 496 pp. With one Map. New York, Holt, 1875.

1097 Silver (S. W.) & Co. 'Handbook for South Africa, including the Cape Colony, Natal, the Diamond Fields, and the Trans-Orange Republics.'
With Map and a Gazetteer. 8vo. London, 1875.

1098 Karte von Livingstone's Reisen in Inner Africa, 1866–73. Nach der englischen Ausgabe seiner Journale. By A. Petermann.
1:2,500,000. *Pet. Mitth.*, III. 1875.

1099 Fournier, A. Le Mozambique.
l'Explorateur geog. et comm., 1875.

1100 Weber, E. v. 'Vier Jahre in Afrika, 1871–75.'
2 vols. Leipzig, Broçkhaus, 1875.

1101 Kiepert, H. Phys. Wandkarten. V. Afrika.
Berlin, Reimer, 1875.

1102 Blue Book on Native Affairs, **1875,** contains a memorandum by the Hon. Chas. Brownlee.
A valuable contribution to the history of the Kafir tribes on the east of the Colony.

1103 Merensky. Beiträge zur Kenntniss Süd Afrika's.
Berlin, 1875.

1104 The Capture of the Cape in 1806.
C. M. Mag., September, 1875.

1105 'African Pilot; or Sailing Directions for the West Coast of Africa.' Part 2, from the River Cameroon to the Cape of Good Hope, including Ascension, St. Helena, Tristan da Cunha, and Gough Islands.
London, 1875.

1106 Anderson, C. J. 'Notes of Travel in South Africa.' Edited by L. Lloyd.
London, Hurst and Blackett, 1875.

1107 Baines, Thomas. 'The Gold Regions of South-Eastern Africa.'
1875 (or 6 ?).

1108 Barth, H. V. 'David Livingstone der Afrika-reisende, Ost-Afrika vom Limpopo bis zum Somali-Lande. Erforschungs reisen im Osten Afrika's. Mit besonderer Rücksicht auf Leben, Reisen, und Tod von David L.'

8vo, 530 bd., mit 2 Karten und 205 Illustrationen. Leipzig, Spamer, 1875.

1109 Bleek, by the late Dr. — Bushman Researches.

C. M. Mag., September, 1875.

1110 Bleek, W. H. I. Second Report concerning Bushman Researches, with a short account of Bushman Folklore.

1875. Cape Town, Juta; London, Trübner.

1111 —— 'A brief account of Bushman Folklore, and other texts.'

Cape Town, 1875.

1112 Brown, J. C. 'Hydrology of South Africa.'

London, King, 1875.

1113 Cachet, F. Lion. 'Vijfteen jaaren in Zuid-Afrika.'

Leeuwarden, Bokma, 1875.

1114 Cohen, Dr. E. Erlauternde Bemerkungen zu der Routen Karte einer Reise von Leydenburg nach den Goldfeldern und von Leydenburg nach Delagoa-Bai in Süd-Afrika.

Jahrber. der Geogr. Gesell., Hamburg, 1874–75.

1115 Arnot. D., and **Orpen, F. H. S.** 'The Land Question of Griqualand West; an inquiry into the various claims to Land in that Territory, together with a brief history of the Griqua Nation.'

8vo. Cape Town, 1875.

1116 Bleek, Dr. Articles in *Cape Magazine*, 1858—75.

1117 Butler, Lieut.-Col. 'Far out; Rovings Retold.'

London, 1875.

1118 Glanville, T. B. 'Guide to South Africa.'

8vo. London, 1875.
—— 'At Home and Abroad.' 8vo. London.

1119 Leslie, D. 'Among the Zulus and Amatongas; and the facts of the Delagoa Bay dispute. Edited by Hon. H. H. Drummond.'

1 vol., 8vo. Edinburgh and London, 1875.

1120 Layard, E. L. 'The Birds of South Africa.'

New edition, thoroughly revised and augmented by R. B. Sharpe, F.L.S. 1 vol. Coloured Plates. Large 8vo. London, 1875.

1121 Lord, W. B. 'Diamonds and Gold.'

1875.

1122 Renavier, Prof. E. Remarques géographiques et géologiques sur le sud de l'Afrique. Extraits des lettres du Missionaire P. Berthoud.

Bulletin de la Société Vaud., vol. XIII. Paris, 1875.

1123 Chambeyron, Capt. Un mois à Cape Town, Mosselbay et Port Elizabeth.

Revue maritime et coloniale, December, 1875.

1124 Bisset, Major-Genl. 'Sport and War; or, recollections of fighting and hunting in South Africa from the year 1834–67, and a narrative of H.R.H. the Duke of Edinburgh's visit to the Cape.'

With Map and Illustrations. London, Murray, 1875.

1125 Codine, J. Découverte de la côte d'Afrique depuis le cap Sainte-Cathérine jusqù à la rivière Great Fish. (Rio Infante) et padrons plantés sur cette côte par les Portugais pendant les années 1484–88.

Bull. de la Soc. de Géogr. de Paris. January, 1876.

1126 Anker, M. U. 'Kortfattet Oversigt over det norske Missions selskabs Virksomhed i Sydafrika og paa Madagaskar.'

Bergen, Beyer, 1876.

1127 Carus, Th. Ed. Mohr's Reise nach den Victoria-Fällen des Zambesi.

Natur und Offenbarung, 22. Bd. 1876.

1128 Baron, A. 'Voyages en Afrique de Le Vaillant.'

Limoges, Ardant, 1876.

1129 Neveu. Notes sur Mozambique.

Rev. Maritime et Coloniale. 1876.

1130 Malan, C. H. 'South African Missions.'

London, Nisbet, 1876.

1131 Gamble, John G. Barometric Observations—Table of Heights.

Cape Monthly Magazine, August, 1876.

1132 Guillet. Excursion dans la colonie du Cap.

Bull. de la Soc. de Géogr. de Lyon, II., No. 3. 1876.

1133 Fossil Reptilia of South Africa. Professor Owen on the Ancient Conditions of the Cape.

Cape Monthly Magazine, August, 1876.

1134 Southern Africa, Map of —

London, Silver & Co., 1876.

1135 Hall, H. 'Southern Africa, including the Cape Colony, Natal, and the Dutch Republics.'

8vo. IV., 56 pp. London and Paris, 1876.

1136 South Africa. Plettenbergs Bay. 1:36,518.
London, Hydr. Off., 1876. No. 385.

1137 Young, E. D. Sketch Map of Lake Nyassa, 1876.
Proc. R. Geog. Soc. 1876. No. 6.

1138 Portuguese Possessions, Notes on the—on S.W. and S.E. Coast of Africa.
The Colonies. 1876. No. ccxviii. p. 205–207 ; No. ccxxi. p. 244–245.

1139 Pinto da Fonseca Vaz, J. Monteiro. 'Mappa do rio Zambese desde o Oceano ate Tete, com a designacão de todos os confluentes,' &c.
Lisbon, 1876.

1140 Veth, Prof. P. J. en Dr. C. M. Kan. Bibliografie van Nederlandsche boeken, brochures, kaarten, enz. over Afrika.
Tijdschr. van het aardrijllsk. genootsch. 1876. No. 8.

1141 Rees, W. A. Van. 'Naar de Transvaal.'
With Map. Amsterdam, v. Kampen, 1876.

1143 Standpunkt der Erforschung von Central und Süd-Afrika bis September, 1876, bisonders des Reisen Camerons, der Deutschen Loango Expedition und der Seebefahrung von Stanley (Ukerewe), Gessi (Mwutara), Young (Nyassa).
A. Petermann. 1:12,500,000. *Pet. Mitth.*, x. 1876.

1144 Dr. E. Holub's Reise in Süd Africa. Im Stromgebiete des Limpopo ; Das selbständige Pfannen-Gebiet.
Pet. Mitth., v. 1876.

1145 Barker, Lady. First days in Natal.
Evening Hours, March, 1876.

1146 —— First Impressions of South Africa.
Evening Hours, February, 1876.

1147 —— Letters from South Africa.
Lippincott's Magazine, February, March, April, May, 1876.

1148 Büttner. Sociale Verhältnisse im Herero-Lande.
Berichte der Rheinischen Missions Gesellschaft. 1876. No. 12, pp. 553–557.

1149 Brooks, H. 'Natal : a history and description of the colony, including its natural features, productions, industrial conditions and prospects.'
With Maps. London and Berlin, Asher & Co., 1876.

1150 Boyle, F. 'The Savage Life—a second series of Camp Notes.'

8vo. 1876.

1151 Gray, Rev. C. 'Life of Robert Gray, Bishop of Cape Town.'

2 vols. Portrait and Maps. 1876.

1152 Hofstede, H. J. Geschiedenis van den Oranje-Vrijstaat.

Illustrations and Map. 8vo. Gravenhage, 1876.

1154 George M. Theal. 'South Africa as it is.'

1871.

1155 Blue Book on Nat. Aff. for 1876.

Contains Map of East Griqualand. Compiled by Ed. Barker.

1156 Dale, Langham. On Stone Implements at the Cape of Good Hope.

Journal Anthrop. Inst., vol. i. p. 347. 1875 or 76?

1157 Hartmann, Dr. Robert. Die Nigritier eine Antropologische Ethnologische Monographie Erster Theil.

Berlin, Wiegandt, Hempel, and Parey, 1876. Contains much valuable information on S. A. natives.

1158 Hobirk, F. 'Wanderungen auf dem Gebiete der Länder und Völkerkunde. Bd. 17. Die Nil Länder; Süd Africa 20. Nord Africa.

Detmold, Meyer, 1876.

1159 Okavango River, Beyond the—

Cape Argus, April 1, 1876. Interesting account of a journey to the country beyond the Okavango.

1160 McKenzie, J. M. 'Ten years north of the Orange River.'

1876.

1161 Report of Surv.-Gen. of Cape of Good Hope on the Tenure of Land, on Land Laws, on their Results, and on the Topography of the Colony.

1876. With int. facsimile of earliest property title.

1162 Speckmann. Die Hermannsburger Mission in Africa.

1 Bd Hermannsbg. Missionshausdruckerei, 1876.

1163 Wenzelburger, Dr. Die Transvaalische Republik.

Unsere Zeit. N. F., 12. Jahrg. 1876. 18 Heft.

1164 Süd-Afrika. Dre ersten Reiseeindrücke in—

Wiener Abendpost, No. 133–137. 1876.

1165 Tuve, E. Eine Landreise in Süd-Afrika. Von Port Elizabeth nach Bloemfontein.

Aus allen Welttheilen, June, 1876.

1166 Tuve, G. Ein Tag in der Kapstadt und eine Besteigung des Tafelberges.

Aus allen Welttheilen, April, 1876.

1167 Theal, George M. Compendium of South African History and Geography.

2nd ed., revised and enlarged. Lovedale, South Africa: Printed at the Institution Press (1st ed., 1874). 1876.

1168 Mozambique, Die Stadt, von R.S.

Westermann's Monatshefte, June, 1876.

1169 Die jüngsten Forschungen im Seen gebiet des äquatorialen Ost Afrika, von Young, Gessi, Stanley, 1874–6.

Pet. Mitth., x. 1876.

1170 Results of a Census of the Colony of the Cape of Good Hope, taken on the night of Sunday, the 7th March, 1875.

Part I. Summaries (with Maps). Part II. Supplementary Tables. Cape Town, Saul Solomon, 1877.

1171 Hamy, E. T. Un récent voyage chez les Cafres Zoulous.

La Nature, January 6, 1877.

1172 Nogueira, A. F. Os Banhaneca e os bankumbi (Africa Austral) a proposito do livro de Sir John Lubbock. 'As origens da Civilsação.'

Bol. Soc. Geog. de. Lisbon, 1877.

1173 Veth en **Kan.** Eerste supplement tot de biographie van Ned. boeken brochures, kaarten enz. over Afrika.

Tydschr. Aardr. Genootsch. Amsterdam. 1877. No. 4, p. 253–256.

1174 Ravenstein, E. G. 'The South African Republics.'

With Map. The *Geogr. Magazine*, Feb., 1877. Pp. 27–28.

1175 Estourgis. Travaux géographiques au Cap de Bonne-Espérance.

Bull. Soc. Belge de Geogr. 1877. No. 2, p. 159–168.

1176 Friederichsen, L. Die Britischen Besitzungen in Süd-Africa.

Cr. 8vo, Hamburg, Friederichsen & Co, 1877.

1177 —— Die Elton-Cotterill'sche Reise vom Nyassa See bis Ugogo. 1:1,800,000.

With Map. *Pet. Mitth.* 1877.

1178 Holub, Dr. E.——'s Reisen in Süd-Afrika, 1873–77.
Mitth. Geogr. Ges. Wien. 1877.

1179 Young, E. D. 'Nyassa. A Journal of Adventures whilst exploring Lake Nyassa.'
London, Murray, 1877.

1180 —— On a recent sojourn at Lake Nyassa.
Proc. R. Geogr. Soc. 1877.

1181 Shaw, Dr. John. The age of the Volcanic Throats of the Upper Karoo Formations of South Africa.
Trans. S. A. Phil. Soc., vol. I. part I. 1877–78.

1182 Morton, W. J. The South African Diamond Fields and the Journey to the Mines.
Bull. American Geogr. Soc. 1877. No. 4.

1183 Watermeyer, E. B. Selections from the Writings of the late—, with a brief sketch of his life.
Cape Town, J. C. Juta, 1877.

1184 Palgrave, W. C. Report on his Mission as Special Commissioner to the tribes North of the Orange River in Damaraland and Great Namaqualand.
Cape Town, 1877.

1185 Lippert, E. Die Diamantfelder Süd-Afrika's.
Mitth. Geogr. Gesell. Hamburg, 1876–77.

1186 Jacquemin, S. Le Transvaal.
Bull. Soc. Belge de Geogr. 1877.

1187 Barker, Lady. 'A Year's Housekeeping in South Africa.'
London, 1877.

1188 Chalmers, Rev. J. 'Life of Tiyo Soga.'
Edinburgh, 1877.

1189 'Geschiedenis van ons Land. In die Taal van ons Volk. Uitgege deur die Genootschap van Regte Afrikaners.'
8vo. Cape Town, 1877.

1190 Adler, N. Ueber die Kaffern und deren jetzige Stellung zu den Süd-Afrikanischen Kolonien.
Ostr. Monatschr. f. d. Orient. 1877 No. 7.

1191 Chavanne, Dr. J. Phys. Wandkarte von Afrika. 1:8,000,000.
Wien, Hölzel, 1877.

1192 Gamble, J. G. Report on the Div. of Oudthsoorn.
1877. Parliamentary Blue Book.

1193 Piers, Henry W. The Movements of Sea Sands and Bar Harbours.
Trans. S. A. Phil. Soc., vol. I. part I. 1877–78.

1194 —— Stray Notes on the Geology of the Fort Beaufort District.
Trans. S. A. Phil. Soc. 1878. Part II.

1195 Prosser, W. Notes on the Devonian and Ash Beds of the Karoo and Gouph.
Trans. S. A. Soc., vol. I. part I. 1877–78.

1196 —— The Limestones of the Colony.
Trans. S. A. Phil. Soc., part V. 1878.

1197 Perinquey, L. Les refugées huguenots au Cap de Bonne-Espérance.
Bull. Soc. de Geogr. Comm. Bordeaux, August, 1878. Pp. 217–224.

1198 Hahn, Th. Dr. The Graves of Heitsi-Eibib. A Chapter on the Pre-Historic Hottentot Race.
Cape Monthly Mag., May, 1878.

1199 Gillmore, P. 'The Great Thirst Land. A ride through Natal, Orange Free State, Transvaal, and Kalahari Desert.'
London, Cassell, Petter & Galpin, 1878.

1200 Grover, P. E. Eastern Portion of South Africa, 1:633,600.
London, Quartermaster-General's Department, 1878.

1201 Roche, H. A. 'On trek in the Transvaal.'
London, Sampson Low, Marston, Searle. 1878.

1202 Rutenberg. C——'s Reisen in Süd Ost-Afrika.
Deutsche Geogr. Bl. 1878. No. 3.

1203 Tromp, P. C. Transvaal.
Bol. Soc. Geogr. Madrid. 1878. V. No. 3, pp. 177–193.

1204 Trollope, A. 'South Africa.'
London, Chapman and Hall, 1878.

1205 Shaw, Dr. John. The Petrography of Table Mountain Valley.
Trans. Phil. Soc. 1878. Part VI.

1206 —— 'The Geography of South Africa.'
100 pp., 8vo. London, Collins, 1878.

1207 Sivewright, J. A Trans-African Telegraph.
Trans. S. A. Phil. Soc. 1878. Part I.

1208 Prosser, W. The Granites and Gneiss of the Colony.
Trans. Phil. Soc. 1878. Part IX.

1209 Malte-Brun, V. A. La nouvelle province anglaise du Transvaal.

L'Exploration. 1878. No. 69.

1210 Keith Johnston. 'Africa.' With Ethnological Appendix by A. H. Keane.

London, Stanford, 1878.

1211 Fynney, F. B. The geographical and economic features of the Transvaal.

Journ. of the R. Geogr. Soc., vol. XLVIII. 1878.

1212 Ayuso, F. C. Viajes de Mauch y Baines al Africa del Sud.

Madrid, 1878.

1213 Alexander. Walwich Bay.

Colburne's Len. Mag., Aug., 1878.

1214. Aylward, A. 'The Transvaal of To-day.'

8vo, 440 pp. London, Blackwoods, 1878.

1215 Africa, West Coast: Walwich Bay Settlement, with enlarged plan of Bay. (No. 629.)

London, Hydr. Off., 1878.

1216 African Scenery, Sketches of, from Zanzibar to the Victoria Nyanza.

London, Church Missionary Soc., 1878.

1217 African Pilot. South and East Coasts.

Part III., 1878. London, Hydr. Office, 1878. Part II. Additional information relating to Gaboon and Congo Rs., Walfish Bay, &c. No. 25. 1878.

1218 African Folklore. Contributions in Zulu.

C. M. Mag., May and June, 1878.

—— Sparks from a Kaffir Anvil. The Story of Hhlakanyana.

C. M. Mag., Sept., 1878.

1219 Bailie, A. C. Report on the general features of the interior of South Africa between Barkly (W.) and Gubuluwayo.

With Map. *Proc. R. Geogr. Soc.* 1878. XLVIII.

1220 Bainier, P. La Tsetsé.

L'Exploration. 1878. No. 84.

1221 Black, W. J. Droughts and Climates at the Cape.

Geogr. Mag., 1878.

1222 Bulhões, E. L. de. Les Colonies Portugaises: Court Exposé de leur situation actuelle.

Lisbonne Impr. Nationale. 1878.

1223 Blerzy, H. Les colonies de l'Afrique australe.
Rev. d. Deux Mondes, 1878, Jan. 15.

1224 Büttner. Die Bergdamra.
Ber. Rhein Miss. Ges. 1878. No. 1.

1225 Becker, C. J. 'Guide to Transvaal.'
8vo. 1878.

1226 Keith, Johnstone. Africa. Stanford's Compendium of Geography and Travel, based on Hellwald's 'Die Erde ihre Völker.' With Ethnological Appendix by A. K. Keane.
London, 1878.

1227 Mackenzie, Anne. 'Mission Life among the Zulus.'
8vo. 1878.

1228 Weber, Ernst von. 'Vier Jahre in Afrika 1871–75, mit Abbildungen in Holzchnitt einem Plane und einer Karte.'
8vo., 2 vols. Leipzig, 1878.

1229 Catalogue of the Mosses of the Cape Colony, on the basis of Müller's 'Synopsis Muscorum Frondosorum.' Dr. J. Shaw, F.G.S., F.L.S.
Cape M. M., Nov. and Dec., 1878.

1230 Noble, J. Official Handbook of the Cape and South Africa.
London, Longmans (1 Map), 1878.

1231 Letts' Map of South Africa.
London, Letts, 1878.

1232 Erskine, St. V. Two Journeys in Gaza Land during 1873–75.
Proc. R. Geog. Soc. 1878.

1233 Cotterill, H. B. On the Nyassa, and a Journey from the North End to Zanzibar.
With Map. *Proc. R. Geog. Soc.* 1878. XXII. No. 4.

1234 Viehe, G. 'Eine Reise im Herero Lande.'
Aus fernen-Zonen, 1878–9. No. 3.

1235 Walwich Bay.
India and the Colonies. 1878. No. 329.

1236 Warren, Capt. C. From the Gold Region in the Transvaal to Delagoa Bay.
Jour. of the Roy. Geog. Soc., vol. XLVIII. 1878.

1237 Moodie, P. The Population and Future Government of Transvaal.
Jour. of the R. United Service Inst. 1878. No. 96.

1238 Wauters, A. J. Le Zambese.
Bull. Soc. Belge. 1878. No. 4, p. 383–406 ; No. 6, pp. 587–656.

1239 Verassis, A. Cenni storici e statistici sulle colonie portoghese.
Bollet. Consel. 1878. No. 4–5.

1240 Danckelman, A. Zur Klimatologie des Herero Landes.
Ztschr. Öst. gesellschaft f. Meteorol. 1878. No. 27.

1241 Künzle-Steger, J. U. Bericht über die Handelsverhältnisse der Cap-Colonie.
Jahres ber. d. Ostschweizerischen Comm. Gesell. 1878.

1242 Schussler. 'Zuid Afrika.'
With Map. Amsterdam, v. Kampen, 1878.

1243 Colonies Portugaises. Court exposé de leur situation actuelle.
8vo, 137 pp. Lisbonne, *Soc. de Géog.*, 1878.

1244 Cotterill, H. B. Le Nyassa. État de l'esclavage, du commerce et de la Colonisation.
Journ. of Soc. of Arts, Juni, 1878.

1245 Merensky, A. Esquisse Géographique du Sud-Est de l'Afrique.
Bull. Soc. Belge de Géog. 1878. No. 5, p. 439–472.

1246 Erskine, St. Vincent. Third and Fourth Journeys in Gaza, on Southern Mozambique.
Journ. of the R. Geog. Soc., vol. XLVIII. 1878.

1247 Carlyle, J. E. 'South Africa and the Mission Fields.'
Post 8vo, 330 pp. London, Nisbet, 1878.

1248 Carey-Hobson. A Chat about the Cape and the Transvaal.
India and the Colonies. 1878. No. 325–332.

1249 Cap de Bonne Espérance, les réfugés huguenots au—
Jour. du Comm. marit., 28th Aug., 1878.

1250 Drée, de. Voyage aux mines de diamants dans le Sud de l'Afrique.
Tour du Monde. 1878. No. 931–933.

1251 Stanley, H. M. 'Through the Dark Continent.'
Contains also in vol. II. an account of his visit to Cape Town and Simonstown after the completion of his great journey.
Sampson Low, 1878.

1252 Guthrie, F. The Heat of the Sun in South Africa.
Vol. I. part I. 1877–78. *Trans. S. A. Phil. Soc.*

1253 Silver, S W. & Co. Handbook of the Transvaal, &c.
London, 1878.

1254 Hahn, Dr. Th. The Graves of Heitsi-Eibib. A chapter on the Prehistoric Hottentot Race.
May, 1878. *C. M. M.*

1255 Gamble. Rainfall of South Africa.
Vol. I. part II. 1877–78. *S. A. Phil. Soc.*

1256 Hydraulic Eng. Reports in 1878.

1257 Cordeiro. 'L'Hydrographie Africaine.'
Lisbonne, 1878.

1258 Originalkarte des Herero und Kaoko Landes nach allen bisherigen Aufnahmen und Reisen einschliesslich der neuesten Beobachtungen, Angaben der Rheinischen Missionäre, besonders der Herren J. Böhm und F. Bernsmann von A. Petermann. 1:2,200,000.
Pet. Mitth., VIII. 1878.

1259 Herero-Land. Land und Leute. Metereologische Andeutungen.
Pet. Mitth., VIII. 1878.

1260 Nogueira, A. F. Le Rio Cunêne.
Bull. Soc. Géog., Paris, 1878.

1261 Die Erforschung Afrika's mit Hülfe von Elefanten **Von A. Petermann.**
Pet. Mitth., XI. 1878.

1262 Rockpaintings existing near Ameib, in Damaraland, South Africa.
Cape Monthly Mag., April, 1879.

1263 Rutherford, R. On Confederation of the South African Colonies.
Transvaal Book Almanac, &c. 1879.

1264 Rance, C. E. de. Geology of Natal and Zululand.
Nature, 1879. No. 490.

1265 African Pilot, part III. Remarks relating to the coast between Tugela River and St. Lucia Bay.
No. 12. 1879.

1266 Montégut, E. 'L'Angleterre et ses colonies australes, Australie, Nouvelle-Zélande, Afrique-Australe.'
Paris, Hachette, 1879.

1267 Laws, Dr. Journey along part of the western side of Lake Nyassa in 1878.
Proc. R. Geog. Soc. 1879. No. 5.

1268 Zulu Country. Précis of Information concerning—
With Map. London, Govt. Publication, 1879.

1269 War Map of Zululand and adjoining Countries.
London, Smith and Sons, 1879.

1270 Map of Transvaal, Natal, and Zululand. 1:2,500,000.
Amsterdam, Seyffardt, 1879.

1271 Map, Transvaal. Sketch Map of a portion of the— showing Sekukuni's Territory.
London, Int. Branch, Quart.-Genl's. Dep., 1879.

1272 Map of Natal. Sketch Map of—
Compiled at Intell. Branch Quartermaster-Genl's. Dep., London, 1879.

1273 Wyld's Military Sketch of Zululand, Transvaal, the frontiers of Natal, and the Orange Free State. 1:730,000.
London, Wyld, 1879.

1274 Drayson, A. W. 'Among the Zulus; the Adventures of Hans Sterk, South African Hunter Pioneer.'
London, Griffith, 1879.

1275 Wylde, A. 'Six months in Natal after the Langalibalele Outbreak.'
London, Chapman, 1879.

1276 Hahn, Th. The Graves of Heitsi-Eibib. A chapter on the prehistoric Hottentot Race.
Cape Monthly Mag. 1879. No. 97.

1277 Noble, J. 'South Africa; Past and Present.'
Cape Town, 1878

—— British South Africa.
Suppl. to *Colonies and India*, Feb. 22 and March 1, 1879.

1278 Diamantminen, Die— Süd-Africa's. Von W. A.
Triester Zeitung, Jan. 31, 1879. No. 28.

1279 Elton, J. F. Travels and researches among the Lakes and Mountains of Eastern and Central Africa. From the journals edited and completed by **H. B. Cotterill.**
Three Maps. London, Murray, 1879.

1280 Diamantfelder, die, in Süd-Africa. Bearbeitet von H. T.
Aus allen Welttheilen, XI. No. 4. 1879.

1281 A few leaves of the Stellenbosch Records.
Cape Monthly Mag., April, 1879.

1282 African Overland Telegraph.
Proc. R. Geog. Soc. 1879.

1283 On the Bamangwato Country (the subst. of a Report made by the late Capt. Patterson to Sir Theoph. Shepstone).
Cape M. M., June, 1879.

1284 Jeppe, F. Notes on the Transvaal. Historical Sketch.
Transvaal Book Almanac. 1879.

1285 Church Missionary Society. Map of Africa, 76 miles to 1 inch.
London, Stanford, 1879.

1286 Africa. Smaller School Map, 236 miles to 1 inch.
London, Stanford, 1879.

1287 Ballantyne, R. M. 'Six months at the Cape.'
Post 8vo, 242 pp. London, Nisbet, 1879.

1288 Cunynghame, A. Th. 'My Command in South Africa, 1874–78.'
With three Maps. London, Macmillan, 1879.

1289 Watermeyer, A. G. The Transvaal Natives.
Transv. Book Almanac, 1879.

1290 Streathfield, F. N. 'Kafirland. A Ten Months' Campaign.'
London, Sampson Low and Co., 1879.

1291 Sampson, V. Kafir Wars, their Origin and History.
The Colonies and India, 1879. No. 338–345.

1292 Stewart, J. The Second Circumnavigation of Lake Nyassa.
Proc. R. Geog. Soc. 1879. No. 5.

1293 —— African Papers. No. 1, Lovedale—Livingstonia.
Edinburgh, Elliot, 1879.

1294 MacGregor, H. G. Sketch of the Road from Fort Tenedos to Ekowe.

1295 —— Sketch of Ground about Ekowe.
Intell. Br. Quarterm.-Genl's. Dep., 1879.

1296 Grover, C. E. Map of South Africa, 1:633,360.

1297 —— Rough Map of Zululand for the Guidance of Officers, &c. 1:253,440.

1298 —— Military Map of Zululand. 1:316,800.
London, Intell. Br. Quarterm.-Genl's. Dep., 1879.

1299 Serpa Pinto. Voyage de — dans l'Afrique Australe.
Journ. Officiel. 1879. No. 178.

1300 ——
Nature. 1879. No. 505.

1301 Major Serpa Pinto's Reise durch Süd-Afr.

Pet. Mitth., VIII. 1879.

1302 Pogge. Über die Verwendung von Elephanten bei Afrika-Reisen und Anlage von Stationen.

Globus, 1879. Bd. xxxv. No. 8.

1303 Das Neves, Fernandez. 'A Hunting Expedition to the Transvaal.' Translated from the Portuguese by Mariana Monteiro.

8vo. 1879.

1304 Farrer, J. A. 'Zululand and the Zulus; their history, belief, customs, military system, home life, legends, &c., and missions to them.'

3rd ed. 12mo. 1879.

1305 Godlonton, R. Case of the Colonists of the Eastern Frontier of the Cape of Good Hope in reference to the Kafir Wars of 1835–36 and 1846.

8vo. Grahamstown, 1879.

1306 Lucas, T. J. 'The Zulus and the British Frontiers.'

8vo. 1879.

1307 Atcherley, Rowland. 'A Trip to Boerland, or a year's Travel and Sport and Gold-digging in the Transvaal and Colony of Natal.'

8vo. 1879.

1308 Richards, Bishop. 'The Catholic Church and the Kafir. A Sketch of the Progress of Catholicity in South Africa.'

8vo. London, 1879.

1309 Sandili and **Cetchwayo.** 'Ein Spiegelbild von Kafferland und seinen Kriegen.'

Plates. 8vo. Berlin, 1879.

1310 Wilmot, A. 'History of the Zulu War.'

8vo. 1879.

1311 Walmsley, H. M. 'Zululand: Its wild Sports and Savage Life.'

London, Warne, 1879.

1312 Holub, E. The Past, Present, and Future Trade of the Cape Colonies with Central Africa.

The Colonies and India. 1897. No. 383.

1313. —— Eine Cultur-skizze des Marutse—Mambunda—Reiches.

Herausgeg. von der K. K. Geogr. Gesell. Wien, Zamarski. 1879.

1314 A glance at the old Records of Swellendam.
Cape Monthly Mag., March, 1879.

1315 Sir Henry Tyler's (Book or Pamphlet).
Railway Report, 1878–79.

1316 Meteorology of South-Eastern Africa.
C. M. M., Aug., 1879.

1317 Carlyle, Rev. J. E. 'South Africa and its Mission Fields.'
London, Nisbet & Co., 1879.

1318 Mackinnon, J. P. The South African Campaign, 1879.
1880.

1319 Chavanne, J. Die Zulu-Kaffern und ihr Land.
Geogr. Rundschau, 1. No. 7, with Map. 1879.

1320 Aylmer, F. 'Bush life in Zululand.'
London, Maxwell, 1879.

1321 Blencowe, G. Notes on the Physical Geography of Zululand and its Borders.
Proc. Roy. Geogr. Soc. 1879.

1322 Barrett, H. J. 'Fifteen years among the Zulus and the Boers.'
London, Stanford, 1879.

1323 Zulu-Land. Books, Memoirs, and Map on.
Proc. R. Geogr. Soc. 1879. No. 3.

1324 Henkel, C. 'Sketch Map of East Griqualand and Pondoland.'
Quar.-Genl's. Dept., in Blue Book of Native Affairs. 1879.

1325 Map, Africa, E. Coast: Delagoa Bay to Masangzani Bay.

1326 —— West Coast: Donkin Bay to Milkbosch Point.

1327 —— Milkbosch Point to Orange River.
London, Hydr. Off., 1879.

1328 Hall, H. Map of South Africa, Cape Colony, Natal, Zululand, &c. 1:3,166,800.
London, Stanford, 1879.

1329 Patterson, R. R. On the Bamangwato Colony.
Proc. R. Geog. Soc. 1879. No. 4. With Map.

1330 Provisorische Skizze der Serpa Pinto 'schen Expedition durch Süd-Afrika, 1:12,500,000.
Pet. Mitth., VIII. 1879.

1331 Ostküste. Die Häfen Ibo, Zanzibar, Mozambique, Delagoa-Bai, Quilimane, and Macusa an der —

Ann. Hydr. 1879. No. 9.

1332 Soubeiran, J. L. Le Natal, le Transvaal et le Zululand.

Bull. Soc. Geogr. Langued. No. 1. 1879. With Map.

1333 Vattemare, H. 'David Livingstone. Voyages d'explorations au Zambèze,' &c., &c. (1840–1873).

With Map. Paris, Hachette, 1879.

1334 Silver's Colonial Pocket Series, No. 9. 'The Cape, Free State, and Diamond Fields.'

London, 1879.

1335 Hutchinson, Mrs. 'In Tents in the Transvaal.'

London, Bentley, 1879.

1336 Bohn, E. Matakong.

Bull. Soc. Geogr. Marseille. No 3–5. 1879.

1337 The Berg-Damara.

Cape Monthly Mag. 1879.

1338 Neves, F. das. 'A Hunting Expedition to the Transvaal.'

Transl. from the *Post.* London, Bell, 1879.

1338a Delamare. Nueva mapa de Africa, segun los geógrafos mas autorizados y las relaciones de los exploradores modernos.

4 Sheets. Paris, Turgis, jun., 1879.

1339 Rohlfs, G. Uber die Schreibweise Geographischer, &c., Eigenamen.

Pet. Mitth., IX. 1879. Gotha.

1340 Durand, Abbé. Voyage du Père Duparquet dans l'Afrique australe, d'après ses lettres.

Bull. Soc. Géogr. Paris, August, 1879.

1341 Tromp, Th. M. Herinneringen uit Zuid-Afrika ten Tijde der Annexatie van de Transvaal.'

With Map.

1342 —— 'De Stam der Ama-Zoeloe.'

Leiden, Brill, 1879.

1343 Jollivet, Ch. Natal.

L'Exploration. 1879. No. 103.

1344 Deppe, A. 'L'Afrique australe et l'expédition anglaise contre les Zoulous.'

Bruxelles, Muquardt, 1879.

1345 Ducarne, L. 'Conférence sur les Zoulous et leur territoire.'

Bruxelles, 1879.

1346 Rabaud, A. Utilisation des éléphants en Afrique.

Bull. Soc. Geogr. Marseille. 1879. Nos. 3–5.

1347 Africa, West Coast. Great Fish Bay to Walwich Bay.

London, Hydrogr. Off., 1880.

1348 Holub, E. Journey through Central South Africa from the Diamond Fields to the Upper Zambesi.

Proc. R. Geogr. Soc. 1880. No. 3.

1349 —— Die östlichen Bamangwato.

Geogr. Rundschau, II. No. 6. 1880.

1350 —— Schoschong.

Geogr. Rundschau, II. No. 4. 1880.

1351 —— 'Sieben Jahre in Süd-Afrika. Erlebnisse, Forschungen, und Jagden auf meinen Reisen von den Diamantfeldern zum Zambesi.'

Wien, Hölder, 1880.

1352 —— Ueber das Marutse-Mabunda Reich im Südl. Inner-Afrika.

Verh. d. Gesell. f. Erdkunde Berlin. 1880. No. 10.

1353 —— On the Central South African Tribes from the South Coast to the Zambesi.

Journ. Anthropol. Inst., x. No. 1. 1880.

1354 —— Die Südafrikanischen Salzseen.

Jahresber. d. Frankf. Geogr. u. Statist. 1880.

1355 Colenso, Miss Frances E. 'History of the Zulu War and its Origin.' (Assisted in those portions of the work which touch upon military matters by Lieut.-Col. Ed. Durnford.)

Chapman and Hall, 1880.

1356 Review of above in *Academy*, May 8, 1880, by William Wickham.

1357 'The Zulu War.' Reprinted from the *Natal Mercury*, with Maps.

1880.

1358 Parr, Capt. Henry Hallam. 'Guadana to Isandhlwana.'

1880.

1359 Colenzo, Frances Ellen. 'Guadana to Isandhlwana: A sketch of the Kafir and Zulu Wars,' by Capt. H. H. Parr.

A Review in the *Academy*, Sept. 25, 1880.

1360 Wilmot, A. 'The Zulu War.'

1880.

1361 Ashe, Major, and the late **Wyatt-Edgell** (17th Lancers, killed at Ulundi). 'The Story of the Zulu Campaign.'

Sampson Low, London, 1880.

1362 Krauz, M. 'Natur- und Culturleben der Zulus nach vieljährigen Beobachtungen statistischen und klimatischen Berichten geschildert.

Wiesbaden, Niedner, 1880.

1363 Zululand under Dingaan. 'Account of the Rev. Owen's Visit to Zululand in the year 1837 as related by R. B. Hulley.'

Cape Monthly Mag., June, 1880.

1364 Montégut, E. Les Colonies de l'Afrique australe, d'après les récents voyageurs anglais.

Revues des deux Mondes, 1879.

1365 Natal. Précis of Information concerning the Colony of—

Prepared in the Intelligence Branch of the Quartermaster-Genl.'s Dept., London, Harrison, 1879.

1366 Neuling, Dr. Dr. Chr. Rutenberg's Reisen in Südafrika und Madagaskar.

Globus, 1879. No. 19.

1367 Nogueira. 'Les Explorations du Cunéné.'

Bull. Soc. de. Géog. Paris, March, 1879.

1368 Bird, John. 'An Enquiry into the causes of the Zulu War.'

8vo. Pietermaritzburg, 1880.

1369 Cassigui, C. C., Ex-Ingénieur. 'Voyage à Canton par Gorée, le Cap de Bonne Espérance et les Isles de France et de la Réunion, suivi d'observations sur le voyage à la Chine de Lord Macartney et du citoyen Von Braue, et d'une esquisse des Actes Indiens et des Chinois.'

8vo. Paris, 1880.

1370 Chaper, Maurice. 'Notes sur la région Diamantifère de l'Afrique Australe.'

8vo. Paris, Masson, 1880.

1371 Wylde, Atherton (Miss F. E. Colenso). 'My Chief and I; or, Six Months in Natal after the Langalibalele Outbreak.'

With Illustrations. 8vo. 1880.

1372 *Orange Free State Monthly Magazine.* Edited by Judge Buchanan.

Bloemfontein, 1877–1880.

1373 Prichard, Helen M. 'Friends and Foes in the Transvaal. An Englishwoman's Experiences during the Cape Frontier War of 1877–78.'

Vignette. 8vo. 1880.

1374 Norris, Newman Charles L. 'In Zululand with the British throughout the War of 1879.'

Portraits, Plans, Map. 8vo. London, Allen, 1880.

1375 Revoil, Benedict Henry. 'Les Zoulous et les Cafres, mœurs, coutumes, guerre avec les Anglais, &c., &c. Orné de huit gravures sur bois.'

Large 8vo. Lille et Paris, 1880.

1376 Smith, Dr. A. Miscellaneous Ornithological Papers. Edited by Osben Salim (Willoughby Society).

8vo. 1880.

1377 Volksleesboek voor Scholen en Huisgezinnen in Zuid-Africa.

8vo. 1886.

1378 Vijn, Cornelius. Cetewayo's Dutchman, being the private Journal of a White Trader in Zululand during the British Invasion by Cornelius Vijn. Translated from the Dutch and edited with preface and notes by the Right Rev. J. W. Colenso, D.D., Bishop of Natal. From a photograph taken at Cape Town.

Post 8vo. 1880.

1379 Wilmot, A. Geography for Schools.

8mo. 1880.

1380 Map: Africa, East Coast, Tugela River to Delagoa Bay.

London, Hydr. Off., 1880.

1381 Africa Pilot, Part III. No. 3. Information relating to the south-east coast between Natal and St. Lucia Bay.

London Hydr. Off., 1880.

1382 —— Part III. No. 4. From St. John's River to Lamo Bay.

London, Hydr. Off., 1880.

1383 Anonymous. 'Africa, Past and Present: a concise account of the country, its history, geography.'

London, Hodder, 1880.

1384 Atcherley, Rowland. 'A Trip to Boerland; or, a Year's Travel, Sport, and Gold-Digging in the Transvaal and Colony of Natal.'

Bentley, London, 1880.

1385 Nixon, J. 'Among the Boers; notes of a trip to South Africa in search of Health.'

London, Kennington, 1880.

1386 Clarke, Hyde. On the languages of the Mozambique and of the South of Africa in their relation to the languages of Australia.

Trans. S. A. Phil. Soc., vol. II part I. 1879–80.

1387 Fritsch, G. Die afrikanischen Bewohner als Urrasse.

Zeit. f. Ethnologie. 1880.

1388 Mosenthal, Julius de. 'Ostriches and Ostrich Farming.'

London, Trübner & Co., 1880.

1389 Anonymous. From Namaqualand to Piquetberg Road on Foot.

Cape Monthly Mag., October, 1880.

1390 —— Fishing off Robben Island.

Cape Monthly Mag., March, 1880.

1391 —— Reminiscences of an Old Kafir.

Cape Monthly Mag., November, 1880.

1392 —— The Natal Tribes.

Cape Monthly Mag., September, 1880.

1393 Callaway, Right Rev. Henry, M.D., D.D., Bishop of St. John's. On the Religious Sentiment amongst the Tribes of South Africa.

C. M. M., February, 1880.

1394 Boyle, F. 'Chronicles of No Man's Land.'

London, Chapman, 1880.

1395 Bradshaw, B. F. The Tsetse Fly.

Trans. S. A. Phil. Soc., vol. II. part I. 1879–80.

1396 Hartmann, R. Die Völker Afrika's.

Leipzig, Brockham, 1880.

1397 Vernet, Th. Notes sur l'Afrique méridionale.

Le Globe. 1880.

1398 Merriman, Hon. J. X. Some comparative Statistics relating to South Africa.

Trans. S. A. Phil. Soc., vol. II part II. 1879–80.

1399 Major, Richard Henry. 'The Discoveries of Prince Henry the Navigator and their results,' &c.

Contains much that is interesting about the voyages of Vasco da Gama. Quaritch, London, 1880.

1400 Fenn, T. E. 'How I volunteered for the Cape.'
1880.

1401 Anonymous. The South African Diamond Fields.
Chambers's Journal, September, 1880.

1402 Bonwick, J. 'Climate and Health in South Africa.'
London, Silver, 1880.

1403 Lakeman, S. 'What I saw in Kaffirland.'
Blackwood, 1880.

1404 Wylde, Atherton. 'My Chief and I; or, Six Months in Natal after the Langalibalele Outbreak.'
London, Chapman & Hall, 1880.

1405 Browning, F. G. 'Fighting and Farming in South Africa: a narrative of personal experiences in the colony during 1877–79.'
London, Remington, 1880.

1406 Pritchard, Helen M. 'Friends and Foes in the Transkei: an Englishwoman's experiences during the Cape Frontier War of 1877–78.'
London, Sampson Low, Marston, Searle & Rivington, 1880.

1407 Dunn, E. J. On the Stone Implements of South Africa.
Trans. S. A. Phil. Soc., vol II. part I. 1879–80.

1408 Sandeman, E. F. 'Eight Months in an Ox-wagon: Reminiscences of a Boer Life.'
London, Griffiths, 1880.

1409 Meyners d'Estrey. Les Boers et l'Afrique orientale.
L'Exploration, XI. No. 216. 1880.

1410 Coillard. Voyage aux pays des Banyais et au Zambèse.
Bull. Soc. Géogr. Paris, Nov., 1880.

1411 Révoil, B. H. 'Le Pays des Zoulous et des Cafres.'
Limoges, Ardant, 1880.

1412 Wauters, A. J. L'éléphant d'Afrique.
Bull. Soc. Belge de Géogr. 1880.

1413 Coillard et **Appia.** 'La Mission au Zambèse.'
Paris, Bonhoure, 1880.

1414 Férand, J. La Colonisation de Natal.
Bull. Soc. Géogr. Comm. Paris, 1880.

1415 Drohojowska. 'Premier voyage de François Levaillant dans l'intérieur de l'Afrique par le Cap de Bonne-Espérance.'
Limoges, Barbon, 1880.

1416 Duparquet, Rév. Père. Le Damaraland.
Bull. Soc. Géogr. Paris, Nov., 1880.

1417 —— Voyage en Cimbébasie.
Les Missions Catholiques. 1880.
L'Exploration. 1880.

1418 —— Le fleuve Okavango.
Les Missions Catholiques. 1880.

1419 Süd Ost Küste von Afrika Zusätze zu der Beschreibung der Küste Zwischen Port Natal, &c., und Limpopo—Fluss.
Annal d. Hydrog. 1880. x.

1420 Durand, Abbé. Les récentes annexions anglaises dans l'Afrique australe.
Rev. de France. 1880.

1421 Duparquet, Rév. Père. Cimbabésie.
Les Missions Catholiques. 1880. No. 570

1422 Callejon, V. de. El Cabo de Buena Esperanza y los Páeses circunvecinos.
Bol. Soc. Geogr. Madrid, VII. 1880.

1423 Mason, Rev. Holditch. 'The Zulu War: its causes and its lessons.'
1880.

1424 Ralston, W. R. S. The South African Folk Lore Journal.
Academy, May 1, 1880.

1425 Bain, Th. Bone Caves at Knijsna.
Cape Monthly Mag., April, 1880.

1426 Norbury, Henry F., C.B., R.N. 'The Naval Brigade in South Africa.'
London, Sampson Low, 1880.

1427 Vijn, Cornelius. 'Cetywayo's Dutchman; being the private journal of a white trader in Zululand during the British invasion. Translated from the Dutch and edited, with preface and notes, by the Right Rev. J. W. Colenso, D.D.'
Longmans, 1880.

1428 Anonymous. Cetywayo's story of the Zulu Nation and the War.
Macmillan's Mag., No. 244, Feb., 1880.

1429 Grey, Earl. South Africa.
Nineteenth Cent., No. 46, Dec., 1880.

1430 Froude, James A. 'Two Lectures on South Africa.'
Longmans, 1880.

1431 Anonymous. Notes of a Trip to the Transvaal.
Cape Monthly Mag., Sept., 1880.

1432 Johnston, T. B. Map of South Africa, containing Cape Colony, Griqualand, Kaffraria, Basutoland, Zululand, &c. 1:2,500,000.
Cape Town, Juta, 1880.

1433 Turner, W. J. Map of the British Colonies and adjacent territories of South Africa.
London, Silver, 1880.

1434 Map (Transvaal). Compass sketch plan of Pretoria.
London Intelligence Branch, Quarter-Master-Genl's. Dep., 1880.

1435 *South African Folklore Journal.*
1879–80. Cape Town, Darter Bros. & Walton.

1436 Blaikie, William Garden. 'The Personal Life of David Livingstone.'
Murray, 1880.

1437 Forbes, Archibald. Lord Chelmsford and the Zulu War.
Nineteenth Cent., Feb., 1880.

1438 Anonymous. A call upon Ketchwayo.
Temple Bar Magazine, 1880.

1439 Dr. Hahn, Th. Critique on Mr. Hyde Clarke's Paper.
Trans. S.A. Phil. Soc., vol. II. part I. 1879–80.

1440 Gillmore, P. 'On Duty; a Ride through Hostile Africa.'
London, Chapman, 1880.

1441 Sampson, Victor. A letter on Frontier and Natal Travelling.
Cape Monthly Mag., Aug., 1880, June, 1880, July, 1880.

1442 Hole, Morgan Thomas. 'Eleven years in Central South Africa.'
1880.

1443 Schunke, H. C. The Geography of South-Western Africa.
Trans. S.A. Phil. Soc., vol. II. part I. 1879-80.

1444 A Little Light from Basutoland.
Cape Monthly Mag., April and May, 1880.

1445 Cardozo, A. Voyage de Capello et Ivens dans l'Afrique orientale.
L'Afrique Explorée. 1880. ii. No. 2.

1446 Freeman, Edward A. The Shire and the Gá.
Macmillan's Mag., April, 1880.

1447 Holden, W. Clifford. 'British Rule in South Africa.' 1880.

1448 Castilho, A. de. O Districto de Lourenço Marques no presente e no futuro.
Soc. de Geogr. Lisboa, 1880.

1449 Lima, A. de. Nova exploração a'foz do Cunene.
Bol. Soc. Geogr. Lisboa, 1880.

1450 Machado, J. J. Caminho de ferro de Lourenço Marques à fronteira do Transvaal.
Bol. Soc. Geogr. Lisboa, 1880.

1451 Map of **Basutoland** and adjacent territories, 1:633,600.
Intell. Branch Quarter-M.-Genl's. Dep., London, 1880 and 1881.

1452 —— **Transvaal,** 1:633,600.
Intell. Branch, Quarter-M.-Genl's. Dep., London, 1880 and 1881.

1453 Sketch Map, showing lines of communication with **Zululand** and **Transvaal,** 1:596,000.
Intell. Branch, Quarter-M.-Genl's. Dep., London, 1889 and 1881.

1454 Sketch Map, showing lines of communication between **Newcastle** and the Transvaal, 1:253,440.
Intell. Branch, Quarter-M.-Genl's. Dep., London, 1880 and 1881.

1455 Colenso, Frances Ellen. 'A Royal Zulu Progress over Bishopsstowe.'
Macmillan's Mag., Jan., 1881.

1456 Adler, N. Kapstadt und Port Elizabeth.
Ausland. 1881. No. 2.

1457 Heckford, Mrs. 'A Lady Trader in the Transvaal.'
London, Low, 1881.

1458 Wehl, Ch. Excursion au pays d'Umzila.
Les Missions Catholiques. 1881. No. 625.

1459 Weber, E. v. Der Unabhängigkeits Kampf der niederdeutschen Bauern in Süd-Afrika.
Export. 1881. No. 10.

1460 Anonymous. Statistische Uebersicht der Volkstämme in Süd-Afrika. 1865 and 1875.

Export. 1881. No. 8.

1461 Nogeira, A. F. 'A raça negra sob o ponto de vista da civilisação da Africa.'

Lisboa, 1881.

1462 A Holiday Excursion (Knysna, Zitzikama, &c.).

Cape Monthly Mag., June, 1881.

1463 Duparquet, Rév. Père. Voyage en Cimbébasie.

Missions Cathol. 1881. No. 644. With Map.

1464 —— Voyage en Cimbébasie.

L'Exploration. 1881. XII. No. 248.

1465 Cachet, F. L. De worstelstrijd der Transvaalers.

Amsterdam, Krynt, 1881.

1466 Alsberg, M. Regenfall, Vegetation und Bodencultur in Süd-Afrika.

Ausland. 1881. No. 23.

1467 Grant, J. A. Comparative Sketch of what was known of Africa in 1830, with what was known in 1881.

Proc. R. Geogr. Soc. 1881. No. 11.

1468 Du Commun, E. L'Afrique australe et les Basoutos.

III. *Jahresber. d. Geogr. Ges. in Bern*, 1881.

1469 Montague, Capt. W. E. 'Campaigning in South Africa: Reminiscences of an Officer in 1879.'

Blackwood, Edinburgh and London, 1881.

1470 Sarmento, A. M. Memoria ácerca da defeça do Valle do Zambéze na parte que diz respeito à região do litoral.

Bol. Soc. Geogr. Mozambique. 1881. No. 5.

1471 Schiaparelli, L. Sulla circumnavigazione dell' Africa compinta dai Fenici nel secolo VII. a. Chr.

Cosmos, VI. No. 12. 1881.

1472 Fritsch, G. 'Der Unabhängigkeits Kampf der Süd-Afrikanischen Boeren.'

Verh. d. Gesell. f. Erdkunde. Berlin. 1881.

1473 De Beaufort, W. H. Holland and the Transvaal.

Nineteenth Century, No. 49, March, 1881.

1474 D'Anvers, N. 'Heroes of South African Discovery.'

Ward, London, 1881.

1475 Durrant, Major Horace. The Boers and the Transvaal War.

The Army and Navy Mag., March, 1881.

1476 Statham, F. Reginald. 'Blacks, Boers, and British; a Three-cornered Problem.'

1881.

1477 Stanley of Alderley, Lord. Narrative of the Portuguese Embassy to Abyssinia during the years 1520–27. By Father Francisco Alvarez. Translated from the Portuguese and edited, with Notes and an Introduction, by —.

Printed for the Hakluyt Society. 1881.

1478 Key, Rev. Bransby. On the Management of the Native Tribes.

Contemporary Review, April, 1881.

1479 Pringle, Thomas. 'Afar in the Desert, and other South African Poems,' by —. With a Memoir and Notes. Edited by **John Noble.**

Longmans, 1881.

1480 Douglas, A. 'Ostrich Farming in South Africa.'

With Map. London, Cassell, Petter, 1881.

1481 Eden, Charles H. 'Africa seen through its Explorers.'

Society for Promoting Christian Knowledge, London, 1881.

1482 Berjeau, Ph. J. 'Le Second Voyage de Vasco da Gama à Calicut. Relation flamande éditée vers MDIV.; reproduite avec une traduction et une introduction par—'

Paris, Charavay Frères, 1881.

1483 Burnell, A. Review of the same.

Academy, October, 1881.

1484 Alsberg, M. Die niederdeutsche Bevölkerung Süd-Afrikas.

Gegenwart. 1881. No. 2.

1485 Tromp, Th. M. Iets over de Geschiedenis en Ethnologie der Zuidafrikaansche Stammen.

Tydschr. Aardrijks. K. Genootsch. Amsterdam, 1881, No. 5.

1486 —— De Kaffers.

Ib., No. 26.

1487 Schwalbach, F. A. Explorãçao de lago Nharrime.

Bol. Soc. Geogr. Moçambique, No. 6. 1881.

1488 Silva, G. A. da. O Zambeze.
Bol. Soc. Geogr. de Moçambique. 1881. No. 3.

1490 Oates, Frank. 'Matabele Land and the Victoria Falls: A Naturalist's Wanderings in the Interior of South Africa.' From the Letters and Journals of the late —. Edited by C. G. Oates.
London, Kegan Paul, 1881.

1491 Wangemann. Map. Geogr. geschichtl. Uebersichts. Karte über die evangel. Missionsarbeit in Süd-Afrika. 1:3,250,000.
Berlin, Wohlgemuth, 1881.

1492 —— Süd-Afrika und seine Bewohner.
With Map. Berlin, Missionshaus, 1881.

1493 Map. Africa, West Coast: Walfish Bay to Orange River.
London, Hydr. Office, 1881.

1494 Dunn. On the Diamond Fields of South Africa.
Quarterly Journal of the Geol. Soc. London. 1881. No. 148.

1495 Oliver, S. P. On Board a Union Steamer; a compilation, to which is added 'A Sketch Abroad,' by Mrs. Doveton.
Frontispiece. 8vo. 1881.

1496 Muskett, J. J. The Boers at Home.
Contemporary Review, April, 1881.

1497 Butler, Lieut.-Col. W. F. The Boers and the Transvaal.
Contemporary Review, February, 1881.

1498 Anonymous. The Boers at Home: Jottings from the Transvaal.
Blackwood's Mag., December, 1881.

1499 Smit, J. A. R. 'Die Transvaal Republik und ihre Entstehung.'
Cöln, Mayer, 1881.

1500 Vries, M. de. 'Die geskiedenis van di Transvaal of die Suit-Affrikaanse Republiek, van die laatste tien jaare.'
Leiden, Sijthoff, 1881.

1501 Serpa Pinto, Maj. 'How I Crossed Africa, from the Atlantic to the Indian Ocean.'
2 vols. 14 Maps. London, Sampson Low, 1881.

1502 —— Comment j'ai traversé l'Afrique de l'océan Atlantique à l'océan Indien.'
Tour du Monde, XLI.
In German Translation. Leipzig, Hirt, 1881.

1503 Anonymous. Major Serpa Pinto's Reise durch Süd-Afrika, 1877–79.

Pet. Mitth., VIII. 1881.

1504 Smith, Thornley. Memoir of Rev. Appleyard.

8vo. London, 1881.

1505 Anonymous. Afrikaansche Gedigte.

32mo. Paarl, 1881.

1506 —— 'Four years' service with the Cape Mounted Rifles in South Africa,' by Ex-C. M. R.

8vo. 1881.

1507 Frere, Sir B. 'Afghanistan and South Africa: a Letter to the Right Hon. W. E. Gladstone regarding portions of his Mid-Lothian Speeches.'

London, 1881.

1508 Anonymous. 'Besieged in the Transvaal: the Defence of Standerton.'

Blackwood's Magazine, July, 1881.

1509 'Ingogo Position, Sketch of the——1:10,560.'

London, Intell Br. of Quarterm.-Genl's Dep., War Office, 1881.

1510 Frere, Sir Bartle. The Transvaal.

Nineteenth Century, No. 48, February, 1881.

1511 —— 'The Basutos and the Constitution of the Cape of Good Hope.'

Ib., No. 47, January, 1881.

1512 —— The Union of the Various Portions of British South Africa.

Colonies and India, 25th February and 5th March, 1881. Nos. 445 and 446.

1513 A. N. W. The Right Hon. Sir H. Bartle E. Frere.

The Army and Navy Magazine, March, 1881.

1514 Bartle Frere, Sir. On Temperate South Africa.

Proc. R. Geogr. Soc. 1881. No. 1. With Map.

1515 Fowler, William, M.P. The Basutos and Sir Bartle Frere.

Nineteenth Century, No. 49, March, 1881.

1516 Selous, F. C. 'A Hunter's Wanderings in Africa. Being a narrative of nine years spent among the game of the interior of South Africa, containing accounts of explorations beyond the Zambesi on the river Chobe,' &c.

With Map. London, Bentley, 1881.

1517 Selous, F. C. Recent Explorations in Mashuna Land.
Proc. R. Geogr. Soc. 1881. No. 6.

1518 —— Journeys in the Interior of South Central Africa.
Proc. R. Geogr. Soc. 1881. No. 9. With Map.

1519 Xavier, A. A. Caldas. Provincia de Moçambique, ditricto de Inhambane ; l'inharrhime e la guerra com Zavalla.
Bol. Soc. Geogr. Lisboa. 1881. No. 7. With Map.

1521 Jordan, W. W. Journal of the Trek Boers.
Cape Quarterly. 1881. I. No. 1. With Map.

1522 Holub, E. An den Victoria-fällen des Zambesi.
Jahresber. d. Vereins d. Naturfreunde in Reichenberg. 1881. XII.

1523 —— Die National Ökonomische Bedeutung der Afrikaforschung.
Mitth. d. K. K. Geogr. Gesellsch. zu Wien. 1881. No. 5.

1524 Castilho, A. de. A questão do Transvaal.
Lisboa, Soc. da Geogr., 1881.

1525 Jorissen, E. J. P. 'De Vredes Onderhandelingen op Lange Nek.'
8vo. Pretoria, 1881.

1526 Laird, E. K. 'Incidents of Travel in South Africa.'
Printed for private circulation. Liverpool, 1881.

1527 Nixon, John. 'Among the Boers ; or, Notes of a Journey to South Africa in Search of Health.'
London, 1881.

1528 Thomassen. 'With the Irregulars in Transvaal and Zululand.'
8vo. London, 1881.

1529 Pnaux, Fr. Les Bassoutos ; une mission dans le Sud de l'Afrique.
Revue Politique, 1st January, 1881.

1530 Jeppe, F. 'Transvaal Book Almanac and Directory for 1881.'
London, Silver, 1881.

1531 Rioux-Maillon, P. 'Voyage à la découverte dans l'Afrique australe.'
Paris, Libr. d'Education laïque, 1881.

1532 Boinier, P. Les transports par chariots dans l'intérieur de l'Afrique.
Bull. Soc. de Géogr. Marseille, Mai–Juin, 1878.

1533 Haut-Zambèze. Séjour des missionnaires à Gubuluwayo-Matabélés.
Les Missions Catholiques. 1881. No. 611.

1534 Berthoud, P. Carte des Spelonken avec la mission vaudoise de Valdézia.
Bull. Missionaire. III. No. 39. 1881.

1535 Fanson, de. L'Afrique méridionale.
Bull. Soc. Belge de Geogr. 1881. No. 2.

1536 Duparquet, Rév. Père. Carte de l'Ovampo.
Les Missions Catholiques. 1881.

1537 Moraes Sarmento, de. Memoria acerca da defeza do valle do Zambeze na parte que diz respeito à região do litoral.
Bol. Soc. Geogr. Lisboa. 1881.

1538 Croonenberghs, Ch. Les missionaires chez le roi Umzila.
Les Missions Catholiques. 1881.

1539 Bradshaw, B. F. Notes on the Chobe River.
Proc. R. Geogr. Soc. 1881.

1540 Gamble. On Summer and Winter Temperature in S. Africa.
Trans. S.A. Phil Soc. 1880–81. Vol II. part III.

1541 Mello, C. de. Estudo sobre as minas de Sofala.
Bol. Soc. Geogr. de Moçambique. I. No. 4. 1881.

1542 Statham, F. R. Dr. Holub's 'Seven Years in South Africa.'
Academy (Review), 23rd April, 1881.

1543 Loriot, C. F. David Livingstone et sa Mission sociale.
Paris, Charavay, 1881.

1544 Anonymous. Ost Griqua-Land und Pondoland.
Pet. Mitth., VI. 1881.

1545 Rouire, Dr. Les Betchouanas.
Rev. de Geogr., September, 1881.

1546 Keltie, J. S., and **Keane, A. H.** Kaffraria.
Encyclopædia Britannica, vol XIII. 1881.

1547 Aylward, A. Basuto.
Fraser's Magazine, March, 1882.

1548 Deltour, R. P. La mission Catholique au Basutoland.
Les Missions Catholiques. 1882. XIV. No. 686.

1549 Delgeur, L. L'Afrique australe et les Portugais.
Bull. Soc. Géogr. Anvers. 1882. VII. No. 1.

1550 Bourne, C. E. 'The Heroes of African Discovery and Adventure.'
2 vols. Swan Sonnenschein, 1882.

1551 Carey-Hobson, Mrs. 'The farm in the Karoo.'
Juta, Heelis & Co., 1882.

1552 Theal, Geo. M. Notes upon Books referring to South Africa.
Cape Quarterly Review, vol. I. Nos. 3, 4, and 5, 1882.

1553 Büttner, C. A. Aus Natur-und Völkerleben Südwest Afrikas.
Ausland. 1882. LV. No. 42.

1554 Soubeiran, J. L. 'L'Afrique australe tempérée.'
With Map. Montpellier, impr. Boehm, 1882.

1555 —— L'Afrique tempérée.
Bull. Soc. Langued. de Géogr., March, 1882. With Map.

1556 Clavé, J. L'Hydrologie de l'Afrique australe.
Rev. des deux Monde. LI. No. 1. 1882.

1557 Map. St. Vincent Erskine's Erforschung des Gazalandes in Süd Africa in den Jahren 1872–1875. 1:2,000,000.
Pet. Mitth., II. 1882.

1558 Viticultural Map of the Districts Worcester, Caledon, Oudtshoorn, Swellendam, Robertson, Riversdale, and Ladysmith. 1:116,000.
Cape Town, 1882.

1559 Anonymous. The Transvaal War.
Reprinted from the *Natal Mercury*. With Maps. 1881–82.

1560 —— Cape Town and Suburbs.
Cape Quarterly Review. 1882. I. No. 3.

1561 Kermode, W. 'Natal, its Early History, Rise, Progress, and Future Prospects.'
With Map. London, Trübner, 1882.

1562 MacOwan, Prof., and **Bolus, H.** Botany. Catalogue of Printed Books and Papers relating to the Botany of South Africa.
Printed for the South African Philosophical Society. 8vo. Cambridge, 1882.

1563 Du Plessis, C. J. N., and **J. D. Weilbach.** 'Geschiedenis van de Emigranten Boeren en van de Vrijheid's oorlog.'
8vo. Cape Town. 1882.

1564 Allarndyce, A. Life of Viscount Keith (Admiral George Elphinstone).
London, 1882.

1565 Theal, G. M. 'Folklore; a selection from the traditional Tales current among the people living on the Eastern Border of Cape Colony.'
London, 1882.

1566 Müller, Prof. Max. 'Mythology among the Hottentots.'
Nineteenth Century, No. 59, January, 1882.

1567 South Africa, Transvaal and adjacent territories.
Blue Book, London, King, 1882.

1568 Africa, S.E. Coast: Delagoa Bay, Lorenzo Marques.
No. 644. London, Hydr. Off., 1882.

1569 Africa: Delagoa Bay to Cape Guardafui, including Mozambique.
London, Hydr. Off., 1882.

1570 Dixie, Lady Florence. 'A Defence of Zululand and its King.'
Chatto and Windus, 1882.

1571 —— Cetewayo and Zululand.
Nineteeth Century, No. 66, August, 1882.

1572 Anonymous. 'With the Cape Mounted Rifles. A record of service in the native wars against the Galekas, Gaikas, Pondos,' &c., by Ex-C. M. R.
London, Bentley, 1882.

1573 Colenso, F. E. Zululand after the War.
Contemporary Review, Jan., 1882.

1574 Junius, J. H. 'De Kolonien en Staten van Zuid Afrika.'
Tiel, Campagne, 1882.

1575 Lang, A. Kaffir Folk Tales. Letter in *Academy*, September 9, 1882, on Mr. Theal's Kaffir Folk Lore, and Prof. Sayce's review of the book.
Acad., Aug. 20, 1882.

1576 Haggard, H. R. 'Cetewayo and his white neighbours; remarks on recent events in Zululand, Natal, and the Transvaal.'
London, Trübner, 1882.

1577 Valette, G. G. Nach Transvaal.
Weltpost. 1882. No. 8.

1578 Long, Mrs. Walter H. C. 'Peace and War in the Transvaal; a Story of the Boer Rebellion.'

Sampson Low, 1882.

1579 Transvaal Commission.

Blue Book, 2 vols. London, King, 1882.

1580 Transvaal. With the R. —— Commission.

Cape Quarterly. 1882. I. No. 2.

1581 Du Val, C. 'With a Show through Southern Afrika, and personal reminiscences of the Transvaal War.'

2 vols. London, Tinsley, 1882.

1582 Karoo. An Excursion made by the Students of the South African College to Nelspoort—Beaufort West.

Cape Quarterly. 1882. I. No. 2.

1583 Paulitschke, Ph. 'Die Afrika Litteratur in der Zeit van 1500–1700 n. Chr.'

8vo, 123 pp. Wien, Brockhausen. 1882.

1584 Anonymous. Die Trekboeren.

Ausland. 1882. No. 28.

1585 Sampson, V. A Trip through Pondoland to the mouth of the St. John's River.

Cape Quarterly. 1882. II. No. 1.

1586 Kuss, H. Notes sur la géographie de quelques régions voisines du Zambèze.

Bull. Soc. de Géogr. Paris. 1882. No. 2.

1587 Saunders, J. R. Natal in its relation to South Africa.

Colonies and India. 1882. Nos. 493 and 494.

1588 North, F. W. Report upon the coalfields of Klip River, Weenen, Umvoti, and Victoria counties.

With Maps and Tables. London, printed by Harrison and Son, 1882.

1589 Johnston, T. B. Map of South Afrika, 1:250,000.

2nd ed. Revised by J. Noble. London, Juta, Heelis, 1882.

1590 Paulitschke, Ph. 'Die Geographische Erforschung des Afrikanischen Continents von den ältesten Zeiten bis auf unsere Tage. Ein Beitrag zur Geschichte der Erdkunde.'

Brockhausen & Bräuer, Vienna, 1882 (?).

1591 Hepburn, J. D. Lake Ngami.

Chronicle London Mission Soc., 1882, March.

1592 Guyot. Sur la véritable situation de l'embouchure du Chiré et sur le canal de communication qui relie cette rivière au fleuve Zambèze.
Compte rendus, Académie des Sciences. 1882. T. xciv. No. 22.

1593 Moraes Sarmento, A. de. Delta do Zambeze, 1:460,000.
Pesto, Ferreira de Brito. Map. 1882.

1594 Spillmann, J. Vom Cap zum Sambesi. Die Anfänge der Sambesi mission.'
4 Maps. Freiburg, Herder, 1882.

1595 Campbell, Lord Colin. Annexation and South Africa.
Nineteenth Century, No. 61, March, 1882.

1596 Anonymous. Explorations for the Mission to Umzila's Kingdom, S.E. Africa.
With Map. Boston, Foreign Missions, 1882.

1597 Selys de Fanson, R. L'Afrique méridionale.
Bull. Soc. R. Belge de Géogr. 1882. vi. No. 4.

1598 Roorda Smit. De Bodemgesteldheid in de Transvaal.
Tijdschr. Aardrijks. K. Genootschap. Amsterdam, 1882. No. 2. With Map.

1599 Jenkinson, Thomas B. 'Amazulu: The Zulu People, their Manners, Customs, and History.'
Macmillan & Co., 1882.

1600 —— 'Amazulu: The Zulu, their Past History,' &c.
London, Allen, 1882.

1601 Frere, the Right Hon. Sir H. B. E. The Future of Zululand.
Fortnightly Review, November, 1882.

1602 O'Neill, H. E. On the Coastlands and some Rivers and ports of Mozambique.
Proc. Roy. Geogr. Soc. 1882. iv. No. 10.

1603 —— Africa Oriental Portugueza, observaçoes acerca da costa e interior da provincia de Moçambique, 1879 and 1882.
Bol. Soc. Geogr. Lisboa. 1882. Nos. 4 and 5.

1604 —— A Three Months' Journey in the Makua and Lomwe Countries.
Proc. R. Geogr. Soc. 1882. iv. No. 4. With Map.

1605 —— Lake Shirwa or Kilwa, the source of the Lujende River.
Ib., No. 5.

1606 Anonymous. Die Erforschung der Gesa-Landes durch St. Vincent Erskine.
Pet. Mitth. ii. 1882. Gotha.

1607 Bauchheuss, A. Aus den Diamantfeldern.
Weltpost. 1882. II. No. 12.

1608 Leyland, R. W. 'A Holiday in South Africa.'
With Maps. London, Low, 1882.

1609 Berthoud, P. Lettre sur les Spelonken.
Le Globe, Bull. 1882. XXI. No. 3.

1610 Anonymous. Dr. van der Kemp's account of Kaffraria and the Kafirs (from the *Miss. Transactions*, 1806).
Cape Quarterly. 1882. I. No. 2.

1611 —— Mythology among Hottentots.
Cape Quarterly Review, vol. I. No. 3. 1882.

1612 Croonenberghs, R. P. La Mission du Zambèze.
Les Missions Catholiques. 1882. XIV. No. 693.

1613 Anonymous. Capt. Paiva de Antrada's Zambesi Expedition, 1881.
Proc. R. Geogr. Soc. 1882. IV. No. 6. With Map.

1613a. —— Journeys to Masinga and Mazoe, 1881.
Ib., No. 7. With Map.

1614 Depelchin, P. Mission am oberen Zambezi.
Jahr. b. d. Verbreitung d. Glaubens. 1882. No. 4.

1615 Courret, M. Le bassin inférieur du Zambèze.
Bull. Soc. Geogr. Commerc. Paris, 1882. IV. No. 4.

1616 Desadeleer, P. Haut Zambèze; les missionnaires au pays d'Umzila.
Les Missions Cath. 1882. XIV. No. 666.

1617 Dejoux, J. B. La mission de Mopéa, Haut-Zambèze.
Les Missons Cath. 1882. No. 660.

1618 Anonymous. Carte de la mission du Zambèze, 1:4,200,000.
Lyon, *Missions Cath.*, 1882.

1619 —— À propos de notre carte sur la mission du Zambèze.
Les Missions Cath. 1882. XIV. Nos. 677–679.

1620 Beck, G. Der obere Zambesi nach Dr. Livingstone und Serpa Pinto.
4 *Jahresber. d. Geogr. Gesellsch. zu Bern.* 1881–82. 2 Maps.

1621 Anonymous. Carte de la mission du Zambese. Indications des routes suivies par les missionaires pendant les années, 1879, 1880, et 1881.
8vo. Brussels, 1882.

1622 Hahn, Theophilus. 'Tsuni ‖ Goam: The Supreme Being of the Khoi-Khoi.'
Trübner, 1882.

1623 Hahn, Th. Original Map of the Great Namaqualand and Damaraland, 1:742,000.
4 Sheets. Cape Town, 1882.

1624 Hahn, Th. Early African Exploration up to the end of the sixteenth century.
Cape Quarterly Review. 1882. I. No. 4.

1625 Gémin. Voyage de M. Paul Guyot en Zambèsie.
Bull. Union Géogr. du Nord. Douai., 1882. III. No. 20.

1626 Anonymous. Das Deutsche Element im Völkergemische der Capcolonie.
Angs. Allgem. Zeit. 1882. No. 163.

1627 Wedderburn, Sir David. South Africa.
Contemp Rev., July, 1882.

1628 Wilkinson, Mrs. 'A Lady's Life and Travels in Zululand and the Transvaal during Cetewayo's Reign.'
London, Hayes, 1882.

1629 Ludlow, W. R. 'Zululand and Cetewayo.'
London, Simpkin, 1882.

1630 Andree, R. Die Steinzeit Afrikas.
Globus. 1882. XLI. No. 11.

1631 Wilmot. 'Geography of the Cape Colony.'
London; Juta Heelis, 1882.

1632 Anonymous. The story of the Fetcani-Horde
Cape Quarterly. 1882. I. No. 2.

1633 Büttner, C. A. 'Die Entwickelung des Handels mit dem freien Westen von Süd Afrika.'
Export, 1882. No. 19 ff.

1634 Holub, E. 'Die Eingeborenenfrage Süd-Afrikas.'
Wien, Hölder, 1882.

1635 Holub, E., u. A. v. Pelzeln. 'Beiträge zur Ornithologie Südafrikas.
Wien, Hölder, 1882.

1636 Anonymous. A month at Kalk Bay.
Cape Quarterly, 1882. II. No. 1.

1637 Kermode, William. 'Natal: Its Early History, Rise, Progress, and Future Prospects as a Field for Emigration.'
Trübner, 1882.

1638 Norris-Newman, Charles L. 'With Boers in the Transvaal and Orange Free State in 1880–81.'
Allen, London, 1882.

1639 Cohen, E. Über die Südafrikanischen diamantenfelder.
5 Jahresber d. Vereins für Erdkunde zu Metz. 1882. Mit 3 Taf.

1640 Theal, G. M. 'Basutoland Records—1833–1868.' Compiled by.
With Maps, &c. 3 vols. Published by the Cape Government. 1883.

1641 Cape Monthly Magazine. Edited by Adv. A. W. Cole and Prof. Roderick Noble.
8vo. Cape Town, 1857–62.
—— New Series. 8vo. Cape Town, 1870–81.
—— *Quarterly Review.* 8vo. Cape Town, 1882–83.

1642 Carter, Thomas Fortescue. 'A Narrative of the Boer War, its Causes and Results.'
8vo. London, 1883.

1643 Carey-Hobson, Mrs. M. A. 'The Farm in the Karoo, or what Charlie Vyvyan and his friends saw in South Africa.'
Illustrated. 8vo. London, 1883.

1644 Harvey, W. H. 'The Genera of S. African Plants, arranged according to the Natural System.'
Cape Town, 1883.

1645 Iron, Ralph (Olive Schreiner). 'Story of a South African Farm.'
London, 1883.

1646 A Narrative of the Proceedings in the Tambookie Location during the Kafir War of 1877–78.
Cape Quarterly, vol. II. No. 6. 1883.

1647 Kafirs, Report and Proceedings of Commission on Native Laws and Customs, appointed by Government of Cape Colony.
With Appendices. Fscp. Cape Town, 1883.

1648 Kolbe, F. W. 'An English-Herero Dictionary, with an introduction to the study of Herero and Bantu in general.'
Crown 8vo. Cape Town, 1883.

1649 Mackenzie, J. 'Day-dawn in Dark Places.'
8vo. Edinburgh, 1883.

1650 Rehmann, A. Das Transvaal gebiet der südlichen Africa in physikalisch-geogr. Beziehung.
Mitt. d. K. K. Geogr. Gesellsch. zu Wien, 1883. XXVI. No. 6, §. 20 ff. Mit Karte.

1651 Junius, J. H. Een bezoek aande grot te Wonderfontein.
Tydschr. Aardrijsk. Genootschap. Amsterdam, 1883. VII. No. 3, pp. 108–116.

1652 Alston, Garwood. Heavy Wet, or Notes on the Achterveld.
Cape Quarterly, vol. II. No. 5, 1882, and vol. II. No. 6. 1883.

1653 Anonymous. A Waggon Trip at the Cape.
Cornhill Magazine, November, 1883.

1654 —— Natal and Zululand.
Cape Quarterly, vol. II. No. 6. 1883.

1655 Höpfner, C. 'Meine letzten Reisetage in Südwest Africa.
Weserzeitung, August 22, 1883.

1656 Carter, Thomas Fortescue. 'A Narrative of the Boer War; its Causes and Results.'
Remington, 1883.

1657 Tripp, William B. The River Buffalo; its watershed and flow in connection with the Rainfall.
Trans. Phil. Soc. Vol. III. 1881–83.

1658 Merensky. Ueber die Afrikanische Völkerverwanderung des 16 Jahrhunderts.
Zeitschrift d. Gesellschaft. f. Erdkunde zu Berlin, 1883. XVIII. No. 1, pp. 67–76.

1659 Frere, Sir Bartle. Have we a Colonial Policy?
The National Review, September, 1883.

1660 Mitford, Bertram. 'Through the Zulu Country; its Battlefields and its People.'
Kegan Paul & Co., 1883.

1661 Anonymous. 'Droits du Portugal.'
Lisbon, Lallemant Frères, 1883.

1662 Brass, E. Südwestafrika und dessen Kolonisationsfähigheit.
Export. 1883. II. No. 21 ff.

1663 Report of the Commission on Native Laws and Customs.
Presented to Parliament on the 19th of January, 1883.

1664 Clark, G. B. 'The Transvaal and Bechuanaland.'
8vo, pp. 78. London, 1883.

1665 Durnford, Lieut.-Col. E. 'A Soldier's Life and Work in South Africa, 1872–79; a Memoir of the late Col. A. W. Durnford. Edited by his brother.'
Review in *Academy*, Feb. 17, by William Wickham, 1883.

1666 Selous, F. C. Further explorations in the Mashuna country.

Proceedings R. Geogr. Soc. 1883. v. No. 8, pp. 268–271. Mit Karte.

1667 McKenzie, Rev. John. England and South Africa.

Nineteenth Century, No. 74, April, 1883.

1668 Dixie, Lady Florence. 'In the Land of Misfortune.'

Bentley, 1883.

1669 Carey-Hobson, Mrs. 'The Farm in the Karoo.'

London, Juta, Heelis & Co., 1883.

1670 Loyd-Lindsay, Sir Robert. A Recent Visit to the Boers.

Nineteenth Century. No. 82. Dec., 1883.

1671 Aylward, A. Dutch South Africa; its Hydrography, Universal Wealth, and Mercantile Possibilities.

Bull. Amer. Geogr. Soc. 1883. No. 1, pp. 1–44.

1672 Breemen, B. Hv. Schetsenen beelden uit Zuid-Afrika.

Amsterdam, Kruisman, 1883.

1673 Macdonald, Rev. Duff. 'Africana; or, the Heart of Heathen Africa.'

Simpkin, Marshall & Co. Stationed at Blantyre, South of Nyassa, 1883.

1674 Uhlemann, O. Berichte eines deutschen Diamantengrübers in Süd Afrika.

Weltpost. 1883. III. No. 2.

1675 Ridsdale, B. 'Scenes and Adventures in Great Namaqualand.'

8vo, 294 pp. London, Woolmer, 1883.

1676 O'Neill, H. E. Report upon Agriculture and Labour in the province of Mozambique. Report from H. M. Diplom. and Consular Officers abroad. May, **1883.**

Bluebook C, 3,587, pp. 10–18.

1677 Depelchin, H. et **Ch. Croonenberghs.** Trois ans dans l'Afrique Australe; le pays des Matabélès, 1879–81.

8vo, 432 pp. Brussels, 1883.

1678 Deventer, M. L. van. La Hollande et la Baie-Delagoa.

Tijdschr. Aardrijk. K. Genootsch. Amsterdam, Bijbl. No. 11. Amsterdam, Brinkmann, 1883.

1679 Sabi River. The Delta and Lower Course of the—according to the survey of the late Capt. F. L. Phipson-Wybrants.

Proceed. R. Geogr. Soc. 1883. v. No. 5, pp. 268–272. Mit Karte.

1680 Cachet, F. L. Kaart van Zuid-Africa. 1:3,000,000.
Amsterdam, Krynt, 1883.

1681 Anonymous. Der Hafen von Quilimane an der Ostküste von Afrika.
Am. d. Hydrogr. 1883. XI. No. 6, pp. 377–380.

1682 Penning, W. H. 'A Guide to the Goldfields of South Africa.'
8vo, 87 pp. Mit Karte. Pretoria, Celliers, 1883.

1683 Robert, Dr. Afrika als Handelsgebiet.
8vo, 380 pp. Wien, Gerald, 1883.

1684 Winsloe, Col. R. W. C. The Siege of Potchefstroom.
Macmillan's Magazine, April, 1883.

1685 Johnston, F. B. Map of South Africa. 1:3,817,000.
With Index. London, W. & A. K. Johnston, 1883.

1686 Gillmore, P. 'The Territories adjacent to Kalahari Desert.'
Colonies and India. 1883. No. 548 and 549.

1687 Neves, D. F. das. Exploraçao do rio Bembe.
Bol. Soc. Geogr. Lisboa. 1883. III. No. 6.

1688 Appia et **Jousse.** Quelques mots sur le Lesouto.
Soc. d. Géogr. Paris, C. R. 1883. II. No. 7, pp. 199–204.

1689 Anonymous. Die Viehwirtschaft der Herero.
Ausland. 1883. LVI. No. 25, pp. 489–494.

1690 Dunckelman. A. v. Bemerkungen zu der klimatologischen Tafel der meteorologischen Station Omaru in Damaraland.
Mith. Verein f. Erdk. Leipzig. 1883. Pp. 233–238.

1691 Elsen, E. Notes d'un voyage en Afrique-Mossamédès.
Bull. Soc. R. Geogr. Anvers. 1883. VII. No. 2, pp. 147–150.

1692 Barker, Lady. 'A Year's Housekeeping in South Africa.'
Macmillan, 1883.

1693 Haggard, H. R. 'Cetewayo and his White Neighbours; or, Remarks on Recent Events in Zululand, Natal, and the Transvaal.'
London, Trübner & Co., 1884.

1694 Gresswell, William. The Germans in South Africa.
The Fortnightly Review, Sept., 1884.

1695 —— The late Sir Bartle Frere in South Africa.
The National Review, July, 1884.

1696 Du Val. 'With a Show through Southern Africa, and Personal Reminiscences of the Transvaal War, by— late of the Carbineers, Attaché to the Staff of the Garrison Commander, and Editor of the *News of the Camp* during the investment of Pretoria.'

Dean & Son, London, 1884.

1697 Büttner, C. G. Die Mot. Hilfsquellen von S. W. Afr. und die Möglichkeit ihrer Verwertung.

Export, 1884. XI. No. 46 ff. Die Entwickelungsfähigheit S. W. Afrikas nach dem Innern zu. *Ausland.* 1884. LVII. No. 34, pp. 674–678.

1698 Richards, Robert. 'Our Voyage.' A Book for the Cape, or any other Voyager, by — Advocate of the Supreme Court of Natal, and Special Commissioner for inquiring into the causes of the Griqualand East Rebellion.

London, John Walker & Co., 1884.

1699 Cust, R. N. 'A Sketch of the Modern Languages of Africa.'

With a language Map by E. G. Ravenstein. Trübner, 1884.

1700 Colenso, F. H. 'The Ruin of Zululand; an Account of British doings in Zululand since the Invasion of 1879.'

I. 8vo, 382 pp. London, Ridgway, 1884.

1701 Anonymous. Expédition des missionnaires Coilard et Jeanmairet au Zambèse.

Afrique Explorée. 1884. V. No. 10, p. 236–239.

1702 South African Republic. Map of South-western frontier of the— including the adjacent portions of Bechuanaland, Griqualand W. and the Orange Free State, 1884. 1:633,000.

London, Int. Br. War Office, 1884.

1703 Cruikshanks, Stafford. 'Lays of South Africa.'

12mo. London, 1884.

1704 Troostenburg de Bruyn, Dr. C. A. L., van. De Hervormde Kerk in Nederlandsch Oost Indie onder de Oost-Indische Compagnie, 1602–1795.

8vo. Gives an account of the Dutch Reformed Church in the early days of this settlement. Arnheim, 1884.

1705 Frere, Sir Bartle. 'Historical Sketch of South Africa.'

Transactions of the Royal Historical Society. London, 1884.

1706 Mansveldt, N. Proeve van den Kaapsche-Hollandsche Idioticon met toelichtingen en opmerkingen betreffende Land, Volk en Taal.

8vo. Cape Town, 1884.

1707 Richards, R. 'The Truth about the Gold Fields.' 1884.

1708 Riebeeck, J. van. Dagverhaal van Commandeur Jan van Riebeeck aan de Kaap de Goede Hoop, 1652–1655. Werken van het Historisch Genootschap gevestigd te Utrecht.
New edition. 1884.

1709 Sheffield, Thomas. 'The Story of the Settlement; with a sketch of Graham's Town as it was and Graham's Town as it is, together with a list of the original Dutch and Huguenot Settlers, and of the British Settlers of 1820. Compiled from the most authentic authorities.'
2nd edition. Enlarged and illustrated with twenty-two engravings. Post 8vo. Graham's Town. 1884.

1710 Anonymous. 'Songs and Rijmpies of South Africa.'
12mo. Cape Town, 1884.

1711 O'Neill, H. E. Journey from Mosambique to Lakes Shirwa and Amaraluba.
Proc. R. Geogr. Soc. London. 1884. VI. Nos. 11, 12. Mit Karte.

Anonymous. Major Serpa Pinto's New Expedition across Africa from Mozambique.
Proceed. R. Geogr. Soc. London. 1884. No. 12, p. 744.

1712 Mackarness, Fred. What England has done for the Zulus.
The Fortnightly Review, September, 1884.

1713 Mackenzie, Rev. John. England and South Africa.
With Map, and with Memoranda by Sir Henry Barkly and Sir Bartle Frere. *Contemporary Review*, January, 1884.

1714 Pringle, Mrs. M. A., of Whytbank Yair. 'Towards the Mountains of the Moon: a Journey in East Africa.' (Blantyre, Nyassa, Zambezi.)
With Map. Blackwood & Sons, 1884.

1715 Johnson, W. P. Seven years' travels in the regions east of Lake Nyassa.
Proceed. R. Geogr. Soc. London. 1884. VI. No. 9, pp. 512–530. With Map.

1716 Little, J. Stanley. 'South Africa: a Sketch-book of Men, Manners, and Facts.'
Swan Sonnenschein, London, 1884.

1717 Lavertine, R. A. Map of Stellaland, compiled from inspections, reports, and surveys.
Cape Town, Surv.-General's Department, 1884.

1718 West and South-West Coast of Africa. Map showing the territories claimed by European Powers. 1:6,000,000.
London, Philip, 1884.

1719 Afrika, E. Coast. River Zambesi to Mozambique Harbour. 1:730,000.
No. 1810, London, Hydr. Off., 1884.

1720 Oberländer, R. Deutsch Afr. Land und Leute, Handel und Wandel in diesen Kolonien.
8vo. Leipzig, Friedrich, 1884.

1721 Hoffmann, Kapt. Beiträge zur Beschreibung der küste von Damara und Gross Namaqua. Aus dem Reiseberichte S. M. Kriegs Korv. '*Möwe.*'
Annal. Hydrogr. 1884. XII. No. 12, s. 663.

1722 Anonymous. Intervention at the Cape.
Macmillan's Magazine, November, 1884,

1723 Baie Delagoa, Port Melville. Dépôt de la Marine. No. 3977.
Paris, Challamel, 1884.

1724 Weitzecker, G. Corrispondenza del Basutoland.
Bol. Soc. Geogr. Ital. 1884. IX. No. 11, p. 880.

1725 Wagner, G. Unsre Kolonien in West-Afrika.
8vo. Berlin, Engelhardt, 1884.

1726 Anonymous. Die Goldfelder in Transvaal.
Ausland. 1884. LVII. No. 41, s. 875–818.

1727 Lenz, O. Die Deutschen Kolonialbestrebungen in West-Afrika.
Osterr. Monatsschr. f. d. Orient. 1884. X. No. 10, s. 241–245.

1728 Fowler, Rt. Hon. R. W., M.P., Lord Mayor of London. The Boers.
National Review, February, 1884.

1729 Calmette-Terral. Le delta du Zambèze.
Bull. Soc. Géogr. Commerc. Bordeaux. 1884. XII. No. 19, pp. 545–553.

1730 Merriman, J. X. 'The Commercial Resources and Financial Position of South Africa.'
Colonies and India, 14th and 21st November, 1884,

1731 Lannoy de Bissy, R. de. Carte d'Afrique, 1:2,000,000, **1885,** with 'Notices sur la carte d'Afrique.'
Paris, Dépôt de la Guerre, 1884.

1732 Hassenstein, B. 'Karte der Deutschen Besitzungen in West Afrika.' Gross Namaqualand, Kamerun, Slavenküste.
Gotha, Justus Perthes, 1884.

1733 Jeanmairet, D. Lettres de Patamatenga et de Les Noma.
Afr. Expl. 1884. v. No. 12, s. 305–311.

1734 Fick, A. Die Engländer in Süd-Afrika.
Deutsche Kolonialzeitung. 1884. I. No. 23, s. 461–467.

1735 Anonymous. Transvaal. Reisbeschrijving of dagelijksche aanteekeningen.
8vo., 52 pp. Brielle, Overbeeke, 1884.

1736 Report of the Griqualand East Land Commission.
With Map. 1884.

1737 Falkenstein, J. 'Afrikas Westküste, van Ogame bis zum Damara-Lande.'
8vo., 248 pp. (*Das Wiszender Gegenwort*, Bd. 29). Leipzig, Freytag, 1884.

1738 Harvey, Dr. 'Flora Capensis.'
3 vols. London, Z. Reeve & Co., 1884.

1739 Le Monnier, Fr. v. Angra Pequena.
Geogr. Rundschau. 1884. XI. No. 12, s. 529–532. Mit Karte.

1740 E. V. C. 'The Promised Land: Nine years' gold mining, hunting, and volunteering.'
London, Blades, 1884.

1741 Merensky, A. Karte von Angra Pequena.
Fol. Berlin, S. Schrapp, 1884.

1742 Oepp, J. Angra Pequena und Gross-Namaqualand.
8vo. 41 ss. Mit Karte. Elberfield, Friedrichs, 1884.

1743 Bellairs, Lady. 'The Transvaal War, 1880–81.'
With Map. W. Blackwood & Sons, Edinburgh and London, 1885.

1744 Leibbrandt, H. C. V. Précis of the Archives of the Cape of Good Hope. Dec., 1651, to Dec., 1653.
Cape Town, 1885.

1745 Meurant, L. H. 'Sixty years ago, or Reminiscences of the struggle for the Freedom of the Press in South Africa, and the establishment of the first Newspaper in the Eastern Province.'
Cape Town, 1885.

1746 Moffat, R. John Smith: The Lives of Robert and Mary Moffat.
London, 1885.

1747 Jacobbet, E. Annexion du territoire Thaba-Nchu à l'état libre de l'Orange.
L'Afrique Explorée. 1884. V. No. 10, pp. 232–236.

1747a —— Voyage de Mariya à Paballong Griqualand East.
C. R. Soc. Geogr. Paris. 1884. No. 18, p. 629.
L'Afrique Explorée. 1885. VI. No. 1, p. 24.

1748 Kaffraria Proper. Plans of territories formerly known as, lying between the following boundaries: the Quuthlambe Range and the north, the sea coast on the east, Natal on the north-east, and the Kei and Indwe on south-west. Compiled from plans of surveys by surveyors C. P. Watermeyer, Fletcher, &c. 1:348,000.
Cape Town, Surv.-General's Department, 1885.

1749 Hoffmann, Kapt. Beemerkungen über einige Plätze an der Westküste van Afrika zwischen Loanda und Kapstadt.
Ann. der Hydr. 1885. XIII. No. 3.

1750 —— Bank in den Grossen Fischbai.
Ann. d. Hydrogr. 1885. XIII. No. 5. With Map.

1751 Engler. Über die flora der deutschen Schutzlände in West Afrika.
Reprint from *Gartenflora.* 1885. (Damaraland, Namaqualand, Kalahari.)

1752 Stanford's Compendium of Geography and Travel.
Africa: Edited and extended by Keith Johnston. Third edition revised and corrected by E. G. Ravenstein.
London, E. Stanford, 1885.

1753 Ratzel, Prof. Fr. Kultur und Staatenkarte von Afrika. 1:45,000,000. Skizze einer Kulturkarte. Skizze der Staatenbildender Völker und Eingebornenstaaten.
Petm. Mitth., VII. 1885. Tafel 12.

1754 Schunke, H. C. Kaffraria und die östl Grenzdistricte der Kap-kolonie. Msb. 1:750,000. Nebenkarte: Uebersichtsskizze der trigonometrischen Aufnahmen des Tembulandes sowie der hauptsächlichen Höhenschichten von Kaffraria. 1:1,150,000.
1885.

1755 Büttner, C. G. Die Missions station Otizimbingué in Damaraland.
Zeitsch. ges. f. Erdk. Berlin, 1885. XX. No. 1.

1756 —— 'Ackerbau und Viehzucht in S.W. Afrika.'
Leipzig, Schloemp, 1885.

1757 —— Kolonialpolitik und Christenthum, betrachtet im Hinblick auf die deutschen Unternehmungen in Süd-west Afrika.
Trommels Sammlg. v. Vortr., XIII. No. 8. Heidelberg, Winter, 1885.

1759 Moulle. Mémoire sur la Géologie générale et sur les mines de diamants de l'Afrique du Sud. With geolog. Map and cross-sections.
Paris, Dunod, 1885. (*Extrait des Annales des Mines.*)

1760 O'Neill, H. E. Eastern Africa between Zambesi and Rovuma River.
Proc. R. Geog. Soc. London. 1885. No. 7, with Map. Also in *Scottish Geog. Mag.* 1885. I. No. 8.

1761 O'Neill, H. E. Journey from Quilimane to Blantyre.
Proc. R. Geog. Soc. London. 1885. VII. No. 10.

1762 —— Astronomical Observations between Mozambique Coast and Lake Nyassa.
Scottish Geog. Mag. 1885. I. No. 9.

1763 Wickmann, H. 'Die Neue Republik' (Zululand).
With Map by Dr. H. Haevernick. 1:200,000. *Pet. Mitth.*, XI. 1885.

1764 Report of the Met. Commission of the Cape of Good Hope, for 1884. Containing thirty-three rainfall diagrams by Mr. Gamble.
Cape Town, 1885.

1765 Jeanmairet, D. Lettres de Lesbonn.
L'Afrique Explorée. 1885. No. 8.

1766 Mackarness, Frederic. The Future of South Africa.
Fortnightly Review, July, 1885.

1767 Wrey, P. B. S. Report on the Survey of the Territory of Walwich Bay.
Report of the Governor-General of the Cape of Good Hope for 1885. With Map of Walwich Bay and adjacent territory.

1768 Wright, Rev. S. 'Annals of Blantyre.'
London, McCormick, 1885.

1769 Catalogue of Printed Books and Papers relating to South Africa. Part II., Climate and Meteorology, compiled by J. A. Gamble, M.A.
1885. *Trans. Phil. Soc.*, vol. iii.

1770 Langkavel, Dr. 'Die Verbreitung der Hausrinder in Südafrika.'
Zeitschr für Wissensch. Geog. V., Heft 3 and 4. 1885.

1771 Wagner, E. W. Aus Deutsch Afrika. Tagebuchbriefen eines jungen Deutschen aus Angra Pequena, 1882–84.
Leipzig, Schloemp. 1885.

1772 Weitzecker, G. Da Queenstown al Aliwal N.
Boll. Soc. Geog. Ital. X. No. 6. 1885.

1773 Anonymous. A Story of Bechuanaland Sixty Years ago.
Leisure Hour, April, 1885.

1774 Pechuel-Loesche. Sudafricanische Laterite.
Ausland, Stuttgart. 1885. Bd. L. viii. s. 501.

1775 Anonymous. Exploration du Limpopo, par le Capt. Chaddock.
L'Afrique Explorée. 1885. VI. No. 6.

1776 Anonymous. Village Life in South Africa.
Macmillan's Mag., Feb., 1885.

1777 Péringuey, L. First Contribution to the South African Coleopterous Fauna.
Trans. of the S. A. Phil. Soc., vol. III. part 2. 1883–5.

1778 Hassenstein, B. Spezialkarte des Damara-Landes. 1:780,000.
Gotha, Justus Perthes, 1885.

1779 Missions Kart over Zululand og Natal. 1:1,050,000.
Stavanger Norske Missionsselsrab. 1885.

1780 Ratzel, Dr. Friedr. Entwurf einer neuen politische karte von Afrika, nebst einigen Allgemeinen Bemerkungen über die grundsätze der politischen Geographie.
Peterm. Mitth., VII. 1885.

1781 Reiter. Die Kalahara.
Zeitschrift f. Wissensch. Geographie, Wien, 1884–1885. Bd. v. s. 103–230 und. 316.

1782 Schinz, Dr. Hans. Namaqua—oder Namaland.
Pet Mitth., x. 1885.

1783 Brooke, A. F. Tristan d'Acunha.
Nautical Magazine, April, 1885, s. 298.

1784 Anonymous. Die Kupfern minen in Klein Namaqualand.
Export. 1885. VII. No. 32.

1785 Hobson, Mrs. Carey. 'At Home in the Transvaal; or, Boers and Boers.'
London, Swan Sonnenschein & Co., 1885.

1786 Nixon, John. 'The Complete Story of the Transvaal, from the "Great Trek" to the Convention of London.'
London, Sampson Low, 1885.

1787 Schenck, Dr. Afelf. Das Gebiet zwischen Angra-Pequena und Bethanien Vorlaüfige Mitteilungen aus Lüderitz-Land.
Pet. Mitth., 1885. IV.

1788 Sketch Map of Portions of Griqualand West and Bechuanaland. Shows positions of Vryberg and Rooigrond. Compiled from reliable information.
Print. Saul Solomon & Co., 1885.

1789 Greswell, William. 'Our South African Empire.'
London, Chapman & Hall, 1885.

1790 —— 'Our South African Empire.' Vol. II.
With Map. London, Chapman & Hall, 1885.

1791 Machado, J. Chemin de fer de Lourenço Marques à Pretoria, avant projet.
Bol. Soc. Geog. Lisboa. 1885. v. No. 5.

1792 Manheimer, E. Du Cap au Zambèse. Notes de voyage dans l'Afrique du Sud.
Gènève, 1884. Paris, Challamel, 1885.

1793 Pohle, H. von. Bericht über die von Hern Lüderitz ausgerüstete Expedition nach S.W. Afrika 1884–85
With Map. Itinera und trig. Aufnahmen in Lüderitz-Land, von H. Pohle, 1:1,000,000. *P. Mitth.*

1794 v. Dunckelman. Die Klim. Verhältnisse der West Küste von Afrika.
Das Welter, 1885, und *Deutsche Kol. Zeit.* 1885. Bd. II. p. 631.

1795 Kiepert, H. Afrika. Phys. Wandkarten. No. 5. 1:8,000,000.
3rd edition. Berlin, D. Reimer. 1885.

1796 , Afrique. Carte murale. 1:8,000,000.
Bruxelles. Inst. National, 1885.

1797 South Africa. Three Maps to illustrate **Sir C. Warren's** Comm. to S. Africa.
London, W. & A. K. Johnston, 1885.

1798 Carlyle, J. E. African Colonies and Colonisation, with notices of recent annexations.
With Maps. Glasgow, 1885. Reprinted from *Trans. Phil. Soc. Glasgow.*

1799 Friederichsen, L. Karte der Küste des Herero, Namaqua, und Lüderitz landes. 1:3,000,000.
Hamburg, Friederichsen, 1885.

1800 Schulz, A. Erforschung der Chobe und Cubango-Flüsse.
Verh. s. Erdkunde, Berlin. 1888. XII. No. 7.

1801 Monra, F. J. H. De villa Gouveia no Gorongoza ao rio Pungué.
Boll. d. Soc. d. Geog. Lisboa. 1885 v. No. 8.

1802 Ashley, Hon. Cecil. Notes on Native Questions in South Africa.
National Review, June, 1885.

1804 Iraël, S. Land und Leute im Damara und Namaqua Gebiete.
Globus. 1885. XLVIII. No. 12, ff..

1805 Pechuel-Loesche. Südafricanische Laterite.
Ausland, Stuttgart. 1885. Vol. LVIII.

1806 Schunke, H. C. Kaffraria und die östlichen Grenzdistricte der Kap Kolonie.
VI. *Mitth. Pet.*, 1805.

1807 Williams, R. C. 'The British Lion in Bechuanaland; the story of the expedition under the command of Major-General Sir Charles Warren.
London, Rivington, 1885.

1808 Courtois, R. P. Une excursion apostolique aux terres de Massongano.
Les Missions Catholiques. 1885. XVII. No. 815.

1809 Junius, J. H. Achter de Duinen in Zuid-Afrika.
Tijdschr. Ned. Aardrijksk. Gen. 1885. II. No. 1.

1810 Warren, Sir C. Our Position in South Africa.
Colonies and India, Nov. 13–20, 1885.

1811 Farini. Die Kalahari.
Verh. Ges. Erdkunde zu Berlin. 1885. XII. No. 9.

1812 Mattos, J. C. X. de, and **Moreira de Sa, J. J.** Exploraçao do Incomati.
Bol. Soc. Geogr. Lisboa. 1885. No. 3. With Map.

1813 Jaquet, G. Die Betschuanen und ihr Land.
Aus allen Weltth. 1885. XVI. No. 7.

1814 Dunn, E. J. The Transvaal Goldfields.
Geolog. Mag. 1885. No. 4.

1815 Clotten, F. E. 'Süd-und Südost-afrika ein Beitrag zum Handel und der Politik dieser Länder.'
Liverpool, 1885.

1816 Wohlers, Dr. Aus dem Oranje Freistaat.
Deutsche Kol. Zeit. 1885. II. No. 16.

1817 Hahn, H. C. Angra Pequena vor 25 Jahren.
Mitth. d. Geogr. Ges. zu Jena. 1885. III. No. 4.

1818 Biasintti, A. 'Le Populazioni dell' Africa.'
With Map. Padua, Drucker, 1885.

1819 Buchanan. 'The Shiré Highlands.'
Edinburgh and London, Blackwood, 1885. With Map.

1820 Holub, E. Rechenschaftsbericht über das erste Jahr seiner neuen Afrika Expedition.
Geog. Kunds., Wien. 1885. VIII. No. 1.

1821 Lima, M. 'Expedição de Manica.'
Boll. d. Soc. d. Geog. d. Lisboa. 1885. V. No. 8.

1822 Habenicht, H. Special Karte von Afrika 1: 4,000,000.
10 sheets. Gotha, Justus Perthes, 1885.

1823 —— Politische Uebersicht. Afrika 1: 25,000,000.
Pet. Mitth., IV. 1885.

1824 Greswell, William. Colonial Governors.
National Review, Jan., 1885.

1825 Brandenborg. Preussen auf der Westküste von Afrika 1681–1721. Verfass fom grossen Generalstabe Abt. f. Krieggeschichte. Mit ubersichtskarte und 5 skizzen.
Berlin, Mittler Sohn, 1885.

1826 Belck, W. Was haben wir von Lüderitzland zu erwarten?
Deutsche Kolonialzeit. 1885. II. No. 5. With Map.

1827 Beelitz. Die Deutschen Kolonisationen an der West Küste Afrikas nach ihren Vorgängen und ihrer Bedeutung.
Köln, Warnitz, 1885.

1828 Cameron, V. Lovett. 'Across Africa.'
2nd edition. 1885. London, Philip & Son.

1829 Bowker, Col. 'Other days in South Africa.'
Trans. S. A. Phil. Soc. Vol. III. Part 2. 1883–85.

1830 Supon, Prof. Dr. A. Dr. Fischer's Ostafrik. Expedition.
Pet. Mitth., VII. 1885.

1831 Gebelin, J. Traversée de l'Afrique de Mossamédès à Quilimané.
Bull. Soc. Géog. Comm., Bordeaux. 1885. No. 20.

1832 Götz. Untersuchungen einer Gesteinssuite aus der Gegend von Marabastad im nördl. Transvaal.
Neues. Jahrb. f. Miner, &c., Stuttgart. 1885. Beilage. Bd. IV.

1833 Penning. On the Goldfields of Lydenburg and de Kaap in the Transvaal.
Quart. Journ. Geolog. Soc. 1885. XLI. No. 164.

1834 Baden Powell, G. English Money in South Africa.
Contemp. Rev., October, 1885.

1835 Ratzel, Fr., Dr. Völkerkunde. Vol. i. Die Natur völker Afrikas, with 494 illus., 10 col. plates, and 2 maps.
Leipzig, Bibl. Inst., 1885.

1836 Rankin, D. J. Journey from Blantyre to Quilimane.
Proc. N. Geog. Soc. 1885. VII. No. 10.

1837 Anonymous. 'Bechuanaland.' By a Member of the Cape Legislature.
With App. London, Low, 1885.

1838 Diesterweg, A. Aus meinem Trader-Leben in Südafrika.
Deutsche Kol. Zeit. 1885. II. No. 9.

1839 Marras, E. La Colonie de Natal.
Bull. Soc, Géogr. Marseilles. 1885.

1840 Richard's Tour of Exploration to Balenia.
American Mission. Her., Boston, September, 1885.

1841 Dunckelman, A. V. Büttner's Höhenmessungen.
Mitth Afrik. Ges. 1886. V. No. 1.

1842 Nolte, K. Die westliche Kalahariwüste und die angrenzenden Dist.
Deutsche Kol. Zeitung. 1886. No. 11 ff.

1843 Wangemann. Ein zweites Reisejahr in Südafrika.
Berlin, Wohlgemuth, 1886.

1844 Cohen. Über die von der Eingebornen Südafrikas verwendeten Produkte des Mineralreichs.
Mitth. natur wiss Ver. v. Neu Pommern. 1886. Bd. XVII.

1845 Schinz, H. Ein neue Bauernstaat im Südwesten Afrikas.
Mitth. Ostschweiz. Geog. Komm. Ges. St. Gallen. 1886. No. II.

1846 —— Die deutsche Interessen in Gross-Nama-land.
Mitth. Ostschweiz. Komm. Ges. St. Gallen. 1886.

1847 Anonymous. Das Gebiet der Ngami-See.
Deutsche Kol. Zeitung. 1886. III. No. 16.

1848 Goering, E. Bericht der Kari-Komm. für das S.W. Afrikanische Schutzgebiet.
Deutsche Kolon. Zeit. 1886. No. 13.

1849 Jeanmairet, D. Lettre du Zambèze.
L'Afrique Explorée. 1886. VII. No. 1.

1850 Duparquet, Rev. Pèr. Fondation des stations d'Oukouanyama et des Amboellas.
Annal. Apostol. 1886. No. 2. With Map.

1851 Berthoud, M. P. Lettre des Spelonken, Transvaal.
L'Afrique Explorée. 1886. VIII. No. 3.

1852 Longee, A. De Inhamhane e Lourenço.
Bol. Soc. Geogr. Lisboa. 1886. VI. No. 1. With Map.

1853 Anonymous. Oporto de Lourenço Marques.
Bol. Soc. Geogr. Lisboa. 1886. VI. No. 7.

1854 Machado, H. de. De Lourenço Marques à Pretoria.
Bol. Soc. Geogr. Lisboa. 1886. V. No. 11.

1855 Schenck, A. Über Angra Pequena.
Verh. d. Naturhist. Ver. d. preuss Rheinland. 1886. XLII.

1856 Moraes Pinto, J. X. Districto de Manica.
Bol. Soc. Geogr. Lisboa. 1886. VI. No. 1.

1857 Heitmann, H. Handel und Ackerbau in Potchefstroom.
Deutsche Kol. Zeit. 1886. III. No. 6.

1858 Weitzecker, A. Da Alival N. a Morija.
Boll. d. Soc. Geogr. Ital. 1885. Vol. x. No. 12.

1859 —— Du Morija a Leisbe.
Ibid. 1886. XI. No. 1.

1860 Belck, W. Südafrikanische Verhältnisse.
Deutsche Kalonial Zeit. 1885. II. No. 18. ff.

1861 —— Die Koloniale Entwickelung S. W. Afrikas.
Ibid. 1886. III. No. 2. ff.

1862 —— Die wirthschaftliche Bedeutung unserer Besitzungen in S. W. Afrika.
Ansallen Welttheilen. 1886. XVII. No. 6. ff.

1863 Pechuel-Lösche, E. Zur Kenntniss des Herero Landes.
Ausland. 1886. No. 42.

1864 Anonymous. Recent Portuguese explorations in the Zambeze region.
Proc. R. Geogr. Soc. 1886. VIII. No. 8. With Map.

1865 Africa, E. coast. Delagoa Bay to River Zambesi. 1:730,000. (No. 648.) —— Inbambàn River. Kiliman (Quilimane) River 1:44,000. (No. 650.)
London, Hydrgr. Office, 1886.

1866 Climate of Cape Colony. Reproduction of Mr. Gamble's Report on — in *Œstr. Met. Ztschr.* 1885. XX.
Also review in *Pet. Mitth.* by Dr. Supan. IV. 1886.

1867 Laws: The Tshigunda Language of the Lower Zambesi Region, East Africa.
Edinburgh Review. 1886.

1868 Gresswell, William. The Wilds and Woodlands of the Cape.
Macmillan's Mag., Oct., 1886.

1869 Fuller, A. 'South Africa as a Health Resort.'
With Map. London, Whittingham, 1886.

1870 Büttner, C. G. Reisebilder aus Süd West Afrika.
Export. 1886. VIII. No. 14. ff.

1871 Christaller, J. G. Zur Völker und Sprachenkunde Afrikas.
Mitth. Geogr. Ges., Jena. 1886. IV. No. 3.

1872 Erskine, St. Vinc. Map. Zululand; Brit. Zulu Reserve Territory and new Boer Republic. 1:855,000.
Wesl. Miss. Notices, Aug., 1886.

1873 Raddatz, Dr. H. Das Kaffernland des Untern Olifant.
With Map, 1:600,000. *Pet. Mitth.* 1886. II.

1874 Schuckmann, v. Recognoszirungsfahrt. S. M. Kr. '*Habicht*' an der West küste Afrika's v. Walwich bai bis Kap Frio.
Ann. Hydrogr. 1886. XIV. No. 11.

1875 Merensky. Deutschlands Interessen in Süd Afrika.
Deutsche Kol. Zeit. 1886. IV. No. 1.

1876 Lutz, J. Die provinz Mozambique.
Mitth. Ostschweiz. Geogr. Komm. Gesellsch. St Gallen. 1886. No. 2.

1877 Anonymous. Afrika in Kartographische Darstellung von Herodot bis heute.
Deutsche Rundsch. 1886–87. No. 1 and 2. With Maps.

1878 —— Goldfelder in Südafrika. Original bericht von Dr. F. B.
Export. 1886. No. 47.

1879 Holüb, E. Sepopos Reich und dessen Herrschen.
Geogr. Rundschau. 1886. VIII. No. 11.

1880 Canolle. Angra Pequena.
Rev. Mer. et Col., Paris. 1886. LXXXIX.

1881 Brincker, H. Die Bewohner des Nama und Damaralandes.
Globus. 1886. XLIX. No. 15.

1882 O'Neill. The ancient civilisation, trade and commerce of Eastern Africa.
Scottish Geogr. Mag. 1886. Vol. II.

1883 Africa, East Coast. Tugela River to Delagoa Bay. 1:430,000 (No. 2089).
London, Hydrogr. Office. 1886.

1884 Tripp, W. B. South Africa, its Physical Configuration and Rainfall.
Scott. Geogr. Mag. 1886. Vol. II.

1885 Froude, J. A. 'Oceana; or, England and her Colonies.' 8vo. 1886.

1886 Graevenbroeck (Secretaris van den Raad van Politie in 1695). Over de Naturellen aan de Kaap (From MSS. in possession of Mr. C. A. Fairbridge).
Het. Z. A. Tijdschrift. 1886.

1887 Porter, William (Attorney-General of the Cape Colony Speeches delivered by— during 1839–1845 inclusive.
8vo. Cape Town. 1886.

1889 *Tijdschrift, N. Z. A.* New Series.
Cape Town. 1878–86.

1890 Todd, S. B. The South African Diamond Fields.
Rev. Col. Internat. 1886. II. No. 4.

1891 —— A Stepchild of England's Colony of the Cape of Good Hope.
Rev. Colon. Intern. 1886. III. No. 2.

1892 Noble, J. History, Productions, and Resources of the Cape of Good Hope.
Official Handbook, Cape Town. 1886. Interesting papers on Forestry, Botany, &c.

1893 Natal. Official Handbook.
With Map. London, W. Clowes & Sons, 1886.

1894 Atlas von Afrika. 50 Maps with Geographical Statements. Text.
Vienna, Pesth, and Leipsig, Hartleben, 1886.

1895 Darwin, L. Short History of Basutoland.
With Map. London, Intell. Br. War Office, 1886.

1896 Farini, G. A. Through the Kalahari Desert.
London, Sampson Low, Marston & Co. 1886.

1897 Dunn. Supposed extensive Deposit of Coal underlying the central Districts of the Colony of the Cape of Good Hope.
With Map. Cape Town. 1886.

1898 Conder, Capt. The present condition of the Native Tribes in Bechuanaland.
Journ. Anthrop. Inst. Aug., 1886.

1899 Warren, Sir Charles, K.C.M.G. Recent Events in South Africa.
Cont. Rev., Jan., 1886.

1900 Pondoland. Précis of information concerning—, including Port St. John's.
With Map. London, Harrison, 1886.

1901 Buchanan, T. The Shire Highlands, as Colony and Mission.
With Map. London, Blackwood, 1886.

1902 Watkins, O. New Mission to Zululand.
Wesl. Mission Notices, Aug., 1886.

1903 Zululand. Précis of information.
With Map. London War Office. 1886.

1904 Aubertin, J. J. Six Months in the Cape Colony and Natal, and one month in Teneriffe and Madeira.
With Sketch Map. London, Trench & Co., 1886.

1906 Habenicht, H. Uebersicht der Oberflächengestaltung Afrikas nach den neuesten Forschungen.
Ausland. 1886. No. 31.

1907 Kerr, Montagu W. A journey from Cape Town overland to Lake Nyassa.
Proc. R. Geogr. Soc. 1886. VIII. No. 2.

1908 —— The Upper Zambesi Zone.
Scott. Geogr. Mag. 1886. II. No. 7.

1909 Kerr, W. M. 'The Far Interior, from the Cape of Good Hope across the Zambesi to the Lake Regions of Central Africa.'
8vo. With Map. London, Low, 1886.

1910 Moraes Pinto, J. X. Districto de Manica.
Bol. Soc. Geogr. Lisboa. 1886. VI. No. 1, p. 9.

1912 Holub, E. Von Cape Town bis Pandama Tenka.
Geogr. Rundschau. 1887. IX. No. 7, s. 289.

1913 —— Meine Reise in Süd Afrika.
Mitt. d. k. k. Geogr. Gesellsch., Wien. 1886. XXIX. 8vo. S. 552–364.

1914 Russell, W. Cl. 'A Voyage to the Cape.'
8vo, 360 pp. London, Chatto and Windus, 1886.

1915 Conder, Capt. Bechuana Land.
Proceed. R. Geogr. Soc. London. 1886. P. 739.

1917 Perry da Camara. Districto de Cabo Delgado.
Bol. Soc. Geogr. Lisboa. 1886. VI. No. 2, p. 67.

1918 Rohlfs. 'Quid novi ex Africa?'
Kassel, Th. Fischer, 1886. *Pet. Mitt.*, VI. 1887.

1919 Felkin, R. W. 'Can Europeans become acclimatised in tropical Africa?'
Scott. Geogr. Mag. 1886. Bd. II. s. 647.

1920 Farini, G. A. Durch die Kalahari-Wüste. Streif-und Jagdzüge nach dem Ngami-See in Süd Afrika.
Übersetzung. 8vo. ss. 472. Leipzig, Brockhaus, 1886.

1921 Liebenow, W. Karte von Afrika, mit besonderer Berücksichtigung der deutschen Kolonien. 1:10,000,000. 1886.

1922 François, C. v. Reisen im südl. Kongobecken.
Verh. b. Deutch. Geographentag, Dresden. 1886. S. 8.

1923 Büttner, C. G. Ueber das Erbauen von Häusern für Europäer im Innern Afrikas.
Deutsche Kolonialzeitung. 1886. IV. Heft 1, s. 17.

1924 Merensky, A. 'Wie erzieht man am besten den Neger zur Plantagenarbeit?'
8vo. Berlin, Apolant, 1886.

1925 Post, A. H. Zaubereiprozesse und Gottesurteile in Afrika.
Dtsch. Geogr. Blätter. 1886. IX. Heft 4, s. 300.

1926 Schweinfurth, G. Europas Aufgaben und Aussichten im tropischen Afrika.
Österr Monatsschrift f. d. Orient. 1886. No. 10, s. 178.

1927 Paiva, A. de. 'Expedição ao Cubango.
Bol. Soc. Geogr. Lisboa. 1887. No. 2. With Map.

1928 Santa Brigida de Sousa, R. de. Mossamedes.
Bol. Soc. Geogr. Lisboa. 1887. 7 ser., No. 6.

1929 Anonymous. Gaza Country. Journey of Messrs. Browne and O'Donnel.
Scottish Geogr. Magazine, November, 1887, p. 588. With Map.

1930 Haynes, C. E. Matabeleland and the country between the Zambesi and the Limpopo Rivers; a gold country.
Journ. Manchester Geogr. Soc. 1887. III. No. 7–12, p. 244. With 2 Maps.

1931 Kiepert, R. Neue Handkarte von Afrika 1:30,000,000.
Berlin, D. Reimer, 1887.

1932 Choffat, P. Das terrenos sedimentares da Africa portugueza e considerações sobre a geologia d'este continente.
Bol. Soc. Geogr. Lisboa. 1887. No. 2.

1933 Anonymous. Silva Porto's Journey from Bihe (Bie) to the Bakuba country.
Proceed. Roy. Geogr. Soc. 1887. IX. No. 12.

1934 Tottie, H. W. Zulu kaffrerna och deras historia.
Ymer. 1887. Nos. 5–8.

1935 Tripp, W. B. South African rivers south of the Orange and Vaal.
Proc. Inst. Civil Engineers, London. 1887. XC. pp. 295–304.

1936 Warren, Ch. South Africa.
Journ. Soc. Arts. 1887. No. 1797, pp. 572–581.

1937 Fritsch, G. Verbreitung der Buschmänner in Africa nach den Berichten neuerer Forschungsreisenden.
Verhandl. Berlin Gesellsch. f. Anthropol. 1887.

1938 Gaudefroy-Demombynes. Les Colonies allemandes dans l'Afrique, occidentale.
Revue de Géogr. 1887.

1939 Hausberg. Die wichtigsten Ergebnisse der Afrika-forschung seit 1876.
With Map. *Progr. Katharineum zu Lübeck.* 1887.

1940 Malfatti, B. Di un antico periplo concernente le coste orientali dell'Africa.
Bull. Ser. Fiorent. Soc. Africa d'Italia. 1887.

1941 Oppel, A. Die religiösen Verhältnisse von Afrika.
Zeitschr. Gesellsch. f. Erdk., Berlin. 1887.

1942 Perrin, P. La République Sud-africaine.
VIII. *Jahresbericht der Geogr. Gesellschaft von Bern.* 1885–87. S. 35.

1943 Matthiae, C. 'Bilder aus Südafrica.'
8vo, 41 ss. Zürich, Schröter, 1887.

1944 Muller, H. P. N. 'Een Bezoek aan de Delagoa-Baai end de Lydenburgsche Goudvelden.'
8vo. 37 pp. Haarlem, Tjeenk Willink, 1887.

1945 Kellen, P. J. van der. Brieven uit Umbella-land.
Tydschr. Aardryksk. Genootsch., Verslagen. 1887. IV. No. 4, p. 485. With Map.

1946 Schinz, H. Beiträge zur Kentniss der Flora von Deutsch-Süd-West-Africa und der angrenzenden Gebiete.
Abhandl. Botan. Ver. d. Prov., Beandenburg. 1887. Bd. XXIX. s. 44.

1947 Sieger, R. Schwankungen der Inner-afrikanischen Seen.
Ber. Ver. d. Geogr Univers, Wien. 1887. S. 41.

1947a Grimm. 'Die Pharaonen in Ostafrika.'
Karlsruhe, Macklot, 1887(?).

1948 Weitzecker, G. Alla ricerca degli Italiani nell' Africa Australe.
Boll. Soc. Geogr. Ital. 1887. XII. p. 350.

1949 Muller, P. N. Kaartje van het binnenland achter Inhambane.
Tydschr. Aardryksk. Genootsch. 1887. IV. Taf. 1.

1950 Oliveira, A. A. d'. Carte do districto de Manica e dos territorios circumvirinhos. 1:2,000,000.
Lisb., Comm. de Cartogr., 1887.

1951 Variot, J. Les Pères Blancs d'Afrique.
Bull. Soc. Géogr. Lille. 1887. VIII. No. 8.

1952 Matthews, J. W. 'Incwadi Yami; or, Twenty Years' Personal Experience in South Africa.'
London, Sampson Low & Co., 1887.

1953 Cardoso, A. M. Expedição ás terras do Muzilla em 1882.
Bol. Soc. Geogr. Lisboa. 1887. VIII. No. 3, p. 153.

1954 Antrade, P. de. No caminho de Mussirise.
Bol. Soc. Geogr. Lisboa. 1887. No. 5, p. 356.

1955 Troye, G. A. Map of the Pretoria and Heidelberg Goldfields. 1:280,000. Map of the Kaap and Komatie Goldfields, &c. 1:240,000.
London, J. W. Anderson & Co., 1887.

1956 Colenso, Miss. 'The Ruin of Zululand.'
Review in *Academy*, by W. Wickham, Feb. 19, 1887.

1957 Stapff, F. M. Das untere Khuisebthal und sein Strand gebiet.
Verh. Ges. f. Erdkunde, Berlin. 1887. XIV. No. 1.

1958 Emmrich, Paul. Die 'de Kaap Goldfields in Transvaal.'
Pett. Mitth., v. 1887.

1959 Grey, The Right Hon. Earl. The Prospect in South Africa.
Nineteenth Century, March, 1887.

1960 Anonymous. Anthropological Conferences on the Native Races of the British Possessions. Conference on the Races of Africa.
Journ. Anth. Inst. Vol. XVI. 1887 (?).

1961 Feilden, Eliza Whigham. 'My African Home; or, Bush Life in Natal when a Young Colony (1852–57).'
Sampson Low, Marston & Co., London. 1887.

1962 Russell, W. Clark. 'A Voyage to the Cape.'
London, Chatto and Windus. 1887.

1963 Marcel, G. Les colonies allemandes en Afrique.
Rev. Scient., Paris. 1887.

1964 Holub, E. Von Cape Town bis Pandama-Tenka.
Geogr. Rundsch. 1887. IX. No. 7.

1965 —— Meine Reise in Südafrika.
Mitth. d. K. K. Geogr. Ges., Vienna. 1886. XXIX.

1966 Bethell, A. J. 'Notes on South African Hunting.'
With Map. York, Sampson, 1887.

1967 Jeppe, F. Transvaal Book Almanac.
Marizburg, Davis, 1887. 3rd. ed.

1968 Perrin, P. Le Transvaal et ses ressources.
Bull. Soc. Neuchatel. Géogr. 1887. II.

1969 Gropp, Capt. Sketch Map of the Transvaal Republic.
London, Phil., 1887.

1970 Map of the Peninsula of the Cape of Good Hope. 1:63,360.
London, Phil., 1887. *Cape Argus* (?).

1971 Raddatz, H. Map of the Transvaal and Swaziland Goldfields. 1:500,000.
London, Philip, 1887.

1972 Einwald, A. Die Bewohner des afrikanischen Himmelreiches.'
Geog. Rundschau. 1887. IX. No. 6.

1973 Robinson, John. Member Leg. Counc., Natal. South Africa as it is.
Nineteenth Century, June, 1887.

1974 The Geography of Africa. Works by Elisée Reclus. Translated and edited by **Prof. A. H. Keane.**
March, 1887. London, T. S. Virtue and Co.

1975 Büttner, C. G. 'Die Fleischproduktion im Südostafrik. Schutzgeb. und die Möglichkeit ihrer Verwerthung.
Export. 1887. No. 5.

1976 Anonymous. South Africa. Die Portugiesische Expedition quer durch Süd Afrika, 1884 und 1885.
Map in *Pet. Mitth.*, II. 1887. Reaching as far south as 22° S. Lat. (including part of Damaraland and Kamas country).

1977 Farrer, Archdeacon. Africa and the Drink Trade.
Contemp. Rev., July, 1887.

1978 Kerr, Walter Montagu, C.E., F.R.G.S. 'The Far Interior: a Narrative of Travel and Adventure from the Cape of Good Hope, across Zambezi, to the Lake Regions of Central Africa.'
2 vols. With Ill. and Map. London, Sampson Low, Marston & Co. 1887.

1979 Report of the Meteorological Commission of the Cape of Good Hope for **1886.**
Cape Town. 1887. Contains the altitudes of a great number of rainfall stations throughout the Colony and the Free State, and thirteen rainfall Maps by Mr. Gamble, the hydraulic engineer for the Colony.

1980 Anonymous. Blantyre (Schire), 1886.
Meteor. Ztschr., 1887.

1981 Ratzel, Fr. Die geographische Verbreitung des Bogens und der Pfeile in Afrika.
Ber. Philol.-hist. Kl. Kgl. Sächs. Ges. de Wiss. 1887. S. 233. Mit 1 Karte.

1982 Post, A. H. Afrikanische Jurisprudenz.
2 teile. Oldenburg und Leipzig, Schulze, 1887.

1983 Stapff, Dr. F. M. Karte des untern Khuisebthales.
Pet. Mitth., VII. 1887.

1984 Mackenzie, J. 'Austral Africa: Losing it or ruling it?'
With 2 Maps and with Illustrations. London, S. Low & Co., 1887.

1985 Gamble, J. G. Water supply in the Cape Colony.
Proc. Instit. of Civil Engin., London. 1887. Vol. xc. Part IV. With Map.

1986 'Africa, east coast: Cape Lopez to Cape of Good Hope.' 1:3,250,000. No. 1,013.
London, Hydogr. Off., 1887.

1987 Last, J. T. Journey from Blantyre to the Namuli Hills.
Proceed. Roy. Geogr. Soc., 1887. IX. No. 1, p. 42.

1987a —— A journey from Blantyre to Angoni-Land and back.
Ib., No. 3, p. 177. With Map.

1988 Anonymous. Afrika in kartographischen Darstellung von Herodot bis heute.
Deutsche Rundschau, 1886–87. Nos. 1 & 2. With Map.

1989 Crouch, A. P. 'On a surf-bound coast; or, cable-laying in the African tropics.'
8vo, 352 pp. London, Low, 1887.

1990 Anonymous. Malimba-und Beundo-Fluss, Westküste von Afrika.
Annal. Hydrogr. 1887. XV. No. 4, s. 138.

1991 O'Neill. Der Sklavenhandel in Mozambique und am Nyassa.
Ausland. 1887. No. 20, s. 391.

1992 Berthoud, P. Lettre du Transvaal et de Lorenço-Marques.
L'Afrique Explorée et Civilisée. 1887. VII. No. 10, p. 307.

1993 Büttner, C. C. Deutsche Kolonie Stolzeufels am Oranje Fluss.
Deutsche Kolonialzeitung. 1887. IV. s. 369.

1994 Conradt, L. Das Hinterland von Angra-Pequena und Walfischbai.
Deutsche Kolonialzeitung. 1887. Heft 13, s. 407.

1995 Soyaux, H. Das afrikanische Tropenklima.
Deutsche Kolonialzeitung. 1887.

1996 Wolf, L. Über afrikanisches Küsten und Inlandklima.
Deutsche Geogr. Bl. 1887.

1997 Habenicht, H. Spezialkarte von Afrika, 10 Bl., 1:4,000,000.
2 aufl. Gotha, Justus Perthes, 1887.

1998 Lanoy de Bissy, R. de. Carte de l'Afrique 1:2,000,000.
Paris, Serv. Geogr. de l'Armée. 1887.

2000 Cohen, E. Geognostisch-petrographische Skizzen aus Südafrika.
Neues Jahrb. f. Mineral, &c. Beil. Bd. v. 1887. S. 195. Mit 2 Tafeln.

2001 Theal, G. M. History of the Boers in South Africa.
With Maps. London, Sonnenschein & Co., 1887.

2002 Noble. History, Productions, and Resources of the Cape of Good Hope. Official Handbook of Cape Town, 1886.
Pet. Mitth., I. 1887.

2003 Dunn. Supposed extensive deposit of coal underlying the central districts of the Colony of Cape of Good Hope.
With Map. Cape Town. 1887.

2004 Conder. The present condition of the native tribes in Bechuanaland.
Journ. Anthrop. Institute, August, 1886 *Pet. Mitth.*, I. 1887.

2005 Cohen. Ueber die von den Eingebornen Südafrikas verwendeten Produkte des Mineralreichs.
Mitt. naturwiss. Ver. v. Neu-Vorpommern, 1886, Bd. xvii. s. 77. *Pet. Mitth.*, I. 1887.

2006 Wichmann, H. Die Durchkreuzung Afrikas durch Capello und Ivens, 1884 und 1885.
Pet. Mitth., II. 1887.

2007 Demaffey, M. A. Gisements métallifères du Transvaal.
L'Afrique Explorée et Civilisée. 1887. VIII. No. 10, p. 297.

2008 Depelchin, H. and **Ch. Croonenberghs.** Trois ans dans l'Afrique Australe. Au pays d'Umzila, chez les Batongas, &c., 1879–1881.
2 vols., 8vo. With Maps. Paris, Challamel, 1887.

2009 Durand, E. Exploration au Zambèze.
Revue Française, 1887. V. p. 401; VI. pp. 3, 181, 269. With Map.

2010 Einwald, A. Zur Kolonisation von Deutsch-Südwest-afrika.
Geogr. Rundschau, 1887. IX. Heft 9, s. 413.

2011 Hahn, C. H. Unsre Südwestafrikanischen Kolonien und Schutzgebiete.
Ausland, 1887. No. 43, s. 841.

2012 Holub, E. Aus dem Marutsereiche.
Geogr. Rundshau. 1887–1888. X. Heft 1, s. 7.

2013 Pioix. Les Hottentots ou Khoïkhoï et leur religion.
Rev. d'Antrop. 1887. 3rd ed., Sec. II. p. 270–90.

2014 Pondoland. Correspondence respecting the affairs of —
Fol., 187 pp. With Map. (Bluebook C. 5022.) London, 1887.

2015 Reitz. Een reis naar de goudvelden de Witwatersrand.
Ind. Mercuur. 1887. No. 10.

2016 Schinz, H. Exploration dans le Sud-Ouest de l'Afrique.
L'Afrique Explorée. 1887. Nos. 6 and 7. With Map.

2017 —— Durch Südwestafrika.
Verhandl. Gesellsch. f. Erdkunde, Berlin, 1887. XIV. No. 7, s. 322.

2018 Schultz, C. H. S. Deutscher Handel und Dampferverbindungen mit Südafrika.
Deutsche Kolonialzeitung. 1887. Heft 13, s. 402.

2019 Stapff, F. M. Notiz über das Klima von Walfischbai.
Deutsche Kolonialzeitung. 1887. IV. No. 21, s. 646.

2020 Gerippkarte von Afrika.
4 Bl. Chrom. Fol. Weimar, Geogr. Institut., 1887.

2021 Dewitz, A. v. Reise in dem portug. Westafrika.
Deutsche Kolonialzeitung. 1887. IV. No. 4 ff.

2022 Gürich, Dr. G. Geologische Skizze von Afrika, Massstab 1:45,000,000.
Pet Mitth., IX. 1887.

2023 Schinz, Dr. Hans. Farini und die Kalahari.
Pet. Mitth., XI. 1887.

2024 —— Nachtrag zu; 'Farini und die Kalahari.'
Pet. Mith., XII. 1887.

2025 Umlauft, F. Afrika in kartographischer Darstellung von Herodot bis heute.
Wien, Pest, und Leipzig, Hartleben, 1887.

2026 Kayser, G. 'Bibliographie d'Ouvrages ayant trait à l'Afrique,' &c.
Bruxelles, 1887.

2027 Langkavel, B. Tigerpferde.
Zool. Jahrbücher, Jena, 1887. Bd. II. s. 117.

2028 Merensky, A. Original map of South Africa, 1:2,500,000.
2nd and revised edition. Berlin, Simon Schropp, 1887.

2029 Marloth, R. Das südöstliche Kalahari-Gebiet.
Englers Botan. Jahrbücher. 1887. Bd. VIII. s. 247.

2030 Jones, F. R. The Mineral Wealth of South Africa.
Colonies and India, 8 and 15, April, 1887.

2031 Mackenzie, J. Bechuanaland, with some remarks on Mashonaland and Matabeleland.

2032 Mackinnon, J. 'South African Traits.'
8vo, 306 pp. London, Simpkin, 1887.

2033 Olpp, J. Aus dem Sagenschatz der Nama-Khoi-Khoin.
Mitt d. Geogr. Gesellschaft, Jena. 1887. VI. No. 1 u. 2, s. 1.

2034 Pilgram, B. Handel und Dampferverbindung mit Deutsch-Südwestafrika.
Deutsche Kolonialzeitung, 1887. IV. 22 Heft., s. 676.

2035 Andriessen, W. F. De Afrikaansche Dwergvolken.
Tydschr. Aardryksk. Genoctschr. Amsterdam., Verslagen. 1887. IV.

2036 Blyden, E. W. 'Christianity, Islam and the Negro Race.'
8vo, 423 pp. London, 1887.

2037 Brandt, O. Die Kulturfähigheit der Neger.
Ausland, 1887. No. 15.

2038 Büttner, C. G. Die Bantu-Völker.
Export. 1888. No. 8 ff.

2038a Coordes, G. Eine Umfahrt um Afrika.
Zeitschr. f. Schulgeogr. 1887. VIII. No. 62.

2039 Freeden, W. v. Reise-und Jagdbilder aus Afrika.
8vo, 390 ss. With Map. Leipzig, Brockhaus, 1887.

2040 Grossi, V. Lingue e letteratura degli odierni popoli dell Afrika.
Explor. Commerc. 1887. II.

2041 Leipoldt, G. Die Leiden des Europäers im afrikanischen Tropenklima und die Mittel zu deren Abwehr 4to, 39 ss.
Dresden, v. Zahn, 1887.

2042 Mageau, A. Explorations en Afrique pendant le 19e siècle.
8vo, 208 pp. Paris, Degorce, 1887.

2043 Merensky, A. Zur frage der Negererziehung.
Deutsche Kolonialzeitung. IV. No. 11. 1887.

2044 Pechuel-Lösche, E. Afrikanische Büffel.
Zoolog. Jahrbücher, III. 1887.

2045 Stengel, K. v. Die rechtliche Stellung der Eingebornen in den deutschen Schutzgebieten.
Deutsche Kolonialzeitung. No. 13. 1887.

2046 Tiétard, J. État politique du littoral Africain.
Rev. Soc. Géogr., Tours. 1887.

2047 Lannoy de Bissey, R. de. Carte de l'Afrique. 1 : 200,000. Bl. 19 : Agades—26 : Kouka—28 : El Obéid.
Paris, Service Géogr., 1888.

2048 Thirring, G. Beiträge zur Biographie Ladislaus Magyars.
Abrégé Bull. Soc. Hongr. de Géogr. 1888.

2049 Wunenberger, Ch. La mission et le royaume de Cunène sur les bords du Cunène.
Mission Catholique, II. Mai., 1888. No. 988 ff.

2050 Kassaï, P. La civilisation africaine, 1876–88. Étude historique et critique de l'œuvre africaine.
18vo, 232 pp. With 2 Maps. Bruxelles, Mertens, 1888.

2051 Hertwig, Franz. Das Küstengebiet von Natal und Pondoland in seiner wirtschatlichen Entwickelung.
I. Von Durban auf den obern Wege nach Marburg (Natal) und die deutschen Ansiedelungen dort.
II. Durch Pondoland und über Marburg auf dem untern Wege nach Durban zurück. Die Landeshauptstadt Pietermaritzburg. Ruckblick.
Pet. Mitth., XII. 1888.

2052 Arnot, F. S. 'Among the Garengauze in Central Africa,' March to September, 1886.
16vo, 28pp. 'Six Months among the Garengauze,' September, 1886, to March, 1887. 16vo, 24 pp. London, Hawkins, 1887 and 1888.

2053 Durand, E. Une exploration française au Zambèze.
8vo, 116 pp. With Map. Paris, Challamel & Co., 1888.

2054 Maples, C. 'Why Lake Nyassa is not Salt.'
Central Africa, February, 1888, p. 25.

2055 —— Lukoma: An Island in Lake Nyassa.
Scott. Geogr. Mag. 1888. IV., No. 8, p. 420.

2056 Ravenstein, E. G. Recent explorations in the territories of the African Lakes Company.
Scott. Georg. Mag. 1888. IV. No. 8, p. 715. With Map.

2057 White, A. Silva. The East Central African Question.
Scott. Geogr. Mag. 1888. IV. No. 6, p, 298.

2058 Albrecht, J. Gisements miniers de la République sud-africaine: platine, argent, cuivre, &c.
Recueil Consul., T.L. VIII. p. 114–128.

2059 Courtois, V. De Tété au Cap de Bonne Espérance.
Missions Cathol. 1888. No. 979, p. 119 ff.

2060 Cowen, C. Witwatersrand, Johannesburg, and other Gold Fields.
12mo. Johannesburg. 1888.

2061 Demaffey, A. Lettre sur les mines d'Or.
L'Afrique Expl. 1888. No. 4, p. 123.

2062 Ellis, A. B. South African sketches.
8vo, 160 pp. London, Chapman and Hall, 1888.

2063 Le Page, A. L'Afrique Australe.
Bull. Soc. Géogr., Lyon. 1888. VII.

2063a Lloyd, E. Journey to Ndara and Nyangana.
Chron. London Miss. Soc., March, 1888, p. 102. With Map.

2064 O'Neill, H. E. Journeys in the District of Delagoa Bay, December, 1886 to January, 1887.
Proceed. R. Geogr. Soc., 1887, IX. No. 8, p. 497. With Map. *Ausland.* 1888. No. 22, s. 430

2065 Pechuel-Lösche, Dr. Zur Bewirthschaftung Südwest-Afrikas.
Kolonialzeitung. 1888. S. 252 ff.

2066 Williams, R. South African Gold Fields.
Board of Trade Journal. 1888. IV. No. 20, p. 307.

2067 Williams, R. Report on a Visit to the Barberton and Kaap Gold Fields.
Ib. v. No. 27, p. 430.

2068 Wookey, A. J. The Kalahari.
London Miss. Chron. 1888. No. 1, p. 29. Journey to the Kalahadi. *Chron. London Miss. Soc.*, August, 1888. P. 362.

2069 Schenck, A. Über Transvaal und die dortigen Goldfelder.
Verh. Ges. f. Erdk., Berlin. 1888. S. 130.

2070 Stanford's Map of the Transvaal Goldfields, &c., 1:839,000.
London, 1888.

2071 Tissot, V. L'Afrique pittoresque; le continent africain et les îles, lectures choisies.
8vo, 407 pp. Paris, Delagrave, 1888.

2072 Silva White, A. The Partition of Central Africa.
Scott. Geogr. Mag. 1888. IV.

2073 Bachmann, Fr. Ein Ritt durch den Ekossa-Wald und an der Küste von Pondoland.
Deutsche Kolonialzeitung. 1888. No. 25, s. 194.

2074 Berthoud, M. P. Lettre de Lydenburg.
Le Globe, Bulletin. 1888. XXVII. No. 1, p. 16.

2075 Brigg, A. 'Sunny Fountains and Golden Sand.'
8vo, 256 pp. London, Wesleyan Conference Offices. 1888.

2076 Coope, W. J. Amatongaland: its Commercial and Political Importance.
Chamber Commerce Journ., London. 1888. P. 59.

2077 Selous, F. C. Further Explorations in Matabeleland.
Proceed. Roy. Geog. Soc. 1888. X. No. 5, p. 293. With Map.

2078 Schenck, Dr. A. Geologische Skizze von Südafrika Masstab 1:10,000,000.
Pet. Mitth., VIII. 1888.

2079 Cape Colony. Map of Police Districts. 1:627,800.
Cape Town, Richards, 1888.

2080 Kaart van de Transvaal, Oranje-Vrystaat, Natal, 1:2,500,000.
Amsterdam, Seyffardt, 1888.

2081 Stanford's Map of the Transvaal Goldfields, British Zululand, the Delagoa Bay Railway, and the routes from Cape Colony and Natal, 1888. 1:1,023,970.
London, Stanford, 1888.

2082 Anderson, A. 'Twenty-five Years in a Waggon in the Gold Regions of Africa.'
2 vols. 8vo, 650 pp. London, Chapman and Hall, 1888.

2083 Stapff, F. M. Bodentemperatur, beobachtungen im Hinterlande der Walfischbai.
Sitz.-Ber, Akad. Wiss. Wien, math. Nat. Kl. 1888. Bd. xcvii. ii. Abteil. s. 119.

2084 Heiderich, Franz. Die mittlere Höhe Afrikas.
Pet. Mitth., vii. 1888.

2085 Soyaux, H. Deutsche Arbeit in Afrika.
Leipzig, Brockhaus, 1888.

2086 Jeppe, Fr. Die Witwatersrand-Goldfelder in Transvaal.
Pet. Mitth., ix. 1888.

2087 Menges, J. Die Verwendbarkeit der Elefanten zur Erschliessung Afrikas.
Pet. Mitth., ix. 1888.

2088 Drumond, H. Tropical Africa.
With 6 Maps. London, Hodder & Stoughton, 1888.

2089 Pfeil, Graf J. Vorschläge zur praktischen Kolonisation in Ostafrika.
Berlin, Rosenbaum & Hart, 1888.

2090 Mathers, E. P. Golden South Africa.
With 5 Maps. London, Whittingham & Co., 1888.

2091 Schenk, Dr. A. Die Geologische Entwickelung Südafrikas.
i. Südafrikanische Primärformation. ii. Kapformation. iii. Karrooformation. iv. Kreideformation. v. Rezente Bildungen.
Pet. Mitth., viii. 1888.

2092 Robinson, John (Member of the Legislative Council, Natal). South Africa as it is.
Nineteenth Century, September, 1888.

2093 Rolfs, G. Die Verwendbarkeit des Elefanten zur Erforschung unbekannten Gegenden.
Pet. Mitth., v. 1888.

2094 Crawfurd, Oswald. Slavery in East Central Africa.
Nineteenth Century, September, 1888.

2095 Tafel 15. Karte der Witwatersrand-Goldfelder, reduziert von Troyes Karte von fr. Jeppe. Mafsstab 1:500,000.—Liste der auf Witwatersrand etablierten Kompanien, März, 1888.—Uebersichtsskizze der Südafrikanischen Republik. Mafsstab 1:12,500,000.
Pet. Mitth., ix. 1888.

2096 Jeppe, F. The Kaap Gold-Fields of the Transvaal.
Proceed. R. Geogr. Soc., 1888. x. No. 7, p. 438.

2097 Johnson, F. Report of a visit to the Matabele and Mashona Countries.
Bluebook C., 5363, p. 40–42. 1888.

2098 Jousse, Th. Une excursion au Mont aux Sources.
Jour. Miss. Evangel. 1888. No. 8, p. 301.

2099 Jung, E. Die wirtschaftlichen Verhältnisse des Kaplandes.
Deutsche Rundschau. 1888. Heft. 5, s. 193.

ERRATA.

13 *for* Portolana, *read* Portolano.
120 ,, Knot, *read* Kust.
184 ,, Caronelli, *read* Coronelli.
189 ,, Buijs Enkhuijzen, *read* Buijs.
Enkhuijzen, 1694.
197 *for* Mal, *read* Mol.
206 ,, Kenlen, *read* Keulen.
245, line 6, *for* Kaaz, *read* Kaab.
308 *for* otdket, *read* ontdekt.
338 ,, Kenlen, *read* Keulen.
414 ,, Graaf ,, Graaff.
493 ,, Zeyker ,, Zeyher.
634 ,, Ewart ,, Swart.
647 ,, Enbdeckungen, *read* Entdeckungen.
659 ,, Berghans, *read* Berghaus.
676 ,, Ngani ,, Ngami.
688 ,, Guelle ,, Quelle.
699 ,, Castlenan, fr de, *read* Castlenau, L. de.
702 ,, xxxii. *read* xvii.

TRANSACTIONS

OF THE

SOUTH AFRICAN PHILOSOPHICAL SOCIETY.

NOTE ON PORTIONS OF THE CROSS OR MEMORIAL PILLAR ERECTED BY BARTHOLOMEW DIAZ NEAR ANGRA PEQUENA IN GERMAN SOUTH-WEST AFRICA.

By W. L. Sclater,

Director of the South African Museum.

(Read January 26, 1898.)

I.—Introduction.

Soon after taking up my appointment as Director of the Museum I found there a block of stone imbedded in a brick foundation which I was given to understand was a portion of the cross erected near Angra Pequena by Bartholomew Diaz, the first navigator who rounded the Cape of Good Hope.

Mr. Péringuey kindly made a note for me of all the information he was able to gather about this interesting relic, of which the following is the summary.

The existence of this cross first became known to the Cape Town public at the time of the discovery of the guano deposits on Ichaboe Island. Some of the crews of whalers or guano-loading vessels had, in a mad freak, broken the cross in two pieces. The interest was renewed at the time of the discovery of copper ore in Namaqualand and Damaraland, and Mr. De Pass and Captain Sinclair, who were at the time greatly interested in the guano islands, were instrumental in having the three pieces of the cross brought to Cape Town. This is confirmed by a note from the Museum records for the year 1856, in which the collections were first placed in the old Museum, to this effect :—

" To Captain Carrew we are indebted for the remains of the cross

brought from Portugal, and planted by Bartholomew Diaz at Pedestal Point in 1486."

The pieces were put together roughly in the form of a cross, and stood on the stoep at the entrance of the old Museum, and I have seen a reproduction of an old photograph representing the cross as it was in those days.

In 1865 Chevalier du Prat, one of the judges of the Mixed Commission, appointed to decide on the validity of slavers and their cargoes captured on the African coasts, and also apparently Consul for Portugal at the same time, made a claim for the cross on behalf of the King of Portugal. Loth to part with so interesting a relic, the trustees made a compromise, and the upper part with the cross piece was handed over to Chevalier du Prat to find its way to Lisbon, the lower part being retained in the Museum.

In the earlier part of the century the coasts of South Africa were surveyed by Captain Owen, R.N.* He, on page 269 of vol. ii. of his narrative, states that he visited Angra Pequena, and there, on the top of a small granite eminence, found the remains of Diaz' cross, which was said to have been thrown down some forty years previously; subsequent visitors had replaced the original basal shaft in the ground again, which was then about six feet in height, and had placed other broken fragments on the shaft above to roughly restore the cross. The basal fragments were of marble, rounded on one side, square on the other for the insertion of an inscription now illegible. From the description given it does not seem to be very certain whether traces of the inscription, though now illegible, were distinctly seen, or whether the former existence of such an inscription was merely inferred from the shape of the base. On their way down the hill, Captain Owen describes his officers as having discovered the cross itself lying on the ground, and as having been of the same breadth and thickness as the shaft itself, also with an inscription equally illegible. It was doubtless three of these pieces which were subsequently deposited in the South African Museum in 1856.

The portion of the pillar still preserved in the Museum measures about 22 in. in height, 8 in. in breadth, and 5½ in. thickness; it appears to taper very slightly from below upwards, and is composed of a compact hard shelly limestone, a rock which does not seem to be found near Angra Pequena but which is not uncommon in Portugal.

* Narrative of voyages to explore the shores of Africa, Arabia, and Madagascar, performed by H.M.S. *Leven* and *Baracouta*, by Captain W. F. W. Owen. London, 2 vols., 1833, 8vo.

There can, I think, be little doubt that it, together with the two fragments now in the Geographical Museum at Lisbon, formed part of an upright pillar somewhat similar to those of Diogo Cão still in perfect condition in the same Museum, and figured in Senhor Cordeiro's Memoir which is referred to in the next section; further, that the cross was of iron, and of very much slighter dimensions and was fixed on the top of the stone pillar.

II.—On the Remains of the Pillars marking the discovery of the Western Coasts of Africa preserved in the Museum of the Geographical Society of Lisbon.

It seemed to me worth while to try and trace the subsequent history of the pieces of the cross said to have been sent to Portugal. I therefore wrote through the Colonial Office to inquire as to the whereabouts of the missing pieces, and to try and obtain at least a photograph of them. Eventually, after the elapse of nearly a year I received from Lisbon through the Imperial Foreign Office a photograph of the missing pieces, together with the following note on the Crosses or Memorial Pillars erected by the early Portuguese navigators on the western coasts of Africa, now preserved in the Museum of the Geographical Society of Lisbon.

As the note kindly prepared by Senhor Lucian Cordeiro seemed to me of considerable interest, I append here a free translation of it, for which I am greatly indebted to the kindness of Senhor Tedeschi, the Consul-General for Portugal in Cape Town. The note is as follows:—

"In the Colonial and Ethnographical Museum of the Geographical Society of Lisbon, there exist the remains of the following stone pillars erected on the West Coast of Africa, to witness and recall the early discoveries and possessions of the Portuguese."

1. Pillar of St. Augustine, placed on the Cape, first known as that of St. Augustine, afterwards known as that of St. Maria, in 13° 27′ 15″ S. Lat., and 21° 38′ E. Long. of Lisbon according to Castilho ('Desc. e roteira da Costa Occ. da Africa,' 1866) to the south of Benguella; this is the second pillar erected by Diogo Cão, and the last of his first voyage of discovery (1482).

On the terminal portion of the pillar the following description can be read: "Date of the Creation of the world 6881, year of our Lord Jesus Christ 1482, the very exalted very excellent and powerful King D. John the Second of Portugal caused this land to be discovered and this pillar to be placed by Diogo Cão, Groom of the Household."

A description and explanation with figures by Luciãn Cordeiro was given in a Memoir published by the Geographical Society of Lisbon.

The pillar was sent to the Museum by the Governor-General of Angola, Guilherme Capello in 1892, and was replaced by another commemorative pillar.

2. Pillar of Cape Negro erected at the Cape thus named at 15° 40′ 30″ S. Lat. and 21° 2′ E. Long. (of Lisbon) to the south of Mossamedes.

This was the third of Diogo Cão, and the first of his second voyage of discovery (1485). The shield and the inscription thereon which occupied the faces of the terminal squared portion of the pillar are altogether obliterated. Full descriptions and explanations will be found in the above-quoted Memoir. This pillar was sent to Lisbon at the same time as the former one.

3. Pillar of St. George erected on the point at the southern side of the mouth of the Congo, which was named Point Padrao—a name which has been changed in modern English charts to Shark's Point. This was the first pillar erected by Diogo Cão during his first voyage (1482).

According to the local tradition, it was destroyed by the bullets of an English ship which used it as a target. Several fragments were collected by a ship's company, but were lost as the vessel sunk. Other fragments were taken away by the natives, and were carefully guarded by them as the talisman of the white man. In 1859 the Portuguese Government had another pillar erected on the same spot by a man-of-war. This pillar again disappeared in 1864, in consequence, according to the official tradition, of a very high tide. When in 1892 the Governor of Angola had a new pillar put up, the fragments in the possession of the natives were recovered, and these, two in number, are now to be found in the Museum, having been sent by the order of the Governor-General Guilherme Capello and his successor.

4. Pillar of Sao Thiago erected on Point Pedestal, Angra dos Ilheus (according to old Portuguese maps) in 26° 38′ S. Lat. and 24° 11′ E. Long. of Lisbon according to Castilho. It may here be remarked that Angra dos Ilheus is nowadays identified with Angra Pequena, but that again this last name was also applied to another bay further north—Spencer Bay of the English charts.

The name "Angra" is very common on the coast between Cabo da Serra (*i.e.*, Cape Cross) and the Orange River.

On leaving Walfisch Bay one finds Angra dos Iltheu, Angra dos

Conceicao Angra Pequena, and Angras Juntas. It was certainly along this coast that Bartholomew Diaz commenced his explorations, those of Diogo Cão having finished at Cabo da Serra, Cabo da Cruz or Cross Point, where he placed his fourth and last pillar, recently removed by the Germans, as shown in the previously quoted Memoir of Lucian Cordeiro, and in another entitled 'O ultimo padrao de Diogo Cão,' published in the Bulletin of the Geographical Society of Lisbon.

The last pillar of Diogo Cão has been in some way confused with the first one of Bartholomew Diaz. This latter was acquired in several pieces by the English from Pedestal Point near Angra Pequena.

According to Owen this pillar was destroyed at the commencement of the present century. Owen endeavoured to replace the pillar, but on account of the many pieces into which it had been broken this was found to be impossible. On two of the fragments, however, traces of an inscription were found, which were considered to be illegible.

The question is, Were these particular portions obtained when the fragments of the pillar were brought to the Cape, and are they still there? A portion, or rather two portions, which seem to have been continuous and which evidently form part of the column, are now in our Museum, having reached us from the Naval School in 1892, accompanied solely by the tradition that they formed part of the Pillar of Bartholomew Diaz, which the Portuguese Consul at the Cape, Senhor du Prat, had succeeded in obtaining there, and had sent to the Portuguese Government or to the King of Portugal, and which had then been deposited at the Museum of the Naval School. They are still in the same wooden box in which they were preserved in the Naval School, and are certainly the relics of which the British Minister has asked for a reproduction.

As has been said already, it seems to have formed part of the capital of the column, which could not have been very large and which seems to have been of the same design as those of Diogo Cão.

There is no cross or portion of a cross, and in the two best preserved pillars, those of Cape St. Augustine and of Cape Negro, one can only just make out the spot for the placing of the cross which formed the summit of the pillar and was probably made of iron, both in these (*i.e.*, Diogo Cão's) as well as in the others erected later.

It may be further worth while mentioning that the Portuguese sculptor, Victor Bastos, recently deceased, had made a sketch of considerable proportions, for a picture never completed, of the erection

of the St. Philippe memorial pillar, and that the heirs of the great sculptor have tried vainly to dispose of it. Of this picture the Geographical Society possesses a photograph.

III.—On the other Pillars erected by Bartholomew Diaz.

I have not been able to find any fuller account of Diaz' memorable voyage than that contained in Barros' * 'Asia.' On p. 184 of the first volume of this work it is related how Diaz embarked from Lisbon in August, 1486, with two vessels of about fifty tons apiece. He took with him a supply of marble pillars to mark the successive points of his discoveries, and the first of these he set up at Pedestal Point just south of Angra Pequena.

Diaz continued his voyage, landing at a place he named Angra das Voltas, of uncertain position, but probably in the neighbourhood of the Orange River, a point just south of which is called Cape Voltas to this day.

After this he was driven away from land by a storm, and did not again touch the coast till he reached a bay, which he named Angra dos Vaqueiros, which is probably one of the bays between Cape Agulhas and Knysna. He next proceeded along the coast as far as Algoa Bay, where, on an island now called St. Croix, he again erected a second pillar.

Finally he proceeded a little further to the mouth of a considerable river, either the Fish or Kowie, and then, owing to the protestations of his crew, he turned back along the coast, discovering and naming Cabo Tormentoso, which was on his return to Portugal renamed by King John the Second, Cabo de Boa Esperanca, or the Cape of Good Hope, now generally known as Cape Point. Here also he is stated by Barros to have erected a third pillar, which he dedicated to St. Philippe, and to which allusion is made above.

Regarding the identification of the island in Algoa Bay with the island on which Diaz landed, there seems to be considerable doubt. According to Barros, the island is described as a rocky one, and to have had on it two springs of fresh water; the island of St. Croix, on the other hand, is perfectly flat and sandy, and has no spring on it; furthermore, it is very close to the mainland, and not an island such as would be likely to be first met with by a vessel entering Algoa Bay. There is no trace, and no tradition of a trace of the existence of a pillar on the island: it is, therefore, extremely improbable that it was on St. Croix that Diaz landed, and it remains to be discovered

* 'Da Asia de Joao de Barros e de Diogo de Conto.' Nov. ed. Lisbon, 1788.

what island on the south coast of the Colony best agrees with the description given in Barros. For the description of the island of St. Croix, and for the suggestion of the doubt of its identification with the Ihleo da Santa Cruz of Diaz I am indebted to a note kindly communicated to me by the Rev. J. A. Hewitt, of Port Elizabeth, but so far I am unable to suggest any alternative island better fitting the facts as recorded in history.

IV.—Recapitulation of the Pillars marking the discovery of the Portuguese Navigators at the end of the Fifteenth Century.

1. *Pillar of St. George.*

First pillar erected by Diogo Cão on his first voyage in Lat. 6° S. at Shark's Point, just south of the mouth of the Congo in 1482. Two fragments of this pillar are in the Geographical Museum at Lisbon.

2. *Pillar of St. Augustine.*

Second pillar erected by Diogo Cão on his first voyage in Lat. 13° 27′ S., just south of Benguela in Angola in 1482. This pillar is now preserved in the Geographical Museum at Lisbon.

3. *Pillar of Cape Negro.*

First pillar erected by Diogo Cão on his second voyage in Lat. 15° 40′ S., just south of Mossamedes in Angola in 1485. This pillar is also preserved in the Museum at Lisbon.

4. *Pillar of Cape Cross.*

Second pillar erected by Diogo Cão on his second voyage in Lat. 22° S., north of Walfisch Bay, in 1485, marking his extreme southern point. This pillar is preserved in the Marine Academy at Kiel, and a reproduction of it has been placed by the Emperor of Germany on its original situation.

5. *Pillar of Sao Thiago.*

First pillar erected by Bartholomew Diaz at Pedestal Point in Lat. 27° S. in 1487. One fragment of this is now in the South African Museum, two fragments in the Geographical Museum at Lisbon.

6. *Pillar of Santa Cruz.*

Second pillar erected by Bartholomew Diaz on the island, usually, but probably erroneously, identified with St. Croix Island in Algoa Bay, in 1487. No traces of this pillar have hitherto been found.

7. *Pillar of Sao Philippe.*

Third pillar erected by Bartholomew Diaz in the neighbourhood of Cape Point. Of this, too, no traces appear to be still in existence.

DESCRIPTIVE CATALOGUE OF THE COLEOPTERA OF SOUTH AFRICA.

By L. Péringuey.

Family CICINDELIDÆ.

SECOND SUPPLEMENT.

This Supplement contains eleven descriptions of *Cicindelidæ* to be added to the list of South African species, but three only are described here for the first time. Dr. Walter Horn, since the appearance of my Catalogue of the family and also of the First Supplement, has made known seven species of the wingless genus *Dromica* (*Cosmema Myrmecoptera, Dromica*). I am acquainted with only one of these species (*C. kolbei*) which has a very extensive range of distribution for a wingless insect, being recorded from Huilla in Angola, and Leydenburg in the Transvaal.

Dr. Horn, who is devoting all his time and talent to the special study of the family *Cicindelidæ*, has been very successful in procuring types of many species, and in comparing others with types in collections. He is unremitting in clearing the synonymy of many species, and his remarks thereon are worthy of special attention. I am indebted to this excellent entomologist for much valuable information.

I fear, however, that until long series of the species concerned have been obtained some of the synonymy given will remain a debatable point. I allude mostly to the species of the genus *Dromica* and its divisions.

Tribe MANTICHORINI.

Gen. MANTICHORA.

Catal., p. 2.

It seems as if the species of the genus *Mantichora* were to prove a constant source of trouble.

Dr. Horn writes to me after having examined my types and co-types :—

"*Mantichora scabra*, Pér., *nec* Klug, and *M. latipennis*, Pér., *nec* Klug, *nec* Waterhouse, are for me the same species; I see no difference between them and the unique type of *M. herculeana*, Kl., with which I have compared them.

"*Mantichora latipennis*, Klug, is not synonymous with *M. latipennis*, Waterh., but with *M. mygaloides*, Thoms. I have also compared the two.

"*Mantichora scabra*, Klug, was not in your collection; it is much smaller than *M. herculeana*, but I consider it as simply a variety of the latter.

"*Mantichora livingstoni*, Casteln., is identical with *M. mygaloides*, Thoms., var. *damarensis*, Pér.; Horn, Deutsch. Entom. Zeit., 1896, p. 353."

To this I can only say that if such is the case *M. latipennis*, Waterh., is identical with *M. herculeana*, Klug., and should have precedence. As I have already pointed out, the former species was described from a female example, and the identity of the male cannot thus be ascertained with certainty. Since, however, *M. latipennis* of Klug, *nec* Waterhouse, is identical with *M. mygaloides*, Thoms., I suggest that the nomenclature should read thus :—

Mantichora latipennis, female, Waterh.
= *herculeana*, male, Klug.
= *latipennis*, male, Pér.
var. *scabra*, Klug.

Regarding *M. scabra*, Pér., I maintain that it is different from *M. latipennis*. It is at once distinguishable from it by the abrupt

declivity of the elytra, which are also distinctly convex in the posterior part of the disk above the declivity, whereas in *M. latipennis* they are sloping and plane; and as it proves not to be *M. scabra*, Klug., I propose for it the name of *M. manicana*.

As for *M. livingstoni*, Casteln. = *M. mygaloides*, var. *damarensis*, Pér., Dr. Horn has come to that conclusion from seeing the original example of Castelnau now in the Oberthür collection. I have also seen these *Mantichoræ*, which came mostly from the Mniszech collection, but I could not make any use of them at the time, as there certainly was no proof of their having ever been in the possession of de Castelnau, or of their being the originals or types from which the descriptions were made.

Gen. MEGACEPHALA.

Catal., p. 20.

Dr. Horn has kindly sent the description of a new South African species to be included in the present Supplement.

Megacephala peringueyi, W. Horn.

? *regalis*, Chaud. in litt.; Thoms. Monogr. Cicind., p. 20, pl. iv., fig. 3.

Allied to *M. regalis*, Boh., but the five teeth of the labrum are a little larger, the frontal impressions are deeper; the prothorax is broader and much depressed, the sides are less rounded, the posterior angles much more prominent; the elytra are narrower, longer, very much less convex, and very much more declivous towards the apex, the tubercles, which are of the same size, are somewhat less thickly set, especially alongside the suture in the anterior part, where they are much less distinct; in fact they leave there sometimes a narrow longitudinal sub-sutural denuded space (compare the figure given by Thomson, *loc. cit.*, pl. iv., fig. 3); the suture is not plane but narrowly, yet distinctly, raised; the last joint of the maxillary and labial palpi is much less dilated, and the posterior tarsi are hardly longer. The whole body above and beneath is a dark emerald green, the posterior part of the sternum, and also the abdomen are piceous, and the apical part of the latter is hardly infuscate; labrum, antennæ, palpi, coxæ, trochanters, and legs testaceous, but now and then a little darker. Length (males), 25–26 mm.

Nearly similar in shape to *M. bennigseni*, Horn.

Hab. Zambesi.

"I am sure that the *Megacephala* mentioned and figured by Thomson in his 'Monographie des Cicindélides,' pp. 20–21, and by Chaudoir in the 'Catalogue de la Collection d. Cicindélètes,' under the name of *M. regalis*, Boh., are different from Boheman's species, with which I have compared a typical specimen. Two years ago I saw Thomson's original type in Mons. René Oberthür's Cabinet (ex. coll. Mniszech), and also that of De Chaudoir's in the Paris Museum, and I am under the impression that both are identical with my species."

Gen. CICINDELA.

Catal., p. 28.

Cicindela pudica, var. *rusticana*, is a good species. Horn, Deutsch. Entom. Zeit., 1896, p. 357.

C. natalensis, Pér. = *intricata*, Dej. Horn.

This species has been recorded from Port Alfred in the Cape Colony.

C. mashuna, Pér., is a variety of *exigua*, Kolbe, Deutsch. Entom. Zeit., 1896, p. 357.

C. vivida, Boh., is a variety of *neglecta*, Dej. Horn, Deutsch. Entom. Zeit., 1892, p. 216.

The typical *neglecta* is recorded by him from Sandwich Harbour.

C. discoidea, Dej., is represented in South Africa by the variety *intermedia*, Klug. Horn, Deutsch. Entom. Zeit., p. 53.

The South African *Cicindelæ* belonging to the group of *clathrata* are so closely connected that the following table may prove useful:—

Type *C. clathrata*.

a^2. Head without any very distinct striation along the supra-orbital ridges.

b^2. Prothorax slightly broader than long.

c^3. Elytra without a marginal yellowish band, or with a very narrow one .. .. *brevicollis*.

b^2. Prothorax as broad as long.

c^2. Elytra with a marginal yellowish band .. .. *clathrata*.

c^1. Elytra with the marginal band and dorsal rami very broad, the background showing only in the shape of narrow zigzags .. *differens*.

a^1. Head with a very distinct striation along the supra-orbital ridges.

b^2. Marginal yellowish band and rami on the elytra very narrow .. *discoidea*.

b^1. Marginal yellowish band narrow, rami much broader .. .. .. *neglecta*.

CICINDELA DISCOIDEA, Dej.,
Spec. i., p. 114.
Var. *intermedia*, Klug, teste Horn.

An intermediate form between *C. neglecta* and *C. clathrata;* the shape, sculpture, and markings are the same, but the marginal yellowish band and the rami are much more slender, the two comma-shaped patches on each side of the suture are disconnected (this is also sometimes the case in *C. clathrata*), but the principal distinctive character is found in the conspicuous striation of the head along the orbits of the eyes. Length 11–12 mm.; width 4–4½ mm.

Hab. Natal (Escourt, D'Urban), Mozambique (Lourenço-Marquez); is also found in Bagamoyo, &c.

CICINDELA CLATHRATA.

As said above, the striation of the orbital ridges is very fine in comparison with that of *C. discoidea*, but although it varies a little, it is never much pronounced.

Hab. Cape Colony (Cape, Worcester, Tulbagh, Albert, Namaqualand; Bechuanaland), Uitenhage, Natal (D'Urban, Frere), Zambesia (Buluwayo), Transvaal (Potchefstroom).

CICINDELA DIFFERENS, Horn,
Deutsch. Entom. Zeit., 1892, p. 82.

Very closely allied to *C. clathrata;* the shape and sculpture are alike, the striation of the supra-orbital ridges is not more pronounced, but in the elytra the cream colour indumentum has invaded nearly the whole of the disk, leaving only three narrow zigzag lunules which are part of the greenish background, and completely similar in shape to those of *C. candida*. Length 11–13 mm.; width 4¼–5 mm.

Hab. Zambesia (Middle Limpopo, Buluwayo).

Horn described originally the species from the Zanzibar coast (Dars el salam, I believe), and has also recorded it from the Zambesi (Boroma). It has lately been found on the banks of the Tugela River, in Natal, *C. regalis* has also been found in the same locality, and I am also informed that it occurs in Salisbury. I did not at the time consider myself justified in separating it from *C. clathrata*, nor do I think now that it is a valid species.

GEN. EURYODA.
Catal., p. 54.

E. algoensis, Pér. = *E. guttipennis*. Horn, Deutsch. Ent. Zeitsch., 1896, p. 51.

Gen. DROMICA.

Catal., p. 71. Supplement, p. 110.

Cosmema bertinæ, Dohrn. = *C. albivittis*, Chaud. Horn, in litt., compared to type.

C. sexmaculata, Pér., is not *C. sexmaculata*, Chaud., but probably a variety of *C. citreo-guttata*, Chaud. Horn, Notes Leyd. Mus., 1898, p. 238.

C. simplex, Bates, and *gruti*, Pér., are varieties of *C. sexmaculata*, Chaud., *loc. cit.*, p. 238.

C. gruti, Chaud., is different from *C. gruti*, Pér. Horn, *loc. cit.*, p. 238.

C. marginella, Bat. and Pér. = *C. albicinctella*, Bat. Horn, Deutsch. Entom. Zeit., 1896, p. 353.

C. connexa, Pér. = *C. alboclavata*, Dokht. Horn, Deutsch. Entom. Zeit., 1897, p. 62.

C. lateralis, Pér., is not *C. lateralis*, Boh.* Horn, *loc. cit.*, p. 62.

Myrmecoptera foveolata, Pér. = *C. granulata*, Dokht. Horn, *loc. cit.*, p. 62.

Dromica quinquecostata, Horn = *D. clathrata*, Chaud. Horn, *loc. cit.*, p. 353.

Cosmema transitoria, male.

Catal. (Suppl.), p. 112.

Very dark blue, nearly black on the upper part of the head and prothorax, with the sides and the whole under side cyaneous blue; elytra dark blue, black on the discoidal part, and marginated with cyaneous; femora cyaneous, knees rufescent, tibiæ and tarsi nearly black; labrum black with a wide lateral flavescent border (female); head finely and closely striolate; prothorax long, narrow, subcylindrical, very finely and closely plicate transversely; elytra elongato-ovate, gradually ampliated from the base to a little past the median part, where they are broadest, twice as wide as the prothorax, gradually attenuate from there to the apex, the outer angle of which is sharp, and the apical margin diagonal, the sutural spine is very small; they are convex, covered with deep punctures which are nearly foveate in the anterior part of the length, and gradually diminish in size to half the length, and from there to the apex are of the same size and closely set; they have a median supra-marginal

* This species being identical with Chaud. type bearing the unpublished name of *C. aspera*, must thus be named *C. aspera*, Pér.

triangular sub-flavescent patch, and an elongate, also supra-marginal one, in the posterior part, beginning at about three-fourths of the length, and reaching the outer angle of the apical margin ; there is no trace of a humeral patch. Length 15 mm. ; width 5 mm.

I consider as the female of *D. transitoria* the example without antennæ from Lydenburg (Transvaal), here described. The elytra are more elongato-ovate than in the male, the punctures more shallow, as usual, the colour is not so dark on the upper side, the post-median supra-marginal flavescent patch is well defined, whereas it is hardly noticeable in the male. This species is easily distinguishable by the long sub-cylindrical prothorax.

Cosmema leydenburgiana.

Purple-black on the upper side, cyaneous laterally and underneath ; legs metallic green, with the greatest part of the tibiæ and the knees rufescent ; labrum flavous (male), head as usual ; prothorax narrow, cylindrical ; elytra deeply pitted from the base to a short distance from the apex, suture carinate and prolonged in two horizontal spines not diverging, apical part of the elytra slightly sinuate and with the outer angle sharp ; there is no trace of humeral supra-marginal patch, but there is a conspicuous post-median one, and also an apical one which are distinctly pale yellow and rather wide in comparison to the side. Length 10 mm. ; width $2\frac{3}{4}$ mm.

Female unknown.

This species resembles *C. dolosa* in the shape of the prothorax, which is equally long, narrow, and cylindrical, but it is at once distinguishable from it by the shape of the sutural posterior spines, which are divaricating and shorter in the male of *C. dolosa*, where the apical margin is not deeply emarginate, nor is it acutely angular outwardly ; the sculpture is nearly identical, but there is no humeral white spot in *C. leydenburgiana.*

Cosmema discoidalis, Horn,

Notes from the Leyden Museum, 1898, vol. xix., p. 237.

"Allied to *C. furcata*, Boh. ; differs in the colour which although hardly darker above, is brassy-green underneath ; the sculpture of the head is a little finer, principally on the vertex ; the prothorax is hardly longer, the median part of the outer sides is for a very short distance more parallel, the transverse folds are a little more pronounced, the shining juxta-sutural stria of the elytra is absent, but

the three or four foveolæ are shining, and the arrangement of the macules, line, and spot is very different, and consists of a filiform humeral flavous macula, a second one in the middle reaching almost the margin, increased towards the posterior part and connected with a marginal apical line, and having besides a very large central patch of the same colour occupying nearly all the whole posterior discoidal part. The median lateral macule is more approximate to the margin than in *C. furcata*, the marginal apical band is similar, and at the point of junction there is a small angle directed inwardly. The antennæ are missing. Female. Length 16 mm., labrum excluded.

"*Hab.* Transvaal.

"Differs much from the species included in the genus owing to the large central macula being situated on each elytron at two-thirds of the length from the base."

Cosmema helleri, Horn,

Loc. cit., p. 237.

"A very large species. Head and prothorax nearly similar to that of *Myrmecoptera mashuna*, Pér., but the former is more finely sculptured, and very finely granulated in front and behind, the latter is wider near the apex, less obliquely, *i.e.*, more transversely, rugoso-striate, and the lateral basal tubercles are much more prominent; the labrum is a little longer and has a broad flavous line in the centre; elytra much longer than in *C. sexmaculata*, Chaud., less convex, much less acuminate behind and broadly rotund and truncate at the very apex, sutural spine a little longer, sculpture deeper, quite reticulate, intervals very fine, foveolæ much larger as far as the median part, much denser behind; there is on each side a median triangular oblique macule, distant from the outer margin, and a shorter apical one; palpi flavous, the two ultimate ones black; legs much more robust, and body a little more shining beneath. The rest as in *C. sexmaculata* Chaud. Female. Length 19 mm.

"*Hab.* Transvaal."

Cosmema semilevis, Horn,

Entom. Nachricht, 1897, No. 7, p. 98.

"Has some distant affinity to *C. elegantula*, Boh.; the labrum is longer, the prothorax is a little wider, plane, the anterior furrow is

much finer, the posterior one with the exception of the small discoidal impression is wanting, the base is much less narrowed before the posterior angles, and the sculpture is more finely granulate; the elytra are broader, more ovate, much planer, and with the shoulders less distinct, the apical spines are longer, the margin is not inflexed and declivous, the anterior half, except towards the suture, has a moderately few punctures, while the posterior one, including the sutural part, has very few punctures broadly scattered, the patches are flavous, the humeral spot small, the median marginal macule is oblong and larger, the apical one a little smaller. Colour above dark æneous, the margin of the elytra slightly greenish violaceous, the under part of it violaceous; pectus and abdomen denuded, labrum flavous, antennæ, coxæ, legs, and palpi testaceous brown. Male. Length 10 mm.

"*Hab.* Zululand."

Cosmema kolbei, Horn,

Entom. Nachr., 1897, p. 238.

"Allied to *C. sexmaculata*, Chaud., but it is very much larger; the head and prothorax are a little more roughly sculptured; the labrum is hardly shorter, the sculpture of the elytra is much rougher and deeper, the sutural spine of the female is very much shorter, and there is one small, marginal, flavous spot before the apex; the whole body is a beautifully cyaneous blue opaque above, shining beneath and on the legs, and the last abdominal segments are a little viridescent. The male differs from the female in being of a more slender shape, the elytra are less dilated in the middle, more roughly sculptured beyond the median part, the sutural spine is extremely long, the labrum shorter, and the marginal flavous macule much larger. Length 16½–17½ mm.

"*Hab.* Transvaal (M'phone), and Angola (Huilla), teste Horn. I have seen a female example from Leydenburg (Transvaal) communicated by the Director of the Pretoria State Museum."

Myrmecoptera peringueyi, Horn,

Entom. Nachr., 1896, p. 338.

Similar to *M. bennigseni*, Horn, but differs by the totally filiform shape of the antennæ (in *M. bennigseni* they are nearly filiform in the male, and hardly foliate in the female), the vertex of the head is more deeply rugose transversely; the prothorax which is hardly

longer, is narrower, the posterior strangulation less deep, the transverse folds of the surface much rougher and not so numerous, and the humeral angle of the elytra is wanting; the flavous margin of the elytra is lacerated, the anterior part leading to the spur prominently directed inwards is wanting with the exception of a minute humeral macule, and the spur itself is placed hardly beyond the median part. The upper side of the elytra is opaque, nearly black, the thorax, head, and margin of elytra have an obscure metallic sheen.

Hab. Interior of Mozambique.

Myrmecoptera gunningi.

Bronze-black, slightly cyaneous laterally and underneath, foveæ on the elytra with a bright coppery sheen on the male; head and prothorax as in *M. clathrata*, Kl.; elytra, with five distinct costæ, reaching to about two-thirds of the length, and a supra-marginal one short, slender, beginning at about one-third of the length and reaching behind as far as the fifth costa; intervals very broadly and deeply foveate, posterior part closely rugoso-punctate; antennæ very broadly foliate, labrum black with a narrow median flavescent line in both sexes; elytra plane in the male, very convex and considerably broader in the female, ending in two sharp, recurved, and moderately long spines in the male, and blunt in the female. Length 18–23 mm.

This species is easily distinguished from *M. clathrata*, Klug, by the much more foliate antennæ, the very much broader foveæ on the elytra, and the short supra-lateral carina; the elytra are also more convex, and the carinæ, as well as the foveate intervals, are produced a little further towards the apex; there is no white patch in all the examples I have seen. It is also allied to *M. grandis*, Pér. which is distinguished from the present species by the more depressed elytra (female); the foveæ are nearly similar, but the two outer carinæ are nearer to one another in *M. grandis;* there is no supra-marginal one, and they are on the whole shorter; the antennæ, however, are equally foliate. I mistook two examples of this species from Barberton in the Transvaal for varieties of *M. grandis*, but now, thanks to the courtesy of Dr. J. W. B. Gunning, Director of the Transvaal State Museum, I have been able to examine a good series of this very distinct species.

Hab. Transvaal (Barberton, Leydenburg).

MYRMECOPTERA FLAVOVITTATA, Horn,

Entom. Nachr., 1896, p. 339.

Similar to *M. bilunata*, differs in the head and prothorax being tinged with æneous, the sides of the prothorax are straighter, the anterior constriction much smaller, nearly invisible, the whole surface, including the anterior and posterior margin, more densely and sharply striolate transversely; the humeral line of the elytra is connected with the apical macule, the discoidal hook is also connected with it, and the humeral part is strongly dilated. The episterna of the pro- and mesothorax are sparsely but somewhat roughly punctured, the antennæ are less dilated; the apex of the penis is not hamate. Male. Length 14½ mm.

Hab. Interior of Mozambique.

DROMICA PLANIFRONS, Horn,

Entom. Nachr., 1896, p. 339.

Differs from the male of *D. sculpturata* in having no median tooth in the labrum, the frontal part is not excavate between the eyes, the prothorax is shorter, the elytra longer, much less convex, narrower in the basal part for one-third of the length, the sutural spine is a little more noticeable, the juxta-sutural costa is equal in length to the second but both are much shorter than the three external ones which are of equal length. It differs also from *D. clathrata* male by the labrum, which is hardly shorter, but has no median tooth, by the plane frontal part, by the antennæ which are shorter with all the joints cylindrical; the prothorax is shorter, broader, the sides less straight, the base is more constricted, the two longitudinal torres less sharp and smaller, the elytra more plane, much more finely sculptured, the large foveæ between the first and second costæ are wanting, the three external costæ are hardly longer, the two internal ones are much shorter and all are slender. Male. Length 16 mm.

Hab. Zululand.

INDEX.

DESCRIPTIVE CATALOGUE OF THE COLEOPTERA OF SOUTH AFRICA.

By L. Péringuey.

Family CARABIDÆ.

FIRST SUPPLEMENT.

With Plate V. (XI.)

This Supplement contains descriptions of 95 species, 91 of which are new, and 4 recorded from the South African limit for the first time.

I have found it necessary to establish 6 new genera for 6 new South African forms, 3 of which (*Umgenia*, *Lebistinida*, and *Procletodema* are strikingly singular; the other 3, although very interesting, are, however, more closely allied to known forms. Mons. Bedel informs me that the genus *Coscinia*, not known hitherto to occur in South Africa, has been captured at East London by Dr. Chas. Martin.

The number of South African genera is thus 173, whilst that of the species amounts to 1,011.

This new accession to the knowledge of the South African Coleopterous Fauna has again a strongly Ethiopian character. One genus only, *Abatus*, is peculiar to the Western, or Cape, fauna. It is, however, worthy of note that a Pterostichid (*Pterostichus alticola*) has been met with at an altitude of 8,500 feet, while a Cymindid (*Hystrichopus altitudinis*) has been met at the same height, and also on the highest peak in South Africa, *i.e.*, "Mont aux Sources," at a height of 11,000 feet, while *P. inordinatus* occurs at a very high altitude (Drakensberg, Van Renen's Pass).

Another species of the curious genus *Procletus* * is here described, and also an allied form: *Procletodema parallelum*. *Procletus*, and also *Rhopalomelus*, must after all be removed from the *Pteroschini* to

* Since this was written I have found that *Procletus* stands in synonymy with *Parachlaenius*, Kolb., which name has precedence.

the *Chlænini*, however aberrant they may appear at first sight. *Procletus* and *Procletodema* will probably be found to live like *Rhopalomelus* in Termite nests.

Two years have now elapsed since the publication of the Catalogue of *Carabidæ*, and in spite of the unflagging zeal of my correspondents, spurred by the desire to discover new species, the increase in number has only been about one-tenth. Mr. G. A. K. Marshall is of opinion that when Mashonaland is thoroughly explored more than 200 species will be found there. We know as yet little or nothing of Damaraland and N'Gamiland, and very little of the low countries of the Transvaal and Mozambique; Natal will also probably yield still a certain number of species; but many of the captures will prove to be identical with species known from the Zanzibar mainland, Angola, Guinea, and Senegal. In spite of that I deem that 250 new species, mostly small or obscure, will probably be found in the South African region.

With a few exceptions the types are in the South African Museum. Two of them (*Macrochilus viduatus* and *Crepidogaster atratus*) are in the Staats Museum in Pretoria, South African Republic.

Tribe EGINI.*

Gen. EGA,
Catal., p. 146.

The *Ega natalensis*, *loc. cit.*, p. 146, must be transferred to the genus *Pseliphanax*, Walk., Ann. and Mag. Nat. Hist., iii., 1859, p. 52.

Tribe HELLUONINI.

Gen. MACROCHILUS,
Catal., p. 166.

Macrochilus viduatus.

Piceous-black, shining, labrum, apical part of the palpi, the two basal joints of antennæ, legs and under side piceous-red; head deeply punctured, the punctures not closely set; prothorax cordate, deeply emarginate laterally in the posterior part, and with the basal angles very sharp and triangular; it is deeply pitted all over, broadly depressed longitudinally in the middle, and with a very fine line in the centre of the depression; elytra parallel, narrowly striate, with the intervals broad, plane, and very closely punctured; they are very briefly pubescent, and have on each side, towards the median part, a medium-size, round, flavescent patch, extending from the second to the sixth interval. Length 13 mm.; width 4 mm.

This species is differentiated from *M. bi-plagiatus*, Catal., p. 166, by not having the elytra carinate and with a double series of punctures on each carina.

Hab. Transvaal (no exact locality).

* The termination in *ini* of the names of tribes has now become so generally accepted that I shall henceforth follow this rule.

Tribe GALERITINI.

Gen. DRYPTA,

Catal., p. 156.

Drypta mashona.

Dark metallic green, with the knees and the apical part of the first and third joints of antennæ black; legs, mandibles, and palpi flavescent. Closely allied to *D. melanarthra*, Catal., p. 159, from which it differs in the sculpture of the elytra, which are also brighter green, although equally pubescent; in *D. melanarthra* the striæ are filled with a series of broad punctures impinging on the sides of the raised intervals, the upper part of which is irregularly punctulate, but in *D. mashuna* the striæ are very narrow and rugose, and the intervals are very deeply and closely, although irregularly, punctured, this gives them a shagreened appearance; the head and prothorax are also shagreened, and the third joint of antennæ is shorter than in *C. melanarthra*, which species it should follow in the systematic arrangement. Length 11 mm.; width 3 mm.

Hab. Zambezia (Salisbury).

I gave Zambezia as the habitat of *D. melanarthra*, but, so far as I know now, it is restricted to Natal.

Drypta natalia.

A close ally of *D. dentata* from which it differs in the colour of the elytra, which are greener; the intervals are not convex, even at the base; the punctures on the striæ are smaller, and the intervals are a little less deeply punctured; the colour of the legs and antennæ is similar. Length $8\frac{1}{4}$ mm.; width 3 mm.

Hab. Natal (Newcastle).

Gen. ZUPHIUM,

Catal., p. 162.

Zuphium tri-maculatum.

Sub-opaque, pubescent; head black; antennæ and legs flavo-rufescent; prothorax brick-red; elytra deep fuscous with a sub-diagonal brick-red patch extending in the anterior part from the third to the sixth interval on each side, and a small supra-apical sutural patch, somewhat quadrate, and extending to the second stria

on each side; head moderately punctulate; prothorax very closely punctulate; elytra broadly striate with the intervals costulate and shagreened; pectus infuscate, abdomen flavescent. Length 9 mm.; width 3 mm.

Resembles very much *Z. caffrum*, Catal., p. 163, and might prove to be only a varietal form. It is, however, distinguished by the more costulate elytra and by the shape of the anterior patch on the elytra, which is not connected laterally with the margin; the outer and apical margins are not rufescent, and the apical sutural patch is not connected with the apical margin.

Zambezia (Salisbury).

Zuphium debile.

Light testaceous, antennæ, palpi, abdomen, and legs flavescent; opaque and very briefly pubescent; head and prothorax very finely punctulate; elytra very finely shagreened, and apparently non-striate, except alongside the suture, where there is a juxta-sutural one hardly defined behind, and a second one nearly entire; under side flavescent. Length $5\frac{3}{4}$ mm.; width 2 mm.

Hab. Zambezia (Salisbury).

Tribe BRACHININI.

Gen. BRACHINUS,

Catal., p. 178.

Synopsis of Species.

Group of *B. armiger*.

Elytra with a lateral yellow margin, and on each side a sub-humeral diagonal elongate patch reaching the third interval and connected with the lateral margin, an apical, and a juxta-sutural supra-apical patch .. .. *enonensis.*

Group of *B. simulans*.

Head and prothorax red; elytra black, with a faint sub-basal, elongate flavescent patch; head, prothorax, elytra, and under side black *vagus.*

Elytra ovate, highly costate; femora flavescent, tibiæ, and tarsi black; antennæ black .. .. *tibialis.*

Elytra elongate, much ampliate behind, costate, the costæ sharp; antennæ, legs, and palpi rufescent .. .. *funebris.*

Brachinus enonensis.

Head, prothorax, and legs yellowish-red; the four basal joints of antennæ flavescent, the others a little infuscate; elytra elongate, slightly shining, a little ampliate laterally from about one-fourth of the length, costate with the intervals shagreened and the costæ well defined, black with a distinct lateral flavescent margin, and on each side a diagonal patch of the same colour directed backward, beginning at some distance from the shoulder, and reaching the second costa; this diagonal patch, the apex of which reaches nearly to the median part of the length, is sinuate on the inferior margin, of nearly equal width throughout, and connected with the outer margin; the supra-apical patch reaches from a short distance from the suture to the third costa, and is ovate; the outer apical patch coalesces with the outer margin; under side pale flavescent, with the sides of the sternum and abdomen infuscate. Length 9 mm.; width 4 mm.

This species differs from *B. armiger*, Catal., p. 192, in the position of the flavescent bands and patches on the elytra: the first one is diagonal, somewhat arcuate, instead of being nearly straight, and does not approach the shoulder; the second patch is situated much nearer to the apical part, and is also nearer to the suture.

Hab. Cape Colony (Uitenhage).

Brachinus vagus.

Head and prothorax red, antennæ and legs testaceous-red; elytra ampliate from near the shoulders, costate with the costæ well defined and the intervals aciculate and very briefly pubescent; black, slightly shining, and having on the fourth and fifth intervals an elongate patch, beginning at a very short distance from the base, and reaching to about one-fifth of the length; this patch is very inconspicuous; the outer and posterior margins have a flavescent band, which is broader on the former; the dorsal part is not very depressed, and the sternum and abdomen are flavescent in the central part. Length 9 mm.; width 3 mm.

The nearest ally of this species is *B. simulans*, Catal., p. 181, but in the latter the elytra are less raised, and the inconspicuous flavescent patch is at the apex instead of at the base.

Brachinus funebris.

Whole body black, sub-opaque, densely but briefly pubescent,

antennæ and legs red; head deeply and densely punctured; prothorax very closely and deeply punctured, in proportion a little longer than that of the other South African *Brachinus*, rounded laterally for half the length, and parallel from there to the base; the transverse apical groove is not much defined; elytra not broader at the base than the prothorax at its widest part, and without any shoulder, gradually ampliated from the base to the apex, where it is twice as broad, moderately plane, costate with the costæ well marked and the intervals finely shagreened. Length 11 mm.; width 5 mm.

This species has no close ally among the South African *Brachinus*.

Hab. Cape Colony (Port Elizabeth).

Brachinus tibialis.

Body black, shining, although covered with a dense, erect pubescence; antennæ also black, with the three apical joints piceous-red; tarsi, tibiæ, and knees black, the femora flavescent; head deeply and irregularly punctured laterally and behind, but with a smooth median space; prothorax short, cordiform, punctured; elytra convex, ovate, striate with the intervals convex, sub-carinate, and closely punctured, the punctures irregular. Length 10 mm.; width $4\frac{1}{4}$ mm.

Very distinct, not only on account of its colouring, but also on account of the ovate and convex shape of the elytra.

Hab. Natal (Malvern).

Brachinus o'neili.

Testaceous-red, moderately shining, and very briefly pubescent; antennæ long, infuscate, with the two basal joints and the palpi flavescent; head smooth; prothorax nearly smooth, elongato-cordate and a little longer than broad; elytra gradually ampliated from the humeral angle to a short distance from the apex, moderately convex, very faintly costulate and clothed with a very short sub-flavescent pubescence; they are brick-red, and have a moderately broad basal band reaching the outer margin on each side and with the lower edge emarginate in the middle, as well as a sutural narrower band reaching to two-thirds of the length, where it becomes ampliated and quadrate; on each side there is a lateral elongate patch, beginning at about the median part, reaching to three-fourths of the length, and extending from near the outer margin to the middle of the disk, and also an apical, transverse patch almost connected with the suture, and covering on each side half the apical part; under side

testaceous, abdomen black; legs rufescent, with the tibiæ and tarsi slightly fuscous. Length 4½ mm.; width 2 mm.

Hab. Cape Colony (Uitenhage).

Follows *B. rikatlæ*, Catal., p. 183; it is more convex, and in the elytra the brick-red colour has displaced to a great extent the black background, which is now limited to basal and a sutural band with two patches on each elytron.

Brachinus solidus.

Head, prothorax, and basal joint of antennæ dull brick-red, legs flavescent, antennæ fuscous; elytra fuscous black with two lateral rufescent patches on each side; antennæ thick; head and prothorax distinctly shagreened; the latter is of the usual shape, and is slightly infuscate on each side of the median longitudinal line; elytra truncate at base, gradually ampliated laterally from the humeral angle to two-thirds of the length, where they are one-fifth wider than at the base; they are plane, briefly but densely pubescent, shagreened, costulate in the dorsal part, and have two lateral, sub-rufescent patches on each side: the first one is sub-ovate, situated near the shoulder, reaches to about one-fifth of the length, and is disconnected from both the basal and outer margins, and the second one, which is not very distinct, is in a line with the first, but situated at a certain distance from the apex. Length 5 mm.; width 2½ mm.

This species is at once distinguishable from the other South African species by the more quadrate shape of the elytra; the antennæ are also more robust.

Hab. Zambesia (Salisbury).

Gen. CREPIDOGASTER,

Catal., p. 188.

Crepidogaster atratus.

Head, prothorax, elytra, pectus, and abdomen black, opaque, antennæ sub-rufescent with the third joint deeply infuscate; legs sub-rufescent with the tibiæ a little infuscate outwardly; the head and prothorax are very finely aciculate; the elytra are very finely shagreened, very briefly pubescent, and very faintly costate. Length 5 mm.; width 2 mm.

Smaller than *C. natalicus*, Catal., p. 191, and with the head and prothorax not so distinctly shagreened; the elytra are only faintly

costate and very slightly shagreened, and the third joint of the antennæ is not infuscate in *C. natalicus*.

Hab. Transvaal (no exact locality).

Crepidogaster portentosus.

Flavous, elytra deeply infuscate behind, the infuscation enclosing an ovate, sub-lateral, supra-apical patch of the flavous ground colour; abdomen fuscous; head and prothorax shagreened and of the usual shape and contour; elytra shagreened, faintly costulate, and very briefly pubescent; the infuscate posterior band begins at about the median part, but does not reach the edge of the outer margin. Length 11 mm.; width 3 mm.

In size ranks next to *C. bi-oculatus*, Chaud., from the neighbourhood of Mombassa. It is easily distinguished from the other species independently of the size by the anterior part of the elytra being of the same colour as the head and prothorax.

It should precede *C. insignis*, Catal., p. 188.

Hab. Zambesia (Mesikkwe River).

Tribe LEBIINI.

Gen. CALLIDA,
Catal., p. 195.

Callida natalis.

Light brownish red, shining; head very deeply punctured; prothorax a little longer than broad at its widest part, cordiform, deeply and closely punctured, and with a deep median longitudinal groove; elytra twice as broad as the base of the prothorax and one-third more than the prothorax at its widest, slightly sinuate laterally at about the median part, and a little ampliate in the posterior part, deeply and narrowly punctato-striate with the intervals convex, sub-carinate near the base, and having an irregular series of deep punctures; fourth joint of the tarsi broad, bilobate. Length 7 mm.; width $2\frac{4}{5}$ mm.

This species is easily distinguished from the other South African ones by its less elongate and more robust facies; it differs also in colour.

Hab. Natal (D'Urban, Malvern).

UMGENIA, nov. gen.

Ligula fused with the paraglossæ, and of the same shape as in *Callida* and *Lipostratia;* mentum deeply emarginate and without any median tooth, lateral lobes sharp, diverging inwardly and broadly triangular; last joint of both maxillary and labial palpi fusiform, but not quite acuminate at tip; maxillæ falcate; mandibles very robust, much curved outwardly and very distinctly carinate on the upper side, sharp inwardly but not projecting much beyond the labrum, which is of normal size, transverse, and bear six long apical setæ; antennæ short, reaching the humeral angle only; eyes very large, spherical, and with two supra-orbital setæ on each side; prothorax short, sub-cordiform; scutellum sharply triangular; elytra broader than the prothorax, ampliate past the middle, truncate but not sinuate, and depressed; legs somewhat short, tarsal joints similar to those of *Callida*, apical one lobate, claws with six long robust teeth on each side.

Shorter and more massive than *Calleida;* is at once distinguishable by the robust shape of the mandibles and the brevity of the antennæ.

Umgenia formidulosa.

Rufous, shining; the eight apical joints of the antennæ are black, and the elytra piceous-black with a lateral and apical narrow rufous margin, and also a large juxta-sutural median patch somewhat rufescent; head smooth but punctate along the anterior part of the eyes; prothorax broader by one-fourth at its widest part than long, truncate at base and apex, ampliated and rounded laterally from the anterior angle to two-thirds of the length, and straight from there to the posterior angle, which is sharp, outer margin sharp, recurved, disk smooth, median longitudinal grooved line not deep; elytra one-third wider at the base than the prothorax at its widest part, gradually ampliated from the humeral angle to two-thirds of the length, where it is twice as wide, depressed, finely puncato-striate with the intervals plane and smooth. Length 9 mm.; width 4 mm.

Hab. Natal (Umgeni River).

Gen. METAXYMORPHUS.

Catal., p. 205.

Metaxymorphus debilis.

Entirely pale flavous, joints of the antennæ a little darker than

the four basal ones; head smooth; prothorax as broad as long, truncate at both ends, a little ampliate and rounded laterally from the anterior angle to the median part, slightly diagonal from there to the posterior angle, lateral setæ very long; the disk is smooth, and there is on each side of the longitudinal line a slightly fuscous longitudinal band which is sometimes missing; elytra ovate, slightly striate, and having on each side three indistinct comma-shaped slightly fuscous macules, and a nearly straight one near the scutellary region. Length 5 mm.; width 2 mm.

Allied to *M. pictus*, Chaud., Catal., p. 207, but the prothorax is a little more rounded laterally in the anterior part, the elytra are a little more ovate, and the markings are different.

Hab. Cape Colony (Cape District).

Metaxymorphus recticollis.

Light testaceous with the head and the discoidal part of the elytra darker; antennæ shorter than usual; head quite smooth, supra-orbital setæ very long; prothorax nearly twice as broad at apex as at base, almost truncate at apex, with the lateral angles projecting very little, straight laterally from the apex to the posterior angle, and diagonal from there to the base with the posterior part of the outer margin slightly recurved; it is very nearly plane and smooth; elytra narrow, much sinuate at base with the shoulders very sharp and projecting forward, oblongo-ovate, not ampliated in the middle, plane but with the sixth and seventh striæ very sharply carinate from base to apex; the other striæ are normal and the intervals plane with a moderately deep puncture on the third, at about one-third of the length. Length 6 mm.; width 2 mm.

Hab. Cape Colony (Uitenhage).

A very distinct species, easily recognised by the shape of the prothorax, which is not at all rounded laterally, and also by the more linear form of the elytra.

Gen. CYMINDOIDEA,

Catal., p. 205.

Synopsis of Species.

Elytra entirely black, intervals between the striæ plane .. .. *deplanata.*
Elytra black with a humeral testaceous patch, intervals plane .. *humeralis.*
Elytra black with a sinuate ante-median dorsal patch on each side, intervals carinate .. .. *marshalli.*

CYMINDOIDEA HUMERALIS.

Black, sub-opaque, with the labrum, antennæ, legs, and the outer margin of the prothorax light testaceous, elytra also with a narrow outer margin and having a humeral elongato-quadrate patch of the same colour extending from the outer margin to the fourth stria and reaching from the base to about one-fourth of the length; head very finely plicate longitudinally; prothorax very finely aciculate, median longitudinal line deep; elytra plane, oblong, a little attenuate at the shoulders, striate, the striæ with a series of fine punctures; under side piceous-brown. Length 8 mm.

Hab. Transvaal (no exact locality).

CYMINDOIDEA MARSHALLI.

Black, not much shining, antennæ and legs sub-flavescent, the former darker than the latter; elytra with a bisinuate flavescent patch reaching from near the suture to the third dorsal carina, and situated nearer the median part; head conspicuously plicate longitudinally; antennæ short, hardly reaching the base of the elytra; prothorax very evenly shagreened, the median longitudinal groove deep and relatively broad; elytra oblong but a little attenuate laterally at the shoulders, plane, finely carinate with the carinæ sharper in the middle of the dorsal part, intervals broad, deeply and very closely aciculate; the juxta-marginal costa has disappeared, and on the second costa are two or three asymetrical punctures; under side black, shining.

This species, although having the same facies as the other two included in this genus, is very distinct, owing to the peculiar sculpture of the elytra, which are carinate with the intervals filled with three rows of very closely set and minute punctures, the intervals of which form very fine lines. Length 12 mm.; width 5 mm.

Hab. Zambesia (Salisbury).

GEN. HYSTRICHOPUS,

Catal., p. 212.

HYSTRICHOPUS ALTITUDINIS.

Black, moderately shining with the elytra sub-opaque, basal joints of antennæ and palpi piceous-red; prothorax broad, not cordiform, very slightly broader laterally in the median part than at apex or

base, and with the outer margin much recurved, basal part very little narrower than the apical one, disk smooth and very faintly plicate transversely; elytra elongate, nearly oblong in the male, or very slightly broader behind than in the median part, but distinctly ampliated in the female, striate, the striæ punctulate, and the intervals convex and more carinate in the male than in the female; the third interval has five asymetrical punctures, but I have seen a male with four only; legs long, claws with seven short teeth on each side. Length 15½–19 mm.; width 5¼–6 mm.

This species is very distinct from the other South African ones, and is easily distinguished by the shape of the prothorax, which is broad, of nearly equal width, and somewhat similar to that of *Leptosarcus porrectus*, Catal., p. 219, but not quite so straight laterally.

Collected by Mr. W. Mann in the Drakensberg mountain range on the summit of Mont aux Sources, reputed to be the highest peak in South Africa (11,000 feet), and also on the top of the Giant's Castle (8,500 feet).

Gen. COPTOPTERA,

Catal., p. 230.

Coptoptera phantasma.

Totally pale flavescent with the head slightly testaceous; head quite smooth; prothorax broader at apex than at base, sides nearly straight, the transverse plication hardly distinct on the disk; elytra elongate, aculeate at the humeral angle, then sloping diagonally for a short distance, and from there nearly parallel, distinctly striate with the striæ smooth and the third, fifth, and seventh intervals with a not very distinct series of punctures. Length 7 mm.; width 2 mm.

Hab. Natal (Malvern).

A very distinct species.

KLEPTEROMIMUS, nov. gen.

Mentum and ligula as in *Klepterus;* last joint of maxillary palpi elongate, sub-fusiform, slightly truncate at tip; that of the labial very swollen in the middle and acuminate at tip; antennæ deeply pubescent and short; prothorax hardly narrower at base than apex, nearly

straight laterally, and rounded in the anterior part for one-fifth of the length; elytra parallel, striate; joints of anterior tarsi short, the second, third, and fourth triangular, the latter lobate; claws pluripectinate.

The distinctive characters between *Klepterus* and the present genus are to be found in the shape of the labial palpi, which are sharply acuminate at tip instead of being obliquely truncate; the intermediate joints of the anterior tarsi are much shorter, more triangular, and the fourth one is lobate instead of being incised.

Klepteromimus ornatus.

Fuscous-brown with the prothorax a little lighter than the elytra; antennæ and legs flavescent; head smooth; prothorax a little longer than broad, rounded a little in the anterior part, nearly straight laterally, but very slightly narrower at the base than at about the median part, posterior part of the margin a little recurved, posterior angle sharp; the disk is very finely plicate transversely, and the median longitudinal grooved line very distinct; elytra one-fourth broader than the prothorax at base, nearly parallel, with the humeral angles slightly sloping, truncate behind, plane, punctato-striate with the punctures deep and not closely set; the intervals are plane; they are of a somewhat dull metallic tinge and have on each side two elongato-quadrate flavescent patches disposed diagonally in the anterior part, and two more in the posterior part similarly disposed, and there is also a small elongated spot of the same colour on the second interval at some distance from the base. Length 3½ mm.; width 1 mm.

Hab. Natal (Malvern).

Gen. KLEPSIPHRUS,

Catal., p. 237.

Klepsiphrus crenato-striatus.

Colour and shape of *K. pugnax;* the head, however, is not piceous; the prothorax is of the same shape and equally smooth and shining; the elytra have also the same shape, but they are much more deeply striate, and the striæ much more deeply punctate, and the series of punctures on the third, fifth, and seventh intervals are not very well defined.

This species is easily distinguished from the two others known, by the deep series of punctures which fill the striæ. Length 10 mm.; width 4 mm.

Hab. Natal (Lower M'Komas River).

Gen. APRISTUS,

Catal., p. 239.

Apristus promontorii.

Black, very shining; antennæ, with the exception of the three basal joints, apical joint of palpi, tibiæ, and legs fuscous; head smooth; prothorax and elytra covered with an extremely fine aciculation; the former is gradually attenuate laterally from the first to the second seta, while the part from the first seta to the anterior angle is slightly rounded, and this imparts to it a sub-cordate form; the elytra are sub-oblong, sloping at the shoulders, broader at apex than at base, and have a small round fovea on each side near the apical part of the scutellum, two long setæ on each side of the apex, one near the suture, the other near the apical angle, and three others on the outer margin, one near the humeral angle, the other past the middle, and the third above the apical outer angle.

Resembles much *A. deceptor*, Catal., p. 240, but the elytra are more parallel, and without any trace of striation; the antennæ are also longer. Length $3\frac{1}{2}$ mm.; width $1\frac{1}{5}$ mm.

Hab. Cape Colony (Cape Town).

Follows *A. latipennis*, Catal., p. 240.

Gen. DROMIUS,

Catal., p. 234.

Dromius nanniscus.

Pale brown with the anterior part of the head slightly infuscate; antennæ, palpi, and legs more flavescent than the rest of the body; elytra and prothorax very finely aciculate; the latter is gradually narrowed from near the apex, the apical angle itself being slightly rounded to the posterior angle, where it is about one-half narrower than at the widest part, the angle itself is strongly developed; elytra twice as broad at base as the base of the prothorax, gradually ampliate laterally but with the sides straight up to the apex, and

nearly three times as broad near the apex as the prothorax at its widest part; they have three very faint striæ on the dorsal part, and are very finely aciculate; legs moderately long and slender; in the male the first, second, and third basal joints of the anterior tarsi are dilated, the two basal ones especially; the claws have an almost rudimentary tooth (with the accompanying sinuation) on each side; there are no wings under the elytra. Length 2 mm.; width 1 mm.

Hab. Zambesia (Salisbury).

All the South African species (*i.e.*, six) which I have included in the genus *Dromius*, differ from many of the European and other *Dromius* in one character, which, considering that the pectination of the claws is a very important factor in the classification of this group, induces me to separate them into another section. The claws, instead of being multipectinate, have from one to three stout teeth on each side. I propose, therefore, a new genus, *Dromiops*, for the reception of the South African species.

Gen. PHLŒOZETUS,

Catal., p. 244.

Phlœozetus ferus.

Testaceous with the head and prothorax brick-red; elytra with an apical sutural fuscous black patch; head punctulate along the eyes and in the anterior part; prothorax ampliate, rounded laterally from the anterior angle to two-thirds of the length, and sinuate from there to the posterior angle; elytra elongate, finely striate with the striæ punctulate and the intervals plane and smooth; they have a sutural elongato-quadrate patch, sometimes oblique at tip, extending on each side of the suture as far as fourth stria, beginning from two-thirds of the length and stopping short of the apical margin; abdomen infuscate. Length 7–7½ mm.; width 3–3¼ mm.

Allied to *P. umbraculatus*, Catal., p. 251, but very different in the shape of the prothorax, which is ampliated and rounded laterally from the anterior angle, and sinuate above the posterior one; the posterior part of the head and the prothorax are less rugose; the intervals of the elytra are plane instead of being carinate, and there is no depression on the second and third intervals close to the apex of the pre-scutellary stria which is so characteristic of *P. umbraculatus*.

Hab. Zambesia (Marandellas).

Phlœozetus præustus, Per.,
Catal., p. 251.

This species must be considered as identical with *P. umbraculatus* The latter varies enormously in size and dimension of the apical infuscate band on the elytra, and although in my typical *præustus* the band is wider and the intervals less carinate, I have now seen several examples intermediate in that respect. *P. umbraculatus* varies from 5 mm. to $8\frac{1}{4}$ mm. in length.

Phlœozetus pusillus.

Testaceous with the head and the centre of prothorax brick-red; antennæ rufescent, legs flavous; head very deeply and closely punctured; prothorax of the usual shape but slightly angular laterally at the point of insertion of the anterior lateral seta; it is closely punctured on the disk and sides; elytra finely striate, the striæ finely punctured and the intervals plane; they are pale testaceous and have at an equal distance from the median and the apical parts a transverse, infuscate patch forming a sort of triangle on each side of the suture, of which the apex reaches the seventh stria. Length 5 mm.; width $2\frac{1}{2}$ mm.

This species has much resemblance to *P. plausibilis*, Catal., p. 248, but the prothorax is more angular laterally, the punctures of the striæ on the elytra are much finer, and the transverse band extends very much farther.

Hab. Cape Colony (no exact locality).

Gen. LEBIA,
Catal., p. 252.

Lebia fortuita.

Testaceous with the head and prothorax a little redder than the elytra; antennæ, palpi, and legs flavescent; head aciculate and subplicate along the eyes; neck smooth; prothorax very faintly aciculate; elytra one-third broader at the base than the prothorax, gradually ampliate laterally from the shoulder to near the apex, but with the sides straight, about one-fifth broader at the widest part than at the base, finely striate; the striæ hardly punctate, and the intervals nearly plane; they are shining and have a quadrate infuscate or black basal patch extending as far as the fourth stria on

each side for about one-fifth of the length, and connected along the suture by a band extending to the second intervals with a transverse post-median band covering an equal space between the median and apical parts, slightly sloping on the upper edge with the lower edge emarginate in the centre; this band reaches the supra-marginal stria on each side; fourth joint of all the tarsi long and lobate. Length 7 mm.; width 3 mm.

The nearest ally to this species is *L. natalensis*, Catal., p. 261, but *L. fortuita* is differentiated by the more elongated shape of the elytra which are not quite so rounded laterally, and by the intervals which are nearly plane instead of being convex; the colouring is nearly the same, but more shining; the upper edge of the transverse patch is more sloping and not sinuate, and the band itself does not extend as far towards the margin as that of *L. natalensis;* the latter has also two sub-infuscate patches on the prothorax entirely wanting in *L. fortuita.*

Hab. Natal (Malvern).

Lebia congruens.

Briefly pubescent on the upper side, pale testaceous with the prothorax and head a little redder, antennæ with the exception of the three basal joints infuscate; head and prothorax closely and finely punctured, the latter very briefly pubescent laterally; elytra one-third broader at base than the prothorax, almost sub-parallel with the shoulders well rounded, finely striate with the striæ punctulate, intervals plane and punctulate; they have a basal quadrate patch reaching the fourth interval on each side, and connected at about one-fourth of the length by a slender sutural band extending to the first stria with a post-median transverse patch, both edges of which are deeply sinuate on the fourth interval, and which reaches on each side the supra-marginal stria; this band is equidistant from the median and the apical band, and is broadest in the sutural part as far as the third stria; fourth joint of the intermediate and posterior tarsi incised. Length $4\frac{1}{5}$ mm.; width 2 mm.

Allied to *L. eximia*, Catal., p. 259, which it should follow. Like that species it is finely punctulate on head and prothorax, and the punctures and pubescence of the elytra are similar, but in *L. congruens* the basal black patch is not so long, the sutural band connecting it with the post-median transverse band is very slender, and the transverse band is also less wide, and the outer parts of it much narrower than in the median one.

Hab. Transvaal (Hamman's Kraal).

Lebia vaciva.

Head black, aciculate, briefly pubescent; antennæ deeply infuscate with the exception of the three basal joints which are flavescent; prothorax deeply aciculate and pubescent, sinuate laterally behind, light brick-red; elytra sub-parallel, moderately shining, distinctly pubescent, narrowly punctato-striate with the intervals plane and aciculate; they are pale yellow, with a sutural, elongato-quadrate black patch extending to the fourth stria on each side and reaching to about one-third of the length, and hamate on the posterior edge; this basal patch is connected by means of a narrow black band running along the first and second intervals with a post-median black band, strongly bi-sinuate on both edges, and reaching the outer margin on each side; the apical part is narrowly infuscate and coalesces laterally with the outer edge of the post-median patch, so as to enclose an irregular sub-quadrate patch of the yellowish background; legs flavescent; fourth joint of tarsi dilated and lobate. Length 5 mm.; width $2\frac{1}{2}$ mm.

Allied also to *L. eximia*, Catal., p. 259; it is a little shorter and a little less elongate; equally pubescent, and the disposition of the black patches on the elytra is of the same pattern; they are not, however, so broad in *L. vaciva*, in which the apical part is infuscate; the head is distinctly black and the antennæ very deeply infuscate, whereas in *L. eximia* they are brick-red.

Hab. Zambesia (Salisbury).

Lebia natalis.

Head and elytra black, shining; prothorax, the three basal joints of antennæ, and the legs red; tarsi black or infuscate, palpi black, rufescent at tip; head and neck finely yet distinctly aciculate; prothorax faintly plicate, very little sinuate laterally above the posterior angle; elytra nearly one-third broader at base than the prothorax, a little ampliated gradually from below the shoulder to a short distance from the apex where they are about one-fifth broader than at the base, striate, with the striæ punctulate, and the intervals convex and almost carinate laterally; fourth joint of the tarsi sub-lobate; metasternum and abdomen black. Length $5\frac{1}{2}$–8 mm.; width 3–4 mm.

Allied to *L. speciosa*, Catal., p. 264; differs mainly in the shape of the intervals of the elytra which are convex, and almost carinate laterally instead of being quite plane in *L. speciosa*, in which also

the prothorax is more distinctly sinuate above the posterior angle, and the fourth joint of the tarsi broadly lobate instead of being sub-lobate as in the present species.

Hab. Natal (Malvern).

Lebia sperabilis.

Head black, antennæ deeply infuscate, nearly black with the exception of the three basal joints which are rufescent, the second joint is ringed with black; prothorax and legs brick-red; elytra piceous in the posterior part, and piceous-red in the anterior except the base, which is distinctly rufescent across; head and neck finely aciculate; prothorax nearly twice as broad as long, very slightly sinuate laterally behind with the posterior margin recurved, faintly aciculate, smooth and shining; elytra broader than the prothorax by about one-third, oblong, glabrous, finely punctato-striate, and with the intervals distinctly convex and sub-carinate; pectus rufescent, abdomen black; fourth joint of anterior tarsi very slightly lobate and hardly dilated. Length 6 mm.; width $2\frac{3}{4}$ mm.

This species is easily distinguished by its facies, which resembles that of *Phlœozetus*. In colouring it is not unlike *L. natalis*, from which it greatly differs in appearance, but the anterior part of the elytra, apart from the base, is suffused with a rufescent tinge entirely absent in *L. natalis*.

Hab. Zambesia (Salisbury).

Lebia discrepans.

Testaceous-red with the antennæ and legs flavescent, and the posterior half of the elytra infuscate; head and prothorax closely aciculate, the latter is hardly sinuate laterally towards the posterior angle, and the margins are much recurved; the elytra are about one-third broader than the prothorax at the base and gradually ampliated from the shoulder to about three-fourths of the length where they are a little more than twice as wide, they are very slightly convex on the upper part and distinctly costate with the intervals striate, and the costæ sub-carinate in the dorsal part; fourth joint of the tarsi lobate, the lobes long; under side rufescent; abdomen infuscate. Length 5 mm.; width $2\frac{1}{4}$ mm.

Hab. Natal (Malvern).

This species is very distinct. The elytra are as sharply costate as *L. fraterna* or *L. immaculata*, Catal., p. 256, and they are also

gradually ampliate laterally from the shoulder to past the median part, but the humeral angle is not as much rounded in these two species, the colouring is different, and the fourth joint of the tarsi is divided in two long lobes. It should precede *L. natalis*.

Lebia minima.

Head, thorax, and antennæ testaceous-red, elytra and legs flavous; head nearly smooth; prothorax also nearly smooth, nearly twice as broad as long, slightly rounded laterally in the anterior part, but not at all sinuate near the base; elytra a little wider than the base of the prothorax, ampliate laterally from some distance from the humeral angle to a short distance from the apex, truncate and hardly sinuate behind, narrowly punctato-striate with the intervals hardly raised, moderately shining, flavous, and with a sutural black band, broadest at base, where it reaches the third stria, becoming aculeate for about a quarter of the length, and reduced to a narrower band extending only as far as the third stria; this band reaches from the base to three-quarters of the length, but there is also a straight, moderately broad black band extending from side to side in the apical part, and quite disconnected from the sutural band. Length $3\frac{1}{4}$ mm.; width $1\frac{3}{4}$ mm.

Hab. Cape Colony (Mossel Bay, Port Elizabeth).

The ampliate shape of the elytra recalls that of *L. plagiata*, Catal., p. 259, but it is a very distinct species.

Gen. PARALEBIA, nov. gen.

Generic characters of *Lebia*, but differentiated by the shape of the labial palpi, the last joint of which is in the shape of an inverted elongate cone broadly truncate at apex; the prothorax is hardly if at all sinuate laterally towards the posterior angle, the base is very slightly produced in the middle, and the fourth joint of all the tarsi is dilated, bi-lobate and spongy beneath; the claws have five teeth on each side.

The species included in this new genus is distinguished from the other species belonging to the South African *Phlœozetus* and *Lebia* by the shape of the outer sides of the prothorax, which are much more rounded and attenuate in the anterior part, and very much like in shape that of *Camaroptera*, Chaud.

PARALEBIA VICARIA.

Head and thorax brick-red, the sides of the latter paler, the three basal joints of antennæ flavescent, the other joints sub-infuscate, legs flavous; elytra flavous and with a post-median transverse black patch reaching from nearly side to side, bi-sinuate on both edges, broadest on the space between the four intervals on each side and narrowed from there towards the outer margin, which it barely reaches; the upper sutural point reaches nearly the median part of the disk, but the lower one stops at some distance from the apex; head smooth; prothorax also nearly smooth, nearly twice as broad as long, slightly rounded laterally in the anterior part, but with the sides straight and not sinuate near the base; elytra oblong, slightly broader than the prothorax at base, striate, the striæ finely punctured and the intervals plane. Length 5 mm.; width $2\frac{1}{4}$ mm.

The shape of the black band on the elytra is not unlike that of *L. amabilis*, Catal., p. 261, but it is more sinuate, and tapers more towards the outer sides.

Hab. Natal.

GEN. ASTATA,

Catal., p. 265.

ASTATA COGNATA.

Antennæ with the exception of the three basal joints reddish brown, head and elytra piceous-brown, prothorax brownish red on the discoidal part, outer sides, palpi, the three basal joints of antennæ and the legs sub-flavescent; head very closely aciculate; prothorax very nearly twice as broad as long, rounded laterally in the anterior part, nearly straight from the anterior seta to the posterior angle, covered with a somewhat wavy aciculation; elytra about one-third broader than the prothorax at the base, gradually ampliated from the shoulder to about three-fourths of the length where they are twice as broad, truncate behind, and sinuate on each side with the outer angle rounded, not sharp; they are piceous or piceous-red, with a wide diagonal sub-rufescent patch extending from near the shoulder on the sixth interval to about the median part of the elytra (close to the suture in one example), while in another the black colour is reduced to a triangular patch on each side of the scutellum, a lateral, moderately broad, outer margin, and a diagonal and broader one in the posterior part, while the clearer space is flavous; the median part of the outer edge is flav-

escent; they are striate, with the intervals convex and sub-carinate in the anterior part; under side flavescent with the abdominal segments infuscate. Length 9–9½ mm.; width 4–4½ mm.

Allied to the melanic form of *A. tetragramma*, Chaud., Catal., p. 265, showing only faint traces of the flavescent patches on the elytra; the colour of that part of the body seems, however, to undergo a good deal of modification, but a good specific character is the rounded posterior outer angle, which in *A. tetragramma* is acute.

Hab. Natal (Malvern).

Astata consors.

Antennæ, palpi, labrum, and prothorax testaceous-red, legs flavescent, elytra piceous with a basal and lateral narrow flavescent margin; head striolate longitudinally, neck smooth; prothorax one-third broader than long, rounded laterally from apex to past the median part, and a little attenuate from there to the base; disk smooth; scutellum reddish; elytra one-third broader at the base than the prothorax at its widest part, and gradually ampliated from the shoulder to two-thirds of the length where they are twice as broad as the prothorax; they are depressed and striate with the intervals convex and sub-carinate in the anterior part; under side and legs pale testaceous; the three apical abdominal segments are infuscate. Length 8 mm.; width 4 mm.

Resembles much both the melanic form of *A. tetragramma* and *A. cognata*, but is distinguishable by the width of the prothorax, which is less broad in proportion to the length than in the two species mentioned.

Hab. Natal (Umlazi River).

Gen. LEBISTINIDA.

Mentum with a distinct but short median tooth; lobes nearly straight inwardly, truncate at apex, rounded outwardly but strongly emarginate near the apex; ligula and paraglossæ fused, trapeziform, and straight at tip, the former with the two usual median setæ, the latter with a few setæ at tip; maxillary and labial palpi as in *Lebistina;* antennæ very long; shape of head, thorax, and elytra as in *Lebistina;* tarsi long, second and third triangular, fourth dilated and divided in two long lobes, the under surface is clothed with long, closely set brown hairs, the anterior tarsi have two series of short lamellæ, and the claws have five teeth on each side.

The characters distinguishing this genus from *Lebistina*, Catal., p. 269, are, first the distinct median tooth in the mentum,* secondly the shape of the ligula, which does not project at all beyond the paraglossæ, which are not setose laterally, and, thirdly the sculpture of the elytra, the striæ of which are interrupted and reduced to elongated lines, or rather punctures, half a millimetre long, as well as the absence of punctures on what should be the third interval; the fourth joint of the tarsi is dilated and divided in two long lobes, whereas it is only deeply incised in *Lebistina*, and not dilated.

Lebistinida pulchra,

Plate II., fig. 3.

Metallic green with a purplish or violaceous tinge, antennæ and tibiæ black with the exception of the three basal joints which are violaceous green; head a little more deeply aciculate in the anterior part than in the centre; prothorax short, nearly twice as broad as long, slightly sinuate laterally behind, much rounded in front, and closely plicate transversely on the disk; elytra one-third broader at the base than the prothorax, and gradually ampliated from the rounded shoulders to a short distance from the apex where they are more than twice as broad as the prothorax, sinuate behind, somewhat convex, and having regular series of elongated punctures distant from one another; the intervals are very finely aciculate, perfectly plane, and have two irregular rows of moderately deep punctures; under side dark bronze, abdomen nearly black, briefly pubescent; pygidium black, punctulate.

The elongated punctures on the elytra are evidently the remnant of the usual striæ, interrupted at half a millimetre distance. Length $8\frac{1}{2}$ mm.; width $4\frac{1}{2}$ mm.

Hab. Natal (Umkomaas River). Found under bark.

Gen. ARSINOË.

Catal., p. 270.

Arsinoë grandis.

Black, sub-opaque on the head and prothorax, shining on the elytra, basal joints of antennæ, under side, and legs piceous-black;

* In my description of the genus *Lebistina*, Catal., p. 268, I said that the mentum had no tooth or sinuation; I find, however, that in *L. caffra* the mentum has a blunt median projection, emarginate in the centre.

head very rugose, labrum and epistoma smooth, eyes very large and bulging; prothorax roughly and closely punctured, short, twice as broad as long, narrowly grooved in the centre, outer margins recurved from the median part to the posterior angle; elytra twice as broad as the base of the prothorax, and one-third more than the prothorax at its widest part, straight at base with the humeral angles moderately rounded, parallel, truncate but not sinuate behind, plane, striate with the striæ filled with closely set punctures, intervals nearly plane, the third one has the two customary punctures, and the sixth stria is curving strongly outward near the humeral part. Length 13 mm.; width 5 mm.

The general facies of *A. grandis* is slightly different from that of the other South African species, owing to the eyes being larger and the thorax broader and shorter; the sub-humeral curve of the sixth stria is also very peculiar. The shape of the ligula differs also a little from that of *Arsinoë;* the paraglossæ are produced round the lateral part of the upper edge of the ligula, but edge it round instead of projecting beyond it, and bear laterally several setæ; they are so closely united laterally with the ligula that one cannot be distinguished from the other; the median tooth of the mentum is also sharper than in the other *Arsinoë*.

Hab. Zambezia (Salisbury).

Gen. TETRAGONODERUS,

Catal., p. 285.

Tetragonoderus unicolor, Gemm. and Harold,

Catalog. Coleopt., vol. i., p. 144.

Bronze-black, sub-opaque, antennæ and legs black, first joint of the former faintly rufescent at tip; head and prothorax quite similar to those of *T. bi-guttatus*, Catal., p. 286; elytra also similar in shape and having the two impressions on the third interval, but without the silky sheen, and also without any trace of flavescent patches. Length 5 mm.; width $2\frac{1}{2}$ mm.

I believe that *T. immaculatus*, Boh., will prove to be identical with this species, and not with *T. immaculatus*, Lafert. This last-named species stands in regard to *T. sericatus*, Dej., in the same position as *T. unicolor* does to *T. bi-guttatus;* they differ only in the absence of flavescent patches on the elytra.

So far *T. immaculatus*, Lafert., has only been recorded in South

Africa from Salisbury (Zambesia), where it seems to take the place of *T. sericatus*, and it is thus very doubtful if it could have been captured by the collectors of the frigate *Eugénie*. On the other hand, *T. unicolor* occurs at Port Elizabeth, Cape Colony, and the probabilities are that it originally came from there.

Hab. Cape Colony (Port Elizabeth, Knysna).

Tribe GRAPHIPTERINI.

Gen. GRAPHIPTERUS,
Catal., p. 293.

Antennæ with the eight apical joints sub-compressed.

Group of *G. Westwoodi*.

Prothorax with a median longitudinal band; elytra with a broad, elongate black patch equi-distant from the base and median part, and a broad sutural band connected at some distance from the apex with the tip of an arcuate apical patch .. .. *distinctus*.

Antennæ with the eight terminal joints very flattened.

Group of *G. nanniscus*.

Prothorax not denuded in the centre, moderately broad, pubescence of outer margins lighter than that on the disk; elytra sub-ovate, covered with a drab-coloured pubescence turning to greyish white along the margin .. .. *curtus*.

Group of *G. albolineatus*.

Elytra black with a light ochreous-yellow outer margin, interrupted dorsal lines reaching the median part, the outer one being the longest, and an apical, sub-triangular patch connected with the outer margin .. .. *darlingi*.

Graphipterus distinctus.

Black, covered with a greyish pubescence; head not denuded in the middle, basal joint of palpi, the three basal ones of the antennæ as well as the basal part of the fourth, and tibiæ red; prothorax broad and with a wide median longitudinal band; elytra nearly sub-quadrate but rounded in the humeral part, and having on each side an elongate patch aculeate at tip, the two ends of which are nearly equidistant from base and median part, as well as from the outer margin, and a broad sutural band which reaches from the base to four-fifths of the length, and there coalesces with the inner upper edge of an apical, crescent-shape, apical patch which does not,

however, reach quite the posterior margin, and is at some distance from the lateral one. Length 12–14 mm.; width 6–7 mm.

It is *G. fasciatus*, Catal., p. 322, that this species resembles most; but in *G. distinctus* the lateral anterior patch does not coalesce with the base or the sutural band, and the arcuate posterior patch is also disconnected from the outer and hind margin.

Hab. Transvaal (Lebombo Mountains).

Graphipterus curtus.

Black, covered with a light drab-coloured pubescence turning to greyish white on the outer margins; head large, denuded in the centre in the posterior part; antennæ black with the three first joints and the basal part of the fourth red; tibiæ red; prothorax short, cordiform, broader than the head at apex but with the apical angles blunt, not denuded longitudinally in the middle; elytra short, ovate, not broader than the prothorax and not at all angular at base, gradually and roundly ampliate to about three-fourths of the length, where it is narrowing a little; it is densely covered with a drab pubescence which whitens laterally so as to form a moderately broad, greyish-white margin; under side piceous-black. Length 8 mm.; width 4 mm.

Of about the size of *G. limbatellus*, Catal., p. 299, and nearly coloured alike; this species differs from it by the broader and more massive head and prothorax; the elytra are more sloping laterally at the humeral angle, and are therefore less rotund, and the outer pubescent margin is broader and more distinct.

Hab. Zambesia (Buluwayo, Enkeldoorn).

Graphipterus darlingi.

Black; antennæ totally black; head large, covered with a greyish or light-ochreous pubescence, and hardly denuded longitudinally in the posterior part; prothorax broad, attenuate laterally but with the sides straight, covered with a similar pubescence as that on the head, but having besides a very broad, longitudinal black pubescent band; elytra quadrate but with the basal and apical angles a little rounded, covered with a very short, moderately dense black pubescence and having on each side five longitudinal light ochreous narrow bands, sometimes turning to greyish white, which do not reach from the base beyond three-fourths of the length, and a lateral margin of the same colour merging at the apex into a nearly juxta-sutural, mode-

rately broad patch; the first band which is situated at a small distance from the suture reaches to about one-third of the length, the second and third are of the same length, and as often as not coalesce at apex, and often form a patch at about the median part of the elytron, while the third is very often interrupted at a short distance from the base; the fourth line, which may be termed a supra-marginal one, is very narrow, springs from the margin at some distance from the humeral angle and joins again the margin at about three-fourths of the length; the apical patch is sub-triangular, does not reach the suture, but forms a part of the posterior margin. Length 15–17½ mm.; width 6½–8½ mm.

Hab. Zambesia (Enkeldoorn).

The only species approaching this one is *G. albolineatus*, Catal., p. 328, but in the latter the white lines on the elytra, although sometimes interrupted, are narrower, and do not coalesce at tip so as to form a median dorsal patch; the fourth outer line is in no wise connected with the outer margin.

Gen. PIEZIA,

Catal., p. 329.

Synopsis of Species.

Elytra with a sutural white band reaching from the base to about the median part, and with two transverse maculæ in a line with the apical part of the sutural band, Catal., p. 333.. .. .. *marshalli.*

Elytra with a white band reaching from the base to about the median part, but placed on the first costa and second interval, not on the suture, one white spot on the third and one on the fifth interval .. *licita.*

Piezia licita.

Facies of *M. angusticollis* and *P. marshalli;* covered with a black pubescence and having on the head and prothorax two longitudinal white pubescent bands; the elytra are costulate and have on each side of the suture a longitudinal white pubescent band situated on the first costa and invading the second interval, one small white spot on the third and one on the fifth interval in a line with the apical part of the juxta-sutural longitudinal band; at the apex there is an elongate sutural white patch; two costæ near the suture are obliterated under the pubescent band. Length 20–24 mm.; width 7¼–9 mm.

Hab. Zambesia (Buluwayo, Enkeldoorn).

I have seen an example in which the two dots have coalesced with the apex of the juxta-sutural band, somewhat as in *P. marshalli*, but the transverse line thus produced is not like the patches in *Marshalli*, from which the present species is easily distinguished by the position of the anterior longitudinal bands which are juxta-sutural, not sutural; the apical patch is also longer.

Anthia khoïna.

This species stands to *A. maxillosa* in the same position as *A. cinctipennis* does to *A. pachyoma*. It is distinguished by the much more convex elytra which are more ovate and have no supra-humeral protuberance whatever in the female, and a hardly defined one in the male; it seems also to be constantly of smaller size, for although I have now seen a good series I have not met with examples of huge size, such as some *P. maxillosa* received from the north-western part of the Colony, where *A. khoïna* also occurs, and which are as large as *A. algoa*. (This species must now be considered as a varietal form of *P. maxillosa*.) There can be little doubt, judging from the figures of Thunberg and Olivier, that the present species is not the one figured under the name of *A. maxillosa*. Length 35–45 mm.; width 12–16 mm.

Seems restricted to the western part of the Karroo (Fraserburg, Worcester), Namaqualand (Concordia, Garies), and the north-western part of the Colony (Calvinia, Pella, Bushmanland), in what used to be known under the name of Hottentot and Bushmanlands.

Tribe SCARITINI.

Gen. SCARITES,
Catal., p. 388.

Scarites prævius.

Head and prothorax as in *S. molossus;* the elytra, however, are not quite so ovate, owing to the humeral carina being less sloping; they are distinctly striate, with the intervals slightly convex and the sixth, seventh, and eighth somewhat carinate, the eighth one does not reach the base, but is nearer to it than in *S. molossus*, and the two punctures on the third interval are similar, but instead of the

basal part being finely granulose and having a transverse linear series of minute tubercles, there are only from one to three tubercles near the scutellary region and two or three granules along the humeral ridge; the outer margin has a similar series of setigerous punctures, but it is hardly granulose and then only along the series of punctures.

The distinctive character of this species consists in the less ovate shape of the elytra, the absence of granulation at the base on the space between the costæ and the basal margin, and the very slightly granulated lateral margin. Length 30–33 mm.; width 10–10½ mm.

Hab. Bechuanaland (Ramoutsa), Zambesia (Middle Limpopo, Enkeldoorn, Marandella).

The shape of the elytra is intermediate between that of *S. molossus* and *S. natalensis*, but it is easily distinguished from the latter by the eighth costa which is much longer, and not partly hidden in the anterior part by the overhanging seventh costa.

Scarites ovampoanus.

Much more nearly allied to *S. molossus* than the preceding species; the shape of the head, prothorax, and elytra is similar, but the sharply costate seventh interval comes nearer to the posterior angle of the humeral carina; the base has only a regular series of minute tubercles and no granulation whatever, the outer margin has also no granulation whatever, only a very distinct series of punctures reaching from base to apex, and the longitudinal striation on the head does not reach beyond the anterior part of the median depressions, whereas in *S. molossus* it extends almost to the neck. Length 32 mm.; width 11 mm.

Hab. Ovampoland (Omramba).

Scarites dogueraui, Gory,
Catal., p. 393.

Instead of *S. dogueraui*, read *S. richteri*, Chaud., Observ. Kieff., 1847, p. 4.

The description of *S. exaratus*, Dej., applies very much to this species, but in the latter the eighth interval is said to reach the shoulder. In the large examples of *S. richteri* that I have seen, this eighth interval is certainly distinct up to a very short distance from the humeral carina, but in the smaller ones it does not reach so

far, yet these two sizes belong undoubtedly to one species. It is thus probable that there is a little variation in that respect, and that *S. richteri* and *S. exaratus* are identical.

Hab. Cape Colony (Saldanha Bay, Darling, O'okiep and Garies).

Gen. HAPLOTRACHELUS,

Catal., p. 382.

Haplotrachelus meracus.

Black, shining; head quadrate, anterior part strongly plicate longitudinally up to the middle of the vertex; mandibles also strongly plicate longitudinally; prothorax quadrate as far as the posterior lateral puncture, and from there very slightly diagonal towards the base, which is slightly sinuate; elytra not broader than the prothorax, oblong, with the humeral angles rounded and not dented; they are convex, very faintly striate, the third stria has four deep and very conspicuous punctures; the first is at the base itself, the second past the median part, and the two following between the second one and the apical part, and all three are equally distant from one another; the base is smooth, and the outer margin has a series of shallow punctures; anterior tibiæ bi-dentate above the digitation. Length 20 mm.; width 6 mm.

This species is very unlike the other South African *Haplotrachelus;* in general facies it resembles much *Scarites rugiceps*, Catal., p. 396, and the elytra are equally smooth in both species.

Hab. Orange Free State (Heilbronn).

Tribe HARPALINI.

Gen. ANISODACTYLUS,

Catal., p. 424.

Anisodactylus degressus.

Black, shining; antennæ, palpi, and legs flavescent; head smooth; prothorax one-fourth broader than long, slightly more rounded laterally in the anterior than in the posterior part, a little depressed laterally on each side of the disk; the depressions are faintly aciculate, the disk is nearly smooth and without any longitudinal groove;

elytra oblong, striate with the intervals plane, smooth and with one median puncture on the third interval and four equidistant ones in the posterior part, beginning at about two-thirds of the length; the extreme edge of the outer margins of the prothorax is faintly rufescent, and the under side piceous-red. Length 10 mm.; width 4 mm.

In general appearance the insect is very much like *A. harpalinus*, Catal., p. 426, which it should follow or precede, but the prothorax is a little broader, and the disposition and number of punctures on the intervals of the elytra are different.

Hab. Zambesia (Salisbury).

Anisodactylus vicarius.

Black, shining; antennæ, palpi and legs flavous; extreme edge of outer margins of prothorax faintly flavescent; head smooth; prothorax one-third broader than long, rounded laterally and a little ampliate more in the anterior than past the middle, nearly smooth on the disk but aciculate along the base and in the lateral depressions, and having a distinct median discoidal longitudinal line; elytra oblong, very little broader than the prothorax, narrowly striate with the intervals plane, smooth and with four punctures in the posterior part of the third interval, beginning at about three-quarters of the length; the two hind punctures are in the middle of the interval, the other two almost in the second stria. Length 9½ mm.; width 4 mm.

This species is also allied to *A. harpalinus* and still more to *A. degressus*, from which it is differentiated by the prothorax which is of nearly the same shape, but has a median discoidal groove, whereas there is no trace of one in *A. degressus;* there is no puncture in the median part of the third interval, and the others are more closely set and restricted to the posterior declivity.

Anisodactylus procax.

Black with the elytra greenish bronze; antennæ fuscous with the two basal joints rufescent; head smooth, frontal impressions very distinct and arcuate; prothorax one-third broader than long, very little sinuate at apex and base, slightly ampliated and rounded laterally from the apex to three-fourths of the length, smooth from the apex to three parts of the length, but from there very closely and deeply punctured along the base, and from side to side; elytra oblong, very slightly rounded at the shoulders, very distinctly punctato-striate with the intervals plane, smooth, and with an asymetrical series of

ill-defined, distant punctures on the third and fifth intervals; under side black, legs piceous. Length 14½ mm.; width 6 mm.

Male unknown.

Very closely allied to *A. melanarius*, Catal., p. 425; the facies is identical; the prothorax has the same shape and also lacks the lateral basal impressions, but the median part of the base is more broadly punctured, the central longitudinal line does not reach as far towards the base as in *A. melanarius;* the elytra have a much more distinct greenish tinge. I have seen one female only.

Hab. Natal (Tugela River).

Gen. HYPOLITHUS,

Catal., p. 431.

Hypolithus strenuus.

Flavous; head closely aciculate; prothorax one-third broader than long, much rounded laterally for two-thirds of the length, narrowed and a little sinuated from there to the base, where it is narrower by one-fourth than at its widest part; it is deeply and closely aciculate, and the discoidal part is darker than the outer sides; elytra oblong, narrowly striate with the intervals plane and very closely aciculate, the dorsal part is somewhat infuscate, and the second and fourth intervals are tessellated with broad, sub-quadrate spots lighter than the background, but there is no trace of any seriated punctures. Length 8 mm.; width 3¾ mm.

I do not know the male of this species, and I include it provisionally only in the genus *Hypolithus*, although the shape of the prothorax is very different on account of it being narrowed towards the base and sinuate above it. *Anisotoma posticalis*, Catal., p. 439, may prove to belong to this group of *Hypolithus*, but I have not seen the male as yet. *H. strenuus* is easily distinguished by the tessellation on the elytra which is very different from that of *H. escheri* and *H. saponarius*, and the general facies of these two species is very different.

Hab. Natal (D'Urban).

Hypolithus patruelis.

Brownish red with the dorsal part of the elytra darker, antennæ and legs slightly flavescent; head smooth; prothorax long, nearly

parallel laterally, but a little attenuate in front, closely aciculate, the aciculation deeper and denser in the posterior part; elytra not broader than the prothorax at base, oblong, striate, with the intervals plane, closely and finely punctured, third and fifth with a series of well-defined punctures; under side piceous-red. Length 8 mm.; width 3 mm.

It is possible that the examples I have seen are partly immature.

Size of *H. difficilis*, Catal., p. 436, but with the prothorax and elytra much more parallel, the former especially; it is as straight laterally as in *H. ornatus*, Catal., p. 437, which it should precede.

Hab. Natal (Malvern).

Hypolithus ovampoanus.

Black, iridescent; palpi, antennæ, margin of prothorax and legs sub-rufescent; head smooth; prothorax very little ampliate laterally, nearly straight, smooth, and aciculate along the base and in the lateral depressions; elytra oblong, not broader than the prothorax, striate, with the intervals finely and closely punctured, a series of punctures on the third and fifth intervals, and two or three punctures on the seventh, spaced from near the median part to the apex; under side black, slightly iridescent. Length 8 mm.; width 3 mm.

Shaped nearly like *H. patruelis*, but the sides of the prothorax are not so parallel, and the discoidal part of the prothorax is much more smooth; the punctures on the intervals of the elytra are not so deep, and there is no trace of punctures on the seventh interval in *H. patruelis*.

Hab. Ovampoland.

Hypolithus audens.

Head and prothorax testaceous-red, antennæ, palpi, and legs pale testaceous; epistoma and anterior part of the head punctured; prothorax truncate at apex and base, rounded laterally and a little ampliated at about the median part, not at all sinuate towards the base, slightly depressed on each side at the base, closely and distinctly aciculate all over, and briefly pubescent; longitudinal median line short; elytra oblong, deeply infuscate in the dorsal part but having a very broad testaceous margin extending as far as the fifth

stria and equally wide behind; they are narrowly striate with the intervals very closely aciculate, almost shagreened, and briefly although densely pubescent; there seems to be no seriate punctures on the third interval, only a very faint one in the fifth and sixth striæ on each side, but this may be accidental; pectus and abdomen piceous. Length $8\frac{1}{2}$ mm.; width 3 mm.

Hab. Natal (no exact locality).

Resembles *Siopelus limbatus*, Catal., p. 440, in colouring and general appearance owing to the pubescence with which it is clothed on the upper part. It should follow *H. caffer*.

Gen. SIOPELUS,

Catal., p. 439.

Siopelus pavoninus, Gerstaeker.

Archiv. f. Naturgesch., xxxiii., 1, p. 23.

"Black, with a cyaneous and green glitter, glabrous, basal joints of antennæ, palpi, legs, outer margin of prothorax and apical part of elytra, reddish testaceous; elytra with double striæ, intervals closely rugoso-punctate, the alternate ones with a series of larger punctures." Length 9–$10\frac{1}{2}$ mm.

"Most closely related to *Hypolithus aciculatus*, Dej., and *H. caffer*, Boh., differs from the former species by having three series of stronger punctures, from the latter in having glabrous elytra. Head shiny black, finely punctured; labrum and mandibles piceous, the three basal joints of the antennæ straw-coloured; prothorax and also the elytra glittering green and cyaneous-blue, the lateral margins and the base rusty red; the disk is everywhere densely punctate, the punctures are still closer towards the base which is partially rugose, and the median longitudinal groove is short; the elytra are glabrous, scarcely broader than the prothorax, parallel, edged with reddish yellow, the border widening gradually from apex to base; the punctures on the third interval are each separate and numerous, those on the fifth and seventh are sparse and shallower, while in the ninth interval along the lateral edge they are connected, chain-like, with one another; under side glittering blue and punctate; the sternum and legs are rusty red."

Hab. Mozambique (Quilimane), teste H. J. Kolbe; occurs in German East Africa.

SIOPELUS SIMPLEX, Putzeys,

Rev. and Magas. d. Zool., 1878, p. 80.

"A little larger than *H. venustulus*, Boh., Catal., p. 441, and of the same colour, the lateral sutures of the frontal part are also very marked, but the two impressions beginning at the angle of these sutures and which have a tendency to unite behind in the centre of the vertex are very little marked in this species, but very distinct in *S. venustulus;* the prothorax is more convex; the shape of the elytra is similar, but the intervals are much less vermiculate, *i.e.*, the punctures although disposed in more or less regular series, do not unite in such a way as to form a ridge on each side of the striæ which are much wider, and the punctures on the three intervals are broader. Length 6½ mm.; width 3 mm."

Hab. Mozambique (Quilimane) teste H. J. Kolbe; occurs in Zanzibar, and Dars el Salam.

GEN. DIORYCHE,

Catal., p. 455.

DIORYCHE SERIATA, Kolbe,

Mitteil. Naturh. Mus., Hamburg, xiv., Jahrg., 1897, p. 79.

Dark bronze, moderately shining on the upper side, and briefly but thickly pubescent; antennæ black except the two basal joints, which are flavous; femora piceous; tibiæ rufescent; head and labrum very closely and deeply punctured, and briefly, although densely, pubescent; prothorax gradually rounded laterally, truncate at both ends, not sinuate laterally towards the basal angle, very narrowly grooved longitudinally in the middle, very roughly shagreened all over, and having no supra-basal lateral impressions; it is clothed with a moderately thick greyish pubescence, and so are the elytra which are oblong, a little broader than the prothorax at its widest part, striate with the intervals convex and very rugose. Length 6½ mm.; width 3 mm.

Hab. Zambesia (Salisbury), Mozambique (Quillimane), teste H. J. Kolbe.

Allied to *D. vidua*, Catal., p. 456, but at once distinguished by the much more rugosely shagreened prothorax and elytra; the intervals of the latter are convex instead of being plane. In his description of what I take to be the present species, Herr Kolbe, in comparing it to

D. picipes, Kl., which I have not seen, says : "Similar but darker, more dully coloured and somewhat more thickly tomentose, the sides of the prothorax are not curved at the basal angle, and the alternate intervals of the elytra are more raised than the others."

Gen. AMBLYSTOMUS,

Catal., p. 466.

Amblystomus intermedius.

Dark bronze green, nearly black on the upper part, antennæ black with the basal joint and the tibiæ pale flavous ; head smooth ; prothorax much rounded laterally from apex to base, more ampliated in the anterior than in the median part, basal angle rounded ; median discoidal longitudinal line hardly distinct ; elytra a little broader at base than the prothorax at its widest part, nearly oblong, but a little wider past the middle than at the base, and having on each side five very fine but distinct striæ ; the lateral ones are obliterated except at the apex ; the intervals are plane and smooth ; the femora are infuscate, the tibiæ and tarsi flavescent. Length 4 mm. ; width $1\frac{4}{5}$ mm.

This species is intermediate between *A. promontorii* and *P. natalicus*, Catal., p. 467 ; the head and the prothorax are not so broad as in the former, while it is larger than the second, and the elytra are more distinctly striate.

Hab. Cape Colony (Uitenhage).

Tribe PANAGÆINI.

Gen. EUDEMA,

Catal., p. 474.

Eudema opulentum,

Plate XI., fig. 4.

Black, sub-opaque ; head very rugose but with a median smooth space, epistoma also smooth ; neck finely plicate transversely ; third joint of antennæ not quite as long as the following two put together ; prothorax rounded laterally from the apex to two-thirds of the length, gradually ampliate to that distance, and produced diagonally from there to the basal part where it is not wider than

apex; the posterior part of the margin is recurved from where it narrows, but not angular, while the basal angles are sharp, and the base straight and not projecting; it is setulose and very roughly shagreened; elytra one-fourth broader than the prothorax at the base, a little rounded at the shoulders, oblongo-ovate, somewhat convex, striate, pubescent, finely shagreened, and having on each side two yellow patches; the first, near the shoulder, is somewhat aculeate from the outer margin to the third stria, and nearly straight; the supra-apical one is slanting, narrower than the first, and extends from the third to the seventh interval inclusive; under side punctured, pubescent. Length 19 mm.; width 8 mm.

Broader than *E. ornatum*, Catal., p. 478; this species is easily distinguished from it by the more ampliate prothorax; the colour of the patches on the elytra are paler yellow, and they are much narrower.

Hab. Natal (Lower M'Komas River).

Follows *E. difficile*, Catal., p. 479.

Eudema sexmaculatum,

Plate XI., fig. 5.

Black, shining, and briefly pubescent; elytra with a humeral and two yellow dorsal patches on each side; head long, smooth in the middle of the anterior part, very rugose laterally and behind; third joint of antennæ not so long as the two following; prothorax similar in shape to that of *E. pretiosum*, but less sinuate laterally behind above the basal angle which is also more acute, base not sinuate; disk very rugose, sides reflexed in the anterior part, but less than in *E. pretiosum;* elytra straight at base, oblong, one-fourth broader than the prothorax, deeply punctato-costate with the intervals carinate; they have on each side a short, humeral yellow band on the eighth interval, a transverse patch placed slightly before the median part of the disk, extending on the fourth, fifth, and sixth intervals, and consisting of three very short bands hardly connected in the stria, and with the inner one the longest of the three, also another narrow patch, slightly sinuate, extending from the fourth to the eighth interval, and situated at a short distance from the apex, at the top of the posterior declivity; tarsi bristly underneath. Length 20 mm.; width 8 mm.

The general appearance is not unlike that of *E. pretiosum*, Catal., p. 480, both having a broad prothorax, but it is easily recognisable owing to the humeral elongate macule on each side of the elytra,

which is not found in any other South African *Eudema;* the punctures on the striæ of the elytra are very distinct.

Hab. Zambesia (Salisbury).

Tribe CHLÆNINI.

Gen. CHLÆNIUS

Catal., p. 487.

Chlænius enonensis.

Head and prothorax metallic green, shining; labrum, antennæ, palpi, and legs flavous; head finely aciculate; prothorax hardly narrower at base than at apex, rounded laterally, slightly ampliate in the middle and hardly sinuate above the base; it is very deeply and closely punctured with the intervals raised, and rough, thickly pubescent, and very narrowly edged with yellow; elytra elongated, almost oblong, a little broader than the prothorax at base, narrowly punctato-striate with the intervals plane, finely shagreened and briefly pubescent, the colour is very dark green, the outer margin has a very narrow yellowish edge, and there is at the apex a sutural flavous triangular patch, the basal part of which reaches the third stria on each side, and the point nearly coalesces with the apical flavous margin; under side cyaneous, iridescent. Length 12 mm.; width 5–5½ mm.

Hab. Cape Colony (Uitenhage).

Should follow *C. verecundus*, Catal., p. 501

Chlænius conformis, Dejean,

Plate XI., fig. 7.

Spec., vol. v., p. 630.

Shining metallic green on the head and prothorax, duller green on the elytra, which are clothed with a very brief pubescence, palpi, antennæ, and legs flavescent; head slightly punctulate, labrum flavescent; prothorax one-fourth broader than long, a little attenuate laterally for about half the length, and nearly straight from there to the basal angle, base straight or nearly so, outer margins carinate and narrow with a flavescent edge; disk deeply and irregularly punctured, the punctures more closely set and more shallow along the base, and in the basal sub-lateral impressions; elytra oblong,

not broader than the prothorax, striate, the striæ finely punctured and the intervals plane, dark bottle-green and with a more or less ovate yellow patch placed in the posterior part at about two-thirds of the length, extending from the second to the fifth stria and coalescing there with a moderately wide supra-marginal band of the same colour, which becomes quite marginal in the apical part; under side iridescent. Length 13 mm.; width 5 mm.

Easily distinguishable by the interrupted shape of the marginal band, which begins only at about two-thirds of the length, and coalesces with the dorsal ovate patch.

My description is made from a Senegal example, compared with Dejean's type.

Chaudoir in his 'Monographie des Chléniens' mentions that it occurs also in Natal, where it was captured by Guienzius. Herr H. J. Kolbe says that the habitat of this species extends from Natal to Nubia and Senegambia. I have not as yet met with a South African example.

Chlænius raffrayi, Chaud.,

Plate XI., fig. 8.

Monogr. d. Chlen., 1876, p. 63.

Head and prothorax metallic green, antennæ and legs rufescent, elytra violaceous, glabrous and with a supra-apical rufescent patch on each side; head very finely punctured, the punctures not closely set; prothorax one-fourth broader than long, a little attenuate laterally from the apex to the median part, nearly parallel from there to the base; disk slightly punctulate, deeply impressed on each side in the basal part and distinctly punctured along the base; elytra oblongo-ovate, a little broader than the prothorax, striate with the striæ very distinctly punctured and the intervals plane; the outer margin is as violaceous as the rest of the elytra and not densely pubescent, and there is at about three-fourths of the length two short elongate patches restricted to the fourth and sixth intervals, the outer one being a little longer than the inner one; under side slightly iridescent, black, with the three abdominal segments piceous-red. Length 16 mm.; width $6\frac{1}{2}$ mm.

This description is made from an example from Bagamoyo.

Hab. Mozambique (Quilimane), teste H. J. Kolbe.

Chlænius (Epomis) rhodesianus.

Bottle-green, sub-opaque and briefly pubescent; antennæ, palpi, legs, and a narrow marginal border on the elytra pale yellow; head very roughly punctured; prothorax one-fourth broader than long, straight laterally from the base to about half the length, attenuate from there to the apex where it is one-third narrower than at base, marginate all round and covered with dense scrobiculate punctures; elytra not very much broader at the base than the base of the prothorax but a little ampliated from the shoulder to the median part where they are nearly twice as broad, they are striate with the intervals raised, tectiform and covered with very closely set punctures giving them a roughly shagreened appearance, the yellow band is narrow and limited along the margin to the eighth stria; under side piceous-black, punctured laterally, abdominal segments narrowly edged with yellow. Length 24 mm.; width 10 mm.

Similar in general appearance to *C. capensis*, Catal., p. 514, but much more robust and very different in sculpture. It is probably allied to *C. boccandei*, but does not agree quite with Chaudoir's elaborate description of this species.

Hab. Zambesia (Salisbury)

Chlænius epigraphidus,

Plate XI., fig. 9.

Black, sub-opaque, elytra very briefly but densely pubescent and with two yellow patches on each side, antennæ, palpi, and tarsi piceous-brown; head somewhat aciculate; prothorax one-third broader than long, slightly arcuate at apex, sinuate at base, rounded and gradually ampliate laterally from the anterior angle to two-thirds of the length, slightly oblique from there to the outer angle, one-third broader at base than at apex, outer margin carinate but not reflexed, disk covered with closely set, conspicuous punctures; elytra not wider than the prothorax at its widest part and not quite three times as long, punctulato-striate, with the intervals shagreened and plane, they are more opaque black than the head and prothorax, have on each side a light chrome-yellow, sub-transverse patch situated at one-third of the length, and extending from the fifth to the eighth intervals, and a supra-apical sub-ovate and smaller one extending on the third, fourth, and fifth; under side black, rugulose. Length 16 mm.; width 7 mm.

The general appearance is not unlike that of *Epigraphus*, but of course it does not belong to the *Panagæini*. I have only seen a female example, in which the apical joint of the maxillary palpi is sub-cylindrical and truncate at tip, but that of the labial palpi is very swollen and diagonally truncate.

Hab. Zambesia (Salisbury).

Gen. PARACHLÆNIUS, Kolb.,

Stett. Entom. Zeit., 1894, p. 196.

Procletus, Pér., Catal., p. 570.

Parachlænius violaceus.

Head and prothorax piceous, elytra violaceous, under side piceous red; antennæ infuscate with the exception of the two basal joints which are dark red; femora dark red, tibiæ infuscate; head nearly smooth, except in the two anterior depressions which are sub-punctulate; prothorax as broad as long, sub-parallel, but slightly sinuate towards the basal part, and also slightly rounded apically, lateral margins sharp, recurved, disk set with scattered setigerous punctures; elytra a little broader than the prothorax at base, straight laterally, but a little ampliate from the median part to the apex, rather depressed, striate with the intervals nearly plane, closely and regularly punctured and covered with a brief but dense yellowish pubescence owing to the punctures being setigerous. Length 16 mm.; width 6 mm.

Hab. Zambezia (Enkelsdoorn).

Smaller than *P. singularis*, Catal., p. 570, and differently coloured.

Procletus having only one supra-orbital seta (over the posterior part of the eye) should be included in the *Chlænini*, and not in the *Platynini*, as I have done (Catal., p. 570).

Gen. RHOPALOMELUS,

Catal., p. 569.

Like *Procletus*, *Rhopalomelus* has only one supra-orbital seta, and not two, as mentioned by me, *loc. cit.* This character removes my objection to include the genus in the *Chlænini* as suggested by Herr H. J. Kolbe.

PROCLETODEMA, n. gen.,

Mentum, maxillæ, and palpi of *Parachlænius*, but the tooth in the mentum is more sharply bifid; the paraglossæ are also similar, but the ligula instead of being straight and truncate is distinctly diagonal at apex and quite perpendicular laterally; labrum broader than long and deeply emarginate, epistoma very deeply incised in front, the incision is U-shaped, and the suture with the frontal part is not discernible, the incision is filled with a membranous integument; head long, slightly narrowed behind the eyes which are moderately large and bulging, and have one supra-orbital seta placed at the back of the eye; antennæ of *Parachlænius;* prothorax sub-trapezoid and with a seta on the posterior angle; elytra not broader than the prothorax at its widest part, parallel, not convex, sinuate behind, striate and with a series of distant punctures on the third, fifth, and seventh intervals; legs moderately long, intermediate tibiæ a little incurved, with the outer ridge very spinose.

The extraordinary shape of the epistoma may be of a teratological nature; apart from that, the distinction between this genus and *Parachlænius* consists in the more massive head, the difference in the shape of the ligula, the more parallel elytra, which are not broader than the prothorax, the smooth intervals of elytra, and the presence of three series of punctures on the alternating intervals; in *Parachlænius* the intervals are covered with closely set briefly setigerous punctures, and there is no trace of series of punctures on the alternating ones; the intermediate tibiæ are also not incurved.

Procletodema parallelum,

Plate XI., fig. 10.

Dark brown, glabrous, shining; head smooth with two broad but very shallow impressions in the anterior part; prothorax truncate at base and apex, but with the anterior angles produced, very slightly rounded from the apical angle to two-thirds of the length, and from there a little attenuate and slightly sinuate as far as the basal angle which is sharp, one-sixth narrower at base than at apex, and one-fourth longer than broad, it is depressed, has a median narrow longitudinal groove, and a moderately deep impression on each side of the base, the outer posterior margin is very slightly reflexed; scutellum broadly triangular; elytra not broader than the prothorax

and three times as long, slightly rounded at the humeral angle, parallel, very little convex, striate, the pre-scutellary stria is long, striæ slightly punctulate, the intervals narrow and plane, the third, fifth, and seventh have a series of punctures far apart from one another, the supra-marginal stria is punctulate; under side and legs closely punctured. Length 24 mm.; width 7 mm.

Hab. Zambesia (Salisbury).

Tribe PTEROSTICHINI.

Gen. MELANODES,

Catal., p. 533.

Following De Chaudoir's example, I included this genus in the *Chlænini*. I think, however, that owing to the presence of two supra-orbital setigerous punctures instead of one, the genus should be included in the *Pterostichini*, in the neighbourhood of *Abacetus*.

Melanodes pugnator.

Black, shining, not iridescent, palpi, the three basal joints of antennæ and tarsi piceous-red, the other joints of the antennæ are rusty red; head smooth, very slightly impressed on the junction with the epistoma, mandibles highly carinate on the upper side and nearly laminate at the base; prothorax of equal width at apex and base, a little ampliated laterally from the apical angle to about two-thirds of the length, and slightly narrowed and sinuate from there to the outer angle which is sharp; there is a very narrow faint longitudinal median line, and the basal impressions are not deep and do not reach the base; elytra oblong, narrowly striate with the intervals smooth, no scutellary stria. Length 11 mm.; width 4½ mm.

Closely allied to *M. rectangulus*, Chaud., Catal., p. 534, but distinguishable by the very shallow frontal impressions, and the high carination of the mandibles at the base, on the upper side; the prothorax is similar in shape, but the basal impressions are shallower and do not reach the basal margin.

Hab. Natal (D'Urban).

Gen. ABACETUS,

Catal., p. 545.

Abacetus emeritus.

Intense black, very shining, glabrous, palpi and basal joints of antennæ piceous; head smooth, frontal sulci moderately deep, not arcuate; prothorax one-third broader than long, rounded laterally from base to apex, and ampliate in the middle, sinuate close to the basal angle only, outer margins carinate and very slightly recurved, upper part hardly convex, median and lateral grooves very distinct, no basal punctures; elytra oblong, very slightly broader at base than the prothorax at its widest part, deeply striate, the striæ and intervals smooth, and the latter not quite plane; under side black, shining. Length 9 mm.; width 4 mm.

Somewhat similar to *A. nigrinus*, Catal., p. 547, which it should precede, but with a more robust facies.

Hab. Zambesia (Salisbury).

Abacetus viarius.

Closely allied to *A. majorinus*, Catal., p. 550; it is smaller and black instead of being dark metallic green, but the elytra have a faint bronze-black sheen, the prothorax is more constricted laterally at the base, and a little less ampliate in the middle in proportion to the size; the base is also punctured, the punctures are deeper, the width of the base of the elytra is slightly greater owing to the base of the prothorax being narrower, the sculpture is identical, but the intervals are a little more convex, and the legs are brighter red. Length 5 mm.; width 2 mm.

Hab. Natal (Malvern).

Abacetus perturbator.

Bronze-black, very shining, antennæ black with the exception of the basal joint, and sometimes the basal part of the second which are red, palpi red, femora black, tibiæ and tarsi rufescent; head normal, impressions deep, not arcuate; prothorax orbicular from the base to four-fifths of the length, and straight from there to the basal angle which is sharp, but does not project, base closely punctured; elytra oblong, nearly twice as broad at base as the base of the prothorax, and one-third more than the prothorax at its widest

part, striate with the intervals plane. Length $5\frac{1}{4}$–6 mm.; width 2–$2\frac{1}{4}$ mm.

Allied to *A. viarius*, but it differs in colour and in the shape of the prothorax, the posterior lateral part of which is straighter.

Hab. Cape Colony (Uitenhage).

Abacetus proximus.

Black, shining; antennæ, palpi, and legs brownish red; head smooth, impressions moderately deep and short; prothorax a little ampliated and rounded laterally, narrowed for a short distance near the base with the outer margins carinate but not recurved, and the posterior angles sharp; it is quite smooth on the disk; the basal impressions are long and deep, and the base is not punctulate; elytra oblong, shining, deeply striate with the intervals plane. Length 10 mm.; width 4 mm.

Allied to *A. crassicornis*, Catal., p. 547, which it much resembles; it is differentiated by the colour of the legs and antennæ, which in *A. crassicornis* are black, the latter are much thicker and more compressed, and also by the absence of punctures along the base.

Hab. Cape Colony (Uitenhage).

Abacetus pavoninus.

Black, with the elytra iridescent; antennæ infuscate; the two basal joints, palpi, and legs piceous; head smooth; the two anterior impressions narrow, deep, arcuate; prothorax gradually rounded laterally from apex to base, nearly truncate at apex, sinuate at base, broadest in the median part, very little wider at base than at apex, smooth, the basal impressions long, narrow, and deep, outer margins reflexed; elytra oblongo-ovate, narrowly striate, striæ not punctured, intervals plane; under side piceous-black. Length $10\frac{1}{2}$ mm.; width 4 mm.

The specific characters consist in the rounded shape of the prothorax, which is not at all constricted or attenuated laterally near or above the posterior angle, which is also more blunt than usual; it is the only South African *Abacetus* known to me having iridescent elytra. Should follow *A. mashunus*.

Hab. Natal (D'Urban ?).

Abacetus diversus.

Dark bronze, shining; antennæ black, the two basal joints red-

dish; head smooth, the anterior impressions deep, arcuate; prothorax long, gradually rounded and slightly ampliate laterally from the apical angle to three-fourths of the length, and diagonal from the second lateral seta to the posterior angle, which is sharp, base sinuate, a little wider than the apex, disk smooth, base not punctured, outer margins carinate; elytra oblongo-ovate, finely striate, the striæ smooth; under side black, legs piceous and with a slightly æneous tinge. Length 7 mm.; width $2\frac{1}{2}$ mm.

In colouring this species has some resemblance to *A. agilis*, Catal., p. 553, but it is at once distinguishable by the shape of the prothorax which is regularly ampliate laterally from the anterior angle to a short distance from the base, and is also longer.

Hab. Zambesia (Salisbury).

Abacetus pilosellus.

Reddish brown, with the antennæ, palpi, and legs paler; head aciculate laterally and along the eyes, smooth in the middle, frontal sulci diagonal; prothorax rounded laterally, a little less ampliate from the median part to the basal than from the apex to the middle, but not sinuate near the base, very distinctly grooved in the middle, closely punctulate along the base and also in the basal depressions, and fringed along the carinate margins with long brown setæ springing from a series of punctures along the margin; elytra oblong, striate, with the intervals convex, and those near the suture nearly carinate; the striæ are distinctly punctulate, and the outer margin has a fringe of setæ similar to those on the prothorax, but shorter. Length 4 mm.; width $1\frac{3}{4}$ mm.

Hab. Natal (Lower M'Komas River).

Abacetus cursor.

Very closely allied to *A. nanniscus*, Catal., p. 551; the facies is the same but it is a little larger, the antennæ are thicker and black, with the two basal joints and a part of the third reddish; the prothorax is of the same shape and equally shining; the elytra are oblong, and have a bronze sheen, less greenish than in *nanniscus*, the femora are piceous, with the tibiæ and tarsi pale red instead of the whole legs being red, not piceous-red, as I have stated. Length $5\frac{1}{2}$ mm.; width 2 mm.

It is only by comparison with *A. nanniscus* that the specific characters of this species become marked.

Hab. Natal (Drakensberg Range).

GEN. ABATUS, n. gen.

Mentum broadly sinuate, with the median part bluntly rounded, and the lateral lobes not very high, but moderately sharp; ligula moderately long, sub-parallel, sinuate at tip, paraglossæ much longer than the ligula, very slender, disunited from the apex at about two-thirds of the length and strongly arcuate at tip; setæ of the ligula thick and long; maxillæ arcuate and with two long inner teeth near the tip, last joint of palpi sub-fusiform not acuminate; antennæ moderately long, the three basal joints glabrous, the others pubescent, joint seven to tenth inclusive ovate, moniliform, joint eleven one-third longer than the penultimate one, ovate and acuminate; labrum long, deeply emarginate in the centre; mandibles long, arcuate, the right one with an inward, median tooth; head with two sulci on the anterior part; eyes large, prominent, and with two supra-orbital setæ; prothorax very little rounded laterally behind, and having on each side a deep, narrow, basal impression; elytra oblong, striate, without juxta-sutural stria, and third interval impunctate; legs moderately long, femora thickened, tibiæ not grooved and without external spine or bristle; the three basal joints of the anterior tarsi of the male are dilated in the male, cordiform and squamose underneath, fourth joint short, not incised.

This genus is distinguished from *Cyrtomoscelis*, Catal., p. 558, by the less oodiform facies, the shape of the antennæ, the seven ultimate joints of which are more ovate and moniliform, the presence of an inner tooth in the right mandible, and the absence of external bristles or spines on the tibiæ, even in the anterior ones; the buccal organs differ also; the ligula is more triangular, and the paraglossæ are fused with it to the tip, the mentum is much broader, the sinuation longer and more shallow owing to the lobes being very short, and the maxillæ have two inner teeth at the tip, which are wanting in *Cyrtomoscelis*.

ABATUS RAFFRAYI.

Black, slightly iridescent on the upper part; palpi, antennæ, and legs brownish red; head smooth; thorax smooth, straight at base and apex, very slightly rounded laterally in the anterior part, a little attenuate gradually from the middle to the base, where it is one-fourth narrower than across the median part, posterior angle sharp, disk with a narrow, median groove, base with a deep, longitudinal,

narrow groove on each side of the median one, reaching to more than one-third of the length; elytra oblong, a little broader than the prothorax at its widest, slightly depressed in the anterior part and convex behind, striate with the striæ smooth and the intervals moderately convex; under side piceous-red. Length 8½ mm.; width 3 mm.

Hab. Cape Colony. Captured by Mr. A. Raffray on the slopes of Table Mountain.

Gen. DRIMOSTOMA,

Catal., p. 556.

Drimostoma longicornis.

Piceous-black, shining; antennæ and legs rufescent; head smooth; prothorax as broad at base as at apex, slightly ampliate laterally in the middle, smooth, the supra-lateral basal impressions not very deep; elytra very slightly broader than the base of the prothorax; but a little ampliate from below the humeral angle, oblong, moderately convex, finely striate, the striæ smooth and the intervals somewhat convex, deeper black than the head and prothorax and with an apical, triangular flavescent patch extending on each side from the first to the fourth stria; the outer margin is slightly rufescent. Length 6 mm.; width 3 mm.

Allied to *D. amaroide*, Catal., p. 557, from which it is distinguished by the antennæ, which are longer and have less moniliform joints, and by the shape of the prothorax which is not at all attenuated laterally towards the base. In mature examples of *D. amaroide* the posterior part of the elytra is sometimes flavescent, but there is no distinct patch on each side of the suture, as in *D. longicornis*.

Gen. PTEROSTICHUS,

Catal., p. 559.

Pterostichus macropterus.

Black, glabrous, shining; legs, tarsi, and antennæ piceous-red; head smooth, frontal impressions long and deep; prothorax subparallel laterally, but a little attenuate from past the median part to the base, lateral margin thick and a little recurved behind, basal lateral depression hardly defined, the supra-lateral one narrow and deep, median longitudinal groove reaching from the base to nearly

the apex, disk smooth with a faint, wavy transverse plication on the supra-lateral basal depressions; elytra elongate, slightly broader at the base than the basal part of the prothorax; elongate, slightly ampliate at about the median part, and attenuate behind, moderately convex, striate with the striæ finely punctulate and the intervals plane and smooth; third interval with two punctures, a median and an apical one. Length 19 mm.; width $7\frac{1}{4}$ mm.

Distinguished by the shape of the prothorax, which is nearly as straight as that of *Teratoarsus schouberti*, Tsch., Catal., p. 566; the elytra are also ampliate towards the median part as in *P. rugipennis*, but in a much lesser degree. Its nearest ally is *P. congruens*, but it is more massive, and the striæ of the elytra are punctulate instead of being smooth.

One male, presented by Mons. R. Oberthür, and labelled King William's Town (Cape Colony).

This species should precede *P. rugipennis*, p. 564.

Pterostichus congener.

Black, shining; antennæ, palpi, and tarsi piceous-red; head smooth and without any frontal impressions; prothorax a little rounded laterally at apex, very little in the middle and a little more in the posterior part, slightly narrower at base than at apex and with the outer margin much recurved from past the median part to the basal angle, supra-lateral impression broad, short and smooth, disk totally smooth; elytra as broad as the prothorax at apex, oblong, striate, striæ smooth, intervals smooth and sub-convex, third interval with two sub-median punctures, outer margin sharply carinate. Length 13–14 mm.; width 4–$4\frac{1}{3}$ mm.

Smaller than *P. undulatorugosus*, Tsch., and with a nearly similar, though more slender, facies; the prothorax is a little straighter laterally and not plicate, and the elytra are a little more convex.

Hab. Transvaal (no exact locality). Sent by the State Museum, Pretoria.

Follows *P. undulatorugosus*, Catal., p. 564.

Pterostichus fraudulens.

Allied to *P. congener*, but longer; the head is similar; the shape of the prothorax is the same, but the outer margin is not quite so much recurved in the posterior part, and the elytra are more attenuate at the base, where they are narrower by one-fourth than

past the middle; the intervals are more plane and there is no trace of puncture on the third interval. Length 18 mm; width 6 mm.

Hab. Transvaal (no exact locality).

In general facies this species is not unlike *P. congruens*, from which it differs in the more parallel shape of the prothorax, and the less oblong elytra.

Pterostichus alticola.

Black, shining; antennæ and palpi piceous-black; head smooth and with two faint frontal impressions: prothorax sub-cordiform, *i.e.*, not much attenuate laterally in the anterior angle, rounded and gradually narrowed to the base, which is about one-half of the width of the median part, basal angle rounded, outer margin not at all recurved; disk smooth, supra-lateral basal impressions narrow and shallow; elytra elongate, oblongo-parallel, narrowly striate with the striæ smooth and the intervals sub-convex, third one with four equidistant punctures. Length 12 mm.; width $3\frac{1}{2}$ mm.

Distinct from all the other South African *Pterostichus*, and easily distinguished by the sub-cordate shape of the prothorax and the more linear facies.

Captured on the summit of the Giant's Castle, Basutoland, in the Drakensberg Range, at an altitude of 8,500 feet.

Pterostichus inordinatus.

Black, shining; elytra opaque, palpi and tarsi piceous-red; head smooth and with the supra-ocular rounded ridge very prominent, and with two median impressions in the frontal part between the eyes alongside the raised supra-ocular ridges; prothorax nearly parallel but a little narrower at base than apex, where it is straight but with the outer angles projecting, the base is very slightly sinuate, the outer margins carinate and not recurved behind, the outer angle is sub-obtuse, but not rounded, the upper part is smooth, plane, but a little sloping in the anterior lateral part, and the basal impressions are wide; elytra nearly oblong, but very slightly wider past the median part than at the base, which is sinuate, slightly aculeate at the humeral angle, while the shoulder is sloping for a very short distance; the outer margin is sharp and recurved for two-thirds of the length, and the dorsal part is carinate with the third, fifth, and seventh carinæ more raised than the others; the intervals are finely and closely aciculate, and the series of punctures in the anterior and

posterior part of the supra-marginal line are nearly obliterated; under side and legs smooth and shining. Length 17 mm.; width 6 mm.

Hab. Natal (Drakensberg Range).

Differs much from the other South African species; in general appearance it approximates a little *P. undulatorugosus*, Catal., p. 564, but the shape of the prothorax is quite different.

Tribe PLATYNINI.

Gen. PLATYNUS,

Catal., p. 572.

Platynus fraternus.

Black, the two basal joints of antennæ reddish brown; the others fuscous, legs piceous-brown; head nearly smooth; prothorax nearly as long as broad, sub-angulate laterally a little before the median part, as broad or very nearly so at the base as at apex, outer margins recurved, disk distinctly aciculate except in the middle, outer margins slightly rufescent; elytra oblongo-ovate, narrowly striate with the intervals plane, and the third one with three distinct punctures, the first of which is at some distance from the base, the second at about the median part, and the third at an equal distance from the median one and from the apex; the outer margin is recurved and the edge is slightly rufescent. Length 13 mm.; width 5 mm.

Closely allied to *P. gilvipes*, Catal., p. 574, the prothorax is a little more hexagonal, and the sides more distinctly aciculate; the elytra are quite black instead of being slightly greenish and also opaque in the female, and the striæ are not punctulate.

Hab. Zambesia (Salisbury).

Platynus lætulus.

Black, moderately shining, prothorax slightly ænescent and sub-opaque, antennæ black with the three basal joints, and also the tip of palpi, rufescent, legs red; prothorax cordiform but a little angular laterally towards the median part, disk smooth; elytra elongato-ovate, much rounded at the shoulders, nearly three times as broad at base as the base of the prothorax, a little convex on the posterior part, striate with the striæ punctulate.

Allied to *P. striatitarsis*, Catal., p. 577, but the prothorax is shorter and therefore more cordiform, the elytra are slightly constricted behind the humeral part, and a little more convex, the striæ and also the punctures are deeper; the antennæ with the exception of the three basal joints are deeply infuscate. Length 7 mm.; width 3 mm.

Hab. Cape Colony (Uitenhage).

This species follows *P. striatitarsis*.

Platynus fallaciosus.

Black, shining; prothorax very faintly ænescent, shining; antennæ infuscate with the exception of the three basal joints which are subrufescent; femora fuscous brown, tibiæ light brown; thorax elongate, cordiform, not angular laterally towards the median part, disk smooth; elytra elongato-ovate, rounded at the shoulders, a little convex on the posterior part, striate with the striæ finely punctulate. This species is closely allied to *P. lætulus*, but it is a little more robust, the prothorax is not aculeate laterally, and it is darker in colour. Length 7 mm.; width $2\frac{4}{5}$–3 mm.

Hab. Natal (D'Urban).

Follows *P. lætulus*.

Platynus velox.

Head piceous-red, shining; antennæ, prothorax and legs very light reddish brown, elytra piceous-red with a narrow flavescent border; palpi infuscate, sub-flavescent at tip; head smooth; antennæ very long, slender; prothorax nearly as broad as long, not cordiform, but slightly narrower at base than at apex, with the outer margins much recurved; the median part of the disk is reddish brown; elytra dark brown with a narrow reddish-brown margin, elongate, nearly straight laterally and with the shoulders sub-diagonal, attenuate behind, depressed, very finely aciculate, narrowly striate with the striæ faintly punctulate, intervals plane, third one with three equidistant punctures placed close to the stria; in the two examples I have seen, the suture is also lighter brown than the disk. Length 8 mm.; width 3 mm.

The shape of the prothorax is not at all cordiform, and is more like that of *Euleptus*, but not so slender, and the general facies is slightly more massive. It should come last of the South African species.

Hab. Natal (Ulundi).

Tribe TRECHINI.

Gen. TRECHUS,

Catal., p. 587.

Trechus gravis.

Piceous-black, shining, and with a faint iridescence, the outer margin of prothorax and elytra piceous-red; antennæ and legs dark rufescent; head and prothorax smooth, the latter broadly cordiform, the former very deeply and broadly grooved laterally; elytra elongate, oblong, but with the shoulders rounded, plane, deeply and narrowly striate, and having on each side seven striæ and a very distinct supra-marginal one, the sixth and seventh striæ coalesce behind; under side piceous. Length 10–10¼ mm.; width 3½–3⅗ mm.

Hab. Cape Colony (Uitenhage).

This species is by far the largest of all the South African ones, and is easily distinguished by its robust facies. The anterior tibiæ are diagonally truncate at the apex; it should follow *T. rufipes*, Catal., p. 589.

Trechus lætulus.

Reddish brown, shining; palpi, the two basal joints of antennæ and the legs flavescent; head smooth, deeply grooved laterally; prothorax cordiform, slightly broader than long, lateral basal impression deep, one deep basal puncture on each side of the median longitudinal groove; elytra oblongo-ovate, slightly iridescent, depressed, and having on each side five striæ which do not reach the apical part and become gradually shorter; outwardly the fifth stria is the shortest of all and not curved, but at the very apical part of the elytron there is a slight indication of the prolongation of the stria; the third interval has two conspicuous punctures—a sub-basal and a median one; the anterior tibiæ are not truncate diagonally. Length 3½; width 1⅕ mm.

Belongs to the same group as *T. aterrimus*, Catal., p. 588, and should follow it. It is much more depressed, smaller, and remarkably *Tachys*-like in shape.

Hab. Cape Colony (Paarl).

Trechus tabulæ.

Reddish brown with the head and prothorax a little darker than the elytra; antennæ, palpi, and legs flavescent; prothorax as broad as

long, cordiform, smooth; head deeply grooved laterally and having a median impression at the base; elytra ovate, convex, and with six distinct, although shallow, striæ on each side; these striæ reach nearly to the apex, except the sixth, which reaches only as far as the posterior bend of the fifth, and the third one has a moderately deep puncture at about one-third of the length. Length $4\frac{1}{2}$ mm.; width 2 mm.

Closely allied to *T. scitulus*, Catal., p. 611, which it should follow. The elytra are much more ovate, there are six striæ instead of five on each side, and there is only one puncture on the third interval instead of two; in *T. scitulus* the first puncture is also nearer the base than in *T. tabulæ*.

Hab. Slopes of Table Mountain (Cape Colony).

Tribe BEMBIDIINI.

Gen. TACHYS,

Catal., p. 593.

Tachys emeritus.

Testaceous, shining; head normal, antennæ flavous, the antennæ are not filiform, the five penultimate joints are nearly moniliform, the ninth and tenth are a little longer than the preceding, and the last one is a little longer and slightly broader than the tenth and acuminate at tip only; prothorax broader than long, rounded laterally from the apical angle to nearly the median part, and if anything, broadest behind the apical angle, diagonal from about the middle to the base, where it is not much narrowed, being about one-fifth less broad than the apex, outer angles acute; elytra truncate at base and very little broader there than the prothorax at its widest part, rather oblong than elongato-ovate, and having on each side five striæ filled with closely set and moderately deep punctures, and reaching to the top of the posterior declivity; there is also a rudimentary series of punctures along the supra-marginal stria. Length 2 mm.; width $\frac{3}{4}$ mm.

The shape of the prothorax is similar to that of *T. caffer*, Catal., p. 595, but the elytra are more oblong; the number of punctured striæ is also greater, but the most distinct characteristic distinction is in the shape of the antennæ, which in *T. caffer* are filiform, with the articles elongate and the ultimate one very slender and sharply acuminate, and thus very different from those of *T. emeritus*.

Tachys optimus.

Brownish red, shining; legs and palpi flavescent; antennæ also flavescent with the fourth, fifth, sixth, and seventh joints darker than the others; prothorax elongato-cordate, *i.e.*, longer than broad, rounded laterally from the apex to two-thirds of the length, narrowed and straight from there to the base, the angle of which projects, convex in the anterior part and with two deep impressions on each side of the base; elytra twice as broad at the base as that of the prothorax, and in the middle nearly three times as the prothorax at its widest part, truncate at base with the angles sharp, broadly ovate and sharply acuminate behind, convex, and having on each side besides the sutural stria, which disappears beyond the top of the posterior declivity, a dorsal one reaching from the base to the median part of the disk, and a very distinct supra-marginal one; in the space between the sutural and dorsal stria there is a very broad puncture placed nearer to the base than to the median part, and none in the posterior part. Length $2\frac{4}{5}$ mm.; width $1\frac{4}{5}$ mm.

Hab. Natal (Malvern).

Similar in shape to *T. humeralis*, Catal., p. 599, but a little larger and having a dorsal stria on the elytra which is entirely wanting in *T. humeralis*.

Tachys servilis.

Black, shining; legs pale flavous, the two basal joints of antennæ flavescent, the four following distinctly fuscous, and the terminal five nearly white; prothorax elongato-cordate with the basal angle moderately sharp, convex in the anterior part, and having two deep punctures on each side of the base; elytra ovate, twice as broad at base as the basal part of the prothorax, and also twice as broad on the middle as the prothorax at its widest, acuminate behind, convex, and having besides the sutural and supra-marginal striæ, the former of which is very indistinct, a short one, nearly median and reaching from the base to one-fourth of the length, as well as two extremely fine punctures difficult to distinguish, one at a short distance from the base and the other just past the middle, the basal one is nearly equidistant from the suture and the dorsal stria; the elytra are black with two red spots in the posterior part. Length $2\frac{1}{4}$ mm.; width 1 mm.

Hab. Natal (Malvern).

This species is very closely allied to *T. humeralis*, Catal., p. 599, and also to the preceding species from which it is mainly distinguished by the shorter stria on each elytron, and by the smaller size which approximates it more to *T. humeralis*.

Tachys cautus.

Flavous, shining; antennæ and legs lighter than the body; the ultimate joint of antennæ is elongato-quadrate; head quite smooth, with the supra-ocular sulcus deep and not reaching quite as far as the hind part of the eye; prothorax one-third broader than long, rounded laterally from apex to base, but broadest before the median part, and hardly constricted near the base, the angles of which are minute but sharp; it is convex in the upper part with narrow depressed outer margins, and the base is also depressed and has a not conspicuous puncture on each side of the median groove at an equal distance from the centre and the outer angle, which has no apparent puncture; elytra elongato-ovate with the angles sloping and rounded, one-third wider than the prothorax at its widest part, convex, and having on each side five series of shallow punctures not closely set and reaching from the base to a short distance from the apex; there is also a very distinct stria ending in a conspicuous setiferous puncture on each side at the apex, and the two dorsal punctures are not very conspicuous owing perhaps to the sheen of the pale background; there is no supra-marginal series of punctures. Length $2\frac{1}{2}$ mm.; width 1 mm.

The first example of this species was captured by me while searching for termitophilous insects in a white ant's hill, and demolishing it for the purpose. A second example, however, was captured in the open in the same way as other *Tachys*. The shape of the terminal joint of the antennæ, and also of the three preceding ones, which have an elongate moniliform shape, differs from that of the South African species, where the ultimate joint is elongate and acuminate, and the others elongate.

Hab. Cape Colony (Stellenbosch, Cape Town).

This species has no South African ally.

Gen. SCOTODIPNUS,

Catal., p. 600.

S. capensis is to be included in the genus *Anillus*, Duv., and Bedel refers the species to his sub-genus *Pseudanillus*.

Gen. ATROTUS,

Catal., p. 582.

Having been able to examine male examples of *A. forcipatus*, I find that the genus must be included in the *Licinini*, and not in the *Pterostichini*.

INDEX.

ERRATA ET CORRIGENDA

TO THE

DESCRIPTIVE CATALOGUE OF THE COLEOPTERA OF SOUTH AFRICA.

CICINDELIDÆ—SUPPLEMENT.

FAMILY CARABIDÆ.

Page 102, line 28, add Aid. to identific., vol. i., pl. 51.
,, 165, last line but one read *bi-plagiatus*.
,, 203 line 13 read the fourth *joint* bi-lobate instead of the fourth *one*.
,, 234 ,, 4 ,, *fused* instead of *used*.
,, 254 ,, 26 ,, number of *teeth* instead of *claws*.
,, 265 ,, 33 ,, *fig. 19* instead of *fig. 20*.
,, 285 ,, 9 ,, *Cyclosomus equestris*, Boh., instead of *C. buqueti*, Dej.
,, 426 ,, 9 ,, *maculæ* instead of *muculæ*.
,, ,, ,, 14 ,, elytra *are more* instead of *elytra more*.
,, 439 ,, 21 ,, *slightly more* instead of *slightly less*.
,, 440 ,, 5 ,, *limbatus* instead of *natalicus*.
,, 551 ,, 9 ,, *pale red* instead of *more or less piceous-red*.
,, 560 ,, 16 ,, *tibiæ* instead of *tibæ*.
,, 587 ,, 36 ,, *joint of the maxillary* instead of *of the labial*.
,, 535 ,, 31 ,, with one *or two* supra-orbital *setæ*.
,, 536 ,, 7 ,, after head short, *two supra-orbital setæ*.
36 ,, after head, *with one supra-orbital seta*.

DESCRIPTIVE CATALOGUE OF THE COLEOPTERA OF SOUTH AFRICA.—Part III.

By L. Péringuey.

Family PAUSSIDÆ.

FIRST SUPPLEMENT.

This First Supplement contains descriptions of 4 new species, which brings the number known to occur in South Africa to 52. A careful search for these myrmecophilous insects will probably result in the discovery of a few new species.

I have mentioned in the Catalogue of the Family, p. 6, that in two species there was a difference in the size of the club between male and female, but in one of the species (*P. vexator*) here described, this difference is so extremely marked, that were it not vouched for by Mr. G. A. K. Marshall, I would have considered the two sexes as distinct species. It may thus be possible that the close allies of this species, *i.e.*, *P. latreillei*, Westw., and *P. comptus*, Pér., may also show sexual differences. *P. klugi*, however, the antennal club of which is not unlike that of *P. vexator*, does not.

I have not been able to obtain any further information about the habitat of *Cerapterus*, *Arthropterus*, and *Pleuropterus* beyond the fact that *P. alternans* has been once found under bark. It may, however, have been met there accidentally, or perhaps the tree was tenanted by ants. It would be of interest to ascertain the object of all the tarsi being papillose beneath in both sexes. But for their bulky size one might feel inclined to consider it useful for holding to the bodies of ants for purposes of transport.

GEN. PAUSSUS,

Catal., p. 15.

PAUSSUS NATALIS,

Plate XI., fig. 14.

Light testaceous-red with a broad, dorsal, bluish-black patch on each elytron beginning at about two-thirds of the length, and disconnected with suture and outer and posterior margins. Head aciculate, very briefly pubescent, scooped out on the vertex, the excavation with a slight median groove, posterior wall more raised than the lateral ones, neck short; eyes without posterior canthus; antennal club twice as long as broad, curving apically for about one-quarter of the length, with the inner margin slightly sinuate in the middle and sharp; the outer part is nearly straight from the rounded apical part to about one-third of the length where it widens and thickens, and has four deep striæ extending from about the median part of the upper surface, the intervals of which are convex and conspicuous, the outer margin is grooved only in the thickened part, the groove moderately broad and sinuate; prothorax pubescent, bi-partite, the anterior part rounded laterally and very bluntly tuberculate in the median part which is hardly incised, posterior part with a small black lateral tubercle at apex, bi-impressed, with the lateral walls hardly defined; elytra slightly shagreened and clothed with a dense, long, flavescent pubescence; pygidium glabrous; abdomen black; legs slender, femora sub-cylindrical, tibiæ truncate diagonally at apex, narrow, and with the intermediate and posterior ones slightly ampliate gradually on the outer side from about the median part to the apex. Length $4\frac{1}{4}$ mm.; width $1\frac{4}{5}$ mm.

The nearest ally of this species is *P. afzelii*, Catal., p. 30, but the recurved antennæ are shorter, deeply emarginate on the outer side for nearly one-third of the length, and thicker in the basal part, instead of having nearly the same width throughout, the four impressions on the posterior edge are deeper and the intervals more convex, and the basal spur is long, sharp, and slightly recurved at tip; the anterior part of the prothorax is not deeply incised in the middle, and is rounded laterally, and the tibiæ are not linear as in *P. afzelii*.

Hab. Natal (Northdene), caught flying in the daytime.

Paussus dissidens, Pér.,

Bull. Soc. Ent. France, 1898, p. 184.

Antennæ, head, prothorax and legs very dark brown, opaque, clothed with a very brief, rigid, dark pubescence; elytra dark chestnut-brown, set with squamiform, fulvous hairs; head with a deep, median groove culminating in an occipital, sub-conical tubercle; club thick, a little longer than broad, carinate all along the inner margin which has no impression; the outer margin is bi-sinuate, deeply scooped from the tip to about half the length, with the edges of the excavation slightly serrulate, and the spur is short and blunt; prothorax bi-partite, anterior part in the shape of a broadly truncate cone, incised in the middle, posterior part with a very deep median impression and with two small lateral tubercles; elytra sub-parallel; tibiæ compressed and dilated.

Very closely allied to *P. burmeisteri;* it is, however, of smaller size, and the antennal club has quite the same shape, but the outer margin is scooped out in *P. dissidens*, whereas it is solid in *P. burmeisteri* and a little more deeply sinuate, and the surface of the inner part has no impression in *dissidens.* Length 4½ mm.; width 1½ mm.

Hab. Natal.

Paussus vexator,

Plate XI., fig. 11.

Dark piceous-brown, moderately shining; head rugulose, grooved in the centre as far as the neck, and having at a short distance from it a slight, transverse depressed line ending in a fossa on each side, posterior part of the head a little more raised than the neck, canthus under the eye not sharp; antennæ rugose and clothed with squamiform hairs, antennal club elongate, flat, but thicker in the male and reaching to about the prothoracic excavation, thinner and one-third longer, reaching nearly the base of the elytra, in the female; the inner edge is carinate and straight, the apex sub-truncate, the outer edge is deeply grooved from end to end, the groove is moderately wide and the lower margin of it has six teeth; the base of the outer margin is distinctly angular; in the female the antenna is slightly curving backwards; prothorax bi-partite; anterior part incised in the middle, and lenticular, posterior part separated from the anterior by the usual transverse impression and having two large

lenticular tubercles separated from the quadri-tuberculated hind part by a deep, narrow chasm, the prothorax being thus separated by two transverse, parallel chasms, the second one being less deep than the first; elytra very finely aciculate and clothed with seriated squamæ, sub-parallel and having a lateral marginal fringe of long, closely set brown setæ; pygidium squamose, perpendicular, with the outer margin raised and rounded; anterior and intermediate tibiæ moderately straight, posterior ones compressed and dilated; in the male the anterior tibiæ are somewhat dilated. Length 8 mm.; width 2½ mm.

Evidently closely allied to *P. latreillei*, but differentiated by the shape of the prothorax; it is quite possible that in the last-named species the sexual differences are as great as in *P. vexator*.

Hab. Zambesia (Mesilkwe River) at foot of grass.

Paussus comptus.

Piceous-black, sub-opaque; head rugulose, grooved in the centre in the anterior part, and having a sub-triangular impression on each side above the eye, as well as a narrow transverse one at the base, canthus of the eye hardly noticeable; antennal club shagreened and squamose, sub-ensiform, very long, flat, truncate at apex and base, the latter without an outer spur; the outer margin is narrowly grooved, the groove has five foveæ, the upper edge is not dentate, but the lower one has five very minute setiferous teeth; prothorax bi-partite, anterior part lenticular, incised in the centre, sub-angular laterally, median cavity deep, posterior part with four deep impressions, the two median intervals of which are tuberculiform; elytra sub-parallel, moderately punctured, each puncture bearing a squamiform hair, outer margin with a fringe of long, thick, closely set brown setæ; legs rugose, anterior and intermediate tibiæ slender, posterior ones dilated and flattened. Length 6 mm.; width 2 mm.

Closely allied to *P. vexator*, female. The shape of the antennal club is, however, more curved, and less broadly scooped in the outer margin, the serration is also less conspicuous; the impressions on the head are different, and the shape of the prothorax is not quite the same.

Hab. ? Natal.

BIBLIOGRAPHY.

(CICINDELIDÆ—CARABIDÆ—PAUSSIDÆ.)

KOLBE, H. J.

Ueber d. von Herrn. Dr. F. Stuhlmann in Deutsch-Ostafrika und Mosambik. wahr. d. Jahr., 1888 bis 1890 gesammelten. Coleoptera. *Mitteil a. d. Naturh. Mus. in Hamburg*, vol. xiv., *pp.* 73–101. One plate.

Die Käfer Deutsch-Ost-Afrikas. Berlin, 1897, 367 *pp.* Four plates.

HORN, W.

Beitrag z. Synonymie der Cicindeliden. *Deutsch. Entomol. Zeitsch.*, 1896, *pp.* 353–358.

Zehn neue Cicindeliden—Species nebst einigen neuen Varietäten. *Entom. Nachrichten*, vol. xxii., 1896, *pp.* 337–343.

Zwei neue Cicindeliden aus Deutsch-Ost-Afrika. *Deutsch. Entomol. Zeitsch.*, 1897, *pp.* 61–62.

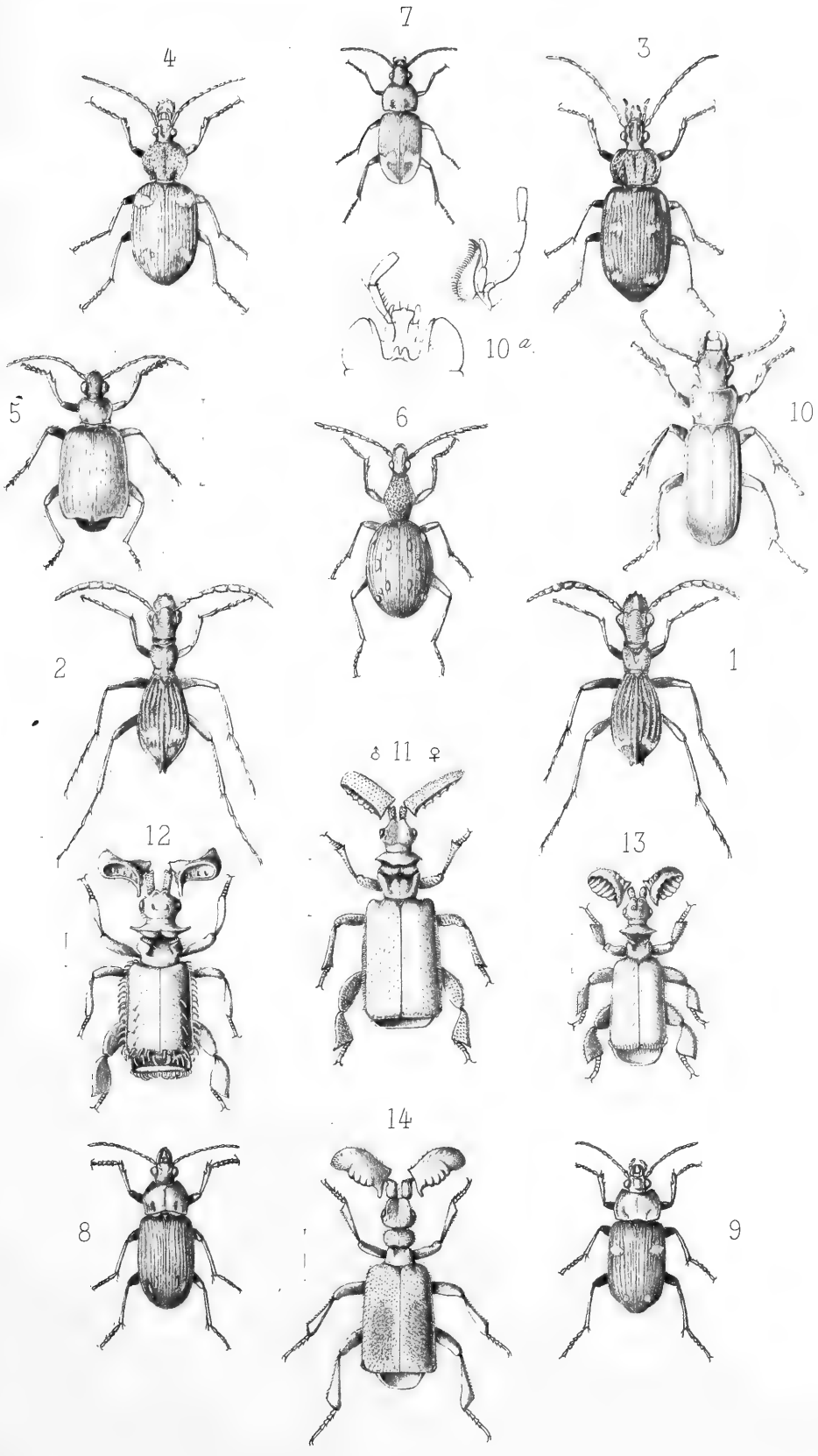
Zwei neue Cicindeliden. *Entom. Nachrichten*, vol. xxiii., 1897, *pp.* 98–99.

4 neue Cicindeliden aus Africa. *Loc. cit.*, *pp.* 237–240.

Novæ Cicindelidarum Species. *Notes from the Leyden Museum*, vol. xix., *pp.* 235–240.

PÉRINGUEY, L.

Description de deux *Julodis* et d'un *Paussus* Sud-Africains. *Bullet. Soc. Entom. d. France*, 1898, *pp.* 183–185.



Raffray and Fuller, del.

Héliog. Dujardin. Paris

1	Myrmecoptera invicta	Pér.	8	Chlaenius raffrayi	Chd.
2	„ marshalli	„	9	„ epigraphidus	Pér.
3	Eudema sexmaculatum	„	10.10^a	Procletodema parallelum	„
4	„ opulentum	„	11	Paussus vexator	„
5	Lebistinida pulchra	„	12	„ braunsi	„
6	Isotarsus sommeri	Chd.	13	„ elizabethae	„
7	Chlaenius confinis	Dej.	14	„ natalis	„

DESCRIPTIVE CATALOGUE OF THE COLEOPTERA OF SOUTH AFRICA.—Part IV.

By A. Raffray, M.E.S. France, &c.

Family PSELAPHIDÆ.

FIRST SUPPLEMENT.

With Plate 6 (XVIII.).

The publication of the Descriptive Catalogue of the South African *Pselaphidæ* in 1888 has encouraged the entomologists in that part of the world to collect these curious beetles, which, owing to their small size, escape the attention of the ordinary collector.

The Catalogue contained 80 species; I now add 26 new ones to this number. The accession is a considerable one. If one takes into consideration the fact that these minute Coleoptera have been collected in some isolated parts only of South Africa, *i.e.*, round Cape Town, Muizenberg, and Stellenbosch by Mr. Péringuey and myself, Port Elizabeth by Dr. Brauns, Uitenhage by Rev. J. A. O'Neil, Salisbury and Frere (Natal) by Mr. G. A. K. Marshall, one is justified in assuming that when they have been looked for methodically and systematically in this part of Africa they will number several hundred.

Many new genera and forms entirely unknown will certainly be discovered, but the material which enables me to publish this First Supplement goes far to corroborate the opinion I have already given, that the south-western part, and more especially the Cape peninsula, has a very distinct fauna, while the western part of the Colony, Natal and Zambesia, are more directly connected with the general African fauna.

This Supplement contains diagnoses of five genera not until now recorded from South Africa; two are entirely new (*Gabata*, *Bryaxonoma*), while three (*Pselaphoxys*, *Sognorus*, and *Centrophthalmus*)

are known to occur in other parts of Africa. *Gabata* has been found at Port Elizabeth; *Bryaxonoma* is from Muizenberg, near Cape Town; *Pselaphoxys*, described at first from Abyssinia, has been met with at Uitenhage, and the species is even identical with the Abyssinian one, *Centrophthalmus*, found on the eastern and western coasts of Africa, and reaching northwards as far as Algeria, is represented by two species—one from Salisbury, Mashunaland, the other from Uitenhage, Cape Colony. *Sognorus*, which is spread on Europe, Asia, and America, and has also one representative on the African West Coast, is represented by one new species found in Uitenhage.

This last-named locality seems to be a connecting point between the South-Western fauna of the Colony and the African one, for there the genus *Trimiodytes*, which is exclusively South African, and the number of species of which seems to be on the increase, occurs together with *Sognorus;* but so far the genus *Raffrayia*, which has now 26 representatives, and *Pselaphocerus* which has 6, both of which are so characteristic of the *Pselaphid* fauna of that part of the world, have not as yet been met there. Port Elizabeth, on the other hand, has 4 species of *Raffrayia*, 1 *Pselaphocerus*, 2 *Trimiodytes*, and 1 *Fustigerodes*, and seems to have more affinity with the distinct fauna of the peninsula.

The division of the South African *Pselaphidæ* in two faunas, although so interesting, is not possible yet, and I do not know that it can ever be a very precise one; there will always be found species which for one reason or other have a very wide area of geographical distribution, and there will always be points where the two faunas will commingle, yet my opinion is that the study of these insects, taken as a whole, will confirm the division in two faunas—one restricted to the South-Western region, and peculiar to it, the other spread on the Northern and Eastern side, and having a close affinity to the general African fauna.

Tribe FARONINI.

Gen. FARONIDIUS, Casey,

Catal., p. 47.

Faronidius monilis.

Moderately elongate, rufous or testaceous, antennæ and legs testaceous, covered with a rather dense fulvous pubescence; head very

transverse, antennal tubercle short, transverse, strongly sulcate, sulcus extending behind as far as the eyes; antennæ slender, very moniliform, first joint long, cylindrical, second ovate, third small, ovate, fourth to eighth ovate, ninth to tenth globose, eleventh shortly ovate, obtusely and somewhat abruptly acuminate; prothorax transverse, broader than the head, sides very much rounded and hardly sinuate behind the median part, lateral foveæ large, median one small and united by a strong transverse and arcuate sulcus to two minute oblong and oblique foveæ; elytra as in *F. africanus* but a little shorter. Abdomen similar.

Male: Antennæ a little longer, joints fourth to eighth more oblong, ninth to tenth globose, not transverse, eleventh ovate.

Female: Antennæ shorter, joints fourth to eighth short, ovate, ninth to tenth somewhat transverse, eleventh nearly globose. Length 1·30 mm.

This species very closely resembles *F. africanus*, for which I mistook it at first, but the antennal tubercle is shorter and more deeply sulcate, the antennæ are much shorter and much more moniliform; the prothorax is shorter, much more regularly rounded on the sides, which are not really sinuate behind, and hardly narrowed in front, so that the sides are altogether rounded from the front to the base, whilst in *africanus* the prothorax is narrowed in front, strongly rounded in the middle and sinuate towards the base; the basal impression is smaller, the elytra shorter, the colour lighter, and it is of smaller size.

Hab. Cape Colony (Cape Town, Newlands).

Much rarer than *F. africanus*.

Tribe EUPLECTINI.

Gen. TRIMIODYTES, Raffr.,

Catal., p. 52.

Trimiodytes palustris, Raffr.,

Loc. cit., p. 52.

When I described this species I had only one example at my disposal; since then I have found again this insect in the same locality. It has no sexual mark whatever on the abdomen, and what I supposed to be the female proves to be the male. The female has the head smaller and more rounded in front, the antennæ are shorter,

joints fourth to eighth slightly transverse, ninth to tenth decidedly transverse, eleventh globose, truncate at base and abruptly acuminate at apex, whilst in the male the fourth to seventh joints are somewhat longer than broad, eight is square, nine to ten are very little transverse, and eleven is ovate.

Trimiodytes brevipennis.

Chestnut, shining; antennæ and legs testaceous, pubescence long but very sparse, with some long, erect, and scattered setæ; head about as long as broad, very little narrowed in front, and having two large foveæ and two strong sulci converging in front where they are roundly connected, vertex hardly carinate; antennæ of moderate size, the two basal joints larger, third obconical, fourth to eighth moniliform, as broad as long, ninth not much larger but transverse, tenth larger, transverse, eleventh sub-conical and very acuminate; prothorax very cordate, hardly broader, but longer, than the head, lateral foveæ strong, median one small, transverse sulcus angular in the middle; elytra short, shoulders dentate, two foveæ at the base with the dorsal sulcus well defined and extending to the median part; abdomen longer than the elytra, somewhat larger, and rounded in the middle, attenuate at apex; metasternum convex; last ventral segment large, sub-triangular.

Male: Head as long as broad, hardly attenuate in front, the anterior margin of the frontal part is thick on the sides, somewhat depressed and minutely emarginate in the middle; just under the emargination, on the epistoma, there is a little notch bearing a fovea; elytra a little longer than the prothorax, less attenuate at the base, with the shoulders more quadrate.

Female: Head not quite as long as broad, and a little attenuated in front, the anterior margin of the frontal part is rounded and altogether thick; elytra hardly longer than the prothorax, attenuate at the base, with the shoulders very oblique. Length 1·20–1·40 mm.

This new species is larger than *T. palustris*, and the elytra are of the same colour as the body, the head is smaller, the elytra are broader and shorter; in comparison with *T. setifer* the head is smaller, the foveæ and sulci much deeper, and the transverse sulcus on the front is wanting, the elytra are much shorter and attenuate towards the base, whilst in *T. setifer* the sides are nearly straight.

Hab. Cape Colony (Uitenhage).

Trimiodytes gracilis.

Elongate, rufous or testaceo-rufous, with the legs and antennæ paler, pubescence short, coarse, and scattered; head large, a little attenuate in front, and having between the eyes two foveæ and two sulci joined and rounded in front; antennæ strong, first joint quadrate, second ovate, both larger than the following ones, third subobconic, fourth to eighth moniliform, becoming a little transverse, ninth a little, tenth much larger, both transverse, eleventh large ovate, acuminate; prothorax regularly cordate, longer than broad, lateral foveæ larger than the median one, transverse sulcus faint and angular; elytra with shoulders faintly dentate, dorsal stria shorter than half the length of the elytra; metasternum convex.

Male: Head a little larger than the prothorax, less attenuate in front; eyes large; elytra much longer than broad, sides hardly rounded, not attenuate at the base, shoulders oblique and well defined; last ventral segment faintly depressed; posterior tibiæ gradually thickened towards the apex, their external margin dilated before the tip in a small, rounded lamina. Length 1·10–1·50 mm.

Female: Head a little narrower than the prothorax, more attenuate in front; elytra not much longer than broad, attenuate at the base, without well-defined shoulders; the sides are more rounded. Length 1·10–1·20 mm.

Compared to *T. palustris* this species is much more elongate, the head is comparatively smaller, and the antennæ are more clavate; it is very different from *T. setifer*, owing to the much more elongated shape and the absence of transverse sulcus in the frontal part of the head. It resembles much more *T. brevipennis*, but the sulci of the head are not so deep, and the prothorax and the elytra are longer.

Hab. Cape Colony (Port Elizabeth, Uitenhage).

Trimiodytes cephalotes,

Plate XVIII., fig. 23.

Elongate, pale rufous, pubescence short, coarse, and sparse; head large, transverse, abruptly truncate and tri-dentate, tri-fasciculate in front, between the eyes are two small foveæ and two sulci ending in front on each side of the median spine, epistoma provided with a blunt tubercle; eyes large; antennæ elongate and slender, first joint long, sub-obconical, second ovate, both much larger than the following ones, third obconical, fourth to eighth moniliform, fifth and seventh

somewhat larger, ninth larger than the preceding one, little transverse, tenth of the same shape but about twice as large, eleventh ovate, a little elongate and acuminate; prothorax slightly longer but narrower than the head, cordate, lateral foveæ strong, median one smaller, transverse sulcus slender but well defined and angular; elytra longer than broad, shoulders oblique, well marked, dorsal stria strong but stopping before the median part; metasternum convex; last ventral segment hardly impressed transversely. Male. Length 1·30 mm.

This species will be easily and at once distinguished by the shape of the head.

Hab. Cape Colony (Port Elizabeth).

Gen. EUPLECTUS, Leach.,

Catal., p. 53.

Euplectus tuberculiceps,

Plate XVIII., figs. 4 and 5.

Elongate, narrow, rufous; elytra, antennæ, and legs a little paler, pubescence very short, scarce and decumbent; head large, flat, little longer than broad, a little attenuate in front, sides oblique, between the eyes posteriorly, are two foveæ not as distant from each other as they are from the eyes, with a very blunt tubercle between them, two sulci slightly arcuate and not connected in front; antennæ slender, club very little distinct, first joint a little elongate, second ovate, both larger than the others, third to tenth moniliform, ninth and tenth a little more transverse and faintly larger, eleventh large, ovate; prothorax longer than broad, hardly longer and broader than the head, more attenuate in front than behind, sides rounded in the middle and posteriorly bi-sinuate but not dentate, lateral foveæ strong, median one smaller, those three foveæ connected by a strong, not much angulated, transverse sulcus, discal fovea strong, sulciform; elytra quadrate, but longer than broad, discoidal sulcus strong, not longer than the third part; fourth dorsal segment larger than the third; metasternum convex; fifth ventral segment shorter than the fourth, sixth of nearly the same size as the fourth, arcuately emarginate, seventh large, triangular, obtuse at the apex with a carina a little arcuate and asymetric. Male. Length 1·60 mm.

This species differs from all the other African ones by its more slender body, the sculpture of the head, and the absence of a spine on the sides of the prothorax behind the lateral fovea.

Hab. Cape Colony (Port Elizabeth).

GABATA, nov. gen.

This new genus, which belongs to the tribe of the *Euplectini*, is very closely allied to *Euplectus*. A reference to the description of *Euplectus* (Catal., p. 53) will be sufficient to show the differential characters. The head is smaller, and much attenuate in front, which gives it a somewhat triangular facies; the three-jointed antennal club is hardly conspicuous; the last joint of the maxillary palpi is much more elongate and fusiform; the median discoidal groove on the prothorax is wanting; the seventh ventral segment of the abdomen is very different, being small, transverse, and without carina.

With the exception of the different shape of the last joint of the maxillary palpi, which is not a very important character, the much more important difference in the structure of the seventh ventral segment of the male, the differences between this new genus and *Euplectus* consists merely in plastic modifications which might otherwise be considered as purely specific.

In a paper upon the tribe of *Euplectini*, which is being now printed, I have shown that such plastic modifications have a great value, and become generic characters, on account of their constant coincidence with important sexual modifications which are to be found in the seventh ventral segment of the male.

In *Euplectus* and some other genera this seventh segment is large, rhomboidal, and has a longitudinal carina which is nothing else but the indication of a cleavage of this segment, which opens longitudinally on both sides at the middle, to allow the extrusion of the penis; in some other genera, instead of a longitudinal cleavage, it is an operculum, which is lifted to allow the penis to protrude; in other genera this seventh ventral segment is small, more or less transverse, and hinged in such a way as to leave, when opened, between itself and the last dorsal segment, an opening for the extrusion of the penis; such is the form of the seventh ventral segment in this new genus.

I consider such sexual modifications as very important and of generic value, but unfortunately they are to be found in the male only, and it would be impossible for the females to be identified without the adjunction, as generic characters, of those plastic modifications which, by themselves, would not be sufficient to warrant the creation of a new genus.

GABATA SEMIPUNCTATA,

Plate XVIII., figs. 6 and 7.

Elongate, chestnut red, antennæ and legs paler, rufous, pubescence fine and short, decumbent and whitish; head coarsely and densely punctate, hardly as broad as the prothorax, much attenuate in front with the sides oblique, a very deep transverse channel separates the frontal part from the head, two deep and oblique sulci make an acute angle whose apex is above the transverse sulcus, and between those sulci the surface of the head is somewhat raised; behind, on the vertex, there is a faint and short longitudinal depression; antennæ short, with the basal joints much larger than the others, the first is square, second briefly ovate, third to eighth moniliform, ninth and tenth a trifle larger and transverse, eleventh much larger and ovate; prothorax finely and sparsely punctate, longer than broad, cordiform, and having three foveæ—two large lateral ones and a much smaller median one—connected by a fine transverse sulcus, and an exceedingly faint longitudinal sulcus disappearing in front; elytra impunctate, longer than broad, a little attenuate at base, with the shoulders rounded and mutic, and having two large grooves at the base and a large dorsal sulcus ending before the median part; abdomen longer than the elytra, the three first dorsal segments equal, fourth larger, first and second a little impressed at the base in the middle; under part of the head coarsely punctate; metasternum a little transverse and convex; second, third, and fourth ventral segments equal, fifth smaller, sixth as long as the fourth, depressed in the middle, with a blunt tubercle in each side on the edge, seventh small, transverse, paler than the others, densely pubescent, and with a faint longitudinal depression; tibiæ a little thickened past the middle. Male. Length 1·60 mm.

The female is not known.

Hab. Cape Colony (Port Elizabeth).

GEN. RAFFRAYIA, Reitter,

Catal., p. 62.

The number of species included in this genus, which seems to be decidedly a South African one, is constantly on the increase. In the previous Catalogue I mentioned 19 species, and to-day 26 are known, which makes it necessary for me to give a remodelled synopsis.

Synopsis of Species.

A². First dorsal segment of the abdomen much larger than the others.
B². Antennæ slightly clavate, the penultimate joints (more especially the ninth) larger than the intermediate ones .. .. *caviceps.*
B¹. Antennæ not clavate, the three penultimate joints (especially the ninth) smaller than the intermediate ones.
C². Third joint of the antennæ strongly transverse .. .. .. *deplanata.*
C¹. Third joint of the antennæ at least as long or longer than broad, triangular or globose, never transverse.
D². Longitudinal carina of the head not extending on the frontal part, ending on the vertex.
E². Longitudinal sulcus of the prothorax generally wanting or exceedingly faint and hardly conspicuous when it exists.
F². Antennæ short and thick, ninth and tenth joints transverse.
G². Elytra hardly longer than broad; head rather long, not at all attenuate (male), little attenuate (female); longitudinal sulcus of the prothorax very faint and sometimes wanting *frontalis.*
G¹. Elytra longer than broad; head short, much attenuate in front; longitudinal sulcus of the prothorax always entirely wanting .. .. *calcarata.*
F¹. Antennæ much more slender, ninth and tenth joints globose, not transverse, or hardly so.
G². Head large and thick, sides rounded, the sulci shallow, arcuate, the carina on the vertex obsolete and very short *incerta.*
G¹. Head smaller, sides oblique, sulci deep, large and oblique, the carina on the vertex long and strong .. .. *variabilis*
E¹. Longitudinal sulcus of the prothorax never absent, always very conspicuous.
F². Prothorax strongly cordiform, as long or nearly as long as broad, longitudinal sulcus not very deep but very conspicuous, transverse one angulate in the middle; shoulders generally attenuated in both sexes.
G². Antennæ more slender, ninth joint globose, colour generally darker, piceous-brown .. .. *armata.*
G¹. Antennæ much thicker, ninth joint transverse, colour ferruginous; sometimes the shoulders are quadrate in both sexes .. .. *nasuta.*
F¹. Prothorax very little cordate, broader than long, longitudinal sulcus complete and deep, transverse one straight; shoulders very quadrate in both sexes .. .. *cruciata.*
D¹. Longitudinal carina of the head extending from the neck to the frontal part .. .. *sulcatula.*
A¹. First dorsal segment of the abdomen not larger than the following ones.
B². Prothorax variable but never transversely dilated, and broader than the elytra.
C². Head with two foveæ and two sulci.
D². Antennæ with the joints (at least the intermediate ones) transverse.

E². Prothorax with a longitudinal sulcus more or less obsolete and sometimes reduced to an oblong fovea on the anterior part of the base.
F². Head without any transverse sulcus on the frontal part.
G². Prothorax transversely ovate, not cordiform .. .. *laticollis.*
G¹. Prothorax cordiform, at least as long as broad.
H². Longitudinal sulcus deep and well defined, head and prothorax punctate .. .. *rugosula.*
H¹. Longitudinal sulcus more or less interrupted or obsolete; head and prothorax not punctate.
I². Broad; antennæ with intermediate joints slightly transverse, ninth and tenth nearly quadrate; prothorax ampliated on the sides; elytra slightly longer than wide; ferruginous or testaceous .. .. *majorina.*
I¹ More slender; antennæ with the intermediate joints and also the ninth and tenth very transverse; prothorax longer, not ampliated on the sides; elytra longer than broad; colour generally dark, feet rufous .. .. *bicolor.*
F¹. Head with a deep transverse sulcus on the frontal part, dividing in two the tubercles bearing the antennæ; longitudinal sulcus of the prothorax faint, disappearing in front .. .. *montana.*
E¹. Prothorax without any trace of a longitudinal sulcus, the ante-basal fovea round or absent.
F². Head without any transverse sulcus on the frontal part.
G². Broad and convex; prothorax slightly cordate, broader than long; elytra not much longer than wide .. .. *natalensis.*
G¹. Narrow, depressed; prothorax much cordate, longer than broad; elytra much longer than broad.
H². Larger; head scarcely narrowed in front, sulci deep and very oblique; prothorax sinuose on the sides close to the transverse sulcus .. .. *pilosella.*
H¹. Smaller; head strongly narrowed in front, sulci fine, little arcuated and less distant from each other; prothorax regularly cordate without sinuosity on the sides .. .. *abdominalis.*
F¹. Head with a more or less deep transverse sulcus on the frontal part, dividing in two the tubercles bearing the antennæ.
G². Head longer than broad, more or less attenuate in front.
H². Ferruginous or rufous; antennæ compact and rather short; joints third to tenth transverse.

The three following species are closely allied to each other. It may be found difficult to identify the females, but the males have the following striking characters:—

I³. Head attenuate in front, sides decidedly oblique; prothorax more rounded on the sides and in front, more deeply sinuate behind the middle; male; intermediate trochanters with a basal tooth, posterior ones simple; last ventral segment with a large, oval, longitudinal and deep depression .. .. *capensis.*
I². Head little attenuate in front, sides very little oblique; prothorax less rounded on the sides, attenuate in front, and less deeply sinuate behind the middle; male; intermediate

trochanters with a basal tooth, posterior ones with a small carina; last ventral segment with a large but not deep transverse depression .. .. *algoensis.*

I¹. Head smaller, not attenuate in front, sides parallel; prothorax similar to that of preceding species; male; intermediate trochanters simple and mutic, posterior ones with a small, cariniform hook; last ventral segment with a smaller, superficial, transverse depression .. .. *microcephala.*

H¹. Black; antennæ longer and slender, joints third to seventh only slightly transverse, eighth to tenth quadrate .. .. *obscura.*

G¹. Head as broad as long, large; antennæ little compact, ninth joint quadrate, tenth very little transverse .. .. *nodosa.*

D². Antennæ elongate, joints quadrate or even longer than broad *longula.*

C¹. Head with four foveæ and without sulci .. .. *myrmecophila.*

B². Prothorax very transverse, dilated on the sides, and wider than the elytra .. .. *dilatata.*

Raffrayia frontalis, n. sp.,

Plate XVIII., fig. 3.

Oblong, little convex, chestnut or testaceous, antennæ and legs testaceous, moderately pubescent, the head is variable in both sexes, but the sulcus is always rounded, and the vertex has a short carina; antennæ short and thick, first joint long, somewhat obconical, second globose, third transversely triangular, fourth to seventh much transverse, the fifth is the largest, the eighth—and especially the ninth—much smaller, transverse, tenth larger, less transverse, eleventh shortly ovate, abruptly conical at apex; prothorax cordate, a little broader than the head, sides well rounded and hardly sinuate posteriorly, longitudinal sulcus always extremely slender and sometimes wanting, the transverse one not very strong and a little angular, with the median groove small and the lateral ones a little oblong; elytra sparsely sub-rugose, short, little attenuate at the base, with the shoulders rounded, dorsal sulcus strong, reaching at least the median part; first dorsal segment very large, deeply impressed at base; metasternum convex in both sexes.

Male: Head nearly as long as broad, very little attenuate in front; frontal part large, rounded, convex, densely punctulate and squamose; eyes larger; there are no other sexual marks, even in the abdomen.

Female: Head a little shorter and more attenuate in front; frontal part truncate, not convex and smooth; antennæ somewhat thicker; elytra broader than long. Length 1·20 mm.

This species is distinct from *R. nasuta* owing to the longitudinal sulcus of the prothorax, which is hardly visible, the much shorter elytra and the shape of the head, especially in the male.

Hab. Cape Colony (Constantia, Newlands).

Raffrayia sulcatula.

Oblong, somewhat convex, ferruginous, rufous or testaceous, covered with a pale pubescence, legs and last joints of the antennæ lighter in colour; head large, shorter than broad, sides rounded, attenuate in front, foveæ and sulci very deep, a somewhat geminate and deep impression on the frontal part, and a long carina extending from the neck to the front; eyes very small; antennæ rather elongate and slender, first joint sub-cylindric, second sub-quadrate, longer than broad, third quadrate, smaller than the following one, fourth, the largest, little transverse, fourth to ninth the same form but slightly decreasing, tenth broader and more transverse, eleventh briefly ovate with the apex abruptly conical; prothorax very cordate, sides and anterior margin well rounded together, hardly broader than the head, longitudinal sulcus very feeble but never totally wanting, sides hardly sinuate posteriorly, the transverse sulcus strong, angular in the middle, and the median groove of about the same size as the lateral ones; close to the base are four small grooves; elytra smooth, much longer than broad, and very attenuate at base, no shoulders, dorsal sulcus valid, disappearing before the median part; first dorsal segment large, feebly impressed transversely at base.

Male: Metasternum hardly impressed, intermediate trochanters with a small tooth at their base, last ventral segment strongly sinuate at the apex on the sides and projecting in the middle, hardly impressed.

Female: Metasternum convex, last ventral segment rounded at apex. Length 1·70–1·80 mm.

This species is closely allied to *R. nasuta* and *R. armata;* the male will be very easily distinguished because the inferior part of the head has no sculpture and the frontal part is not produced as in *nasuta.* For the female the colour is the same as in *R. nasuta* and much lighter than in *R. armata,* the antennæ are much more slender than in both these species, the intermediate joints being hardly transverse; the size is larger.

Hab. Cape Colony (Newlands, near Cape Town).

Raffrayia montana.

Elongate, rufous, apex of the antennæ and legs testaceous, pubescence short and fine; head narrower than the prothorax, longer than broad, attenuate in front, and having two grooves and oblique sulci, and a well-defined transverse sulcus cutting in two the antennal tubercles; vertex feebly and shortly carinate; eyes large; antennæ thick, first joint elongate, cylindrical, second quadrate, third to ninth transverse, fourth and fifth the largest, the following ones slightly decreasing in size, tenth a little smaller and less transverse, eleventh very little larger, quadrate at base, abruptly conical at apex; prothorax cordate, about as long as broad, sinuate on the sides behind the middle; lateral foveæ large and somewhat lengthened in a fine longitudinal sulcus, median fovea small, median longitudinal sulcus feeble but never wanting, transverse one strong and angular; elytra a little longer than broad, hardly attenuate at base, with the shoulders oblique, prominent and dentate, dorsal sulcus slender and reaching the median part; first dorsal segment equal to the following one, the transverse impression at base deep, narrower than the third part, and with two short divergent carinules; metasternum more or less sulcate; last ventral segment large, transversely and feebly impressed; intermediate trochanters with a small sharp tooth in the middle. Male.

Female unknown. Length 1·40–1·60 mm.

This species resembles very much both *R. rugosula* and *R. microcephala;* it has, like the latter, a transverse sulcus on the front and a longitudinal sulcus on the prothorax like the first, from which it is also differentiated by the smooth teguments.

Hab. Cape Colony (Table Mountain and on the plateau above Muizenberg).

Raffrayia capensis.

Elongate, ferruginous or testaceous, legs and last joints of the antennæ rufous, covered with a rather dense pubescence; head much narrower than the prothorax, a little longer than broad, attenuate, and having two large foveæ and oblique sulci on the frontal part, and a deep transverse sulcus at the base of the antennal tubercles, vertex with a very small and short carina; antennæ robust, first joint elongate, cylindrical, and quadrate, a little transverse, third to tenth transverse, decreasing a little in width from the fourth to the tenth, eleventh ovate, abruptly conical at apex; prothorax broader

than long, well rounded on the sides and deeply sinuate after the middle, lateral foveæ large, median one small, longitudinal sulcus entirely wanting, transverse one strong and angular, at the base two large but not deep foveæ; elytra a little longer than broad, not attenuate at base, shoulders oblique, little prominent, dentate, dorsal sulcus strong, and reaching the median part; first dorsal segment not arger than the other, at the base a deep impression much narrower than the third, with two very divergent carinæ; metasternum with a small groove behind.

Male: Intermediate trochanters with a strong but short and blunt tooth at the base, posterior ones simple; last ventral segment very large, with a deep and large oblong groove.

Female: Last ventral segment sinuate at apex, and the last dorsal one with a small tubercle. Length 1·90–2·00 mm.

This species is closely allied to *R. microcephala*, the antennæ are very much alike, but the head is not so small, and is more attenuate in front; the prothorax is broader and more deeply sinuate in the sides; the size is larger, and the sexual characters are very different.

In *R. microcephala* I did not at first notice the presence on the posterior trochanters of a transverse, somewhat oblique, hook-like carinæ, which is very difficult to detect; the intermediate ones are simple; in *R. capensis* it is just the reverse, the intermediate are toothed and the posterior ones are simple.

Hab. Cape Colony (Cape Town, Kloof Road).

Raffrayia algoensis.

Elongate, ferruginous, last joint of the antennæ and palpi testaceous, pubescence short and fine, intermixed with long hairs; head longer than broad, very little attenuated in front, between the eyes two deep foveæ and two deep sulci, nearly parallel, frontal part depressed in the middle; antennal tubercles transversely sulcate; the vertex is transversely raised, and close to the neck there is a short carina; antennæ not clavate, first joint elongate, second quadrate, third sub-triangular, fourth to tenth transverse, fifth the largest, eighth the smallest, ninth and tenth about the same size, eleventh hardly broader and abruptly sub-conical at tip; prothorax much broader than the head, about as long as broad, somewhat sharply rounded on the sides at the middle, and sinuated behind by the lateral groove, which is large, slightly attenuate in front, transverse sulcus deep, angular at the middle, longitudinal sulcus entirely

wanting, behind the transverse sulcus the base is convex, with four grooves; elytra broader than the prothorax, longer than broad, shoulders oblique and dentate, dorsal sulcus terminating at the median part, sides hardly rounded; first dorsal segment not larger than the following one, with two very divergent and strong carinules, including about the fourth part of the disk; metasternum longitudinally depressed; intermediate trochanters having at the base a short and recurved spine, posterior ones with a small longitudinal carinule; posterior tibiæ with a small spur; last ventral segment large and transversely depressed. Male. Length 2·10 mm.

This species is closely allied to *R. capensis* and *R. microcephala*. From *R. capensis* it differs by the smaller size, the head less attenuate in front, and the prothorax less deeply sinuated behind the middle. From *R. microcephala* it differs by the head a little attenuated, whilst in *microcephala* the sides are parallel and the head is altogether smaller.

I do not know the female of *R. algoensis*, but I think it must be very similar to the female of *R. microcephala*, and probably very difficult to distinguish. Although the females of these three species are very similar to each other, the identification of the males will not be difficult, a very frequent case in *Pselaphidæ*.

Hab. Cape Colony (Port Elizabeth).

Raffrayia myrmecophila,

Plate XVIII., fig. 2.

Sub-elongate, entirely testaceous (one example, perhaps immature), covered with a white pubescence; head small, trapezoidal and transverse, frontal part somewhat depressed in the middle, between the eyes are two deep grooves, and before the front two other ones much smaller and much more closely set, no sulci; vertex carinate; eyes small; antennæ robust, second joint quadrate, third triangular, as long as broad, fourth to eighth very transverse, the fifth is the largest, and from the fifth to eighth the joints decrease in size, ninth is much narrower, transverse, tenth larger, more transverse, eleventh large, briefly ovate with the apex somewhat cone-shaped; prothorax much larger than the head, cordiform, sides rounded and made sinuose after the median part by a very strong lateral fovea, median fovea moderate, transverse sulcus not very deep and very little angular, longitudinal sulcus very faint and only conspicuous in the anterior part of the disk, base with two small foveæ; elytra a little

longer than broad, very little attenuate at base, shoulders dentate, dorsal sulcus wide, reaching the middle; first dorsal segment equal to the following one, the impression at base narrow. Metasternum convex. Length 1·70 mm.

This species resembles *R. rugosula*, but differs by the absence of punctures, the head is much shorter and the cephalic foveæ are free and not connected by sulci; the longitudinal sulcus on the prothorax is exceedingly faint and may prove to be missing in other examples. The male is unknown.

Hab. Port Elizabeth.

Found with *Rhoplaomyrmex transversinodis*, Mayr., *in litt.*, a new genus of ant.

Raffrayi dilatata,

Plate XVIII., fig. 1.

Elongate and sub-parallel, more or less darkly piceous-brown, with the elytra brownish red or dark chestnut; antennæ and legs rufous, pubescence small and thin; head hardly longer than broad, attenuate in front, rounded behind the eyes, two small foveæ and two sulci converging in a median depression of the front, a very faint carinula close to the neck; antennæ slender, a little clavate, first joint somewhat short, second quadrate, following ones a trifle smaller, third to seventh quadrate, diminishing, however, in length, eighth a little smaller and transverse, ninth and tenth a little larger and transverse, eleventh larger, ovate, abruptly acuminate; prothorax more than twice wider than the head, a little broader than the elytra, transverse rounded and dilated on the sides, much narrowed behind, transverse sulcus deep, angular and widened in the middle, a faint longitudinal depression on each side and a trace of a median one, base itself with four grooves and a short median carinule; elytra much longer than the prothorax, sides a little rounded, shoulders oblique, well marked and dentate, dorsal stria a little arcuate terminating at the middle; first dorsal segment of the abdomen not larger than the following one with two strong, divergent carinæ, including nearly the third part of the disk; metasternum convex; trochanters simple; fourth ventral segment very transversely depressed, its apical margin sharp, sub-carinate, and provided on each side with a long, thin and recurved spine; last one large, thickly clothed on the sides with a golden pubescence, glabrous and depressed in the middle. Male. Length 2·00 mm.

A very curious species which differs from all the others by its

broad, transverse prothorax, ampliated laterally. The female is unknown.

Hab. Cape Colony (Port Elizabeth).

RAFFRAYIA NATALENSIS, Raffray,
Catal., p. 75.

The colour varies much; the original type of the description above referred was chestnut-red. I have some suspicion that the example was not quite mature, as I have seen lately two other specimens, one from Natal and one from Port Elizabeth (Dr. Brauns), which are more or less piceous-brown, with the elytra red-brown and the legs and antennæ chestnut or rufous, which I think is the normal colouration.

GEN. DALMINA, Raffr.,
Catal., p. 78.

DALMINA ELIZABETHANA,
Plate XVIII., fig. 10.
Catal., p. 121.

When I gave the description of this species, I had only male examples for examination; since that time I received a good many specimens from Dr. Brauns, including the female, which seems to be far more abundant than the male.

I have nothing to alter in the description of the male referred to.

Female: Darker in colour, chestnut; elytra much shorter, attenuated at the base, with the sides rounded; antennæ with the three first joints as in the male, fourth larger than the third, subquadrate, fifth of the same shape but only a trifle larger, sixth to tenth transverse, a little narrower and slightly decreasing, eleventh as in the male, trochanters and tibiæ simple. Length 1·60–2·10 mm.

In this species the female is somewhat variable in size; in the large specimens the antennæ are thicker with the joints more transverse.

Compared with the female of *R. concolor* from Natal, there are the same differences in the head as mentioned already for the male, and the antennæ are much thicker with the joints more transverse; compared with the female of *R. globubicornis* the sixth to eighth joints of the antennæ are smaller. It differs from the female of *R.*

gratitudinis (pl. xviii., fig. 9) by the fourth and fifth joints of the antennæ being considerably larger.

According to Dr. Brauns's observations one male has been found with *Fustigerodes auriculatus*, Wasm., in the galleries of *Rhoplaomyrmex transversinodis*, Mayr., and all the other specimens, both male and female, under stones where no ants were met with.

This is a new and clear proof that it may often happen that an insect is found accidentally in ants' nest without being really myrmecophilous. The same case has been often proved for other insects.

Laphidioderus capensis, a Pselaphid, was originally discovered by my friend Mr. Péringuey, near Cape Town, inside the deep galleries of an ant, *Bothroponeza pumicata*. I have taken myself a considerable number of the same insect under stones during the winter season, but I never found it in company of ants.

Another small beetle, *Microxenus laticollis*, Woll., is abundant in winter under stones, near Cape Town. I found it several times amongst ants, which did not seem to disturb it in the least, but generally this insect is found under stones where ants are not found. My opinion is that *Microxenus* is not interfered with in the least by the ants, which may come and run their galleries under the stone where it has set. Not only it is not driven away, but it seems quite unconcerned at their presence; it cannot, however, be considered a myrmecophilous insect.

Some heteromerous beetles of the genus *Tentyria*, *Stenosis*, and here, *Psaryphis*, *Aspila*, &c. and others, are often met with ants; their case does not seem to be quite similar to that of *Microxenus*. Those heteromera are very likely fond of the dejections, or vegetable or animal matter accumulated by the ants, and they are attracted to it for feeding purposes; it is more especially amongst the debris which surround the ants' nest that they are to be found.

Monoplius inflatus and *M. pinguis* are another case in point. These histeridous beetles feed and breed on and amongst the dejections of ground *Termitinæ* (*Hodotermes havilandi*), but those histeridous insects are not met with in the galleries of the Termite, and they cannot be, therefore, termed *sensu stricto*, termitophilous insects; they must be considered as living in the proximity of *Termes* and feeding exclusively on stercorarious matter produced by the *Termes*.

Quite different is the case of the *Clavigeridæ* and *Paussidæ*, which must be considered as really myrmecophilous, or at any rate myrmecobious. Both live in the very galleries of the ants, and are

not to be met with anywhere else, except sometimes flying at sunset. The *Clavigeridæ* seem to be befriended and adopted by the ants, which derive some benefit from their presence amongst them, and may be really termed myrmecophilous; the *Paussidæ*, on the contrary, feed on the larvæ and pupæ of the ants, and force their presence amongst the ants by strength or intimidation by their voluntary emission of caustic gas, the contact of which appears to be much dreaded by the ants, as I have many times witnessed in Abyssinia with many different species of *Paussidæ* and ants, and more recently at Cape Town with *Paussus lineatus*, Thunb., and *Acantholepis capensis*. Those insects I call myrmecobious.

Cossyphodes and *Thorictus* are always found with the ants, either inside the galleries or sticking to the stones covering the ants' nest; but under what conditions they are living amongst ants is a thing which I do not know. If they are not myrmecophilous, they are certainly at any rate myrmecobious.

Tribe BRYAXINI.

Gen. REICHENBACHIA, Leach,

Catal., p. 90.

Reichenbachia achillis, C. Schauf.,

Catal., p. 96.

This species varies to a great extent.

I have already mentioned (*loc. cit.*) a female variety from Muizenberg and Cape Town, in which the second and third dorsal segments of the abdomen are sharply spinose, whilst in the types the second dorsal segment alone is sharply mucronate. I have now another variety sent to me from Port Elizabeth by Dr. Brauns, which I name *inferior*, and both the male and female of which differ from the type by the size, a trifle smaller, a lighter-coloured body, and especially the antennæ, which are rufous instead of brown, and also by a lesser development of all the organs.

Male: The second ventral segment, has a large but not deep triangular depression, on the third and fourth there is a small transverse depression, on the last one a large but not deep rugosopunctate depression, with a smooth patch in the centre; intermediate femora not quite so thick; metasternum not so strongly impressed; the spurs of the fore and intermediate tibiæ are as in type. Length 1·70 mm.

Female: Second dorsal segment, instead of being sharply mucronate as in the type, is simply provided in the middle of the posterior margin with a blunt and faint tubercle. Length 1·50–1·60.

One female specimen is much smaller (length 1·35 mm.), and altogether piceous; the body is more elongate than is generally the case in the females; the antennæ are rufous, shorter and thicker, and there is a very faint and blunt tubercle at the apex of the second dorsal segment.

There are thus in this species two different forms of the male and three different forms of the female, which are nothing else but local varieties more or less developed.

R. achillis type, male: excavations of the ventral segments of the abdomen very deep. Muizenberg and Stellenbosch.

R. achillis type, female: second dorsal segment of the abdomen sharply mucronate. Found exclusively at Stellenbosch.

Var. *bimucromata*, female: first dorsal segment of the abdomen sometimes with a very faint, sharp tubercle, second and third dorsal segments sharply spinose. Found at Muizenberg and Cape Town, together with the male type.

Var. *inferior*, female and male: size a trifle smaller, antennæ rufous; ventral segments of the abdomen in the male with superficial impressions; the second dorsal segment in the female having simply a blunt and small tubercle.

Hab. Cape Colony (Port Elizabeth).

Such variations are very interesting, more especially the presence of two different forms of females with one form of male.

REICHENBACHIA ZAMBESIANA, Raffr.,

Reichenbachia decipiens, Raffray,

Catal., p. 92.

The name *R. decipiens* having been previously given to a species of the same genus, I propose to change it in *Reichenbachia Zambesiana*.

REICHENBACHIA SULCICORNIS, Raffray,

Catal., p. 90.

This species varies to a certain extent in size and in colour.

The colour may be ferruginous or chestnut, with the last joints of the antennæ more or less piceous, or piceous with the elytra red

brown and the antennæ entirely piceous. The last joint of the antennæ in the male is also variable; it may be oblong, with a sulciform fovea or ovate and acuminate, with a much shorter fovea. Generally the last joint of the antennæ is shorter when the body is of a smaller size. Length 1·40–2·00 mm.

This species is recorded now from Bechuanaland (Vryburg), Mashunaland (Salisbury), Natal, Cape Colony (Port Elizabeth and Uitenhage).

Reichenbachia rivularis, Raffray, Catal., p. 129.

When I first described this species I had only one male specimen. I have received it since in large numbers from the Rev. O'Neil, from Uitenhage, and I am able to complete the description. It varies in colour, from rufous to dark chestnut; the carinules on the first dorsal segment of the abdomen are more or less distant, including from one-fifth to more than one-fourth of the disk. In the female the antennæ are somewhat shorter with all the joints a little shorter, and the eighth is decidedly transverse, the eleventh is smaller; the tibiæ have no spurs, and the tubercle at the base of the metasternum is smaller. Length 1·40–1·80 mm.

BRYAXONOMA, nov. gen.

Body stout, convex, attenuate in front; head, prothorax, and elytra entirely devoid of any fovea, sulcus, or stria; antennæ and palpi as in *Reichenbachia;* head beneath, with a strong longitudinal carina and somewhat depressed in the sides, in front of the eyes; elytra short, attenuate towards the base, no shoulders; abdomen large, margin rather narrow; first dorsal segment larger than the elytra, and without any impression; metasternum short and transverse; posterior coxæ very distant; second ventral segment very large; tarsi rather elongate, second joint sub-conical, third cylindrical and more slender; a very minute single claw.

This new genus, which belongs to the tribe of *Bryaxini*, differs much from *Reichenbachia* in general appearance, which is due to the shortness of the elytra, the very large dorsal segment of the abdomen, and the total absence of foveæ, sulcus, or stria.

BRYAXONOMA FILICEUM,
Plate XVIII., fig. 15.

Piceous, chestnut, rufous, or testaceous; palpi testaceous; legs always lighter in colour than the body; entirely covered above and beneath with a strong but rather distant punctuation, each puncture bearing a short and depressed seta; head not much convex, trapezoid, as long as broad, attenuate in front, with the sides oblique; eyes situated behind the median part of the head; antennæ having the two first joints much larger than the following ones: first subquadrate, second sub-cylindrical, longer than broad, third obconical, fourth to sixth sub-cylindrical, longer than broad, fifth somewhat larger, seventh square, eighth a little smaller and very little transverse, ninth much larger and transverse, tenth nearly double and very transverse, eleventh big, briefly ovate and acuminate; prothorax convex, a little broader than the head, a little transverse, equally attenuate in front and behind, sides rounded; elytra transverse, much broader at the apex than long, much attenuate towards the base, sides hardly rounded, a little sinuate at the external apical angle; first dorsal segment a little longer than the elytra, the following ones narrow; legs rather long; tibiæ hardly increased, but a little sinuate. Length 1·30 mm.

I have both sexes on which the penis and oviduct respectively are distinctly protruding, and yet I am unable to find any external sexual difference.

Hab. Found in roots of ferns growing along the walls of the mountain. Muizenberg, Cape Colony.

TRIBE PSELAPHINI.

GEN. PSELAPHOXYS, Raffray,
Rev. d'Ent., vol. ix., p. 137, 1890.

Oblong, much attenuate in front; head elongate, sulcate in the anterior part; maxillary palpi strong, first joint long, filiform, second shorter than the first one, conical, third small, transverse, fourth longer than the two first ones put together, fusiform, strongly papillose; antennæ strong, club tri-articulate; prothorax oblong; elytra much attenuated towards the base, ampliated behind; first dorsal segment very large, sub-triangular at the apex, with the sides broadly marginate, following ones small, immarginate, depressed, last one

flat; first ventral segment hidden by a whitish glandular pubescence, second very large, third almost invisible, fourth and fifth visible on the sides only, sixth trapezoidal, depressed, surrounded laterally and behind by the last dorsal segment, which is conspicuous underneath as if it were part of the ventral segment; legs rather stout, one single claw to the tarsi; underneath the neck is covered with a thick, whitish glandular pubescence.

This genus, which belongs to the tribe of the *Pselaphinini*, is very closely allied to the genus *Pselaphus*, from which it differs chiefly by the maxillary palpi, which are much shorter, and the peculiar construction of the last ventral segments. It resembles very much the genus *Pselaphopterus*, Reitt., from Turcomania, but in the latter the last joint of the maxillary palpi is not papillose, and the last segments of the abdomen have a normal structure. From *Pselaphophus*, Raffr., which is a genus exclusively Australian, it differs by the maxillary palpi less elongate, the head narrower, the prothorax oblong, whilst it is cordiform in *Pselaphophus*.

When I first established this genus (*loc. cit.*), I considered it as being a mere sub-genus of *Pselaphus*, as well as *Pselaphophus*, but after further examination of a large number of examples, I do not hesitate to consider both as very distinct and valid genera.

The only species belonging to *Pselaphoxys* has been discovered in Abyssinia (*P. delicatulus*, Raffr.). I have just received from the Rev. O'Neil from Uitenhage two specimens which prove to be specifically identical with the Abyssinian insect, with, however, a slight difference, consisting in the colour of the setæ fringing the posterior margin of the elytra. In the Abyssinian examples such setæ are yellow, in the South African ones they are black; but I do not think that such a trifling difference should be considered a specific one, and am of opinion that both the examples from Abyssinia and South Africa belong to the same species.

PSELAPHOXYS DELICATULUS, Raffray,

Plate XVIII., figs. 16, 17, and 18.

Rev. d'Ent., 1882, p. 14.

Oblong, much attenuate in front, sanguineo-rufous, smooth and shining with some short whitish setæ; antennæ and legs rufous; head long, linear from the middle to the frontal part and sulcate, enlarged in front for the insertion of the antennæ, vertex much broader and convex; antennæ stout, first joint sub-cylindrical,

second oblong, the others moniliform, ninth to tenth a little larger, sub-globose, eleventh large ovate, acuminate; prothorax oblong, as much attenuate in front as behind; elytra very much attenuate towards the base with the shoulders very oblique, a sutural stria and another dorsal stria a little arcuate, posterior margin with strong, thick and black setæ forming a brush close to the sutural angle; abdomen shorter than the elytra, first dorsal segment very large, flat, sub-triangular behind with the apex truncate, the following ones small, depressed, and altogether triangular; legs strong with the femora inflated. Length 1·70–1·90 mm.

Two examples. Sex uncertain.

Hab. Cape Colony (Uitenhage).

Tribe CTENISTINI.

Gen. SOGNORUS, Reitter,

Verh. Naturf. Ver. Brünn., xx., p. 202.

Entirely similar to the genus *Ctenistes*, and differs only by the antennæ, which are similar in both sexes; in the male the joints 3–7 are never lenticular, and the club is not formed by four very long and cylindrical joints as is the case with *Ctenistes*, but the antennæ in the males of *Sognorus* are similar to the antennæ of the females of the latter.

I confess that such a generic character is not of very great importance; in all the species known hitherto the body is shorter and stouter, and the facies really different, but in the new species here described the body has exactly the same facies as in *Ctenistes*, and the unique specimen is unquestionably a male with the antennæ of a female. This new species, which forms a transition between *Sognorus* and *Ctenistes* would lead to the conclusion that both those genera are synonymous, which conclusion will very likely be proved by further discoveries.

This genus includes all the species of North America recorded as *Ctenistes*, some Asiatic species, a European one, one from the West Coast of Africa (*simonis*, Reitter), and a new species from South Africa.

When I referred to this genus in 'Revue d'Entomologie,' 1890, p. 143, I said that it included also the Australian species. This is an error; the Australian species will form a new genus (*Ctenisophus*, Raffr.) on account of the presence of a strong infra-ocular spine which is not found in *Ctenistes* or *Sognorus*.

Sognorus o'neili,

Plate XVIII., fig. 26.

Oblong, fulvous, the squamæ are pale, fine and scattered, except on each side of the neck, at the posterior angles of the prothorax, in the posterior margins of the elytra and of the two first dorsal segments of the abdomen where they are thick and glandular; head long, a little angustate in front, between the eyes two punctures much more removed from each other than from the eyes, and in the middle a very obsolete oblong impression, in front a longitudinal sulcus extending on the antennal tubercle; eyes very large; palpi large, second joint thick and curved, third transversely pyriform, fourth transversely fusiform, those three joints produced and penicillated outwards; antennæ long, first to second joints quadrate, large, third longer, obconical, fourth to sixth ovate, longer than broad and increasing slightly in thickness, seventh to eighth a little longer, sub-cylindrical, ninth one-third longer than the preceding one, tenth hardly longer but thicker, eleventh one-third longer than the tenth, sub-cylindrical, obtusely acuminate at apex; prothorax longer than broad, sub-obconical, in the middle of the base a longitudinal impression covered with glandular pubescence; elytra much longer than broad, a little attenuate towards the base, shoulders obliquely rounded, sides nearly straight, at the base two strong foveæ, one sutural stria complete and a dorsal one disappearing behind the middle; first dorsal segment of the abdomen short, second twice as long; metasternum deeply and entirely sulcate, second ventral segment with the posterior margin a little raised and with an arcuate sinuation in the middle, altogether clothed with glandular pubescence, thin, flattened in the middle; legs long; tibiæ straight, thickened towards the apex and glabrous. Length 1·90 mm.

This species cannot be compared with *S. simonis*, Reitt., from West Africa, which is much smaller and much stouter; it resembles more the female of *Ctenistes imitator*, Reitt., but the antennæ are much thicker, and the sex of the unique specimen I have of this species is certainly a male, judging from the under side of the abdomen.

Hab. Cape Colony (Uitenhage).

GEN. CTENISTES, Reichenb.,
Catal., p. 103.

CTENISTES BRAUNSI,
Plate XVIII., fig 25.

Elongate and sub-parallel, body sparsely covered with thin ochraceous squamæ; head pyriform, rather convex, tri-foveate, antennal tubercle large and a little transverse, third joint of palpi stout, transverse, fourth sub-fusiform, slender, very transverse, appendages of moderate size; antennæ rather short and thick; prothorax a little transverse, not much narrowed in front, sides very little rounded, a short median fovea at base; elytra much longer than the prothorax and longer than broad, sides nearly parallel, dorsal stria very little arcuate; abdomen as long as the elytra, not broader, sides nearly parallel, second dorsal larger than the first, all the tibiæ straight, thickened and a little curved at the apex; metasternum sulcate.

Male: More parallel; elytra longer, shoulders more oblique and prominent; second dorsal segment only slightly longer than the first; first and second joints of antennæ larger than the others, quadrate, third obconical, longer than broad, fourth to seventh a little transverse, eighth hardly as long as the four preceding ones put together, cylindrical, ninth shorter than eighth, tenth as long as eighth but thicker towards the apex, eleventh not longer but thicker than tenth, and obtusely acuminate; metasternum more deeply sulcate; posterior tibiæ longer, somewhat angulate before the apex which is much thicker; tarsi, more especially the anterior ones, longer and more slender.

Female: Elytra a little shorter, somewhat attenuate at base with the shoulders less prominent; second dorsal segment much longer than the first; first and second joints of antennæ similar to those of the male, following ones thicker, second obconical, third to seventh nearly as long as broad, eighth a little broader, transverse, ninth larger, sub-quadrate, tenth still larger, sub-quadrate, eleventh nearly as long as the two preceding ones and obtusely acuminate; tarsi, more especially the anterior ones, short and thick. Length 2·10 mm.

This species differs very much from *C. australis*, Raffr., and *C. imitator*, Reitt., owing to the more parallel and elongate body and much thicker and shorter antennæ, the third to seventh joints of which are hardly transverse and the club is much shorter.

Hab. Cape Colony (Port Elizabeth).

Dr. Brauns found this species with a new genus of ants, *Rhoplaomyrmex transversinodis*, Mayr., *in litt.*

Tribe TYRINI.

Gen. CENTROPHTHALMUS, Schm.,

Bestr. Mon.; Psel. Prag., 1838, p. 7.

Camaldus Fairm.

Body oblong, little convex; head small, triangular, with a frontal tubercle; eyes very large with an infra-ocular spine; antennæ long and strong with a distinct club, approximate at base; palpi with the first joint inconspicuous, second elongate and clavate at the apex, third large, compressed, more or less triangular, elongate, obliquely truncate at apex, fourth much smaller, inserted at the inner angle of the third, aculeate, very sharp at the tip which is devoid of the usual appendage; prothorax more or less ovate; elytra large with a fine sutural stria and a more or less diffused and short discoidal sulcus; abdomen with a broad margin, rather short and depressed, the first dorsal segment much shorter than the following one, the two first bearing generally two longitudinal carinæ; all the trochanters, and more especially the intermediate ones, elongate with the insertion of the femur terminal, intermediate and posterior coxæ approximate; first ventral segment short and more or less concealed under the coxæ, third larger than the others; legs long and robust, tarsi elongate with two strong and equal claws.

The peculiar construction of the palpi being unique in the family will at once facilitate its identification. The genus is largely represented in Asia and in both the East and West Coasts of Africa. It extends north as far as Algeria, but it had not yet been recorded from South Africa, and the discovery of this genus in Mashunaland and in the southern part of the Colony proves once more that such countries belong to the general fauna of Africa, from which the rather isolated fauna of the Cape peninsula stands isolated.

Centrophthalmus marshalli,

Plate XVIII., figs. 20 and 21.

Oblong sub-depressed, obscure rufous, elytra brighter and redder,

antennæ and legs more testaceous, pubescence long, rufous; head longer than broad, sides rounded, much attenuate in front, three equal foveæ, the posterior ones situated a little in front of the centre of the eyes, antennal tubercle nearly as long as broad, feebly sulcate, the infra-ocular spine long, sharp and straight; palpi testaceous and with erect setæ, the third joint long, not very broad, very obliquely truncate at apex with the external angle sharp, fourth rather long, sharply aculeate; antennæ long and slender, first joint cylindrical, longer than the two following ones put together but hardly thicker, second sub-quadrate, following ones a little more slender, third hardly longer than the second, third to seventh increasing a little in length, eighth nearly twice as long as seventh but hardly thicker, ninth to tenth of the same length, a little stouter, eleventh nearly three times as long as tenth, thickening from the base to the third anterior part and then attenuate and obtuse at apex; prothorax as broad as the head and eyes included, regularly ovate, lateral foveæ strong, median one antibasal, smaller than the others; elytra little convex and little narrowed towards the base with the shoulders rounded, much longer than broad, discoidal sulcus short and inconspicuous; abdomen shorter than the elytra, sub-depressed, first dorsal segment shorter by one-half than the following one; the carinæ are situated close to the sides and reach only the middle of the second segment; metasternum hardly sulcate; anterior femora thickened, tibiæ thickened in the middle, arcuate and a little sinuate, intermediate and posterior ones nearly straight; no sexual marks, but the unique specimen is very likely a male, judging from the long four-jointed club. Length 2·30 mm.

I do not know any other African species with such long and slender antennæ.

Hab. Zambesia (Salisbury).

Centrophthalmus brevispina,

Plate XVIII., fig. 22.

Oblong, rufous or castaneo-rufous, pubescence long and fine, erect, yellow; head a little longer than broad, much attenuate in front, two small foveæ between the eyes and in front a longitudinal sulcus extending over the antennal tubercle; the infra-ocular spine is very small, and reduced to a thin and sharp tubercle; palpi testaceous with long, erect, whitish setæ; the third joint obconical, a little arcuate with a slightly oblique truncature at the apex, fourth

inserted at about the middle of the truncature, short, thick at the base, rather abruptly aculeate at apex ; antennæ stout, first joint sub-cylindrical, second quadrate, both larger, third to sixth moniliform and a little transverse, seventh not broader but quadrate, eighth to ninth larger, tenth sub-quadrate, slightly increasing, eleventh large, briefly ovate, truncate at the base, rounded at the apex ; prothorax a little longer than broad, more attenuate in front than at the base, rounded on the sides, lateral foveæ small, median one larger ; elytra with the posterior margin darker, longer than broad, a little attenuate towards the base with the shoulders oblique and little marked, two foveæ at base, the external one large and elongated in a broad but short sulcus ; first dorsal segment of the abdomen short, entirely bi-carinate, second more than twice as long as the first one ; the two carinæ are nearly complete ; metasternum convex, and with a fine stria ; all the femora, more especially the anterior ones, thickened, anterior tibiæ much thickened in the middle, arcuate, intermediate ones a little thickened towards the apex and a little curved, posterior ones straight ; no sexual mark. Length 1·80 mm.

This species, compared with the preceding one, differs at first sight by the much shorter and much thicker antennæ. In that respect it resembles very much *C. armatus*, Raffr., from Abyssinia, but in this species the infra-ocular spine is long and sharp, and the two carinæ on the second dorsal segment do not extend as far as the middle of the disk, whilst they are nearly entire in *C. brevispina*. Another African species, *C. villosulus*, Fairm., from Algeria, has the infra-ocular spine very small, but the joints of the antennal club are much longer.

Two examples. Female.

Hab. Cape Colony (Uitenhage).

Gen. PSELAPHOCERUS, Raffray,

Catal., p. 109.

Pselaphocerus amicus,

Plate XVIII., figs. 13, 14.

Resembles much *P. peringueyi*, Raffr., but the head is longer, narrower, not at all attenuate in front, with the sides parallel ; the hairs are darker, being black, except on the posterior margin of the elytra ; the palpi are very much alike, the last joint being,

however, more rounded externally, but the antennæ are very different.

Male: Antennæ long, first joint cylindrical, elongate, and punctate, second a little longer than broad, second to sixth the same shape and width, but increasing in length so that the sixth is nearly a third longer than the second, seventh about the same length as sixth, obconical and truncate at both ends, but the apex is very obliquely truncate, eighth the same width as sixth, transverse, ninth about twice the size of eighth, lenticular, tenth still larger, irregularly lenticular, with the under part largely foveated, eleventh large, very briefly ovate, with the under part largely excavate, the excavation transverse near the base, longitudinal on the inner side, and with a long brush of hairs before the apex; anterior trochanters with a blunt tubercle, absent on the femora, shoulders oblique, well defined. Length 3·10 mm.

Female: Antennæ a little shorter, second joint nearly square, third to fifth a little increasing in length, fifth somewhat conical, sixth shorter, seventh equal to sixth in length but sub-conical and broader at apex, eighth transverse, ninth much larger, lenticular, tenth similar to ninth, but a little larger, eleventh briefly ovate; elytra much attenuated at base, no shoulders, tubercles of the anterior, trochanters much stronger, a small tubercle on the femora of the same legs. Length 2·80–3·00 mm.

This species belongs to the first group of the genus owing to the shape of the palpi, but the seventh joint of the antennæ is much less dilated than in *P. peringueyi* and *P. diversus*, with the eighth much larger, consequently the antennæ is perfectly straight, whilst it appears somewhat angulate in these two species.

Hab. Cape Colony (Stellenbosch and Newlands).

In the descriptions of *P. peringueyi* and *P. diversus* I omitted to mention that in the male the shoulders are oblique and well marked, and wanting in the female.

Pselaphocerus acutispina,

Plate XVIII., figs. 11, 12.

Stout and attenuate in front; piceous with the elytra dark red, the antennæ and legs ferruginous, or entirely flavous (presumably immature), pubescence long, dark, and mixed with fulvous hairs, palpi testaceous. Head long, narrow, a little attenuate in front, somewhat transversely depressed in front with the antennal tubercle

obsoletely divided; between the eyes are two foveæ more distant from each other than from the edge; three last joints of the palpi triangular, narrowly and sharply produced outwardly in the shape of a fine appendage, the last one a little transverse; antennæ rather elongate, very different in both sexes; prothorax larger than the head, rather abruptly narrowed in front, dilated and rounded before the middle, at the median part of the sides a very transverse and sulciform fovea, clothed with whitish and glandular hairs; elytra attenuate at base with two foveæ, and a short, wide dorsal sulcus; in the anterior legs the trochanters have a very long and sharp spine and the femora a shorter, sharp spine; metasternum very little impressed.

Male: First joint of antennæ long, cylindrical, second to fifth very nearly equal to each other, longer than broad, sixth the same width, but more than half shorter, transverse, seventh very large, irregularly trapezoidal, larger at the apex where the margin is sinuate and obtusely dentate, eighth inserted at the inner angle of the preceding one, similar to the sixth but smaller, ninth not broader, much less transverse, tenth hardly longer than ninth, but three times broader, very transverse and produced externally, eleventh large, irregularly ovoid, the under part bearing a large, transverse, but not deep fovea; the spine of the trochanters is shorter, the one on the femora smaller and slender, the shoulders more angulate and prominent. Length 2·60 mm.

Female: Second, third, and fourth joints of antennæ very nearly equal to each other and a little longer than broad, fifth a good deal longer, sixth sub-quadrate, a little transverse, seventh longer and a little stouter than fifth, a little produced at the inner apical angle, eighth very transverse, ninth and tenth larger, transverse, eleventh oval; shoulders much less prominent, but still not entirely absent. Length 2·30 mm.

This species is very interesting inasmuch that by the conformation of the palpi it belongs to the second group, and by the antennæ to the first group of the genus, being a transitory form.

Hab. Cape Colony (Port Elizabeth, Uitenhage).

Sub-Family CLAVIGERIDÆ.

Gen. FUSTIGERODES, Raffray,
Catal., p. 117.

Fustigerodes auriculatus, Wasm,
Wien. Ent. Zeits., xvii., 1898, p. 98.

This species is very closely allied to *F. majusculus*, Pér.; the body is not so broad, and is more parallel, the colour is a little lighter, the head and the prothorax are more elongate, and the punctuation much less strong; the last joint of the antennæ is longer, thinner, and a little curvate; but the main difference is found in the abdominal processes; in *F. majusculus* these processes are flattened on the upper part and strongly carinate in each side; in *F. auriculatus* they are much more prominent, the upper part is rounded, convex, punctate and piliferous without any trace of carinule; the triangular tooth of the intermediate femora is a trifle smaller, and the tubercle placed before the apex inside the tibiæ of the same legs is not so strong, the size is also a little smaller. Length 2·10 mm. In his description the Rev. S. Wasmann gives 2·3 mm. as the size; very likely his typical specimen is a trifle larger than mine.

It differs from *F. capensis*, Pér., by the more elongated body, the colour much lighter, the head shorter and more parallel, the prothorax more cordate and not so much rounded, the more slender and much more regularly conical terminal joint of the antennæ, the more elongate elytra, and the form of the processes of the abdomen which are similar in both *F. majusculus* and *F. capensis;* the basal depression of the abdomen is also much larger in *F. auriculatus* than in *F. capensis*.

This interesting species described (*loc. cit.*) by the Rev. S. Wasmann has been discovered by Dr. Brauns in Port Elizabeth amongst the ant *Rhoplaomyrmex transversinodis*, Mayr. *in litt.* I have not seen type, but Dr. Brauns has kindly given me a male specimen which I have no doubt belongs to the same species as the one described by the Rev. S. Wasmann.

ADDITION.

Reichenbachia o'neili, n. sp.

Amongst the specimens of *R. rivularis* which the Rev. J. A. O'Neil sent me from Uitenhage, I noticed one or two specimens lighter in colour and differing in some respects from the type, but I considered them first as a mere variety. However, I drew the attention of the Rev. J. A. O'Neil to this fact, and later on he kindly sent me another lot of *Reichenbachia* collected together, and containing no less than 225 examples, including *R. sulcicornis*, Raffr., *R. rivularis*, Raffr., and what I considered at the time to be a variety of *rivularis*, but which I have now to consider a distinct species.

It is rather curious to note that out of 225 specimens collected together 75 proved to be *sulcicornis*, 130 *rivularis*, and 20 the new species which I name after its captor.

R. o'neili being of the same size and the same shape as *R. rivularis*, a comparative description will prove useful:—

rivularis, Raffr.	*o'neili*, n. sp.
	General coloration very much the same, but always lighter.
Antennæ: joints eight and nine a little longer than broad, tenth as long as broad, eleventh oblongo-ovate.	Antennæ: joints eight, nine and ten transverse, eleventh briefly ovate, thick.
Carinules of the first dorsal segment of the abdomen rather short and generally very divergent, including in width from one-fifth to little more than one-fourth of the disk.	Carinules of the first dorsal segment of the abdomen generally more elongate and less divergent, including in width from one-seventh to one-sixth of the disk.
Metasternum bearing, close to the intermediate coxæ, a large and blunt tubercle.	Metasternum without tubercle close to the intermediate coxæ, from which it is divided by a transverse groove.
Last ventral segment of the male with a faint impression.	Last ventral segment of the male without any trace of impression.

ODONTALGUS LONGICORNIS.

This new species is very closely allied to *O. vespertinus*, Raffr. (see Catal., p. 105), and differs by the following points :—

Colour a little lighter, being ferruginous with the disk of the elytra more or less reddish; head much more constricted in front, which makes the antennal tubercle appear much more prominent; antennæ more slender and more elongate in both sexes; dorsal segments of the abdomen neither carinate nor tuberculate on the apical edge.

Male: Antennæ—joints first and second larger than the following ones, second a little longer than broad, third longer than second, obconical, four to seven decreasing in length, so that the fourth is a little shorter than the third, seventh quadrate, eighth very transverse, ninth cylindrical, as long as the three preceding ones, broader, tenth cylindric, a trifle shorter and thicker, eleventh sub-cylindric, much longer and thicker than ninth, obtuse at tip; metasternum simply longitudinally sulcated, this sulcus filled up with whitish glandular pubescence, on each side, about at the middle, a short and carinate tubercle; ventral segments hardly longitudinally impressed.

Female: Antennæ—joints three to seven longer than in the male, the seventh being longer than broad, eighth but little transverse, ninth little larger, quadrate, tenth nearly twice larger than ninth, quadrate, eleventh nearly as long as the two preceding ones, broader, sub-cylindric, somewhat rounded at the base, obtuse at tip.

This species resembles more *tuberculatus*, Raffr., from Abyssinia, than *vespertinus*, but the colour is a little darker, the club of the antennæ in the male is much longer, and the longitudinal channel of the metasternum is complete and simple, whilst in *tuberculatus* it is divided in two parts by a transverse carina.

Hab. Cape Colony (Uitenhage).

PSELAPHOCERUS NODICORNIS, n. sp.

Ferruginous, disk of the elytra reddish, palpi testaceous, with a dense, long and rufous pubescence; head about twice longer than broad, hardly narrowed in front, the anterior edge is a little depressed in the middle, between the eyes, on the front part are two large grooves; eyes very large, situated beyond the middle; first joint of maxillary palpi rather long and conspicuous, cylindrical, second strongly and triangularly enlarged from the base to the apex, the external side rounded, and the external angle bearing on the upper

surface a round impression, third of about the same size and the same shape, but with the external angle obtusely produced and the upper surface nearly totally impressed, fourth irregularly ovate, inner margin nearly straight, outer one rounded, sharply acuminate at tip, entirely impressed on the upper surface; antennæ short and stout, first joint cylindrical, not very long, second quadrate, both a little broader than the following ones, third as long as broad, fourth little transverse, fifth very large, longer than the three preceding ones together, ovate, somewhat compressed inside, finely reticulated, sixth small, very transverse, seventh about twice as large as the sixth, transverse, eighth similar to sixth, ninth and tenth much wider than seventh, lenticular, eleventh briefly ovate, truncate at the base, obtuse at apex; prothorax longer and broader than the head, rather abruptly constricted in front, two large and transverse foveæ filled up with whitish glandular pubescence; elytra long, attenuated at the base, shoulders oblique and little marked, at the base two strong foveæ filled up with whitish glandular pubescence, dorsal sulcus disappearing before the median part; anterior trochanters a little swollen and the femora with a small and blunt inner tubercle about the middle. Male. Length 2·50 mm.

According to the shape of the palpi, which have no thin and long appendages, this species should be included in the first group of the genus, but it is very different from every other. Whilst in all the other species of *Pselaphocerus* hitherto known the seventh joint of the antennæ is the largest of all, in *P. nodicornis* it is the fifth one.

Female unknown.

Hab. Cape Colony (Uitenhage).

CENTROPHTHALMUS BREVISPINA, Raffr.

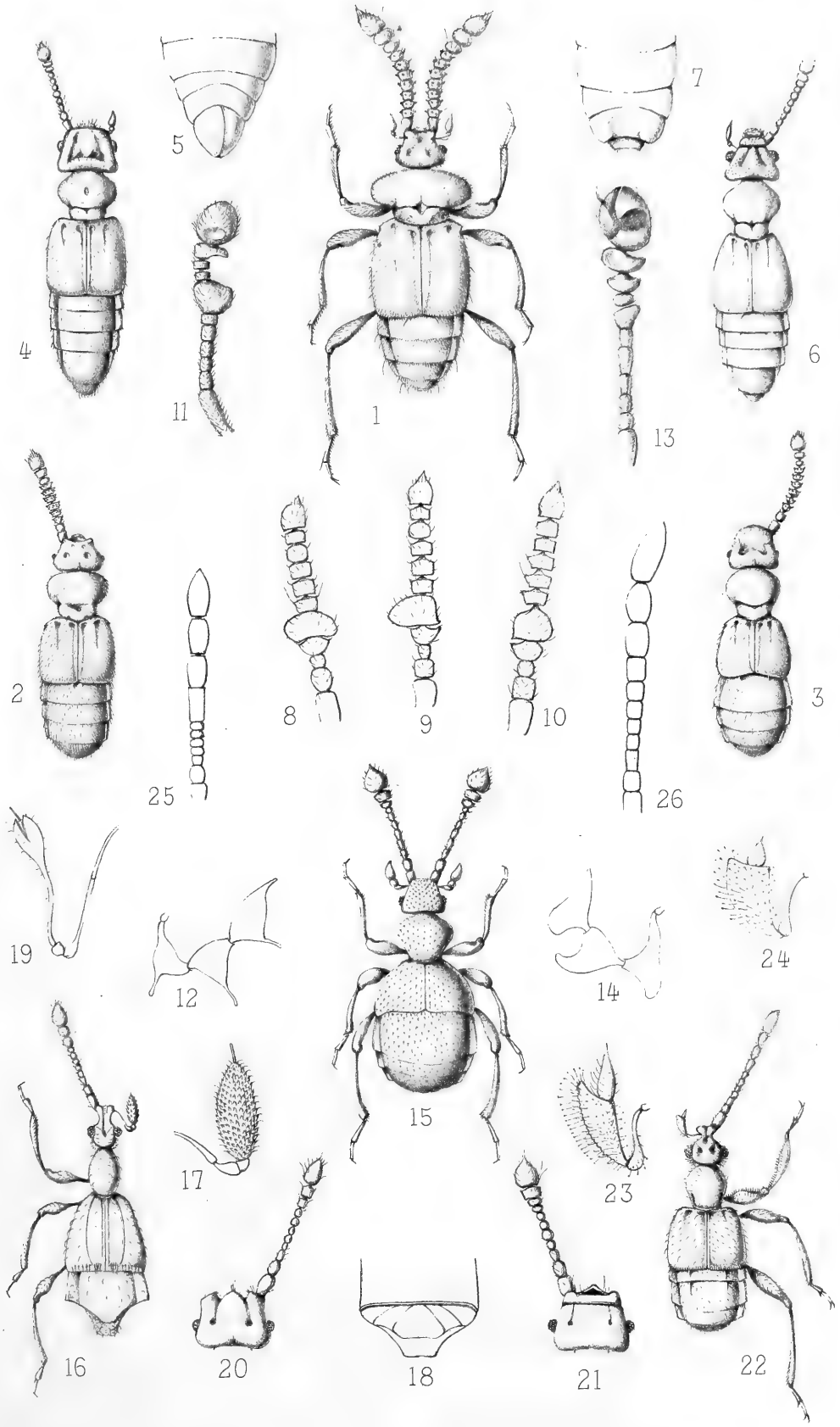
(Vide supra, p. 408.)

The above description refers only to the female. Since then I received the male of this insect, which does not seem to be very rare at Uitenhage.

Male: Antennal club much longer, joints eight to ten, ovate, longer than broad, sub-equal, tenth however a little thicker at the apex, eleventh much larger, ovate, rather elongate and obtusely acuminate at apex.

Plate XVIII.

1. Raffrayia dilatata, n. sp.
2. ,, myrmecophila, n. sp.
3. ,, frontalis, n. sp.
4. Euplectus tuberculiceps, n. sp.
5. ,, ,, last ventral segment ♂.
6. Gabata semipunctata, n. sp.
7. ,, ,, last ventral segment ♂.
8. Dalmina globulicornis, Raffr., antennæ, ♂.
9. ,, elizabethana, Raffr., ,, ♂.
10. ,, gratitudinis, Raffr., ,, ♂.
11. Pselaphocerus acutispina, n. sp., antennæ, ♂.
12. ,, ,, maxillary palpus.
13. ,, amicus, n. sp., antennæ, ♂.
14. ,, ,, maxillary palpus.
15. Bryaxonoma filiceum, n. sp.
16. Pselaphoxys delicatulus, Raffr.
17. ,, ,, maxillary palpus.
18. ,, ,, last abdominal segments.
19. Pselaphus longiceps, Raffr., ,, ,, ,,
20. Centrophthalmus marshalli, n. sp.
21. ,, ,, maxillary palpus.
22. ,, brevispina, n. sp., maxillary palpus.
23. Trimiodytes cephalotes, n. sp., head ♂.
24. ,, setifer, Raffr., ,,
25. Ctenistes Braunsi, n. sp., antennæ, ♂.
26. Sognorus o'neili, n. sp., antennæ, ♂.



Raffray

Hélioß. Dujardin-Paris

Pselaphidœ

INDEX.

NOTES ON THE GEOLOGY OF THE DRAKENSBERGEN, NATAL.

By Frank F. Churchill.

(Read April 27, 1898.)

With Plates VII., VIII., IX.

The Natal side of the Drakensbergen has not been much visited by geologists, and the following notes, the results of visits made in May, 1895, and September and October, 1896, are given as a small contribution to the knowledge of one of the most interesting and beautiful regions of South Africa.

The tours embraced the Giant's Castle, the valley of the Little Tugela and foot of the Champagne Castle, and the Tugela Falls, at Mont aux Sources; also the Bushman Caves and Bushman's Pass at the source of the Bushman's River.

The features of this portion of the Drakensbergen are everywhere the same, and the immediate neighbourhood of the Tugela Falls may be described as showing the typical scenery and geological structure. This district is more accessible by waggon than any of the other localities, and the scenery is, on the whole, more beautiful.

In travelling from the nearest railway station at Ennersdale, the Tugela is first crossed where the new magistracy buildings are now being erected. Here the country is open, and for Natal it would be considered very flat, though in reality it is undulating and is dotted here and there with isolated conical or flat-topped hills. By aneroid measurement * the drift lies 3,550 ft. above sea-level.

The rocks are like those around Dundee and Newcastle—light-coloured sandstones and shales, belonging to the Molteno beds of the Upper Karroo series. Coal has not yet been found in this neighbourhood, though it occurs in many places towards the Orange Free

* The altitudes throughout are from aneroid readings. Owing to an accident to the thermometer, temperature corrections could not be made; but in cases where comparison is possible I have not found much discrepancy.

State and Transvaal borders. The shales of the series show good examples of ripple-marking.

A day's waggon trek* further on, just beyond the old magistracy known as Allison's, we come to the first of the mountains or spurs of the Drakensberg. These, together with several isolated high hills, mostly flat-topped, are the remains of the extensive plateau from which the Berg itself rises so precipitously. All these spurs are therefore alike in their main features. Such variations as do occur are due to the different thickness of the various beds of the cave sandstone and the softer beds below the line of cliffs, and the amount of weathering to which these have been subjected.

These remains of the plateau owe their preservation to a protecting sheet of dolerite, similar in appearance to the cappings found on all the higher mountains of the Free State, such as Plaatberg, Pilani, Majuba, &c. In no case is this sheet of dolerite above the cave sandstone lower than from 5,900 ft. to 6,100 ft. above sea-level on the Natal spurs of the Berg,† although dykes may occur at lower levels. Wherever the sheet has disappeared through erosion (or did not exist originally) the mountain or spur has been much lowered, and is evidently undergoing faster weathering.

The dolerite capping always rests on a thick, solid bed of cave sandstone. After I had become familiar with the usual appearance of this dolerite seen from a little distance, and the form its characteristic mode of weathering gives to the tops of the hills and ridges, I could tell miles away whether or not it would be found on the summit of certain hills.

Whereas in the Free State portion of the Berg the dolerite capping often shows a decided columnar structure, I found no indication of columnar jointing in the part of the Berg under notice. It is, in fact, seldom that a cliff-face can be met with in the dolerite. Steep grassy slopes, and rounded hillocks and ridges covered with weathered boulders of the dolerite, are the main features, and present a marked contrast to the cliff tendency of the cave sandstone below. As the Berg is approached one notices a strange sameness in the formation of this upper part, or capping, of the spur ridges. They all rise in terraces, and seen end on, many look like a succession of camel backs.

In the cañons of the Tugela and Little Tugela, close up to the main wall of the Berg, cliff faces in the dolerite are exposed. In one place on the Little Tugela nearly 400 ft. of perpendicular

* A day's waggon trek in Natal is about twenty miles.

† The Drakensbergen are known locally as "The Berg."

dolerite cliff can be seen forming the sides of the cañon, which there has a depth of 2,000 ft. (aneroid measurement). In this and the few other places where it can be well seen in section, the dolerite appears to lie as flat as the sandstone on which it rests. Measured from the sandstone floor to where the first bed of amygdaloid covers it, the dolerite in the Tugela district does not average more than 500 ft. in thickness, but at the Bushman's Pass and Giant's Castle end it is thicker—about 700 ft. The greater the distance of the dolerite from the Berg and the covering amygdaloid, the thinner it is. Ten miles from the mountains it is only a few feet thick, and at greater distances it has been entirely removed, but there can be no doubt that its extent was formerly enormous.

The lowest portion of the dolerite sheet contains a great quantity of agates, calcedony, crystals, and numerous other forms of quartz,* similar to the pebbles found in the Vaal River near Kimberley, together with occasional quartz veins. I saw these in the dolerite near the Berg only, but not on the ridges over four or five miles distant. But on the spurs two or three miles away the ground is covered with them at and below the level where they occur. At one place I noticed similar pebbles in the sandstone below, just at the point of contact where it has been altered into a quartzite. This alteration is but skin deep, however, extending to little more than eighteen inches or two feet.

There are a number of large dykes of this same dolerite running nearly parallel to each other near the Bushman caves, and these can be easily followed from ridge to ridge for miles. At the Mont aux Sources end of the range they are not so regular, but still very numerous. These may now fill up the fissures through which the dolerite sheet was erupted. In these dykes no agates were noticed.

In conclusion, I estimate the remains of this sheet to extend in Natal in scattered, uneroded survivals over an area sixty miles by fifteen at least. How far it may extend beyond Giant's Castle in the direction of Cape Colony I do not know. The foregoing description is the result of observations made during thirteen different ascents of the mountains or spurs, the larger number being in the Bushman's River Pass and Giant's Castle district.

The cave sandstone, which lies below the great dolerite sheet, is a compact, hard, gritty rock, weathering with a rough surface, which

* I did not, although on the look out for them at Pilani, Orange Free State, notice these agates, &c., in the dolerite, but at Harrismith I remember an alluvial deposit of them on the flats 1,800 ft. below the level of the top of Plaatberg.

proves a safe foothold in climbing. It is usually cream or white, sometimes light red in colour, and being compact and fairly uniform in texture, it either breaks away in huge masses, leaving cliffs with very straight walls, or it projects beyond the softer beds below. An overhang of 20 ft. is very common, the mass being occasionally from 100 ft. to 150 ft. and in a few cases even over 200 ft. thick, with no signs of breaking away. In the Bushman's River district the overhang is often greater than 30 ft., and in one place it is over 60 ft., but there the lower portions have fallen in, leaving a comparatively thin roof.

This upper series of sandstone is a good geological landmark along the whole sixty miles from Giant's Castle to Mont aux Sources, while the cliffs formed of it are the most striking feature in the scenery of the spurs. It varies in thickness from 200 ft. to 600 ft., the top of it always being from 5,900 ft. to 6,100 ft. above sea-level. As far as I could judge from scores of sections, it is quite horizontal. At Tabaimhlope the sandstone must be over 800 ft. thick at the south end. I found no fossils, but noticed a few round, hard sandstone nodules, often containing a little pyrites such as one finds in the sandstones used for building in the Free State. The huge masses of sandstone that have broken off and lie scattered over the mountain slopes add much to the effectiveness of the valley scenery among the spurs.

Below the thick mass of sandstone are two beds with marked characteristics, forming the walls of the so-called caves. The upper is rather a friable, light-coloured, marly sandstone, which weathers so that it frequently looks like a row of barrels on end, or a series of stunted columns. It is not a thick bed, being seldom more than 6 to 10 ft. I found it associated with the cave sandstone in the Free State as well as at the various caves of the Bushman's River system, but it was not developed in quite so marked a way as at Tugela. It rests on a bed of nodular sandstone from 5 to 15 ft. thick, varying in different localities. This rock I found at Pilani, in the Orange Free State, in the same relative position. Below is a deep, pink, earthy layer 2 or 3 ft. thick. Where exposed, eland and cattle tracks lead to it from several directions; the animals go to lick the rock.

Below this comes another layer of sandstone similar to that of the cliffs above but not so thick; it forms cliffs and escarpments of less importance.

The remainder of the slopes down to the bottom of the valley is much covered with vegetation; but there are numerous sandstone

outcrops and the streams and dongas expose the intervening shales, but the sandstone beds predominate. These lower sandstones differ from the cave sandstone in being softer, usually micaceous, and often inclined to be shaly. In fact, they are more like the sandstones of the coal areas, and probably represent the upper portion of the Molteno beds.

Considering the several beds of the compact sandstone with their intervening softer beds as forming the series called the Cave Sandstone, this formation may be put down as from 1,000 to 1,200 ft. thick.

I did not find the bone-breccia referred to by Mr. David Draper in his paper (Quarterly Journal of the Geological Society, November, 1894, p. 551), though I was constantly on the look-out for it.

The cave floors consist of earth, dust, ashes, eland and cattle droppings, and rocks—fragments and boulders. In this debris Mr. M. S. Evans found many rude Bushman implements made of the chert, agate, and dolerite, previously described. They are mostly spear and arrow heads and skin scrapers. These, except some given to the Durban Museum, have been sent to Professor Boyd Dawkins.

From reading Draper's paper I expected to find that the great wall of the Drakensbergen which we were approaching consisted of sedimentary strata capped by a thousand feet of amygdaloid traps, and the lines of escarpment running parallel and horizontal above each other for miles, and the straight base line of the final cliffs seemed entirely to confirm this idea. It was, therefore, quite a surprise to find nothing but amygdaloidal rock from the top of the mountain right down to below where one leaves one's horses to begin climbing; that is to say, right down to the dolerite flats forming the plateau at 6,500 ft. above sea-level. These parallel minor cliffs and escarpments, however, turned out to be quite the same as the huge main walls. Thus the whole main range consists of amygdaloidal lavas of a vertical thickness of 2,500 ft. at Bushman's Pass, the lowest part, and 4,500 ft. thick at the highest peaks such as Champagne Castle and Mont aux Sources. I may mention in passing that my observations are based on three ascents of the Bushman's Pass and the ascent of the peaks on either side of it, one ascent to the top of Giant's Castle, and various visits to the lower slopes, namely, at the foot of a large peak between the Pass and Giant's Castle, the foot of Champagne Castle and the foot of Mont aux Sources in two places, and the top of the ridge above Koodoo Pass to Witzie's Hoek. This makes seven different places where I

reached the amygdaloid, and everywhere the conditions were found to be the same, though at Bushman's Pass district the aneroid always recorded 6,700 ft., where they were first met, as against 6,500 ft. elsewhere. I was quite unprepared to find so great a mass of volcanic rock, and equally surprised to see no disturbance of the sandstone below.

At the foot of the Tugela Falls the scenery is, in some respects, like that of the Dolomites not far from Innichen in the Pusterthal, below the Drei Schusterspitze. The peaks, buttresses, pinnacles, cliffs, ruined towers and spires, and rich colouring of the rocks are grand beyond description. The river cañon that has to be traversed to reach the foot of the falls is most interesting and beautiful, and probably one of the unique things in South African scenery.

The top is very disappointing—a dreary, forsaken wilderness of rocky hills and desolate valleys gently sloping into Basutoland, covered with grass, heather, bog, and rocks, while the distant view into Basutoland is cut off by high hills and ridges. It is, in fact, a volcanic plateau, carved into monotonous hills and valleys towards Basutoland, all the peaks, cliffs and features being on the edge overlooking Natal.

Geologically, therefore, we are not entitled to speak of the Drakensbergen as a "mountain chain," for in reality we have here simply "mountains of denudation" on a huge scale, and their Natal face is an enormous escarpment.

At the Bushman's Pass end the plateau seems to be over four miles wide, and though the Basuto ridges cut off the view further west, one could see twenty miles along towards north and south, and there, too, it is broad on top. People who have been on top of Mont aux Sources, which is easily climbed from Witzie's Hoek, tell me it is the same there. If it is all the same right along the Griqualand frontier, then we have a plateau of about 200 miles long by more than four miles broad, or about a thousand square miles of lavas from 2,500 ft. to 4,500 ft. thick. The kaffir police say it is a day's journey broad on the top, which would be about eighteen or twenty miles; they say it is three day's hard walking from the nearest inhabited country on the Natal side to the Basutoland inhabited valleys, the plateau above 9,000 ft. being quite desolate, without any human habitation.

Even on the top I saw nothing to indicate the former existence of a crater, nor on the various ascents could I discover any ash or tuff beds, and probably, therefore, the whole of the amygdaloidal rock originated in the form of great fissure eruptions. The only rock not

like the other amygdaloids formed a narrow cliff at the head of the Giant's Castle Pass, and seemed to be a dyke of very slaty stuff, with distinct slaty cleavage.

I saw no evidence of glaciation in any of the portions which I visited.

The amygdaloids which compose this enormous plateau and cliff faces vary considerably.

The lowest have a dark, tough crystalline matrix full of milk-white striated zeolites of all sizes—from a pin's head to three inches in diameter. These occur at the top of the pass as well as at the bottom. One variety has a bright red matrix, and is the toughest and hardest rock to break of any in the Berg. I could not find it in position, but only as boulders in the gullies and streams, of which it composes about 5 per cent. Another kind is reddish brown, highly crystalline, and full of small oval zeolites, many of them transparent or very nearly so. It is a hard rock and rings to the hammer, but is not so tough as the other two, and seems to decompose more readily. When much weathered it turns a pale sage-green. In the Berg all the peaks are composed almost entirely of this rock. In places it forms square-edged walls and causeways of large, rectangular blocks that look as if they had been built by giants. It seems the most commonly occurring of all. I found cliffs near the bottom and at various places going up, as well as on top. A fourth kind exhibits a more pumice-like appearance on the outer weathered crust, the zeolites, &c., having been eroded out of the steam holes. It is a fairly tough rock inside, but the outer crust is friable. It contains but few amygdules, weathers into round masses, and peels away in rings like many of the dolerites I have seen in the railway cuttings. I noted it in many places, but never above the pass. A fifth sort differs considerably from the others; it is less crystalline, is not tough, but crumbles fairly easily into irregular nodules which are a little harder individually than the mass of which they form part. It contains quantities of white inclusions, which are rather hard and frequently stained green.

Some of these cliffs and masses of rock seem to show a rough kind of bedding with a slope downwards towards Natal, but this was not distinct.

At Champagne Castle the Drakensbergen are 7,000 ft. above the valley immediately below, and a little less at the Mont aux Sources. I have seen nothing in Europe resembling the five miles of cañon below the Tugela Falls. In places it is not more than forty feet wide, and the only route is the river-bed itself, up which four hours'

rough walking is required to reach the foot of the lowest fall. The rise is 1,200 ft. in four miles from the mouth of the gorge to the foot of the lower falls. Meyer, of the Surveyor-General's Department, made the height of the main Tugela Fall, with its three steps, to be 2,050 ft. The tunnel through which the river flows at one spot divides the lower part of the cañon into two. It is not quite dark inside, as the river reflects the light well into it, and it is hardly 150 ft. long. Of course one has to go through the water, which in one spot is chest high. All the mountain streams are crystal clear; even a freshet after a storm does not make them the least muddy. Some of the pot-holes are large and deep. In winter the frozen waterfalls, thirty or forty feet high, have a charming play of rainbow colours in the sunlight. On top of Giant's Castle one frozen pool was too solid to break either with a heavy iron-pointed alpenstock or the heaviest of rocks we could drop on to it. In sheltered spots on the top snow lies most of the winter, and frequently falls during mid-summer.

In spring the flowers are very beautiful and occur in great profusion.

EXPLANATION OF PLATES.

THE MONT AUX SOURCES.

Plate VII.

General view of the face of the Mont running from the south-east (left hand) to the north-west tower (right hand). The Tugela Falls are seen almost in the centre of the cliff-face. This face of the Mont aux Sources is really concave, as may be observed on close examination of the plate. The many projections and ridges show up best before sunset or sunrise, and are lost in the full glare of daylight.

Plate VIII.

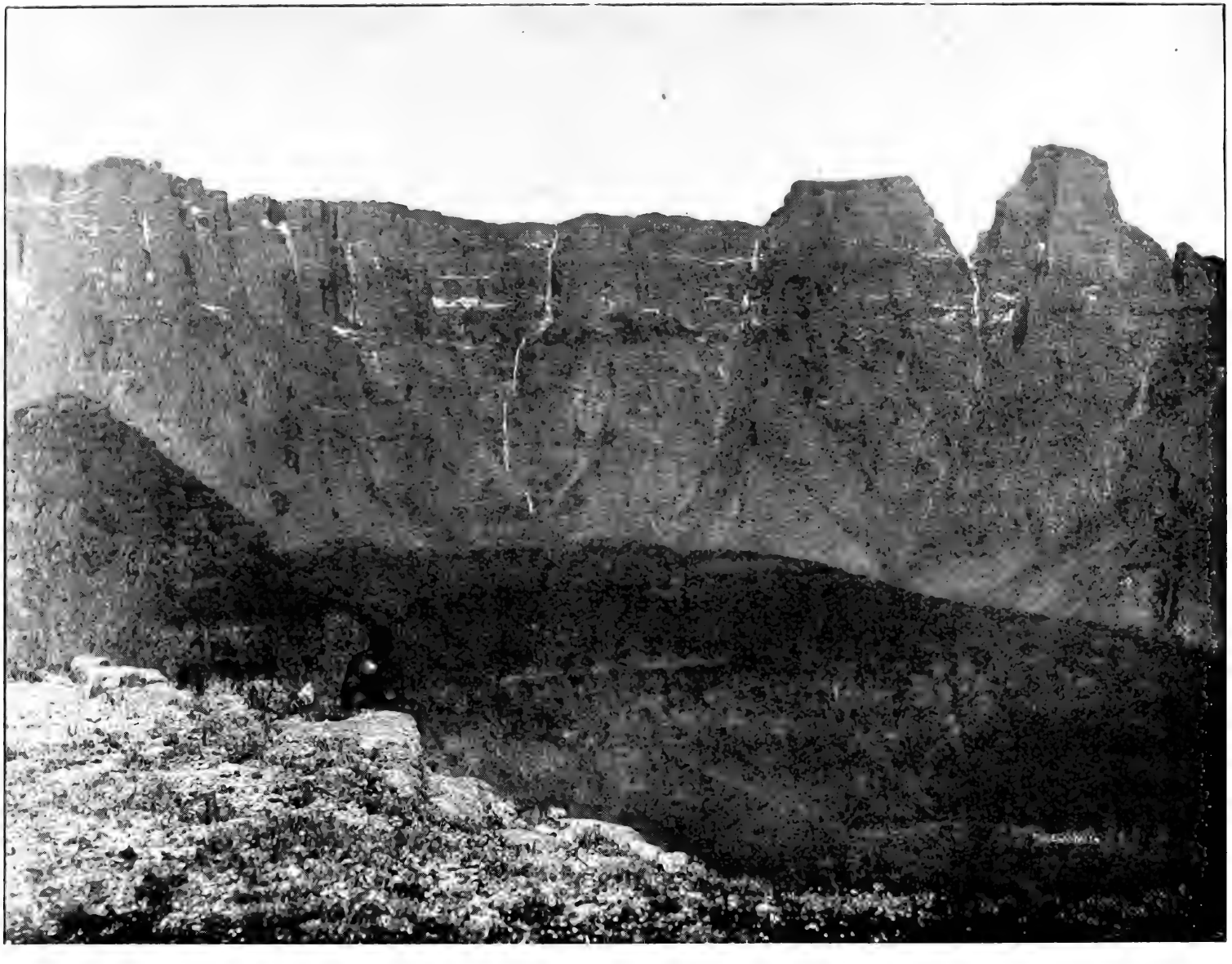
The Free State watershed of the Berg. This runs off as a spur from the base of the north-west tower seen on the right of Plate VII.

Plate IX.

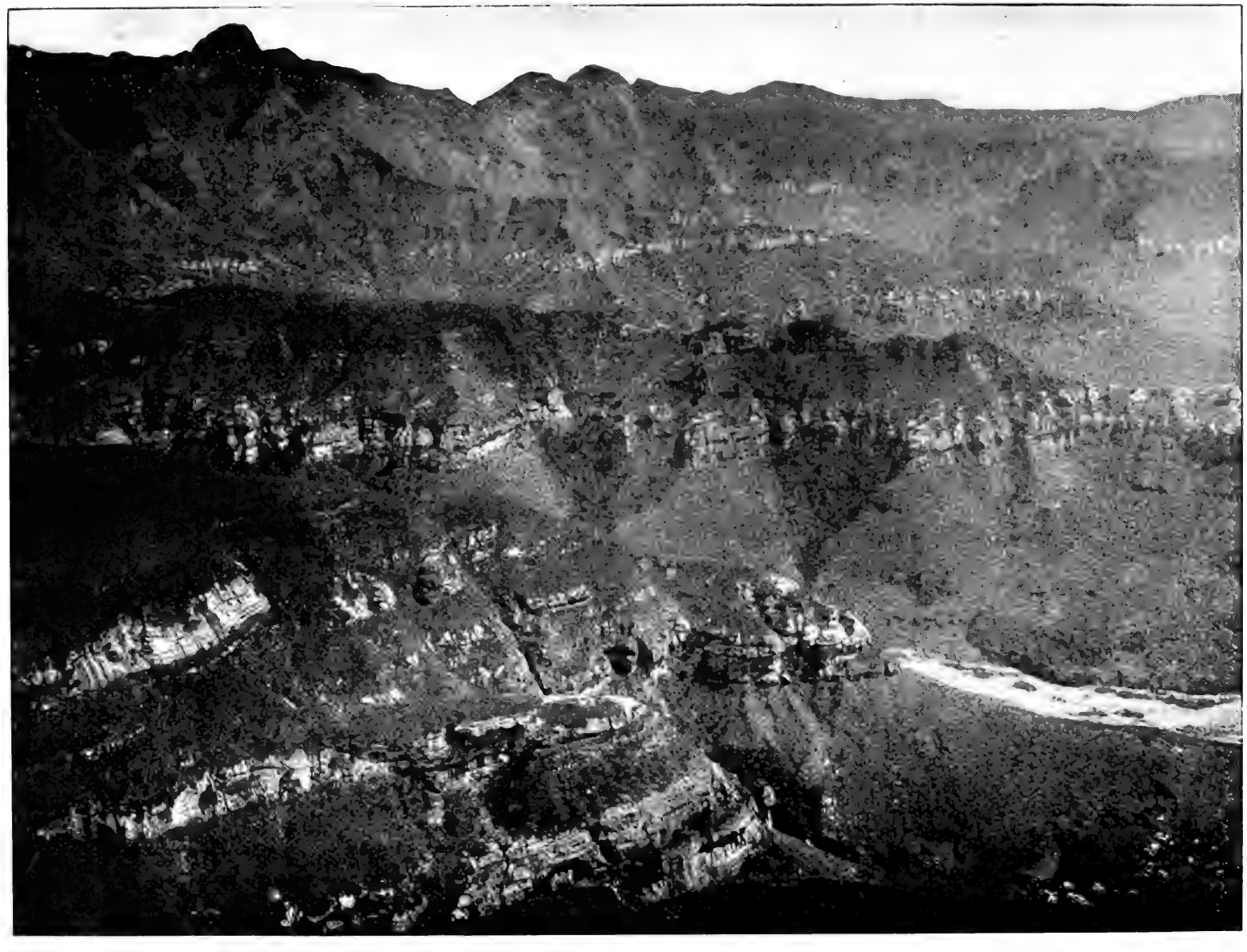
View of the south-east tower. The straight escarpment lines are due to the amygdaloidal lavas.

Had the three photographs been taken from one spot they would have given a panoramic view of the Mont — Plate VII. being the centre, Plate VIII. on the right hand (N.W.), and Plate IX. on the left (S.E.).

(The Plates are from photographs by I. H. Murray, Maritzburg.)



GEOLOGY OF THE DRAKENSBERGEN, NATAL.



GEOLOGY OF THE DRAKENSBERGEN, NATAL.

GEOLOGY OF THE DRAKENSBERGEN, NATAL.

NOTES ON THE RECENT LIMESTONES ON PARTS OF THE SOUTH AND WEST COASTS OF CAPE COLONY.

By A. W. Rogers and E. H. L. Schwarz.

(Read June 29, 1898.)

With Plate X.

Round the west and south coasts of the Colony, from St. Helena Bay to the mouth of the Breede River, there are more or less extensive deposits of a sandy limestone. It is the purpose of this paper to describe the rock found within these limits, excluding that of parts of the shores of Table and False Bays.

These rocks have not had much attention paid them by previous observers. They are mentioned by Clarke * and Green,† but the only accounts of them we have noticed are those by Andrew Bain ‡ and Hochstetter; Bain recorded one of their chief characters, that they contain large numbers of a common land snail.

Hochstetter § described the limestones of the Peninsula and Robben Island, and came to the conclusion that they were formed by carbonate of lime cementing together debris piled up by wind and waves.

Dunn || put them in at one or two localities on his maps as Tertiary beds.

It is only on steep shores which drop suddenly into fairly deep water that little or no calcareous rock is found. The chief instance of this is the coast between Gordon's Bay and Kogel Bay, where the Table Mountain sandstone forms a steep foreshore.

The rock is made up of grains of sand imbedded in a calcareous matrix. Sometimes there are numerous fragments of marine shells, including some whole ones, but these are rare. It is impossible to

* Clarke, Proc. Geol. Soc., Lond., iii., p. 418.

† Green, A. H., Quart. Journ., Geol. Soc., Lond., xliv., p. 239.

‡ Bain, A. G., Trans. Geol. Soc., Lond., ser. 2, vol. vii., part iv., p. 175.

§ v. Hochstetter, Reise der Oster., Frig., Novara um die Erde. Geol. Theil., p. 19. Vienna, 1886.

|| Dunn, E. J., Geological Sketch Map of S. Africa, 1887 and an earlier edition.

draw a hard and fast line between the calcareous rock and the sand which lies near it, although it is certain that while parts of the limestone are of very considerable age, reckoning by years, near at hand a similar rock is forming to-day.

Where exposed to the weather, either inland or on the beach, the limestone is often extremely hard, but this indurated rock is of small thickness, and rapidly graduates into a soft stone beneath, which may be dug out with a spade. At Hoetjes Bay, where the limestone has been largely quarried, there may be seen every intermediate variety of rock between one which rings when struck with a hammer and one which crumbles when touched. While the bulk of the calcareous matter of the rock is formed of comminuted marine shells, or of carbonate of lime derived from them, large numbers of unbroken land shells occur in many localities distributed fairly uniformly through the rock. Broken or abraded specimens are very rarely seen, thus contrasting strongly with the marine shells. Accompanying the snail shells are frequently found bones of mammals, such as the elephant, rhinoceros, different kinds of buck, and carnivora. The bones are not water-worn, but in good condition so far as outward form is concerned. At the Hoetjes Bay quarry a layer of rootlets was exposed at the time of our visit, some twenty feet below the present surface. These are facts which point to the deposit having been formed on land.

The limestone always shows some trace of bedding planes; the beds may be of considerable thickness, or the rock may vary in character four times in a thickness of one inch.

Where the layers are thin the rock is generally false bedded; the action of wind and rain brings out this structure very clearly, as the softer layers are eaten away and the harder ones stand out in strong relief. Very fine examples of this occur in the cliff sections on the south coast; in one place the layers, perhaps, will all be straight, and one set will meet another set at a high angle; at another place the layers will be curved and may abut almost at right angles against the overlying stratum, or the curved layers may thin out and wedge between two other strata.

In the Saldanha Bay district the limestone is found as a bank of rock lying on the ground which slopes down towards the shore; occasionally a kopje of the underlying granite appears through the limestone. As the distance from the shore increases outcrops of limestone become less numerous in hilly country, as that between Saldanha and St. Helena Bays, where a range of granite hills occurs. On the other hand, where the ground is low-lying and the

slopes are gentle, as in the wide tract of open country east and north-east of Saldanha Bay, the limestone forms a continuous covering which gradually disappears at a distance of from five to twenty miles from the coast. Streams have sometimes cut through the limestone and laid bare the underlying rock.

At Hoetjes Bay quarry about 50 ft. of limestone are seen in section. Near Langebaan cliffs of an equal or greater height have been cut in the rock, which in both localities descends below the level of low tides.

At Paternoster a well was sunk 70 ft. through the rock on the low ground near the shore before the underlying rock was reached.

Near North-West Bay the limestone forms a prominent ridge, like a line of sand-dunes, at a short distance from the shore. This mode of occurrence is much more frequently met with on the south coast.

Southwards from Saldanha Bay, round Yzer Fontein Point to the shores of Table Bay, there is much limestone and blown sand, but they offer no special features for remark.

On the south coast limestone covers extensive areas between the mouths of the Bot and Breede Rivers.

There are striking hill ranges of the rock near the Klein River, between Uilenkraal River and Carruthers' Hill, west of Zout Anysberg, north of Cape Agulhas, south-west of Bredasdorp, and between that village and Cape Infanta.

The limestone also occurs in less conspicuous patches, and as a general covering more or less continuously along the coast.

The hill ranges are not simple ridges, but are made up of collections of ridges separated by longitudinal valleys, in which the underlying rock is never seen.

The limestone composing the hills is bedded, and in every good section false bedding can be seen (Plate X., and fig. 1).

The trend of the hills is more or less parallel with the nearest shore line.

In addition to the longitudinal valleys separating the component hills of a range there are transverse ones; some of these are occupied by rivers that flow from the country behind the range, which is considerably lower than the average height of the range itself. Instances of such valleys are seen along the Uilenkraal and Bushman Rivers near Danger Point, and in those parts of the Kars and Salt Rivers north-east of Bredasdorp. Smaller transverse kloofs drain the hills to the north and south.

The largest hill range is that which stretches from Bredasdorp north-eastwards to Cape Infanta. Honing Rug, south-west of Bredasdorp is really a continuation of this range.

Near Bredasdorp the range is about eight miles from the coast, but it gradually approaches the latter towards the east, until it finally forms cliffs above the shore between Cupido's Kraal and Cape Infanta. The range is over five miles wide in parts, and probably exceeds 500 ft. in height; it forms a barrier between the "Duine," as the low-lying country between it and the sea is called, and the "Ruggens." Both on the north and the south side it rises by steep slopes like escarpments, and is traversed by deep kloofs running parallel with the general trend of the range. On the north, the

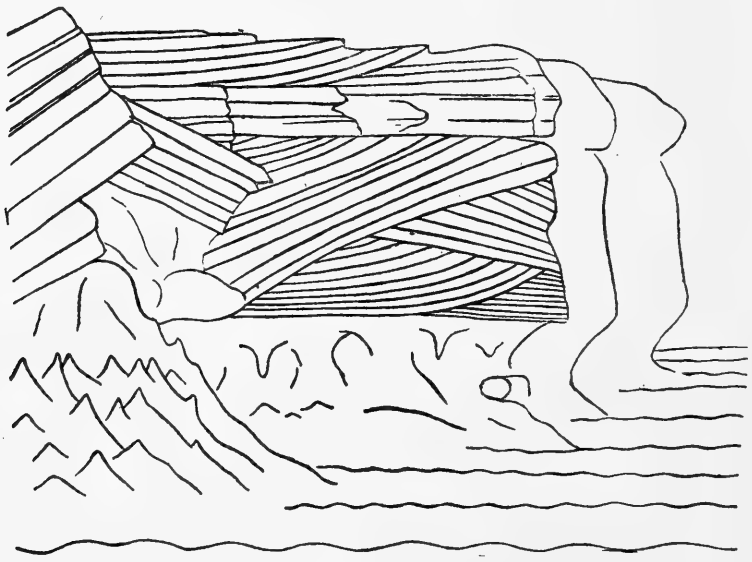


Fig. 1.—False-bedded Limestone, Waagen-Huis Krantz.

Ruggens are of the usual undulating type of country, but on the south of the range the land is remarkably flat, resembling a shore-terrace. The level country is now covered by thin limestones and sand-dunes, through which the same rocks which form the Ruggens, namely the Bokkeveld and Witteberg beds, occasionally appear. Along the present coast-line the sand-dunes, in places transformed into limestone, are very similar in mode of occurrence to the inland limestone range of Bredasdorp, and it is possible that the latter was similarly formed along an ancient coast-line, and that the sea has since receded. At any rate it is beyond question that the inland limestone ranges are of a much more ancient date than those along the present coast.

As regards the origin of the limestone, its contents point to its having been formed on land, while the form and manner of occurrence of the more prominent areas make it probable that they are consolidated sand dunes.

A sample of the stone from Saldanha Bay, used in the new post-office building, Cape Town, was analysed by Mr. Watermeyer, and found to consist of—

Carbonate of Lime	85·32
,, Iron	1·69
Silica	12·96
	99·98

This is the only analysis known to us, but the composition certainly varies considerably owing to the presence of a greater or less amount of quartz sand.

The shifting sand-dunes along the coast afford good opportunities for comparison. In these dunes the formation of false bedding is often seen in progress, and may be explained somehow as follows: Wind of a certain velocity carries sand grains of a certain weight; if it increases the sand grains will be heavier, if it diminishes these will be lighter. On a growing sand-dune, where the wind is depositing its burden, the succeeding layers of grains will vary slightly in character as the wind varies in velocity, and in this way distinct bedding is produced. The sand is usually deposited on a slope, and when the wind changes in direction the new layers consequently form at an angle to the older ones, and false-bedding results.

The alternating layers of slightly different particles offering various resistances to the wind cause the structure of the dune to show up well in places where a section through the dune is being cut, owing to a change in the force or direction of the wind. In the sand-dunes bones and skulls of various land animals are also found accompanied by fragments of marine shells blown up from the beach. If such a range of sandhills as that which lies just above the shore from Cape Agulhas to Cupido's Kraal, were hardened by the deposition of carbonate of lime within it, the result would be a range of limestone hills very like the Bredasdorp one.

In sheltered spots amongst the sandhills the surface is hardened in this manner, and the same is the case to a lesser extent on some slopes of the dunes themselves.

The sand-dunes are composed of grains of quartz and other minerals derived from the disintegration of the land, mixed with

enormous numbers of minute fragments of shells, made of carbonate of lime. When rain-water falls on the sand it sinks in and dissolves some of this carbonate of lime. The saturated sand then loses its water partly by evaporation at the surface, partly owing to the water sinking through it and running off at the first opportunity. The water lost by evaporation at the surface will leave behind any dissolved carbonate of lime that it has taken up during its stay in the sand as a deposit round the grains near the surface. This, no doubt, accounts for the rapid hardening of calcareous sands where exposed to the weather. It is probable that a slow process of solution and redeposition of carbonate of lime goes on continually throughout the deeper-seated parts of calcareous sand-dunes.

The present position of the Bredasdorp and other limestone ranges, which are at a considerable height above sea-level, must be due to a change in level since their formation. The ground between the hills and the shore is remarkably flat, when the modern sand-dunes are left out of consideration. The absence of definite ridges of moving sands at such a distance from the shore at the present time, makes it difficult to understand what could have caused them in former times. If, however, we take the limestone ranges to be of the same nature as the modern lines of dunes along the coast, the difficulty vanishes.

There is, however, other evidence of a change in level along the south coast within recent times.

The rock shelf, which is found conspicuously developed between Mudge Point and Zout Anysberg, is extremely difficult to explain otherwise than as a raised beach. The shelf is cut for the most part in hard quartzite, and the contrast between the flat ground near the shore, with the numerous smooth outcrops of quartzite, and the rugged surfaces which the same rock shows in the hills rising abruptly on the landward edge of the terrace is very striking.

Near Uilenkraal River, and also near Zout Anysberg, the limestone hills lie at the back of such terraces, and outlying patches of the rock are found perched high up on the adjacent hills of Table Mountain sandstone, in such positions that could hardly be reached by sand-dunes under present conditions.

Near Cape Infanta the cliffs are formed of Table Mountain sandstone on the lower half and of limestone on the upper; near the base of the latter, or about 100 ft. above sea-level, there is a bed of large pebbles, while a similar, or perhaps the same bed, is seen on the surface of the ground near the head of a ravine which cuts right through the limestone in the same neighbourhood (fig. 2). This

conglomerate probably represents a beach. Other conglomerates are met with at the base of the limestone near Uilenkraal River and Struys Point.

A few large marine shells, such as the oyster, were found in the limestone of Honing Rug, and we were informed that a bed containing such shells was to be seen in a ravine in the Bredasdorp range, although we did not come across it. The presence of a few large marine shells is not in itself good evidence for any one mode of origin of a recent deposit, for man may have carried them to the spot where they are found.

From all the evidence, however, at present obtained one is led to conclude that the limestone hills were once sand-dunes near the shore, and that they have been raised relatively to the sea-level together with the rock they rest on. The amount of elevation is not known exactly, but it is probably between 50 ft. and 100 ft. The elevation did not take place all at once, but extended throughout a considerable lapse of time, and was almost certainly interrupted by periods of subsidence. A study of the limestone along the coast seems to prove this, for at Waagen-huis Krantz, and north of the Kellers by Danger Point, the limestone which has certainly been formed on land is seen exposed beneath low-water mark, and can only have reached its present level by a relative sinking of the land. Evidence of the same nature is also obtainable at Saldanha Bay.

The mammalian bones, known to us from the limestone or associated sand, up to the present time have been briefly examined by Messrs. Sclater and Péringuey, who consider that they all belong to living species, although some of them no longer live in the districts where the bones were found. Mr. Lightfoot named a collection of snail shells from the Saldanha Bay limestone, and found that they all belonged to species living in that district.

The localities where we obtained bones are Hoetjes Bay and Linkerhand's Gat near Stanford, but they must occur at many other places. Mr. Thwaites, the R.M. of Bredasdorp, gave the Museum some fine specimens from the sand-dunes of Struys Bay, including skulls of a rhinoceros and hartebeest, and an elephant's jaw.

There are some interesting caves in the limestone (fig. 2). Many small ones have been formed by the action of the weather and waves along the coast. In the ravines cut through the Downs caves of all sizes are formed by the weathering of soft rock underlying a harder layer. These sometimes contain deposits of guano due to bats and rock rabbits, which would be very valuable were it not for the difficulty of access.

On the coast near Cape Infanta there is a large cave, opening by a small hole on the face of a great limestone cliff. The upper part of the cliff overhangs very considerably, and long stalactites hang from it. The interior of the cave must be at least 20 ft. high in parts. The roof is entirely formed of stalactites from which water constantly drops. The floor is of sand and guano. This cave is situated near the bottom of the limestone, and at the entrance is seen the boulder bed already mentioned as being probably a beach. The length and breadth of the cave are not great, probably less than 50 yards. The general appearance of the interior is very like that of the Cango cave.

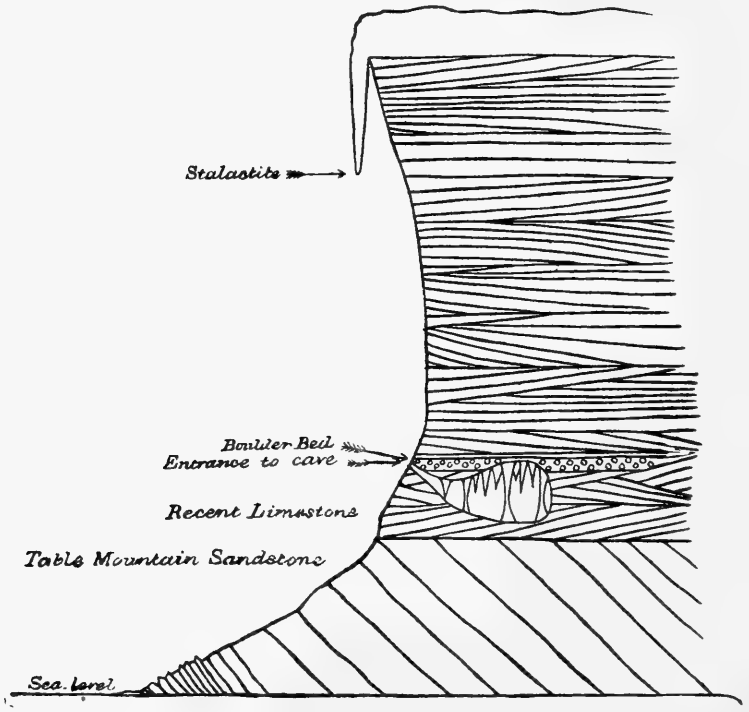


Fig 2.—Cave in Recent Limestone near Cape Infanta.

There is no running stream of water in the cave, although one may possibly have been there formerly, and would then have been the cause of its formation. The cave is on Mr. Paul Dunn's farm, and was discovered by him in 1847 when he tracked a leopard into it.

On the coast near Stanford Cove there is a cave known as the Kellers. It lies between the limestone above and the Table Mountain Sandstone below, although the opening is entirely surrounded by the latter rock. A stream of water issues from the opening. There are other and larger streams flowing from between the limestone and Table Mountain sandstone in the neighbourhood.

There is no doubt that this cave has been made by the water drained underground from the Strandveld, which is covered with sand and limestone. The water, which is said locally to have remarkable medicinal properties, tastes slightly brackish, and apparently in no way differs from the spring water met with at other places along the coast.

EXPLANATION OF PLATE X.

View of the limestone cliffs near Struys Point, showing the well-marked false-bedding of an old dune.

(From a photograph by A. W. Rogers.)

THE RECENT LIMESTONES, CAPE COLONY (Fig. 3).

RÉSUMÉ OF RECENT SCIENTIFIC PUBLICATIONS BEARING ON SOUTH AFRICA, FROM JANUARY 1, 1897, TO JUNE 30, 1898.

ZOOLOGY.

MAMMALIA.

MAJOR, C. I. FORSYTH. "On the Species of *Potamochoerus*, the Bush Pigs of the Ethiopian Region." Proc. Zool. Soc., 1897, p. 359, plates xxv., xxvi., woodcuts 1–4.

A revision of the nomenclature and of the classification of Bush Pigs. Five species are recognised—

1. *P. larvatus* (F. Cuv.) [=*P. edwardsii*] from Madagascar.
2. *P. choeropotamus* (Desmoul.) [=*P. africanus*] from South and South-East Africa, with two geographical subspecies: *P. c. nyassae* from Nyassaland, and *P. c. daemonis* from Kilimanjaro.
3. *P. johnstoni*, sp. nov., from North-West Nyassaland.
4. *P. hassama* (Heuglin) from Abyssinia.
5. *P. porcus* (Linn.) from West Africa.

The only South African species affected is therefore that known formerly as *P. africanus*, which becomes *P. choeropotamus*, commonly known as the Bosch Vark in the Colony.

DE WINTON, W. E. "Remarks on the Existing Forms of Giraffe." Proc. Zool. Soc., 1897, p. 273.

In this paper Mr. de Winton shows that the northern and southern forms of Giraffe must be distinguished as two distinct species; after giving the literary history of the nomenclature of the two forms, he decides that the northern form must be called *Giraffa camelopardalis* of Linnæus, the southern form *Giraffa capensis* of Lesson. The northern form is distinguished by its

dark reddish polygonal marking with very sharply defined edges with very narrow interspaces of white to fawn, and by the legs below the knees being unspotted and white; the males have a third horn in the centre of the forehead just above the eyes from three to five inches long, and this spot is marked in the young animal by a prominent tuft of black hairs.

In the southern form the markings are drab to coffee colour, always darker in the middle and the edges broken and not well defined, and the legs are spotted to the hoofs, on the forehead there is a lump of flattened pyramidal form, but nothing quite of the nature of a horn.

The northern form (*G. camelopardalis*) inhabits Gallaland to the north of the Tana River in East Africa, whence it ranges northwards through Somaliland, Abyssinia, and Kordofan, and possibly westwards to Senegambia.

The southern Giraffe ranges southwards from the Tana River to the Orange River, but does not seem to occur in the southern half of German East Africa or in Nyassaland.

The Giraffe of Senegal appears to be still imperfectly known, but it is probably identical with the northern or three-horned species.

Woodcuts of the heads and skulls of the two species illustrate this paper.

Sclater, P. L., and Thomas, O. "The Book of Antelopes," Parts VII.–X. London, 1897–8, 4to.

This work, of which the first six parts appeared during the years 1894–6, contains descriptions with accounts of their habits and distribution of all the species of Antelopes hitherto described; nearly all the species are illustrated by coloured plates and woodcuts of heads and horns; the South African species so illustrated in the parts above quoted are the Poku (*Cobus vardoni*), the Lechee (*Cobus lechee*), the Reedbuck (*Cervicapra arundinum*), the Roi Rhebok (*Cervicapra fulvorufula*), the Vaal Rhebok (*Pelea capreolus*), the Pallah (*Æpyceros melampus*), and the Springbuck (*Antidorcas euchore*).

Pocock, R. I. "The Species and Sub-species of Zebras." Ann. Mag. Nat. Hist. (6), xx., pp. 33–52, 1897.

This paper recognises four species of Zebra: *Equus zebra*, the Mountain Zebra of the Colony; *Equus quagga*, the true Quagga

of the plains of the Colony; *Equus grevyi*, the Somaliland Zebra; and *Equus burchelli*, the Zebra of the plains, formerly extending from the Orange River in the south to the borders of Somaliland in the north; this latter species the author divides into seven sub-species, of these five are South African as follows:—

1. *E. b. typicus* from Bechuanaland, now possibly extinct, with no stripes on the quarters or legs except on the knees and hocks.
2. *E. b. antiquorum* from Damaraland, with broad stripes on the quarters, legs not or hardly striped below the knees and hocks.
3. *E. b. wahlbergi*, subsp. nov., from Zululand, with body stripes meeting the ventral stripe, and with very strong "shadow" stripes.
4. *E. b. chapmanni* from between Damaraland and Matabeleland, with body stripes meeting the ventral stripe, and with the stripes on the lower part of the legs showing a distinct tendency to break up into irregular brown spots.
5. *E. b. selousi*, subsp. nov., from Mashonaland, matches the last but with the outside of the legs strongly striped to the hoof.

DE WINTON, W. E. "On a New Mouse from Damaraland." Ann. Mag. Nat. Hist. (6), xix., p. 349, 1897.

DE WINTON, W. E. "On the Ochre-footed Scrub Squirrels of East Africa." Ibid., p. 573.

THOMAS, O. "On a New Dormouse from Mashonaland." Ibid. p. 388.

These three papers all deal with South African Rodents. In the first one a Mouse obtained by Mr. C. J. Anderson in Damaraland some years ago and identified by Mr. Thomas as *Mus silaceus*, Wagn., is here shown to be an undescribed species, and is named *Mus damarensis*.

In the second paper it is shown that the little unstriped Squirrel originally discovered and named by the late Sir Andrew Smith, is not found north of the Zambesi, being re-

placed there and in East Africa by other allied though distinct forms.

The third paper, by Mr. Oldfield Thomas, describes a new Dormouse (*Graphiurus platyops*) obtained by Mr. J. Ffolliott-Darling at Enkeldorn, in Mashonaland.

DE WINTON, W. E. "On the Nomenclature and Distribution of some of the Rodents of South Africa, with Descriptions of New Species." Ann. Mag. Nat. Hist. (7), ii., p. 1, 1898.

A number of most useful rectifications of synonymy and of identifications of species formerly considered to be distinct are given in this paper, based on the older and newer collections contained in the British Museum; two new species are described: *Gerbillus* (*Tatera*) *lobengulæ* from Essex Vale, near Bulawayo, and *Saccostomus anderssoni* from Damaraland.

AVES.

SHARPE, R. B. "On the Birds of Zululand founded on the Collections made by Messrs. R. B. and J. D. S. Woodward." Ibis (7), iii., pp. 400–422 and 495–517, pl. x., 1897.

The first part of this paper contains extracts from the Ornithological Journals of the brothers Woodward regarding the habits and occurrence of the birds observed by them in Zululand; the second part a list of all the birds obtained by them, 173 in number, among them is a new Green Barbet, named by Dr. Sharpe *Stactolæma woodwardi*, in honour of the two brother collectors; an example of this bird has been recently acquired for the South African Museum.

REPTILIA.

SEELEY, H. G. "On the Skull of *Mochlorhinus platyops* from Bethulie, Orange Free State, preserved in the Albany Museum." Ann. Mag. Nat. Hist. (7), i., p. 164, 1897.

This is a description of a new genus of *Dicynodont* reptiles, allied to *Ptychognathus*, a genus discriminated by Sir Richard

Owen in 1859. The new genus is distinguished by the fact that the usual angular ridge between the upper surface of the skull and face is wanting, and the two areas which commonly meet at an angle graduate into each other in this animal by a smooth, rounded transition; secondly, the palate has the vomer elevated in front of the palato-nares and the palatine bones at their sides so as to form three prominent tubercles; thirdly, the head appears to be much more compressed from side to side than is usual in *Ptychognathus*, giving the animals a table-headed appearance between the orbits. A full description of the unique specimen is given, illustrated by three woodcuts of the three aspects of the skull.

PISCES.

Boulanger, G. A. "The Flat-Fishes of Cape Colony." Marine Investigations in South Africa, No. 1. 1898.

Mr. Boulanger gives descriptions of the five kinds of Flat-Fishes (*Pleuronectidæ*) hitherto found on the South African coasts, and of a sixth recently obtained by Dr. Gilchrist in False Bay. The six species are as follows: *Arnoglossus capensis*, sp. nov., Boul.; *Solea bleekeri*, Boul.; *Archirus capensis*, Kaup; *Synaptura microlepis*, Bleek.; *Synaptura pectoralis*, Kaup; and *Cynoglossus capensis*, Kaup.

This paper is the first of a series to be based on collections and investigations into the Marine Fauna of the Colony undertaken by Dr. J. D. F. Gilchrist, and is published by the Agricultural Department.

W. L. S.

TUNICATA.

Sluiter, Dr. C. Ph. "Beiträge zur Kenntniss der Fauna von Süd-Afrika. Ergebnisse einer Reise von Prof. Max Weber, im Jahre 1894. II. Tunicaten von Süd-Afrika." Zoolog. Jahrb. Abthlg. für Syst., xi., part 1, pp. 1–64 (7 plates).

Thirty-two species of Ascidians collected by Professor Weber during his stay in South Africa in 1894 are described by Dr. Sluiter. No less than 28 of these species are considered to be new, and of these coloured plates are given. Eight of the new

forms were found at Mozambique, 9 at Durban and Isipingo, in Natal, while the rest are from the Colony, viz., 7 from Table Bay, 2 from Knysna,and 1 each from Plettenberg Bay and Port Nolloth. It is remarkable that of the 4 remaining species not considered new to science by the author, 2 are identified with species previously recorded from Bahia, in Brazil, and a third with a species from the Bermudas.

W. F. P.

MOLLUSCA.

Melvill, James Cosmo, and Ponsonby, John Henry. "Description of Eleven New Species of Land and Freshwater Mollusca from South Africa." Annals and Magazine of Natural History, vol. xix., sixth series, 1897, pp. 633–639, with 1 plate containing figures of 11 species.

The discovery of a representative of the genus *Hapalus* constitutes a particularly interesting addition to the South African Molluscan Fauna.

"Descriptions of Ten New Species of Terrestrial Mollusca from South Africa." Annals and Magazine of Natural History, vol. i., seventh series, 1898, with 1 plate containing figures of 11 species.

One of the species found at a high altitude on the Winterhoek Mountain in the Tulbagh district of Cape Colony recalls the species of a South American genus.

Sowerby, G. B. "Appendix to Marine Shells of South Africa. A catalogue of all the known species with reference to figures in various works, descriptions of new species, and figures of such as are new, little known, or hitherto unfigured." London: 4to, 33 pp. and 3 plates.

The number of additional South African Marine Mollusca enumerated in the present work is 311, bringing up the grand total to 1,051. The greater number of the additions have come under the author's observations, but some are quoted on the authority of Krauss, Gould, and other authors.

L. P.

INSECTA.

Hymenoptera.

Torre, C. G. de Dalla. "Catalogus Hymenopterorum hucusque descriptorum systematicus et synonymicus, vol. viii., Fossores (*Sphegidæ*)." Leipzig, 1897, 8vo.

A continuation of the Catalogue of Hymenoptera described to date, in which reference is made to 304 South African species.

Buysson, R. de. "Voyage de Mr. E. Simon dans l'Afrique australe, Hyménoptères." Annales de la Société Entomologique de France, 1898, pp. 351–353, 1 plate.

Forty-two species were collected, 22 of which prove to be new, and 2 genera are created for a new *Braconid* and a *Tiphiid;* the plate contains one whole figure of a new species and several details.

Cameron, Peter. "Description of Two New Species of *Mutilla* from South Africa (*Mutilla ægrota* and *M. carsoni*)." Mem. and Proc. of the Manchester Literary Philosophical Society, 1897–98, part 2, pp. 1–3.

Péringuey, L. "Description of Some New or Little Known South African *Mutillidæ* in the Collection of the South African Museum." Annals of the South African Museum, June, 1898, pp. 33–93.

Contains a description of 87 species. So far as then known, the South African species exceed by 12 the *Mutillidæ* of British India, including Ceylon and Burma. The two sexes of 9 species only out of 139 are ascertained.

Coleoptera.

Distant, W. L. "Coleoptera Collected in the Transvaal. Family *Cetonidæ*." Annals and Magazine of Natural History, vol. xix., sixth series, 1897, pp. 575–579.

Contains a list of the species captured by the author number-

ing 53, and also of 6 obtained in Natal, and describes 2 new species. Allusion is also made to the habits of some of the species.

"Coleoptera Collected in the Transvaal." Annals and Mag. of Nat. Hist., 1898, pp. 366–384.

The author is able to enumerate 100 species as found in the Transvaal, and he has received 47 species collected in the neighbourhood of Delagoa Bay. Many of the species are common to the two regions. The paper contains descriptions of a new genus of *Prionini*, with 2 new species, 7 new *Cerambycini*, and 19 new *Lamiini*.

KOLBE, H. T. "Ueber die von Herrn Dr. F. Stuhlmann in Deutsch-Ostafrika und Mosambik während der Jahre 1888 bis 1890 gesammelten Coleopteren." Mitteilungen aus dem Naturhist. Museum in Hamburg, xiv. Jahrg., 1897, pp. 73–101, 1 plate.

Contains descriptions of 11 new species from Mozambique.

FAIRMAIRE, L. "Coléoptères nouveaux de l'Afrique intertropicale et australe." Annales de la Soc. Entom. de France, 1897, pp. 109–155.

The author describes 17 new species collected in South Africa by Mons. E. Simon and Dr. Ch. Martin, and establishes 5 new genera in the family *Tenebrionidæ*.

HORN, DR. W. "Novæ Cicindelidarum Species." Notes from the Leyden Museum, vol. xix., ? 1897, pp. 235–240.

Contains descriptions of two new South African *Cicindelidæ*.

"Zwei neue Cicindeliden aus Deutsche Ost. Afrika," &c. Deutsche Entomologische Zeitschrift, 1894, pp. 61–62.

Contains synonymic corrections of several South African Cicindelidæ.

"Zwei neue Cicindeliden." Entomologische Nachrichten, vol. xxiii., 1897, pp. 98–99.

Contains the description of a new *Cicindelid* (*Dromica semilevis*) from Zululand.

"4 neue Cicindeliden aus Africa." Entom. Nachricht., vol. xxiii., 1897, pp. 237–240.

Contains descriptions of one *Cincidelid* (*Cosmema Kolbei*) which occurs in the Transvaal and in Angola.

Jacoby, M. "List of the Phytophagous Coleoptera obtained by Mr. W. L. Distant in the Transvaal, with Descriptions of the New Species." Annals and Mag. of Nat. Hist., 1898, pp. 344–360.

The author enumerates 95 species, which, with those given by Mr. Distant in his "Naturalist in the Transvaal," brings the number to 114, which is certainly not comprehensive enough.

Péringuey, L. "Description de deux *Julodis* et d'un *Paussus* Sud-Africains." Bullet. Soc. Entom. d. France, 1898, pp. 183–185.

"Catalogue of the South African Hispinæ (Coleoptera), with Description of New Species." Annals of the South African Museum, June, 1898, pp. 113–130.

The author brings the number of this phytophagous sub-family from 11 to 45.

Lepidoptera.

Distant, W. L. "On a Collection of Heterocera made in the Transvaal." Annals and Magazine of Natural History, vol. xix., new series, 1897, pp. 390–394.

The author describes 2 new species, and enumerates those captured by him (13). All his specimens were taken at the electric lamps. Some of these huge moths strike against the glass and fall to the ground, when they may be picked up.

"On a Collection of Heterocera made in the Transvaal." Annals and Magazine of Natural History, vol. xix., new series, pp. 579–582.

Family *Sphingidæ.* The author enumerates 22 species of this family obtained in the Transvaal, 5 of which occur or have been taken in Great Britain, and he gives the description of 2 new species.

"The Butterflies of the Transvaal." Annals and Magazine of Natural History, vol. i., seventh series, 1898, pp. 47–56.

Is an enumeration of the *Rhopalocera* recorded from the Transvaal, amounting to 238 species. The list will, doubtless, be increased when the warm and unhealthy north-eastern regions of the State have been visited by a good collector. The Transvaal Republic, according to the author, has no distinctive faunistic element, and in zoogeography is merely part of the present somewhat ill-defined South African division of the Ethiopian region.

Butler, A. G. "A Revision of the Pierine Butterflies of the genus *Terias* from the Old World." Annals and Magazine of Natural History, vol. i., seventh series, 1898, pp. 56–82.

In treating of *Terias brigitta,* which ranges from the Cape of Good Hope northwards to Abyssinia, and westwards from Angola to Sierra Leone, the author states that *Terias zoe* = *T. caffra* is the wet season form, and *T. candace* = *seruli* the intermediate form, and that the dry form is *T. brigitta,* and describes as *Terias marshalli* a new species ranging from the Albert Nyanza southwards to Caffraria, and on the West Coast from Angola northwards to the Niger. This new species is the same as *Terias desjardinsi,* Trimen, nec Boisduval; *T. æthiopica,* Trim., is the dry season form of *T. hapale,* Mab.; and *T. butleri,* Trim. = *T. orientis,* Butl., and is synonymous with *T. senegalensis,* Boisd.

"On Three Consignments of Butterflies collected in Natal in 1896 and 1897 by Mr. Guy A. K. Marshall." Proceedings Zoological Society of London, 1898, part 4, pp. 835–857, 1 col. plate.

The author enumerates the species (135) collected, and makes critical remarks on the same: *Ypthima asterope,* Trim.

(not Klug) is synonymous with *Y. doleta*, Kirby; a new species, *Cacyreus marshalli*, is described and figured, and a new genus *Chrysoritis* created for *Zeritis oreas*, Trim.

Trimen, Roland. "On Some New or Little Known Species of African Butterflies." Transactions Entomol. Soc. of London, 1898, part 1, pp. 1–16.

Contains descriptions and figures of 7 new species, including 1 representative of *Acræinæ*, 6 of *Lycænidæ*, and 1 of *Hesperiidæ*. The *Lycænidæ* are all natives of Mashunaland, the locality of the *Acræa* is not known, and the *Pyrgus* is from Delagoa Bay. One of the *Lycænidæ* presents characters that amount to generic value, and the author proposes for it a new genus (*Desmolycæna*). Two others, *Lycæna gigantea* and *Mimacræa marshalli*, exhibit mimetic relations with the protected group *Acræinæ*.

Diptera.

Bruce, Surgeon-Major David, A.M.S. "Further Report on the Tsetse Fly Disease or 'Nagana' in Zululand." London, 1897, with 6 plates.

A very elaborate report, completing a preliminary one published in Durban, Natal, in 1895, and dealing with the definition of the disease, its distribution in Zululand, the etiology of the same, and the relation of the big game to the Fly Disease, an account of inoculation of blood from affected to healthy animals and the medicinal treatment.

The investigator's conclusions are that the "Nagana" disease is caused by the entrance into the blood of a minute parasite (*Hæmatozoon*), which multiplies there and causes death. That this parasite exists on the blood of many animals, and that it is conveyed from animal to animal by the Tsetse Fly (*Glossina morsitans*), or by the eating of the raw flesh of animals affected by the disease. It is also now known that the disease is limited to certain tracts of country having certain physical features. Five experiments showed that horses cannot be taken with impunity for a few hours in the Fly country, even although they are not allowed to eat and drink there. It is not known how

the parasites cause death, but Dr. Bruce surmises that it may be done by the poisonous action of some substance elaborated and producing a progressive hœmolysis and anæmia, leading to a form of auto-intoxication. All the animals in which this parasite exists are not known, but, judging from the number of domestic animals in which it is fatal, it may be considered as having a wide range, and may exist not only in the koodoo, wildebeest, and other big game, but also in the rats, birds, animals of prey, &c. Dr. Lingard pronounces the hæmatozoon to be identical with the one producing the so-called "Sura" disease in India, which affects horses and cattle. Further investigations are now carried in London under the supervision, I believe, of Professor Michael Foster.

Dr. Bruce (page 5) makes a statement in answer to the question, "Can the Tsetse Fly convey the disease from an affected to a healthy animal," which may be open to discussion. He says that "all blood-sucking flies are not capable of transferring the Fly Disease from affected to healthy animals," and he suggests "that there may be some anatomical peculiarity in the Tsetse which enables it to act as carrier, or there may be some undiscovered fact in the life-history of the parasite associating it with this particular species of fly." The genus *Glossina* is represented in Australia, and yet the "Nagana," or such similar disease, is unknown there. Dr. Bruce mentions also that the number of Tsetse Flies in the Fly country is in enormously greater number than any other species of blood-sucking fly. He has discovered that the insect does not lay eggs as the majority of Diptera do, but extrudes a larva nearly as large as the abdomen of the mother, which creeps about with a good deal of activity, and turns after a few hours into a jet-black pupa.

The author's conclusion of the use of arsenic treatment is that it is quite useless as a prophylactic agent, but that it is useful in prolonging life and usefulness in the Fly country after the disease has begun.

Neuroptera.

Haviland, G. D., M.A., M.B., &c. "Observations on Termites with Descriptions of New Species." Linnæan Society's Journal. Zoology, vol. xxvi., No. 169, 1898, pp. 358–442, with 4 plates.

The Termites described are chiefly those collected by the author in South Africa, the Malay Peninsula, and Borneo. Apart from the interest attaching to the description of the new species, which in many cases includes that of the female, male, worker and soldier, the general remarks of the author are of special importance.

The genus *Termes* contains numerous species of very diverse forms and habits, yet it cannot be subdivided by characters common to every caste; the genus *Calotermes* is as widely distributed as the genus *Termes*, but has only a tenth as many species. The largest forms of the genus are fungus-growers. There are three Old World groups of fungus-growers.

The most important is represented by *T. bellicosus;* it builds tall mounds. The second is represented by *T. vulgaris;* it builds insignificantly small mounds or none at all. The last group, represented by *T. incertus*, has quite different habits from those of the previous groups, building small fungus-beds, generally in the shells of the nests of larger species. The king and queen are not enclosed in a special royal cell. These three typical species occur in South Africa.

In the genus *Termes* the soldier is by far the best caste to determine species from: not only is the soldier easier to determine than the male, but it is found in almost every nest, and usually wherever the workers go. The author has not found the characters of the wings very useful or reliable, but there are two external ones which are correlated in the soldiers and the males of the genus *Termes;* the abdominal papillæ show a corresponding degree of development, and the number of segments of the antennæ is approximately in the proportion of eight to nine. Although the segments of the antennæ are fewer in the soldier than in the male, they are generally longer and more cylindrical, so that the antennæ of the soldiers are often as long as, or longer than, those of the imago. The antennæ of the workers, on the other hand, are always much shorter, yet the number of segments which compose them is never less than in the soldier and never more than in the male. "Long antennæ go with long legs, no matter what caste or species. Long legs and long antennæ go with much walking and foraging, and this is true when we look to differences between castes. Soldiers with long, slender legs belong to species which forage for food at a distance from the nest; soldiers with short, stout

legs belong to species sluggish in their movements and which venture but little from home."

The swarming of the winged white ants has often been noted by travellers and others. Dr. Haviland says: "The winged imagos have an unconquerable desire to leave the nest and to run the risk of dangers from which not one in many escapes. They fly but feebly, allowing themselves to be carried by the wind, and could scarcely cross more than a mile or two of water. The wings are soon shed across a transverse basal line. The method of breaking off the wings is to elevate them by using the legs and abdomen for that purpose, or in certain cases the insect pushes them against some objects; yet in some cases the live insect will shed all four wings with inexplicable rapidity." At the time of swarming, the males and females of the genus *Termes* pair, the male following the female and often clinging to her abdomen, but there are no copulatory organs. From Professor Grassi's observations it is probable that in *Calotermes* copulation nevertheless takes place; but in *Termes malayanus*, Dr. Haviland has reason to think that the king fertilises the eggs after they are laid, and he adds, "Indeed, copulation in the case of kings and full-grown queens of most species of the genus *Termes* is apparently impossible." Apart from the worker, soldier, male and female, or rather king and queen, there is also in Termites another caste called, by Dr. Sharpe I believe, "neoteinic." By neoteinic individuals Dr. Haviland means fertile individuals, the condition of whose thorax makes it clear that they have never been capable of flight. Though the true queens are always accompanied by kings, the neoteinic queens are often consortless. Neoteinic forms are very abundantly found in some species. Neoteinic queens are generally raised in considerable number, and become fewer in number as they grow older. They are always found in the same part of the nest, although, unless few in number, they cannot all occupy the same cell.

The functions of the soldiers Dr. Haviland believes to be defence only. "Those soldiers which have a saddle-shaped pronotum and rudimentary mandibles secrete a clear viscid fluid from a sac, which occupies a great part of the head and opens by a duct which passes down the rostrum. The soldiers may be seen to dab a little of the fluid on the antennæ of their enemies by a quick movement, which is clearly a modification of the shaking movement so often seen in worker Termites."

The soldiers of some species produce a rattling sound if the nest is opened. The soldiers of the group with *Termes bellicosus* as type can generally produce the rattling sound. "In this accomplishment, *T. carbonarius* has reached the highest stage of development, for the soldiers can hammer in rhythmic unison. At first a few begin irregularly, then they get into time and the others take it up. Every soldier in the exposed portion of the nest stands up and hammers with his head; the blow is given thrice in very quick succession, and then there is an interval of two seconds. The noise they produce reminded me of wavelets lapping on a shore." Generally the soldiers are numerous, perhaps about a fifth part as numerous as the workers.

The workers not only collect the food and build the nest, but also nurse the young, and may be seen carrying the eggs and young larvæ to places of greater safety. In some species Dr. Haviland is sure that they take care of the queens.

The structure and position of Termites' nests are very various. All the species whose soldiers have a distinctly saddle-shaped pronotum seem to use proctodeal discharges in the building of their nests. The fungus-growers, on the other hand, do not do so, but moisten the pellets of clay which they bring with fluid from their mouths.

Out of eleven South African species mentioned in the paper, nine are described for the first time and four are figured.

Hemiptera Homoptera.

Distant, W. L. "On a Collection of *Homoptera* made in Southern Africa." Annals. Magazine of Natural History, vol. xix., 6th series, 1897, pp. 125–133.

Contains descriptions of new species collected by him during his sojourn in the Transvaal, and also of nine *Cicadidæ*, collected in Zambesia by Mr. G. A. K. Marshall. He records thirteen species of *Cicadidæ* as occurring in the Transvaal.

L. P.

ARACHNIDA.

Simon, E. "Descriptions d'Arachnides Nouveaux." Ann. Soc. Ent. Belg., xli., No. 1, pp. 8–17, Feb., 1897.

Includes ten new spiders collected by Dr. C. Martin at Natal, Port Elizabeth, and Cape Town (*Zodariidæ* 1, *Clubionidæ* 9).

"Descriptions d'Arachnides Nouveaux des Familles des *Agelenidæ*, *Pisauridæ*, *Lycosidæ*, et *Onyopidæ*." Ann. Soc. Ent. Belg., xlii., No. 1, pp. 5–34.

Contains descriptions of seventeen new species of spiders from various parts of the Cape Colony, Transvaal, and the Free State (*Agelenidæ* 8, *Lycosidæ* 9).

"Études Arachnologiques: Descriptions d'Espèces Nouvelles de l'Order des *Araneæ*." Ann. Soc. Ent. Fr., lxv., pp. 465–510, pls. 12 and 13, 1897.

Seven new species of spiders from the Transvaal and Natal (*Argiopidæ* 2, *Clubionidæ* 5).

Pocock, R. I. (of the British Museum). "On the Spiders of the Sub-Order *Mygalomorphæ* from the Ethiopian Region contained in the Collection of the British Museum." Proc. Zool. Soc. Lond. for 1897, part iii., pp. 724–774, pls. 41–43.

In this useful paper all the tropical and South African genera and species of four-lunged spiders, commonly known as Mygale, are enumerated, and synoptic tables are given for all the genera and most of the species known to the author. He also describes two new genera and eight new species from South Africa, making in all about twenty-seven South African species of Mygale spiders.

"On the Genera and Species of Tropical African Arachnida of the Order *Solifugæ*, with Notes upon the Taxonomy and Habits of the Group." Ann. Mag. Nat. Hist. (6), xx., 1897.

The *Solifugæ* (commonly known as *Haarscheerer* in the Colony) are treated in this paper in the same way as the Mygale spiders in the previous paper. Unfortunately the British Museum appears to possess but few specimens from the Western parts of the Colony, and consequently of Koch's ten South African species described in 1848 (*Die Arachniden*, vol.

xv.), only one is treated by Pocock. Three new South African species of *Solpuga* are described. A very useful feature of this paper is the synoptic table of the species of *Solpuga* known to the author, as it is to this genus that nearly all the South African *Solifugæ* belong.

"On the Arachnida taken in the Transvaal and in Nyassaland by Mr. W. L. Distant and Dr. Percy Rendall." Ann. Mag. Nat. Hist. (7), i., No. 4, pp. 308–321.

Eight scorpions, 1 *Pedipalp*, 2 *Solpugæ*, and 15 *Araneæ*, from the Transvaal; also a few from Durban and Mashonaland. Five are described as new, viz., 2 *Lycosæ* and 3 Mygale spiders.

Thor, Sig. "Capobates sarsi, en ny hydrachnide fra Kap, Syd-Afrika." Archiv. for Math. og Naturvidenskab., xx., No. 5, 4 pp., 1 pl., 1898.

Description and figures of a new genus and species of watermite (*Capobates sarsi*), captured in a pond on the Cape Flats, near Cape Town, and sent to Professor Sars by the South African Museum.

Cambridge, F. O. P. "On the Cteniform Spiders of Africa, Arabia, and Syria." Proc. Zool. Soc. Lond. 1898, part i., pp. 13–32, pls. 3 and 4.

Contains a complete list of the *Ctenidæ* which have been described from South Africa, together with descriptions of four new species from East London, Mashonaland, and Natal.

Purcell, F. "Descriptions of New South African Scorpions in the Collection of the South African Museum." Ann. S. A. Mus., i., part i., pp. 1–32, pls. 1–4.

Eleven new species of *Opisthophthalmus* and one of *Parabuthus* are described, and seven of them are figured. The paper concludes with a synoptic table for that portion of the genus *Opisthophthalmus* in which the median groove of the carapace is forked in front.

MYRIAPODA.

Silvestri, F. "Description des Espèces Nouvelles de Myriapodes du Musée Royal d'Histoire Naturelle de Bruxelles" (with fifty-two figures). Ann. Soc. Ent. Belg., xli., No. 9, pp. 345–362, Nov., 1897.

One new species (*Odontopyge leptoproctus*) from the Transvaal.

CRUSTACEA.

Sars, G. O. "On some South African Phyllopoda raised from dried mud." With four autographic plates, Kristiania, 1898 (43 pp.).

The four species described were raised in Christiania from dried mud taken by Mr. Hodgson from a small vley at Port Elizabeth. The *Apus* Professor Sars identifies with the North African *A. numidicus*, Grube, while the three other forms are described as new, one of them belonging to a new genus (*Branchipodopsis*, Sars).

"Description of two additional South African Phyllopoda." With three autographic plates. Archiv. for Mathem. og Naturvidenskab, xx., No. 6 (23 pp.), 1898.

The two remarkable Crustaceans described and figured in this paper include a *Branchiopod* and a new genus of *Limnadiid*, which were captured in the vley on the Green Point Common near Cape Town, and sent to Professor Sars by the South African Museum. Professor Sars has been good enough to supply the Museum with type-specimens of all the species described by him in these two papers.

VERMES.

Beddard, F. E. "On a Collection of Earth-worms from South Africa, belonging to the Genus *Acanthodrilus*." Proc. Zool. Soc. Lond. for 1897, part ii., pp. 336–349.

This paper contains descriptions of nine species of earth-

worms from the Cape Colony, sent by the South African Museum to Mr. Beddard for identification. All of them proved to be new and to belong to the Genus *Acanthodrilus*, of which only one species had been previously recorded from South Africa. The prevalence of this genus in South Africa is, as the author points out, remarkable, for although common in New Zealand and Patagonia, it is not known at all from Central Africa, where it is replaced by the allied genus *Benhamia*.

W. F. P.

BOTANY.

Bolus, Harry. "Extra-tropical South African Orchids," vol. i., part ii., large 8vo. London, 1896.

This work, the first part of which appeared in 1893, contains the figures, mostly coloured, and descriptions of 100 South African Orchids, the greater number being from the south-eastern region. The work is a model in every respect, even to a higher degree than its predecessor, "The Orchids of the Cape Peninsula," published in 1888 by the same author. Artistic and yet strictly scientific drawings are combined in the illustrations, and the utmost accuracy and completeness are maintained in the descriptions, and in the references to other works.

Thiselton-Dyer, Dr., edited by. "Flora Capensis," vol. vi. London, 1896–7.

At last a new volume of the "Flora" has made its appearance, thirty-two years after the publication of volume iii. It contains the *Hæmodoraceæ*, *Iridaceæ*, *Amaryllidaceæ*, and *Liliaceæ*, by Baker, and is consequently specially welcome to all lovers of Cape bulbs.

"Flora Capensis," vol. viii., part i. London, 1897.

This part of the last volume of the Cape Flora contains the *Restiaceæ*, *Cyperaceæ*, and a number of smaller orders. The grasses which are to complete it have been taken in hand already, and then, we hope, volumes iv. and v. will speedily

follow, although it will be hardly possible to squeeze all the remaining orders into two volumes.

EDMONDS, HENRY. "Elementary Botany," revised and edited for South Africa by Rudolf Marloth, with sketch-map of the Botanical regions of South Africa. London, 1897.

SCHINZ, H. "Beiträge zur Kenntniss der Afrikanischen Flora," part iv., with 4 plates, in "Bulletin de l'Herbier Boissier, vol. iv., pp. 410–475. Geneva, 1896.

Contains, among other African plants, the diagnoses of forty-five new species and four new genera from South Africa by the following collectors: Bachmann, Baur, Bolus, Fleck, Galpin, Hermann, Junod, Kuntze, Menyhart, Purcell, Rehmann, Schlechter, Shaw, Sprenger, Tyson, Wood.

The new genera are: *Aulostephanus* (Asclepiadaceæ), Schlechter; *Symphipappus*, *Distegia*, and *Monactinocephalus* (Composites), by Klatt.

SCHÖNLAND, S. "Some New Species of *Crassula* from South Africa." Journal of Linnæan Society. Botany, vol. xxi., pp. 546–554.

This contains the descriptions of ten new species from the collections of Messrs. Baur, Galpin, Marloth, Schlechter, Sim, South.

SCHLECHTER, R. "Decades Plantarum Novarum Austro-Africanarum," Nos. 1–5. Journal of Botany, 1896–7. 26 pp.

The fifty new species described so far belong to various orders. They are from the collections of Messrs. Bolus, Wolley Dod, Evans, Flanagan, Galpin, Leipoldt, Marloth, Penther, and, of course, Mr. Schlechter's own.

MARLOTH R. "Charadrophila Capensis," Marloth. In Engler's Botan. Jahrbücher, vol. xxvi., with plate viii.

This very distinct new genus of *Gesneraceæ* was discovered

on the damp and shady rocks near both waterfalls in Jonkershoek valley. While in its foliage and flowers the plant agrees with the general characters of the order to which it has been assigned, it possesses the bilocular ovary of *Scrophulariaceæ*. It is surprising that a plant with such conspicuous flowers and leaves should have remained undescribed until now, although its locality is only thirty miles from Capetown.

Note.—In a preliminary communication regarding this plant (see vol. ix. of these Trans., p. xxvii.) another name was provisionally assigned to it, but on further consideration the above appeared preferable.

Heydrich, F. "Corallinaceæ," in "Berichte der Deutschen Bot. Gesellschaft.," 1897, vol. xv., pp. 34–70, with 1 plate.

Contains the descriptions of two new South African species of *Lithothamnion* (Algæ), collected in False Bay by Dr. Marloth.

MacOwan, Professor P. "Herbarium Austro-Africanum," Cent. Nos. xviii. and xix., Capetown, 1897

This distribution of South African plants, which has now reached the number 1,900, contains among the last sets several important species hitherto to be found only in a few European collections, *e.g.*, *Welwitschia*. The material for the completion of the second thousand is already partly collected.

Wilson. "On the Adaptation of *Albuca corymbosa* and *Albuca juncifolia* to Insect Fertilisation." Trans. Bot. Soc. Edin., vol. xvi.

"The Dimorphism of the flowers of *Wachendorfia paniculata*." Ibid., vol. xvii. (Translated in 'Botanisch Jaarboek,' vol. ii.)

"Observations on the Fertilisation and Hybridisation of some species of *Albuca*." 'Botanisch Jaarboek,' vol. iii. (English and Dutch).

"On the Prolongation of the Flowering-period of *Tritonia* (*Montbretia*) *Wilsoni*, Baker." Trans. Bot. Soc. Edin. vol. xix.

Diels, L. "Die Epharmose der Vegetationsorgane bei *Rhus L.* § *Gerontogeæ*, Engler." In Engler's 'Botan. Jahrbücher,' vol. xxiv., 5, pp. 568–647, with 1 plate.

The author has studied the morphology and anatomy of the leaves of ninety species of the section *Gerontogeæ* of the genus *Rhus*, with a view to ascertain the relations which exist between the structure of the leaves and the climate of their habitat. He arrives at the conclusion that this group of plants originally came from Western Asia, at first invading Eastern Africa and subsequently spreading and developing largely in South Africa. Consequently he considers it to be a comparatively recent element of our generally much older flora.

Erikson, Jakob. "Der Heutige Stand der Getreiderostfrage." Ber. der Deutschen Bot. Ges., xv., 3, pp. 183–194.

The investigations into the nature and causes of rust on cereals, which Mr. Erikson and Mr. E. Henning have carried on at the Experimental Station of the Agricultural Academy of Stockholm for more than six years, have brought to light several facts which considerably modify our knowledge of this vegetable parasite. In the present article the author gives a summary of their microscopic investigations and of the numerous experiments made year after year in the field and in the laboratory. Some of these experiments were very tedious and elaborate. In one series they cultivated various kinds of cereals in glass houses in sterilised soil and air; but as, during sunshine, in spite of ventilators driven by steam, the temperature inside became too high, they finally provided these cultivating houses with double walls, between which water was made to circulate.

As the rust causes a loss of several hundred thousands of pounds every year to the Colony, the subject is one of the greatest importance to our agriculture. Among other things, the author has proved that there are at least ten different forms of rust on cultivated cereals; that eight of these forms inhabit only one particular kind of plant each; that the wheat-rust is one of these eight kinds and does not infect any other cereal or

grass, and that consequently no other grass or cereal can infect the wheat.

Another even more important observation seems to indicate that some forms of the parasite live in the tissues of the apparently healthy plant in a kind of dormant, or rather, as the author calls it, symbiotic state, and develop the mycelium, and subsequently the spores, comparatively rapidly when the weather becomes specially favourable. The author thinks it possible that the fungus in this stage—for which he suggests the name of "*mycoplasma*"—may have existed in the plant, or even in the seed, long before it became outwardly visible. Should this view be confirmed by further investigations, it might lead to the discovery of some remedial or protective treatment of equal efficacy as that used against smut, while all attempts in this direction have failed hitherto.

Wood, Medley, and Evans, Maurice S. "Descriptions and Figures of Natal Indigenous Plants, with notes on their distribution, economical value, native names, &c., &c.," vol. i., part i., large 4to, pp. 41, with 50 plates. Durban. Bennett & Davis 1898.

The principal objects of the authors in publishing this work are: "1. To enable colonists to identify some of the wild plants coming under their notice, and to call attention to points of interest connected with them. 2. To endeavour to stimulate a continued interest in botany among younger colonists who may have acquired a knowledge of the rudiments of the science at school, and who may be in danger of losing interest in the subject for want of such information as we may perhaps be able to supply. 3. To put on record accurate botanical descriptions and figures of noteworthy plants which may be of use to botanists generally. 4. To publish in the Colony descriptions of plants new to science found in Natal."

The authors state that the second part of the volume, with an equal number of plates, will be published in due time, but "beyond this they cannot promise to go without a fair amount of support from the public."

GEOLOGY, PALÆONTOLOGY, AND MINERALOGY (FOR 1897).

SEELEY, H. G. "On *Ceratodus Kannemeyeri*" (Seeley). Geol. Mag., Dec. iv., vol. iv., No. 12, 1897, pp. 543–544.

A tooth from the top of the Karoo beds, above the Indwe coal, is described and figured. It differs from all known types, but in some respects resembles *C. Guilielmi* (Plein) from the Muschelkalk, and *C. Hislopianus* from the Gondwana beds of Nagpur.

A. W R.

DRAPER, D. "Notes on the Occurrence of *Sigillaria*, *Glossopteris*, and other Plant Remains in the Triassic Rocks of South Africa." Q. J. G. S., liii., 1897, pp. 310–314, with a sketch-map and two sections.

Fossils sent to Mr. Seward came from the Molteno beds of the Southern Transvaal. The beds rest unconformably upon rocks said to be of carboniferous age, and have a boulder bed containing fragments of these older rocks at their base.

At Boschman's Fontein and Maggie's Mine the plants were found in shales associated with a coal seam.

At Casey's Township the fossils occur in an outlier resting on quartzites and conglomerate said to be Table Mountain Sandstone.

Near Vereeniging the plants came from a quarry near the junction of the Vaal and Klip rivers.

At Zwart Koppies the plants occur in an outlier resting on granite and schists.

The Molteno beds (Triassic) are younger than the Karoo beds, which contain abundant reptiles; the presence of *Sigillaria* shows that a typical carboniferous plant of the Northern Hemisphere lived into Triassic times in South Africa.

A. W. R.

SEWARD, A. C. "On the Association of *Sigillaria* and *Glossopteris* in South Africa." Q. J. G. S., liii., 1897, pp. 315–340, with 4 plates and 3 figures in text.

Glossopteris, Brongniart. The author considers that *G. browniana*, Brongn., *G. indica*, Schimp, and *G. angustifolia*, Brongn., are not sufficiently distinct to rank as separate species. *Vertebraria*, Royle, is the rhizome of *Glossopteris*. A specimen of *Vertebraria* was found at Casey's Township and another at Vereeniging. The following varieties are described and figured:—

G. browniana. From Boschman's Fontein.
,, Var. *indica*. From Casey's Township, Maggie's Mine, and Vereeniging.
,, Var. *Angustifolia*. From Vereeniging, associated with *Sigillaria*.

Noeggerathiopsis hislopi, Bunb. Two specimens described and figured from Casey's Township and Boschman's Fontein.

Gangamopteris cyclopteroides, Feistm. Two specimens described and figured from Vereeniging and Casey's Township.

Phyllotheca, sp. Impressions of equisetaceous stem from Maggie's Mine.

Sigillaria brardi, Brongn. Specimens from Vereeniging described and figured.

Conites, sp. A specimen from Vereeniging described and figured.

Sphenopteris, sp. Small fragment of a frond from Casey's Township described and figured.

Cardiocarpus, sp. A gymnospermous seed from Casey's Township described and figured.

The flora of Casey's Township, Bushman's Fontein, and Maggie's Mine beds resembles that of the Damuda beds of India (Permo-Carboniferous). The Vereeniging plants are also closely related to those of the Damuda beds. *Sigillaria brardi* is characteristic of the European Permo-Carboniferous beds. The important feature in the collection is the association of *Sigillaria* with the *Glossopteris* flora. *Lepidodendron* has already been found with that flora in South America. The presence of *Sigillaria* and *Lepidodendron* (Northern genera) is regarded as a local extension of the Northern flora, but more evidence on this point is required.

A. W. R.

Lewis, Henry Carvill. "Papers and Notes on the Genesis and Matrix of the Diamond," edited from his unpublished MSS. by Prof. T. G. Bonney. 8vo. London: Longmans, Green & Co.,

1897, pp. xvi. (Preface by Prof. T. G. Bonney, viii–xii), 72, 2 plates, and 35 text illustrations. [South African Public Library, 635, E 84.]

The book consists of two papers by the late Prof. Lewis—the first, "On a Diamond-bearing Peridotite and on the History of the Diamond" (read to the British Association at Birmingham in 1886), the second, "The Matrix of the Diamond" (read at the British Association Meeting at Manchester in 1887), and a third by Prof. Bonney on "Kimberlite from the United States."

The first paper consists of a brief account of the Kimberley and De Beers mines in 1886, and contains quotations as to the geology of the mines and neighbourhood from the writings of E. J. Dunn, while reference is made to the accounts given by Dr. Cohen, Thomas Stow, Hudleston, Prof. Maskelyne, and Dr. Flight. Prof. Lewis suggests the shales in which the diamantiferous pipe lies as the source of the carbon now appearing as diamonds. The age of the pipes is given as Upper Triassic or Post-Triassic.

The diamantiferous rock is described from sections as "a volcanic rock, composed mainly of olivine, and containing no felspar, *i.e.*, a peridotite."

The second paper is much longer. It begins by referring to the resemblance of the Kimberley rock to one found in Elliott Co. Kentucky, and gives a detailed account of the various minerals found in the former.

Prof. Lewis's conclusions are that the diamantiferous rock is a true igneous lava and not an ash or tuff, and the diamond is one of the original constituents of the rock. He introduced the name *Kimberlite* to mark the distinct nature of this type of rock from all others known.

The concluding section by Prof. Bonney deals with the varieties of "Kimberlite" from the United States, one of which occurs at Syracuse, N.Y., and another near Willard, Elliott Co. Kentucky. The former occurs as a dyke cutting through limestone, the latter as wedge-like projections from a dyke between the strata of the coal-measures. Prof. Bonney regards the American rocks as "a little more like a porphyritic igneous rock than those which he has seen from Kimberley."

G. S. C.

DE LAUNAY, L. "Les Diamants du Cap." 8vo, pp. vii and 226, Paris, Librairie Polytechnique, Baudry & Cie., 1897.

This is an account of Cape Diamond Mining under the following heads :—

History and actual commercial organisation of the Cape diamond industry; the geology of the deposits; the method of working; the methods of treatment; working *personnel:* comparison of the Cape with other diamond regions, and a final section on the origin of the Cape diamonds and the synthesis of the diamond.

The first section gives the statistics of the Cape diamond industry since 1867 and a short table of the total production of diamonds in the world, and estimates that in 1897 the actual number of diamonds in the world would be the cut equivalent of 79,000,000 carats of rough diamonds. The gradual rise and development of the De Beers Company is given as well as the existing arrangements for the sale of the stones found, and the section concludes with statistics about Jagersfontein and the less prominent mines.

The chapter dealing with the geology of the deposits gives a historical account of the diverse opinions held as to the nature of the containing rock and the view that the serpentine-breccia filling the pipes has brought the diamonds from below is stated by Prof. de Launay to be now indisputable. An account of the basic igneous rocks associated with the "blue ground," which is also described in some detail, a list of the minerals occurring in the breccia with the diamond, as well as an account of the largest diamonds yet found, sums up the main contents of the final part of this chapter. The age of the pipes is given as being slightly subsequent to the Trias.

The next three sections present in detail the methods employed in working the various mines and are illustrated by photographs and diagrams.

Chapter vi. deals largely with the Brazil diamond deposits, and also those of India, Borneo, and Australia. Diamonds were discovered in auriferous sands in Brazil in 1727. The chief centres are the provinces of Minas-Geraes and Bahia. The deposits are nearly all alluvial and are of three kinds: (1) River deposits; (2) river-terrace deposits; (3) plateau deposits which often cover a diamantiferous conglomerate.

The Indian deposits which have been worked since, probably

3000 B.C., resemble those of Brazil, the diamonds being found in gravels or conglomerates.

The deposits of Borneo and Australia are of least importance.

The concluding chapter on the mode of origin of the Cape diamonds deals mainly with the light thrown on the question by Moissan's experiments and the inferences which may be drawn from the occurrence of diamonds in meteorites, in native iron and in steel, as well as in the basic serpentine breccia of Kimberley. The author holds that the diamonds have not been formed in the breccia, but, with many of the other fragments, have been brought up from great depths where probably they originated in much the same way as the artificial diamonds of M. Moissan, namely, from the crystallisation of carbon fused in molten iron.

G. S. C.

CROOKES, WILLIAM, F.R.S., M.R.I. "Diamonds." A lecture given at the Royal Institution of Great Britain on June 11, 1897.

The lecture begins with a description of the five chief diamond mines near Kimberley, and an account of the process now adopted for extracting the diamonds from the blue ground. The chief chemical and physical properties of the diamond are next dealt with, reference being made to the "exploding" of diamonds and their fluorescent and phosphorescent properties.

The artificial production of diamonds by M. Moissan's method serves the author as an introduction to the mode of origin of the mineral in nature, and according to Prof. Sir Wm. Crookes, "the diamond has not been formed *in situ* in the blue ground. The diamond genesis must have taken place at great depths under enormous pressure." The pipes in which the diamonds are now found were filled from below and the diamonds erupted with a mud volcano. The ferric origin of the diamond is corroborated by the ferruginous character of the country around the pipes, and the ferric hypothesis in Prof. Crookes' opinion also explains the volcanic pipes, and in this connection reference is made to the value of a careful magnetic survey.

The lecture concludes with mention of the occurrence of diamonds in meteorites. Meydenbauer's theory that diamonds are of cosmic origin, and the parallelism of the occurrence of the diamond in the Kimberley blue and in meteorites is brought under notice.

G. S. C.

GÜRICH, GEORG. "Zur Theorie der Diamantlagerstätten in Süd afrika." Zeits. für prakt. Geologie, Mai, 1897, pp. 145–8.

The author deals with the dry diggings only, under the following heads: (1) The cause of the form of the occurrence; (2) the origin of its contents; and (3) the formation of the diamond in particular.

The shape and appearance presented by the pipes are discussed, and the "blue ground" described with regard to its petrographical and mineralogical character.

The views published by Cohen, Chaper, Lewis, Moulle, Stelzner and others are briefly reviewed, and the author supports Daubrée's theory (which he confirmed by actual experiments) that the pipes have been produced by powerful explosions, making, however, a distinction between such as have been filled by debris and such as have been pierced into by ascending molten rock-material. The fragmentary nature of the materials composing the blue ground speaks further, in Dr. Gürich's opinion, for the correctness of the explosion theory. The dykes which occasionally occur in the blue ground show that intrusive action followed the original explosive infilling.

With regard to the origin of the diamond, Dr. Gürich holds that, as in Moissan's experiments, the carbon was held in the basic magma as a metallic carbide and subsequently separated out under high pressure as diamond.

G. S. C.

GARNIER, JULES. "Gold and Diamonds in the Transvaal and the Cape, being extracts from the Memoirs of La Société des Ingenieurs Civils de France," translated by C. de Sarigny. Trans. Geol. Soc. South Africa, vol. iii., 1897, pp. 91–103, with 13 diagrams.

Touches lightly on the geology of South Africa; then goes on to explain how beds of sand, &c., have been laid down on inclines; at the bottom of the great basins plastic mud containing carbonaceous matter accumulates, and when the harder beds deposited above become sufficiently thick, this mud is pressed up through them. Where the mud contains carbon it crystalises as diamantiferous blue ground; where it is free from carbon, the mud hardens to form dyke-rocks.

E. H. L. S.

Hatch, F. H. "A Geological Survey of the Witwatersrand and other Districts in the Southern Transvaal. Q. J. G. S., liv., 1898, pp. 73–100, with a map and 5 figures.

The rocks are divided into three groups, which are subdivided as follows :—

Karoo System. Coal-bearing beds of Vereeniging and Boksburg.

Cape System.

- Upper Beds
  - Magaliesberg (Pretoria Beds of Molengraaff) and Gatsrand series (Klip River series of Penning).
  - Dolomite.
  - Black Reef series (Boschrand series of Molengraaff) and Klipriversburg amygdaloids (lavas).
- Lower Beds
  - Witwatersrand Beds.
  - Hospital Hill series (Schistose Rocks of Alford. Lower quartzite and shale group of Gibson. Alte Schieferformation of Molengraaff.

Archæan.—Acid and basic igneous rocks, with some metamorphic schists.

It is held probable that the Witwatersrand Beds are the counterpart of the Cape Table Mountain Sandstone.

The various groups of the rocks are described, and an account is given of the principal faults of the district.

A. W. R.

Gibson, W. "The Age of the Rand Beds." Geol. Mag., New Series, Dec. iv., vol. iv., No. 12, 1897, pp. 548–550.

Observations have shown that in the Cape Colony the Karoo Beds have been involved in the disturbances affecting the Table Mountain Sandstone, and overlying Palæozoic rocks. In the Transvaal the Karoo Beds are undisturbed when found near the Palæozoic Beds. It is usual to regard the Rand Beds as belonging to the Table Mountain Sandstone, but it seems probable that they are of pre-Table Mountain Sandstone age, as are the Malmesbury Beds of the Colony.

A. W. R.

DRAPER, D. Letter on "The Age of the Rand Beds." Geol. Mag., New Series, Dec. iv., vol. v., No. 3, 1898, p. 141.

The writer corrects a statement made by Mr. Gibson in Geol. Mag., 1895, p. 549, that the writer found fossils in the dolomite associated with the Gats Rand Beds. The writer is unaware that fossils have been found in this rock.

A. W. R.

WENDEBORN, B. A. "Störungen der Schichten zwischen Pretoria und Vereeniging im Transvaal und die daraus resultirenden Schlüsse über den Verbleib der goldhaltigen Conglomerate." Zeitschrift für praktische Geologie, Sept., 1897, S. 305–311.

The paper begins with a short sketch of the succession of the Transvaal formations after Schenk. The relation of the sedimentary rocks to the granite between Pretoria and Johannesburg is dealt with, the steep dip of the conglomerates south of the granite mass, and the gradual decrease of dip being especially emphasised. As the folds run east and west the pressure must have been in a north and south direction, and more effective south of the granite than further north.

The structure of the country between Johannesburg and Pretoria is shown by means of a section to consist of a faulted and denuded anticline—the granite occupying the centre, and the northern fault having a much greater downthrow than that on the south. The author reckons that north of the granite towards Pretoria, the South Reef of the Main Reef Series, lies at a depth of 15,500 feet, and that, therefore, it will be impossible to attempt to mine this northern portion of the gold-bearing conglomerates.

The numerous "reefs" of small extent which overlie the main gold-bearing series have been probably formed, at least in part, from the debris of the denuded anticline, and as all the later sedimentary series, even the coal-bearing formation, contain traces of gold, a similar origin for these is likely.

G. S. C.

KRAUSE, PAUL R. "Über den Einfluss der Eruptivgesteine auf die Erzführung der Witwatersrand-Conglomerate und der im dolomitischen Kalkgebirge von Lydenburg auftretenden Quarzflötze nebst einer kurzen Schilderung der Grubenbezirke von

Pilgrimsrest und De Kaap" (Transvaal). Zeitschrift für praktische Geologie, Jan., 1897, S. 12–25 (with geol. map and section of the De Kaap district).

The conglomerate is described from hand specimens and sections, and the theories as to the origin of the gold stated—the author giving as the most probable the view that the gold was introduced by percolating metalliferous solutions. He regards the various igneous intrusions as an accompanying phenomenon and an assisting cause. The influence of these igneous rocks is treated at some length, and is supported by the parallelism which exists between the copper-bearing conglomerates of Lake Superior and the gold-bearing conglomerates of the Rand, as well as by the effects of eruptive rocks in the Lydenburg district, more especially at Pilgrim's Rest. The dolomite of this locality is compared with the galena deposits of Derbyshire, where the influence of igneous intrusions on the metalliferous deposits has never been doubted.

The Pilgrim's Rest gold-bearing quartz-reefs in the dolomite are described in some detail, and sections given showing the succession of dolomite and "Trap."

The account of the De Kaap fields is accompanied by a map of the district, and deals with various auriferous properties, especially the Sheba Mine, of the working of which a short history is given.

G. S. C.

Bain, A. S. "Reminiscences and Anecdotes connected with the History of Geology in South Africa, or the Pursuit of Knowledge under Difficulties." Trans. Geol. Soc. South Africa, vol. iii., 1897, pp. 59–75; reprinted from the Eastern Province Monthly Magazine, September, 1856.

E. H. L. S.

Carrick, J. T. "On Faulting along the Main Reef Line." Trans. Geol. Soc. South Africa, vol. iii., 1897, pp. 39–41, with diagram.

Where the dip is steep, from 40° to 80°, reverse faulting occurs, due to intrusion of dykes; where the beds dip from 30° to 40°, normal or reverse faulting may occur; where the dip is under 30° normal faulting alone occurs, due to subsidence. The Rand beds cannot have been upheaved; for if they had been the reversed faults would dip towards an axis of upheaval, which they do not.

"Faulting along the Main Reef." Trans. Geol. Soc. South Africa, vol. iii., 1897, pp. 82–83.

The beds south of Johannesburg have been laid down in a sinking area, and did not extend over Hospital Hill. They were deposited in a shallow tidal lake. The various members of the Banket series are unconformable one with another.

E. H. L. S.

Sawyer, A. R. "Notes on Extension of Main Reef Westwards of Witpoortje." Trans. Geol. Soc. South Africa, vol. iii., 1897, pp. 35–36, with section.

Slates like the Hospital Hill beds occur at Witfontein, and also eight miles south of this at Haartebeestfontein; as no slates like this lie above the Main Reef series, the presence of the latter must be due to a fold or overthrust. The Black Reef series lies on granite near here, indicating an intrusion through the Main Reef and associated conglomerates.

"Notes on the Bezuidenville Borehole." Trans. Geol. Soc. South Africa, vol. iii., 1897, p. 38.

Position of borehole 6,000 feet from Main Reef outcrop, and the Main Reef series struck at depth of 3,100 feet to 3,250 feet dipping at an angle of 22·5°.

E. H. L. S.

Draper, David. "The Extension of the Main Reef Westward of the Farm, Witpoortje." Trans. Geol. Soc. South Africa, vol. iii., 1897, pp. 5–14, with map and sections. Discussion on the paper, pp. 15–32, with two sections.

The accepted succession of strata near Johannesburg is: 1. Megaliesburg and Gat's Rand series. 2. Dolomite; unconformity. 3. Sandstone, quartzite and shale group. 4. Older sandstones, quartzites and shales; unconformity; schists and granite. Characteristic slates occur on Hospital Hill near Johannesburg, and are found on the west on the farms Honing Klip and Elandsfontein. Above these at the Rand come the conglomerates, divided into the Main Reef, Bird Reef, Kimberley and Elsburg groups. The Bird Reef series is known west of Witpoortje so that the other series are probably there also. Above the Elsburg series there is a sheet of amygdaloidal diabase, remains of which can be traced on the west.

E. H. L. S.

Demaret, L. "On the extension of the Main Reef Eastwards, beyond Vogelfontein, and on the Nature of the Rietfontein Reef." Trans. Geol. Soc. South Africa, vol. iii., 1897, pp. 143–144.

Proves theoretically that the New Rietfontein Reef may belong to the Main Reef series.

E. H. L. S.

Stonestreet, S. D. "Notes on the Black Reef at Natal Spruit." Trans. Geol. Soc. South Africa, vol. iii., 1897, pp. 53–55.

South of the Black Reef outcrop is a flat expanse of swampy ground where the rocks are covered by thick surface deposits. This country has now been explored by drilling. The Black Reef is deposited on a sheet of amygdaloidal igneous rock capping the Elsburg series; the igneous sheet is thrown into folds or waves 300 feet to 400 feet from crest to crest, and from 50 feet to 200 feet in height. In the troughs the payable ore is found; it is a conglomerate with small pebbles and angular fragments; it is richest in the lowest six inches, and below this is a ferruginous clay carrying gold. The hanging wall is quartzite, and above this is limestone. A dyke of syenite occurs in the district.

E. H. L. S.

Wilson-Moore, C. "Some Observations on the Geology of the Sabie Valley." Trans. Geol. Soc. South Africa, vol. iii., 1897, pp. 131–140, with map and sections

The Lydenburg beds are divided into the—(*a*) Upper Shales and Sandstones; (*b*) Dolomites; (*c*) Lower Sandstones and Conglomerates; below these are tilted slates and granite. The tilted slates often surround horizontal tracts of the lower sandstones, as if the latter were deposited in hollows of the former. These slates are the same as the Swazie schists, and occur in belts running east and west; they are occasionally very little altered, but usually exhibit schistose structure. The granite passes into them through gneiss. On the confines of the Portuguese territory extensive coal deposits are found, and Jurassic beds with fossils occur near by on the lower slopes of the Sebombo; the coal is laminated but rusty in colour. The sandstones and shales bearing the coal rest directly upon granite.

E. H. L. S.

GARNIER, JULES. "Gold and Diamonds in the Transvaal and Cape," translated by C. de Sarigny, part ii. Trans. Geol. Soc. South Africa, vol. iii., 1897, pp. 109–120, with map and 2 diagrams by D. Draper.

Propounds the theory that the gold in the Banket is deposited from solution, gold salt being the trichloride and the reducing agent organic matter, and sulphuretted hydrogen obtained from the decomposition of it or by the action of bacteria elaborating the gas. The small percentage of phosphoric acid in the analysis of Banket ores proves the former presence of animal matter. The pebbles of quartz were deposited from rapid streams, and the interstices being comparatively free from currents allowed the deposition of gold. The coarse reefs are poor. The depth of the ocean in which the Banket was formed was 23,000 feet. E. H. L. S.

DRAPER, DAVID. "On the Connection between the Conglomerate Beds of the Witwatersrand and those situated in the Districts of Potchefstroom and Klerksdorp." Trans. Geol. Soc. South Africa, vol iii., 1897, pp. 47–51, with map and sections.

The dolomites north and south of Johannesburg at Six Mile Spruit and Klip River can be traced to the farm Bosch-pan, where the two series meet. Below the dolomite is the Black Reef series resting unconformably on older quartzites and conglomerates. The Hospital Hill States can also be traced westward to Witkop in the Vaal River where the Black Reef series crosses over into the Orange Free State, so that this Reef is continuous from Klip River to the Vaal, displaced only by a fault on the farm Oog van Wonderfontein. Near Klerksdorp the Main Reef series is well known; on the commonage at Klerksdorp conglomerates similar to the Elsburg series occur overlaid by an amygdaloidal diabase. The conglomerates on the west are repeatedly folded. E. H. L. S.

FRAMES, M. E. "A few Observations on the Potchefstroom and Klerksdorp Districts." Trans. Geol. Soc. South Africa, vol. iii., 1897, pp. 87–90.

Between Elandsfontein and Mooi River the Black Reef

quartzites lie upon granite; the northern and southern Black Reefs join here as well as the two dolomites. Hospital Hill slates occur south of Modderfontein; at Kaalfontein; Bankets are found in the same position relatively to the slates as the Bird Reef series near Johannesburg; at Witrandfontein the reef can be referred in the same way to the Kimberley series. Two lines of slates occur between Kaalfontein and Witpoortje, due to faulting. The conglomerates are folded.

Brown, Nicol. "The Succession of the Rocks in the Pilgrim's Rest District." Trans. Geol. Soc. South Africa, vol. iii., 1897, pp. 3, 4, with section of strata at Frankfort.

Three rock divisions in the district: the Upper Sandstone, the Dolomitic Limestone, and the Lower Sandstone, equivalent to the Gatsrand, Dolomite, and Conglomerate series of the Rand.

Frames, M. E. "Notes on the Coalfields of the Transvaal." Trans. Geol. Soc. South Africa, vol. iii., 1897, pp. 150–157, with 3 sections and discussion at end.

The author correlates the South African strata with European ones. The coal-beds reach from the Stormberg Mountains to Middelburg in the Transvaal, and eastwards nearly to the Indian Ocean. Outliers exist around this area, and sometimes the sandstones of this age occur without the coal but with abundant fossils of plants. The coal is laminated, contains more or less pyrites, is very high in ash, and is too soft for coke, though all varieties of coal are found in small patches. The great eastern seam, 70 feet thick, is the biggest. The coal rests on the upturned edges of the Rand beds, with or without an underlying shale bed; at Vereeniging there is conglomerate beneath the seams. Igneous dykes sometimes intrude.

Bordeaux, A., Ingénieur civil des Mines. "Études sur les champs aurifères de Lydenburg, de Kaap et du Charterland (Afrique du Sud)." Annales des Mines, 9me série, tome xi., 3e livr. de, 1897, pp. 273–349.

This paper gives the result of observations made on a visit of fourteen months' duration to South Africa, during which the

author inspected, among others, the Goldfields of De Kaap, Lydenburg, and Rhodesia.

The first chapter deals with the Goldfields of the Kaap and Komati valleys. The rocks of these localities are described as being among the oldest in South Africa, consisting at the base of the valleys of coarse-grained granite, syenite, and pegmatite, while the mountains and hills which separate these are formed of schists, quartzites, conglomerates, and clay-slates, with intrusions everywhere of diorite and other igneous rocks. The gold occurs in the conglomerates, schists, quartzites, along the dykes of diorite, and sometimes even in the diorite. Alluvial gold is also found.

The various groups of mines in the Kaap area are then described in detail, special attention being shown to those of Sheba Hill, the formation of which is characteristic of the whole district, and the sequence of gold-bearing beds is given.

In the neighbourhood of the Komati the formation is similar to the above, and the Goldfields of Steynsdorp, Swaziland, and Carolina, the latter especially, are not described at length.

The second chapter is devoted to the Goldfields of Lydenburg—Pilgrim's Rest. Attention is first called to the alluvial workings, which in this district are of some importance, particularly those of Pilgrim's Rest, Mac Mac, and Spitzkop. The geological formation is quite different from that of the Kaap-Komati area, it being characterised by thick beds of dolomitic limestone, with layers of auriferous quartz, that at the base forming the Spitzkop and Mac Mac Reefs, and some near the top the Pilgrim's Rest Reefs. Both above and below the dolomite there occur layers of sandstone and conglomerate, those at the bottom resting on the granite, while those above form the summits of the mountains. Ores of copper, iron, and manganese have been found. The various mines of the Pilgrim's Rest, Spitzkop, and Waterval districts are described in detail; and as the dolomite occurs in great quantity farther north, the suggestion is made that in time gold may also be found there.

The third chapter is reserved for Rhodesia, and opens with an account of the topography and vegetation of the country. The great central plateau—the high veld—differs totally from the low veld both in climate and in the nature of the vegetation, which is described in detail. The soil is generally good, and large tracts of country which at present are of no use could be rendered fertile by irrigation. Near the diorite dykes, par-

ticularly, boring should be successful, the dykes being generally water-bearing.

The characteristic rocks are granite and metamorphic gneiss, and they are accompanied by bands of schist. These are chloritic or micaceous, and are traversed by veins of quartz. Numerous dykes of diabase, diorite, trap, &c., occur in both granite and schist, and the latter has often been metamorphosed at the point of contact. Other igneous rocks also occur in large variety, such as pegmatites, rhyolites, diabases, andesites, dolerites, basalts, peridotites, &c., and there can be no doubt that in time a still greater variety will be found, together with all sorts of minerals. The sedimentary deposits so characteristic of the Transvaal do not appear to exist in the gold-bearing areas of Rhodesia. Everywhere there are signs of intense erosion and disintegration; but there is a marked absence of dislocations and the other indications of violent earth movement. Gold occurs principally in the schists, but also in the diorite and even in certain granites. Throughout the country one meets with traces of ancient workings, and in some places these appear to have been considerable. The most important are those at Mazoé, Lo Mogundis, Umfuli in Mashonaland, at Umtali in Manicaland, and at Gwanda, Selukwe, Insiza in Matabeleland. Alluvial gold is found chiefly in connection with the old workings.

The goldfields of Manicaland, with which are included those of Massi-Kessé, of Mashonaland, and of Matabeleland are next described, though the author, owing to want of time, was not able to visit them all. He was, however, so fortunate as to obtain a good deal of information from mining engineers resident in the country, who had a personal acquaintance with those he had been obliged to pass by.

The conclusion arrived at is that though, owing to the structure of the country, many of the reefs are of no great value, it is nevertheless probable that in some places gold will in time be found in payable quantities.

In conclusion, the author deals with the administration of the mines, and speaks with disapproval of the 50 per cent. royalty—in some cases, however, reduced to 20 per cent.—exacted by the Chartered Company.

Of the future of the mining industry it is difficult to speak with certainty until the country has been better opened up by the railway; of its possibilities from an agricultural point of view there can be no doubt. M. W.

Redlich, K. A., and v. Dessauer, A. "Ein Beitrag zur Kenntniss des Umtali-Districtes (Manica, Mashonaland)." Oesterr. Zeits. für Berg. u. Hüttenw., xlv., Jahrg., No. 1. Wien, 1897.

The authors describe steeply dipping Archæan schists (Urschiefer), which may represent the Swazi schists as running with east and west strikes for sixty miles from the Portuguese territory to the Sabi River. These rocks are ten miles wide in the east, but westwards they give place to granite. Basic igneous rocks run parallel with the schists, and both are cut through by younger greenstones.

The authors describe the mineral veins as: (1) Veins in talc-schists, containing crocoisite, galena, blende, &c., while some contain gold; (2) veins at the contact of granite and the schists—one of these has yielded in places 40 oz. gold per ton; (3) veins in basic rocks.

One of the authors (Redlich) gives an account of the rocks of the district from specimens collected by the other, as well as a crystallographic description of the crocoisite found at Penhalonga. Crystals of this mineral are found sometimes on talc-schist, sometimes on quartzite, covering the whole surface of the rock.

The general geology of the district is illustrated by a geological sketch-map and three sections. The authors consider the Umtali Goldfields likely to have a favourable future.

GEOGRAPHY.

(1897.)

Baden-Powell, R. S. S. "The Matabele Campaign, 1896." xvi +500 pp. London.

Bertrand, Alf. "Notes résumées sur un voyage d'exploration au pays des Ba-Rotse." Mém. Soc. Géog. Genève, xxxvi., pp. 41–61.

Brincker, P. H. "Beschreibung der 'Eúmbo' des Häuptlings der ovakuánjama in Nord-Ovamboland." Globus, lxxi., pp. 94, 95.

Bryce, J. "Impressions of South Africa." xxvi+604 pp. London.

Buchan, A. "A Discussion of the Rainfall of South Africa during the ten years 1885–94." 34 pp. Capetown.

Coillard, F. "On the Threshold of Central Africa." xxxiv+664 pp. London.

Colenso, H. E. "The Problem of the Races in Africa." Imp. and Asiatic Quart. Rev., iv., pp. 43–59.

Correvon. "Am Sambesi." Eine afrikanische Reise. Frankfurt a. M., 1897.

Cristol, F. "Au Sud de l'Afrique," avec 150 dessins et croquis de l'auteur. Paris, 1897. Fr. 3.50. Berger-Levrault & Cie.

Dove, K. "Wissenschaftliche Aufgaben in Südwest Afrika." Mitteil. Geog. Gesellsch. Hamburg, xiii., pp. 58–69.

Esser, Max. "Meine Reise nach dem Kunene im nördlichen Grenzgebiet von Deutsch-Südwest Afrika." Verhand. Gesellsch. Erdkunde, xxiv., pp. 103–113.

Foa, Edouard. "A travers l'Afrique Centrale, Du Cap au Lac Nyassa." viii+382 pp. Paris.

Fripp, C. E. "Recent Travels in Rhodesia and British Bechuanaland." Journ. of the Soc. of Arts, xlv., pp. 515–531.

Garrard, J. J. "Report on the Mining Industry of Zululand for the year 1896." iv+72 pp Pietermaritzburg.

Gessert, F. "Reise längs der Flussthäler des südwestlichen Gross-Namalandes." Globus, lxxii., pp. 190–192.

Gessert, F. "Der Seewind Deutsch-Südwest Afrikas und seine Folgen." Globus, lxxii., pp. 297–299.

Gindre, H. "En Afrique Australe et à Madagascar." Bull. Soc. Geog. Lyon, xiv., pp. 319–374.

Hartmann, —. "Bemerkungen zur vorläufigen Karte des Koncessions-Gebietes des South-west Africa Co. Lim." Mitteil. Geog. Gesellsch Hamburg, xiii., pp. 141–142.

HARTMANN —. "Das Kaoko-Gebiet in Deutsch-Südwest Africa, au Grund eigener Reisen und Beobachtungen." Verhand. Gesellsch. Erdkunde, xxiv., pp. 113–141.

HEENAN, R. H. H. "The Harbour of Algoa Bay." Proc. Inst. Civil Engineers, cxxx., pp. 263-275.

HOLLAND, F. C. "The Prospects of Rhodesia." Contemporary Rev., lxxii., pp. 470–481.

HORSEY, A. F. R. DE. "The Africa Pilot," part iii. (From Cape of Good Hope to Ras Aser), 6th edition. xxiv+634 pp. London.

INGRAM, J. F. "Natalia: a condensed History of the Exploration and Colonisation of Natal and Zululand, from the Earliest Times to the Present Day." 86 pp. London.

JACOTTET, E. "Mœurs, coutumes et superstitions des Ba-Souto. Bull. Soc. Neuchateloise de Géog., ix., pp. 107–151.

JOHNS, P. The Coalfields of the Colony of the Cape of Good Hope' 16 pp. Capetown.

LAUNAY, L. DE. "La prise de possession de l'Afrique Australe." Révue Scientifique, vii., pp. 193–203.

LENZ, O. "Ueber altarabische Ruinenstätten im Maschona-land und deren Beziehungen zum biblischen Ophir." Mitteil. K. K. Geog. Gesellsch. Wien, xl., pp. 187–211.

LEVITA, C. B. "A Visit to South Africa." Proc. Roy. Artillery Inst., xxiv., pp. 277–299.

PASSARGE, S. "Brief über seine Reisen in Süd-Afrika." Verhandl. Ges. Erdk. Berlin, xxiv., pp. 475–478.

REHBOCK, —. "Deutsch-Südwest Afrika." Deutsche Kolonialzeitung, x., pp. 512–514.

(ANONYM.) "Rhodesia: its Goldfields and Prospects" (Christmas Number of *Cape Times*). 56 pp. Capetown.

SCHULZ, A., and HAMMAR, A. "The New Africa: a Journey up the Chobe and down the Okovango Rivers." xii+406 pp. London.

Selous, F. C. "The Economic Value of Rhodesia." Scottish Geog. Mag., xiii., pp. 505–514.

Sutton, J. R. "Sunshine at Kimberley, South Africa." Symons' Monthly Meteorolog. Mag., xxxii., pp. 17–20.

Tennant, D. "The Railway System of South Africa." Journ. Roy. Colonial Inst., xxix., pp. 8–35.

Villiers, Melius de. "England's Advance North of the Orange River." Nineteenth Century, pp. 366–386.

(Anonym.) "Voyage sur les bords du Zambèze," d'après M. E. Foa, Rev. Scientifique, vii., pp. 561–564.

T. M.