

Zeitschrift: Acta Tropica
Herausgeber: Schweizerisches Tropeninstitut (Basel)
Band: 26 (1969)
Heft: (10): Parasitic diseases in Africa and the Western Hemisphere : early documentation and transmission by the slave trade

Artikel: Parasitic diseases in Africa and the Western Hemisphere : early documentation and transmission by the slave trade
Autor: Hoeppli, R.
Register: Subject index
DOI: <https://doi.org/10.5169/seals-311630>

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

Download PDF: 05.05.2026

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

SUBJECT INDEX

âââ, different opinions about, 145

African art, general remarks, 201, 202, 203

– south of the Sahara. General remarks. Statues in pole style and round style, 201, 202

– amulets, masks, 202, 203

– bronze statuette of a naked young negro with hands fettered behind his back, 206

– delousing scene, mother and child, 205

– decorated vessels used for medicinal purposes, made by the Cham and Longudu, 206, 210, 211

– doubtful case of elephantiasis, enlargement of legs in a statue of Pharaoh Mentuhotep, 201

– elephant tusk with carvings of slaves, secured with chains, 206

– fetish figures, 202

– fetish statuette from Gabon used for magic treatment of sleeping sickness, 204

– fetish statuette used for treatment of worm infection, 205

– highly simplified terracotta tick dating from the Nok culture, 206

– possibly oldest record and oldest figures of ticks on a fragment of a hyaena-like animal from an Egyptian tomb, about 1500 B.C., 201, 206

– publications with numerous bibliographic references on African art, 201

– representations of elephantiasis scroti, from different periods, 204, 205

– representation of nasopharyngitis mutilans (tertiary yaws, gangosa), 203, 204

– representations of parasitic diseases from the time of the Nok culture to the twentieth century, 203

– representation of various kinds of non-parasitic insects in bronze, 210

– terracotta pot to hold medicine powder for the treatment of scabies, 206

– tomb at Sakkarah with reliefs showing figures with pathological changes probably caused by schistosomiasis, 201

– treatment of elephantiasis scroti, group of three brass figures, 205

African tick fever, early studies, 67, 68

Alpini, Prospero mentions the frequency of lice in Egypt, 78

Amoebae found in cases of dysentery in Egypt, 63

– found by Loesch in a case of chronic dysentery in 1875, 62

– found in the stool of a child by Lambl in 1859, 62

Authors of publications mentioning parasitic diseases from the 15th to the 19th century, 4, 5

Balkh sore, in Elgood's opinion is Oriental sore, introduced by Mongols in 1258 into Baghdad, 43

Barbot, John (Jean), Agent-General of the Royal Company of Africa and Islands of America in Paris, 196

Bedbugs, according to Bernabé Cobo's report of 1653 were absent in Peru but occurred in other parts of the Indies, especially in Mexico, 184

– carried by Spaniards to the New World, 183

- 'chinche' and the Aztec word 'texcan' used by Spanish authors for bedbugs and other arthropods, 184
- doubtful whether they existed in America before Columbus, 184
- early Greek and Roman authors who discussed them, 183
- known in the mediterranean region from antiquity, but were introduced into some countries comparatively late, 183
- in 1748 very frequent in Lima, 184
- introduced into Chile by Europeans towards the middle of the 19th century, 184
- recommended for treatment of malaria by various authors in Europe and India, 183
- Bilious typhoid – vide epidemic louse-borne Relapsing Fever, 66
- Blackwater fever, 55, 56
- Borrelia of African tick fever, early authors who carried out investigations with *Borrelia duttoni*, 67, 68
- Bosman, Willem, chief factor at the castle of Elmina, 196
- Braun, Samuel, *Schiffahrten*, mentions minute worms under the nails (sandfleas?), 171
- Bubas, according to Bernardino de Sahagún are of two different kinds: moist and dry lesions, 103
 - early chroniclers of the Spanish conquests, referring to, 106–107
 - Oviedo was the first to suggest that bubas were carried by the Spaniards to Europe, 103
 - (yaws and syphilis) old myths and folklore dealing with, 102, 103
 - yaws or syphilis, treatment by the Indians with Guaiac wood, mentioned by Oviedo, 88
- 'Buboso', fragment of a mural in a ruined building at Atetelco-Teotihuacán, Mexico, 103 – Plate VIII

- Calabar swellings, early reports, 133
- Carate due to atmospheric disturbances, in the opinion of Padre Alzate, 84
 - existence in pre-Columbian times, 79
 - first reference given by Friar Román Pane, 80, 83
 - investigations by the present author regarding the pretended letter by Cortés to Charles V, 83, 84
 - not introduced from Africa by negro slaves, reasons, 79, 80
 - not mentioned by Francisco Hernández, 80, 83
 - the pretended letter by Cortés to Charles V, 81, 82
 - statement by Oviedo that prominent Indians used slaves with carate as they were especially strong, 80, 83
- 'Chama Lazarus', 77
- Chimpanzees in Central Africa, with *Plasmodium* infection, 50
- Cobo, Fray Bernabé (1653) knew the 'mosquito-worm', the larva of *Dermatobia cyaniventris*, 160, 162
- Congo floor maggot, larva of *Auchmeromyia luteola*, a blood sucking fly larva, 161
- Craw craw, name used in Africa frequently for scabies, 165, 166
- Cutaneous leishmaniasis, 43

- Death caused by dysentery among the slaves on the 'St. John' in 1659, 195
 - rate in the British Navy on the West African coast in the first half of the nineteenth century, 194
- Decline of Portuguese and Spanish power in the 17th century, 12

- Delousing, sculpture, wood, mother and child. The child is picking lice from the mother's head – Plate XIX
- woman with large lice on her garment, Mochica pottery – Plate XVIII
- Denderah temple, inscription of a prayer to the New Year, 3, 51–52, 56
- Dermatobia cyaniventris* larva, names used in Mexico, Central and South America, 162
- Diptera, bloodsucking, general remarks, 156
- Diseases on three voyages to the Guinea coast made in the sixteenth century. Excerpts from reports, 197, 198
- Dracunculus infection mentioned by Agatharchides, 3, 130
- Dracunculus medinensis*, among negroes widespread opinion that infection comes from drinking impure water, 126, 127, 128, 129
- dangerous consequences when, during extraction, worm is broken, 126
 - early illustrations, 130, 131
 - early illustration of extraction in manuscript of Charaf Ed-Din (Sharaf al-Dīn). 130
 - fiery serpents of the Bible, 124
 - Greek, Roman and Arabic writers who mention, 125
 - introduced by African slaves into the Western Hemisphere where it temporarily established itself but gradually died out, 215
 - introduced by the slave trade into the Antilles, the Guianas and the State of Bahia in Brasil, 128
 - Mermis mistaken for *Dracunculus*, 129
 - method of slow removal, described by James Bruce, 127
 - no agreement of authors whether it was an animal, 125, 129
 - reports on its occurrence in Africa from 1600 to the middle of the 19th century, 125–128
 - statement in the Canon of Avicenna, 130
 - statement of the governor of Rio de la Plata in 1599, 128, 131
- Dysentery, bloody-flux introduction in 1626 into Sierra Leone according to Quojas negroes, 63
- on slave ships causing many deaths, epidemic outbreaks due to bacillary dysentery, 195
 - on slave ships, statement by A. Bryson, 63, 64, 65
 - studied in Egypt by Kartulis in 1885 and by Kruse and Pasquale, 63
- Dysentery (amoebic) introduction by negro slaves into South America, certain indications, 64
- Dysentery root, ipecacuanha, first statements on, 62, 64
- Early American art, general remarks, 206
- 'Buboso', mural in a ruined building at Atetelco-Teotihuacán of about A.D. 200–300, 207, 208, 210
 - clay figurine showing what apparently represents elephantiasis scroti, found in a ruined temple at Dzibilchaltun (northern Yucatán), 121, 208
 - Codex Telleriano – Remensis pictures patients with smallpox, 211
 - delousing. Huaco showing a woman with large lice on her gown, 209 – Plate XVIII
 - design of mosquitoes on Mimbres pottery, 157
 - destruction of nose and lips probably due to uta shown in huacos, in terracotta figures and heads, 207
 - flea of terracotta of about A.D. 300–800. Flea in white stone of about A.D. 1200–1500. Both kept in the Museo de Antropología e Historia in Mexico D.F., 209
 - four authors whose publications have large bibliographies, 209

- in the Codex Magliabecchi an Indian suffering from matlazahuatl (exanthematic typhus) is shown, 211
- Mochica pottery, anthropomorphic huacos, general remarks, 211
- representation of uta, 207
- two huacos (Mochica pottery) showing people examining the soles of their feet with small holes wherefrom sandfleas supposedly have been removed, 208, 209
- two pictures, one of a man and the other of a dog discharging large intestinal worms. Pictures in the *Historia General de las Cosas de Nueva España* by Sahagún, 208, 211
- Early authors mentioning parasitic diseases in Africa and the Western Hemisphere, 4
- Early works of art representing parasitic diseases and parasites, 3
- Edfu temple, inscription of a prayer to the New Year, 3, 51, 56
- Elephantiasis, Ashanti Goldweight, brass, beggar with elephantiasis scroti sitting on the ground holding a bowl between his feet – Plate XII
 - different causes, 119
 - figure (torso) terracotta, elephantiasis scroti. Provisionally dated 12th–14th centuries – Plate X
 - figure (torso) terracotta, Nok culture, elephantiasis scroti – Plate IX
 - group of three brass figures showing treatment of elephantiasis scroti – Plate XIII
 - not mentioned by early Spanish historians from the Western Hemisphere, 121
 - regarded as a characteristic disease of Egypt by T. Lucretius Carus, 120
 - represented in negro sculpture since the Nok period, examples, 120–121
 - spread of Wuchereria infection by Jewish emigrants from Brazil to Surinam, Curaçao and Charlestown, S.C., 122–124
 - Yoruba bronze figure of a sitting man with elephantiasis scroti – Plate XI
 - scroti, crudely modeled clay figurine with apparently enlarged scrotum may represent elephantiasis scroti. Figurine found in a ruined temple of Dzibilchaltun, Yucatán, 121, 122
- Encyclopaedia Britannica, 13, 20, 22, 106
- Encyclopaedia of Islam, abd – slave, 9
- Enfermedad de Robles, see Onchocerciasis, 137
- Expedition of Pánfilo Narváes against Cortés, 9

- ‘Factors’, middle-men for the slave trade, their work and way of living, 196
- Fetish statuette, wood, used for treatment of intestinal disturbances, supposedly due to worms – Plate XIV
- Fleas, decoction of tobacco used by the Indians in Mexico to kill fleas in a house, statement by Hernández, 177
 - expelling fleas from a house, method used in ancient Egypt, 176
 - kind of fleas existing in tropical Africa and South and Central America when the first Europeans arrived, 176
 - in Baltic amber, 177
 - in Mexico, statements by Oviedo, 177, 178
 - not known to Eskimoes before the arrival of the white man, 178
 - representation in terracotta and stone in pre-Columbian art, 177
 - two fleas, one in terracotta, the other one in white stone from Mexico – Plate XVII, figs. a and b
- Fleas and sandfleas, moderately warm regions in America are heavily infested, according to Bernabé Cobo, 177
- Flies, connection with certain gods, 156

- Folksong about epidemic diseases, 8
 Forts 'Castles' on the Guinea coast, 11, 12
- Gangosa? head, terracotta, with mutilated face, probably representing gangosa – Plate V
- Gnats, method how Egyptian fishermen protected themselves against, according to Herodotus, 56
- Guinea coast, geographical extension, 193
 – loss of ships-crews due to malaria on the Benin river. Report by Daniell, 1849, 193–194
- Haematuria and bladder stones observed in Egypt by Prospero Alpini, 147
 – due to schistosomiasis, called 'red gonorrhoea' in Sierra Leone, 148
 – former beliefs in Sierra Leone regarding the cause of 'red gonorrhoea', 148
 – observed by Larrey during Napoleon's invasion of Egypt, 147
- Health conditions in Freetown in Sierra Leone in the eighteenth century, 197
- Helminths, certainly autochthonous in the Western Hemisphere, *Ascaris* and *Trichocephalus*, 112, 113
 – differentiated by early Arabic authors, 112
 – intestinal, introduction by negro slaves into the New World, 114
 – intestinal, occurrence in Africa, reports by various writers, 113, 114
 – mentioned in the Papyrus Ebers, 111
 – pictures of a man and a dog discharging worms in the Codice Matritense and the Florentine Codex of Sahagún, 112 – Plate XV
 – publication by Aleixo de Abreu, 1623, 113
 – *Trichocephalus* eggs found in the intestine of a boy of the late Inca period, 3, 112
- Helminth infections, some already noticed and recorded in antiquity, 111
- Hieroglyphic inscriptions in the temples of Denderah and Edfu, 3, 51, 52
- Hookworm, *A. duodenale* introduced into South and Central America by Europeans, especially Spaniards and Portuguese, 117
 – *Ancylostoma-Necator* ratio of 13 to 1 in Lengua Indians, living isolated in the Paraguayan chaco, 116
 – disease with intestinal disturbances, anaemia and dropsy in negro slaves described by Piso in Brazil, 117
 – distribution of *Ancylostoma duodenale* and *Necator americanus* in Africa, 115–116
 – geophagy, description by various authors, 117
 – *Necator americanus* introduced into America by negro slaves from Africa, 117
 – original distribution of *Ancylostoma* and *Necator*, 115, 116
 – references to clinical symptoms by authors of antiquity, in Egypt, Greece, Rome, China, 115
- Hookworm disease, geophagy, 'dirt eating', description by Thos. M. Winterbottom, 118
 – in the West Indies, Central and South America. Early authors dealing with, 117, 118
- 'Hortus Sanitatis', published in 1491, has a picture of a man in a squatting position, discharging large worms, somewhat similar to the picture in Sahagún's Codice Matritense, 212
- Huacos with face destructions, explanation by Salaman, 48
 – with face lesions, opinion of Holländer (1912), 47
- Illustrations from Sahagún's *Historia General de las Cosas ne Nueva España*.
 Man and dog discharging intestinal worms – Plate XV

Inscriptions of a prayer to different months of the year in the temples of Denderah and Edfu, 51, 52, 56

Leeches caused great suffering among French soldiers during Napoleon's campaign in Syria and Egypt, 151, 153, 154

- dropping from trees, 'flying leeches' mentioned by Ibn Baṭṭūṭa, 151
- endoparasitism discussed by various authors, 151
- endoparasitism in man, horses, mules, camels, and cattle, 151
- in mouth of the Nile crocodile, removed by a bird, 152, 154
- removed from the mouth of crocodiles by a bird in the Congo, 154
- swallowed by horses protrude from their nostrils. Observation in Kweichow 'Lung Hsu Ma' (dragon beard horse), 152
- swallowed by wild monkeys, protrude from their nostrils. Observation by Manson in 1875 in Takow, Taiwan, 152
- temporary endoparasitism, therapy, 152
- in the trachea of elephants, known to Pliny, 153

Leishmaniasis americana, 'anti-oncco' (disease of the Andes) nowadays uta, name used by the Queshua, 45

- 'anti-oncco' in the high valleys of the Andes, description by early chroniclers, 45–46
- description of 'ande-ongo' (disease of the Andes) by Fray Rodrigo de Loayza, 1586, 46, 48
- different names in different South American countries, 44
- 'disease of the chicleros' in Yucatán, 44
- head, Mochica pottery, destruction of lips – Plate IV
- head, terracotta, destruction of nose and lips – Plate III
- history of, according to Luis A. León, 45–47
- muco-cutaneous form, uta, espundia, 44, 45
- Pedro Pizarro 1571 described the 'disease of the Andes', 46
- terracotta figure with destruction of nose – Plate II
- uta and espundia, clinical differences, 47
- uta, indigenous population in Peru in the 18th century attributed disease to a minute insect according to the Spanish botanist Hipólito Ruiz, 45

Leprosy, frequency in Europe before the discovery of Columbus, 72

- reasons why syphilis was often erroneously diagnosed as leprosy, 73

Lice, African statue showing a child delousing its mother, 178 – Plate XIX

- belief that people on a voyage between Spain and the New World loose their lice near the Azores when the ship goes westward, lice reappear in the same region on an eastward voyage. Statements by Oviedo, Cervantes, Ortelio, 180–181
- eaten during delousing, habit among Hottentots and Pangwe, 179
- eaten by priests in the palace of Montezuma while delousing themselves and murmuring prayers, 180
- eating of lice by the Indians, authors who mention this habit, 180, 181
- frequency of lice mentioned by Prospero Alpini, 178
- a mochica huaco showing a woman delousing herself, 179 – Plate XVIII
- Montezuma used old people to visit the houses and delouse people, 179, 180
- nits of on the hairs of an Egyptian mummy of the fourth century A.D., 3, 179
- nits of on the hairs of a mummy from the Páracas caves in Peru (ca. 200 B.C.), 3, 179
- nits of on the hairs of pre-Columbian Peruvian mummies found by Ewing, 179
- occurred in the New World from ancient times, 179
- in sacs found by the Spaniards in the palace of Montezuma, 179

- Urus who lived on Lake Titicaca had to bring an annual tribute of lice to the Incas, 179
- Lice and nits found on the hairs of prehistoric American Indian mummies from the southwestern United States, 3, 179
- Louse infestation of negroes at São Thomé mentioned about 1540, 178
- Louse, playing a role in the Popol-Vuh, the old mythological book of the Maya-Quiché, 179, 181
- Loa loa, Calabar swellings early publications on, 133
 - early reports, 132, 133
 - first report, 132
 - illustration in a publication by Jan Huyghen van Linschoten, erroneously regarded as a removal of Loa, 134
 - infection of negroes in South America and the West Indies was no more observed after 1845, 134
 - lists of records, 136
- Maculo, according to Gumilla is not caused by insects, 187, 188
 - conditioned by overcrowding, bad food, unhygienic living conditions, 188
 - different aetiological factors, such as amoebiasis, schistosomiasis and Enterobius infection, 188
 - early descriptions by authors in South America, 187–188
 - early descriptions from Africa, 187
 - erroneous belief that the disease was caused by some kind of insect, 187
 - European and African names, 187
 - first description in Brazil by Piso 1648, 187
 - inflammation of the rectum with relaxation of the sphincter, prolapse and gangrene, 188
 - symptoms, clinical picture, 188
 - treatment, 188
- Maggots, beneficial effect in wounds, observed by D. J. Larrey, 160, 163
 - therapy used in cases of osteomyelitis, 160
- Maize, pre-Columbian in Africa, 59
- Malaria, existence in Italy, Spain, and Portugal, 52
 - existence in pre-Columbian America. Opinions of Jarcho, Ashburn, Bustamante, and Bruce-Chwatt, 53, 54
 - high death-rate of foreigners on the Guinea coast due to, 52
 - in Portugal in the 15th century, 52
 - simian, 54, 55
- Malaria and mosquitoes, a connection assumed by Arabs and negroes, 50
- Mansa Musa's tale of his accession to the throne of Mali, 58
- Mari Djata, sultan of Mali, death from sleeping sickness, 3, 31, 32
- Masks, general remarks, 202, 210
 - wood, mutilated face, unrealistic, possibly inspired by Gangosa mutilations – Plate VII
- Mbori, trypanosomiasis of dromedaries, 31
- Medicine pot, terracotta, made by the Cham, used to hold powdered medicine for treatment of scabies – Plate XXI
- Middle-men 'factors' on the Guinea coast, their way of living, 196
 - 'factors' on the Guinea coast. Two outstanding examples: Willem Bosman and Jean (John) Barbot, 196
- 'Minutes of the Evidence', 20
- Mochica pottery, huacos showing destructions of nose and lips, 45, 46, 47, 48
- Modorra, 55
- Mortality of Europeans on the Niger expedition of 1832–34, 194

- rate by malaria on the principal British expeditions chiefly on the African west coast in the 18th and 19th centuries, review by Gelfand, 194
- rate of residents in Freetown, Sierra Leone in the eighteenth century, 197
- Mosquitoes in amber and petrified mosquitoes, 50
- design on Mimbres pottery, 157
- early illustrations by Piso from Brazil, 157
- protection against, by smoke, 156
- Mosquito-net, illustration by Olaus Magnus, 1555, 157
- Myiasis in Brazil, mentioned by Soares de Sousa, 1587, 160
- due to the larva of *Dermatobia cyaniventris*, 162, 163
- due to the larva of the Tumbu fly, *Cordylobia anthropophaga*, 161, 162

- Negro slaves took part in the early Spanish explorations, 14
- Negro with his hands fettered behind his back. Bronze statuette, Egypt, second century B.C. - Plate XXIII
- Negroes found by Balboa on the Isthmus of Darien. Reports by three authors, 57, 58
- in pre-Columbian America, authors who dealt with this question, 56, 57, 58, 59
- in pre-Columbian America, existence of, 54
- Nile-god, Ocean-god and god of wheat shown with a general feminine appearance in a relief kept in the Egyptian Museum in Cairo, 146

- Old beliefs indicating the early knowledge regarding certain parasitic diseases, 3
- Old caravan routes, 9, 11
- Onchocerca*, Fülleborn's suggestion that it existed in man also in Mexico, 137
- publications with historical aspects, 137
- vectors in Africa, Mexico, and Guatemala, 138
- Onchocerca caecutiens*, name given by Brumpt, 137, 138
- Onchocerca* sp., discovery by Rodolfo Robles in Guatemala, 137
- Onchocerca volvulus*, first publications, 136, 137
- *volvulus* and *O. caecutiens*, Brumpt's view that they are different species, 137, 138
- Onchocerciasis*, according to Javier Torroella was first introduced into Mexico in 1862, 139
- authors who confirmed the hypothesis of Robles that *Simulium* species are vectors, 138
- cause of blindness in Tiltepec, 141, 142
- found besides in Guatemala and Mexico also in Venezuela (1947) and Columbia (1965), 138
- eye lesions, early investigators, 138
- hypothesis A: infection was introduced into America by African slaves during the time of the slave trade, 139-140
- hypothesis B: *Onchocerciasis* is autochthonous in America, 140-142
- nematode larvae found in the skin of a case of *craw-craw* by John O'Neill in 1875, 137
- possibly a different disease in Africa and the Western Hemisphere according to the results of recent research. Justification of the name: 'Robles Disease', 141
- pre-Columbian skull which shows on the left os frontale a digital impression possibly caused by an *Onchocerca* nodule, 140
- regarded as autochthonous in America, erosions and perforations of skulls found by F. Diaz, 140
- regarded as autochthonous in America, three arguments by H. Figueroa Marroquin, 140, 141

- report sent from Mexico to Sevilla in 1571 most probably spurious, 142
- Oriental sore, or Aleppo boil described since the second half of the eighteenth century, 43
- first complete description of the parasite in 1903 by James Homer Wright, 43, 44
- geographical distribution, 43
- inoculation of children, 43
- leishmanias were probably first seen by Cunningham in 1885, by Firth in 1891 and by Borowsky in 1898, 47
- Ornithodoros moubata, most important vector of tick fever in Central Africa, 68

Papyrus Edwin Smith, 52

Parasitic infections, autochthonous in Africa, 215

- autochthonous in America, 215
- with doubtful existence in pre-Columbian America, 215
- introduced by slaves into the Western Hemisphere where some occurred already before the Conquest, 215
- Antonio, accompanied Magellan on his circumnavigation of the globe, 135

Pigafetta, Filippo, published a description of the Congo, 135

Phoenicians probably visited already the Canary Islands, 11

Porocephalus armillatus, Bilharz found in 1856 three specimens in the liver of a negro, 185, 186

- distribution in Africa, 185
- early descriptions by several authors, 186
- first record by Pruner, 1847, 185
- of a liberated negro slave who died in Jamaica of peritonitis, 186

'Poropongy' of Madagascar, report by R. Drury in 1702, 68

Portuguese expansion after 1415, 11

- Ruy de Siqueira landed in the Bight of Benin in 1472, 12

Prehistoric bones, lesions regarded as indicating yaws, 86

Protective covers of the penis shown on prehistoric wall paintings, 149

- covers of the penis widely used in different parts of Africa, 148, 149

Relapsing fever, endemic African Tick Fever, knowledge by the indigenous population, 67

Relapsing fever in Africa, African Tick fever, symptoms following tick bites described by Livingstone, 67, 68, 69

- epidemic louse-borne, description by Griesinger, 66

Relief of deities with beards but with a general feminine appearance kept in the Egyptian Museum in Cairo, 146

- in the tomb of Haremheb showing negroes driven into captivity, 7

Report of 'The Contagious Diseases amongst Natives Commission', 101

Representations of parasitic infections in Egyptian art, 200–201

- of slaves. Elephant tusk with carvings of slaves secured with chains, 206 – Plate XXII
- of slaves. Bronze statuette of a naked young negro with hands fettered behind his back, 206 – Plate XXIII

Sahagún codices, a group of manuscripts written by the Franciscan friar, Bernardino de Sahagún, details of the codices, 211, 212

Sandflies – Phlebotomus sp., report by Hipólito Ruiz from Peru regarding a causative connection between sandflies and uta, 157

- Sanitary conditions for the crew and officers on slave ships, 194, 195
- Scabies, carried by negro slaves to the New World where most probably it was already present, 166
- comparatively recent introduction into Japan, 165
 - earliest descriptions of the itch mite by Ch'ao Yuan-fang, Aḥmad al-Tabarī and Avenzoar, 165, 166
 - general statements, 165
 - of man and mange of lamas most probably existed in pre-Columbian times in Peru, manuscript of the Peruvian Indian Felipe Huaman Poma de Ayala, 166
 - very frequent among negro slaves, statements by various writers, 166
- Schistosoma haematobium, chronic infection may, according to von Oefele, cause the loss of the male habitus, 146
- discovered by Theodor Bilharz in 1851, 147
- Schistosoma haematobium eggs, calcified, in kidneys of two Egyptian mummies, found by Ruffer, 3, 145
- Schistosoma mansoni, infection introduced into the Western Hemisphere by negro slaves from Africa, it was not autochthonous in the Western Hemisphere, 149
- Schistosomiasis of the bladder, earliest illustrations, 147
- due to *S. haematobium*, according to some authors is mentioned in ancient Egyptian texts as ââ, 145
 - opinion of Ghalioungui regarding ââ, 145
 - reliefs in a tomb of the VIth Dynasty at Sakkarah show changes in some figures which may have been due to chronic schistosomiasis 145, 146
- Slavery in general, 7
- prisoners of war to become slaves. Snefru brought from Nubia 70,000 prisoners of war, 7
- Slave trade, abolition, 25–28
- Antam Gonçalves in 1441 captured some Moors and carried them as slaves to Lisbon, 11
 - asientos with monopoly rights issued to replace licencias, 15
 - beginning of Portuguese slave trade by sea from equatorial Africa to Europe, 11
 - beginning of the slave trade in North America, 13
 - beginning of the systematic slave trade from Africa to the New World, 14
 - caravan routes, 9
 - with China by Arabs, 8, 9
 - circumstances which favoured the African slave trade, 21, 22
 - destruction of slave ships by a British squadron on the Brazilian coast in 1849, 27
 - diseases of negro slaves on the vessels during the middle-passage, 15, 16
 - evolution of the 'trata negrera', 14, 15
 - last countries to abolish it, 28
 - 'Manila Galleons', 15, 17
 - 'Pieza de Indias', qualities of a negro required, 17
 - by Portuguese from Africa to Europe by sea – beginning, 11
 - quarantine regulations introduced by Spaniards, French, and Portuguese, 15, 16, 17
 - revolts of negro slaves in Iraq and in Bengal, 23
 - revolts of negro slaves in the Western Hemisphere, 23, 24
 - strongholds, 'castles' on the Guinea coast, 11
 - trading companies with monopoly rights, 15

- ‘Uncle Tom’s Cabin’, novel by Harriet Beecher Stowe, helped abolition movement, 27
- Zanzibar and Mozambique, role in slave trade during 19th century, 27
- Slavery, English public opinion aroused against, in the 19th century, 26
- fight against, in Brazil by Manuel da Nóbrega, 26
- movements against in France, 26
- rôle of, during the 18th and 19th centuries in the Western Hemisphere, 25
- Slaves brought in 1619 by a Dutch Warship to Jamestown, Virginia, 13
- brought from the Sudan introduced leprosy into Egypt, 7
- estimated number of negro slaves carried from Africa, 20
- fastened by a chain, carving on a elephant tusk – Plate XXII
- first ones reaching America with the Spaniards, 14
- imported from Africa on the advice of Bartolomé de las Casas, 14
- loss of lives from Africa to America, 20
- Lucas Vasquez de Ayllon attempted to found a colony in what later became Virginia or Georgia. His slaves revolted after his death, 13
- origin of African slaves carried to the New World, 18, 19
- Koran – Suras dealing with slaves, 8
- servitelli nigri of Frederick II, 9
- supplied to possessions on the Pacific coast, 15
- Sleeping sickness of man – trypanosomiasis of animals, 31
- Sleeping sickness, assumed causes, 36
- attributed to the bite of Tsetse flies, 36
- death of Mari Djata, reports by Ibn Khaldūn und by al-Qalqashandī, 31, 32
- detailed description by Winterbottom, 32–34
- fetish statuette, used for magic treatment – Plate I
- first definite report by John Atkins, 32
- later physicians who paid special attention to, 34
- names used by Africans, 34, 35
- names used by foreign physicians, 35
- prevention, 37
- spread by Stanley’s Emin Pasha Relief expedition, 39
- symptoms known to people in endemic areas, 35
- transmission by the slave trade, 39
- treatment by Africans, 38
- treatment by foreign physicians, 39
- Smallpox, introduction into the American mainland by a negro slave, 8, 9
- Société des Amis des Noirs, 26
- Society for the Abolition of the Slave Trade, 26
- Suras of Koran dealing with treatment of slaves, 8
- Surret flies, first report given by James Bruce, 1790; fly was called ‘Tsaltsalya’ in Ethiopia and ‘Zimb’ in modern Arabic, 157, 158
- (Tabanidae), early travellers’ accounts from the Anglo-Egyptian Sudan, 157, 158
- Surret flies – Tabanidae, report by Sir Samuel Baker 1867, 158
- their rôle and importance in the Sudan, 157
- Syphilis, development of a particularly severe form, 73
- Syphilis, endemic, Brosulas, name given by peasants in Lombardy to endemic syphilis (Niccolò Leonicensi), 74
- brought by slaves to Central America and Mexico, 96
- clinical characteristics, way of infection, 94
- development from yaws, 74, 75
- geographical distribution, 95, 96

- names formerly used in different countries, 94, 95
- name replacing the various names formerly used for the so-called syphiloids, 94, 95
- occurrence in Africa, 95
- Saracen ointment used against ‘Arabic leprosy’, 73, 98
- in Uganda old practice of vaccinating healthy infants with syphilis, report by Davies, 100
- Syphilis, venereal, according to Leo Africanus, was introduced into North Africa from Europe by the Marranos, the expelled Spanish Jews, 98
- according to Livingstone did not get a foothold in populations of pure negro blood in the interior of Africa, 99
- ‘Buboso’, mural in a ruined temple of about A.D. 200 at Teotihuacán; picture may represent a man with yaws, syphilis or exanthematic typhus, 103
- different opinions regarding its early history in Uganda, 100
- different opinions regarding origin, spread and severe form in Europe after discovery of the New World, 103–106
- distribution in Africa, 98–102
- Emin Pasha stated that the Monbuttu tribe inoculate their children with syphilis as then the course of the disease is not so virulent, 100
- evolution, 74, 75, 76
- introduced to East Africa, Réunion, Madagascar, and Zanzibar by Arabs and Portuguese, 99
- is not a disease of the lamas, 106, 107
- many cases seen in Cairo by Leo Africanus in 1516–1517, 98, 106
- origin, Americanists, 107
- origin, Anti-Americanists, 107
- origin, it existed from early times in the Western Hemisphere and Europe, according to M. Padilla, 1861, and A. Castiglioni, 1941, 107
- present on the island of São Tomé in the first half of the 16th century according to a Portuguese pilot, 98
- rapid spread in South Africa after opening of the diamond mines, 102
- some authors who discuss the question of its existence in America before the arrival of the Spaniards, 102
- Sydenham’s theory of introduction of yaws by African slaves into America which became transformed into syphilis, 105
- treatment by Indians with Guaiac wood. Introduced into Europe from San Domingo by a Spaniard about 1508, 89, 103, 106
- in Uganda, opinion of Sir Harry Johnston, 100

- Tick (or louse) mentioned in the Ebers Papyrus, 168
- very simplified terracotta, Nok culture – Plate XX
- Ticks, the effect of a tick bite described by Livingstone from his own experience at Ambaca, 68, 69, 168
- general statements, 167
- possibly representation of ticks in Egyptian art about 1500 B.C., 167
- Tick bite, natives use for treatment a tick bruised in the medicine employed, 69
- Tick bites, tolerance or immunity against, in tick-infested area, 67
- Tick infestation of man and cattle in the Western Hemisphere described by Oviedo, 168
- Trading companies with national monopoly rights of trade with the Guinea coast, 12
- Treponematoses, treponematoses, 76

- general remarks on similarities and differences between carate, yaws, endemic and venereal syphilis, 71, 72
 - either syphilis or yaws frequent among Indians in the south-eastern part of North America not long after the arrival of the Spaniards, 73, 74
 - human, evolution, 74–76
 - the rôle of African slaves in the distribution of, 76
 - rôle of African slaves in the introduction into the Western Hemisphere, 105
 - Trichocephalus trichiurus eggs in the intestine of a boy of the late Inca period, 3, 112
 - ‘Tsetse’, different explanation of the name, 159
 - Tsetse flies and diseases of horses and cattle, 37
 - fossil, found in Miocene deposit in Colorado, 159
 - Glossina sp., early reports by Gordon Cumming, Livingstone, Kirk, 159
 - statements by David Livingstone, 40–41, 159
 - Tunga penetrans, early authors dealing with the infection in America and the West Indies, 169–171
 - early knowledge in America and the West Indies, 169
 - name ‘chique’ used in Senegal, had been employed before in French Guiana and the West Indies, 174
 - names used in different countries, 169
 - observation by Adanson 1759, 172
 - infection represented in pre-Inca ‘huacos’, 169
 - possibly influenced Mansa Musa’s pilgrimage in 1324, 171
 - reintroduced by the British ship ‘Thomas Mitchell’, into Africa (Angola) in 1872, 173
 - report by Skripitzin in *Grum’s Gesundheitsfreund*, 172, 173
 - spread in Africa after 1872, 173, 174
 - statements by Barbot, 172
 - Tunga penetrans infection, authors of the 16th century giving descriptions from America and the West Indies, 169
 - authors of the 18th century in America and the West Indies, 170
 - authors of the early 19th century who refer to it, 170
 - described in the seventeenth century by Du Tertre from the West Indies, 170
 - earliest published report by Oviedo, 169
 - erroneous statements that it did not occur in Africa before 1872, 171
 - statements by Samuel Braun, 171
 - two pottery vessels from Peru representing two persons examining the soles of their feet showing holes wherefrom sandfleas have supposedly been removed – Plate XVI
- Uta, vide Leishmaniasis americana, 45
- Voyage of exploration by the Carthaginian admiral Hanno ca. 460 B.C., 11
- Yaws, Antonio Pigafetta’s report of the ‘mal de S. Jop’ (Syphilis) on the island of Timor, 87
- authors in the 17th, 18th, and the 19th century on the American mainland and in the West Indies, dealing with, 88–89
 - description and differentiation from syphilis by G. Piso, 88
 - disease of Guagagiona mentioned by Fr. Román Pane, may have been yaws, 88
 - early authors who mention Goundou, 87
 - early authors who mention yaws in Africa, 86
 - excerpts from the writings of early authors, 90–92

- gangosa, 86
 - in part bubas, 88
 - indications that it existed in Africa in remote times, 86
 - inoculation of children by their mothers in Fiji, 86
 - mentioned by Jacobus Bontius from Amboyna and the Moluccas, 87
 - no agreement of authors whether yaws and syphilis are two different diseases, 89
 - origin, 74, 75
 - plantations had yaws huts where sick slaves were kept and treated, 89
 - prehistoric skeletal remains found on the island of Tinian (Mariana Islands), 87
 - relation to Goundou, 'horned men' in Africa, 87
 - transmission by flies, pointed out by Soares de Sousa, 89, 90
 - treatment by the Indian population, 89
 - way of infection, 85, 86
- Yaws? Mask, wood, ulceration on left cheek - Plate VI
- Yaws - Framboesia - Pian, geographic distribution, 85

INDEX OF NAMES

- | | |
|--|--|
| Abblart, 34 | Arberry, A. J., 9 |
| Abdallah, Ahmed, 147 | Argumosa, J. A., 170, 187 |
| Abelin, 101 | Aristophanes, 183 |
| Abreu, Aleixo de, 40, 113, 126, 170 | Aristotle, 167, 183 |
| Abreu, João Rodrigues de, 187 | Arrachart, J. N., 133, 134 |
| Abu'l-Qāsim (Abulcasis), 125, 130, 152 | Arteaga, B., VII |
| Actuarius, Joannes, 125, 183 | Arthur, D. R., 167, 201, 206 |
| Adams, F., 112 | Ashburn, P. M., 53, 113, 121, 210 |
| Adanson, M., 172 | Ashmead, A. S., 207 |
| Aeschlimann, A., VI, VIII | Assis-Masri, G. and Little, M. D., 138 |
| Aetius of Amida, 125, 183 | Astley, Thos., 4 |
| Affonso, Dom, 21 | Astruc, J., 107 |
| Agatharchides of Cnidus, 3, 111, 124, 125, 130 | Atkins, John, 4, 32, 35, 39, 127, 129 |
| Aguirre Beltrán, Gonzalo, VII, 14, 15, 18, 25, 26 | Audy, J. R., VII, 51 |
| Aḥmad al-Tabarī, 165, 166 | Augustus, Roman Emperor 31 B.C.-A.D. 14, 56 |
| Aḥmad Zakī Pasha (Ahmed Zeki Pasha) vide Zaki, Pasha | Austen, E. E., 38, 158 |
| Aitken, 186 | Avenzoar (Abū Marvan ibn Zuhr), 125, 165, 166 |
| Aldrovandi, U., 152, 180 | Avicenna, Abū 'Ali al-Husayn ibn 'Abdallah ibn Sīnā, XI, 112, 116, 125, 130, 167 |
| Alpini, Prospero, 147, 178 | Azurara, Gomes Eannes de, 4, 86 |
| Alvarez Sauri, J. J., VII | |
| Alzate y Ramírez, José Antonio, 84 | |
| 'Amir Hasan 'Ali, 58 | Baer, W. S., 160 |
| Andel, M. A. van, 12, 16, 17, 20 | Baizeau, 151 |
| Andrews, E. Wyllys, 121, 208 | Bajon, B., 4, 89, 92, 117, 132, 133, 134, 170 |
| Andronicus III, 125 | Baker, Sir Samuel, 4, 158 |
| Apolo Kagwa, 100 | Ballingall, Sir G., 62 |
| Aptheker, H., 24 | Barbot, James, 4, 12 |
| Araujo Braga, A. J. de, 187 | |