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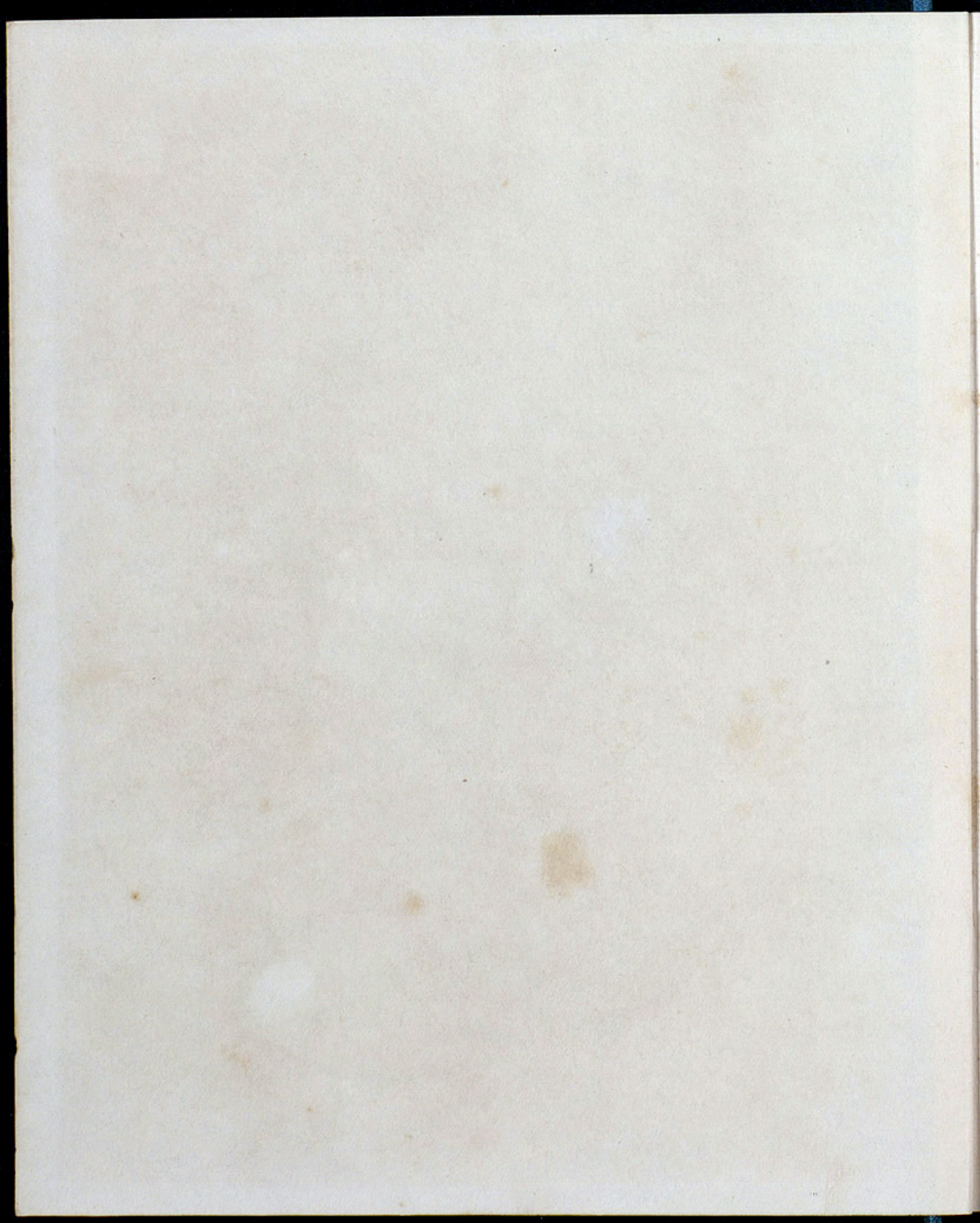
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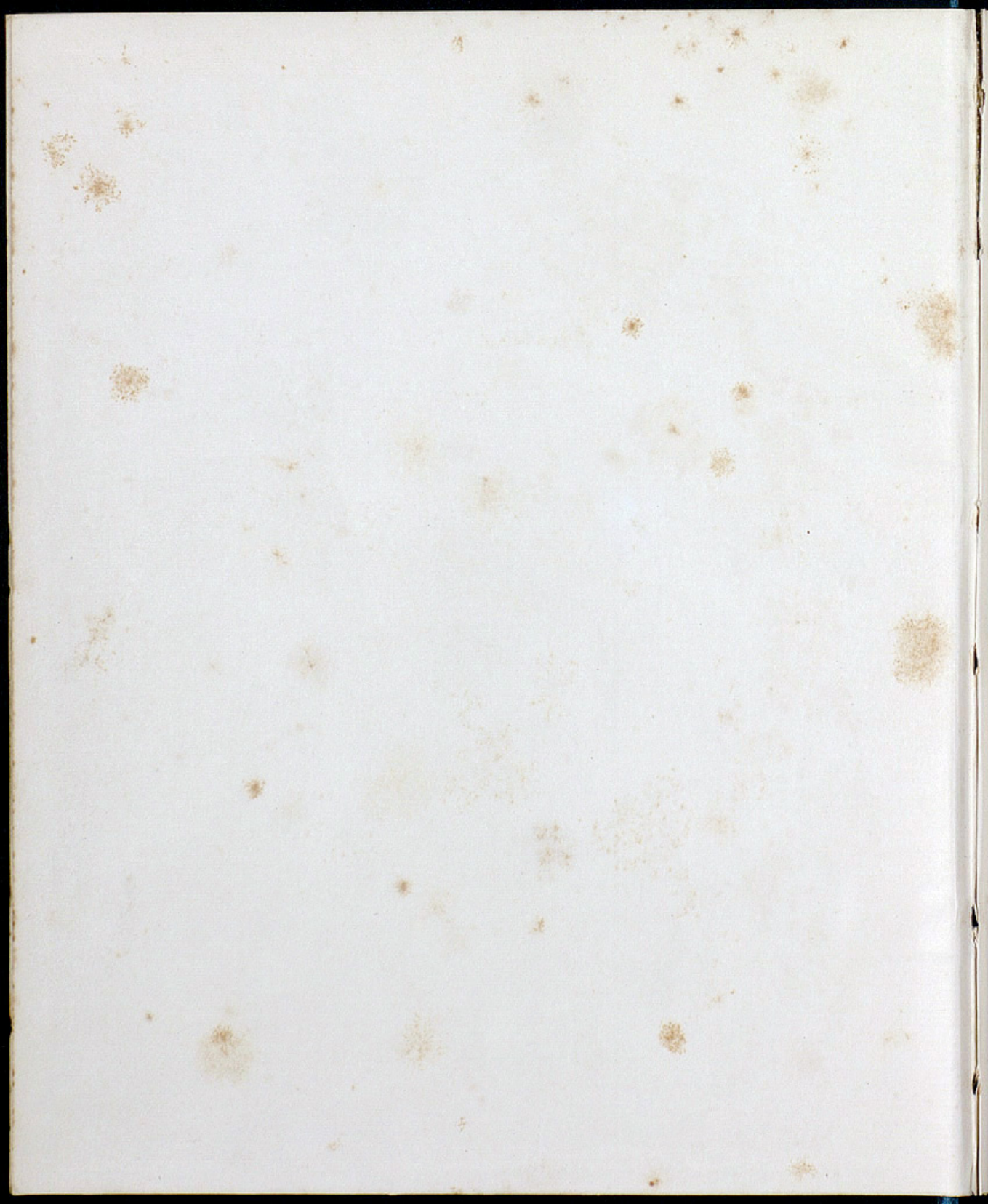
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COLLOQUIES ON
THE SIMPLES AND DRUGS OF INDIA



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COLLOQUIES

ON THE

SIMPLES & DRUGS OF INDIA

BY

GARCIA DA ORTA

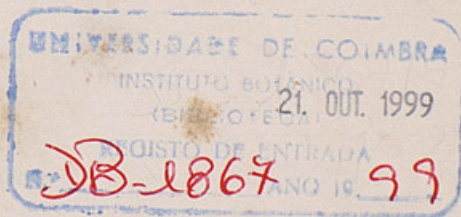
NEW EDITION (LISBON, 1895) EDITED AND ANNOTATED
BY THE CONDE DE FICALHO

TRANSLATED WITH AN INTRODUCTION AND INDEX

BY

SIR CLEMENTS MARKHAM, K.C.B., F.R.S.

HON. FELLOW OF THE ASIATIC SOCIETY OF BENGAL ; HON. MEMBER OF THE LISBON GEOGRAPHICAL SOCIETY
MEMBER OF THE PORTUGUESE SOCIETY OF HISTORICAL STUDIES



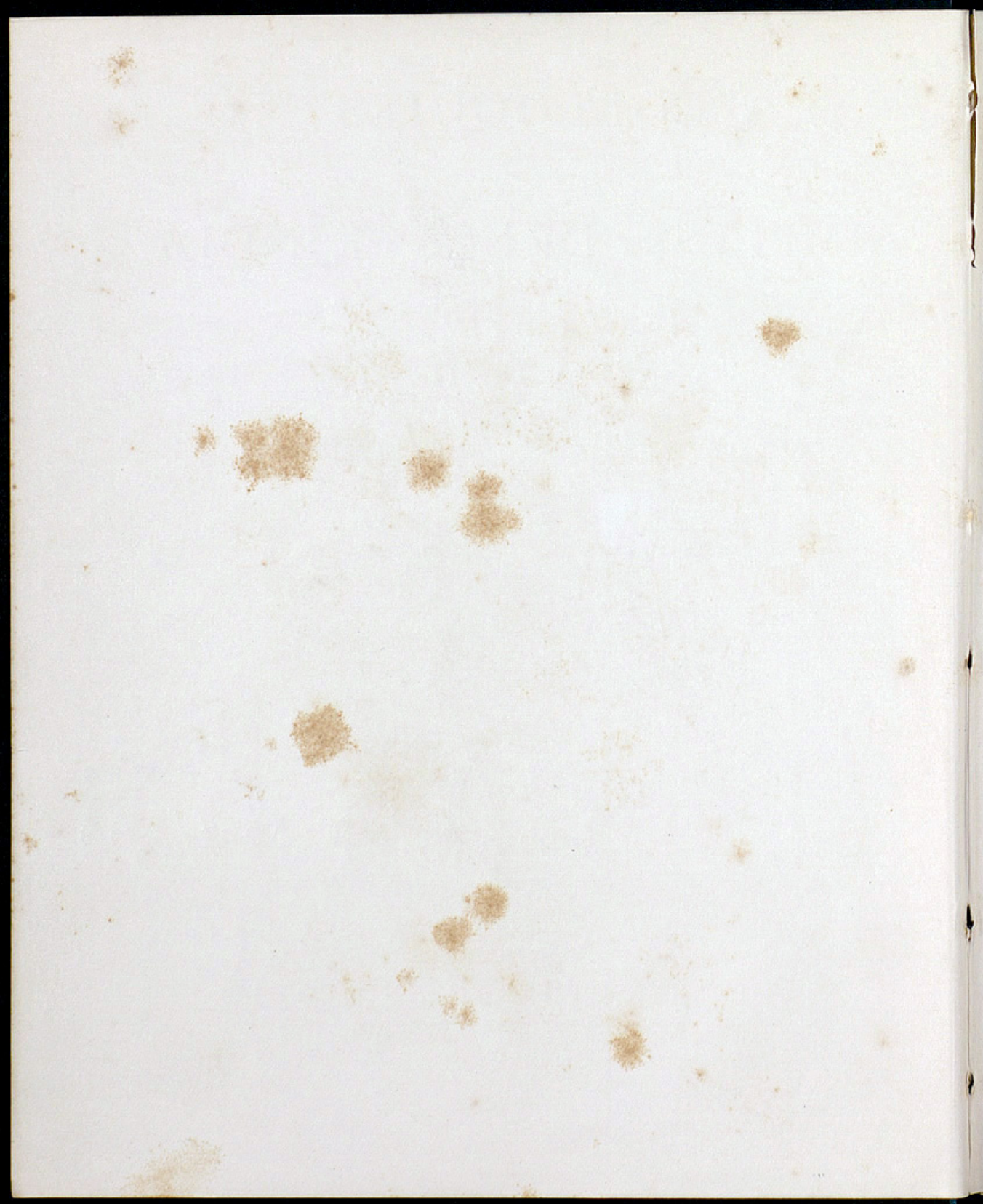
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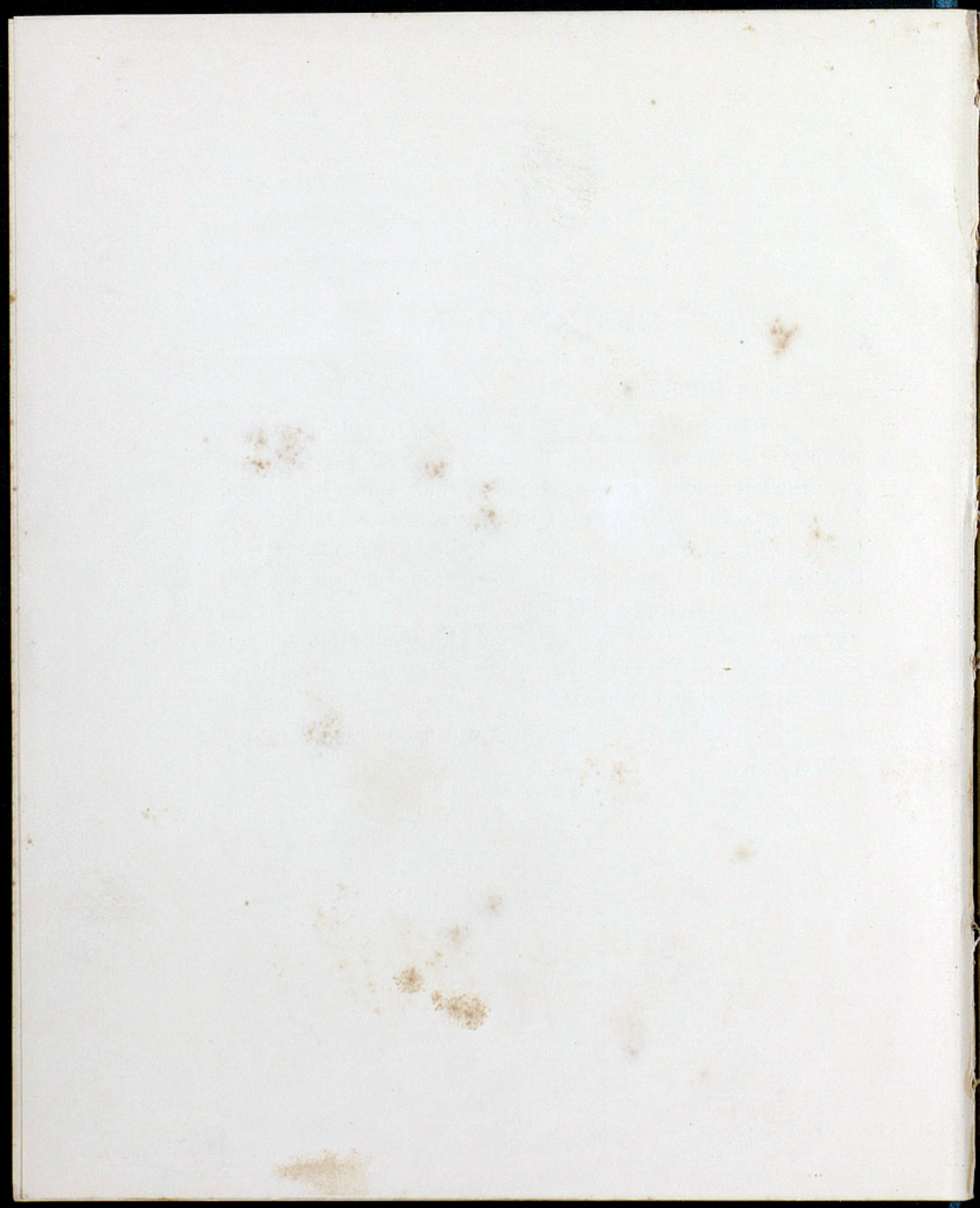
DEDICATION

MY DEAR BIRDWOOD,

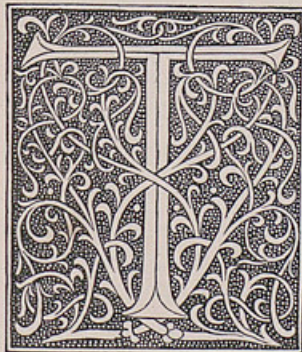
I have never forgotten that 28th of September 1860 when you welcomed me in the Town Hall at Bombay, and gave the Chinchona plants a temporary home under its portico. I found you full of interest and enthusiasm in all matters relating to the good of the people of India. That interest and that enthusiasm have never flagged throughout a long and useful life, and during a life-long devotion to a great cause. For these reasons I ask you to accept this Dedication, for you are the Garcia da Orta of British India, and much more.—Ever your old Friend and Admirer,

CLEMENTS R. MARKHAM.

JULY 20, 1913.



INTRODUCTION



THE great work of Garcia da Orta on the drugs and simples of India is well known, at least by name, to all who are interested in the botany and pharmacy of our Indian Empire. The work is interesting because it contains the first mention of many important plants, of their uses, and the first descriptions of the treatment of diseases—cholera, for instance—and of several customs and habits of the natives.

Garcia da Orta was born in about 1490 or perhaps a few years later, at Elvas,¹ so famous for its plums, near the Spanish frontier and on the way to Badajos. His father appears to have been an owner of houses and other property at Elvas, named Jorge da Orta, who, besides Garcia, had a son, Francisco of Portalegre, who married Caterina Lopes. Francisco had a son, Jorge, nephew of Garcia da Orta, who was a surgeon, and the heir to his uncle. The elder Jorge also had a daughter, Garcia's sister, married to the Bachiller Gabriel Luis.²

In the boyhood of Garcia da Orta there was residing on

¹ Barbosa Machado, quoted by Ficalho. Machado wrote *Bibliotheca Lusitana*.

² *Estudos e Notas Elvenses por a Thomaz Pires (Elvas)*. (Editor, Antonio Jose Torres Carvalho, 1905.)

THE SIMPLES AND DRUGS OF INDIA

his estate of Labruja, near Elvas, Dom Fernao de Sousa, of a noble family descended from a natural son of King Alfonso III. by a very beautiful Moor, daughter of the Cadi of Faro. The two families were on friendly terms, and under the auspices of the Sousa family young Garcia was sent to the Spanish Universities; studying both at Salamanca and at Alcala de Henares, from 1515 to 1525.¹ After his return to Portugal in 1526 he was for some years a village doctor at Castello de Vide, near his native town of Elvas. His patrons, in 1532, got him appointed lecturer in the Lisbon University, and he held that appointment from 1532 to 1534. In the latter year he undertook to go out to India as a physician with Martin Affonso de Sousa, second son of the Lord of Labruja—Orta calls him his "amo." The fleet of five ships left the Tagus on March 12, 1534, reaching Goa in September.

At that time Nuño da Cunha was Governor of Portuguese India, 1529–1538. He was succeeded by Garcia da Noronha as Viceroy, 1538–1540. Then followed Estevan, nephew of Vasco da Gama, 1540–1542; and Martin Affonso de Sousa, the friend and patron of Garcia da Orta, was Governor from 1542 to 1545.

Garcia da Orta saw a great deal of active service as physician to his friend, and became personally well acquainted with the countries bordering on the west coast of India. He was at Diu when it was ceded to the Portuguese by Bahadur Shah, the King of Cambay, and he accompanied Sousa in a march across Kattiawar nearly to Ahmedabad, with the army of Bahadur Shah. He afterwards formed a great friendship with Bahram Nizam Shah, whose capital was at Ahmednagar, visiting him, and acting as his physician. Garcia da Orta also accompanied Sousa in a campaign from Cochin against the Zamorin, and in Ceylon. This seems to be the extent of his

¹ Information from Orta himself (see pp. 1-5). The oldest entries of matriculations at Salamanca only go back to 1546, of degrees to 1525. The Alcala books, now at the University of Madrid, only go back to 1548.

INTRODUCTION

personal knowledge. He does not appear to have been at Bijapur or Bijayanagar in the Deccan, though he often mentions those places, and he knew nothing of Bengal, Berar, or the kingdom of Delhi. The great physician had a house and garden with many medicinal herbs at Goa, and in about 1554 he was granted a long lease of the island of Bombay,¹ which he sublet. His tenant was Simao Toscano, who, with the rent, brought him presents of mangos and other fruits to Goa. He was in practice for many years, and after his friend Sousa left India he was physician to the Viceroy, Pedro Mascarenhas, 1554-1555. Garcia da Orta was always adding to the great amount of erudition he brought with him to India. He had a most extensive and accurate knowledge of the writings of all who had gone before him, and his sound common sense enabled him, with confidence, to separate facts from fables. He knew personally all the plants within his reach from which drugs were derived. For the rest he was indefatigable in his enquiries from native physicians, and in his examinations of Yogis from the kingdom of Delhi, and of traders and others from all parts—Deccanis, Guzeratis, Bengalis, Cingalese, Moors, Persians, Arabs, and Malays.

In 1558 Dom Constantino de Braganza, the brother of the Duke, came out as Viceroy, bringing with him the licentiate Dimas Bosque as his physician. This learned person² became a friend of Dr. Garcia da Orta, and it is more than probable that the old physician, who had then been practising in India for upwards of a quarter of a century, was induced by Dimas Bosque to undertake the production of a great work on the

¹ See page 193. What is now the island of Bombay included several islets separated by channels in Orta's time. Bombay Island was only one of them. Gerson da Cunha, who had studied the early documents, came to the conclusion that the Bombaim of Orta was scarcely a tenth part of the present island. See his "Origin of Bombay" in an extra number (1900) of the *Journal of the Bombay Branch of the Royal Asiatic Society*.

² See account of him in the Annotated Index. Dimas Bosque wrote the preface to Orta's work.

THE SIMPLES AND DRUGS OF INDIA

drugs and simples of his adopted country. All his friends must have felt that his vast knowledge ought not to die with him.

The work was finished in the time of Dom Francisco Coutinho, Count of Redondo, who was Viceroy from 1561 to 1564,¹ to whom it was dedicated. Luis Camoens, the immortal poet, was an intimate friend of Garcia da Orta at this time. Camoens had been banished to Macao, but he returned to Goa in 1561, and was engaged in writing *Os Lusíadas*. Wilhelm Stork, in his *Life* of Camoens, says that the poet passed many agreeable and instructive hours in the house of the learned old man, admiring his collections and examining his extensive library, finding in both materials for the last two cantos of *Os Lusíadas*. This is quite likely, for the poet composed an ode to the Viceroy in which, after an eloquent address to the Count of Redondo, he exclaims:—

Favorecei a antiga
Sciencia que já Achilles estimou
Olhai que vos obriga
Verdes que em vosso tempo se mostrou
O fruto d'aquella ORTA onde florecem
Prantas novas que os doutos nao conhecem

Olhai que em vossos annos
Produce huma ORTA insigne varias ervas
Nos campos Lusitanos
As quaes aquellas doutas e protervas
Medea e Circe nunca conheceram
Posta que as leis da Magica excederam

E vede carreguado
Deannos, letras, e longua experiencia
Hum velho que insinado
Das gangeticas Musas na sciencia
Podaliria subtil e arte syluestre
Vence o velho Chiron de Achilles mestre.²

¹ He died at Goa on February 19, 1564.

² This sonnet by Camoens only appears in the work of Garcia da Orta. It has not been included in any of the collections of the sonnets of Camoens, and was probably

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Orta means a *garden* in Portuguese, and the poet plays upon the old physician's name.

The work was completed and published at Goa by "Johannes de Endem" on April 10, 1563. The title was *Coloquios dos simples e drogas he cousas medicinaes da India compostos pello Doutor Garcia da Orta*. This first edition is excessively rare. It is full of typographical errors, being the third book ever printed in India.¹ There was a second edition published at Goa.

Clusius (Charles de l'Escluze) made a sort of *résumé* or epitome in Latin in 1567 (Plantin, Antwerp). It is very different from the original.² The same may be said of the Italian translation by Annibal Briganti (Venice, 1582), and of the French translation by Antoine Colin (Lyons, 1619). *Orta* is here called "Du Jardin." Their translations are from the Latin of Clusius, not from the *Coloquios* of *Orta*, which they never saw.

F. A. de Varnhagen printed an edition of the *Coloquios* at Lisbon in 1872. It contains many *lacunae* and imperfections, is without notes, and only attempted the identification of one plant, in which it is quite wrong.

The standard edition of *Garcia da Orta* is by Count Ficalho, in two volumes, the first published in 1891, the

written at Goa on the spur of the moment. Throughout there is a play on the words *Orta* the physician's name, and *Orta* a garden, so that a literal translation cannot convey the sense. The general meaning may be rendered as follows:—

"The lore which Achilles once valued I studied with thee, you opened my eyes to its charm. In your garden of herbs each flower, each tree, were seen in your time by your friend. The fruits of that garden collected from far, were unknown to the learned of old. See how, in thine age thy wisdom and care brought many new simples to light. Unknown to the ancients, but revealed to our sage are the plants in thy garden of herbs. You have opened to us an inspiring page. To thy neighbours like magic it seems. Taught of yore by the muses of Ganges and Ind, full of learning, as of years, in all that is known of the true healing art, old Chiron must bow before thee."

¹ The first was a Catechism by St. Francis Xavier (1557). The second was a *Compendio espirituél* by Dr. Pereira, the first Archbishop of Goa (1561).

² 8vo, pp. 250. There were editions in 1574, 1579, 1593, 1605.

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second in 1895. The text has been preserved with great care. Count Ficalho was a very accomplished botanist, and in his full and admirable notes to each Colloquy he displays a surprising amount of erudition, having evidently consulted every work that has been written since on the subject, whether in the form of separate books, or of papers in the *Transactions* of Societies. It is quite a model for faithful and thorough editing. Count Ficalho also wrote the *Life and Times of Garcia da Orta*, now very scarce.¹

Following after the frontispiece, the work of Garcia da Orta contains the approval of the Count Viceroy dated November 5, 1562. Then there is a dedication to the author's old friend and master, Martin Affonso da Sousa, and a sonnet to the same. The prologue or preface is by Dimas Bosque, and finally comes the celebrated ode by Camoens.

The work itself contains chapters on fifty-seven drugs and simples. These chapters are written in colloquies between Garcia da Orta and a Spanish doctor named Dr. Ruano, who is supposed to be an old college friend of Orta, but is clearly an imaginary person.² In the Fifty-sixth Colloquy Dimas Bosque, certainly a real person, joins the party. It was not uncommon at that time for authors to put their works into dialogue form.

Count Ficalho, in his *Life* of Orta, admirably explains the spirit and intention of the dialogues, in the following passage :

"The two interlocutors are the two characters united in Garcia da Orta, the two sides of his spirit placed in front one of the other. Dr. Ruano, the man of the schools, the former student of Salamanca, erudite, ready with quotations, with Dioscorides and Pliny at his finger ends. Dr. Orta, the traveller and observer, who, in the face of all the quotations,

¹ *Garcia da Orta e o seu tempo* (Lisbon, 1886), por o Conde de Ficalho. This is another very excellent piece of literary work (8vo, pp. 392).

² In Spanish and Portuguese the word *FULANO* is used for any one whose name is unknown, *Fulano tal*, same as *So-and-so*, or *Thingamy*. In Portuguese *SICRANO* and *BELTRANO* are also used, and apparently, in former times, *RUANO*—"the man in the street."

INTRODUCTION

says tranquilly, 'I have seen it.' It is enough for us to note to which of these two entities Orta attaches his own name for evidence as to which of the two he prefers. From this situation, admirably conceived and maintained with much talent, the most interesting controversies result, which bring out, in the clearest light, the spirit of the work."

The work is of great value, owing to its giving the first descriptions of plants and drugs. In addition it contains a great deal of interesting matter. There is some account of the politics of Guzerat and the Deccan at that time, of the greatness of China and of its sea-borne trade, of the controversy about the Spice Islands between the Spaniards and Portuguese, of an expedition to Ilha de Vacas and Jafnapatam, and of other events of the time. There is also an account of Indian names of chessmen. There is the fable of Parizataco, and of the camphor tree. The effects of bhang are described, the method of using betel and the etiquette connected with it, the various uses of the cocoa-nut, an interesting account of Diu and Bassein, some stories about elephants, and about fights between cobras and mungoos. There is an amusing story of a theft from a lady when under the influence of stramonium, and the first account of the treatment of a case of cholera; with other episodes of the same kind. There is also the second description of the cave of Elephanta. I believe the first was written by Dom João de Castro, Viceroy 1545-48. We also get a glimpse of the old bachelor's establishment and habits, and of his intelligent servant girl Antonia. So that the work is by no means confined to a description of drugs and their uses.

Garcia da Orta is believed to have died in about 1570 at Goa, at a good old age, having been thirty-six years practising as a physician in India.

His work still lives. In the *Pharmographia* of Hanbury and Fluckiger, one of the latest and best works on *materia*

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medica, Garcia da Orta is referred to seven times as an authority.¹ Dr. Ullerspergen of Munich has published an appreciative work on the Colloquys. Gerson da Cunha, in his *Origin of Bombay*, writes of Orta with unbounded praise, and gives some translated passages from his work. In Sir Henry Yule's Glossary, Garcia da Orta is frequently quoted. Sir Henry says of his work: "A most valuable book, full of curious matter and good sense."

The Spanish work of Christoval Acosta followed almost immediately on that of Orta, and is copied wholesale from it. In a preface by the Licentiate Juan Costa, Professor of Rhetoric at Salamanca, this is denied in the following words: "Acosta did not compose the work at his ease, but in durance of sad captivity which he suffered in Africa, Asia, and China. Although his work owes much to the diligence of Garcia da Orta, yet I have compared the two works, and I can say that Orta only sketches the first lines, and that Acosta gave the living colours, and made perfect what Orta had commenced." This may be rhetoric. It is not truth.

Acosta was a native of Burgos and brother of the better-known Jesuit, Josef Acosta, author of the *History of the East and West Indies*. The title of the botanist's work is *Trata de las drogas y medicinas de las Indias Orientales con sus plantas por Christoval Acosta* (Burgos, 1578), dedicated to the *Illustre Senado de Burgos*, his native town. It is a fat little quarto, describing sixty-nine plants and other sources of drugs and medicines. The great merit of the work is that there are full-page illustrations to forty-six plants with

- ¹ 1. Name and description of the *brindones* of Orta, *Garcinia indica*.
2. Orta's *mamelos de Benguala* or Bengal quince, or *beli Fructus Beloe*.
3. Orta's account of *Cortex Margosae*.
4. The story about the lady who was robbed when under the influence of *Datura alba*, told by Orta.
5. Orta's account of the use of *bhanga*.
6. *Fructus Cardamomi*. Orta on the trade.
7. Camphor, with reference to Orta's account of Chinese trade.

INTRODUCTION

the roots, very well drawn. There are 448 pages of text. It is not all copied from Orta, but the greater part certainly is. Acosta occasionally makes independent remarks, and there are a few plants not in Orta. Mr. Hanbury noticed that the *Semen Tiglii* was first described by Acosta. He was certainly a great traveller, and he gave himself the surname of "Africanus," his more famous brother, the learned Jesuit and writer on Peru and Mexico, being "Americanus." Acosta's portrait faces some odes in his honour, as a frontispiece.

At the end of this Introduction there is a list of the plants in the Colloquies of Garcia da Orta, with the modern scientific names and the names in Acosta, denoting those that are illustrated in Acosta's work. These lists are followed by one of the money, weights, and measures mentioned by Garcia da Orta.

At the end of the book there is an Index of the authorities with biographical notices of the more important mentioned, of Indian Princes and others; an Index of the names of plants and minerals mentioned in the work; also an Index of place-names.

The drawings of plants by Acosta have been used to illustrate the Colloquies of Garcia da Orta.

Garcia da Orta frequently refers to plants and drugs being hot and dry, cold and moist, in the first, second, or third degrees.

Sir George Birdwood has furnished me with the following very interesting explanatory note on this point:—

Da Orta's repeated qualification of drugs refers to the theory of the constitution of the human body and of its diseases and their treatment held in Europe from the earliest Greek and Roman period down to the 17th and 18th centuries, and to the present day throughout native Asia. The constituents of all things were fire, air, water, and earth; fire was hot and dry, air hot and moist, water cold and moist, and earth cold and dry; and of the bodily humours "composed" thereof, blood was regarded as hot

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and moist, phlegm as cold and moist, red bile as hot and dry, and black bile as cold and dry. The excess of these humours, as the cause of diseases, had to be treated by drugs of their opposite qualities. In India, at least, this in practice means that a drug is either hot or cold, and that it is given either to promote or repress aphrodisia. Chaucer, in *The Canterbury Tales*, writes of the Doctor of Physic:—

He knew the cause of everich maladye,
Were it of hoot, or cold, or moiste, or drye,
And where engendred, and of what humours.
He was a verrey parfait practisour !

I have to thank Sir George Birdwood for seeing to the scientific names of plants in the footnotes, and Dr. Dalgado of Estoril for much valuable advice and assistance; and for obtaining for me the very scarce work on the *Life and Times of Garcia da Orta*, by Count Ficalho, and the *Origin of Bombay*, by Gerson da Cunha.

CLEMENTS R. MARKHAM.

JULY 20, 1913.

LIST OF PLANTS

No. of Colloquy.	Orta's Names.	Scientific Name.	Chapter in Acosta.	Acosta's Names.	Acosta's Illustration—+. None—0.
2	Aloes	Alöe socotrina	25	Azicear	+ whole plant.
3	Amber		26	Ambar	0
4	Amomo	Amomum Cardamomum	28	Amomo	0
5	Arbore triste . . .	Nyctanthes arbor tristis	27	Arbol triste . . .	+ branches.
6	Anacardo	Semecarpus Anacardium (Linn.)	30	Anacardo	0
7	Altiht	Ferula foetida	62	Assa fetida	0
8	Bangue	Cannabis indica	61	Bangue	+ whole plant.
9	Benjuy	Styrax Benzoin			
10	Ber	Garcinia indica	15	Mançanas de la India	+ leaves and fruit.
11	Calamo	Acorus Calamus	63	Calamo aromatico . . .	+ plant.
12	Camphor	Dryobalanops aromatica	33	Canfora	0
13	Cardamom	Elettaria Cardamomum	64	Cardamom	0
14	Cassia fistula . . .	Cathartocarpus fistula	17	Caña fistola	0
15	Canela	Ravensara aromatica	1	Canela	+ leaves and berries.
16	Coqus (cocos) . . .	Cocos nucifera	14	Cocos Palma	0
17	Costo	Saussurea Lappa of Clarke	65	Costo	0
18	Crisocolo. . . .	Biborate of soda			
19	Cubebras	Cubeba officinalis	18	Cubebas	0

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LIST OF PLANTS (*continued*)

No. of Colloquy.	Orta's Names.	Scientific Name.	Chapter in Acosta.	Acosta's Names.	Acosta's Illustration—+. None—0.
20	Datura . . .	Datura alba	11	Datura . . .	+ tree-flowers.
21	Marfim . . .	Ivory		Elephant . . .	+
22	Faufel . . .	Areca Catechu	12	Avellana Indica . .	+ tree.
23	Folio Indo . .	Cinnamomum Tamala	19	Folio Indo . . .	0
24	Galanga . . .	Alpinia Galanga	7	Galanga . . .	+ whole plant and roots.
25	Cravo . . .	Caryophyllus aromaticus	3	Clavos . . .	+ the tree.
26	Gengivre . . 5	Zingiber officinale	36	Gengibre . . .	+ whole plant.
27	Herbas contra camaras . . 5	Hollarhena anti-dysenterica			
28	Jaca . . . 3½	Artocarpus integrifolia	37	Jaca . . .	+ fruit and leaves.
29	Lacre . . . 11	Coccus lacca	16	Lacre . . .	0
30	Linaloes . . 13	Aquilaria Agallocha			
31	Cate . . . 7½	Acacia Catechu	20	Cate . . .	0
32	Maça e Noz . . 5	Myristica fragrans	4-5	Nuez Moscada Macer . . .	+ the tree. + branch.
33	Manna Purgativa 3	Cotoneaster nummularia	66	Manna . . .	0
34	Mangas . . . 10	Mangifera indica	49	Mangas . . .	+ leaves and berries.
35	Margarita or Aljofar . . 5½	Meleagrina margareti-fera			
36	Mungo e Melem de India . . . 11½	Cucumis Melo Citrullus vulgaris			
37	Mirabolanos . . 6	Terminalia Chebula	41	Mirabolanos . . .	0
38	Mangostaes . . 1	Nepheillum Litchi Garcinia Mangostana			
39	Negundo or Sambali . . . 2	Vitex Negundo	42	Negundo . . .	+ branches, male and female.

LIST OF PLANTS

LIST OF PLANTS (*continued*)

No. of Colony.	Orta's Names.	Scientific Name.	Chapter in Acosta.	Acosta's Names.	Acosta's Illustration—+. None—0.
40	Nimbo . . . 1	Melia Azadirachta	43	Nimbo 0	
41	Amfiam (Opio). 4	Papaver somniferum	68	Opio 0	
42	Pao da Cobra . 5	Pauwolfia serpentina	55	Palo de culebra .	+ root and leaves.
43	Diamão . . . 11				
44	Pedras Preciosas 8				
45	Pedra Bezar . 4		21	Piedra Bezahar .	
46	Pimenta . . . 9½	Piper nigrum Piper longum	2	Pimienta . . .	+ leaves and berries.
47	Raiz da China . 12	Guaiacum officinale	10	Palo de la China .	+ leaves and roots.
48	Ruibarbo . . . 2	Rheum officinale	44	Reobarbaro . . . 0	
49	Sandalo . . . 7	Pterocarpus santalinus	22	Sandalo 0	
50	Espiquenardo . 7	Nardostachys Jatamansi	23	Spicanardi . . . 0	
51	Espodio . . . 6½	Bambusa arundinacea	46	Spodio	+ stalk and leaves.
52	Esquinanto . . 5½	Andropogon laniger	24	Schinantho . . . 0	
53	Tamarindos . . 6	Tamarindus indica	8	Tamarindo . . .	+ leaves and beans.
54	Turbit 16½	Ipomoea Turpethum	47	Turbit 0	
55	Thure e Mirra 3	Boswellia carterii, and Balsamodendro (Com- miphora) Myrrha			
56	Tutia 1½	a mineral medicine			
57	Zedoaria . . . 5½	Curcuma aromatica			
58	Algunas cousas novas 14				
59	Betre 13 231	Piper Betle			

THE SIMPLES AND DRUGS OF INDIA

LIST OF PLANTS (*continued*)

In Orta, not in Acosta.	In Acosta, not in Orta.
Benjuy	Higuara de las Indias
Crisocola	Durion + mentioned by Orta but not seen (under Datura). Seen and drawn by Acosta
Linaloes	Yerbaviva +
Mungo	Yerba mimosa +
Mangosteen	Piñares de Maluco
Tutia	Yerba de Maluco +
Betle	Palo de Maluco
Pearl	Caius +
Precious stones	Moringa +
	Ananas + (pine apple)
	Charameis +
	Sargasso + (gulf weed)
	Carcapuli +
	Añil

MONEY, WEIGHTS, AND MEASURES OCCURRING IN THE WORK OF GARCIA DA ORTA

A REPORT on the money, weights, and measures of India and adjacent countries was made by the King's accountant in 1554.

Money.

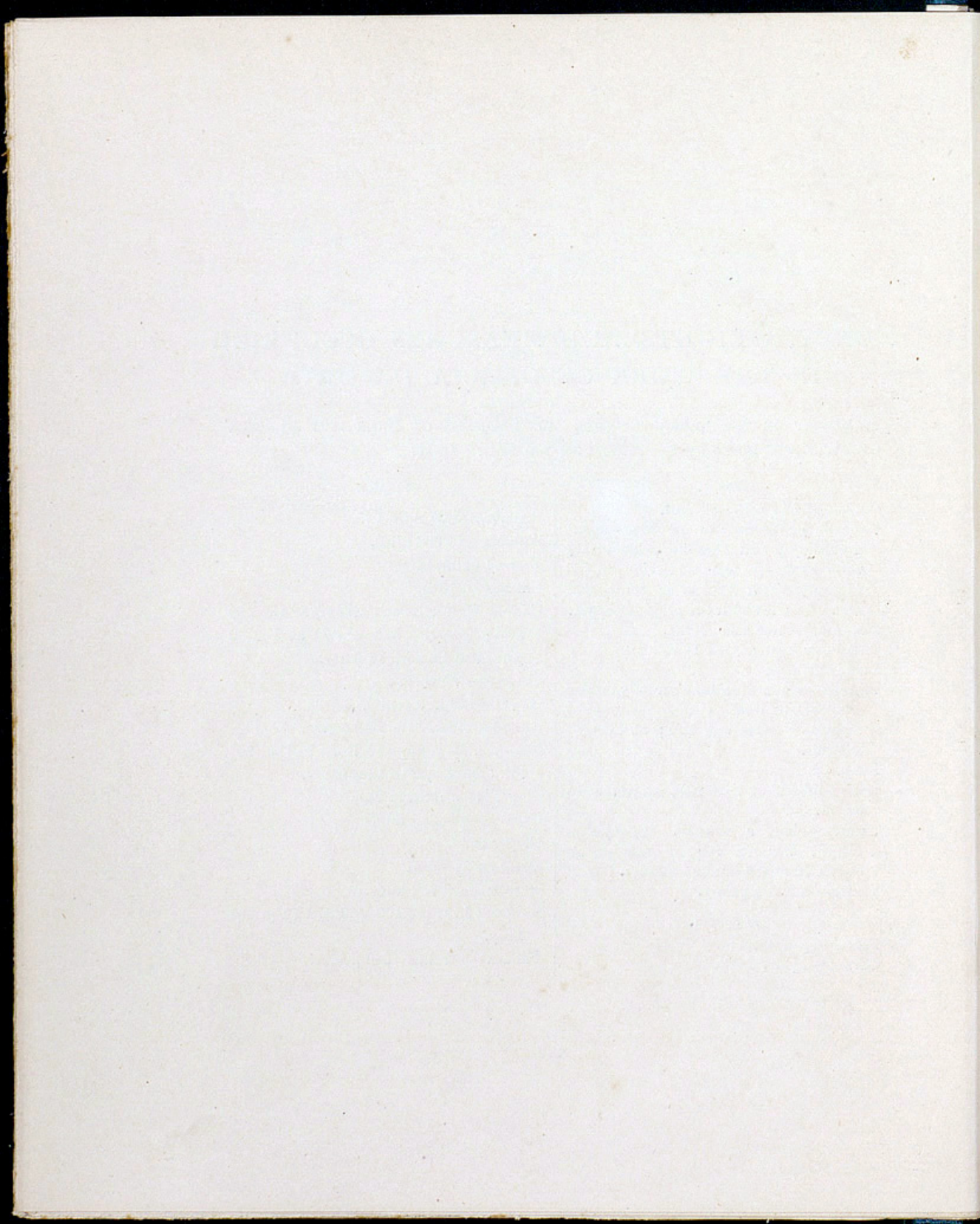
CEITAL— $\frac{1}{2}$ of a ceital = 1 real.
 CRUZADO or VENEZIANO DE OURO—about 4 shillings. In Goa its value was 7 TANGUAS or 420 reis; at Cochin, in the time of Martin Affonso de Sousa, 426 reis. It varied with the price of pepper.
 DINHEIRO—same as a CEITAL.
 LEAES—OR LEAL at Goa $1\frac{1}{2}$ rei.
 LIVRA—36 reis.
 PARDAO—about a shilling or 5 TANGUAS (300 reis) at Goa. PARDAO DE OURO = 6 TANGUAS at Goa and Diu; at Cochin, 360 reis.
 REAL.
 REI—a milresi or 1000 reis, equivalent to 3s. 4d.
 TANGUA—half a PARDAO. In Goa a TANGUA was 72 reis, a TANGUA DE PRATA 72 reis, a TANGUA BRANCA $115\frac{1}{2}$.
 VINTEM—about a penny.

Measures.

PALMO—span, 0.22 m.
 COVADO— $1\frac{1}{2}$ ft., 0.66 m.

Weights.

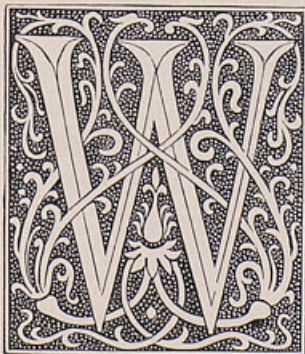
ARRATA, ARRATEL—1 lb.
 ARROBA—14.688 kilos.
 BAR—4 quintals.
 CANADA— $2\frac{1}{2}$ lbs.
 CANDIL—(for rice and wheat) at Goa, 20 mao; (for rice and wheat) at Diu, 8 paras; at Cochin, 14 paras.
 CELANUA—25 carats.
 GANTA—148 in a candy.
 GRAO DE TRIGO—160 = 40 carats.
 MAO-MAN (MAUND)—27 lbs. In Diu, $24\frac{3}{4}$ lbs.; in Goa, 8 to 12 canadas.
 MANGELI—a carat in Tamil.
 OITAVA—0.00359 kilo.
 ONÇA—oz.
 QUILATE—a carat.
 QUINTAL—58.752 kilos.
 RATTI—96 rattis = 100 grains, 1.75 grains Troy.
 TROLLA—3 trollas = 540 grains.



FIRST COLLOQUY

In the which is introduced to the reader, Dr. Ruano, one well known to the author in Salamanca and Alcalá, and who came to India in a ship whereof his brother-in-law was purser; and came only to learn about the drugs of India and about all other simples in that country: and how he arrived at Goa and heard of the author there, they being formerly known to each other; and how he went to the author to declare the object of his voyage, and how the author answered him.

ORTA



ELL! we have now adopted the same life that you proposed to enter upon after we had completed our studies; but why have you come to India? It will be well if you can tell me any way in which I could serve you here, for, from this time, I will try to do so.

RUANO

You should know that I came because I had a share in the ship, of which my brother-in-law was the purser; but my presence, as well as your own, in this land, may well be excused, for I come with a great desire to know about the medicinal drugs (such as are called the drugs of pharmacy in Portugal) and other medicines of this country, as well as the fruits and spices. I further wish to learn their names in different languages, and the trees or herbs from which

1

B



FIRST COLLOQUY

they are taken. I also desire to know how the native physicians use them ; and to learn what other plants and fruits there are belonging to this land, which are not medicinal ; and what customs will be met with ; for all such things may be described as having been seen by you or by other persons worthy of credit.

ORTA

In all these things I will serve you, and will tell you what is true, but I fear that what I may say will be found to be unworthy of record, for so eminent a scholar, who has risen so high in speculation, will only be satisfied by very rare things.

RUANO

If those things content you they will also content me. For it may well be that a thing, which you know well, will for that reason not have much value in your eyes ; while I, who did not before know about it, will value it highly, as is reasonable. For some physicians, who came to Spain, neither gave me the information I want, nor satisfied my understanding. But I know that when you talk to me, all you say is worthy of being written down. For this, I have a book in which I write down my enquiries in *a b c* order.

ORTA

I say, my dear Sir, that as your curiosity incites you to desire a knowledge of all that arises here on the subject you have referred to, I equally desire to tell you all I know. As our friendship is so great and so old, that which I communicate to you is to be understood to be to the best of my knowledge, and without any adulation or flattery. On these conditions I promise to serve you and to tell you what I know, and presently you can make such observations as your knowledge

CONVERSATION WITH RUANO

suggests, and refer to what seems doubtful; and thus we can discover the truth.

RUANO

In what you say I find what is very agreeable to me, and we shall sleep, making ready to carry out our intention to institute enquiries to-morrow.

SECOND COLLOQUY

OF THE ALOES

RUANO



T seems to me that the time has now come for you to reply to my enquiries, and as a certain order greatly assists the memory it will be well to commence alphabetically with some names which need elucidation.

ORTA

What you propose respecting alphabetical order appears to me not to be good, for the reason that it may happen that the things discussed at first may be of little value or not much noted, or amusing to read. Just as I have often heard it said that the greatest sins should be the first to be confessed to the priest; or that the best reasons should be given first when we read lessons; or when things have to be sought, the most important must be asked for first.

RUANO

Rather, my dear Sir (saving your better judgment), I disagree with you on many points, because the beginnings of prayers do not move the feelings and affections as much as the rest, and because the end is fixed in the memory more than

ALOES

what came first, neither is a doctrine dwelt upon very subtly at the beginning, without the promise to make the argument more convincing afterwards.

ORTA

Nevertheless, what you have said has not convinced me. Some day a little book may be printed, making a joke of me, or showing up my errors and badly arranged reasons. Some people in reading, not finding in the beginning anything that they like, without considering further, will give this book to the four winds, covering me with a thousand curses and vituperations, and, what is worse, will direct against me invectives and other kinds of abuse when I do not deserve it.

RUANO

Your writings will meet with no other evil than the malignancy of readers, for they are true, and many are unknown to physicians in Spain, much less to those in the rest of Europe. I have already enquired of physicians in Spain, and they gave me no more reason than that they knew all. Of these men some were learned, but time going on, their thoughts were turned more to enriching themselves than to philosophizing; though as the philosopher says,¹ "to philosophize is better than to enrich oneself." But they prefer first to enrich themselves and then to philosophize. I say that as you have drawn out this treasure, I want your work for myself alone, and for a very few other people that I know in Spain, and some of our disciples, if you will not mind their knowing it; and some of your disciples are as learned as you and I. We could learn from them because they think little of practice and much of the schools. You and I will do the opposite. For now you have neither masters nor preceptors in Salamanca or Alcalá, for all are either dead or banished from Spain. Turning

¹ Aristotle, *Topics* (libro 3). Note by da Orta.

SECOND COLLOQUY

to our investigations, tell me the names of the aloe in all the languages known to you, how it is used, and which is the best, for Pliny and Dioscorides highly praise that of this country.

ORTA

There is little that is noteworthy to be said about the ALOE,¹ nevertheless I will comply with your wish. I say that ALOES or ALOA is Latin and Greek. The Arabs call it CEBAR, and the Guzeratis and Deccanis AREÁ; the Canarese, who are the inhabitants of this sea-coast, call it CATECOMER, the Spaniards ACIBAR, and the Portuguese AZEVRE. After the herb has been dried with smoke, it is called *Herva-babosa* by the Portuguese. There is a great quantity of this herb in Cambay, Bengal, and many other parts; but that of Socotra has much the highest value, and there is a trade with it to Turkey, Persia, Arabia, and throughout Europe. They call it *Socotrine aloes*. That island is 128 leagues from the mouth of the straits whence as much may be seen of Arabia as of Ethiopia, for the entrance of the strait has Arabia on one side and Ethiopia on the other. It is not here that a city exists, as is stated by Laguna, for there is not a city in the island, but only people with large flocks. Nor is there pavement or ground to receive a tear that may fall. For they neither have a city, nor in the island is there any civilization, nor is there any mistake about the great abundance there of this herb. Owing to the little care of the negroes of that land, in not separating the herbs from this *Herva-babosa*, they get mixed, and for this reason one does not appear to be so good as the other. Also you must not believe that it is better on the top than in the middle, and worst at the bottom, nor is it full of sand if it is prepared with care, for all is good. Nor can it be mistaken for Gum Arabic or

¹ *Aloë socotrina*, and *A. Perryi*, Baker, Liliaceae. Aloes was known to the Greeks as a product of Socotra from about the first century B.C. See Pliny, xxvii. 4 (5); Juvenal, vi. 181 ("Plus aloës quam mellis habet"); and is the *sibr* of the Arabs, the *alia* of the Hindus, the *kumarika* of the Cingalese, and the *alivah* of the Malays.

ALOES

Acacia (as Pliny and Dioscorides affirm), for in our country there is little Gum Arabic or Acacia, and to speak the truth, no one has sent to enquire, from persons of good faith, respecting what I have related. It may well be that this AZEVRE is falsified in other countries.

RUANO

How is it known that the aloes of Socotra, called by some writers *Suco-cetrino*, is the best? How do you know that they can discern the Persian, Arabian, and Turkish one from the other at Ormuz, whither they take it to sell, as they say.

ORTA

A rich merchant well known to common fame, and well read in their literature, named Khoja Perculim,¹ served as secretary to the governors. One day I asked him how it was called in Turkish, Persian, and Arabic. He told me that the word was CEBAR in all those languages. On making further enquiries, he said that the best of all came from Socotra, but that they were brought from many other parts of India to Ormuz, Aden, and Jiddah, whence they are taken to Cairo and on to Alexandria, the port of the Nile. The merchants know very well what is from Socotra, and what from Cambay and other parts; and they value that from Socotra four times as high as any other kind. After this I went to see NIZAMOKA,² who is one of the principal kings in the Deccan. He is called the NIZAMALUCO.² He is also well read in his own literature. He always has physicians of Turkey and Persia to whom he gives large rents. These men knew the difference perfectly. They told me that they could tell the kind from Socotra because its parts joined well one with another, while the other kinds of AZEVRE did not connect well because the parts came

¹ A Parsee. When Bahadur Shah ceded Baçaim to Nuna da Cunha in 1534, Khoja Perculim served as interpreter, and he then became known to Garcia da Orta.

² Nizam-Shah. Nizam-ul-Mulk.

SECOND COLLOQUY

from different plants. This is a thing perfectly well known, they added, and the king, their master, always has the Socotra kind brought to him. So that there are not two species, or three species in use, but one only. This I understand, though you may hold that locality causes variety in species. Certainly there are bad and good, and the plants differ in degrees of goodness. But this diversity in quality does not prevent the parts from mixing well, for they are all one species. Some doctors call it *SUCO-CETRINO*, but not many. I do not myself see the reason, but in truth it is so called.

RUANO

But how do we explain the statements of Pliny and Dioscorides, who say that the best of all is that from India, and that other kinds are from Alexandria or Arabia?

ORTA

To this I answer you that you are not to understand merely that the kind coming from India is the best. It was first brought to India from Socotra. But, as I have already told you, they also export *AZEVRE* from Cambay and Bengal to Ormuz, Aden, and to Juda (as we have corrupted the name, for the natives called it *Gida*¹). All these are always brought from other parts, but, as I say, that of Socotra is the best, above all the rest. For who buys devils, sells devils.

RUANO

However, *Mesué* says better, that one is brought from Socotra, another from Persia, another from Armenia, and another from Arabia.

ORTA

Mesué does not do better, but only less erroneously than the others. For in truth what goes from here to Portugal,

¹ Jidda.

ALOES

and I have seen all, has been brought from Socotra. When your doctors may have said that it came from Alexandria, it is to be understood that in times past quantities of drugs were brought to Ormuz, thence to Bussora, and thence to Aden and Gida, whence, by land in camel caravans, they reached Suez and Alexandria, the port of the Nile. Thence the galleys of Venice carried them to that port, and they were distributed and sold all over Europe. It was not because there was AZEVRE in Alexandria.

RUANO

If there is not AZEVRE in Alexandria, you will also say that there is not RUIBARBO. Therefore that author is wrong who says that one cannot make a dollar for purging or deopiplating, there being such a quantity of RUIBARBO in Alexandria.

ORTA

This doctor means the quantity of RUIBARBO that comes to Alexandria from other parts.

RUANO

Touching the names, there is one a little doubtful and not in Mateo Silvatico. He says it is called SABER¹ or CANTHAR or REAMAL; but he may be mistaken, not being an Arab, and what shall we say of Serapio who called it SABER?

ORTA

It was not called CEBAR only, and in course of time it became SABER. For this the translator is not alone in fault, but the lapse of time also, which alters everything. In Arabic it is certainly CEBAR.

¹ *Sibr* is the Arabic for the drug aloes, obtained from *Aloë socotrina* and other species of *Aloë*. See footnote, page 6. Here rhubarb [*rhawand Chini*] and gamboge [*osara rhawand*] seem to be confused with aloes.

SECOND COLLOQUY

RUANO

Is it used among the Indians ?

ORTA

The physicians of Persia, Arabia, and Turkey use this medicine because they know Avicenna thoroughly. They call him *Abolahi*, and his five books "*Canum*." They know Rasis whom they call *Benzacaria*, and Halirodoam and Mesué, although it is not the work that we used. They also have all the works of Hypocras, Galen, Aristotle and Plato, though not so complete as from the Greek fountain-head. The Gento¹ physicians also use it for purgatives, in kidney diseases, colics, and also for healing wounds. They have, in their pharmacy, a medicine called MOCEBAR made of aloe and myrrh, which they also call BOLA. It is much used by them to cure horses, and to kill maggots in wounds. But among us bad aloes are called CABALINO, as a modern doctor writes, saying that the worst is used at the farrieries ; and that the kind CABALINO is neither used to cure beast nor men, only SOCOTRINO. From what Serapiam says on the authority of Alcamzi, we should understand that CABALINO can be used with less harm for farriers' purposes and for wounds. A Gento physician of Sultan Bahadur, King of Cambay, uses, as an ordinary and efficacious medicine, pieces of leaves of HERVA-BABOSA boiled, with salt between them. He takes eight ounces of this infusion with which he causes four or five motions, without injury or annoyance to him who takes it. Here, in this city of Goa, I took this herb, pounded and mixed with milk, to be given to those who suffer from disease in the kidneys or bladder, or to be administered in any other way. It proved very efficacious as a cure, and now we use this medicine and derive benefit from it. We also used

¹ A gentile or heathen, the Portuguese name for Hindus in contradistinction to Moors or Muhammadans. The English corrupted the word into "Gentoo."

ALOES

AZEVRE for the injuries to the legs of birds, a remedy well known to falconers; and to reduce inflammation of the gums. Mateolo Senes does not appear to be well informed, where he says that the herb is better to look at than to use as medicine.

RUANO

All you have said is not wanting in interest, but I am told that when you taste HERVA-BABOSA it is bitter, and has a very strong smell.

ORTA

Reading in Antonio Musa and other modern writers I find it stated that the bitterness does not exist in the HERVA-BABOSA of our land, and I have often tried this myself. I found it very bitter, and nearer the root it became more bitter, while at the upper point there was no bitterness; but a disagreeable smell from all parts, so that the statement of Antonio Musa that the kind from Socotra is more bitter is false. For I have myself tried the Indian kind, and have ordered that of Socotra to be tried, finding that both have a very bitter taste. It has not been tried in Spain. And further, I may tell you that I find, in Silvatico and the Plateario, that all things that are bitter are useful, the more bitter they are the better, except the aloes. It appears that Antonio Musa is of a contrary opinion, and it appears to me that Musa is right, knowing that bitterness preserves from putrefaction, and is very good in other ways.

RUANO

Resolve this doubt for me. If the medicines containing aloes are taken while fasting, and food is taken afterwards, should there be a long interval before the food is given?

ORTA

Do not ask me this, for you know it better than I do.

SECOND COLLOQUY

RUANO

Nevertheless I want to hear your opinion, and to know the course you adopt.

ORTA

Galen orders five pills of the size of a grain of corn to be given for pains in the head, and Pliny says that it is a very good medicine, taken a short time after drinking, and then a little good food. It is a very good prescription, and also used by the Moorish physicians of this country. But as the aloes are weakening, the medicine will not work until the system is strengthened by good nourishing food, but little in quantity, as I said, so as to digest well. The medicine ought to be taken fasting and not after a meal lest it should corrupt the food. Each one of these points is supported by reasons and texts, and all can be shown to agree. As to the question how the food suits, so as to mix with the medicine, you know better than I, and will excuse me for not saying more on the subject.

RUANO

It grows more in places near the sea, as Dioscorides tells us?

ORTA

I have travelled all over India, more than 200 leagues of road, and I saw this HERVA-BABOSA in every place.

RUANO

They tell me that it yields a gum.

ORTA

It has no gum except sometimes on the leaves like some kinds of viscous water, of which no use is made.

RUANO

Ruelio says that the pills of Rasis, which are prescribed

ALOES

for the plague, compounded by Rufo, contain aloes, myrrh, amoniaco, temiama, and wine. Why do these Maumetistas¹ leave out amoniaco, temiama, and wine; and increase the açafraam?

ORTA

You seem very much attached to these modern authors who, in order to praise the Greeks, speak evil of Arabs and of some Moors born in Spain, and others of Persia, calling them "Maumetistas" and barbarians (which they hold to be the worst epithet there is in the world), especially the Italians, as well as the Greeks, who are not those who are now called Rumis, and the Turks, a cruel and ill-conditioned race who, at present, persecute Christians more than any other people. I must tell you that I do not deny that the medicine of Rufo is what they say and is very good. I also grant that the pills of Rasis (which we use) are well tried and excellent. The açafraam is put into them because it is a cordial and purgative, and for many other virtues which it possesses.

RUANO

It seems that you make a difference between Rumis and Greeks, and I have always understood that these two words mean the same thing?

ORTA

Although your question does not refer to medicine, I answer that they are very different, the Turks being of the province of Anatolia (formerly called Asia Minor) and the Rumis are of Constantinople and its empire.

RUANO

How do you know this: by books or by what has been told you by certain persons?

¹ Muhammadans.

SECOND COLLOQUY

ORTA

I have often asked a white soldier whether he was a Turk, when I have been campaigning in the wars of these Indian kings, and he has answered no that he was a Rumi. Others, when I have asked them whether they were Rumis, have said no that they were Turks. When I asked them what was the difference between one and the other, they told me that I could not understand because I did not know the names of the countries, nor could I understand the language. Finding myself in the house of that excellent worthy, Martin Affonso de Sousa (whom I was serving), he showed me a *Platina*¹ containing a legend in the life of San Silvestre, where we find it written that when Constantine, leaving Rome to the Pope, went to Constantinople, he granted to it the privilege of being called Rome, and that the country should be called Romeos. The *Platina* says that they have those names to this day.

RUANO

I have much pleasure in hearing these things although they do not refer to the subject of our colloquies. But to return to the aloes, you told me that we could answer Menardo and other moderns who find fault with Mesué, Serapiam, and Avicenna, because they say that the aloe opens the veins and is bad for the hemorrhoids, and because these Arabs say that it is less purgative when mixed with honey. For they affirm that it is less harmful to the stomach than other soluble medicines. Menardo and these others say that it does not only cause hemorrhage, but closes the hemorrhoids, and that it is not pernicious to the stomach, but on the contrary does good, not doing any harm whatever. Mixed with honey it is more soluble than other soluble medicines. The first opinion

¹ Bartolomeo de Sacchi, *Platina*, 1442-1481; author of *In vitas summorum pontificum ad Sixtum IV.*, 1479.

ALOES

is proved by Galen and many other authorities, and the second by the fact that honey is a cause of solubility, for two solutions are more purgative than one.

ORTA

I have told you that I do not feel obliged to reply to questions referring to matters which are better known in Spain, where one can read many things that are written every day while practising, and conferring with many learned physicians. But I, out here, am not consulted by any one, and the want of counsel is not made up for by books. However, in answer to your first point, I tell you that Antonio Musa speaks as a man without feeling, for he has no reverence for any master, and concedes the accuracy of the first point affirmed by Mesué, that it opens a hemorrhage, and he says that he has seen this many times in his practice. I also say that I have had experience, and seen the effects many times, and that it causes great pains with the hemorrhage. All this you can do with the aloes, through its bitter quality, opening the veins and stimulating the expulsive virtue. In this way it purges the bile remaining in the stomach and in the navel, as Dioscorides and Serapiam say. As to closing the veins, it is proved by the authority of Jacob de Partibus that it retains outside and opens from within. This authority refers to many medicines that, taken within, give occasion for an operation, and applied on the outside have different effects, such as an onion which sustains when used inwardly, and applied outwardly causes wounds and ulcers. As regards the second point, objected to by Mesué, that it purges less when taken with honey, I tell you that both are soluble, both aloes and honey, and more soluble together than aloes by itself, the less soluble is weakened, which is the honey. The third point is where he reprehends Mesué because he says that it is less harmful to the stomach, being comforting to the stomach. To this I

SECOND COLLOQUY

say that it is to be understood that it gives comfort to the stomach by an accident, which the physicians call *per accidens*, namely, drawing out the bad humours of the stomach without doing any harm, or at least very little. In this way we have to understand the authorities referred to by Menardo and other modern writers.

RUANO

On all the points you have referred to, you have thoroughly satisfied me, and much more in what you have said touching the effects of the aloes. The first qualities, warmth, cold, humidity, dryness, are caused to a certain degree, and less warmth remits something which, in degree, causes more warmth. The second and third qualities are aperient and dioretic, more strong and intense, being more dioretic, united with other things becoming less so. Thus the aloes being more purgative, when united with honey become less purgative, and all become less soluble. Hence it comes that it purges more with ten grains of *escamonea*¹ than with five drachms of solution, and an ounce of *cassia fistula*. In one drachm of rhubarb there enters more *escamonea* than in twelve grains. I have tried this many times, and can give no other reason. And now tell me whether they have aloes *metallico* around Jerusalem.

ORTA

I enquired respecting this of some Jews who came here and said they were inhabitants of Jerusalem. Some of them were sons of physicians, others of apothecaries. They all told me that it was untrue, and that there was none in Palestine; and here we may make an end of the aloes, if you are satisfied.

RUANO

Before you conclude I must offer you many thanks. But

¹ Scammony, the gum resin from the root of *Convolvulus Scammonia* of the Levant, and now obtained also from the root of *Ipomoea orizabensis* of Mexico.

ALOES

I would also ask you first to solve a doubt as to the way in which they take the pills and purgatives in this country, and how long a patient is kept from food after taking them. I ask this to see whether the followers of Avicenna who cure kings in this country, have the same custom as we have in Spain.

ORTA

I say that the pills are taken in the way we take them, as also are the liquid purgatives. The time is at break of day, without eating or drinking anything for five hours. These are taken to quiet the stomach according to the rule of Avicenna, consisting of two drachms of ALMECEGA dissolved in rose water, the stomach being rubbed with the bile of a cow, then wet cloths are put over the abdomen to promote motion and stimulate the expulsive virtue. The motion is very satisfactory. At the end of the five hours the patient drinks three ounces of chicken broth, but nothing else, sleeps a little and drinks some rose water. After sleeping he purges well. They say that the broth and rose water fortify nature, but that it is not good to eat much as it impedes digestion and the purging is less effective. Enquiring if this treatment is given to all that require purging, they replied that this was the usual practice among learned physicians, but they allege no authority whatever for it.

RUANO

They have a good deal of reason in what they do and practise, for the bile as a solutive applied exteriorly has a biting effect in compelling expulsion; and not to eat fowl is the express text of Avicenna, where he says that he who has to take medicine should take much in the morning, and eat in the afternoon, after three hours, four ounces of bread and a little wine and water, six hours after that he should go into a bath, remaining there a convenient time, and then have

SECOND COLLOQUY

another meal. This is the text translated into the Portuguese language, according to the version of Belunense. However these Moors have not adopted this practice without authority, nor is their custom without reason. But Mateus de Gadi gives a different version of this text, and applies it chiefly to the treatment of sciatica, for (saving better judgment) it may be applied to many diseases. And do they use the bath recommended in the text?

ORTA

Yes they use it, but not on the same day. The bath is taken on another day afterwards. A bath is prescribed to Brahmins, Baneanes,¹ and all Gentios who never eat without first washing the body, and the Moors bathe every third day at the least.

RUANO

Why do you take the text amended by Belunense? I ask whether you find that translation correct.

ORTA

I have tried it many times, and read the ordinary translated text, having the Arabic of Avicenna before me. It agreed with what I said, and the translation containing the corrections of Belunense. As it is now the hour for dinner, we will not converse more, but after dinner we will talk of the amber.²

¹ A Hindu trader, especially from Guzerat, spelt *Banyan* by the English.

² Acosta copies the whole of this Colloquy on the Aloe. He gives a plate. It is his chapter xxv., headed "Azuiar."

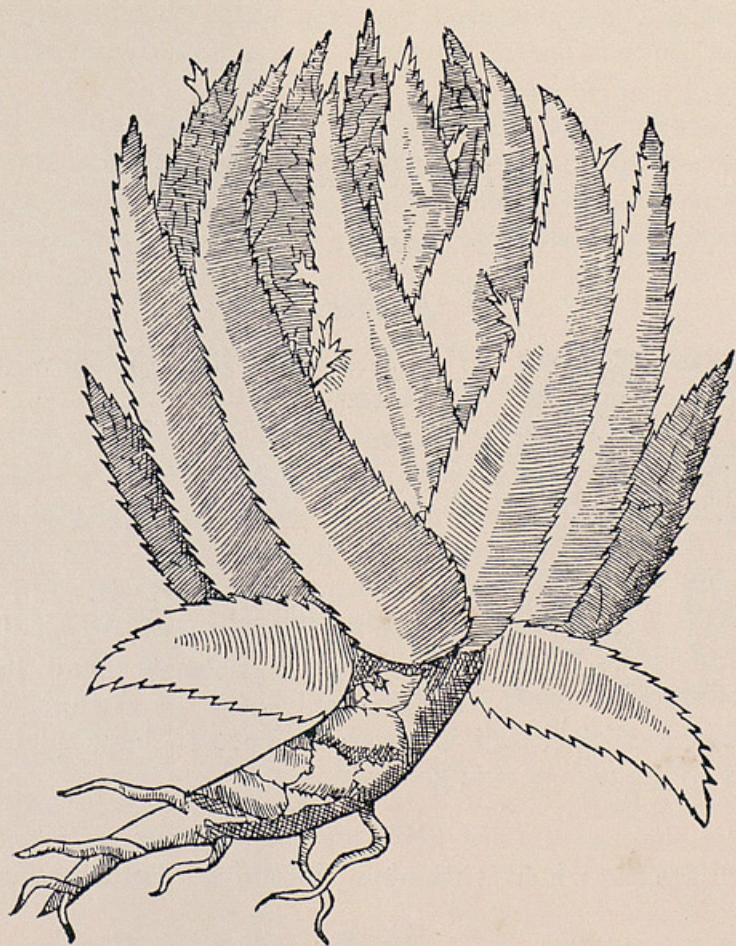
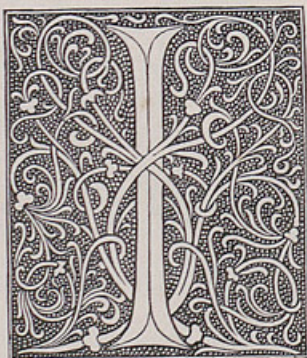


PLATE I.—AZUIAR.

THIRD COLLOQUY

AMBER

RUANO



SHOULD first like to know about
ALJOFAR.

ORTA

And I formerly wished to have much of it, both large and perfect, that I might study it. In the chapter on MARGARITA we shall find for what it is necessary and useful. Now we will speak of AMBER, for it also is a medicine, and it is worth more to have plenty of it than to know how it is generated.

RUANO

Tell me the whole truth about it, and set forth the facts.

ORTA

The Arabs call it AMBAR¹ and the Latins AMBARUM according to the Latin variation of words. Other nations and languages, as I know, give it the same name or with very little variation.

¹ *Amber* in Arabic means "perfume," and the word is applied by the Arabs to our Ambergis; while Amber, they call *inkitriun*, a corruption of the Greek ἤλεκτρον.

AMBER

RUANO

What reason do you give me that it has the same name among all people?

ORTA

There are certain names that do not vary, or vary very little in all the languages that I know, such as AMBAR, LIMÃO, LARANJA, SABAM, and some others. But by many LIMÃO is called LINBON, and LARANJA turns into NARANJA¹ and so with many others.

RUANO

How is it generated and what is it?

ORTA

Some say that it is the foam of the whale, and affirm that it is the excrement or the foam of a sea animal, others that it comes from a fountain issuing from the bottom of the sea, and this appears the best explanation, and most conformable to the truth. Avicenna and Serapian believed that it generated in the sea, in the same way that fungi generate on rocks and trees, and that when the sea is tempestuous it gives out stones which turn into amber. This opinion is also more conformable to the truth than other theories of Avicenna. For when the wind is high much amber is cast on the Comoro Islands, Emgoxa, Mozambique, and all that coast. And because the Maldive Islands are to the east, more reaches those islands when the wind comes from the west.

RUANO

But I am not quite clear why that long chain of islands is called the Maldives.

ORTA

In the matter of the names of lands and seas and regions

¹ The Lemon and Orange are both natives of the Indo-Persian Caucasus region, and the names of both are Indo-Persian, almost unchanged, that is *limu* and *narang* respectively. We say "an orange" instead of "a norange," just as we say "a newt" for "an ewt."

THIRD COLLOQUY

are we not a good deal misled from not knowing that the foreign languages supply the etymology of the names? I must tell you that I have heard it said that the natives do not call it Maldiva but Nalediva. In the Malabar language *nale* means four and *diva* island. So that in that language the word signifies "four islands," while we, corrupting the name, call it Maldiva. In the same way we call an island, which is 12 leagues from Goa, Angediva because it is a group of five islands, and this is the meaning in the Malabar language in which *ange* means five. These derivations are well known, and I, therefore, do not wish to make a proof by demonstration.¹

RUANO

I rejoice much to know this for it satisfies one's understanding, so that when they talk of this I can give a more worthy account. And now we can proceed with the amber.

ORTA

Avicenna and Serapiam say that some amber is swallowed by a fish called AZEL which dies as soon as it has eaten it, and its body goes floating on the sea. The men of that region take grains and draw them out so that they penetrate to the amber which is not good, except some which have reached the backbone. This, they say, is good and pure, and this according to the length of time that it has been in the stomach or against the backbone.

RUANO

And what do you think of that? Is it likely?

ORTA

No, for I have made enquiries and no one has said that they have seen it.

¹ Yule refers to Orta's derivation, but considers that it is certainly wrong. But he adds, "hard as it may be to say what is the right one."—*Glossary*, p. 546.

AMBER

RUANO

That reason does not seem conclusive on all points, and, as you are learned and no longer young, you should give another.

ORTA

I say that the unreasoning animals, by a natural instinct, seek the food that is suitable for them and not that which is poisonous, except when what is injurious gets mixed with that which is wholesome—in the same way as we deceive the rats when the food they know to be good is mixed with red arsenic. So that we need not suppose that the fish goes to seek for the amber which will kill it. I say further that amber is one of the principal cordials, and though it may be poisonous to the fish, it also has virtues which are the reverse of fatal. These reasons, though not actually demonstrable, appear to me to be plausible.

RUANO

And to me conclusive as you have not seen any persons worthy of belief, with different experience. I would ask now what you have heard respecting amber which is worth so much, where the best is found, and for what it is used in these parts.

ORTA

First I must tell you of a great error of Avenrois,¹ who says that amber is a kind of camphor which originates in the fountains of the sea, and not on the surface water, and that the best is called by the Arabs ASCAP. I asked the physicians of NIZAMOKA (vulgarly called NIZAMALUCO) what amber this could be, but they were unable to satisfy me as they do not possess the works of Avenrois and Abenzoar. But that the statement of Avenrois is false and unworthy of the great philosopher is clear. First in saying that camphor originates in the sea, for camphor is cold and dry in the third degree, while amber is warm and dry in the second degree, whence it

¹ Averroes [*i.e.* Abul Walid ibn-Rushd] here obviously refers to Ambergris.

THIRD COLLOQUY

is clear that they cannot be included in the same genus. In conclusion I tell you that as there are lands where there is red earth such as ochre or Armenian *bola*,¹ and others where there is loam or *cardea* (?), so may there not be islands or lands where there is amber, where the ground may be spongy or in some other condition. That this may be true is proved by the great quantity of it, for I have seen pieces as big as a man, and one piece 90 *palmos* in circumference and 18 long. Some people declare that they found an island of amber, noted its position, and returned to the land whence they came. Wishing to go back for the amber, they collected provisions sufficient for the voyage, but were never able to find the island. Perhaps it was God's will that they should not discover it by reason of the castles of vanity they would raise on finding it, and because of the small thanks they had offered up to Him for the discovery. Also because these men might be saved having little of this world's goods, and not if they were wealthy. For God, who is merciful, knew best what was good for them. In the year 1555 I found beyond Cape Comorin a piece of near 30 quintals, and thinking that the find was tar I held it very cheap. However on being divided among many persons it returned to its accustomed price. The locality where I found it was in front of the Maldiv Islands. It is manifest that this is true because the pieces come sometimes in the beaks of birds, and at others in the shells of various molluscs, for they stick to the amber, and the birds have it lodged on them, the cleanest being the best. This that I tell you is the most accurate information that can be had.

RUANO

Is it found in other parts such as the coasts of Ethiopia ?

¹ Bolarmenico ; a red silicate of alumina ; the *μδρος* of Homer, *Iliad*, ii. 637 ; the "rubrica" of Pliny, xxxiii. 7 (38) ; the "Bolum Armenum" of the old "Dispensatories" ; the *Bolearmonike* of "The Nomenclator" of 1585 ; our "red-ochre."

AMBER

ORTA

Some is found in Timor, but seldom and in small quantity. They tell me that it is also found in Brazil, and in the year 1530 a piece was found at Setubal. But no account need be taken of these finds, as they seldom occur and in small quantities.

RUANO

Now tell me why it may not be the foam of the whale or its evacuation.

ORTA

This notion cannot be accepted because the whale oil, that I have seen, has an abominable smell, and not like the amber. Besides there are whales in many parts, and none yield amber, either in Spain or Galiza. For the same reason it cannot be from the foam of the sea, for where the waves are heard in contest with the wind there is foam, and those who say that a fish eats it are confuted and proved to have a false notion. This is what the Arabs say, for the Greeks did not find this simple, or only Aecio.

RUANO

Which is the best kind to choose?

ORTA

The kind that is nearest to white is the best, for instance the grey amber, or that with alternate grey and white streaks, and especially when it is light. The proof is that putting a pin into it, more oil is cast into the hole, and this is the best. The black amber is very bad, and I had a piece of it for a small price, which had very little smell. It was mixed with *ALMISCRE*¹ to make beads. It mixed very badly making many cracks. That which is as white as an ostrich's egg is very bad according to Serapio. I have not seen or heard of any one

¹ The *salip misri* of Egypt, Persia, and India, or tubers of various orchids of the genera *Orchis* and *Eulophia*, which in accordance with the doctrine of "signatures" are all reputed powerful aphrodisiacs; and strong glues.

THIRD COLLOQUY

who has seen it. If any one has seen it, it must have been adulterated with plaster.

RUANO

Menardo says, in his *Letuario de gemis*, that amber is a new thing, and it is esteemed according to its price. Further in his *Letuario di ambra*, he says that an electuary composed of it is very precious, much used by women and old men. It seems to be a contradiction of this doctor to say that it does not cost so much as the *Letuario de gemis*. With the amber it makes a very beautiful mixture which is much used and prized by the people of this India, and not only by us. And first, with reference to what I have said, explain to me some names which are in Serapiam and Avicenna. For instance, Serapiam says that there is much amber in the lands of Zing.

ORTA

It must be the parts of Sofala for ZINGUE or ZANQUE, among the Persians and Arabs, means *cafre*¹ or black. Because all that coast of Ethiopia is inhabited by negroes. Serapiam calls it ZINGUE. Avicenna also makes mention of Melinde, calling it ALMENDELI. What they call SELACHITICUM is Ceilão, one of the most famous islands in the world, possessed by the King our Lord, and not very far from the Maldives. It is not a city, as Laguna says, but an island with many cities. The greatest quantity of amber comes from Sofala as far as Brava. There is also some on the coast of Arabia, and a greater quantity, it is said, on the coast of Ethiopia.

RUANO

Is it much esteemed among the Indians and Moors of this land?

ORTA

Among the rich and powerful, yes! not used for food, but

¹ Arabic, *kafir*, in the plural *kafra*, "black," as in Caffraria; and Persian, *zenj*, "blacks," as in Zanguebar. It was the Orientals themselves who originated the "phrase," in its opprobrious sense, which we translate, "D—d Nigger"; as also that which we translate, "I don't care a dam(n)."

AMBER

for medicine in conformity with the rule of Avicenna, and according to the quantity, for an ounce of the best is worth more than precious stones.

RUANO

What is the size of the largest piece you have seen in this land?

ORTA

I have seen a piece which weighed more than fifteen pounds, but I am told that there are much larger pieces in Ethiopia. I do not know for what price they are sold, but I am certain that pieces reaching the Nizamoxa will be bought at a good price, judging from the value that is put upon large pieces. This amber is not only worth much among the Moors, it also has a high value with the Gentios, and what is marvellous, it has a still higher value among the Chinese. For our Portuguese take it to them, and sell it at the rate of 1500 *crusados* for a *cate*, which is twenty ounces. However, our people are taking such a quantity that it will soon be cheaper, each time being worth less according to the cupidity of those who bring it.

RUANO

How do the Chinese know that it is a good medicine, having bought it at such a high price?

ORTA

Diogo Pereira, who is a nobleman very well known in those parts, told me that the Chinese believe all that we hold concerning the engendering of amber, and say the same thing word for word. They declare that it is very efficacious for the ailments of women, and that it is good for the heart, the brain, and the stomach. And now, leaving the smell of the amber,¹ let us pass on to the amomo.

¹ Acosta devotes his chapter xxvi. to Amber, copying what Garcia da Orta says, slightly condensed.

FOURTH COLLOQUY

AMOMO

RUANO



HERE arises so much doubt as to what the *amomum*¹ is, that some writers would take the *acoro* for it, seeing that Galen gives it the same virtues; but there is also much doubt about *acoro*. They say that the *amomum* enters into *tiriaca*. For this reason Mateolo Senense weeps for the perdition of the human race in having lost the *amomum*, for, without it, help cannot be given in curing the infirmities of men. This writer says that he does not hold for certain that this drug enters into the *tiriaca*² of Andronicus. For this he is blamed and reprehended by some writers because they had affirmed that under some headings he stated that it did enter into *tiriaca* and under others, according to them, he had said the contrary. Nor does Mateolo offer us a remedy, but laments

¹ "Cardomums," derived from *Amomum Cardamomum*, *Elettaria Cardamomum*, and other species of the Zingiberaceae.

² *Theriaca*, i.e. "treacle" [from French *triacle*, and *thériaque*], an antidote to bites of snakes, and to poisons generally, and prescribed by Galen for the Emperor Marcus Aurelius Antoninus who took a small dose every day. Galen's prescription is lost.

AMOMO

the loss, adding that neither can that which is called the rose of Jericho¹ be also the *amomum*. For this he gives several good reasons and amends many texts. What you have heard related will never be finished. You can see that yourself, or you may see it from Laguna and others. Certainly, according to many writers this *amomum* enters into *tiriaca*, and it is not good to experiment with unknown medicine. I have a strong desire to learn whether the *amomum* is in this land, and whether the Moorish physicians have it who cure the kings, believing it to be *pes columbinus*,² for this is a great error, as the above authors have proved.

ORTA

If in this land I have seen the simples that are in your land of Europe I will draw out your doubt, for I will tell you all that is known of the matter in India. These modern writers say that *tiriaca* cannot be made for want of *amomum*. I asked an apothecary who was Spanish in language, but Jew by his false religion, who said he was from Jerusalem, what *amomum* was. He told me that it was *hamama* in Arabic, which means "dove's foot," and he had known it very well; but that he had seen it in his own country, and not in this, and of this there could be no doubt. Some years afterwards I went to visit Nizamoxa, when I asked his physicians whether they had *amomum*. They said that it was not found in their land. But among other medicines that were brought to the king from Turkey, Persia, and Arabia, for which high prices were paid by reason of the need there was for them to make up prescriptions, *amomum* also came. Among these prescriptions there was a *mitridato*.³ They gave me some of the *amomum*, which I took

¹ *Anastatica Hierochuntina*, the *Kaf Maryam* or "[Virgin] Mary's Flower" of Palestine, which expanded during the birth of the infant Jesus, the Lord Christ.

² *Geranium dissectum* is the "Dove's Foot" of modern botanists.

³ The "Theriaca," prescribed for the daily use of Mithridates Eupator, King of Pontus, B.C. 20.

FOURTH COLLOQUY

to Goa, showed it to the apothecaries, and compared it with some drawings of the simples of Dioscorides. It all appeared to be conformable to the drawing and, though it was dried, it seemed to be the same as the "*dove's foot*."

RUANO

I do not find this argument to be convincing, for this they would call the "*cow's tongue*" of Avicenna, which I doubt.

ORTA

All the names that we have in Avicenna have been translated literally from the Arabic. It is called *cow's tongue*, *bird's tongue*, *dog's tongue*, and *capillus veneris*.¹ The infirmities are also called with reference to the name. The elephantiasis is *daul alfil*, which means foot of elephant. Hydrophobia is *maraz alquelbe*, which means sickness of a dog. Whence I know that *dove's foot* is intended by Avicenna to indicate *amomum*. It is the same as regards many names derived from Avicenna, and we Spaniards imitate the Arabs in this.

RUANO

What use does this king put the *amomum* to?

ORTA

It enters into *mitridato*, which composition is much used from fear of poison, and they have this medicine sealed under their hand. For these kings, or rather tyrants, of this land are much in the habit of poisoning their brothers. Talking with this king one day I tried to discover how they made *tiriaca*. He said that it came in a barrel with a man to make proof. He would, if genuine, buy all the *tiriaca*, weighing out for it the same weight of gold, if he should make proof, which would amount to 2000 *pardaos*, which price is equal to one Spanish crown. Certainly if the devil does not take it first for the partnership of Mafamede, he would keep his word.

¹ The *Adiantum Capillus Veneris* of modern botanists is a fern.

AMOMO

RUANO

Tiriaca is cheaper in Europe, and it is wonderful what a small value it has owing to the quantity there is. You will see there other medicines respecting which there are doubts among us, that is respecting a knowledge of them.

ORTA

Such as *eupatorio* and *mexquetera mexir*.

RUANO

You certainly know that they have not the medicines you mention in this land.

ORTA

It may well be that that is so, for the apothecaries of India gain more by practice than by sale of drugs, and as the profit is small, I neither go to the continent nor to BALAGUATE¹ to seek *herva cidreira*, *lingoa de vacca*, *fumus terrae*, *tamarisco*, or *esparegos*, of which medicines we are in need, but I saw them there. I also saw violets sown in the king's garden. Here in Goa we use, instead, certain flowers from trees, very different from our violets. I do not consent to the use of these, except as lotions, and I order to be made of violets, in conserves, a lotion called *xarope violado*,² brought from Ormuz or from Portugal.

RUANO

More curious are our apothecaries in Spain with their poverty, for the love of money grows as the money itself increases.³

¹ The country above the Western *ghats*, or stepped hills of Western India, *i.e.* the tableland of peninsular India.

² Violet syrup.

³ Acosta devotes a very short chapter to Amomo, condensing what Orta says (xxviii.), and gives an illustration.

FIFTH COLLOQUY

ANACARDO

RUANO



WANT to know about ANACARDO.¹ The Greek name is derived from the name of the *heart* which is *cor*. I am surprised that there is no mention of this medicine among the ancient Greeks.

ORTA

You need not be surprised, for the modern Greeks give this name for the reason you have mentioned. It was a medicine used by Arab writers, and this was not the reason that they changed its name. For they call it BALADOR, and you find it written in a doubtful manner in their books, so that the word has become corrupt. The Indians call it BYBO, and we Portuguese FAVA DE MALAQUA, because it appears like our large beans on the tree on which it grows, and almost like the beans we saw first at Malaqua.² According to what some say there is abundance

¹ *Semecarpus Anacardium*, Linn., Anacardiaceae; the "Marking Nut" of Anglo-Indians.

² The fleshy receptacles on which the seeds rest are roasted and eaten. The green fruit pounded into a pulp makes good bird-lime. The tree is 50 feet high with leaves entire, obovate, rounded at the apex.—DRURY.

ANACARDO

of this medicine¹ in Cananore and Calicut, and in all the other parts of India that I know, namely Cambaya and the Deccan.

RUANO

Antonio de Lebrixa, in his dictionary, gives *anacardus* as a herb often mentioned by Galen.

ORTA

It is true that Lebrixa says this, and he was very learned and curious, but he was deceived as regards the Greek name. Without hearing more he said that Galen made the statement. He was careless, and you need not be surprised at this, for the good Homer sleeps sometimes. Serapio also quotes Galen, who never saw the ANACARDO, and further says that it sometimes kills, which is contrary to our experience; for in this country they use it in milk for asthma and also for worms. When it is green they make a conserve of it with salt, called ACHAR, and sell it in the market as we do olives. When it is dried they use it, like caustic for scrofula, and all India uses it for marking cloths,² mixed with lime. Avicenna says that the ANACARDO has a fruit like the kernel of tamarinds, and that the pith is like that of an almond, which does no harm. But lower down he says that it is counted among the deadly poisons. Yet he is more clear than Serapiam, who finds things that put him in doubt, and the contradiction is more clear, for in one place he says that it does no apparent harm, and in another that it is counted among the deadly poisons.

RUANO

Where he says that it does no harm, he means that it does no apparent harm at first, though finally it is fatal.

¹ The acrid juice of the shell is used for rheumatic pains, aches, and sprains.

² It is still generally used for marking cotton cloths. See footnote, page 32.

FIFTH COLLOQUY

ORTA

Also this may save the question, that it is not poison for everybody, for many Indians eat it, and it is used as a caustic when it is dried.

RUANO

In what degree do you place it—warm and dry ?

ORTA

They place it in the fourth, warm and dry, others in the second part of the third ; but neither of these satisfy me, for when green it is clearly not so warm and dry. It, therefore, does not appear reasonable to make it as warm and dry as other spices, such as pepper, which is placed in the third degree. Nor is it found to be vermilion, but a clear black, and for this there cannot be another excuse ; but the Sicilian kind will be warm and drier and has a colour more like vermilion.

RUANO

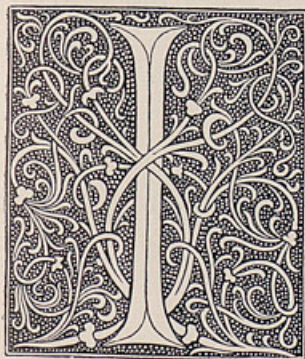
I am quite in agreement with what you say. It seems to be a very good preparation with sour milk for asthma, understanding by sour milk, the milk that has been drawn from its butter, and this agrees with Avicenna.¹

¹ Acosta treats of *Anacardo* in his chapter xxx., quoting Orta, but gives no illustration.

SIXTH COLLOQUY

ARBOR TRISTE¹

RUANO



COMMENCE, in the name of God, with the drugs and simples which are neither known nor ever seen by us. What is that tree which smells so sweet when it is placed in the sun until it blooms? Tell me whether it is used as medicine or as food. For me I could not wish to experience a more pleasant smell than when I come suddenly

to where this tree is growing.

ORTA

I have not seen this plant in any other part of India except Goa, and they say that it came here from Malacca. It would be a very good thing if it could be raised elsewhere, for it was grown near Goa and took very well. But, as I say, I am uncertain whence it came.

RUANO

Tell me the name and use of these flowers which I only know from their scent.

¹ *Nyctanthes Arbor tristis*, Oleaceae.

SIXTH COLLOQUY

ORTA

The scent is not so useful, because the flowers in that flower bed, called MOGORY,¹ smell sweeter than the orange flower, and are more valued in giving an agreeable scent to food, in the way that dishes are made to smell sweet in Spain with orange flowers. We use the water of MOGORY for the same purpose. But I have not seen water from the plants used respecting which you enquire, and it may be that they do not yield good water, for their virtue is very superficial, as is the case with the cloves they have in Portugal. We use these flowers to give a tinge to the dishes, like *açafram*.² The corollas are yellow and give a strong tinge. In the Goa language their name is PARIZATACO; in Malay, SINGADI.

RUANO

Is the tinge from these flowers slight, like that given to dishes by *açafram* in Spain?

ORTA

No, for it causes a slightly bitter taste.

RUANO

And whence do they say that the *açafram* of this country comes?

ORTA

It is from some roots which grow here, whose virtue I will state presently.

RUANO

Can you make distilled water from the MOGORY flowers you praise so highly?

¹ *Jasminum Sambac*.

Açafram = Saffron.

ARBOR TRISTE

ORTA

Yes. You see them in this flower bed, and you have seen their water which I have, and which is put into a quill to clean the teeth, and which you also have highly praised.

RUANO

Until now I always thought that it was orange-flower water. The people of this country seem much addicted to scents, and owing to this it is said that they are inclined to Venus.

ORTA

Some plants are left for food while others are used for their scent, such as sandal wood, which is very commonly used to anoint the body, and the LINALOE, AMBER, ALMISQUE, and ALGALIA, much used because the price is not so high. This ALGALIA is used for pains of "cold humour" (*humor frio*), anointing the part that hurts with it. There are other flowers which are much used in this country called CHAMPI,¹ which have a very strong smell. It is like a white lily, but not so soft. Know that the kings I have seen cover the floors of their houses all night, and for the greater part of the day, with these flowers and roses. They also have various flowers painted in colours, which look very well. Here at night they take their pleasure and receive the presents from the poor, which consist of these flowers and roses. The expenditure on these flowers is such that I am assured that, in BISNAGUER, the scents bring a revenue to the king of 5000 *pardaos*. It is still more worthy of note that in ORMUZ the

¹ *Michelia Champaca* (Magnoliaceae). This tree is venerated by the Hindus, and dedicated to Vishnu. It is celebrated for the exquisite perfume of its flowers. The name *Champaca* is said to be derived from *Champa*, an island between Cambodia and Cochin China where the tree grows.—DRURY.

SIXTH COLLOQUY

labourers who obtain food by working as carriers, buy scents to anoint their bodies at night, and leave the food. As you like to hear the legends and fables of these gentiles, I may mention that this tree was the daughter of a great lord named PARIZATACO. She became enamoured of the sun, who abandoned her after their intercourse, and she killed herself and was burnt (as is the custom in that country). From her ashes grew this tree, the flowers of which abhor the sun and do not appear in its presence. It would seem as if Ovid had been in these parts, for he composed his fables after this manner.

RUANO

Certainly it gives rise to wonder that these are flowers of night and not of the day. Do not trouble yourself to tell me the size and appearance of the tree, for I saw that it was about the size of an olive with leaves like the plum tree. But as this is not medicinal, let us go on to consider the *asafetida* and *anil*.¹

¹ Acosta's chapter xxvii., on the "Arbor Triste," is partly from Orta and partly original. He gives a plate of the leaves and flowers.

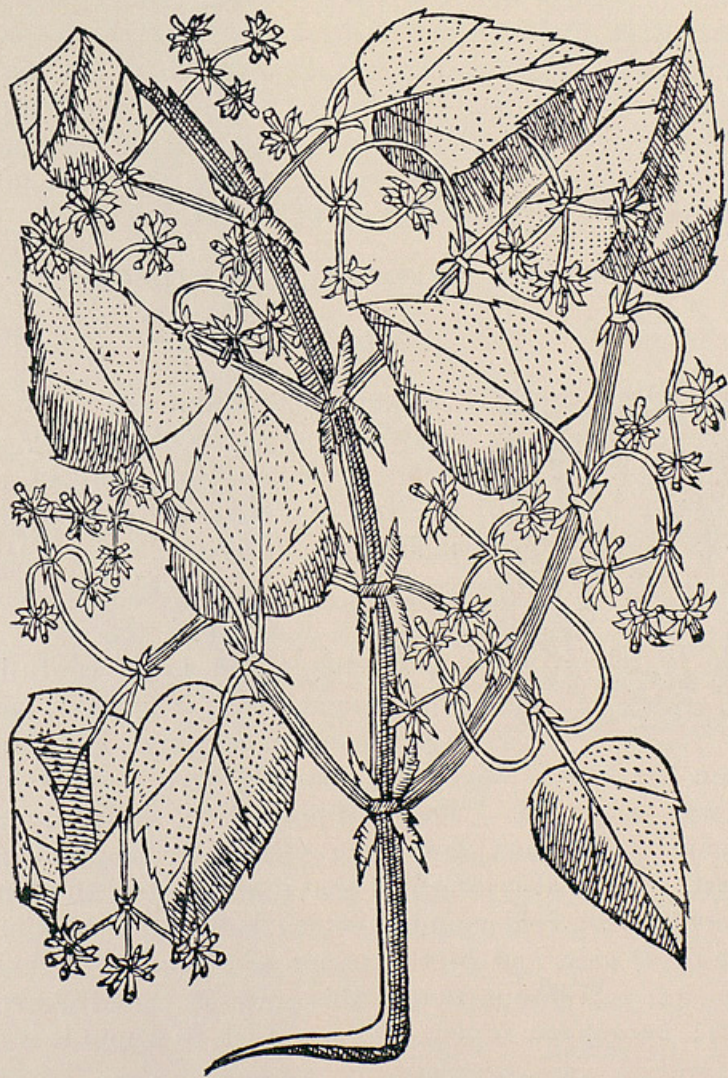
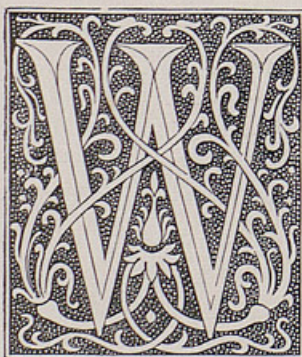


PLATE II.—ARBOR TRISTE.

SEVENTH COLLOQUY

ALTIHT, ANJUDEN, ASSAFETIDA, DOLCE, ODORATA, ANIL

RUANO



WE should know about the plant which is called ALTIHT,¹ ANJUDEN,² ASSAFETIDA, DOLCE, and ODORATA. Between it and *Laserpicium* the doctors make some difference.

ORTA

I have found more confusion in those names than you have, and this was because they never knew how to tell me the way it was made, nor the tree from which the gum was extracted. They told me that some came from Coraçone³ to Ormuz, and from Ormuz to India, and also Guzerat. I was also informed that it came from the kingdom of Dely,⁴ a very cold country, which is bounded by Coraçone on the other side, and by the region of Chiruan,⁵ as Avicenna points out. Without doubt this gum is called ALTIHT in Arabic; some have ANTIT, and any Arab to whom it is shown

¹ Arabic form *hiltit* حاشيت : used by Edrisi.

² Or *angadan*, another Arabic name of the plant.

³ Khorasan.

⁴ Delhi.

⁵ Shirvan, on the west side of the Caspian.

ALTIHT

would give one of those names. The Indians call it IMGO,¹ or IMGARA, and the tree from which it is extracted is ANJUDEN or ANGEIDAN.² But as this merchandize comes from far inland it is difficult to find out, for certain, what the tree is. Avicenna gives it several names, and this may be because it has one name in one country and a different one in another; for instance, in one ALTIHT, in another ALMHARUT,² for it is known that there are diverse languages in the countries whence it comes.

RUANO

What was the reason that the translator turned it into ASSA?

ORTA

I do not believe that the translator wrote ASSA, but LASE, and the word was corrupted into the other form through the lapse of time.

RUANO

First, we must see that ASSA (*fetida*) is the same as LASER or LASERPICIUM. I must tell you that ALTIHT does not appear to me to be the name of the tree, but the juice of the ALCACUZ thickened and hardened; and this was the belief of Gerardo Cremonense in the chapter, "*Da falta do coito en Rasis.*"

ORTA

Gerardo Cremonense was not a good Arabic scholar. He was an Andalusian, while the proper language in which Avicenna wrote was that used in Syria and Mesopotamia, as well as in Persia and Tartary where Avicenna was. They call this language Arabic, and that of our Moors Mogaraby, which

¹ The Sanskrit *hinga* and *hingula*, from *han* = "to kill." *Asa-foetida* = "stinking mastic," *aza* being the Persian for mastic. The earlier European names of the drug were *ὀπός Μηδικός* and "Laser Medicum"; also "Sterx Diaboli" and "Cibus Deorum," as people disliked it intensely—or liked it. It is yielded by the root of *Ferula foetida*, Regel, and other umbelliferous plants; and possibly by certain composite plants.

² *Mahruth* ص و ث referring specially to the root.

SEVENTH COLLOQUY

is as much as to say Western Moors. For *garby* in Arabic means "west," and *ma* "of the," so that Gerardo is not very far wrong in this. I say that *ALTIHT* does not mean anything but the tree of the *ASSA FETIDA*, and the gum has often been mistaken for the tree.

RUANO

And if *ALTIHT* is not *ASSA DULCIS*, what is *ASSA DULCIS* ?

ORTA

ASSA DULCIS is not named by Arabian nor Greek nor Latin doctors of any authority, and if any one uses the name he is in error. For *ALCACUZ* is called *CUZ* in Arabic, and its juice boiled is called *ROBALCUZ* by the Arabs, which the Castilians have corrupted into *RABACUZ* ; so that *ROBALCUZ* is a name composed of *ROB* which in Arabic is juice made thick, *AL* the genitive of the article, as much as to say, "the thick juice of *ALCACUZ* " ; hence we do not call this juice *ASSA DULCIS*.

RUANO

This derivation seems to me to be right, but before I ask you why *LASERPICIUM* is *ASSA*, I want you to tell me how Avicenna belongs to the land of the Tartars, and why the language of our Moors is not so good as that of Syria and Arabia.

ORTA

Avicenna was a native of these parts, and not of Spain. The physicians of Persia and Turkey who cured that king, I have already mentioned to you, told me that Avicenna was of a city called Bochara which is in the Uzbeque province, a part of Tartary, as we call it, or of the Mogueoras as it is known to the natives. Andreas Belunensis calls that country Persia, but this is an undue extension of Persia, for Persia is a small kingdom. Afterwards I met some discreet and well-informed

ALTIHT

merchants who had lived at Ormuz for a long time, and I asked them the position of Bochara. They told me that it was in the country of Uzbeque, and that there was a great deal of *manna* in it. I was told the same by Coge Perculim, a learned man who was in Goa. As the son-in-law of Belunense said that Avicenna was a person of weight and learning, I enquired if he was a king. They answered that he was not, but that he was *guazil*,¹ which with us is as much as to say a magistrate, a noble.

RUANO

This appears to me to be true, for we, by the chronicles of Spain, know who the kings of Cordova and Seville were at that time, and we do not find his name. But I believe that he was an important person whoever he may have been.

ORTA

Answering your other question I may say that it is a difficult thing to prove that one language is better than another. These physicians and the other men of letters, they call Mallas, say that the works of Avicenna, of Galen, and the Greek philosophers, and of the false prophet, were written in the language of Syria. The other language of our Africa they call Barbara, and our Moors are known to them as MOGARABY. For this reason the Moors of Persia and Arabia call those of our lands, known to us as ALGARVES, by the name of ALGARBY, which means Moors of the west, for to us Algarve is to the westward. I regret that I have dwelt so long on this matter which is not connected with the subject of our discourses, but the fault is yours.

RUANO

I rejoice much to know this of which you think little, and I must take the blame on myself. The LASERPICIUM is not

¹ Wazir to a prince of Hamadan, afterwards at Ispahan.

SEVENTH COLLOQUY

ASSA-FETIDA, nor is it odoriferous, therefore that LASERPICIUM, of which Dioscorides and Pliny write, does not seem to be the ALTIHT of which Avicenna and other Arabs write.

ORTA

The Arabs who mention this drug, such as Rasis and Avenrois, say little about it, and Serafio, in speaking of ALTIHT, says that all that Galen and Dioscorides write on the subject refers to LASERPICIUM.

RUANO

For many reasons your information goes to prove that ASSA-FETIDA and LASERPICIUM are different drugs, for LASERPICIUM is a medicine for preparations used for curing, and also for cooking, while ASSA-FETIDA is for medicine only by itself and to be used very seldom. To use it in cooking would damage all the food by reason of its horrible smell.

ORTA

I will leave you with this error and proceed, for if you want to know my intention it is necessary that you should turn your attention to these new writers, and be pleased to hear my truths without rhetorical colouring; for the truth must be depicted in its nakedness.

RUANO

I have told you many times that I desire nothing better than to get rid of my errors, and to sow my understanding with new seeds.

ORTA

Well, you must know that the thing most used throughout India, and in all parts of it, is that ASSA-FETIDA, as well for medicine as in cookery. A great quantity is used, for every Gentio who is able to get the means of buying it will buy it

ALTIHT

to flavour his food. The rich eat much of it, both Banyans and all the Gentios of Cambay, and he who imitates Pythagoras. These flavour the vegetables they eat with it; first rubbing the pan with it, and then using it as seasoning with everything they eat. All the other Gentios who can get it, eat it, and labourers who, having nothing more to eat than bread and onions, can only eat it when they feel a great need for it. The Moors all eat it, but in smaller quantity and only as a medicine. A Portuguese merchant highly praised the pot-herb¹ used by these Banyans who bring this *ASSA-FETIDA*, and I wished to try it and see whether it pleased my taste, but as I do not know our spinach very well, it did not seem so palatable to me as it did to the Portuguese who spoke to me about it. There is a respected and discreet man in these parts, holding an office under the king, who eats *ASSA-FETIDA* to give him an appetite for his dinner, and finds it very good, taking it in doses of two drachms. He says there is a slightly bitter taste, but that this is appetising like eating olives. This is before swallowing, and afterwards it gives the person who takes it much content. All the people in this country tell me that it is good to taste and to smell.

RUANO

And did you find a bad smell in the pot-herb that you tasted?

ORTA

The nastiest smell in the world for me is *ASSA-FETIDA*, but the pot-herb seasoned with it has not a bad smell. You need not be much surprised at that, for onions have a very bad smell, yet the dishes seasoned with them are very good. The truth is that there is a good deal of habit in the matter of smells. For instance the betel (that which these people are

¹ A score of species, or gardeners' varieties of Amaranths, *Amaranthus viridis*, etc., are used as pot-herbs in India, and seasoned with just a whiff of assafoetida they are most appetising.

SEVENTH COLLOQUY

continually chewing) has a very nice smell to those who use it, and to me a very nasty one. As a medicine *ASSA-FETIDA* is used by itself, and not, as you suppose, only with other ingredients. In this you are mistaken, as *Sepulveda* was mistaken, for *Guarnero* and many others use it by itself. Among the Indians it is good for the stomach. A Portuguese in *Bisnaguer* has a valuable horse who was broken winded, and for this reason the king did not wish to buy it. The Portuguese cured it by administering this *YMGU* with flour. The king gave a good price for it when it was cured, and asked how the cure was effected. The man replied that it was with *YMGU*. The king said that this should not cause surprise, for this food is the food of the gods which the poets call nectar. The man, but in a low voice and in Portuguese, observed that it should rather be called the food of devils.

RUANO

One doubt assails me. How can the Banyans eat it continually, when *Matheus Silvatico* says that it is poison, referring to *Galen* as his authority?

ORTA

Galen and the Greek druggists do not say this. On the contrary they say that it is good as an antidote to poison, and for the plague, lumbago, and diseases of the kidneys which are contrary effects. *Matheus Silvatico* may be pardoned for these mistakes like many others. The Indians apply it for tooth-ache. *Pliny* says that it gave such pain to a person who applied it to his tooth that he jumped out of the window.

RUANO

Is this medicine very dear in India?

ORTA

Yes (for amongst us it has little value), the cause being that it soon deteriorates, and the men who supply it keep up

ALTIHT

the price. There is much in Mandou, Chitor, and Delhi, and besides it comes as merchandize from Ormuz to Pegu, Malacca, and Tenasserim and those parts, and when it fails to come the price is extremely high.

RUANO

Do they use the roots or leaves, because the roots, leaves, and branches are commended by the ancients ?

ORTA

I have told you that I have not seen the tree nor can I describe it.¹ No people known to me use anything but the gum which is obtained by making cuts in the tree. This information was given to me by a man who had taken the medicine. He also told me that they had shown him the shape of the leaf, which was like our hazel leaves.² They added that, to preserve the gum, they kept it in bullocks' hides, first anointed with blood, and then mixed with wheat flour, so that when they find a thing that looks like bran they do not take it to be a falsity at once, as some say, but make sure. If I should ask an educated Banyan why he uses a medicine which comes mixed with bullock's blood, I should not be far wrong in assuming that his answer would be that it is necessary to preserve the drug in this way.

RUANO

The *Laserpicium*³ of old had a somewhat translucent reddish-yellow colour, while what we use is turbid and dirty.

¹ It is a very large herbaceous plant with an erect stem 70 feet high. It is found round Samarcand and in the Persian province of Lar, where it was first described by Kempfer in 1687.

² Quite wrong.

³ *Laserpitium*, and *Laser*, were originally one and the same drug; and *Silphium* the plant from which *Laserpitium* or *Laser* was obtained in the Cyrenaica; and judging from the *Silphium* plant represented on the coins of Cyrene, *Laserpitium* was assafoetida [see footnote, page 41], and Pliny, v. 5; xvi. 33 (61); xix. 3 (15); and xxii. 23 (48 and 49). Modern botanists have identified the *Silphium* plant with *Thapsia Silphium*, Umbelliferae. "Laser Syriacum" is a synonym of assafoetida; and "Laser Gallicum" of angelica, "the Holye Ghostes Roote."

SEVENTH COLLOQUY

ORTA

You must know that it comes to India in two forms, one clear and clean,¹ the other turbid and dirty. The Banyans clean the latter before eating it. The clean sort has a colour like shining brass, and this comes from Guzerat. The Guzeratis say that they get it from Chitor, Patane, and Dely. The other kind comes from the Estreito and Ormuz, and has a higher price. The merchants who find the bright kind do not buy the other, which is consumed in medicines and food. Some eat it like bread, when it is called APAS.

RUANO

Is the smell the same in all ?

ORTA

That which comes from Guzerat is considered the best, being brighter and the smell stronger. The smell of that which comes from Ormuz is not so strong, but, to our noses, both smell very bad, and the worst of all is that which is brightest and is held to be the best. When I asked some Banyans which smelt the best they replied it was the kind that came from Guzerat, the smell of which is the worst and strongest. This is because they have become accustomed to it. To many persons the smell of liquid storax and of civet is bad because it is strong, though generally it is considered very good. For me I do not care for the smell of any of the gums, and I like that of our myrrh somewhat better. Avicenna divided smells into fetid and sweet smelling. People say that leeks have a fetid smell, and such like things. We consider after the manner of the ancients, for we do not call a thing odoriferous because it smells sweet, but because the smell is strong. In this way a reed is called odoriferous which, in the

¹ A dark brown, translucent, brittle mass.—HANBURY.

ALTIHT

opinion of many, ought to be called fetid. Myrrh also has a bad smell, and aloes worse, and the ear of spikenard still worse. I have purged many persons with it who did not like taking rhubarb.

RUANO

This does not appear to me bad, but it would be better that ASSA-FETIDA should be what we use, with the sweet smelling BENJUY.¹ You have not given me a chapter on BENJUY.

ORTA

If it is a simple newly found for our use, why must we give it an ancient name?

RUANO

Because it is more reasonable to think that the root of the BENJUY tree should be good for seasoning food, and there is no reason to suppose that ASSA-FETIDA would be good. It is well known that the Banyans like it because they are accustomed to eat vegetables and other unsavoury food as the people of our Europe eat them. According to what Antonio Musa says, those who navigated from these parts to seek for the BENJUY describe the tree as being like the tree of LASERPICIUM. They say further that the people of the same land, being obliged to speak the truth, call that gum LASERPICIUM.

ORTA

I know not who the Spaniard was who was so shameless as to tell Antonio Musa of Ferrara such a big lie. As I have told you, speaking of BENJUY, the tree is very different from that of the ASSA-FETIDA as it has been described. The BENJUY is only known in Sumatra and Siam, and in these countries it is only called COMINHAM and not LASERPICIUM. BENJUY is not

¹ This is certainly Gum Benjamin, *i.e.* "luban-Javi," "the Olibanum of Java," or Benzoin, the balsamic resin of *Styrax Benzoin*, Styraceae; the Asa-dulcis, and Laser Cyrenaicum of the older Pharmacists; see "The Nomenclator" of 1585, and compare p. 58.

SEVENTH COLLOQUY

found in Armenia, nor Syria, nor Africa, nor Cyrene, and there is no memory of it among the dwellers in those countries. The principal place whence the BENJUY is obtained that comes to these parts is Arabia, and I say this without denying that it also comes from other places, such as Dely, Mandou, and Chitor. For the Guzeratis and Deccanis who buy it from us say that it also comes from those places, though not in any great quantity. So that your Musa is wrong when he says that it comes from Africa, Armenia, Judaea, and Syria, for in all those parts it has yet to be sought for; for they would bring more profitable merchandise if they should have it.

RUANO

I really trust that you will not be annoyed by my questions. Ruelio, a man sufficiently learned and deserving of praise, who was the translator of Dioscorides, says, in his work on the nature of plants, that in France a large and thick root grows which is black outside and white within, going on to paint the leaves and general appearance. He says that as well the root as the seeds and the exudation have a very pleasant smell, and, the virtue of the medicine being well established, he gives it very grand names, such as the imperial root, the angelic root, the root of the Holy Spirit.¹ He says that it is useful in various ways, being warm and dry in the third degree. It is an antidote against poison, preserves from contagion of plague and other diseases. He says that by taking one grain of it in the mouth, in the winter with wine, and in the summer with rose water, it is a preservative against plague on the day that it is taken, and against other infirmities. It is there called LASERPICIUM GALLICO² by the veterinary surgeons. They say that the smell of the juice is like BENJUY, and the learned are of opinion that it is BENJUY, and the OPUS CIRINAICO which grew in Judaea and was introduced into

¹ See note p. 41.

² See note p. 47.

ALTIHT

France. Hence it is said that the word was BEN JUDEO corrupted into BENJUY.

ORTA

You praise this root very highly, but the tree is very different from the BENJUY, as you will see when we speak of the latter, which is a great tree. The ASSA-FETIDA is not so large, nor is it the LASERPICIUM CIRINAIUM, some of which is said to be found in Judaea. I have enquired among drug merchants from that country, and they told me that there had never been such a plant there in the memory of man.

RUANO

So let it be, and now let us hear what sort of thing ANIL may be.

ORTA

ANIL is not medicinal, but commercial, and therefore we need not occupy ourselves with it. However, I may tell you that ANIL is so called by Arabs and Turks, and in other languages, especially Guzerati, where it was known as GALL, but is now called ANIL. It is a herb that is sown, and is like what we call MANGIRIQUAM. They gather it and leave it to dry for a time, and then pound it well, and put it in the sun for some days. When it is quite dry it has a green colour and afterwards has a blue tinge, and finally darkens. It is best when it is clear of earth. To prove it more surely, it is burnt with a lamp and should give a very fine ash. Others put it in water, and if it floats it is good. So that it must be light and of the right sort.¹ As it would be a serious thing to philosophize further it will be well that we should go to dinner and leave the ANIL to the contractors.

¹ See Yule's *Marco Polo*, ii. 370, and Duarte Barbosa. Indigo, *nilini* in Sanskrit [from *nila*, blue], *nil* in Hindi, *avuri* in Tamil, the Ἰνδικὸν βαφικόν, and Ἰνδικὸν μέλαν, of the Greeks, is prepared from *Indigofera tinctoria*.



SEVENTH COLLOQUY

RUANO

But first tell me what fruit that is about the size of a nut that smells so sweet.¹

ORTA

It is not a fruit that is used in medicine, but it serves to season food with a sharp taste, making it more appetising. The wood has a pleasant smell, and as the wood retains the appetising acid in itself, they call it *AMBARES*.² It has a cartilaginous bark, is yellow when ripe, and of a yellowish colour when not ripe.

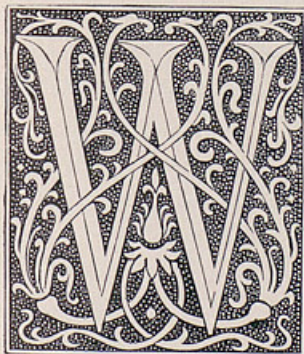
¹ Acosta writes nearly the same of *Assafoetida* in his lxii. chapter, but gives no plate. He has a very short chapter on *Anil*.

² *Spondias mangifera*, Willd., the "Hog Plum"; Sanskrit, *amarataka*, commonly called *ambara*. Acosta's xlv. chapter is on the *Ambares* tree, with a plate of the leaves and fruit.

EIGHTH COLLOQUY

BANGUE

RUANO



WHAT is the difference between that which they call BANGUE¹ and AMFIAM? It seems to me that they are one, for when you abuse your servants you sometimes call them BANGUE and sometimes AMFIAM. I, therefore, wish to know whether there is any difference between the two words.

ORTA

The AMFIAM we call opium, of which I will speak to you when we come to it. I will now satisfy you respecting the nature of BANGUE, its tree and seed. Antonia! give me what I told you to bring.

¹ BANGUE, that is *bhanga* [Sanskrit for "broken"], called by the Arabs *haschish* [whence the English word "assassins"], the gathered and dried leaves of *Cannabis indica*, var. *sativa*, the *kinab* of the Arabs. The whole dried plant is called *ganja* [= "the plant"]. *Bhanga* is the larger leaves only, the preparations from them being called *sidhi*, and *sabza*; the preparations of the smaller leaves are called *savia*, and *sukhu*; all are highly aphrodisiac. *Charas* is the gum resin exuded by the plant, and is smoked. *Majum* is a confection of *charas*, *bhanga*, and *ganja*, with opium, and spices added; and *tadhāl* a milder *majum*. The *haschish* in it gives its evil fame to opium smoking. *Haschish* means grass; and, so, *Aba-haschish*, "Father of all Grasses," "a botanist."

EIGHTH COLLOQUY

ANTONIA

Here is the tree of the small ones, and see here is the seed, and here is what they sell in the drug shop. For you told me to bring them altogether.

RUANO

This seed is like that of flax (*ALCANAVE*),¹ except that it is smaller and not so white, and the little tree is also like flax, so we need not discuss them because we already know all about it.

ORTA

It is not flax (*ALCANAVE*), for the seed is smaller and not white, and the Indians eat either the seeds or the pounded leaves to assist or quiet the women. They also take it for another purpose, to give an appetite; and our writers say that the branches have much inside and little rind, which is contrary to what the flax (*ALCANAVE*) has.

RUANO

Do they make cords of this bark?

ORTA

No.

RUANO

Is there anything else from which they do make cords?

ORTA

Yes. From the fruit of the palm, which I shall touch upon further on. Also in *BALAGUATE* they make cords from the roots of a very large tree, and, to confess the truth, they also make them from the flax (*ALCANAVE*) which is plentiful there, but not in the *Deccan* or *Bengal*. I saw there our flax from which we make our shirts, and all this flax is merchandize

¹ The old Portuguese name for flax, now called *CANHAMO*. The Arabic form is *kinab*, the Persian *kanab*, and the Greek *κάνναβις*.

BANGUE

to be met with in the above countries. They call it *ALCI*.¹ But there is very little of the flax (*ALCANAVE*) on the mainland. What is here is not the flax (*ALCANAVE*).

RUANO

Be it so ; and now tell me how this *BANGUE* is made, and how and for what it is taken.

ORTA

They make the pressed leaves, sometimes with the seeds, into a powder. Some inject *ARECA VERDE*, and those who drink it become beside themselves. For the same purpose they mix nutmeg and mace with it, and there is the same effect in drinking it. Others inject cloves, others camphor of Borneo, others amber and *ALMISQUE*, others opium. These are the Moors, who are much addicted to it. The profit from its use is for the man to be beside himself, and to be raised above all cares and anxieties, and it makes some break into a foolish laugh. I hear that many women take it when they want to dally and flirt with men. It is also said, but it may not be true, that the great captains, in ancient times, used to drink it with wine or with opium, that they might rest from their work, be without care, and be able to sleep ; for the long vigils of such became a torment to them. The great Sultan Bahadur² said to Martin Affonso de Souza, to whom he wished every good thing and to whom he told his secrets, that when, at night, he wanted to go to Portugal, Brazil, Turkey, Arabia, or Persia, he only had to take a little *BANGUE*.³ This

¹ *ALCI* here, in the Sanskrit *atasi*, commonly called *alsi*, the flax plant, *Linum usitatissimum*, widely grown in India for its oil seed.

² In 1536, after the Portuguese had got possession of the fort of Diu, Bahadur Shah was in the town. One night he came and battered at the gate of the fort. When it was opened he came in shouting and nearly dying of laughter, reeling about until he fell down and went to sleep. He had been taking *bhāng*.—*Lendas de India*, GASPARE CORREA, iii. 754.

³ This passage is quoted by Yule in his *Glossary*.

EIGHTH COLLOQUY

was made up into an electuary with sugar and spices, and was called MAJU.

RUANO

Has it this pleasant effect on everybody ?

ORTA

It may be that it has this effect when we have become accustomed to it. I myself saw a Portuguese jester, who was for a long time with me in Balaguete, eat a slice or two of the electuary, and at night he was pleasantly intoxicated, his utterance not intelligible. Then he became sad, began to shed tears, and was plunged in grief. In his case the effect was sadness and nausea. Those who saw or heard of it were provoked to laughter as if it was an ordinary drinking bout. Those of my servants who took it, unknown to me, said that it made them so as not to feel work, to be very happy, and to have a craving for food. I believe that it is so generally used and by such a number of people that there is no mystery about it. But I have not tried it, nor do I wish to do so. Many Portuguese have told me that they have taken it, and that they experienced the same symptoms, more especially the female partakers. However, this is not one of our medicines and we had better not waste any more time over it.¹

¹ Chapter lxi. of Acosta is on *bhanga*, taken from Orta ; two pages.

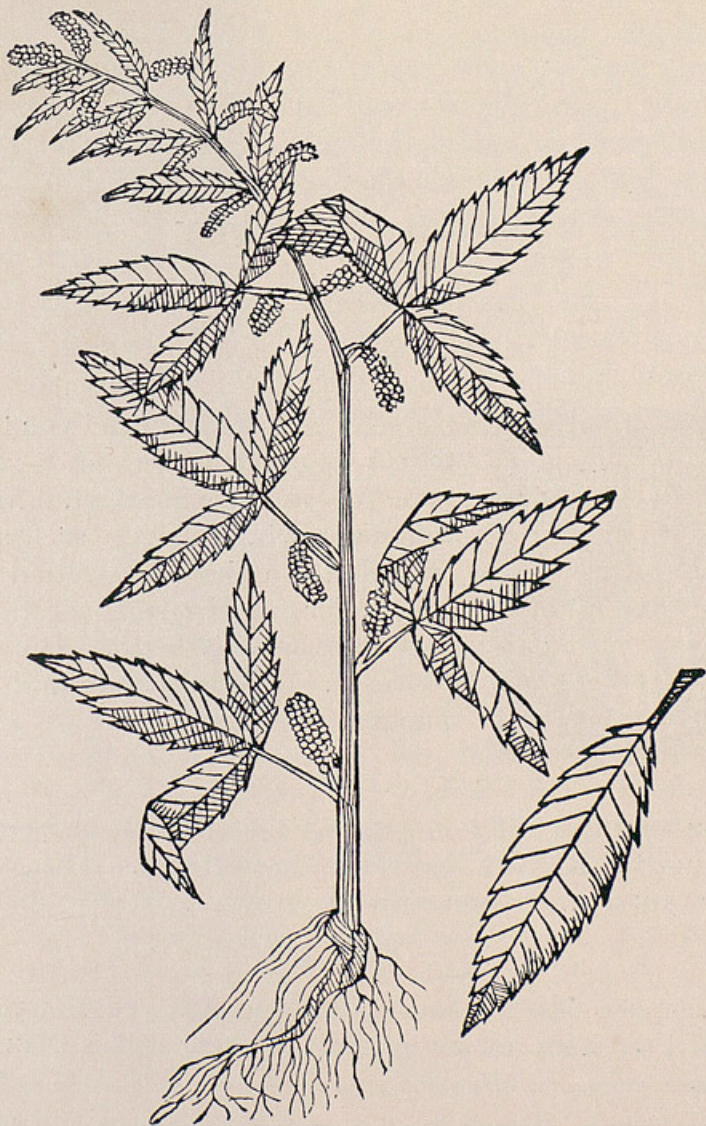


PLATE III.—BANGUE.

NINTH COLLOQUY

BENJUY

RUANO



ALKING of LASERPICIUM¹ you told me that ASSA ODORATA was not BENJUY as some learned people assert. Now we will discuss it, and with such suavity as will make the conversation agreeable. For me the smell of the kind they have here is better than that of Portugal. This may be from the great abundance of it here.

ORTA

You are quite right in judging the smell to be better, for this is not the BENJUY that is used in Portugal. That is called BENJUY DE BONINAS and costs much more.

RUANO

You spoke of both, and referring to ASSA-FETIDA you told me that they were not better for seasoning dishes than ASSA-FETIDA.

¹ *Styrax Benzoin*. Hanbury says that Garcia da Orta was the first to give an intelligent and lucid account of benzoin (*Pharmacographiq*, p. 362). It has no medicinal properties, and is chiefly used for incense in the Greek Church. See footnote, p. 49.

BENJUY

ORTA

What I then said to you I say to you again. No one uses BENJUY to season dishes, but ASSA-FETIDA is very generally used for that purpose. The things which smell bad themselves, such as leeks, garlic, and onions, do very well for seasoning dishes, and I further told you that the people of this country know very well how to prepare dishes made with those vegetables.

RUANO

Now I want to know the name of the BENJUY tree, what gum it yields, where is its native place, what it is called in Arabia, and whether any Arabian or Greek author has written about it.

ORTA

To answer your last question, I know of no Greek who wrote on the BENJUY. AVERROES calls it BELENIZAN, BOLIZAN, PETROZAN, and describes it as warm and dry in the second degree, aromatic, humid and weak as a stomachic, and comforting, has a pleasant taste in the mouth and strengthens the limbs. I do not, by these words briefly quoted, understand that they describe the BENJUY. If part of this text has to be withdrawn so much the better. Among the moderns Antonio Musa and Ruelio speak of BENJUY, and Antonio Musa says that it is the ASSA-DULCIS or ODORATA, and for this he gives the reasons I have already stated, namely, that the dwellers in the country where it grows, constrained to tell the truth, call it ASSA-DULCIS, and this is confirmed by Portuguese from Sumatra, or by persons who had heard from them. I told you that all the dwellers in the countries where it grows call it COMINHAM, and I also told you that the Portuguese, without any shame, said that this was not true.

RUANO

With regard to Antonio Musa I must tell you that he

NINTH COLLOQUY

says more, so that you may be supplied with all his remarks. He says that the BENJUY tree is a native of Africa and Armenia, and that it also grows in India; also that, according to Dioscorides, the root makes a flour like bran, that he has often found it, and he further says that the best of all grows in Cyrene and Judaea.

ORTA

Do not try to frighten me with Dioscorides or Galen, because I merely speak the truth and say what I know. Although they may call it OPUS CIRENIACUM (which means juice of Cyrene), I know that the principal source of it is in India, near the Ganges (which the Indians call Ganga), and is the BENJUY which is called AMENDOADO in Siam; and of all this BENJUY that is brought to India most of it comes from Arabia, Turkey, and Persia. If you are anxious that some small quantity should come from Judaea and Palestine, I tell you that I spoke to Moors and Jews who bought it here to take it to their country as merchandise. It is not to be believed that they would buy it to take to Palestine if they had better there, as you say.

RUANO

Answer me respecting what Ruelio says that a root grows in France which they call the angelic root, the root of the Holy Spirit, and the imperial root, which is warm and dry in the third degree, and is supposed to have the same virtues, or greater, than those you attribute to ASSA-FETIDA.

ORTA

I say that it may well be that there is such a root and exudation, and that it may have such and such virtues as are stated, for so learned a man may be supposed to tell the truth. Certainly in India it is good for many infirmities which he mentions. But the use of it being to repress the lusts of the flesh, which is what he says, no one would make any profit by

BENJUY

bringing it here, because the Indians do not seek for medicine to repress, but to stimulate such lusts. It may be useful to repress, while the *ASSA* stimulates. So that it is clearly not the same, their effects being contrary. Nor is it found in *Judaea* as you say, according to the information I have obtained. It is clear that it was equally unknown in ancient times, for if not so there would have been some memory of it among the people, and it would have been praised by *David* and *Solomon*, who wrote with such laudation of perfumes. It may well be that *Ruelio*, who said that it was called *BENJUDEUM*, which means "son of *Judaea*," was deceived by the name. Certainly it is better to believe that it should be called *BENJAOY*, which means "son of *John*."¹

RUANO

Well, you have replied to what these doctors say. I answer with what a *Milanese* states, that it comes from mount *PAROPANISO*, and that the people of *Macedonia* state that it comes from the *Caucasus*, where it has a strong scent and is better than our *BENJUY*. This author is *Ludovico Vartomano*,² and he says that the best of all comes from *Malacca*. Tell me whether this is true?

ORTA

You believe this *Milanese* to whom I do not give credence. As for the *Macedonians*, a number of *Roumanians* and *Turks* are here every day and take back *BENJUY* as merchandise. As for *Ludovico Vartomano*, I have spoken here and in *Portugal* with men who knew him in *India*, and said that he went about in the dress of a *Moor*, and that he returned to us and did penance for his sins. They told me that he never went beyond *Calicut* and *Cochin*, nor did we then frequent the seas which we now navigate. As for what he says about *Sumatra*, he never was there. It is true that the good kind is worth much

¹ Compare pp. 49 and 58.

² *Vartheta* does not say this.

NINTH COLLOQUY

in its own land. That which now comes is that which we call BENJUY DE BONINAS. I did take this Ludovico, whom you quote, for a truthful man. But afterwards I looked into his book and found that he wrote in it what was false. For speaking of Ormuz, he said that it was an island and one of the richest cities there could be, and that it had the softest water in the world. Yet in Ormuz there is no water but what is brackish, and all the provisions come from beyond the island, nor is it very good water that does come from outside.¹ Also when this Ludovico speaks of Malacca he says that there is neither wood nor water. This is all false, for there is plenty of good water and abundance of wood.² From this you will see how little he is to be trusted as regards anything in India. Then turning to what this Milanese says about the BENJUY of Macedonia, I may say to you that it is possibly storax. May God grant you salvation; for I have laboured to obtain knowledge, yet I have never heard of storax coming from anywhere but Ethiopia, whence the myrrh also comes.

RUANO

So let it be, that God may be served. Now tell how many kinds there are, what the tree is like, and what it is called.

ORTA

There is one kind, the most saleable of all, which is called AMENDOADO, as it has some white almonds inside; and it is valued with reference to the number of almonds. This kind comes nearly entirely from Siam and Martaban. That which,

¹ Varthema did not say that the water was good; on the contrary, he said that no water was found on the island. Orta was misled by a bad Spanish translation. See *Hakluyt Society's* vol. for 1863, p. 95.

² Varthema does not say that there is no wood nor water in Malacca. But he does say that it is not very fertile (*ibid.* p. 225), a statement which is confirmed by Barros. The Spanish translation of Varthema was made by Christoral de Arcos in 1520, from the Latin version, reprinted 1523 and 1576. There is a copy of the first edition in the Grenville Library. The translator says that he could not procure the Italian version, and that the Latin is obscure.

BENJUY

according to Antonio Musa, came mixed with rice flour I believe to be a mistake, for the gum is the same, some thick and some clear, some almost black, which becomes whiter by being exposed to the sun for some time. This is sometimes brought in flour, which Antonio Musa calls rice flour, but it is of almonds, as you may see yourself by pounding some. There is another darker BENJUY in Java and Sumatra which is cheaper, and another black kind from young trees, also from Sumatra. That which we call BENJUY DE BONINAS fetches ten times the price of the others. That is the BENJUY which they sent me, the other day, as a present.

RUANO

I saw that BENJUY, but you have not told me about the value of the other called AMENDOADO.

ORTA

You saw it the other day. It smelt much better and, when rubbed in the hands, it emitted a delicious fragrance.

RUANO

Yes, I saw it, and you told me that, owing to the strong smell, it was called BENJUY DE BONINAS, or "of flowers." But I would not give so much money for it as is given here, perhaps that is because I am not so great a lord.

ORTA

I tell you what I have often thought, and that is that this BENJUY DE BONINAS is mixed with liquid storax, which is here called ROCAMALHA,¹ for there is certainly a smell like that of storax in the BENJUY DE BONINAS. To try an experiment, the BENJUY was mixed with liquid storax made in the country, and the smell of one was better than that of the other, but not so good as that of BONINAS.

¹ "Rose-malloes," both words being a corruption of the Sanskrit *rasa-mala*, "perfume-garland," the name given by the Malays to the "Liquid-storax," or "Liquid-copal," obtained from *Liquidambar orientalis*.

NINTH COLLOQUY

RUANO

I now remember that, the other day, you bought from a man who came in the same ship with me, ten quintals of liquid storax. You told me that you wanted it to send to Malacca, but it has not served for anything else but to mix with the BENJUY.

ORTA

You are not mistaken in this, for I got it only because people are very fond of the smell. I intended to send most of it to China, while the rest would be used up in our country. That this is the truth will be manifest, for that which is taken to China, when they have a great quantity there of the kind called ROCAMALHA, is not sold because little is used in that country. The inhabitants of this land call all the different kinds of BENJUY by the name of COMINHAM. The Moors give them the name of LOUANJAOY, almost like incense of Java, because the Arabs first heard of it in that form; LOUAN is their name for incense. The Deccanis and Guzeratis call it UDO.

RUANO

This derivation commends itself to me, for we call the incense OLIBANO, taking the word from the Greeks, and these also seem to have imitated the Greek word, corrupting it to LOUAN. I am satisfied on that point, so now tell me about the appearance of the tree, if you know it.

ORTA

The tree of the BENJUY is tall and handsome, offering good shade with tufted leaves not very regularly arranged.¹ The trunk sends out high and thick branches. Some grow in the forests of Malacca in damp places. The small trees, as I said,

¹ The tree grows in Sumatra and Java. It is of moderate size, with a stem the size of a man's body, and a beautiful crown of foliage. See footnotes, pp. 49 and 58.

BENJUY

yield the BENJUY DE BONINAS which are those of Bayros, better than those of Siam, while those of Siam are better than any others. Some blows are given to the trees to make the gum exude, which is the BENJUY, in greater quantity. I have seen the leaves preserved in vinegar and also the branches, which proves that my description is correct. While growing this leaf appears smaller than a lemon leaf and not so green, white underneath. From the branch it looks to me like a vine leaf, not so long but broader. I gained a knowledge of all these things by the payment of money, for the person I sent for these leaves and small branches was very well paid. Besides his labour in the forests he was in great danger from tigers which wander about. These tigers are called REIMoes in Malacca.

RUANO

I give you many thanks, and hope that you may see some new things from Malacca, contrary to what you have said and written to me, so do not be annoyed at your loss.

ORTA

I promise you that if God spares my life I will not fail to write every year as to anything that may amend what I have said, or that I may hear of in the way of corrections, and if you should be living in Castille you will thus know about it; for him to whom I shall write will send on what I direct. As you said at first that the AMENDOADO is not so fragrant as the PRETO from young trees, I know that old gum loses its scent in time like everything else. If two or three of the almonds are taken and put over a brazier, the scent will not be so sweet as that of the PRETO, because the white is beautiful and the black has a better scent; mixed together as they are for sale, one with another, they remain more beautiful and more fragrant.

TENTH COLLOQUY

BER

Treats of the apples we use here and of a fruit we call BRINDOES, also of the names and titles of the kings and lords of these lands. This is a colloquy which has nothing to do with medicine; but it is here inserted at the request of Dr Ruano as pastime for those who may read it in Spain. It also treats of chess and of its pieces.

RUANO



HOSE small apples that we are eating for dessert seem so good that I should much like to know whether they are apples of the ANAFEGA (jube tree) or a different fruit; I should also like to try that vermilion fruit that those girls are eating.

ORTA

The last fruit you have mentioned is one which you will not have much reason to wish to taste, much less to write about, as it is very acid.

RUANO

Never mind, I will taste by way of a medicine.

BER

ORTA

In our land we call it BRINDOES.¹ It is more or less vermilion outside, but within it is such a bright vermilion that it looks like blood. Some of a darker colour are not so acid, and these have the blackness from being riper, but inside they are always vermilion. It pleases the taste of many people, but not for food, nor for medicine, as it is very sour. The tamarind is better. BRINDOES serve for a dye, and they are taken to sea to make vinegar. Some have taken them to Portugal, and have found a use for them.

RUANO

Now tell me about the other apples, their name, and about the tree and where it grows, and whether the apples are from the ANAFEGA.

ORTA

The name in Canarese is BOR and in the Deccan BER.² The Malays call it VIDARAS, and theirs is better than ours, but not so good as those of Balaguete, which are long³ and very delicious. The tree is different from the jujube.⁴ Those which you praise are brought to the Nizamoxa. They are small, and I am told that they are from a tree different to the jujube. They are in this land and are brought for sale by the apothecaries. These are for the most part sharp to the taste⁵ or a little acid.

RUANO

Those we are eating are not without a sweet taste.

¹ *Garcinia indica*, Guttiferae; *G. hanburyi* being the source of Gamboge, and *G. Mangostana* of the "Mangosteen." *Brindas* is the Portuguese name of the fruit of *G. indica*.

² The BER or VIDARA is *Zizyphus Jujuba*, in Sanscrit *badari*, in Hindustani *bir*, and in Mahratti *bor*. It is a small thorny tree, and, both wild and cultivated, a favourite domicile of the *tussah* silkworm.

³ This long kind was also noted by Dr. Wallich.

⁴ *Zizyphus vulgaris* of the Concans and Goa territory, scarcely to be distinguished from *Z. Jujuba*.

⁵ "Pontico." The word is obsolete. It means pointed or sharp when used to describe a particular taste.

TENTH COLLOQUY

ORTA

That is true, and others are even sweeter. But none ripen to such an extent as to enable them to pass by the name of ANAFEGA, for they always have a taste of sharpness, so that they cannot be pectoral like the jujubes from which we make syrup. We make festivity with this fruit, because we have not got the pears and pippins of Portugal. The tree is rather thorny and about the size of our apple trees, and the leaf is also like, but perhaps not quite so rounded.

RUANO

Let us to horse and ride into the country, and on the road you must tell me about this Nizamoxa,¹ for you have mentioned him several times.

ORTA

I have told you that there was a King of Balaguete whom I cured many times, and his son several times, for which I received, at various times, more than 10,000 *pardaus*.² He also offered me 40,000 *pardaos* of rent for visiting him during some months of each year, which I did not accept.

RUANO

Let us turn to a subject more acceptable to our ears. I would ask, sir, for the name of the king, and I should like to know what the name means, and those of other kings of this country. I do not want our colloquies to be all medicine, but to have some talk about other things to awaken our interest.

ORTA

I am disinclined to waste a colloquy on matters that do

¹ Bahram Nizam Shah.

² A pardau is 300 reis. It would be 60,000,000 reis of modern money.

BER

not appertain to science, because readers will say that I have been engaged in writing a story-book.

RUANO

Let the blame fall upon me when you make this book, for I am sure that many in Spain will rejoice to hear the things you relate.

ORTA

Then I comply with your demand. Know that there was a powerful king of Dely¹ who, about three hundred years ago, conquered all this land and Balaguate. At that time Cambay was also tyrannically seized by Moors and Rajputs. They were Gentios who had been its lords. This King of Dely took Balaguate² from some very powerful tribes, whose descendants are now called Venezanos,³ and others who inhabited that land were called Colles.⁴ To this day the Colles, Kenezaras, and Reisbretos⁵ live by plunder and robbery. The Kenezaras and Colles are in this land of the Deccan, and up to this time they cannot be subdued and made to submit to the kings.

RUANO

They must be a valiant race.

ORTA

Yes, they are. The kings also are grasping, for they pardon those who share the plunder with them. This kingdom of Dely is far in the interior of the country to the north, marching with the territories of Coraçone.⁶ It is a very cold land, with snow and frost as in our country. The Mongols, whom we call Tartars, have been in possession of Dely for more than thirty years.⁷ I was acquainted with a brother of

¹ Ala-ed-din Ghilzy, 1296 to 1316.

² Deccan.

³ Brinjarries.

⁴ Koles, a wild hill-tribe.

⁵ Rajputs.

⁶ Khorasan. He seems to include a vast area under that name.

⁷ Baber took possession of Delhi in 1526. Orta's date is quite correct.

TENTH COLLOQUY

the King of Dely¹ at the court of Sultan Bahadur, King of Cambay, who honoured greatly this brother of the King of Dely. Afterwards this kingdom of Dely was taken from the Mongols by a soldier of fortune, outlawed by the King of Bengala for having killed his brother.² He rose against the King of Bengala and killed him, and afterwards subdued Dely and many other kings. For some time he was the greatest lord of all, and persons of credit told me that his dominions covered 800 square leagues. This King was the first Patane who held the mountains bordering on Bengala. He was called Xaholam, which means king of the world.³ Of this potentate's history a greater chronicle might be made than that of the famous Tamirham (whom we corruptly call the great Taborlam), and some chroniclers have Tamirlangue, because Tamir was his proper name, and *langue* means lame, which he was. But he was of another time, and I return to the King of Dely. He conquered the Deccan and Cuncam,⁴ and was lord of them for some time. But as he could not rule countries at such a distance he returned to his own dominions, and left them to his nephew who was crowned king. This ruler always favoured strangers from Turkey, Roum, Coraçone, and Arabia, dividing his kingdom into captaincies. Thus Adelham (called by us Idalcam) held the coast from Angediva to Cifardam, which is 60 leagues, bounded by other captaincies towards the interior. Nizamaluco had the coast from Cifardam to Negotana, which is 20 leagues, bounded in the interior by other lordships and by Cambay. These two held the Cuncam between them from the sea-coast to the summit of the mountain range called Guate,⁵ which include much land, and are very high in many

¹ This was Muhammad Zeman Mirza, married to a daughter of Baber, and brother-in-law (not brother) to Baber's son Humayun. He was a fugitive at Cambay in 1534, and in 1535 Orta went to Diu with the expedition of Martin Affonso de Sousa, and visited Cambay.

² This was Shere Khan, an Afghan chief, who expelled Humayun and reigned at Delhi for some years, 1540-1545. ³ Afghan. ⁴ Konkan. ⁵ Ghauts.

BER

places. I have crossed them by some passes. There is something worth noting with respect to these mountains which contain many beautiful plains. As *bala* is the Persian for a summit, and *guate*¹ is a mountain, Balaguete is as much as to say "over the mountains." In Balaguete are the territories of Imademaluco, whom we call Madremaluco, and of Cotalmaluco and of Verido. All these captains were foreigners, Turks and Roums and people of Coraçone; except Nizamaluco, who is said to be a son of Decanim, son of the Tocha of the King of the Deccan. As the wife of this Tocha had slept with the King of the Deccan, Nizamaluco was looked upon as one of the royal caste, while the others were slaves bought with the king's money. As these captains were not inclined to obey the King of Deccan, they agreed among themselves that each should be master of their own lands, and that the King of the Deccan should be seized at Bedar, the principal city and capital of the Deccan. He was seized there and delivered to the care of one of them named Verido. He and the others, either themselves or by their representatives, made their salaams to the captive king on certain occasions every year.

RUANO

Is salaam the Arabic for peace? If so, I call this a false peace.

ORTA

Others rose in revolts in concert with those who imprisoned the king. These were Mohadum Coja,² and Veriche, who was a Gentio, and they seized very powerful territories and rich cities. Mohadum had Visapor, Solapor, and Paranda,³ which were afterwards taken by Nizamaluco. Veriche was established in the territory which borders on

¹ Ghaut.

² Muhammad Kasim, styled Hindu Shah, whose literary title was "Ferishta."

³ In Sholapur.

TENTH COLLOQUY

Cambay and on the land of Nizamaluco. The great-grandfather¹ of Adelham, who now reigns, was one of those captains who rebelled, and he was a Turk. He died in 1535. He was always very powerful and twice took this city of Goa from us. The grandfather of the present Nizamaluco,² who now is, father of my former friend, died in 1509. The Imadomaluco (or Madremaluco as we corruptly call him) was Chergues by nation, and had originally been a Christian. He died in 1546. The Cotalmaluco who died in 1548 was also one of those who rebelled. He was a native of Coraçone. Verido, who died in 1510, was Ungaro by nation, and also originally a Christian, as I am informed on good authority.³

RUANO

Let us come to the names, and tell me who it was that took the cap, and do not pass on until he has passed.

ORTA

He was Ambassador of Idalham, whose grandfather was lord of this island. These Moors gave distinctions at their pleasure. As among the Gentios *Rao*⁴ means King, and *Naique*⁵ means a captain, when these Kings take a Genticio into their service, and do not wish to give any very great title,

¹ This was Yusuf Adil Khan, who came to India as a slave. He became a powerful chief and established his capital at Bijapur, taking the title of Adil Shah. He died in 1510. His son and successor was Ismail Adil Shah, who died in 1534. Ismail's grandson Ali succeeded in 1557, and ruled in Orta's time.

² Nizam ul Mulk. His son fixed his capital at Almednagar, his name being Ahmed Nizam Shah. His son, named Buhram Nizam Shah, who succeeded in 1509, was the great friend of Orta. He died in 1550; Hoçein succeeded. The Portuguese called these kings Nizamaluco.

³ Fath-Ullah, called Imad-ul-Mulk, was a Hindu, not a "Cherques" or Circassian. He was called Imadomaluco by the Portuguese. Cotalmaluco was Sultan Kuli. His capital was at Golconda. Kasim Berid, called Verido by Orta, was a Georgian slave who rose to be prime-minister of Mahmud Shah, the Deccani king who was deposed. His son took the title of Berid Shah.

⁴ Raja, Ray or Rao.

⁵ Naik, a chief.

BER

they added the title *Naique* to his name, and when they wanted to grant a very high distinction *Rao* was added to the name—as *Chita Rao*, whom I knew. It was a proud name, because *Chita* means a leopard, so that *Chita Rao* means a King as strong as a leopard. Among the Mongols or Tartars *Ham* means a King, and those they favour receive that title, which we have corrupted into *Cam*.¹ *Rao* by itself was the title of the King of Bisnaguer² who, in times past, was much harassed by Adelham, and in our time extends his power over all the lords of the Deccan, who all obey him, for all things befall in their turn. But to return to our subject. As *Adel* means justice in Persian, they give this title to the Adelham, the lord of this country, as much as to say King of Justice.

RUANO

‘The name is not suitable, for neither he nor others are accustomed to dispense justice. But tell me why in Spain they use the word Sabays.

ORTA

Some people have told me that the name was given after a captain who was called by it, but afterwards I came to know the truth that *SAIBO* in Arabic and Persian means Lord, and for this reason the name is given. Also because *Maluco* means a kingdom in Persian, and *Neza* a lance, they called my friend Nizamaluco, that is, “the lance of the kingdom.” *Cota* is a fort in Arabic, and *Cotalmaluco* means “the kingdom’s fortress.”³ *Imad* means summer, and *Imadmaluco* means the kingdom’s summer. *Verido* means a guard, and

¹ Khan.

² Vijayanagar, called also Narsinga. In 1565 all the Musulman chiefs of the Deccan united against the Hindu King of Vijayanagar, and defeated him in the battle of Talicot.

³ It was *Kutb*, pole star, not *Cota*, Ficalho.

TENTH COLLOQUY

Melique-verido means the King of the guard. Some only called these *malucos* by the name of *meliques*, which means little kingdoms.

RUANO

Does *maluco* properly mean a kingdom?

ORTA

No. Only a region or province.

RUANO

You have now satisfied me about everything except Xa. Why do you say Nizamoxa, and Adelxa?

ORTA

Xa Ismail¹ rose in Coraçone, and his son and successor is Xatamas,² now living. Being of low birth³ Ismail made war against the false laws of the Grand Turk.⁴ He rose to be one of the greatest sovereigns of the world. He ordered that his followers should take the side of the sect of Ali, which is opposed to Mafamede,⁵ and against those who did not join that sect he made cruel war. His son, named Xatamas, ordered the denunciation of the Deccan Kings who called themselves Xa, which is the title of King. Thus they are called Adelxa, Nizamoxa, Cotumixa, and thus they assume the name of king when they are not able to coin anything more valuable than copper. Nizamoxa and the others at first accepted this law, receiving it from the ambassador, but afterwards they disregarded it.

¹ Shah Ismail.

² Shah Thamasp.

³ He was not of low birth, being a lineal descendant of Ali and Fatima, the daughter of the Prophet.

⁴ Not against the Turk, but against the Aku Koyunlu chief, then sovereign of Persia.

⁵ Muhammad. On the contrary, Ismail was a zealous Musulman but of the Shiite sect.

BER

RUANO

I always thought that he was called Xeque Ismael, and not Xa Ismael. I also thought that the man was called Sofy?

ORTA

It is true that Xeque is an ancient title used by the Xeques of Arabia, but Xa means King in Persia, and Xa Ismael means the King Ismael. The Turks and Roums called him Çufi, because there was a great captain who was named Çufo or Çufi, and hence they fixed the name of Çufi on Xa Ismael, in memory of their great captain.¹ As you play at chess, I will say something to you that you will be glad to know, and which also has nothing to do with medicine.

RUANO

Very many thanks for this.

ORTA

Xa means King, and when they say that the King makes a move in chess they do not say *Xaque*, but Xa.

RUANO

This is a very curious thing which I am glad to know about. Do they play well at chess?

ORTA

Yes, well, but differently from our game. That you may not be bored I will tell you the names of the pieces arranged for battle.

RUANO

I will take no excuse, so tell me.

¹ That was not the reason. There was no such captain. Sufism is a mystic philosophy of the Persian Shiites.

TENTH COLLOQUY

ORTA

They call the King XA. The Queen (Dama) they call GOAZIR, which means Constable. The Bishop (Delfim) they call FIL, the word for an elephant. The Knight (cavalo) is GUORA. The Rook (Roque) is ROCH HÁ, meaning a tiger. The Pawn (Piam) is PIADA, which means a man on foot; and thus you have this battle array marshalled.¹ You must pardon me if I have bored you with frivolous tales.

RUANO

On the contrary, I have enjoyed them much.

¹ Chess is said to have been invented in India, where it is called *chaturanga*, or the game of the four *angas*, *i.e.* "the four bodies" of an army, elephants, horses, chariots, and foot soldiers. The Indian tradition is that the game was invented by the wife of Ravana, the King of Ceylon, in the Hindu epic of the *Ramayana*, in the hope of weaning him from his immarital and marital misdemeanours. Passing into Persia, and simultaneously into the hands of the Arabs, the former changed the name of the king piece into *shah*, whence our word "chess," and the latter into *sheik*, whence our word "check," when the king is in danger, and phrase "check-mate," *i.e.* *sheik-mat*, "the King's dead." The Low Latin name of the game was *Ludus Seace-orum*. In India the Queen [*Farzin*] moves obliquely, one square at a time, and the Bishop [*kisses*] obliquely, three at a time, without hindrance from any other pieces in the way; and the pawn but one square at a time. Owing to these differences the people of India qualify our game as *Faringi Chaturanga*, the "Frankish Chess," and often, *Rumi-Chaturanga*, "Roman," *i.e.* *European*, or *Turkish Chess*.

In Spanish Rey (King), Dama (Queen), Alfil (Bishop), Cavallo (Knight), Torre (Castle), Peon (Pawn).



PLATE IV.—MANÇANAS DE LA INDIA.

ELEVENTH COLLOQUY

CALAMO AROMATICO AND DAS CACERAS

RUANO



OW tell me the names of the CALAMO AROMATICO¹ among the nations you know, for several names come to my knowledge where I have been. Our modern doctors have grave doubts whether it is the ACORO. Some say that it is, while others say that GALANGA is the CALAMO. In this way a mistake has arisen, which it is necessary to have cleared away. I therefore come to you, who have a knowledge of these simples, to establish the truth.

ORTA

That which in Portugal is used by apothecaries for CALAMO AROMATICO, and which is also a medicine much in demand in India, as well for men and women, as for horses in their infirmities, is called VAZ in Guzerat, BACHE in the Deccan, VAZABU in Malabar, DARINGO by the Malays, HEGER in Persia, VAICAM in the Concan, which is near the sea, and CASSAB ALDIRIRA in Arabia.

¹ *Acorus Calamus*, Linn., Aroideae.

CALAMO AROMATICO

RUANO

Serapiam, who is an Arabian and an authority, calls it ASSABEL DIRIRI.

ORTA

Serapio's name is corrupt, and Avicenna has amended it. The Arabian apothecaries give it, for the word CASSAB means CALAMO and ALDIRIRA aromatic, for DIRIRE has the same meaning as aroma with us. This may be gathered from Avicenna. As the Malays receive this medicine from Moors who come from Coraçone, they call it corruptly DIRINGUO. This medicine is much used in Goa and throughout India. Little is grown in the gardens here in Goa. The smell as well as the taste is bad. The greener the plant is, the stronger and more horrid is the smell, although Ruelio says the contrary. Some medicines smell better the drier they are, such as the sandal and the aloe. They sow much in Guzerat and Balaguato, and when it is growing the smell is not so strong as when it is pulled up. They do not raise it near the sea-coast, because that which grows in such a locality is withered and rots, that which comes from Balaguato is grown to the west. The women use it a great deal for nervous complaints. All the rest that is expended is for the horses in the cold season, who are given it mixed with aloes, and *ameos*, a kind of cummin, with some salt and butter sweetened.¹ They call this medicine *arata*.

RUANO

Does it grow in any place outside India? It would seem so, for Galen and Hipocras call it CALAMO YNGOENTARIO, Plutarch CALAMO ARABIO, and Cornelio Celso CALAMO ALEXANDRINO.

¹ In India it is a common practice to put ghee into horses' food. It is mentioned as allowed for horses in the Ain-i-Akbari, and Nikitin also mentions ghee as forming an ingredient in the food of horses.

ELEVENTH COLLOQUY

ORTA

I have asked many Coraçones and Arabs who come to sell horses in India if they have the plant in their land, and they all told me that they had none but what came for sale from India. I asked them how they knew the use of it. Their reply was that they knew it very well, for that there was no medicine in their land or in this that they all knew so well. Those who say that it is common to Indians and Syrians are in contradiction to what these merchants told me, as well as the physicians of the Deccan kings. Thus those that call it a plant of India say well, and those who give it to Arabia say well, for it was first seen in India and Arabia. Those also say well who call it Alexandrine, for it is taken thence by the Venetians, and to Beyrout and Syrian Tripoli.

RUANO

Menardo says that he saw it in Panonia, and that it was very fresh, from which it would seem that it came from the neighbourhood.

ORTA

We have faith in what we hear and see; but it may be that he was mistaken, and that what he saw was sown in some flower-pot or basket, as they sow ginger which grows; but what I told you is the truth, that it comes in the course of commerce.

RUANO

This that we use, is it from the root or the cane?

ORTA

It is the cane, for the root is small, but sometimes the root is mixed with the cane. They are wrong who say that it is the root only, and they say it only to base on it their opinion that ACORO is CALAMO AROMATICO or GALAMGA.

CALAMO AROMATICO

RUANO

Why do you call it AROMATICO, for you say that the name comes from the Arabic?

ORTA

I do not say AROMATICO because of the scent, but because it is a drug coming from these parts. Further, I would not say CALAMO ODORATO but JUNCO ODORATO. So now you can see the difference between cane (*cana*) and reed (*junco*). You must also know that what is within the CALAMO is not like a spider's web, but it is a porous substance of a yellowish colour. In this Avicenna and Serapio are mistaken, yet they had better opportunities of ascertaining the facts than the Greeks.

RUANO

Modern writers say that CALAMO AROMATICO is an ACORO, because the root of ACORO, which is administered as a cure, is not a cane but a root which we see in the druggists' shops.

ORTA

You need not trouble yourself about that, because it is only the reed that is sold and used and not the root, and if you want to see it, here it is green and dry.

RUANO

I do not doubt it, for I have it before my eyes. But tell me how ACORO can be ESPADANA, for they say that one is black and the other white, and that it is biting and warm in the third degree, and we do not find any asperity or warmth in it, and that not only in cold regions but in warm also. How much more does this show that it cannot be a medicine warm and dry in the third degree. Planted in another locality it would not be warm. For these qualities are according to the species, and cannot be drawn out at all points, as is seen in the

ELEVENTH COLLOQUY

ACORO. Hence without doubt there is good reason for it not to be the ACORO, nor to sell it as that.

ORTA

I confess to you that the ACORO is not the ESPADANA. But what we need is not to seek the localities where Galen, Pliny, or Dioscorides say that it is found, and this because those doctors were not very curious, and it will not be found from them whether it is CALAMO AROMATICO. For Avicenna and Serapio have three chapters of information respecting CALAMO AROMATICO,¹ ACORO and GALAMGA. Those who write of CALAMO refer to that in India, and not in other parts, and they do not say that the ACORO is anywhere but in Europe, whence it came to be known to us; for we do not speculate as Menardo, Lyoniceno, and others speculate. None of the physicians among the Arabians, Turks, Coraçones, or in India know the ACORO. For when I cured the Nizamoxa of a tremor, I took great pains to investigate the matter, but I never succeeded in learning what ACORO was. But I was told that they had it in Turquia, using the Arabic name. The CALAMO is warm and dry in the second degree, and ACORO in the third, so that they cannot be the same thing. If you do not find ACORO seek and look in the books what you may put in its place.

RUANO

Why should not the root of GALAMGA be ACORO, for all the SINAIS take ACORO?

¹ We now know that Galangal [the Lesser] is the rhizome of *Alpinia officinarum*, and [the Greater] of *A. Galanga*, Gingerworts; and "Acorus Calamus," or "A. Calamus odoratus," of *Acorus Culamus*, the "Sweet Flag," an Aroid; while "Calamus aromaticus," the "Sweet Cane," is *Andropogon Schoenanthus*, a Grass, the source of "Palmarosa Oil": *A. Nardus* being the source of the "Citronelle Oil" of Ceylon; and *A. citratus* of "Indian Lemon Grass Oil." *A. muricatus* is the source of the fragrant "Khaskas Grass" of India.

CALAMO AROMATICO

ORTA

Here you see two methods, of Java and China. Planted here the leaves are not like gladiolo, and are very short and the shape of a spoon, as I will tell you when we come to speak of the GALAMGA, and I will show it to you both green and dry. The GALAMGA has another difference. It is warmer and has not the other properties of ACORO and CALAMO. For the two latter are for the nerves, and the GALAMGA for the stomach. These medicines, the GALAMGA and CALAMO, are articles of commerce in this land, where they began to be used, and to be sent to the west.

RUANO

So that you desire that we should share a drug so well known as ACORO?

ORTA

I do not wish to share, but I do not wish that in India we should mix up the two others, or one of them. I say that if there is confusion it is not the fault of the Indians but of the others. For Pliny says that the best is in Pontus, afterwards he says it is in Galatia, then in Crete.

RUANO

You say this, but what would you substitute for ACORO?

ORTA

I would use CALAMO AROMATICO in greater quantity, not being so warm and dry, a grain less. In this way I used it for the Nizamoxa and his father. You can try it if you like, but I know that it is not ACORO that we use for CALAMO AROMATICO; and what Marcello says, that it is cinnamon, is so false that it is unnecessary to refute it.¹

¹ Chapter lxiii. of his book is devoted by Acosta to CALAMO AROMATICO. It is all

ELEVENTH COLLOQUY

RUANO

It seems to me that it would be good to eat. Tell me what fruit that girl has got. It looks like JUNCA AVELANADA or JUNCO ODORATO.

ORTA

It is a fruit that sprouts in the mud underground, and afterwards comes up about the length of a finger, with leaves fastened to each other. These leaves are very green, like those of the ESPADANA. When the mud becomes dry it rises up like an earth tuber. When it is dried, it is like chestnuts, but it has not a good taste when it is not dry.

RUANO

I am glad to know this, and now tell me its name.

ORTA

It is called CACERAS,¹ and is not used as a medicine, but we eat it.

copied from Orta, but he gives a plate of the plant, with leaves and flowers. *Trapa bispinosa*, *T. bicornis*, and *T. natans*, the "Water Chestnuts" of China [*T. bicornis*], India, and Central and Southern Europe.

¹ *Scirpus Kysoor*, Roxb. The native name is *kachera*.

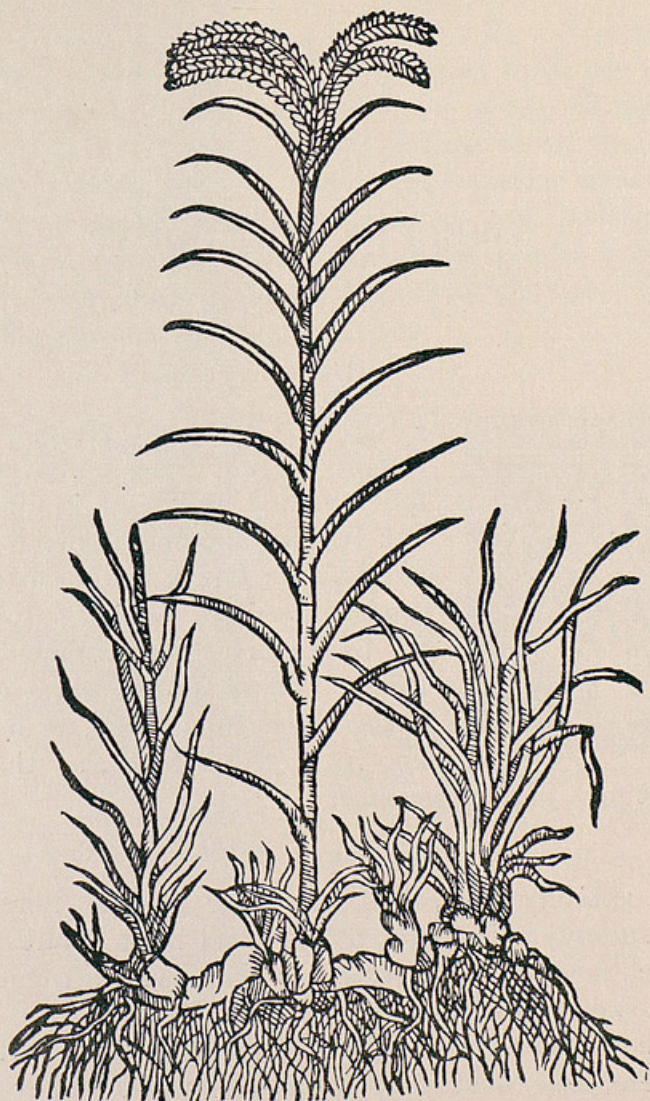


PLATE V.—CALAMO AROMATICO.

TWELFTH COLLOQUY

CAMPHOR

RUANO



HERE is very good reason why we should discuss the camphor, as it is so much valued and used in medicine;¹ but it was not mentioned by Galen nor by any Greek author except the modern writer Aecio.² No doubt we owe much to the Arabs in some things, but we do not get a complete notice even from them, it being unknown in those lands, so that there could not be a perfect account.

ORTA

This certainly is so, for I who have been so long in this country am only able to get to the exact truth about anything after much labour. The reason is that the Portuguese, who navigate over a great part of the world, only procure a knowledge of how best to dispose of their merchandize, of what they bring there, and what they shall take back. They are not desirous of knowing anything about the things in the countries

¹ *Laurus Camphora.*

² Aecio was a native of Amida in Mesopotamia, a student in Alexandria, and finally a physician in Constantinople.

CAMPHOR

they visit. If they know a product, they do not seek to learn from what tree it comes, and if they see it they do not compare it with one of our trees, nor ask about its fruit, nor what it is like. As I am unable to visit all those countries and should not be given leave, by those who govern them, to go beyond where they reside, because they want to make use of my old age and the learning it has acquired, not having learned physicians in those countries, for these reasons I am not to blame if I am obliged to speak to you of these medicines doubtfully, and with so much caution.

RUANO

It is well said that he who does not know does not doubt, and from this point of view you are not only worthy of pardon, but you deserve praise.

ORTA

Camphor is of two kinds, one called CAMFORA DE BORNEO, which I have never seen in our regions, at least since I have been here, and I am not surprised because it costs as much per pound as CAMFORA DE CHINA costs per *quintal*. What is brought here is made of rounded sticks of the diameter of a crossed hand: and being in that form it seems to be a compound and not simple.

RUANO

This that I have not yet seen describe to me, and first show it to me.

ORTA

Here is a small piece, but not of the best. Girl, bring that piece of CAMFORA DE BORNEO.

SERVANT GIRL

Here it is, Sir!

TWELFTH COLLOQUY

ORTA

Well, you must know that this piece you see, about the size of a grain or a little larger, is the worst kind. For among the Gentios, Banians, and Moors they make up four kinds for sale, which they call *Cabeça*, *Peito*, *Pernas*, and *Pé*.¹ A pound of *Cabeça* is worth 80 *pardãos*,² *Peito* 20, *Pernas* 12, *Pé* 3 or 4, if that. Some people sift this camphor in a sort of winnowing machines for sifting seed pearls,³ which are made of copper with perforations of different sizes. The camphor which passes through the largest holes is sold for one price, and those passing through smaller holes for another. For these sifters are of four kinds, with different sized holes. The Banians are such expert tradesmen that they never mix one size with another, and make their account with such accuracy that no one can deceive them. This that you see here is the refuse, and is black. It is of little value. There is much of this camphor in Borneo, Bairros, Sumatra, and Paçem. The names given by Serapiam and Avicenna are all more or less corrupt. I know that this is an article of commerce much used in this country. What Serapiam calls PANÇOR is PAÇEM in Sumatra, and what Avicenna calls ALÇUZ may be ÇUMDA, islands or main land on the confines of Malacca. That which Serapiam says is a product of CALCA, must be a corrupt form of MALACCA, for it is found in BAIROS, which is a port of that region.⁴

¹ *Cabeça*, head ; *peito*, breast ; *pernas*, legs ; *pé*, foot.

² Acosta has *escudos*.

³ Acosta, copying from *Orta*, has the word *tharnero*, a sieve.

⁴ The Camphor of Borneo and Sumatra comes from a large tree, *Dryobalanops aromatica* [*D. Camphora*, Colebrook], of the family of Dipterocarpeae.

Olha tambem Borneo onde não faltam
Lagrimas, no licor coalhado e enxuto
Das arvores, que camphora he chamado
Com que da ilha o nome he celebrado.

Lusiadas.

Pacem in Sumatra is the Portuguese name for a port, Pasei of the Malays, and Basma

CAMPHOR

RUANO

I rejoice much to know about this medicine, so noble and precious, and I wish to hear from you, first whether it is gum or pith as Avicenna and others held, and if it is at first with vermilion and black stains, made white by distillation or fire, or whether this is false.

ORTA

It is gum and not pith that exudes from the tree in the way I told you that I saw it come, and presently you will see the gum in the stick which comes out by some chinks, so that the camphor is seen to distil through them. This I saw very clearly on a table which an apothecary had. I also saw it on a stick the size of a man's thigh, which was presented to the governor Dom João de Crasto. Also, in this city, there is a merchant, who has a board a *palmo* long. All these sticks are shown to be from the *CAMPORA* tree. I will not deny that some of this gum falls into the hollow of the tree, as we often see in the trees in Portugal. But it is at first quite white, without any vermilion or black streaks, and it is not distilled, as some writers say, or boiled, to make it white. It is only that from China that is kneaded, and of this you need have no doubt, for Avicenna and Serapio were misinformed; long distances make long lies. I have been told by persons worthy of credit that if a man goes to fill a calabash with this camphor, and another man sees him with the calabash full, he kills him and takes the calabash without being punished, because they say that it was his luck.¹

of Marco Polo. Bairros is a small port on the west coast of Sumatra in 1° 59' 35" N. It is the Kansur, T'ansur, Kaisur of the Arabs, Pançor of Serapio and Orta.—Yule, *Marco Polo*, ii. 268, 285. The Camphor of Formosa is obtained from the *Camphora officinarum* of Linneus, a Laurel bloom.

¹ Acosta leaves out this remarkable rule, and says, in its place, that he had a set of very delicately carved chessmen in a box all made of camphor wood, judging from the smell and from what he was told. Camphor did not exude from the chessmen nor from the box. But by rubbing with the hands the smell of camphor gets stronger.

TWELFTH COLLOQUY

RUANO

Why do you say that the Greeks do not mention camphor? You may remember that Serapio, speaking of camphor, refers to Dioscorides, and you will not forget that you said that you would show me the mistake.

ORTA

You should not be surprised at this, for the assertion in Serapio is an error. As to the way in which camphor is adulterated, I know that the article from Borneo is often mixed with very small stones, or with a gum called *chamderros*, which looks like crude seed pearls, or else it is mixed with flour or sawdust. All these things must be prepared for, by those who wish to speculate in camphor. I know of no other way of adulterating. The black and vermilion streaks are said to be caused by the article having been knocked about, or exposed to damp. The Banians remove this blemish by washing secretly in a pan of warm water with soap and lemon juice. After it has been well washed they put it out to dry in the shade, when it becomes much whiter, and does not lose much weight. I saw this done, the Banian confiding in me secretly, because he was a great friend of mine.

RUANO

Have you found authors who mention these two kinds of camphor?

ORTA

Yes; Serapian says so obscurely, mentioning that most of this camphor comes from Hariz, and less from China. From this it is to be understood that the largest quantity is from Chincheo, and that this is greater than the other from Borneo, whence a quantity not more than an *oitava* comes. All this is true, the text of Serapian having been twisted, for the

CAMPHOR

pieces of Chincheo (which we call China) are of 4 ounces or more.

RUANO

Tell me about the tree.

ORTA

A man worthy of credit told me that the tree was like a walnut tree, with whitish leaves, like those of a willow. He did not see the fruit, but it may have been that it was there and he did not see it. The wood is grey, and much like that of a beech tree, sometimes darker. It is not light or porous, as Avicenna says. It is massive, and it may be that what Avicenna saw was old. They say that the tree is tall, wide spreading, with a good crown, and pleasant to the sight. It exudes the camphor from itself, as you saw it ooze out, and as I saw it exude from a piece of the wood. I saw another pole the size of a man's thigh, which I have already mentioned. It may not have been camphor, though the smell was very like it. I have seen another plank a *palmo* in size, which gave out some camphor, and it was like the heart of beech wood.

RUANO

They tell me that it is true that a multitude of animals take refuge under the shade of this tree from fierce wild beasts.

ORTA

All this is a fable. In that land there are tigers (called *reimoes* by the Malays), and the shade of a tree would be no defence from them.¹

¹ The Malay names are *ariman* and *rimas*. Acosta adds that he has seen tigers, and that the only way to keep them off is by making a circular fire, lighting it with the match of an arquebus. He continues to say that he has himself tried this plan with them, both in the forest and on the plain. Any flickering flame, as of a torch, will keep a tiger off; and so will the jangling of little bells fixed on the top of a stick.

TWELFTH COLLOQUY

RUANO

Is there more yield of this camphor in one year than in another?—for they tell me that when there are many thunderstorms the yield is good, and when few—bad.

ORTA

Avicenna, Serapiam, and Aecio were misinformed on this point. In the island of Sumatra and its vicinity there are always many thunderstorms; for it is on the line where there is more or less wind every day, whence there is always camphor every year. As the thunderstorms are not the reasons of the production of camphor, they cannot be called the cause, except through an accident, or what may happen occasionally. This sort of reasoning is called by philosophers a cause without the consequent effect.

RUANO

Give me an account of the camphor of China or Chincheo.

ORTA

The camphor of China is supposed to be partly made up of the other kind from Borneo, the rest being of the kind from China of less value. It is mashed and they make loaves of it, as you have seen, not because it had vermilion and black streaks at first. I only say this conjecturally, and as the opinion of some people. For this camphor does not come from Canton, where all the people trading with that country go, but from Chincheo, whither few people find their way. A person worthy of credit told me that much of it is very cheap in China, others say the contrary, the deduction being that these sticks are compounded. For the camphor of Borneo is an article of commerce in Chincheo, and the people of that land say that it is wanted to mix with a kind that is not so good. The Banians of Cambay

CAMPHOR

confirm this ; for they say in secret that when the camphor of Borneo falls short, they mix a little of it with a quantity from China, and call it all falsely camphor of Borneo. These Banians say further that the camphor of China must be a composition, because it wastes with time, while that of Borneo never does.

RUANO

What is your own opinion ?

ORTA

I say that there is camphor in Chincheo, but not so good as that of Borneo, and that the two pounded together make a good mixture, being included under one genus ; but, being so compounded, it evaporates and wastes, while that of Borneo does not.

RUANO

Menardo says well that the camphor is a new thing, and that he believes it to be compounded and not simple.

ORTA

It is not my opinion that so much is compounded. There are two kinds of camphor, and that which evaporates is not very corruptible ; but the things of which it is composed are more liable to corruption. Rhubarb scarcely lasts four months in this land of rain. So that there is much to corrupt the camphor of China, which is kept in India.

RUANO

Avenrois says that there is another very different kind of camphor. He affirms that it is engendered in the sea, and that it is warm and dry in the second degree. What is more wonderful, he says that amber is a sort of camphor and that

TWELFTH COLLOQUY

it comes into the sea by fountains. Have you by chance heard of that kind ?

ORTA

I never heard of it ; and the people of India think so much of this medicine that if they had heard of what you say, it would never have been forgotten. If the amber had been a kind of camphor it would not be in such esteem in China, whither it is brought, and fetches the high price I have already mentioned. Besides, amber is warm in the second degree, and camphor is cold in the third, so that they cannot be included under the same genus. For the qualities belong to the species, and never can lettuce be warm or pepper cold. On this, therefore, you may rely.

RUANO

Andreas Belunensis, of whom you do not speak ill but rather praise, says, in his dictionary, that the water of camphor, according to the Arabs, runs and flows from the camphor tree, and that the said tree and water are warm in the third degree. As camphor is usually spoken of as cold, it is necessary to know how this may be, and I would ask whether you have seen such water, or heard it mentioned.

ORTA

I have enquired of many people respecting this water, as well druggists as merchants, and have heard nothing. If it had been known I must have heard ; for in Balaguete they have water of sugar cane, and sell it. The fault is not with the Belunense, but with the Arabic book he quotes from.

RUANO

Ruelio and Mateolo Senense say that the kind from China is best, and that the best of all the camphors is that which is

CAMPHOR

purified for a barbarous king, whom they call the King of China.

ORTA

You can tell Ruelio and Mateolo Senense that though they may know Latin and Greek very well, they should not fill their mouths with the appellation of barbarous to those who are not of their generation, and their assertion is wrong. For the camphor of Borneo is sold by *cates*,¹ and that of China by *bores*:² the *cate* being 20 ounces, and the *bor* about 600 lbs. The King of China is not one who makes camphor. He is one of the greatest sovereigns that the world knows, and to write adequately of him and his kingdom it would be necessary to write a great volume. I know that the merchandize coming from there consists of silver bedsteads; richly worked services of silver; silk, woven and unwoven; gold, musk, pearls, copper, mercury, vermilion, and porcelain twice the value of silver. I am afraid to tell you what quantity of silk entered the cities of Goa and Cochin a year, during these last years.

RUANO

Tell me, for I am sure you will speak the truth.

ORTA

700 *bores*, each *bor* containing 3 cwts. and 16 lbs. By this you will see the riches and greatness of this land. In Goa, when the other monsoon has come, all this silk is disposed of.

RUANO

Tell me the names and qualities of camphor.

ORTA

CAPUR and CAFUR are the words used by the Arabs and

¹ "Un peso de veinte onças," according to Acosta.

² The *bor* is nearly 600 pounds.

TWELFTH COLLOQUY

all other people. For the letters o, f, e, o, p are letters much akin, indeed sister letters among the Arabs, so that all speak of it in the same way. If any writers speak of camphor with another name, they have been deceived, or else the books are badly printed. As for the qualities, Rasis gives cold and humid, Avicenna gives cold and dry in the third degree, and some or all other writers follow Avicenna.¹

RUANO

It has appeared to many modern writers, from its smell and its quality of evaporating, that its quality is warm, and it seems to me that they have reason; because the scent of cold things is not so strong, as may be seen in the cases of sandal and roses.

ORTA

I thought this to be true for a long time. But when I saw great warmth in ophthalmia and in a burn treated with camphor, and how it has the same effect as snow, I saw that the contrary was the case. Moreover, the people of this land, Gentios as well as Moors, and in its native place, consider it to be cold, and the feeling of touch and taste are not likely to deceive and to make that appear warm which is cold and dry in the third degree. It is easy to reply to the argument of scent. For camphor has the property of evaporating and sending outwards all that it has within, while sandal and roses, being styptic, retain what they have within, and do

¹ Acosta here becomes enthusiastic about China:—"In the grandeur of the kingdom, in the number of people, in the excellence of its polity and government, and in its wealth, it exceeds every other country in the world. So many and so excellent are the things worthy of memory in it that I know not with what tongue any one would attempt to explain what there is in this grand kingdom. And though things far off generally sound grander than when seen near, it is the contrary in China. He who wishes to learn something of the number of notable things in China should read the book written by the Reverend Father Friar Gaspar de la Cruz of the order of St. Dominic."

CAMPHOR

not send it away. Many things that are cold and dry are also inflammable, such as hairs and tow.

RUANO

Avicenna says that it causes sleeplessness; so how can it be cold, for cold things have a tendency to cause sleep?

ORTA

It causes both insomnia and sleep. A little of it applied externally or internally makes for sleep. And much use of the smell of it, drying the brain, causes sleeplessness. There is nothing to be surprised at in these contrary effects. Now it really is time for dinner.

RUANO

These tarts certainly have a very pleasant savour. It seems to me that it comes from the roasted slices of some fruit that they contain.

ORTA

Antonia, pluck some CARAMBOLA,¹ for so we call them in Malabar, and we stick to the Malayalim names, because this was the first land we knew.

ANTONIA

Here they are.

RUANO

They are beautiful, sweet, and not very acid. They are the size of a small hen's egg, and a bright yellow colour. What seems still better in them, they are slit into four parts, making four small quadrants of a circle.

¹ *Averrhoa Carambola* and *A. Bilimbi*. The fruits of both contain a pleasantly acid watery pulp, and are very good candied, or stewed to a syrup.

TWELFTH COLLOQUY

ORTA

In Canarese and Deccani it is called CAMARIZ, and in Malay BALIMBA. I do not know any use for it in medicine, unless it might be given as part of the diet in fevers. With its juice and other things they make a lotion for the nerves of the eye, and it does good. Many people find in it a pleasant taste from what we call acid-sweet, for these are a little more acid. They also make an excellent preserve, which I ordered to be made instead of acid syrup. I will give you some to taste presently. Antonia, go and fetch some CARAMBOLA preserve.

ANTONIA

Here it is.

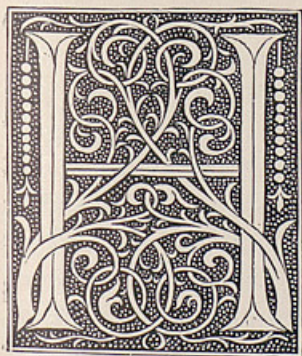
RUANO

Give me some acid syrup to take every morning, because it tastes very good.

THIRTEENTH COLLOQUY

CARDOMUM AND CARANDAS

RUANO



ERE is a tangled skein that we have to unravel, a formidable knot to untie, such an one as Alexander cut to save himself the trouble of unfastening it. For this reason it seems good to me that I should have the mistake, if there is one, explained by you. If you are able to untie the knot, well and good; and if not, it must be broken. The problem is how it can be explained

that the use of *Cardamomo*, *mayor y menor*, as we now use it in Europe, is not in conformity with the teaching of Galen, Pliny, nor Dioscorides.

ORTA

I will let you know very well what it is that we call CARDAMOMO¹ *mayor y menor*, and you shall see it as clear as

¹ *Elettaria Cardamomum* (see page 28) yields the true Cardamoms of Malabar, Mangalore, Mysore, and Ceylon; those of Ceylon being especially qualified as "mayor." The Chinese include "Grains of Paradise," *i.e.* the seeds of *Amomum Metagueta*, under their general denomination for Cardamoms. We distinguish the seeds of *Alpinia chinensis* as "Chinese Cardamoms." A synonym of the plant is *A. alba*, and the *A. Cardamomum* of Roxburgh may be another synonym of it. They are all Gingerworts. The Indian names of Cardamoms are: Sanskrit and Mahratti *ela*, Concani *ata*, throughout India *ilaichi* and *ilachi*, Arabic *kakilahisighar*, and Persian *kakilahikurd*.

THIRTEENTH COLLOQUY

the light of noon. For these medicines are much used as merchandize in this country, and also sent to Europe, Africa, and Asia; but whether the name CARDAMOMO is correctly placed or not, I am unable positively to affirm.

RUANO

Begin in a good hour, and tell me the names, Arabic, Latin, and Indian.

ORTA

Avicenna has a chapter on CACOLLÁ, dividing it into greater which he calls QUEBIR, and lesser, which he calls CEGUER. Thus he has CACOLLÁ QUEBIR and CACOLLÁ CEGUER, which is the same as CARDAMOMO, greater or less. By these two names the two kinds of CARDAMOMO are known to Arabian physicians and merchants. They have both kinds in India, in largest quantity from Calicut to Cananore, also in Malabar and Jaoa, but not in such quantity or so white in the shell. In Malabar it is called ETREMILLY, in Ceylon ENÇAL. Among the Bengalis, Guzeratis, and Deccanis it is called by some HIL and by others ELACHI. That is among the Moors, for among the Gentios of those parts it is called DORE. This is the reason that there is such confusion in the name in Arabic writings, for some call it by a name used in India, and others by the Arabic name. This confusion gives rise to mistakes.

RUANO

Serapiam calls one CACOLLÁ and the other HILBANE.

ORTA

The passage is corrupt; it should be CACOLLÁ and HIL, and the increase to it of BANE should be BARA, which means great in Deccani, just as CACOLLÁ, as all the Arabs call it, or

CARDOMUM

CACULLE, as Avicenna spells the word, or ELACHI, mean what we call CARDAMOMO.

RUANO

And what do we call it in Latin or Greek ?

ORTA

Neither the ancient Latins nor the Greeks knew the CARDAMOMO, so why do you desire that I should tell you the name? You may believe that Galen never wrote of it, and this has been said by Avenrois in his chapter on it. For Galen says that the CARDAMOMO is not so warm as the MASTURÇO, but more aromatic and pleasanter to the taste, with a little bitterness. Now all these qualities are not in our CARDAMOMO, which has not the taste of MASTURÇO, and is not bitter.

RUANO

Have not Pliny and Dioscorides written of it ?

ORTA

Dioscorides says that the best comes from Comagena, Armenia, and the Bosphorus, and that it is also brought from Arabia and India. They had not got that which we call CARDAMOMO. What they had was that mentioned by Galen and Dioscorides, and not this in India, so that it follows that they are two different things and not one. If we desire to say that that which Avicenna and Serapiam call CORDUMENI is it, I will not contest the point, because it is not what Avicenna and Serapiam call CACULLÁ and HIL. Much less will it agree with the conditions laid down by Dioscorides, that it is hard to break, closed in a capsule, sour, and a little bitter, and that the scent flies to the head, all which conditions are not found in the CARDAMOMO but the reverse; for it is not hard to break, the scent does not go to the head, it is not



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bitter, nor is the taste like that of pepper or cloves, and though it causes water in the mouth it is more pleasant.

RUANO

' Well, then, why should they call it *CARDAMOMO* if, as you say, it was not known to the Greeks ?

ORTA

Because, as Terence says, "*Davus*¹ confuses everything." This *Davus* was Geraldo Cremonense, the translator. Not knowing this drug, by reason of his great distance from the country where it grows, never having navigated, and having no commercial relations with India, he put the name which seemed to him best. It would have been much better to have left the name in Arabic, as it was an unknown medicine ; and not to have fallen into the error which this Geraldo has done.

RUANO

That of Pliny seems to be from this country.

ORTA

Pliny gives four species, one very green and thick (the best), one stubborn to rub, a third resplendent with the bright colour of gold, and a fourth smaller and blacker, another of various colours and which breaks easily. Now you see the *CARDAMOMO* here, that the shell is white, while the other is black and easily broken. To show you that it is not bitter, not black outside, much less green or of diverse colours, I will ask you to look at one. Boy, go and pick a black cardamom and bring it here. These black ones are much used because their scent is better for the mouth and for chewing and clearing the head.

¹ The slave of Simo, in the *Andria* of Terence. *Davus* was a most unscrupulous intriguing rascal.

CARDOMUM

BOY

Here it is.

RUANO

This is a very different thing. How says Valerio Cordo that the greater is almost like an acorn and the smaller one like filberts; but of these the largest is not bigger than the kernel of a nut, with its husk. Dioscorides says that these grains are sown with other larger ones. Is that so?

ORTA

It is sown like our legumes, and the highest comes up to three *palmos*, and from it hang the capsules, and in the capsule there are ten to twenty small grains.

RUANO

We come to Ruelio and Laguna, who are more recent writers, and to what they say of this drug. Ruelio says that it has fruit like an *AMOMO*, and that it is gathered like the *AMOMO* in Arabia.

ORTA

You can see here that what he refers to is not *CARDAMOMO*, for it is taken from India to Arabia and to the west, while the kings of these parts send for the *AMOMO* from the west to make up their medicine, of which I am an eye-witness. That the *CARDAMOMO* or *CACOLLÁ* does not come from the west is proved by its being an article of commerce to be taken there, as is known by all merchants.

RUANO

On the authority of Theophrastus it is said to be a neighbour of *NARDO* and *COSTO*.

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ORTA

We find this to be a mistake, for NARDO and COSTO are in Mandou and Chitor, and the CACOLLÁ in Malabar.

RUANO

They also say that the seeds are white, and that they raise blisters in the mouth.

ORTA

That is false as regards CACOLLÁ, for the bark is white and the seeds are black, and taken into the mouth with water it does not appear warm, which makes the Indians say that it is cold.

RUANO

Laguna, who translated Dioscorides into Spanish, says that three kinds of CARDAMOMO are met with in druggists' shops, *mayor*, *menor*, and another kind called NIGELA; and that all have a strong aromatic and biting taste. He says that the *mayor* is like Fenogreek or Alfoluas, but blacker and smaller; that the *menor* is smaller and inclined to a brownish colour; and that the third is NIGELA CITRINA, only differing in the black colour; so that my conclusion is that the first kind is MALAGUETA or "Grains of Paradise," and that this is the CARDAMOMO of which Dioscorides writes. The same Laguna says that a merchant showed him all three kinds at Venice in the year '48, and afterwards he says a thousand bad things of the Arabs who confuse everything.

ORTA

What you say of Laguna is a proof that what he says is false, as I have said. For Dioscorides did not see the CARDAMOMO with bark, for he says that it is MALAGUETA; nor did Dioscorides ever see it, nor did he know whence it came. As to the *mayor* being brownish he is wrong; and the NIGELA

CARDOMUM

does not come from this region, nor has it the qualities of *CARDAMOMO*. The merchant who showed him the three kinds which he said that he brought from Armenia to Venice, did not speak the truth when he said that they were true *CARDAMOMO*. If it had been true he would have brought it from India, through Alexandria or some other port.

RUANO

From your reasoning I gather that you hold that the *CARDAMOMO* of the Greeks is not the same as what is called *CARDAMOMO* by the Arabs, and Menardo and other modern writers are right when they say that the *CARDAMOMO* of the Arabs is a new medicine, and that it ought not to be used, because Galen and Dioscorides, the princes of medicine, did not use it.

ORTA

From the first I confessed to you that the *CARDAMOMO* of which the Greeks write is not the *CACOLLÁ* of the Arabs; but I have never said that there is no use for it, for each day brings new diseases, such as the Neapolitan disease which we call Castilian itch; and God is so merciful that in each land He gives us medicines to cure us. He who causes the illness provides the medicine for it. But as Temistio¹ says, our knowledge is a very small part of what we are ignorant of. And as we do not know the medicines which cure all diseases, we bring the *rhubarb* from China, whence we get the root or stick to cure Castilian itch,² the *cana fistola* we get from India, *manna*³ from Persia, *guaiacam* from the West Indies. Please

¹ Count Ficalho suggests that this is Themistius the Paphlagonian, a friend of Julian the Apostate and a commentator on Aristotle. His remark is what, in an Irishman, would be called a bull.

² Acosta adds Sarsaparilla.

³ Manna, the Egyptian *menu*, and Arabic-Hebrew *man*; the "Ros Syriacus," "drosomeli," and "aier dew" of our old Pharmacists, is obtained in Sicily from the Olive blooms, *Fraxinus Ornus* and other species of Mountain Ash; also from *Tamarix gallica*,

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God we will always continue to search for and enquire about medicines. The lovers of the Greeks, when they find that medicines are experimented with in the countries where they grow, are unreasonable in abusing Avicenna, Abenzoar, Rasis, Isaque, and others, who cannot be denied to be learned, for thus using them.

RUANO

You say well. But as I have used your CARDAMOMO to cure according to Galen, is not this what he speaks of?

ORTA

I say that in the receipts of the ancient Greeks and Latins the Arabs were not followed, and for CARDAMOMO they used that of Galen; and if you did not know it, do not blame the others because you had not got it. In the receipts of the Arabs and modern Latins the Cardamomo *major* is used, which is the large one you see, and the *minor* which is the other.

RUANO

There is another bone to pick. These two have both the same appearance, and only differ in size, and all your imitators of the Arabs call the smaller one CARDAMOMO *mayor*, while the big one has never been seen in Europe; and for the smaller one they use a seed called *grana paradisi*, which the Spaniards call MALAGUETA. It seems to me that you undo all medicine and all methods of curing. Tell me where you see this error.¹

ORTA

I will make you see it clearly. I have often asked in Portugal, and of people who came from Portugal to MALA-

the "Myrica" of the Greeks and Romans, in Southern Europe and Western Asia; from *Alhagi maurorum* in Western Asia and Persia; and from *Quercus persica* in Persia; and *Larix europea* in Europe ["Briancon Manna"].

¹ The Portuguese editor says that all this passage is unintelligible.

CARDOMUM

GUETA, if they have CACOLLÁ, which we call CARDAMOMO, in MALAGUETA, and the answer was no; that they had never found it there. I then began to consider why so learned a person as Avicenna should have made a division into CARDAMOMO *mayor* and *menor*, when the *mayor* is found in India and the *menor* in Malagueta, 4000 leagues away. I also saw that Avicenna called Malagueta by the name of CONBAZBAGUE, and there seems to be good reason for this, for it is said that it comes from Sofala, of which Malagueta is a continuation. It may be that in Sofala there are adjacent lands unknown to us, for the people are barbarous and unaccustomed to converse as men. Do you want Avicenna to write two chapters on one thing? Walking in these cities of the coast, I saw a Jew merchant from Turkey who told me that he had CACOLLÁ QUEBIR in his list of medicines that he wanted to buy. As I understood that CACOLLÁ was the same as CARDAMOMO and QUEBIR as great, I asked many merchants if they had CARDAMOMO in other lands and what it was like, but none of them could tell me. I found that they have it in Ceylon, but much larger and not so aromatic. This was told to me by the agent of the King who resides there, who went to Ormuz and Arabia for merchandize and made good profit. At the same time I sent one of my ships to Ceylon and obtained a specimen. On another occasion I was curing a great lord named Hamjam, brother of the King of Balaguete named Verido, and I dispensed a receipt containing CARDAMOMO,¹ *mayor* and *menor*, in the Arabic language, and they presented me, to make it up, with these two medicines. This should be no less than sufficient to enable you to see that both are alike, only one bigger than the other.

RUANO

In Portugal I saw the lesser, and not the greater. Which do you consider the best to use?

¹ Masudi and Edrisi enumerate cardamoms as one of the drugs coming from India, but the first to fix Malabar as the locality was Duarte Barbosa.

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ORTA

I say that both kinds that are sent to Portugal are good, and from there are spread over Europe. Perhaps the smaller is more aromatic and better, and it may be said of the larger that it is better in virtue and less in quantity. This I say, but deferring to better judgment.

RUANO

I am astounded how, seeing these two heads of seeds, I presently said this is *CARDAMOMO mayor* and this *menor*, and from this time forward this shall be my use and practice; and *CONBAZBAGUE* and *MALAGUETA* only when I am thinking of the medicines of Arabia.

ORTA

I know of nothing more than what I have said to druggists, physicians, and others, and it may well be that this has not been a good thing for me, for they say afterwards that they found out these things and obtain glory by my work; while I only wish to bring profit to all. God will be a witness to what I say. There was a Viceroy in India who was very anxious for knowledge, and as he did not know Latin, he read Pliny in Tuscan. He was desirous of acquiring a knowledge of some simple, and commissioned me to tell him when I should find it. I took this *cardamomo mayor* to him to show him, and also the *menor*, telling him what they were called. He listened and said that my account seemed to be correct, but that he had much faith in an old druggist, and ordered him to be sent for.

RUANO

Was this druggist learned? Did he know Latin and Greek or Arabic?

CARDOMUM

ORTA

No. He was an old man who had been a long time in India. He was well acquainted with the practice of a dispensary, but his knowledge of Greek, Latin, and Arabic was of the kind possessed in Spain by a man who has never heard those languages spoken or read. For all that, he was a very good man, and because he had made the drugs in the dispensary at Cambay, which were sent to Portugal by the Government overseer, the Viceroy said that no druggist in the country knew about medicines so well as he did. The Viceroy asked this man whether one of the specimens before him was *cardamomo mayor* and the other *menor*. He said no; but that the smallest was *cardamomo*, and the other neither *mayor* nor *menor*. Then I said that both had the same smell, one being large and the other small, and told him to try them, for that the two kinds were of this land, and that with his experience he ought to know that one was *cardamomo mayor* and the other *cardamomo menor*. On this he broke out with loud shouts in good Portuguese romance, *de presumitur*, that I might affirm or deny, but that he knew, which was an argument of mint and polypody. Then I asked him why this was not *cardamomo*, and whether he could produce any other in the land. He replied, "Why! would God allow that I should not know after so many years, if you know so suddenly!" I replied that we might know many things to-day which we would forget to-morrow; also that occasionally small people like me revealed things which great people like him could not explain. With all these flatteries I never could get him to confess, for he had recourse to *de presumitur*.

RUANO

And did you then have a good laugh?

ORTA

I might have, but there would have been trouble in so

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dealing with such a person. But a learned jurist, who was sitting in a corner, laughed enough for himself and me too, and I can hear him laugh now when I think of it.

RUANO

Did not this Viceroy know what you knew ?

ORTA

Yes ; and he knew me well in Portugal ; and when the King took leave of him to go to this land, he said that it was not necessary to take any medicines with him. He took this advice and departed this life under my care ; but he was more ashamed of the obstinacy of the druggist than anything else.¹

RUANO

I should like to know this druggist.

ORTA

He is dead ; and may God pardon him, for, apart from some foibles, he was a very good man. We will not talk more about it, for I told you the story to amuse you for the moment, and not to remain in your memory.

RUANO

I would mention to you that Andreas Belunensis, an Arabic scholar, says that CACULLE is CARDAMOMO *mayor*, and that ALCAL OF HALEIL OF CAYRBUA and EILBUA are CARDAMOMO *menor*.

ORTA

All these names are corrupt in the Arabic books, and what I have said above is correct. I do not say this without

¹ This Viceroy must have been Dom Pedro Mascarenhas. He died at Goa on June 23, 1555. He knew Italian, having been Ambassador at Rome, and may have had the Italian translation of Pliny by Londino.

CARDOMUM

recognising that the author knew much, but as he had never been in this country, he could not have accurate information.

RUANO

Do the natives use *cardamomo* much as a medicine ?

ORTA

Very much, for they mix it with their betel to give it a pleasant scent. They say that it draws out inflammations from the head or stomach. They take it in syrup. They are wrong in calling it cold ; but this is a trifle, for they say the same of pepper.

RUANO

Do the Indian physicians give the root for fevers ? Mateus Silvatico says so, and that it grows from great protuberances on trees. Does any chance to grow in that way ?

ORTA

They do not use the root, except that they take it in fevers. It only grows from seeds in the ground which has first been burnt, and in no other way. What Mateus Silvatico says is quite wrong, and as no one else has made the statement the error rests with him.

RUANO

How is it that so much pepper is used in Europe and so little *malagueta*, which is better, especially with fish ?

ORTA

This practice arises from the French and German merchants. They tell me that *malagueta* does not do for seasoning food when it is cooked, for it should not be boiled. It is only of use for raw food, or food that has already been cooked. This is the reason that there is little demand for it. Now let us

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drop this, and let us partake of the fish which is cooked ready for eating, for it also has *cardamomo*.

RUANO

Very well; but what is that fruit that has been roasted? It looks like small green apples.

ORTA

It is called *carandas*,¹ and comes from the mainland and from Balaguete. The trees are the size of an arbutus, and the leaf is like, and the flower has the scent of honeysuckle. When the fruit is ripe it is very pleasant to the taste and dark like grapes. I heard of a man who made wine from it, and it may be that it would be good wine after being kept. Now this fruit is green, and the size of a filbert with the rind. It is larger in Balaguete when it is ripe, and it then gives out some viscous juice like milk. Some people put salt with it when it is ripe enough to eat. These green ones are salted, and in this country they take salted fruit to excite the appetite. They also serve it up with vinegar and oil, when it is called ACHAR. In this way green plums, apples, vine stalks and brambles with their fruit come from Persia and Arabia; for these Indians seek all manner of ways of eating.²

RUANO

So will I; and I have already tasted this fruit, as well as green apples.

¹ *Carissa Carandas* (Linn.), a Dogbane. Used for pickles.

² Acosta also devotes his chapter lxiv. to *cardamomo*. It is all copied from Orta, but condensed, and the last three pages omitted.

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CASSIA FISTOLA

RUANO



T is very necessary to know about the CANA FISTOLA,¹ for in it your Arabs have given such a good medicine for purging, without trouble or injury to the patient. I believe for certain that the Greeks would have written about it, highly praised it, and experimented with it.

ORTA

We have little necessity to speak of a medicine so well known and tried. The only contradiction is in the name, which was wrongly given by Geraldo Cremonense who, as I have said to you many times, had much better have left it as it was given by Arabs, for they were the inventors of this medicine; nor ought Nicolas Leonicenso and Menardo and so many other modern writers to say so much evil of the Arabian physicians, as the faults are their own. To tell the truth, the Arabs are deserving of praise, not of vituperation.

¹ *Cassia Fistula*, Linn., *Cathartocarpus Fistula*, Pers., Leguminosae.

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RUANO

The other writers do not say many things against Avicenna, but more or less follow him, without making any difference in the names. This being so, tell me the name in the countries where the tree grows.

ORTA

It is found in all these parts, but the best comes from the north. The Arabs call it HIARXAMBER,¹ a name of four syllables, but the most commonly used among them. Avicenna has CHIARSAMDAR, which is corrupt. COMDACA² is the form it takes with the Malabar people and Canarese, while the Gentios of our land of Goa have BAVA SIMGUA.³ The Deccanis and Brahmasis have BAVA SIMGUA,³ the Guzeratis and Deccani Moors GRAMALLA.⁴ They call its tree BAHU⁵ among the people of this Canarese country. It is the size of a pear, with leaves like those of a peach tree, as green and slightly narrower. The flowers are yellow, like those of broom, and the scent is like that of green cloves. As the flowers fall, there sprout from the stem buds like those of the chestnut; and the cane is very green on the tree, and when it ripens it is not vermilion as Laguna says. It is six *palmos* in length to two *palmos*, the shortest. It grows, as I said, in all these countries, and in Cairo, but the best is in Cambay, and the hardest. They may also have it in Malacca and Sofala, but the people who go to those places have very little curiosity.⁵

¹ Persian, *Khiyar-i-Chambar*, i.e. "Cucumber of necklaces" (from its long strings of golden flowers).

² *Konna*, i.e. "The King."

³ These names signify "the good and strong medicine."

⁴ *Girmala* of Gujerat.

⁵ "Cana fistola" is here, I take it, the pulp of the pod of *Cathartocarpus Fistula*, which is a gentle aperient, and the "Pulpa Cassiae," *Cassé*, and "Cassiae atramentum," and, also, the "Siliqua Aegyptia" and "Cassia Fistularis" of our older Pharmacists. The root is considered to be a febrifuge. The word *cassia* is Syrian, meaning "peeled," i.e. bark.

CASSIA FISTOLA

RUANO

Is the tree planted or wild ?

ORTA

I have never seen it except in a wild state. I am told that in the West Indies it was originally wild and gave out a large hollow cane. They sowed seeds in the convent of San Francisco de la Vega, in the island of Santo Domingo, and the plants grew and yielded very good *caña fistula*, raised from cuttings and seeds. In this way each person planted the trees on their properties until the quantity that was raised sufficed to supply all Castile. But I consider that the Portuguese are more fortunate for, without sowing, they have such a quantity that in Cathay the price of a *candil* (522 lbs.) is 360 reis, equal to one *pardão*,¹ and praise be to God that He confers such benefits on us daily.

RUANO

Of what composition do the Indians consider it to be ?

ORTA

They do not have much faith in the graduations, but they call it cold. Avicenna considered it to be temperate, with qualities both cold and warm, and that it was damp. Serapiam makes it temperate. Mesuel says that it inclines a little to warm, and this would be from its sweetness. Antonio Musa finds it to be warm and humid. All these views may be maintained, for the physician judges from outward feelings.

RUANO

It is used as a medicine in India ?

ORTA

Yes ; as a purgative. They make mouthfuls, scraping the cane as we do.

¹ A *pardão* of gold was worth 360 reis, and a *kandi* varied from about 500 lbs. at different ports.

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RUANO

Are the grains purgative also ?

ORTA

No, they are thrown aside ; and I marvel much at Menardo saying that the grains are purgative, being a thing which requires more art to open than to relax. If he was deceived it was by giving some mixture compounded, and as the seeds may have been found in it, they would lower the effect considerably. For these lubricating medicines do not draw more than the materials they encounter. For this reason one ounce of *caña fistula* purges more than thirty grains of *escamonea*. Also, it may be that the imagination of purging would purge more than that with which Menardo purged.

RUANO

Is it used to provoke menstruation, or to make conception easy, or to discharge the *placenta* ?

ORTA

It is not used for any of these things.

RUANO

I did not ask this without a hidden reason, for we use the powders of the rind in a decoction of *artemisa* or in an egg, with 4 ounces of honey, and Sepulveda says that this was the result of experience.

ORTA

This Sepulveda was not an evangelist. It is much more by the decoction of *artemisa* that menstruation can be promoted, and not by this rind, which is very cold and dry. As for discharge of the *placenta* that is not of much consequence, for, without medicine, in the course of nature such things cease to have retentive virtue and loosen by themselves.

CASSIA FISTOLA

RUANÓ

Well! what will you say of Avicenna, who orders it to be given to facilitate conception?

ORTA

I should doubt very much whether this was the meaning of Avicenna. I look upon it as a rule that when he uses the word *cassia* in writing of purgative medicines he means *cassia fistula*, and on all other occasions when he uses the word *cassia* he means *cassia lignea*. I now turn to Andreas Belunensis, who says that the correct word is COGOMBRO SECO and not CANA FISTOLA, hence those who use *cana fistola* wrongly remain clear of reprehension, let the imitators of the Greeks say what they like.

RUANO

In Portugal they told me that dysentery was very prevalent in India because the cows eat *cana fistola*, causing the meat to be purgative. Tell me whether this is so or not.

ORTA

I was also told in Portugal by a former Governor, and by an actual Viceroy, that they did not like to take *cana fistola* for the same reason, and their physician agreed with them in this. I told them the truth, saying that it was not as was supposed in Portugal. For in India the trees were so high that the cows could not reach them, nor were they so numerous that the cows could be maintained by them, for the cows, in that our land, were innumerable. The reason is that the Gentios raise them, but do not eat them. Moreover, the *cana fistola* is hard in the rind when it is green, and would not be liked by the cows so much as green herbage, which comes up several times in the year. I also asked about it, and was told that the cows did not eat *cana fistola*, those of whom I enquired laughing at me.

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CINNAMON

RUANO



NE cannot eat any spice with pleasure except cinnamon. It is true that the Germans and Flemings eat pepper, and here our negresses eat cloves, but Spaniards do not eat any of the spices except cinnamon. I bear it in memory that the food smelt strongly of it, and not of any other spice. I asked the cook whether he used it, and he said no, but that many dishes were seasoned with cinnamon water. In place of what we call *cassia lignea*,¹ the word *canela* is often used. It will be as well that we should discuss it now.

ORTA

CANELA, and what we call CASSIA LIGNEA, are one and the

¹ "Canella," or "Wild Cinnamon," is in modern Pharmacy the bark of *Canella alba*, Murray, a Bixad of the West Indies. Here it is "Cassia" or "Chinese Cinnamon," the bark of *Cinnamomum Cassia*, a Laurel of Cochin China and Southern China. True Cinnamon is obtained from *C. zeylanicum* of Ceylon. "Cassiae Pulpa" is, as stated in a footnote, p. 114, the pulp of the pod of *Cathartocarpus Fistula*.

CINNAMON

same thing ; but the ancient writers saw this spice after it had come from such a distance that they could not have had a correct notice of it, and as the price was very high there arose a thousand fables which Pliny and Herodotus repeat. They relate them as true, when in reality they are quite fabulous. I do not propose to speak of them here, because every one now knows the truth. The price being so high, and the avarice of men still higher, the drug was often falsified. As the false kind could never be exactly like the real spice in every respect, they made two kinds, one the true cinnamon and the other the falsified one, both being usually of the same species.

RUANO

Tell me what you know, and at the end I will mention any doubts which occur to me, for I do not wish to remain with them. I wish to hear from you the names in all languages, in the lands where cinnamon grows, and in Arabia and Persia, for by these names we shall be able to obtain a knowledge of *cassia lignea* and of cinnamon. For my present view, with others who have written on the subject, is that the true cassia is not the true cinnamon.

ORTA

I will satisfy you on all these points. Neither the Greeks nor the Arabs knew the cassia, and this was on account of the great distance and the little communication with the region where it grew. Those who brought it for sale to Ormuz and Arabia were Chinese, as I will explain to you presently. From Ormuz it was taken to Aleppo, a principal city of Syria. Those who brought it thence to the Greeks said that they had it in their country and in Ethiopia. It was taken with superstitious rights. The priest divided what remained into shares for the devil, for his worshippers, for the king, and for the priests.

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RUANO

How is this? Do you mean to say that neither the cassia nor the cinnamon are in Ethiopia or Arabia?

ORTA

Yes! and I am astonished that you did not know it; for Ethiopia has been reached by our ships and great part of it explored by our people, and in it there is neither *canela* nor *cinamomo* nor *cassia lignea*; and the Arabs themselves come to buy it and take it to their country, and at the time when they come the price is very high.

RUANO

Is this that you allude to the real *canela*? For they may not get the true cinnamon or cassia, but that other, and being a rude people they would not know the difference.

ORTA

The physicians of Arabia, Turkey, and Coraçon are very learned men, and all call this thick *canela*, which they use, *cassia lignea*.

RUANO

What proof can you give me that it does not grow in Ethiopia?

ORTA

I say that both the Ethiopias are very well known to the Portuguese; for the coast of Guinea, which is the Ethiopia below Egypt, is known to us, not only the sea-shore, but also the interior; and as I have told you, a priest explored from the island of San Tomé to Sofala¹ and Mozambique, and came thence to Goa, and I knew him very well. From the Cape of Good Hope to Mozambique and Melinde many persons have

¹ That this priest went from San Tomé overland to Sofala is doubtful.

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been along the coast, and these have come here, and none have ever seen the *canela*. So that we know that the *canela* does not grow in either of the Ethiopias, either above or below Egypt.

RUANO

Is this because they are few who have the curiosity to enquire?

ORTA

It is not so altogether. For the natives of the island of San Lourenço, who are very barbarous, showed some men who came to trade with a fruit of the size of a filbert without a head, and as it smelt like a clove¹ they wished to be shown the tree in case it should be cinnamon or *cassia lignea*. They were shown what appeared to be a medicine quite as odoriferous. The medicines were never better known than at present, especially by the Portuguese, so you must not suppose that such precious drugs are wanting with us, for the plants and fruits are now better known than ever. Of course the grafting makes diversity, as well as the transplanting them from one land to another.² For the love of me, do not suppose that we are deficient in cinnamon. We have as much as we require. I will now tell you the names.

RUANO

I say that I claim my right, as the lawyers have it.

ORTA

The *cassia lignea* is called by the Arabs SALIHACHA, and the Persians give it the same name. The Indians who do not know physic through the Arabian books, give it the same name as they give to cinnamon, because in all this country

¹ *Ravensara aromatica* or *Agathophyllum aromaticum*, Lauraceae, of Madagascar. *Ravensara* is its native name.

² Orta here recognises the variability of species.

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they make no difference between the names of cinnamon and *cassia lignea*. In truth, no person can see any difference between them, whether physician or druggist.

RUANO

I rejoice much to know this.

ORTA

The Chinese have navigated to this land from a very remote period, and as the people were barbarous and unlearned they adopted laws and customs from them. The Chinese went in such large vessels and in such a way that, if it will not bore you, I will tell you many things which do not directly belong to the subject of our colloquy, but which may interest you.

RUANO

I shall be very much obliged if you will, and we have time to devote to it.

ORTA

I know the number of Chinese ships that navigated, having counted those which went to Ormuz as recorded in their books, and there were 400 junks which entered the port of the island Jeru, now called Ormuz. They also say that 200 junks have been lost on the rocks of Chilâm. Junks are long vessels, which have their bows and sterns alike. In Calicut they had a fortified factory, which still exists, and is called *China Cota*, or the fort of the Chinese. In Cochin they left a stone as a mark, in memory of their having been there. When the King of Calicut (called Zamorin or Emperor) besieged Cochin because the Portuguese held it who were then engaged in the discovery of India, he destroyed the place and carried off this stone as a trophy, which cost him very dear. On this stone the King of Repelin was crowned, the Zamorin placing the crown on his head, who received homage from him ; and the

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stone was left at Repelin by order of the Zamorin. Repelin is four leagues from Cochin, and there the stone remained until 1536. Then Martin Affonso de Sousa, the not less invincible than fortunate captain, burnt, sacked, and destroyed Repelin. The king fled and many with him, and many of those were slain who did not escape, as I can testify, being an eye-witness. The stone was taken back to Cochin, and the king ordered great festivities to be made over it, and thanks to be given to those who brought it. He remained deeply obliged to the Captain, Martin Affonso de Sousa, who twice drove the King of Calicut out of his territory, and sent him the *sombreiro*, which he took with the *praus* in Beadalla (there were 57), where 15,000 men were killed, remaining with him no more than 300. He also took 600 pieces of artillery, and more than 1000 muskets. As the deeds of this great captain are many, I will not tell you more. These that I have mentioned are not told in praise, for he has acquired more praise than any one else of his time, but I tell you of them to make clear what I said about the Chinese.

RUANO

But I want to know about the cinnamon, for, in discussing the plants, you always give me some history of them.

ORTA

These merchants bring from their country gold and silk, porcelain, musk, copper, seed-pearls, alum, and many other things. They sell some in Malacca and bring thence sandal, nutmegs and mace, cloves, and aloes. Proceeding on their voyage they trade in Ceylon and Malabar. From Ceylon they bring a great deal of good cinnamon, which costs them very little money, while the sailors without any money collect wild and bad cinnamon in the woods. They also go to Java, and obtain pepper, cardamoms, and other drugs on this Malabar

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coast. They carry all to Ormuz or to the coast of Arabia, where merchants come to buy, and convey the merchandize to Alexandria, Aleppo, and Damascus. Asking these Chinese what sort of thing is this cinnamon which has such a smell and taste, they tell the fables which Herodotus and other ancient writers relate, to make a better sale for their goods. As the cinnamon from Ceylon was different from that of Malabar and Java they gave two names for the plant, but only one for the skin or bark. As a fruit is better in one country than in another, so the cinnamon of Ceylon is better than all others, all being cinnamon. They do not send any other cinnamon than that of Ceylon to Portugal. In Ormuz, because it is the bark brought for sale from China, they call it *DARCHINI*, which in Persian means Chinese skin. They send the same to Alexandria and the other places mentioned above, changing the name so as to get a better price from the Greeks, and calling it *cinamomo*, which means odoriferous skin, like *amomo* brought from China. To the bad kind from Malabar and Java they put another name, which is what it is known by in Java, *CAISMANIS*, which means sweet skin in Malay. Though it is one species they put two names, calling the good *DARCHINI* or Chinese skin, and *CINAMOMO*, which is *amomo* of China, and the other *CAISMANIS* or sweet skin.

RUANO

DARCHINI is not an Arabic word, then how is it that it is used by Avicenna and Rasis and all the Arabian writers?

ORTA

No, it is Persian; for many words in the *Kanun* of Avicenna are Persian. The name for cinnamon in Arabic is *QUERFÁ*. As it is said by Andreas Belunensis that it was the name for thick cinnamon, I communicated with the Arabs, who assured me that *QUERFÁ* or *QUERFÉ* was the name for any kind

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of cinnamon. The Greeks corrupted the word to CASSIA, and it was CAISMANIS that they called CASSIA. These are all the names that the Arabs have written to designate it, and those that are written differently are corrupt, such as DARSIAHAM and others. Well, this is the truth; and I call God to witness that the druggists cannot deny it, for *cassia lignea*, bad cinnamon, is mixed with very fine cinnamon, of which there is such abundance, and they excuse the doubling of the weight of the *cassia lignea* for cinnamon.

RUANO

This that you say about the weight of *cassia lignea* being doubled in place of cinnamon does not want for authority, for Dioscorides and all the others say the same.

ORTA

For me the testimony of an eye-witness is worth more than that of all the physicians, and all the fathers of medicine who wrote on false information. So that what the Greeks and Latins called cinnamon, the Arabs call QUERFÉ or QUERFÁ, the Persians DARCHINI, those of Ceylon CUURDO, the Malays CAISMAO, and the people of Malabar CAMEA. It is found that Serapio adopts DARCHINI, which is a tree of China, giving a derivation that for you is false, which was increased by the translator, and which to me is the truth.

RUANO

It may be remembered that you have said that the *cassia lignea* was first called *caismanis*, meaning sweet stick, and if this is so, cinnamon may be bitter stick, as Menardo explains the Greek verb, which signifies that at least it may be corrosive.

ORTA

This verb, interpreted by Menardo, means to furnish with

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a bite soft and fragrant; and he further says that bitterness is outside things that are fragrant, but that it gives them a sweet smell and sharp taste. I also say of this, replying to Menardo, that the people of this country have not more than three kinds of tastes—sweet, acid and bitter, and what is known well and is not bitter they call sweet. So that the things they know well they call sweet, and so give it the name of sweet stick.

RUANO

A modern writer says that our *cassia lignea* is not that of the ancients, for he says that it is black and without smell, and that there was some cassia which is called *pseudo cassia* by Dioscorides, or false cassia.

ORTA

It is likely enough that in ancient times the cinnamon was falsified. Its great abundance makes it unnecessary to do that now; but one of the drugs that deteriorates most in the land is the cinnamon, owing to its being brought after such long voyages. It may be that good cinnamon is mixed with some that is damaged and is without smell and is not vermilion, and it may be held that it is not cinnamon at all, just as a dead man is not a man.

RUANO

What did those learned Persian and Arabian physicians use instead of cassia to cure that king who was your friend?

ORTA

The thick cinnamon of Malabar. I argued with them that nothing except fine cinnamon should be used, but they were obstinate and would not listen to reason; though the king was convinced and was on my side. Returning to the *cassia*, it is impossible to understand these modern writers, for some say that there is no true *cassia lignea*, and Menardo says that there is, and that it is sold under the name of *canela* and *cassia*, and

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this same Menardo says that it is not the true *canela*. Valerio Cordo says that he would not go so far as to say that we have not got the true *canela*, and that we must have some species of it. Laguna, quoting Galen, says that *cassia lignea* is converted into cinnamon, or it would be better to say that cinnamon is converted into *cassia lignea*, for one species cannot be turned into another more perfect species by lapse of time, but into another less perfect. So much for these authors. I say that one species can never turn into another, but that the good cinnamon may at times deteriorate and be called *cassia lignea*, not because the *cassia lignea* and cinnamon are different species, but one species grown in different countries. Afterwards, Amato Lusitano held that he had all the species, and he is followed by Mateolo Senense and some others. After these Laguna says that he who goes from India to Lisbon will find all the species of cinnamon. But, speaking the truth with you, I could never see more than two kinds or three, all of one species, the *canela* of Java, of Ceylon, and of Malabar. When Laguna says that in going from India to Lisbon a man will find all the species of cinnamon, I say that what he means is that he will find good and damaged cinnamon, some better, some much better, but not five distinct species as he says.

RUANO

Well, I know that he says further that, in the time of the Roman Emperors, if a stick of true cinnamon was obtained it was considered a great treasure, so no wonder if it was so hard to get. It is said that in the time of Pope Paul a piece was found which had been kept since the time of the Emperor Arcadius, and after 1400 years there was great rejoicing over it.

ORTA

I will answer all this. I say that you can get more

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knowledge now from the Portuguese in one day than was known to the Romans after a hundred years. The stick which was given may have been brought from Lisbon, and would not have deteriorated. The piece belonging to the Emperor Arcadius may have been preserved by the will of God, or it may have been an imposture.

RUANO

Ruelio says that the cinnamon smells like the *origanum*.

ORTA

The stick does not smell otherwise than as the bark smells, but not so strongly or intensely, and there is no *origanum* in the whole island of Ceylon, nor in Malabar, nor in any other part of India unless it is brought from Ormuz.

RUANO

Some say that we have cinnamon, but not that which was highly praised, called *mosselitico*. They say that the better cinnamon is, the longer it lasts. Others say that it lasts thirty days, and that it lasts longer when it is powdered. What is your answer to this?

ORTA

The first I will answer when I tell you where the *canela* comes from. As to the last, the drug of which we are treating lasts for a very short time before it begins to deteriorate. As to what you say that it lasts longer if it is powder, this is wrong, for the proper stick lasts longest. In houses where they eat cinnamon powdered over their dishes, they do not keep it more than from one day to another, because it deteriorates here in India. The bark as well as the stick can be conserved better in some countries than in others, lasting longer where the humidity is least. In other lands the

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physicians reckon with the climate and are guided by experience; so that they know very well that it will not keep for thirty years. As for the other *canela* which had been kept since the time of the Emperor Arcadius, my answer is that I should like to see it before I believe it.

RUANO

Another statement of Antonio Musa, given on the authority of Theophrastus, is that the ancient cinnamon had many knots, while this of our time has not.

ORTA

Theophrastus is wrong, for he was not a man of this country to know what the tree is like. When the bark is taken off neatly, you will clearly see the truth.

RUANO

I say that I shall see at the end how my doubts have been solved.

ORTA

The trees are about the size of olives or rather smaller, the branches are numerous and not crooked, but somewhat straight. The flowers are white, the fruit black and round, larger than a myrtle, or between that and a nut.¹ The *canela* is the second bark² of the tree: for it has two barks like the cork tree, which has bark and shell. The *canela* is the same, except that the two layers are not so thick and distinct as in the cork tree. First, they take off the outer bark and clean the other. The outer bark, cut in squares, is then thrown

¹ It is a small evergreen tree richly clothed with beautiful shining leaves. The panicles of greenish-white flowers are not sweet.

² The Canella of modern pharmacy is the bark of *Canella alba*, Murray, "the Wild Cinnamon-tree."

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on the ground. When on the ground it rolls itself up in a round form, so as to look like the bark of a stick which it is not. For the poles or sticks are the size of a man's thigh. The thickest of the bark is the thickness of a finger. It takes a vermilion colour, or that which is given when burnt by the sun; or more like ashes mixed with red wine, very little of the cinder and a great deal of the wine. The trees are not so small as is stated by Dioscorides and Pliny,¹ and they are numerous, so that the price is very low in Ceylon. For more than thirty years it has not been possible to buy any, except from the agent of the king. This year's bark is taken, and leaving the tree for three years it renews its bark.² There are many trees, the leaves like a laurel. The trees that yield bad *canela* in Malabar and Goa are much smaller than those of Ceylon, and are all wild, growing of themselves. The root gives a water the colour of camphor, and is considered to be cold. The king forbids the roots to be pulled up, so as not to destroy the trees.

RUANO

Is this *canela* white or vermilion or black?

ORTA

That which has not been well dried remains white or grey, when very dry it is black. When well dried it is vermilion, as I said before. The root is almost without taste, and smells like camphor. The fruit is not pleasant to the taste. They also distil the flower, but it has not so good a smell as the water distilled from the bark. Laguna says that they only

¹ The drug name "Canella" does not occur in Pliny or Dioscorides. It is the French *cannelle*, diminutive of *canne*, a "cane," from the Latin *canna*, a reed.

² Ficalho characterises this as an unpardonable error, which is also adopted by Gaspar Correa; a result, he supposes, of some vague reminiscence of what occurs with the cork tree. But in the cinnamon tree to strip the bark causes the death of the branch.—LENDAS, i. 652.

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distil from the flowers, but it is true that they distil more from the bark before it is dried. It is a very mild medicine for the stomach, or to remove the pain of the colic, from its cooling quality. For it draws off the pain as I have often seen. It improves the complexion, removes a bad smell from the mouth; and for Portugal it is certainly a very good article of commerce. It is sent there in sufficient quantity, for besides being a good medicine, it is useful in seasoning dishes, as is the practice in India.

RUANO

Is Ceylon the only place for the best cinnamon?

ORTA

I have not heard of any other place.

RUANO

Well, Francisco de Tamara,¹ in his book on Customs, says that in the strait of the Red Sea cinnamons and laurels cover the water when the sea rises. Also our Castilians, who write about the West Indies, say that there is cinnamon in many parts of those Indies, especially in a land called Zumaco. They also say, speaking of China, that there is much cinnamon and spices there. Answer me all this.

ORTA

As for what Francisco de Tamara says you can reply that he repeats what others have falsely written, and that the Portuguese who navigate the Red Sea have never seen anything of the sort, sailing over it every year. The other chronicler who says that there is *canela* in the West Indies also does not tell the truth, for they say that the fruit is like

¹ A professor in Cadiz. He wrote *Juan Bohemo de las costumbres de todas las gentes* (Antwerp, 1556).

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acorns of the cork tree, whereas the fruit of the *canela* in Ceylon is like an olive, but smaller and more round. It would be well if some of this *canela* could be seen in Spain, when it would become known that it is another tree that yields this fruit and bark, and that the trees are different,¹ as the pear tree of *engoxa* differs from other pear trees. What is said about China is well known to be false, for this drug is brought there from Malacca, and it is known that they have it not in China.

RUANO

What use do they make of the fruit of the *canela*?

ORTA

They extract oil from it, as we do from the olive. It looks like French soap, and has no smell unless it is warmed, when it gives out an odour something like cinnamon. It is used to warm the stomach and nerves.

RUANO

Is all the cinnamon of Ceylon very fine?

ORTA

No! some is very bad, which has not rolled up well or was very thick from not being of that year, and being old is not good. I speak of Ceylon, for that of Malabar and other countries is all very bad. The quintal of Ceylon *canela* is worth ten *cruzados*, and that of Malabar one *bor*, which would make four quintals to the *cruzado*. The Malabar people take their *canela* to Cambaya, Chaul, and Dabul for sale, and thence it is taken to Balaguete.

¹ The South American Cinnamon tree, of which Gonzalo Pizarro went in search, is the *Nectandra cinnamomoides*, a Laurel bloom of British Guiana. In modern pharmacy the "Bark" [*Bibiru bark*] is referred to *N. Rodiaei*, Hooker.

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RUANO

Tell me the names of the kinds given by Pliny, to see if we can identify them in any parts of India.

ORTA

We must do what we can, for what I said is true, and the names give themselves to it. As for *zegir* it may be that all the land of the Cingalese is so called, that is the people of Ceylon. For the Persians and Arabs call the blacks *zangués*, and all the people of Malabar and Ceylon are of that colour. Also, those rocks which are between Ceylon and India are called *Chilam*, whence we may derive the name *zegir*.

RUANO

And the *cinamomo musilitico*, so highly praised, where is that?

ORTA

The island of Ceylon, a mountainous country, which is opposite Mount Cory, which is the Cape of Comorin, is where the seed is, on the scent of which Dioscorides puts his faith. And Pliny says that he traces that *canela* to the port of Genalabitas, as he calls Ceylon.¹ See how clearly he wants to speak of the port of Chingualas, which is Ceylon. For he says that by a direct road from the promontory of Cory one comes to a port of Genalabitas called Ocila. If you are not satisfied with these derivations I can give you no better.

RUANO

These derivations appear better, but those who say that the *canela* leaf is like *lyrio espadanal* say well.

¹ "Taprobane" and its productions are noticed by Pliny, vi. 22 (24), vii. 1 (2), ix. 35 (54), and xxxii. 11 (53).

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ORTA

No; because the leaf of the *canela* is like an orange or a laurel leaf, that is, the shape is that of the orange and the colour of the laurel.

RUANO

Is oil made from the *canela* also?

ORTA

' I have told you that it is only made from the fruit of the tree, and that it is made, as we make the olive oil, and that is the truth.

RUANO

I found in the receipts of a doctor of credit "*take cinamomo allipitino.*" Does that place happen to be anywhere in Ceylon, or where is it?

ORTA

It is Aleppo, a principal city of Syria, whither the *canela* comes by Ormuz and Gida, where they sell it. They take horses and many kinds of silks and brocades to Ormuz. As that *canela* was good and new they kept that name for it; and that is the reason.

RUANO

I am satisfied, and it seems to me well that we have the true cinnamon and the true *cassia lignea*,¹ and that it does not fail us. When *cassia lignea* is found in the receipts, or cinnamon, we shall always know that it is the best cinnamon, for all are one, and the things written by the doctors touching their qualities apply to one as well as to the other. If God spares me to return to Spain, I will explain this error to many physicians and apothecaries. I will also tell that famous

¹ "*Cassia lignea*," or Chinese Cinnamon, is the bark of *Cinnamomum Cassia*, Blume, and *Cinnamomum Loureirii*, Nees, of Cochin China, and both also yield the "*Cassia-buds*" of modern pharmacy.

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doctor Thomas Rodriguez¹ how the exhortation which Mateolo made to the physicians of the King of Portugal is all answered, and that you present it to him from your heart, complying with the request that he had made to you. Now tell me what you know of that celebrated island of Ceylon.

ORTA

The island of Ceylon is rather more than 80 leagues in circumference, and its length is 30 leagues by six to eight broad. It is the most fruit bearing and best island in the world. Some have said that it is Trapobana or Sumatra.² In front of its coast is the promontory they call Cape Comorin. It is very populous, though mountainous in many parts. The people are called Cingalese. It belongs to the King our Lord, and the native kings are subject to him. It is certain that this island is the most noble in the world. It belonged to one king who was killed by his grandsons, and they divided it amongst themselves. When the Portuguese came to this land they took counsel to cut and sterilize many trees, such as nutmegs, cloves, and pepper. In this island there are all kinds of precious stones, including diamonds; and many pearls, as we shall state farther on. They have gold and silver, and do not wish to bring it to the kings, but to keep it for treasure. They say that they combine sometimes to withdraw it secretly. The woods are full of all the birds in the world, many peacocks, fowls, and pigeons of many kinds, stags and deer, and pigs in great quantities. There are many fruits and orange groves in this land, which is all mountainous, and the

¹ Wrote Commentaries on Dioscorides (Venice, 1553 and 1557). Rodriguez was a famous Portuguese doctor of medicine. He seems to have been piqued by the exhortation of Matthioli to the Portuguese doctors and to have written to Orta on the subject; and Orta now redeems the obligation that was imposed upon him, to publish the results of his observations in India.

² No one ever said that Ceylon was Sumatra. It has been contended whether Taprobane was Ceylon or Sumatra.

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oranges are the best fruit in the world for taste and sweetness. The land also yields all our fruits, such as figs and grapes. Certainly very good profit might be made of the oranges, for they are the best fruit in the world. They have flax and iron. The natives say that it is the terrestrial paradise. They have a fable that Adam stopped on the top of a very high mountain which they call Adam's Peak. They have other fables much stronger. There are many palm groves, and the elephants are the best in the world and very intelligent, and they say that the others which they have are obedient.¹

¹ Orta visited Ceylon at least twice. He was with Martin Affonso de Sousa at the taking of Repelin, and when that captain landed at Colombo soon afterwards, Orta probably accompanied him. This was early in 1537. On the 15th of February 1538 the battle of Beadala was fought, and Orta seems to have been present. Beadala was in the Gulf of Manaar.

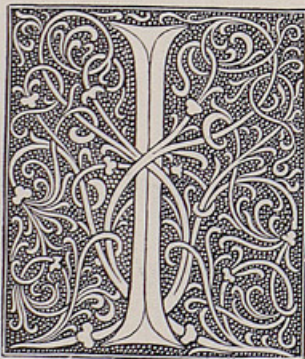


PLATE VI.—CANELA.

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COCOA PALM

RUANO



HAVE always heard it said that the coquos (cocoa-nut palm),¹ so called by the Portuguese, is a tree which yields many things necessary for human life.

ORTA

It yields so many necessaries, that I know no other tree that yields a sixth part.² It is well that you should know that we call it *palmeira*.

The ancient Greeks wrote nothing about it that I have seen, and the Arabs have written little. This will be a good thing to tell them in Spain, though this much is known from those who come, as a notable thing. Coming to the names I say that it is called MARO and the fruit NAREL, and this word NAREL³ is common to all, for it is used by Persians and Arabs.

¹ *Cocos nucifera*.

²
The India nut alone,
Is clothing, meat, and trencher, drink and can,
Boat, cable, sail, mast, needle all in one.

G. HERBERT.

³ *Narikela*, Sanskrit [the 'Αργέλιον of Cosmas Indicopleustes], in Persian *nargila*, a name given to the "Hubble Bubble," or Indian smoking stand-pipe, from the shell of a

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Avicenna calls it *JAUZIALINDI*,¹ which means "nut of India." Serapio and Rasis call the tree *JARALNARE*,² which means "the tree that yields coco." The Malabar people call the tree *TENGAMARAM*,³ and the fruit, when it is ripe, *TENGA*.⁴ The Malays call the tree *TRICAM*,⁵ and the cocoa-nut *NIHOR*, and we, the Portuguese, with reference to those three holes gave it the name of *COCO*,⁶ because it seems like the face of an ape or other animal. The tree is of considerable girth, and has the leaves on the highest part, like the leaves of our palms, though those of our palms are smaller. The flower is like that of the chestnut. The pith is very spongy. It likes sandy places near the sea, but inland it does not thrive.⁷ They sow the cocoa-nuts themselves, and from them sprout small palms, which are transplanted, and in a few years if they are well treated they bear fruit. They should have water in summer, and manure in winter. Those which are near inhabited houses grow to be grand and beautiful, so that it seems that they do well near people. This may be caused by the dirt from the houses, and because they thrive well with plenty of refuse.

RUANO

Now begin to relate the uses of this tree.

ORTA

The wood, though not very good, is useful for many purposes. In the Maldivé Islands they build a ship in which

cocoa-nut [*huka*, "casket"] being generally used to contain the water through which the smoke from the tobacco bowl is sucked through a long flexible serpentine pipe; and *nari-kela* simply means "water spring" or "squirt."

¹ *Jauzulhindi*, the "Indian nut."

² *Jaralnari*, the "Naril tree."

³ The "Southern tree," *i.e.* introduced from Ceylon.

⁴ The "Southerner," *i.e.* the nut originally coming from Ceylon.

⁵ *Trinarajah*, "King of Grasses," is a Sanskrit name for the Cocoa-nut Palm.

⁶ Spanish *macoco*, for "monkey faced."

⁷ It thrives best in low sandy situations within the influence of the sea-breeze.—

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as well the vessel itself as the fastenings, the sails, and cordage are all made of the cocoa-nut palm. Two branches, which we call *OLLA* in Malabar, cover the houses and the ships. They have two kinds of palm plantations, one for fruit, the other for *çura*,¹ which is a rough wine, and when cooked is called *ORRAQUA*. When the tree is wanted for *çura* they cut some ends and fasten small pots under the place whence the *çura* is drawn, and climb up the tree, fastening their feet to notches that have been made in the stem. They distil this *çura* into a kind of aquardiente, and it gives a wine like strong water, and they put a wet cloth into it, as they do with spirits. This is called *fula*,² which means flower. The other kind is called *orraqua*, a small quantity of the other being mixed with it. Of the *çura* they make vinegar, putting it in the sun until it becomes acid; it becomes sometimes very strong. After they have drawn off this vessel of *çura* which makes a quantity, they draw off another to make sugar thickened in the sun or before a fire, which they call *jagra*.³ The best of all is that from the Maldive Islands, which is not so black as that from other lands. The fruit, when it is new, has a very soft rind with a taste like artichoke, moistened with salt or without it. Inside, the water is very sweet and soft, but not so sweet as to cause loathing. This water lasts a long time, and softens the rind. It is what we call *COQUO*, and in Malayalim *TENGA*. There is in it some water not so sweet as the first, and at times it becomes a little sour. When this *COQUO* is green it is called *ELEVI* in Malayalim, and at Goa *LANHA*. The cocoa-nut has two rinds, very thick before coming to the pulp in the nut. When the

¹ *Çura* is meant for the Sanskrit *asava*, and *sava*, "essence." *ORRAQUA* is the Arabic *arak*, "exudation," the Rack of Anglo-Indians.

² *Fula* is the Hindustani *phul*, from Sanskrit *pushpa*, "a flower," literally a "pusher." The word occurs in our phrase "Gooseberry Fool," a stew of gooseberries, introduced into this country by Anglo-Indians.

³ A corruption of the Malabari word *chakkara*, which is a corruption of the Sanskrit *sharkara*; from which is also derived the Greek *σάκχαρον*, the Latin *saccharum*, and our "sugar."

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pulp is ripe and fit to eat, it is well to reach it by scraping the rind from the top, as Avicenna and Serapiam recommend. The first outside rind is very woolly, and of this they make the CAIRO,¹ a name used in Malayalim and by us. Of it they make the rigging and cordage for all the ships. It is very serviceable for us, for it is very flexible, and does not rot in salt water. All the ships are caulked with it, so that it serves as linen, as oakum, and as matting. These qualities make it good merchandize for Portugal, and the space it requires is small, which is the reason for so much being used. Yet it always appears that there are many palm groves in India, and that much CAIRO comes from the Maldive Islands. All the ships being caulked with it explains much, and the CAIRO swells out when put into salt water.

RUANO

This tree is a good thing, it has so much to give in itself. Laguna also says that it yields carpets or painted mats.

ORTA

He is not correct, nor had he good information. The half shell serves as a drinking-vessel for common people. When burnt it makes very good fuel for goldsmith's work.

RUANO

And does it not yield a drink which is good for paralytics, as Sepulveda says?

ORTA

I have often heard that said ever since I was a boy, but I doubt the authority, for I have never seen it written. I therefore think it must be a mistake, the more as it is not used here in that way. The fruit is not valued for the nerves, but the oil which is so separated from the bark, so contrary to its nature.

¹ Our "çoir," from Malabar *kayiru*, the fibrous rind of the nut.

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RUANO

I have now tasted the fruit many times.

ORTA

Yet I must tell you that when it is young we call it COQUO, and the milk is most agreeable to the taste. It should have the rind taken in the middle where it is hard, for lower down it is not so well formed, and the milk tastes like green almonds. Some people eat it with the JAGRA already mentioned, a kind of sugar. If it was not for the great abundance of this fruit it would be more highly valued, as it is in Balaguete. With this COQUO pounded they make a sort of milk, and cook rice with it, and it is like rice boiled in goat's milk. They make dishes with it of birds and meat, which they call CARIL. They all dry the COQUO after removing the rind, and make it into dried pieces called COPRA, sending it to Ormuz and Balaguete and other lands, where there is less of it and not enough to dry, or wherever they need it. The fruit is wholesome, and is used like dried chestnuts in our country, for it tastes better than the COQUOS that they bring to Lisbon.

RUANO

How do they make the oil ?

ORTA

They make it out of this same COPRA in great quantity, and it is very clear, like water. It lights up very well and is costly, being well refined. The common people eat it with rice, and they say it has a good taste.

RUANO

So say Avicenna and Serapio, that it is better than butter, and that it does not soften the stomach as butter does.

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ORTA

There are two kinds of the oil, one made of fresh COQUOS, and the other from what we call COPRA, which is the dry COQUOS. That which is made from fresh COQUOS is extracted by pressure and applying warm water. It draws it out from the bulk which is at the bottom, and is expressed from the top, when the oil floats on the warm water. This is a purgative medicine which lubricates and softens. We give it to many to clear the stomach and bowels only. It does it very well, without any harm or danger. Many combine it with extract of tamarind, and I have found that very good. Avicenna, in holding this oil to be nourishing, is quite right, but not in saying that it does not mollify the stomach or loosen. The other oil made from the COPRA is a very good medicine for the nerves, and we find it very effective in spasms and for pains in old joints. Placing the patient in a small canoe, a little larger than a man's body, or in a large trough, and leaving him to sleep in the warmth the benefit is miraculous.

RUANO

They say that the oil kills the worms, and that the COQUO when eaten has the same effect, at least so say Avicenna and Serapiam.

ORTA

It is not within my experience that the oil kills the worms, but it appears very conformable to reason.

RUANO

Serapio stated to Mansarunge (said to be the ancient Mesue) that COQUO stops the diarrhoea.

ORTA

It is not contrary to reason that it should staunch the full stomach while the oil relaxes it, for the oil belongs to the air and the COQUO to the earth.

SIXTEENTH COLLOQUY

RUANO

Laguna says that some have the *oleo mel* of which Dioscorides treats in his first book, a very sweet oil taken from this palm. Tell me what you think of this.

ORTA

I say that this palm does not yield any oil except that which is extracted from the COQUO, hence I believe that he was deceived.

RUANO

Respecting the COQUO they sent to Portugal, said to be from the Maldives, both are to be counted as one species. For I saw a shell without any pith at all, of which they said much that was good, and to the pith which I did not see they gave still greater praise.

ORTA

I will give you an answer to this. But first I want you to say what you think of a savoury food from this palm, though it is not of much profit. The oil of this palm is bitter, and leaves joined together, the taste of the more delicate ones (which we call *palmitos*) being better than our *palmitos*, more like white and very tender chestnuts before the shell has fallen; but the *palmito* tastes better than that. And he who eats a *palmito* eats a palm, for it presently dries; and the older the palm the better the *palmito*. Returning to the COQUO of the Maldivian Islands, it is much praised by the people of those islands and by the Malabar people, who maintain those islands.

RUANO

Is the COQUO esteemed by those other kings who have been cured by you, and by their people?

ORTA

No, I have not heard them speak of it; for it does not receive much credit from them. I have not known a case in

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which any one has been cured by it; and I have only heard many persons worthy of credit say that it is very good as an antidote to poison. They state also that it is good for many infirmities such as colic, paralysis, *gota coral*, and nervous ailments. They tell me that it is a preservative against other illnesses, by drinking water mixed with the Coquo and a little honey, the effect lasting for many days.

RUANO

You have been very negligent in not having tried the experiments yourself.

ORTA

I have not done so because there was no occasion, and I do not use it because there are other better medicines, such as bezoar stone, *triaga*,¹ *páo de cobra*, *páo de Malaca de contra erba*, *terra segillata*. As I find these efficacious I do not care to try others. It may be said that many men drink of this Coquo and find it very good; well, this may be the effect of imagination. I therefore do not care to say whether it is good or bad. I will not tell you anything is good without having been an eye-witness or ——² having the testimony of persons worthy of belief.

RUANO

I have been told that the Queen our Lady³ sent for this Coquo every year, and that it was brought to her; so you will not deny to me that it is good as an antidote for poison, for it would seem that it was tried by some good physicians.

ORTA

When they tell me this I may believe and affirm, but not

¹ The modern meaning of this word is *treacle*. See footnote, p. 28.

² The editor, Count Ficalho, thinks that the words "sabendo o por" ought to be intercalated.

³ Catalina, wife of Joao III. and sister of the Emperor Charles V., Regent in the minority of Sebastian.

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now, as I have not seen it; until then I shall deny it, without feeling any shame.

RUANO

Then I must take it to Portugal, and find whether it has that effect. However, tell me or show me what they make of it.

ORTA

The shell of this COQUO is black, and brighter than the other COQUOS. It has an oval shape for the most part, and is not round like the others. The kernel within is very hard and white, inclining a little to yellow, and at the end of the pith there are rifts and it is very porous. It has not any strong taste. They take up to the weight of ten grains of wheat of this pith, in rose water.

RUANO

Is it the same species? It appears not to be, for the COQUOS we eat are much larger, and of a different shape.

ORTA

The COQUOS of the Maldive Islands are much larger. I have had one which would fit into seven *quartillos*. There are also two COQUOS in those islands which are antidotes against poison, but they are small and round.

RUANO

Well tell me your opinion, and what you know of this.

ORTA

The common fame is that these islands were once part of the mainland; and from being low they enlarged and produced these cocoa-nut groves. These became very old, and were strongly fixed in the earth, which is now covered by the sea. These COQUOS have neither trunk nor leaves, so that

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it cannot be decided whether they are the same species or not; but it would seem that they are not the same, for they have different effects. When I find anything contrary to this, I will write to you in Portugal, if God should spare me so long. For I hope to know it all well when I go to Malabar, God willing. Afterwards I came to know that the COQUOS came fastened two in one, like the arch of a cross-bow; eventually they separated, and sometimes some of them come separated. The sea throws them on the beach. The COQUO is not so hard as that we see, nor so small and soft as the COQUOS of the palms which we eat.

RUANO

A modern doctor has said many things in praise of the palm of these COQUOS. In all he says the most notable is that the wine is made by pressing the COQUO, as I heard you say. For you told me that it is made by boiling and distilling as we make boiling water. Tell me whether this is true.

ORTA

He is wrong as regards the wine, and in the way he says that the honey is made, and in some other things that do not matter. To conclude with this COQUO of the islands, I say that they draw the pith out of the COQUOS, and put it to dry in the same way as the other product they call COPRA, and it becomes very hard, as you see. The heart of it is like cheese from sheep's milk and very good. That Portuguese, who is well acquainted with these islands, told me that no person had ever seen the tree on which these COQUOS grow, but that the sea throws them up. Any person who finds one on the beach and does not bring it to the king incurs the penalty of death. This gives the COQUO of the islands greater value. We will now drop this, and speak of the COSTO, which is more used in medicine.

SEVENTEENTH COLLOQUY

COSTO AND THE COLERICA PASSIO

RUANO



HE COSTO was much esteemed in former times and it still has its admirers. I shall receive great benefit by having the road opened for me which leads to the truth about this medicine; and I shall feel neither affection nor hatred for any one, of whatever quality he may be.

ORTA

I have no hatred except for errors, and no love except for the truth, and with this proposition I may tell you that I have not any doubt about this medicine.

RUANO

Well we have all; for Galen with all the Greeks, Pliny with all the ancient Latins, and all the Arabs give many kinds of Costo, yet the druggists in Spain and Italy, and in all other nations know of no kind but this of India. If there are others we have them not, either owing to want of care or avarice.

COSTO

ORTA

I believe that there is no other ; and of this one I will give you the names, and the uses that are made of it.¹

RUANO

I spoke, as a protest, that I may come with my opposition, when necessary.

ORTA

I say that in Arabic COSTO is called COST or CAST. In Guzerati it is UPLOT, and in Malay, where there is a great trade in it and it is much used, it is called PUCHO. I give you the name in Arabic, because it was known and used by both Greeks and Latins ; and in Guzerati because that is the land nearest to the native region of the plant, and in Malay because the greatest quantity is needed there, and for transmission thence to China.

RUANO

And does not the Indian COSTO grow in Guzerat ?

ORTA

It grows in regions which have often been subject to Guzerat, on the confines of Bengal, of Delhi, and of Cambay, that is, the land of Mandore² and Chitor.³ Thence come many carts laden with this and UPLOT, ESPIQUE, and TINCAR and many other articles of merchandize, which are taken to the principal city of the kingdom called Amedabar,⁴ which is in the interior, and also to the city of Cambayete which is on a bay of the sea. Thence it is distributed over the greater part of Asia, over all Europe and some parts of Africa.

¹ Costo, "Costus Arabicus," is the root of *Aucklandia Costus*, Falconer, *Aplotaxis auriculata*, DC., *Saussurea lappa*, C. B. Clarke, Compositae. Its Eastern names are *kushtha*, Sanskrit ; *kut*, Hindustani ; *pachak*, Mahratti ; *kost*, Persian ; and *kust*, Arabic.

² Malwa.

³ Rajput state of Mewar.

⁴ Ahmedabad.

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RUANO

How can they raise so many trees, for the part we use is the root?

ORTA

The smallest quantity is from the root, all the rest from the stem, and that from the stem is worth more than that from the root. The tree from which it comes has been compared to the elder. The flowers have a sweet smell. The appearance of it is white inside, and grey outside. Some of them are dark green and yellow outside. It gives out a very fragrant smell, and some people put it to their noses. Its strength causes headaches. The smell is not bitter, but rather sweet, and a little bitter when the flower is old. For when it is fresh the smell is sharp, as with other spices. They make a good deal into powder, when the smell is less and bitter; and this is the truth. The Indian physicians use it in many prescriptions. The merchants take it to Ormuz, whence it is carried into Persia and Coraçone. It is also taken into Persia and Arabia, by way of Aden, nor is much of this *COSTO* falsified there. They only bring a small quantity to Portugal, and it is believed that what they use in distant parts of Portugal is false, or something else is given for it.

RUANO

Serapio calls it *CHOST*.

ORTA

The word is corrupt, and in some books it is written *CAST* or *COSTUS*. The Arabs, as I have said, call it *CAST*, others *COSTO*, others *COSTI*; of this you need have no doubt.

RUANO

All mention three species: (1) Arabian which is white,

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light, and aromatic; (2) Indian black, light, and bitter; and (3) "Land of Syria," the colour of a stick of box-wood and with a styptic smell: Also Costo sweet and Costo bitter. Though I have not seen Costo (sweet) it must be in existence, seeing that doctors of such authority write concerning it.

ORTA

I asked many merchants of Arabia, Turkey, and Persia to tell me where the Costo that came from India was used, showing it to them in my hand. They all answered that the greater part was used in Turkey and Syria. The Arabs and Persians also told me that they made a profit by taking it to their respective countries. I then asked them whether they had it in their countries and they all answered in the negative. I asked the physicians of Nizamaluco, and they said that they had never seen any other Costo than that of India, and one of them was a physician of Xatamaz¹ and had been for a long time in Constantinople and Cairo.

RUANO

And what have you to say about the sweet and bitter Costo?

ORTA

You know very well that things when they become powder also become much more bitter, and the colour, which at first was white, turns black as the substance becomes corrupt, and in the meantime is yellow. As this Costo comes to us by a long land journey, some of it has not begun to decay, but some has decayed and has lost its white colour. This is called the bitter Costo, and the other the sweet Costo. As the merchants who take it for sale come from different parts,

¹ Shah Tahmasp of Persia.



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they take occasion to say that one sort is from Arabia, another from Syria, another from India; the truth being that all comes from India, the country where it grows.

RUANO

Laguna, a diligent writer, says that the druggists are worthy of blame who, through avarice or carelessness, do not procure the *COSTO* from Venice whence it comes from Alexandria, but use a medicine which is no more like *COSTO* than a quince is like a calabash. Others use the roots of Roman mint, and many herbalists in Spain told me that they had seen them so used. One showed me a shrub 5 *palmos* high and, reading from the book, we found what convinced us from indications in the same book.

ORTA

I say that Laguna is right. They bring the *COSTO* which has come from India to Venice, not adulterating it in the powdered state. For greater security and certainty it would be better to take it direct to Lisbon; which place it would reach in a more reliable way. For I have sent a quantity to the King in the year that the drugs were made; but little arrived there because the demand was not received nor was so much asked for. As for what you say about the herbalist in Spain who showed you the shrub of *COSTO*, neither you, nor the herbalist, nor the author of the book have seen the tree of *COSTO* at any time, so that you were all deceived. Forgive me for saying that a blind man, which was the *Pandetario*,¹ guided the herbalist and yourself. I say this because the tree of the *COSTO* is the size of a large arbutus, or an elder tree, or a juniper. And as for the bush, was the branch soft or slender or thick, and did the bark peel off well or not?

¹ Mattheus Sylvaticus, author of *Liber Pandectorum*, also cited in the Colloquy on Aloes.

COSTO

RUANO

It was soft, and the bark came off well.

ORTA

Well, this other is different, the branch is hard and the bark will not peel off.

RUANO

Might not this sweet COSTO be lost owing to the great distances and the time taken in traversing them?

ORTA

No, because the lands whence it comes are now discovered and better known, while the errors of the past are rectified, as well as the deceit of men who seek to get a higher price for their wares. They give different names to them, and say that they came from great distances. It is enough for us that there is no other COSTO than this, and that discreet and learned people use it and require much.

RUANO

Do you allege this of people very wild and barbarous like the Scitas Asianos?

ORTA

The Chinamen are very subtle in buying and selling, and in mechanical trades; while in letters they do not give the advantage to any others. They have written laws in conformity with common right, and others that are very just; as may be clearly seen from a book on the subject which is in this India. One of these laws is that a man may not marry a woman who is known to have another husband. The men who go to China learn to practise just ways. The Chinese give degrees and many honours to literary men, and it is such men

SEVENTEENTH COLLOQUY

who govern the land under the king. On the pictures that they design are painted the chairs and the men reading, and the audience listening to them.

RUANO

That is true, for when they invented that art I was in Hungary, or in the more northern parts, which they say are on the confines of China.

SERVANT GIRL

A boy has come with a message.

ORTA

Tell him to come in.

[*Enter a Page.*

PAGE

Don Geronimo sends me to request that you will come and visit his brother, and it must be soon, without waiting for the regular visiting time, for there is danger in delay; and my master will be greatly obliged to you.

ORTA

What illness has he, and how long has he been ill?

PAGE

He has the MORXI, and it is two hours since he was taken ill.

ORTA

I will come after you.

[*Exit Page.*

RUANO

Is this the disease that kills many people quickly, and from which few escape? Tell me what it is called with us, and by them, and the symptoms, and the remedy that is used.

ORTA

Among us it is called *Colerica Passio*. The Indians call it

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MORXI,¹ and we corrupt the word into MORDEXI. The Arabs call it HACHAIZA, a word which Rasis corrupted into SAIDA. It is more acute here than in our country, for it generally kills in twenty-four hours. I have known persons who have not lasted more than ten hours, and the longest endurance of it is four days. As there is no rule without an exception I have seen a man, with the gift of much endurance, who lived for twenty days, always vomiting *colera curginosa*.² Finally he died. Let us go and see this sick man, and you will see the symptoms, and have ocular testimony of what the disease is.

RUANO

Let us go.

[*Exeunt.*

Road to the patient's house. Enter ORTA and RUANO.

ORTA (*describing the symptoms*)

The pulse is very low, and can scarcely be felt. Very cold, with some sweat, also cold. Complains of great heat, and a burning thirst. The eyes much sunken. Vomits much, but so weak that he is unable to discharge anything. No sleep. Cramp in the legs. Follow after me, I will show you the way.

*Patient's room. PATIENT and DON GERONIMO discovered ;
to these enter ORTA and RUANO.*

ORTA

Much health from God for this house. How long is it since you were attacked (*to the Patient*) ?

¹ MORXI is the Mahratti *mordachi*, meaning "collapsed," and Gujerati *morch*, corrupted by the Portuguese into *mordexine*, and by the French into *mort-de-chien* ! See Yule's glorious *Glossary*, new edition, edited by William Crooke. Murray, 1903. *Hyza* is also a general Indian synonym of *mordachi*.

² The Portuguese editor is very doubtful about the meaning of these words, and suggests a typographical error. Query—*cholera sanguinosa*, "red-bile," as distinguished from "black bile," two of the four "natural humours" of ancient and of Indian, or surviving ancient, medicine.

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PATIENT

It must be two hours that I felt myself attacked, and I was in great consternation. I have vomited nothing but water, without any bitter taste nor acid smell.

ORTA

Have you any cramp in your legs ?

PATIENT

I have been taken with it three or four times, and I treated it with strong rubbing, the hands being dipped in warm grease of cocoa-nut. When the cramp returned it was treated again in the same way.

ORTA

What have you eaten to-day ?

PATIENT

I have eaten fish, rice with milk, and some cucumbers, so that what I threw up smelt of cucumbers.

ORTA

This case will brook no delay. Put chafing dishes and hot poultices to the body, and rub it with rough cloths. He must drink no water in any form. If it is necessary to quench thirst a little that has been boiled may be given. Cauterize the feet with warm iron ; and administer an emetic. Put on a purgative clyster. Send to the apothecary for these things. Anoint him with warm oil from the nape of the neck down the spine, and on the legs. When the emetic causes him to vomit, and the clyster has made him purge, send and tell me what passed. Tell me whether the vomit was in quantity, or what, whether the patient becomes warm, whether he has any cramps, whether the pulse gets stronger ; because we have to work in conformity

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with these symptoms. For in this disease the constant care of the physicians is necessary, and of the servants of the patient.

DON GERONIMO

All shall be done with all possible despatch. Here comes the druggist. [*Enter Druggist.*]

ORTA

Make, with all speed, an emetic of boiled water with barley, cummin seed, and sugar, for that has been found to be very good for this disease. The clyster should be of boiled barley, oil, and honey strained. The oil for anointing should be of castor and *ruda*, for all should be mixed, to draw out the poison. For food take a fat fowl, first taking out the fat, and give it between slices of quince; if there are no fresh ones use conserves, first washed in white wine, with a little cinnamon or rose water. The doctor who is now present knows better than any one what ought to be done, and he gives me his hand in this, as a man having experience in this country. As he is present I say that a partridge, either of Ormuz or this land, or a cock or hen of the woods would be better. In all this you can do as I said.

RUANO

Of all this you can speak, for it is a long time since we have known each other.

ORTA

May God grant health to this house; and do not omit to let me know what happens. [*Exeunt ORTA and RUANO.*]

RUANO

I am astounded at this disease, for though I have seen many patients with the plague, their cases have never been so severe and, for the most part, so serious. Why did he say that he had eaten cucumbers? I remember that the doctors

SEVENTEENTH COLLOQUY

say of some kinds of food that they become corrupted into a sort of poison. These are melons, cucumbers, and apricots, and that many get this disease after eating cucumbers. Yet this patient has done so frequently.

ORTA

Do you know in what way this happens? A gentleman, of great integrity, who had been suffering from this disease for thirty hours said to me, "Now I am not sick, I have no cramp in my legs, but I am unable to take breath, and this will kill me." I heard in what state he was, and that he was unable to take his breath.

RUANO

What men are most liable to take this disease, and at what time of the year is it most prevalent?

ORTA

Those who eat most, and those who consume most food. I knew a young priest here who died of eating cucumbers. Also those who have much intercourse with women. The disease is most prevalent in June and July, which is the winter in this country. As it is brought on by over-eating, the Indians call it MORXI, which means, according to them, a disease caused by much eating.

RUANO

How do the native physicians cure this disease?

ORTA

They give the patients rice water to drink, with pepper and cummin seed, which they call CANJE.¹ They cauterize the

¹ "Conjee" of Anglo-Indians, from Tamil *kanji*, "boilings," "rice gruel," "rice water"; the "ptisanarium oryzae" of Horace, *Satires*, ii. 3. 155; and Pliny, xvii. 7 (13).

COSTO

feet in the way I ordered to be done to that gentleman. They also throw long pepper into the eyes to try its strength. For the cramp they fasten up the head, arms, and legs with very strong bands down to the knees, and from the knees to the feet. They give him their betel to eat. All these things are not wanting in reason, though they are done roughly.

RUANO

And you, the Portuguese, what do you do ?

ORTA

We give them partridges and the best chickens to eat, or most of them ; and we also give them wine with cinnamon. Administering these things to eat, I do not usually give much food, but rely upon exterior applications, such as anointing the stomach with warm oil of gum mastich and spikenard. I work with much care to clean the stomach with lavatory medicines only and with clysters. The treatment is varied according to the nature of the patient and the course which the disease may take.

RUANO

Is it not necessary to assist nature which is blind and may turn towards poisonous humours ?

ORTA

Although this humour is poisonous, it is not infectious, yet it is good to throw it off soon, by evacuation and then by comforting the stomach with oil of cummin seed and powdered cinnamon ; but first discharging the greater part of the humour.

RUANO

Have you any specially tried medicine ?

SEVENTEENTH COLLOQUY

ORTA¹

There are some. *Triaga*, given with wine or rose-water or cinnamon, according to the requirements of the case. Also *Pao de cobra*, of which we have already spoken; or *Unicornio*¹ or powdered *contra erva* of Malacca, which is good also for wounds from poisoned arrows. But the best medicine of all is three grains of *bezar*² stone, which the Persians call *pazar*. It is of such use that it almost miraculously dilates the powers of the heart. I have had many patients who said to me after taking it, not knowing what it was, that the medicine they had eaten had given them renewed force, and made the soul return to the body. I did much good to the Bishop of Malacca by giving him *bezar* stone with treacle. After evacuating great part of the material, much treacle should be applied in clysters, increasing the quantity.

RUANO

I never saw treacle in clysters given in these diseases.

ORTA

It is conformable to reason to give them in poisonous diseases, as happened to me in curing an overseer of the King's revenue of a poisonous diarrhoea, to which my brother physicians did not wish to give their consent. But when they saw the good result they were pleased with it, and tried it on many persons afterwards.

RUANO

Are there any other diseases like this in India that destroy the vital force in the way this does, and what medicines are used for them?

¹ Horn of Unicorn, or "Asinus Indicus," was a drug of the older Pharmacists of Europe.

² Bezoar, from Persian *pad-zahar*, i.e. "antidote to poison," was at one time a famous alexipharmic.

COSTO

ORTA

Many men die with the vital force destroyed, owing to attacks of dysentery (the Indians call such infirmities *MORDEXI SECO*), and in these cases they use external remedies, such as wine with cummin seed, and over that oil of spikenard or castor. For food I give something warm, with more care for its sustaining power than for its quality. I do not like to use yolk of egg, because it will subvert and corrupt, and as we have already spoken of the *bezar* stone we need not revert to it.

Returning to the Costo, I say that Mateolo Sinense alleges that some hold the angelica root to be a kind of Costo, but that he has not given it or tried it. Those who use it instead of Costo have more reason than those who use Roman mint which, I say, is not Costo. It may be a better medicine.

EIGHTEENTH COLLOQUY

CRISOCOLA

RUANO



HEY will question me and examine me as to where TINCAL¹ comes from, and why it is called CRISOCOLA,¹ so it will be well if we make mention of it here, and of whence it comes.

ORTA

Yes. But these are prohibited drugs, and for little you will lose much.

RUANO

I do not want to take it, but I want to know whence it comes and its name.

ORTA

It is called BORAX and CRISOCOLA, and in Arabia TINCAR, as well as in Guzerat. It is very little used in Indian medicine,

¹ Chrysocolla, or "golde solder," or "terra viridis," or "greene earth" of our older Pharmacists is a bi-borate of soda, found in its crude form in Cashmere, Ladakh, and Thibet. Its Sanskrit name is *tankana*, in Hindustani *tangar*, in Arabic *tinkal*, and in modern European commerce "tincal"; taken, it is thought, from the people [the *Tάγγαροι* of Ptolemy], who import it into India on their little pack-ponies called *tangun*.

CRISOCOLA

or for skin diseases or surgery. Nor do we use it much, except in unguents, or for the teeth. As merchandise there is a demand in all parts, for gold and other metals to be well conglutinated. As to whence it comes, there is a mine or a mountain distant from the city of Cambayete about a hundred of our leagues, and it is brought for sale to Amadabar, and to the borders of Chitor and Mandou in great quantity, for in all those lands a great deal is used.

RUANO

About this there seems to be nothing more to be said. We will talk now about what you call AÇAFRAM DA TERRA.

ORTA

There is something to say of this medicine, as it is used by native physicians. It is a medicine and article of commerce which is taken much to Arabia and Persia. In this city there is little of it, but much in the Malabar ports of Cananore and Calicut. The Canarese call this plant ALAD,¹ and it is the same in Malayalim, more correctly MANJALE. The name in Malay is CUNHET, in Persian DARZARD, which means a yellow stick. In Arabic it is HABET. One and all declare that this AÇAFRAO does not grow in Persia, Arabia, or Turkey, but that all comes from India.

RUANO

This seems reasonable, for this medicine has a name in Arabic; and has not some Arabian author written about it?

ORTA

You have reason, but it is not my way to affirm anything

¹ Turmeric, the rhizome of *Curcuma longa*, called in Sanskrit *haridra*, i.e. "yellow-wood"; in Hindustani, *haldi* and *hald*; in Tamil, *manjal*; in Malay, *kunhet*; in Persian and Hebrew, *karkum*. The word "Turmeric" is a corruption of the French *Terre mérite*.

EIGHTEENTH COLLOQUY

without first seeing well to it. I hold it for certain that Avicenna writes of this AÇAFRAM DA TERRA in Chapter 200, calling it CALIDUNIUM or CALETFIUM. This Avicenna was a man who, when he did not know a thing well owing to its not belonging to his country, quoted the statements of others. Nor is it very inconvenient to find the Arabic word corrupted by him. The Arabs, like the Indians, call it ALED, and the name is corrupted by Avicenna into CALETFIUM. There is a further proof that this view is correct in the chapter on FEÇE DE CURCUMA or CURCUMANI, which is in agreement with it, and where you will see that what I say is true; for Avicenna, when he was doubtful about anything, made two chapters of it.

RUANO

It does not seem to me that this is right, for he says that what we know to be CILIDONIA¹ is MEIMIRAM.¹

ORTA

I do not hold it to be quite certain. For in these two chapters he makes the medicine yellow, and says that it is very beneficial in eye diseases. As these qualities agree with CILIDONIA it was said that this medicine was CILIDONIA; but there is much greater reason for the simples treated of in these two chapters being AÇAFRAM DA TERRA.

RUANO

But for what do they use it in those countries?

ORTA

To tinge and season their food, as well here as in Arabia

¹ "Mamiran," the *mamira* of the Indian bazaars, is said to be the root of *Coptis Teeta*, and also of *Thalictrum foliosum* of the Himalayas, and it has always been in repute throughout Southern and Western Asia as a sovereign remedy. Our old Pharmacists distinguished between *Chelidonium majus*, or "Greater Swallow Herbe," and *Chelidonium minus*, "Celondine the Lesse," or "Pilewort." The Arabs confounded the former with Turmeric.

CRISOCOLA

and Persia, like garlic or our AÇAFRAM; they use this as being cheaper. They also used AÇAFRAM as medicine for all sorts of things, for the eyes, and for the itch, mixed with orange juice and cocoa-nut oil. In these chapters Avicenna commends it for these properties, so it must needs be that he used it for them. Avicenna speaks doubtfully on the subject because it did not belong to his country, and he did not know it well. You may, therefore, look upon it as a good medicine to take to Portugal.

SERVANT GIRL

The *curcas* have come from Cochin. Does your worship wish that they should be dished up in tamarind juice with the fowl, or thrown into the mutton?

ORTA

In both cases you can use it, and meanwhile bring me a little green AÇAFRAM DA TERRA.

RUANO

What sort of things are these *curcas* of Malabar.

ORTA

They are white grains larger than filberts with a rind, and not so round. They are white, and are known to be cooked earth tubers. They have them in Malabar, where they are called CHIVIQUILENGAS, which means small yams. I also met with them in Surat and Cambay. Coje Çofar, a native of Apulha who had become a Moor, told me that there were many in Cairo, where they were also called CURCAS. In Cambaia, where he was, he told me that they were called CARPATA. They sow them in Malabar, where I saw them first, and they come up in branches. But as they do not

EIGHTEENTH COLLOQUY

concern the question of medicine let us pass on without saying more about them, and you will do well to return to that subject.

SERVANT GIRL

Here is the green and the dry AÇAFRAM and the root.

RUANO

First I would ask whether any writer, especially any Arabian writer, has written on the subject of this drug.

ORTA

I do not much wish to have a whole chapter on this medicine, but speaking generally, I find that Serapio mentions it, calling it ABELCULCUT, which is corrupted to HAB ALCULCUL, which is probably a corruption of CURCAS. I say this because HAB means great sowing in Arabic, and AL is the article in the genitive. I am also moved to think this because Serapio says there is much use for it in the *colerico passio*, and that the cultivation increases. The people of Malabar themselves also say these things, from which we gather that all these are one. Rasis also speaks of these CURCAS and calls them QUILQUIL, perhaps corruptly. So now look at the AÇAFRAM root, green and dry.

RUANO

Inside it is yellow and outside it looks like ginger. The leaf resembles that of millet but larger, and the branch is made of leaves. The root neither burns nor is very bitter when green, yet it burns, though its great humidity prevents one from feeling it.

ORTA

Try it when dry. The root burns, though not so much as

CRISOCOLA

ginger, whence I think it would not be bad to take it inwardly, and from this there can be no doubt that it is CURCUMA.

RUANO

I would make a request that you will take great care of this, and ascertain from the physicians what they know of it. I also see it to-day, but to-morrow we can return to the subject. This will be well, for what we do not know to-day we may know to-morrow.

ORTA

The more I hear of their discourses the more what I say seems to me to be true. For some say that CURCUMANI and MEIMIRAM is RUIVA DE TINGIR, and both roots seem to be one and the same.

NINETEENTH COLLOQUY

CUBEBAS

RUANO



He will talk of the *cubebas*,¹ although, as Sepulveda says, we very seldom use them by themselves, but only in compound medicines.

ORTA

It is not so in India. They are much used by the Moors in wine, and in their native land, which is Java, they are used much against chill of the stomach. You may believe that it is considered a very important medicine.

RUANO

I am surprised to hear you say so, for things that are most plentiful are the least esteemed.

ORTA

That rule is not without exceptions, for in Malabar there is much pepper which is taken all over the world, yet it costs as much in Malabar as in Europe.

¹ *Piper Cubeba* Linn., *Cubeba officinalis* Nug., of the Malay Archipelago.

CUBEBAS

RUANO

Tell me the names of this medicine.

ORTA

In Arabic it is *cubebe* or *quabeb* in the works on the subject, and hence QUABEBECHINI.¹ In Java it is called CUMUCOS or in the singular CUMUC, among all other Eastern people, except those who talk Malay, it is CUBABCHINI.

RUANO

Not only in Malacca is it known but also in China, for it is there called "of China."

ORTA

It is not grown in China, but it is brought there from Java and Sunda. As I have told you, the Chinese navigate the Indian Ocean and bring merchandise from where they find it in their voyages. Those of Goa and Calicut, the Guzeratis and Arabs hear it called CUMUC, which they corrupt into CUBABCHINI because the Chinese bring it, and this is the true origin of the name.

RUANO

I wanted to hear about the shape and form of the tree, and you only tell me of its origin. Do you not consider that there is more than one kind, for I have heard that there are many species?

ORTA

The tree is the size of an apple tree, and the leaves climb upwards like the pepper leaves, or, to make myself clearer, they creep up the tree like ivy leaves. The tree is not like a myrtle, nor are the leaves of that shape, but they are like the leaves of the pepper, the leaves of the *cubeba* being

¹ *Kababchini*—"Chinese Cubebs"—is the general Indian name of this drug, and *kababa* the Arabic, and *kumunkus* the Javanese. It is the "Carpesium" or "Cubebes" of our older Pharmacists.

NINETEENTH COLLOQUY

narrower. They grow in clusters, not collected together in one cluster like grapes, but each one hanging from its stem. These *cubebas* are so highly valued in their own country that they are gathered there first, and sent away, and this because they do not come up when sown in other lands; and this may be why they decay in Europe and in India. I received this information from Portuguese worthy of credit, who had resided for a long time in the island of Java.

RUANO

May it not be another kind of pepper?

ORTA

No, it is not, for in Sunda the principal article of commerce is the pepper, which does not compare to a disadvantage with that of Java scarcely in anything. But this tree and its fruit are different. In Sunda itself, although they take it to China, it is in very small quantity for medicine, and not to eat as is the case with pepper which occupies twenty ships at least in the China trade. And these trees have flowers which smell sweet.

RUANO

Mateus Silvatico says, on the authority of Serapiao, that what the Mauritanians call CUBEBAS is the *mirtus silvaticus* of Dioscorides, and that the description of Galen touching *cubebas* shows them to be the *mirto agreste* of Dioscorides. How is it that none of them speak of the *cubebas* except that Galen treats of *cubebas* in *carpessio*,¹ and Dioscorides in the chapter on *mirto agreste*?²

ORTA

Does it not appear to you that Galen and Dioscorides may

¹ See footnote on previous page.

² The Greek and Latin writers had no knowledge of this drug. It was first made known by the Arab.

CUBEBAS

not have exhausted the subject, that they left many things unwritten about because they had not come under their notice? Serapio and the other Arabians speak of the medicines of India, and how does it seem that they profited by some medicine referred to by the Greeks? They would say that it is a medicine which is used by the Indians, and which the Greeks called by such a name. They might be mistaken from not knowing the Greek language very well. For this reason Serapio errs in what he says, and also the *Pandetario*. To this cause much may be attributed, for otherwise faults might be fixed on Galen and Dioscorides. For they have left many things to write about, as Avenrrois says in 5 of *Coliget*. It is clear that CUBEBAS is not *mirto agreste*, because the *mirtus silvestris* is called *ruscus*, and those who are not very good at Latin call it *bruscus*, which is a known plant whose root enters into the syrup of roots. The same view was taken by Ruelio, a diligent new writer. Besides this, *mirtus agrestis* has no smell while the CUBEBAS have a very good aromatic smell. The CUBEBAS do not have grains inside and the *mirto agreste* has them and are sweet, while the CUBEBAS have a sharp smell. I can also prove that the *carpessio* is not the same as CUBEBAS. It does not follow that it is more inconvenient that Galen should not write of CUBEBAS; it is not inconvenient, for the CUBEBAS grow on islands very distant from where he lived.

RUANO

I give the reasons for it. For Ruelio who was so learned, and the Italian Friars¹ who wrote the book on drugs, and who were so curious and such good druggists, did not hold *carpessio* to be anything else than the CUBEBAS of Serapio and Avicenna. For in the prescriptions where Galen put *carpessio*

¹ The Minorites, Fra Bartolomeo and Fra Angelo Palla, who published at Venice in 1543 some commentaries on drugs.

NINETEENTH COLLOQUY

Serapio and Avicenna put CUBEBAS, therefore the intention of all was the same.¹

ORTA

I do not say to you that Serapio erred in this, and it would not be much blame if he did, for he was a mortal. For the reason I have already given there were errors. Galen and Dioscorides had to write of all, and not to leave out anything. Now you say that it is no marvel that Avicenna should be mistaken also. So that Avicenna and Serapio might know this medicine, and not well understand Galen or Dioscorides. Ruelio says that there is better *carpesio* in Pontus, and that there is much in Syria, referring to Autuario. Tell me, for the love which we have for each other, when were CUBEBAS ever heard of in Pontus, Esclavonia, or Syria! It is taken there from India, as a merchandize yielding much profit. The Turks and Persians use a good deal of it, but very little reaches Portugal.

RUANO

May the *carpesio* be the *mirto silvestre* of Dioscorides?

ORTA

Neither one nor the other, for Galen says in the book of antidotes that there are some *festucas*; and you know that CUBEBAS and *mirto agreste* have fruit like nuts, so how can they be all one? For I assure you that only the fruit comes from Java without *festucas*, nor are there many species, but only one, nor is the tree cultivated but wild. I should not look upon it as inconvenient if it was planted in other lands with the same climate.

RUANO

The Friars say that the CUBEBAS are of different kinds,

¹ "Carpesium" is with all the older Pharmacists a synonym of "Cubebes." It is now the name of a genus of the Compositae. See footnote, p. 169.

CUBEBAS

some without taste, others bitter, and that they have others which are much better in their dispensary.

ORTA

I say that those without taste or bitter are corrupt, and that the others will have been more recently gathered and better preserved. There are many fault-finders saying that there are other species. I reply that this may be so, but that I have never seen, up to this day, more than one species, nor have I seen any one who has seen another.

RUANO

There are not wanting those who say CUBEBAS are *semente de vitice*.

ORTA

This is another new doubt. They say this because one species of *semente de vitice* has the taste of pepper, and these CUBEBAS have almost the same taste. But this is false because the *vitex* is *agnus castus*. As for what Antonio Musa and Serapiam say, that we want CUBEBAS, it would be better to say that they are mistaken in identifying it with *carpessio* and *mirto agreste*. What the Pandetario says, that CUBEBAS are called *cauli* by Galen, is also false, for that is a species of wild *dauco*.

TWENTIETH COLLOQUY

DATURA AND THE DORIÕES

Enter a Servant Girl

SERVANT GIRL



PLEASE, Sir, a negress of the house gave my mistress DATURA¹ to drink, then took her keys, and the jewels she had on her neck and in a box, and ran away with another negro. Will you please come and succour my mistress?

ORTA

How do you know this?

SERVANT GIRL

Because they have just caught the negress in the Passo-Seco, and found half the jewels on her, and she confessed that she gave the other half to her friend who went in the direction of Agaçaim. It may be that he too has been caught.

ORTA

Let us go and see this woman, who is an unmarried half-

¹ The drug DATURA (*datura* is its native Indian name) consists of the leaves of *Datura fastuosa*, Linn. vars. *alba*, and *D. Metel*, Solanaceae. The leaves of *D. Stramonium* and *D. Tatula* are used as cigarettes in cases of asthma.

DATURA

caste. You will be interested. Those who take this medicine lose their heads. They always laugh and are very liberal, for they let people take such of their jewels as they choose, and only laugh or speak very little, and that not to the purpose. So that a robber has only to give this medicine in the food and the effect lasts twenty-four hours.

[*Exeunt* ORTA and RUANO.]

House of PAULA DE ANDRADE, *who is discovered seated.*

Enter ORTA and RUANO

ORTA

God preserve you, lady.

PAULA DE ANDRADE

Im Im Im.

ORTA

Have you no answer to give me? How is this?

PAULA DE ANDRADE

Im Im Im.

ORTA

Rub her legs very hard and continuously with some coir and apply a clyster, also administering an emetic for which I will write prescriptions. If she is not better after two hours she must be bled.

The natives of this country do not consider the taking of this to be dangerous, and many take it as a joke. I saw two men, the younger of them being over fifty, to whom the sons of Nizamoxa gave it for fun. One was a huntsman and the other was a master for making bows and arrows; and both were cured without afterwards feeling any the worse in head or brain.

RUANO

Let us give it to one of your servant boys or girls.

TWENTIETH COLLOQUY

ORTA

No. It would be against my conscience to do such a thing.

RUANO

Send me to seek for this herb.

ORTA

I will show it to you in the country as we ride. Meanwhile you must know that it is a tall plant with leaves the shape of *Bronca ursina*. The leaves are not very large and pointed at the end, making a prick like a lance, and round the leaf there are similar points. The leaf is set on a thick stalk, and has many nerves spread over its surface. The flower, which comes from the branches, is like the rosemary in colour. They are rounder and not so much the shape of a cube. They use this flower much, or the seed which is enclosed in it. The taste of the leaves and stalks is rather insipid with much humidity, and a little bitter. The smell is like raddish, but not so strong; whence I should think that it was vaporous, with some poisonous qualities. Girl! take this prescription to the apothecary, and tell him to make it up with all possible despatch. You others! mind you come and tell me what happens. Now let us go to dinner.

RUANO

Talking to a man who had been a long time in Malacca he told me that the best fruit there was in the world was one they called DORIÕES, and I remember that you have some practical knowledge of it.

ORTA

I have not tasted it, and of the men who have tasted it some say that it is good and others say the contrary, namely that the taste is not so good as that of melons. They say

DORIÕES

that at first it smells like onions, but that afterwards one begins to like it, until at last the taste seems very good. They say that a merchant came to Malacca and met one laden with merchandize and that he sold only DORIÕES.¹ This was told to me, but I do not know whether it is true or false. But in Malacca there are very good fruits such as grapes and mangos, which are not esteemed so highly as DORIÕES. But we should not waste our time over it, but dismiss the DORIÃO in few words, as it is not an article of medicine.

RUANO

They praise this fruit to me so much that I felt obliged to speak to you about it.

ORTA

The DORIÃO is a fruit about the size of a melon, and it has a very thick rind covered with small excrescences, so that in Goa we call it JACA. This fruit is green outside and has chambers within like rooms, and in each room a separate fruit. In colour and taste it is like white food. Its smell is universally praised. The fruits are the size of a small hen's eggs, when they are divided. Some are not white but a clear yellow. The flower is white rather inclined to yellow, and the leaf is the size of the palm of my hand, sharp pointed, green outside and a darker green underneath. A hidalgo of this country told me that he remembered reading in a Tuscan translation of Pliny "*nobiles duriones.*" Afterwards he asked me to find the words in Latin, but up to the present I have not found them. If I should do so I will write.

¹ The Durian, the *du-yen-yaing* of Burmah, *turien* of Siam, and *dourian* of the Malay Archipelago, is the fruit of *Durio zibethinus*, Linn., a Sterculiad. *Artocarpus integrifolia*, Linn., the *jaka* of India, bears the "Jack fruit" of Anglo-Indians.

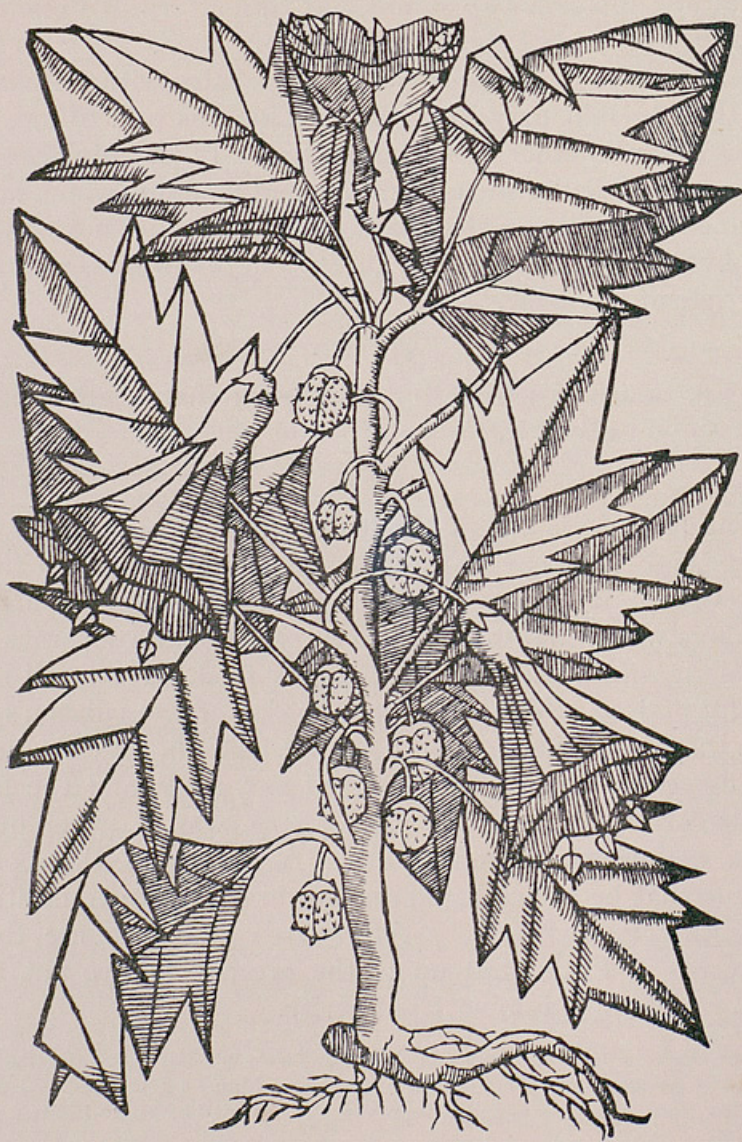


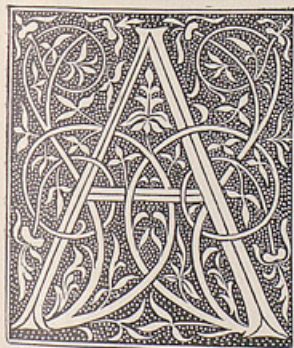
PLATE VII.—DELA DATURA.

TWENTY-FIRST COLLOQUY

IVORY AND THE ELEPHANT

It is a colloquy which does not refer to medicine, but to pass the time.

RUANO



S the bones of elephants are used in medicine it will be well if we discuss them and the elephant.

ORTA

Much has been written about the elephant; still there is a great deal to say, and something to wonder at, so that one ought not to want material for conversation on the subject. Beginning with the ivory, I must tell you that no elephant bone is ever used in medicine or in industry, only the teeth. Do not be deceived by those who write of *espodio*, saying that it is the burnt bones of the elephant, before you have made certain that it is not so, if God grants the time for this and for other things. I note this because, as regards the elephants which die here, the people make no use of the bones, but take the flesh to eat, and the teeth for objects of art.

RUANO

Do some have horns?

TWENTY-FIRST COLLOQUY

ORTA

No, for what we see is all from the teeth and pieces of them, and each elephant has not more than two tusks. The nails are not made use of, although Paulo Egineto says that they are. The elephant wants only the power of speech, to be a rational animal. More than that, in Cochin there is an instrument with which it says two words.¹ When the elephant had to eat, its master (called NAIRE in Malabar, and in the Deccan PILUANE) said that he had not a good caldron to boil the rice, and that the elephant should take the caldron to the *almoxarife*,² and that he would order it to be mended. So the elephant came with the caldron on his trunk, and the *almoxarife* told the NAIRE to take it to the caldron-maker, who would mend the bottom only, where it was damaged. The elephant took it to the house, but in cooking the rice, the water leaked out because the bottom was not properly soldered. Then the *Naire* gave it to the elephant, and the elephant took it back to the caldron-maker, who took it and mended it. But the workman left it worse than it was before, giving it a few blows with a hammer. Then the elephant took it to the sea, and put it in the water, looking whether water came out of the bottom. And as he saw that it did, he took it back to the caldron-maker, making many trumpeting at the door, by way of remonstrance. Then the caldron-maker mended it and soldered it well. The elephant returned to the sea to try it, and found it to be all right. Then he took it to the house, and made it ready to cook with. No man could show more sense. This happened as I say, and to-day there are witnesses who saw it, and many others who have heard it at first hand.

¹ The words were probably rice and betel. For Damian de Goes related that when Diogo Reveira was at the city of Bijayanagar he saw an elephant writing with the end of its trunk. He afterwards asked it what it would eat, and it replied in a clear voice, "Rice and betel."

² In Portugal the office of the *almoxarife* was to collect the royal dues. From المشز eminent, honoured.

IVORY

RUANO

What is the word for an elephant in Arabic and in India ?

ORTA

In Arabic it is called *FIL* and the tusk *CENALFIL*. In Guzerat and the Deccan *ATI*, in Malabar *ANI*, and in Canarese *AÇETE*. In the language of the Kafirs of Ethiopia *YTEMBO*. No one calls it *BARO*, as Simão Genoes says, for he tells stories with many lies. The Indians do not use it in any form for medicine, only the Turkish and Arabian physicians, who cure by following Avicenna.

RUANO

In this country they use, for the fine arts, a quantity of ivory which comes from Sofala, and they tell me that it also goes direct to Portugal as merchandize ordered by the King.

ORTA

You must know that from Ethiopia, that is from Sofala and Melinde, there comes to India every year 6000 quintals besides what goes to Portugal, which is very little in comparison. Besides this there are elephants in Malabar, but few and not tamed. In Ceylon there are many and very well trained, indeed the most valued of any in India. They are in great numbers in Orissa in Bengala and Patani, in the Deccan, and in the country of Cotamaluquo¹ which borders on Bengala. They also have them in Martaban, Pegu, and Siam, and they say that the King of Siam has a white elephant, and has the honourable title of King of the White Elephant. I know not whether this is true.

RUANO

You have not solved my doubt as to where so much ivory is used up.

¹ Golconda.

TWENTY-FIRST COLLOQUY

ORTA

Some ivory is used in China, where the demand is increasing. In Ceylon it is used largely for many things and is highly polished, such as boxes, combs, and many other things, also in Pegu. Of the 6000 quintals that come from Sofala, all is used in Cambaia, except the small quantity that goes to China. This is used every year.

RUANO

The supply is such that if you had not stated it I could not have believed it.

ORTA

You must know that the Devil puts a certain superstition in the minds of the wives and daughters of the Banians, being those who live according to the pitagorico custom. It is that, when any relation dies, the women break all the bracelets on their arms, numbering twenty or more, and presently have as many new ones made; and these bracelets are of ivory, except a few of tortoise shell. The Devil has arranged this in order that the ivory which comes annually from Ethiopia may be wasted, and always will be wasted while this superstition lasts. This ivory is valued according to the size of the tusks, for small tusks are worth little, and large ones have a high value, weight for weight. They also make other works of art from the tusks, but in smaller quantity.

RUANO

I am astonished at this superstition. I am told that the tusks of elephants grow again after they have fallen out; because I do not know how there can be so many elephants in the world.

ORTA

You have much reason in that. The elephants are long lived, but none have more than two tusks and do not change

ELEPHANTS

them; and the females do not have tusks. In Ethiopia the Cafres kill the elephants to eat their flesh raw, and sell the tusks to us. The elephants are caught by traps made with trees and in other ways. It may be presumed that there are more elephants in Ethiopia than cows in Europe.

RUANO

Of what illnesses do the elephants die, and what use is made of them in these lands?

ORTA

They are very melancholy and in much fear, more so at night than in the day-time. When they sleep at night they seem to see dreadful things. The cure for this is that their Naires should sleep on them, and always be asking them why they do not sleep. They are subject to fits of fury, when they break their chains and do much harm along the road they pass. The Naires cure this by taking them into the country, calling them many bad names and abusing them for their folly. For other ailments they take medicines peculiar to this land. As for their uses, they work at drawing and moving artillery from one side to another. They serve the kings in their wars; some kings have a thousand elephants, others less, others more. They go to war armed, especially the head and breast. Small bells hang along their sides, and iron points are fixed upon their tusks. Castles are fixed on their backs in which the Naires sit who guide them, and in which are placed battle axes, hooks, and other muniments. I have seen them in battle, and the mischief they did was to throw the enemy into disorder and sometimes to put them to flight. They tell me that they often take to flight themselves, when they do more harm to their own people than to the enemy; but this I have not seen.

TWENTY-FIRST COLLOQUY

RUANO

Have they any other way of fighting ?

ORTA

Yes. They fight each other with their Naires, who teach them and guide them from above. It is a very cruel battle, fencing and wounding each other with their tusks. They fight with great bravery, and they often deliver such tremendous blows, one on the other, on their foreheads that they fall dead on the ground. A Portuguese of credit told me that he saw a very powerful elephant fall dead in an encounter with another. They also fight when inebriated, and have taken men in their trunks and torn them to pieces, which I have seen on several occasions.

RUANO

Pliny says that their blood is useful for several things as well as the liver and scrapings from the ivory.

ORTA

This may well be true, but they are not used.

RUANO

They say that the elephant sleeps with the female elephant, like a man with his wife, different from other quadrupeds.

ORTA

The truth is that their habits are the same as those of other quadrupeds. The only difference is that the male rests on a higher bank and the female on a lower one. I have been told this by Portuguese worthy of credit. I have seen elephants, but I have not seen them with their females ; only this is what I have heard.

ELEPHANTS

RUANO

Pliny also heard that the souls of elephants drew serpents out of their places.

ORTA

I cannot say how that may be, for I have neither seen nor heard anything of it.

RUANO

Pliny also says that the elephant, when he eats poison, seeks for an antidote to cure himself.

ORTA

I have not seen this and have no knowledge of it, nor have I ever heard of it in Ethiopia where the elephants most abound.

RUANO

Pliny also writes that the best elephants and the most warlike are in Taprobana, not in India.

ORTA

If by Taprobana Ceylon is to be understood, as some maintain, the elephants there are the best and the best trained. If by Taprobana Sumatra is intended, elephants are there but not so good as those of Ceylon. Very often men think that a thing comes from one land, when it comes from another more distant. For instance many believe that the best *lacre* comes from Sumatra, and hence the name *locsumatri*, but the best *lacre* does not come from there, but from Pegu; and so it may be with the elephants of Sumatra.

RUANO

Are they capable of understanding the language of their country, as Pliny relates?

TWENTY-FIRST COLLOQUY

ORTA

Not only of their own country, but they can also be taught that of another land. The elephants brought from Ceylon to Guzerat and the Deccan can easily be made to understand their masters, and some that are taken to Portugal soon learn Portuguese. I will show you some in India that understand. They are so covetous of glory that if one is told that he is the king of Portugal he is much pleased. They are ashamed of anything wrong that they do. They are grateful for kindness shown to them. They are vindictive if injuries are done to them. I remember what happened at Cochin. An elephant threw some cocoanuts to a man, and the man broke them on the elephant's head. The good elephant kept the rind of the coconut in his mouth, holding it in one cheek. Seeing the man who had done him the injury, he drew out the coconut husk with his trunk, and afterwards he carried the coconut husk in his cheek, as much as to say, I remember the injury you did to me. By this you can see that the elephants have memories.

RUANO

Pliny says many other things about them, for instance that they make war with the rhinoceros over their pastures.

ORTA

These rhinoceroses are in Cambaia where it borders on Bengala and Patani, and they are called GANDA. They are not so good or so gentle as the elephants, and for this reason they are not so well known, for it stands to reason that animals so large and fierce should not be liked. When I write of the *licies* I will revert again to this animal and relate all I know. Pliny also says that a headache is cured by putting a poultice of barley on it. But there is no barley in Ethiopia, whence the greatest numbers come. Of the other places there are

ELEPHANTS

some from Bengal, and a small quantity from Cambaia. So that I do not know how he can have tried it, although I know that the tame ones might make use of it.

RUANO

How are the elephants tamed and taught ?

ORTA

The newly caught are tamed with whips, and with shameful words, and with hunger ; then with good treatment as reward for good behaviour. They tell me that to tame the large ones in Pegu, they put them into large houses with many small doors, and prod them through the doors with swords and spears. Then they go in to them when they are tired, wounded, and starving, and when the elephants, badly wounded, lie down on the ground, they make friends and become masters. They wash the wounds and dress them with oil, and give them food. First with wounds and starvation, then with kindness, they succeed in taming them. I wish to tell you these things about the elephants because they are the most certain. Pliny relates many more.

SERVANT GIRL

Please, sir, Micer André Milanes, the lapidary, has called.

ORTA

Ask him to come in.

Enter ANDRÉ MILANES

I kiss the hands of your worship.

ORTA

And we kiss yours.

TWENTY-FIRST COLLOQUY

ANDRÉ

Do you wish to sell your great emerald or the smaller one? for I am ready to buy both. The small one is the finest.

ORTA

I will sell all, and I will show you both if you will tell me who is the buyer. This I will confide to your faith, that you will only show them to the buyer or to his agent, and that you will return them to me at once if he does not buy. Now tell me, did you see elephants caught and tamed when you were in Pegu?

ANDRÉ

Twice. The first time when the King and all the kingdom hunted, upwards of 200,000 people. They formed a circle, making it smaller and smaller, catching a great number of deer, pigs, and tigers, many alive, and others wounded or dead.

ORTA

I have seen Nizamoxa hunt in the same way, and take a great number.

ANDRÉ

Then 4000 elephants were surrounded—females, males and young. They were all let go, except 200, so as not to denude the forests of them. I saw this, and the 200 were tamed by encircling them with beams, and making the circle smaller and smaller, and the barrier stronger, until the space was only large enough for the elephants to stand in. Then cords were passed between the beams, and round the legs and tusks, so that they could not move. Then two cords were passed round each, and they were wounded until they wept tears, which I saw. On each elephant his master then mounted, taking

ELEPHANTS

the ropes from its feet. If they gave trouble they were wounded and starved. When they submitted their wounds were dressed and they were given food. Taking them out, each one was placed between two tame elephants to give it counsel, and in this way all were tamed.

ORTA

I had heard of this way of taming, but I did not know that there were so many to hunt in Pegu and Ceylon; and I have heard that there is another way of hunting. Do you know it?

ANDRÉ

The King received news of a very great elephant that ranged the woods, and he sent to it some of his elephants which were very tame and domesticated. He told their masters that he did not want them to go with the elephants, but that they were to keep near. The elephants came on, the females in front, and the wild one followed, feeding as it went, until it came into Pegu, which is a great city, and there it was enticed to a place where it was enclosed and the females left it; and it was tamed in the way which I have already described.

RUANO

This is very well, but Pliny says that when they meet pigs in the forest the elephants turn back and are frightened.

ORTA

I already know the contrary; for in the close places of elephants there are pigs and the elephants take no notice of them. In the woods of Malabar there are many pigs, where there are few elephants, and it is not said that they have any fear. It is true to my knowledge, what Pliny says, that they detest rats, and when there are rats where the elephants sleep,

TWENTY-FIRST COLLOQUY

they sleep with their trunks coiled up, that the rats may not bite them. For the same reason they dislike ants. I request that you will see to the sale of my emeralds, and now let us go to dinner. Do not think I am frivolous in talking so much on this subject, for Mateolo Sinense, a learned man, talked much of elephants, and not with so many truths as I have related.

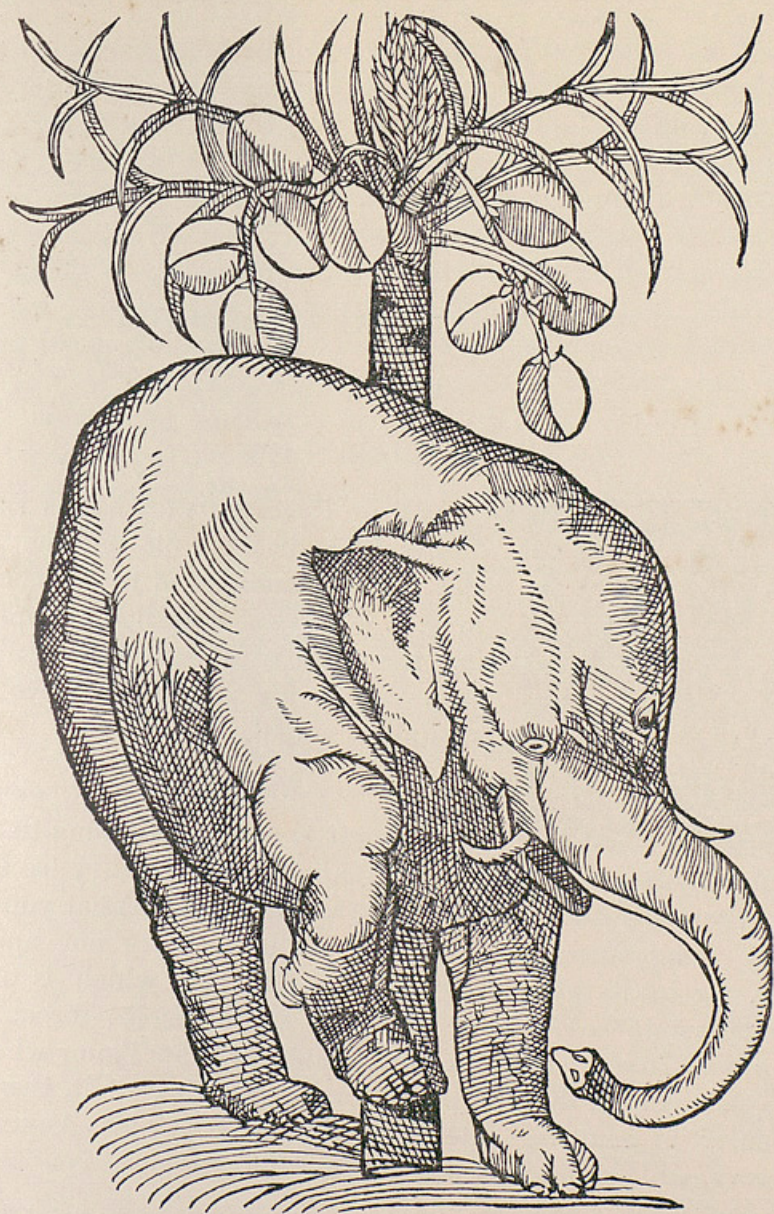


PLATE VIII.—ELEPHANTE ARRIMADO A LA PALMA.

TWENTY-SECOND COLLOQUY

FAUFEL¹

RUANO



WE speak in Portugal of what is called "nuts of India." You tell me that the *betre* is much used by everybody here. We use it very little. Speaking the truth with you, I have never seen it, for we put in its place the vermilion sandal.

ORTA

Here it is a common thing to mix the food with the *betre*, and in countries where they have no *betre* they also use it for chewing with *cravo*. What you say about using vermilion sandal in its place does not appear right, for in its place they have a medicine which is often falsified, and they give a vermilion stick for it; for as the vermilion sandal wants the smell, and is not in Timor whence the other comes, as I will tell you in speaking of it, there is difficulty in knowing one from the other. This ARECA is more valuable and is less perishable. The reason it is not sent

¹ *Areca Catechu*, the *supari*, or Betel-nut Palm of India, *faufal* of the Arabs; the nut of which is chewed with the leaf of *pan* or *Piper Betel*, and a little finely prepared lime, as a masticatory, throughout India.

FAUFEL

to Portugal is that the apothecaries do not ask for it, for neither they nor the physicians are sufficiently curious to trouble about it. I will now tell you the names it has in the countries where it grows. Among the Arabs it is FAUFEL. Avicenna calls it corruptly FILFEL. It has the same name in Dofar and Xael, Arabian lands. The FAUFEL¹ is very good. In Malabar they call it PAC, and the word for it among the Naires, who are the knights,² is ARECA, whence the Portuguese have taken the name, being the land first known to us, and where it abounds. In Guzerat and the Deccan they call it ÇUPARI, but they have very little, and only on the skirts of the sea. There is a better supply at Chaul because of the trade with Ormuz, and still better at Mombaim, land and island, where the King our Lord has made me a grant, a long lease (*emfatiota*). In all that land of Baçaim they are very good, and they are taken thence to the Deccan; and also to Cochin they take a small kind called CHACANI, which are very hard after they are dried. In Malacca there are not so many, and they are called PINAM. In Ceylon they are in greater quantity, and they are sent to parts of the Deccan, namely to Golconda and Bisnaga, also to Ormuz, Cambaya, and the Maldive Islands. The name in Ceylon is POAZ.

RUANO

Serapio says that this *areca* is wanting in Arabia.

ORTA

That is true to a great extent, for Arabia is a vast region, and there is *areca* only at Xael and Dofar seaports. For this tree loves the sea and will not thrive at a distance from it. Where it will grow they do not fail to plant it, for the Moors and Gentios do not let a day pass without eating it. The Moors and Moalis (who are those that follow the law against

¹ *Faufal* is the Arabic name; *paku* the Tamil; *poka* the Telugu; *adikai*, whence our "Areca," the Canarese; and *puvak* the Cingalese.

² Cavaliers.

TWENTY-SECOND COLLOQUY

Mafamede¹) keep a feast or fast of ten days, when they say that the sons of Ali, son-in-law of Mafamede, were besieged in a fortress and died. During the ten days that they were besieged, they sleep on the ground, and do not partake of *betre*.² In these days they chew cardamom and areca, which is much used to chew, as it clears the stomach and the brain.

RUANO

Now tell me how the *betre* is used, how it is administered, whether to help or to rectify.

ORTA

The *betre* is warm, and the *areca* is cold and temperate. The lime they use with the *betre* is much warmer. They do not use our lime from stone, but a lime made from oyster shells which is not so strong. With the *areca* they mix the medicines, you see, because they are cold and dry, and much drier when not dried in the sun. Then they add the *cate*, which is a medicine I have mentioned before; because with the *cate* it is a good medicine to open the gums, fortify the teeth, and compose the stomach, as well as an emetic, and a cure for diarrhœa. The tree from which it is collected is straight and very spongy, and the leaves like those of our palm trees. Its fruit is like that of the nutmeg, but not so large, and very hard inside, with veins white and vermilion. It is the size of the small round nuts with which the boys play. It is not exactly round, for it has a band round it, though this is not the case with every kind of *catechu*,³ for I must not deceive you. This

¹ Muhammad. They did not follow any law *against* Muhammad, but were of the Shiah sect.

² See footnote, p. 192 *supra*.

³ The drug "Catechu" is prepared (1) from the leaves of *Uncaria Gambir* (Rubiaceae), of the Indian Archipelago, this variety being known also by the names of "Terra Japonica," "Catechu pallidum," and "Gambir"; and (2) from the heartwood of *Acacia Catechu*, of India, this variety being known by the names of "Catechu nigra" and "Cutch," these names being corruptives of Indian name of the tree, *katha-kikkal*, the "Catechu Acacia." *Katha* means "strong."

FAUFEL

fruit is covered with a very woolly husk, yellow outside, so that it is very like the fruit of the date palm when it is ripe and before it becomes dry. When this *areca* is green it is stupefying and intoxicating, for those who eat it feel tipsy, and they eat it to deaden any great pain they have.

RUANO

How do these Indians eat it, and how do they prepare the medicine?

ORTA

It is usual to cut the *areca* into small pieces with some large scissors they have for the purpose, and then they chew them, jointly with the *cate*. Presently they take the leaves of the *betre*, first pulling out the veins with their thumb nails, which for this are cut to a fine point, and they do this that it may be more tender, and then they chew it all together. They spit out the first, after the first chewing, and then take more *betre* leaf and begin another chewing, expectorating what looks like blood. In this way the head and stomach are cleared, and the gums and teeth strengthened. They are always chewing this *betre*, and the women worse than the men. The lords make small pills of the *areca*, mixing it with *cate*, camphor powder of *linaloes*,¹ and some amber, and this is made for the *areca* of the lords. Serapio says that in the taste with the warmth there is some bitterness. I tried this and found it with scarcely any taste. Serapio did not know this *areca* and could not ascertain the taste.

RUANO

Silvatico says that he has seen it, and that it was mixed with the cinnamon of Calicut.

ORTA

It may be that the Moors of Calicut take it to the Strait, and

¹ Lign-Aloes, Agallochum, "Eaglewood," or Calambac, the fragrant wood of *Aquilaria Agallocha*, Roxb. (Thymelaeaceae), of Assam, Bhutan, and Burmah.

TWENTY-SECOND COLLOQUY

that it may come mixed with cinnamon, but it was not the cinnamon of Ceylon. That of Calicut is much more black, and is called *checani*. That of Ceylon is whiter, and once seen is easily known.

RUANO

Do you know whether it is used for anything else, besides what you have described?

ORTA

I order this water to be distilled, and in secret I use it to cure choleraic diarrhœas, and it works well.

RUANO

This profits me little, for in Spain we cannot have it green for distilling. It must now be dinner-time.

ORTA

Be it so. We will go and wash our hands.

RUANO

One thing surprises me. It is that we always eat the figs¹ on the table and always know them well; but it is unknown to me whether they come by sea, seeing that you have such abundance on your table. It seems to me to be a very good fruit, and I do not get tired of it. It will be well, talking and eating, if you would tell me their names in all languages, what kinds there are, whether they do any harm, and your own opinion about them. For I know well that neither Dioscorides, Galen, Paulo, nor the Arabs mention them.

ORTA

I beg your pardon, Avicenna, Serapiam, and Rasis all

¹ He means Plantains, the fruit of *Musa paradisiaca* of India, the *kela* and *keli* of Western India, and *pisang* of Malaya. Its generic name is formed from the Arabic *mauza*, "taste." The West Indian Plantain [Banana] is obtained from *Musa sapientum*. "Paradise" is, ultimately, the Sanskrit *para-desha*, a "far-country." Compare the "parvis" in front of churches.

FAUFEL

write concerning them, and others have written on the subject whose works I have not seen.

RUANO

You tell me much, and I shall rejoice to hear about them.

ORTA

I sought for knowledge on this subject, and found it. In Canarese, Deccani, and Guzerati, and in Bengal they are called QUELLI, in Malayalim PALAM, and in Malay PIÇAM. For they are in all those countries, and have names, as well as in other lands. The Arabs call them MUSA, and both Avicenna and Serapiam devote a chapter to them, calling them by the same name: as does Rasis. They also have these figs in Guinea, where they call them BANANAS.

RUANO

What does each of these writers say of the figs, and do the natives say that they are good or that they do harm?

ORTA

Avicenna says that the nutriment in this fruit is small, that it promotes inflammation, that it is useful for chest complaints, that it irritates the stomach, and that it is well to take it after eating. Rasis says that it does harm to the stomach. Serapio says that it is warm and humid in the first degree, that it is good for burning in the chest or lungs, and that many use it who feel a weight in the stomach. So that it is clear that these writers were acquainted with the fruit. If this is not enough, ask any Arab what he calls AMUSA or MUSAY whether he is from Cairo or Damascus or Jerusalem.

RUANO

I rejoice much to hear this from you.

TWENTY-SECOND COLLOQUY

ORTA

You must know further that a Franciscan friar who was in Jerusalem, and writes of the mysteries of the Holy Land, praises this fruit. He says that it is called *MUSA* because it was the fruit of the Muses, and that they fed upon it. He says further that it was this fruit which caused Adam to sin, that the leaves are more than a *braca* in length and $2\frac{1}{2}$ *palmos* in width, with a thick and green midrif in the centre. It sends out some red flowers where the fruit is to grow afterwards, which form an egg the size of a hand whence comes a bunch with a hundred, and sometimes two hundred figs.

RUANO

I do not know whether it was the tree of the terrestrial paradise, and in this I hold to the views of the sacred fathers. But I must confess that it is a very good fruit. I want to know whether it is useful for anything besides what is mentioned by these Arabs, and where the best are grown and in what way they are eaten.

ORTA

In Martaban and Pegu they say that they are very good, for in Bengal, where they are plentiful, those from Martaban are preferred. Those which have the strongest scent and the best taste are *CENORINS*, which have a bright colour. The *CHINCAPALOE*s of Malabar are good, being green with a very good taste. Those of Sofala, which I have tried, are much praised, and I found them to have a pleasant taste. But as I knew them all when I first came from Portugal, I am not a good judge. The Cafres call them *ININGA*, as well as those on the coast of Abexim and in the Cape Verdes. As I said, these are as large as a *palmo* in Malabar, and Baçaim, and other parts. They are very good roasted, or dipped in wine with cinnamon.

FAUFEL

RUANO

I have tried them three or four times, and liked them much better than quince roasted.

ORTA

They also cut them down the middle, and fry them with sugar until they are well toasted, when they taste very good with cinnamon on the top.

RUANO

I have also tasted them here on fish days, done in that way, and they tasted very good, but I did not know what they were.

ORTA

They take them to Portugal for ships' provisions, and eat them with sugar. It is very good food for the sea. The physicians of this country say that they are very good as diet in fevers and other illnesses. I know well that all these things that I tell you are of little importance, but I relate them that you may not say, when you return to Spain, that you have not been told of the things of the land, and not because they are all appertaining to medicine.

RUANO

Ruelio has a chapter on the figs of India, referring to Strabo and Theophrastus, and he makes out several species. In another place he speaks of foreign trees, and these men appear to have known about the figs of India.

ORTA

I have read the same author, and if he is right in one thing he errs in many others,—one on the nail and four on the horse shoe, as the saying is. However, he puts the last species as the one in which the tree bears the most fruit, and he says that they grow of themselves. This is true, for the tree is only

TWENTY-SECOND COLLOQUY

planted once, and gives out a branch bearing sometimes two hundred figs more or less. Presently there grows from the foot another tree from the same branches or trunk; for the trunk has a gathering together of bark, and the figs grow in the eye of the tree, fastened to the stem.

RUANO

Perhaps the fruit which in Italy is called MUSA is the same.

ORTA

As I have not been in Italy, I am not sure. But there are some Venetians dwelling here who say that the fruit is in Venice, and that it is like a plum. It may be that the same kind of plum is in Spain, for they say it is very sweet.

RUANO

Mateolo Senense writes of a kind of Indian palm, and the description is not like this tree. He says this in the chapter on palms. But when he writes of Egypt he does not write well, and therefore I do not quote what he says.

ORTA

I know well that they have figs in New Spain and in Peru, and we have them in Brazil, in the Concan, and between Chaul and Goa, namely in Carapatam. They are also planted in some places in Portugal, as at the country house of Dom Francisco de Castelo Branco,¹ and for this reason it was not well to tell you about things that are known to all.

RUANO

These notices of the figs had not reached me in Spain, and you tell me so many good and interesting things that I considered it needful to ask for all you know. You have also told me the names of the authors who have written on the subject, information which I value highly.

¹ Camareiro Mor to Joaõ III. in 1527, son of the first Count of Villa Nova.

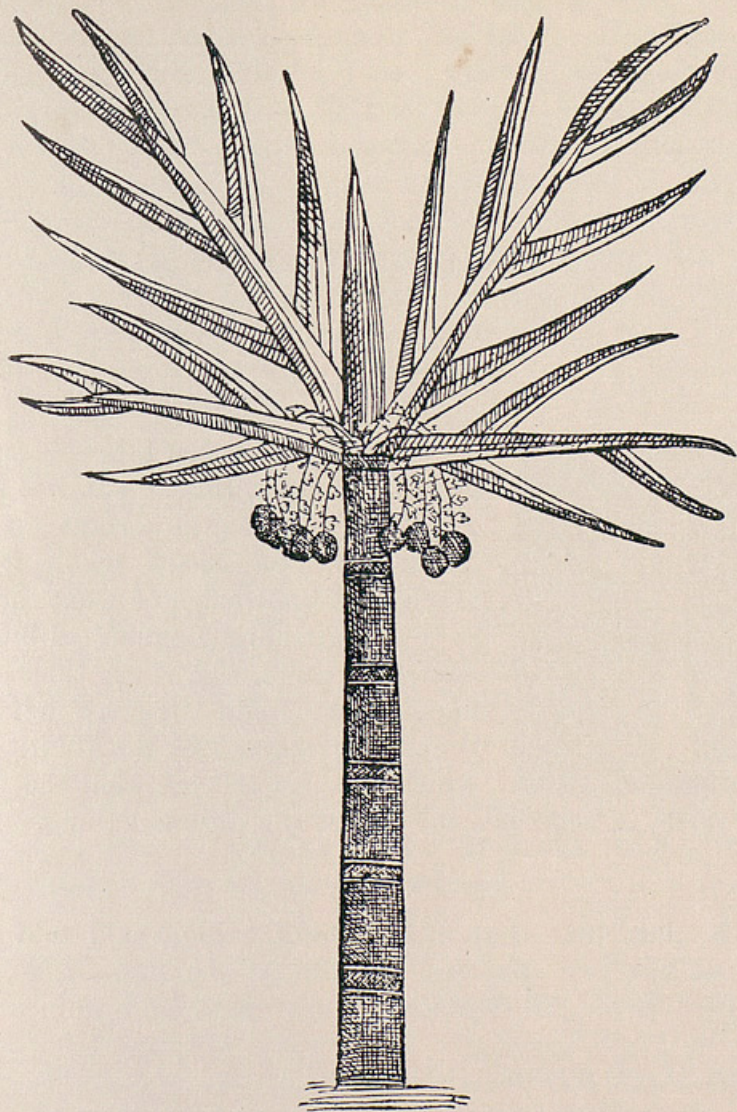


PLATE IX.—AVELLANA INDICA.



TWENTY-THIRD COLLOQUY

LEAF OF INDIA

RUANO



AM reminded that you told me, speaking of the *betre*, that it was not *Folio Indo*. This was important to me, because the physicians who pretend much to a knowledge of what there is in these parts, and Laguna, with other modern writers, call it, in their writings, *TEMBUL*, and they say that it is the name given to it by the Mauritanos. Now you must tell me what the *Folio Indo*¹ really is, and show me that it is a different thing.

ORTA

It is clear that they are different things, as I told you. Avicenna has two chapters, the 259 on the *Folio Indo*, and 707 which is on the *TAMBUL*. This needs no argument, for

¹ The *μαλάβαθρον* of Dioscorides, i. 11, and *malobathrum* of Pliny, xii. 26 (59), the Sanskrit *tamalapatra* (i.e. "Cassia leaf"), and *tejapatra* (i.e. "aromatic leaf"), was from the earliest historical ages a renowned article of commerce between India and the countries on the Mediterranean Sea, and has now been clearly determined to be the leaf of various species of *Cinnamomum*, of which the principal are: *C. Tamala*, Nees, *C. Cassia*, Blume, and *C. zeylanicum*, Breyn. The Arabic *kadigi* is a corruption of the Indian word *tejpat*, a vulgar contraction of *tejapatra*.

LEAF OF INDIA

the *Folio Indo* is called *CADEGI INDI*, and the *betre* *TAMBUL*. I have already told you the names for *betre*. The *Folio Indo* is called by natives of India *TAMALAPATRA*, which the Greeks and Latins corrupted into *MALABATRUM*. In Arabic *CADEGI INDI*, which means "leaf of India." Avicenna was properly translated, for it is in Arabic *lingoa de vaca* or *lingoa de passaro*, and *melam da India*, for these names all mean the same thing as *Folio Indo*. If you like I will show you. Girl, bring those leaves that I brought in my pocket, from the druggist's shop.

SERVANT GIRL

Here they are.

ORTA

Look at them.

RUANO

They look like leaves from an orange tree except that they are sharper, and the colour is dark green. They have a nerve in the middle and two others which unite at the point, which will enable me to know them well, when I see them again.

ORTA

The smell is very pleasant, and is not so strong as that of the *espiquecardo*, nor as the apple. It smells like a clove, but it has not so strong a smell as cinnamon.

RUANO

Tell me the appearance of the tree, for these leaves look as if they hung over water, like the plants they call water lentils, as they are described by Dioscorides; for Dioscorides says they are like lentils.

ORTA

Wrong information was given to Dioscorides and Pliny,
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TWENTY-THIRD COLLOQUY

for these leaves come off a large tree and not in marshy ground. The tree that yields this *Folio Indo* is grown in other places, including Cambaya, and the venders of medicine, called *gandis*, will understand you if you ask for TAMALAPATRA, because that is what they are called in that part.

RUANO

We have been deceived about this medicine as in many other things. In the land of Prester John, a Franciscan friar, who wrote *Modus faciendi*, says that he has *Folio Indo* in his hands, and that it is called *follias do arvore da canella*, that the leaves are not like these grown in water but on trees.

ORTA

Such leaves may well be those of the cinnamon, and the *Folio Indo* is not very different, but the cinnamon leaf is narrower and not so pointed, and has not the nerves like *Folio Indo*; but neither the cinnamon nor the *Folio Indo* are in the country of Prester John.

RUANO

Dioscorides says that some, from the smell, said it was a leaf of the spikenard, that they are collected by passing a thread round them, that the leaves are kept for sale, and that the dried marshes where they grow are burnt, because unless they are burnt the plant will not grow there again, and that the best is the newest, and that from white they turn to black, and that the scent goes to the head and often remains there, and that it is like spikenard, and has not the taste of salt.

ORTA

The smell is certainly not so strong as that of nard; and the nard is not a tree, and the way of gathering is not like that. They collect the leaves and make them into bundles,

LEAF OF INDIA

which they carry away for sale. They do not grow in marshes, nor is a fire necessary to make others grow. They burn all the land where there is to be sowing, but not the land which is left for the plants to grow. The colour is clear green, and the things they keep do not become so clear, but are nearer black than dark green, and some of them have not the smell of *salva*. It is true that the inner part is better, because its virtue is better preserved, and the scent comes to the head like other scents. Autuario says that the Moors call it *TEMBUL*, but he is mistaken like the others.

RUANO

Pliny says that there are curved leaves in Syria whence oil is obtained for unguents, and that in Egypt they are more abundant, but that the best come from India, and that they grow over water, and that they smell stronger than the *açafram*, and more like the *salva*, and that it is like the nard; and that when put into wine it exceeds all the scents, and that its price was something marvellous, 300 *livras* and the oil 60 *livras*. Pliny says this. Will you answer it, and satisfy me?

ORTA

Avêlo in Syria and in Egypt I do not know, but I have friendly relations with physicians of Cairo and Damascus and Aleppo, and all assure me that it does not exist in Syria nor in Egypt. The smell is not so strong as *açafram*, nor is it like nard. The nard comes from a place 200 leagues distant, and is a thing that is sown, while this is a large tree. As to other things I have already answered, confuting Dioscorides. The scent seemed so strong in *Folio Indo*, because then they had not *beijoim*¹ *de boninas*, nor *amber*,² nor *almisere*,³ nor *calambuco*⁴ as we have them now. For things go on increasing,

¹ See footnote, pp. 49, 58, 63 *supra*.

³ See footnote, p. 25 *supra*.

² See footnote, p. 20 *supra*.

⁴ See footnote, p. 195 *supra*.

TWENTY-THIRD COLLOQUY

though their virtues may not increase so much. But never believe that things producing scents will be lost. Like the cinnamon, that which was profitable in times past may give place to something else, as the world is more completely discovered.

RUANO

Neither Galen nor Rasis say anything new about the *espique*. Avicenna says that he has ascertained the same virtue and that the leaves are those of the *sasifrâo*, that it grows in water on swampy land without taking root like water lentils, whence some hold that it has the leaf of *golfam*, and that its oil has the virtue of *laserpicium*¹ but is stronger.

ORTA

I have proved what is in Dioscorides and Pliny to be false, so it is not necessary to answer further. For Avicenna, Serapio, and Rasis did not know more than the Greeks about this medicine. They only knew that, according to the Greeks, MALABATRUM was *Folio Indo*, and they translated what the Greeks said, merely adding some things about its use. All say that it is useful to provoke urine and for foul breath, and finally they say that it is good for all these things, like the *espiquenardo*.²

RUANO

These modern writers confess their ignorance, and in my

¹ See footnote, p. 149, on "Costus Arabicus."

² Spikenard is the root of the Nepalese Valerian, *Nardostachys Jatamansi*, the true *vâpōs* of Dioscorides, etc.; the adjective *πιστική*, "precious," applied to it, Mark xiv. 3, and John xii. 3, being a twist given to the Sanskrit *pisita*, meaning "fresh." The Sanskrit names are *nalada* and *jatamansi*, the latter name meaning "hairy-root." The older Pharmacists called it "Nardus Indica," "Nardus Assyria," and *Aspic d'outremer*, to distinguish it from "Nardus rustica," the root of *V. officinalis*, and *V. celtica*. The Arabic name is *sumbal-hindi*, the spikenard of India. Blane attributes "Nardus Indica" to certain aromatic Indian grasses, *Andropogon* sp., and undoubtedly in the bazaars of peninsular India almost any aromatic root is sold for *jatamansi* or *sumbal-hindi*.

LEAF OF INDIA

judgment they do well. Others say that in its place they give leaves of clove or cinnamon, for the author of *Luminare majus* says that salesmen will sell leaves of clove and say they are *Folio Indo*. The other Franciscan, already alluded to, says that they substitute cinnamon leaves for it. Antonio Musa says that he saw it in Venice, and that they showed him *Folio Indo* of Syria, and *Folio Indo* of India, but that he did not know them. We must put something in its place in Spain, for the *Folio Indo* is wanting to us, and we must do without it.

ORTA

He who says that he substitutes leaves of clove does not, as it seems to me, say well, for between the place where the clove grows and that where the *Folio Indo* grows is a journey of two years. He who tells us of the cinnamon leaf is ignorant, and if these were sent there would be enough to supply all Europe. They could easily raise enough, and those who cannot get *Folio Indo* use cinnamon leaves in its place, though it is not so like it as other medicines. Avicenna orders THALISAFAR in its place, according to André Belunensis, but I do not know that medicine, nor do I believe that it is like *Folio Indo*. Of this opinion is Mateolo Sinense, against a modern writer.

TWENTY-FOURTH COLLOQUY

GALANGA

RUANO



ALANGA is a very necessary medicine, and I believe that the Greeks did not know it, at least under that name. It is a requisite in all dispensaries, so let us talk a little about it.

ORTA

The name in Arabic is CALVEGIAM, and you will find it written by all the MOORS CHAMLIGIAM or GALUNGEM,¹ but Serapio has corruptly written it. All the Moors call it as I have said. There are two kinds of what we call GALANGA, one small with a strong scent, which is brought from China to these parts, and thence to Portugal and other Western countries. This is called LAVANDOU in China. There is another larger which is found in Java and there called LANCUAZ. It is larger and not with so strong an aromatic smell as the first. In India we call both LANCUAZ. The

¹ The rhizomes of *Alpinia officinarum*, the "Lesser Galangale" of south-east China, and *Alpinia Galanga*, the "Greater Galangale" of the Indian Archipelago. The Arabs, Persians, and Hindus give to the rhizomes of both plants the name of *kulanjan*, from the Chinese *kauliangkiang*. The correct Malayan name is *langkas*. See note, page 82 *supra*.

GALANGA

first is a small shrub of two *palmos*, with leaves like a myrtle. The Chinese say that it grows without being planted. The larger one in Java grows to 5 *palmos*. It makes large roots, and has knots like a cane, and the one from China has the same. The Java one has leaves the shape of a lance, and it has a white flower. It has seeds, but they are not sown, though in that land they are sown in gardens in small quantities, and used by the people as salads and in medicine, chiefly those who come from Java, who are midwives (called *daias*) and work as doctors. They propagate the plants from rhizomes, like ginger, and not in any other way. If you see anything written to the contrary, do not believe it; for Avicenna, Serapio, and other Arabs only had confused accounts of it. There are two kinds; that from China is the most praised, but they do not speak in this way from having a real knowledge, being, so to say, only gropers. This is the reason that Avicenna writes of it in two chapters. In one (321) he calls it CALUNGIAM and in the other (196) CASERHENDAR. Which is the one from China, which we use most, and which is the one from Java I do not know, because they do not write without doubts. It will be best for you to see, as well dried as green, and I will show them to you to-day.

RUANO

The Belunense, in his Dictionary, says that Avicenna writes of both, yet that there is not more than one, and the reason he makes two chapters is that he is doubtful; so that what he leaves out of one he can put into the other.

ORTA

Rather he does that where he is doubtful. To me it seems that he saw the two kinds of GALANGA, and therefore made two chapters. As we are certain about the medicine, we need not trouble so much about the names.

TWENTY-FOURTH COLLOQUY

RUANO

Dioscorides does not mention this simple, nor any of the Greeks, and the Arabs write little and doubtfully, which is a reason that we should follow the moderns so far as they write correctly. Antonio Musa, who was curious and intelligent, says that to Leoniceño it appeared that what we, in the dispensaries, call GALANGA is the ACORO which has a root of *espadana*. It does not appear to be a root without scent, and has a warm and sharp taste (conditions necessary for the *acoro* which we falsely call *espadana*). And he says that the same appears to him, considering the GALANGA with its scent and taste.

ORTA

I said to you, speaking of the *calamo aromatico*, that the ACORO was not *calamo aromatico*. I will state the reasons on which I found my opinion. The *Acoro* is bitter in taste, the *calamo aromatico* is sharp to the taste. The *Acoro* has a white root and the *calamo aromatico* a yellow root. Now I will tell you that the GALANGA is much less like it than the ACORO. For the GALANGA is less warm and has a pleasanter smell. The things for which the GALANGA should be used are not those for which the ACORO is useful, according to the Arabs who have written on the subject. The use of GALANGA is for the stomach and for foul breath. The use of ACORO is for the head and nerves. I remember curing Nizamoxa of a tremor, and the physicians never made mention of GALANGA. Antonio Musa did not know the plant of GALANGA.

RUANO

The Italian friars who have written on the subject say that the GALANGA we use is the root of *esquinanto*.

ORTA

You can easily see that there is no reason in this, for the

GALANGA

esquinanto grows chiefly in Arabia, that is in Mascata and Calaiate, and China and Java are sufficiently distant from those parts; besides, the root of *esquinanto* is very much smaller.

RUANO

Menardo, and the friars who wrote on Mesue, say that the *calamo aromatico* is *acoro* and what we call *acoro* is not it. For love of me, tell me if you found what we call *acoro* in Spain would you use it, for it is there, and if you would not use it what would you put in its place?

ORTA

If I found the true *acoro* in Galicia, and it possessed the qualities ascribed to it by authors, I would use it. But if I saw what they call *espadana* in Portugal I would not use it, for it is not GALANGA. I say this without any doubt, *calamo aromatico* is more like ACORO than GALANGA.

RUANO

I will take your advice, if God is pleased that I should return to Spain.

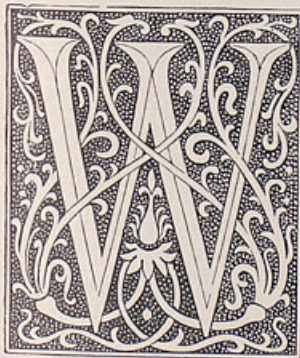


PLATE X.—GALANGA.

TWENTY-FIFTH COLLOQUY

CLOVES¹

RUANO



He will talk of GARIOFILO, for it comes from the same region as GALANGA.

ORTA

You make a mistake in not using the letter C, because in good Latin it is CARIOFILO, and in bad Latin GARIOFILO, as you may see in the modern authors who have written on it.

RUANO

I cannot agree, for so I have been taught all my life.

ORTA

If I show you in Pliny that it is called so, what will you say?

RUANO

I confess it to be better Latin, but usage excuses me.

ORTA

The Greeks did not speak of this GARIOFILO, only Paulo

¹ *Eugenia Caryophyllata*, Myrtaceae.

TWENTY-FIFTH COLLOQUY

Egineta, who says it is the leaf of a nut, because GARIOFILO is supposed to have that meaning, but this does not appear to be known. And so Serapio says that in the Greek definitions the name is not to be found. Afterwards he refers to Galen and Paolo, and says that he translated it literally. I do not find it in Dioscorides.

RUANO

Well, I can give you the place where Galen speaks of it.

ORTA

In books which are properly of Galen you will not find it.

RUANO

In the second book of Dinamedis mention is made of GARIOFILO, and also in the third, and many Arabian writers say that Galen said it. Perhaps they translated some books of Galen which are now wanting, having been lost through the lapse of time.

ORTA

These books you refer to, in which Galen speaks of CARIOFILO, are not coveted by Galen. It is enough for me that Ruelio, such a diligent and laborious writer, says that it is not to be found in Galen.

RUANO

Well, this that you say is supported by Paulo, and Aecio, and Pliny. It is said that in India it is very like pepper, except that it is larger and longer, and this is called CARIOFILO.

ORTA

I do not deny that these men talk of it, but I deny that Galen does. I further tell you that this medicine was found quite recently, first as medicine and for the scent, and then for culinary purposes. It is used a thousand parts to one as

CLOVES

medicine, and the rest for cooking. You will now like to know the name in Arabia and in this country.

RUANO

I wish you to tell me all, very clearly.

ORTA

The Latin name is *CARIOFILUM*, others calling it *GARIOFILUM* as you did just now. The Arabs, Persians, Turks and most of the people of India call it *CALAFUR*. In Maluco, where alone it is found, and in all that region, the name is *CHANQUE*. The names given in Pandetario, such as *ARMAFUL*, are wrong, and the name written in Arabic *CARRUMFEL* is an error of the Arabian writer, a corruption caused by the lapse of time. The tree of this *cravo* (clove) grows in Maluco on some islands subject to the king of Portugal, taken in a just war some time ago. The right to these islands was disputed between Spain and Portugal for a long time, and you, being devoted to your king, will acknowledge the justice of our tenure of the islands.

RUANO

I owe so little either to the king of Castille or to the king of Portugal that I am able to say that I have as many mills here as there. Speaking confidentially to you, I owe more to the king of Portugal, for it is him who has granted the great part of what my brother-in-law possesses; and these advantages I owe to the king of Portugal, while the king of Castille has never given me anything, nor have I any expectation from him.

ORTA

You must know that Maluco is within the line of Portuguese conquest, which extends 200 leagues further, as has been proved by observing eclipses. But the devil entered into a

TWENTY-FIFTH COLLOQUY

Portuguese,¹ who, because the king would not grant him an unjust favour for which he asked, went over to Castille, fitted out armed ships, and discovered a strait, before unknown, which led by another route to Maluco. He died with the greater part of the people who went with him; so that they were unable to return by the way they came. Another bachelor, Faleiro,² who went with him and against his king, went mad and also died in his work of discovery. Then Castillians came to Maluco on other occasions, but were obliged to go back, and most of those who attacked the Portuguese were killed. Those who surrendered were given the means of returning to Castille. Such is the clemency of the King our Lord to vanquished Christians. The king of one of the islands, called Ternate, when it was proposed to him that he should help the Spaniards, said that the clove was given by God to the Portuguese, because each clove contains the five *quinas* of the Kings of Portugal. It may be that he said this by the will of God, though he was an infidel. In the same way Balaam and his ass prophesied, not being a rational animal. I say this subject to correction from the Holy Mother Church. Afterwards this king became a Christian. He received his kingdom from the king of Portugal, and I knew him at Goa. Returning to the cloves, I say that they are only found in these islands of Maluco, which are five in number, and from there they are distributed over all parts of the world. If you ask whether there are trees of this spice in Ceylon, I reply that there are, but they do not give fruit there, nor in any other part except Maluco. The trees are of the height and shape of a laurel. They have many flowers which are made into cloves. The plant grows like a myrtle. The flower is first white, then green, and finally vermilion and hard, which is the clove. I have been told by those who have seen it, and are worthy of credit, that when the flower is green it gives

¹ Magellan.

² Ruy Faleiro did not sail with Magellan.

CLOVES

out the most delicious scent in the world. Those who gather or dry this clove find it to take the colour that you see now. They grow from buds, like the myrtles, and some say that the clove comes from within; but that is not so, only the bunches do not come to perfection. They collect them because the branches that form a great cup give out cords with which to collect the cloves, and this is the reason why the trees are beaten and flogged, and they do not give so good a harvest for a year. The cloves are dried for three or four days, and thus they sell them, and keep them to send to Malacca and other parts. The clove which is left on the tree becomes larger, and they like it, in this way, in Java. We, with the others, call it the head. You must know further that nothing whatever grows under or round the clove tree, because the clove draws up all the juice out of the earth.

RUANO

Where is the plant which the Castillians call *fuste* and the Portuguese *bastom*?

ORTA

Without the twigs whence these cloves hang as the flowers hang from the small twigs, and the great clove, which I mentioned to you, is what we call "the mother of the clove," and not because it is so, nor is it male, as Avicenna and Serapian say, for all is one, but because it is older than the others. For what we call "the mother of the cloves" is not of the same year, but the year before. This was told to me by persons who know. One was a factor from Maluco, who said that from the clove there is much ripe fruit which falls down.

RUANO

Do they make any profit from these trees of the clove, either by planting, or cleaning, or pruning?

TWENTY-FIFTH COLLOQUY

ORTA

No more than cleaning the ground where they collect the cloves; and the trees grow without seed being sown, only from cuttings. They do not grow very near the sea, but a cannon shot distant from it, though on islands surrounded by the sea. These islands where the cloves grow are five in number¹ as I have said, and the principal island is called Geloulo,² and for this reason they call the clove in Spain CRAVO GIROFE,³ because it is from Geloulo. It is also called CRAVO because it resembles a nail in form. Some say that when it is young there are more cloves than leaves, and that the leaves have not so strong a scent as the cloves. These trees grow from cloves which fall on the ground, like chestnuts in our country, though it is not necessary, for the earth always yields these cloves, and rain is never wanting for them to grow and produce fruit. The trees of the cloves come to maturity in eight years, according to information from the natives, and they last for a hundred years. The harvest is from the middle of September to January and February.

RUANO

Do the natives use the cloves in their food or for medicine?

ORTA

According to my information the people of Maluco do not use these trees themselves. The Chinese came in their ships to this land, and took the cloves to their country and to India, Persia, and Arabia. They relate this from memories preserved among themselves. The clove is easily preserved with salt water, and in another way by making it into powder.

¹ Ternate, Tidore, Motil, Makian, Bachem.

² Gilolo. Barros calls it Batechina.

³ The word GIROFE has nothing to do with Gilolo. The *Garyophyllon* of Pliny is certainly our "Cloves," the dried flower-buds of the Myrtle bloom *Eugenia Caryophyllata*.

CLOVES

RUANO

You say that the natives of Maluco do not use the cloves; do the other Indian races and the Portuguese use them much?

ORTA

When the cloves are green the Portuguese who live in Maluco make a conserve of them with vinegar and salt, which they call *achar*; and they also preserve them in sugar. I have eaten them and they are good. The people of Malacca use the vinegar conserve when they can get it, and the Portuguese women, living in Maluco, distil water with the green cloves, which is very fragrant and a good cordial. It would be a good thing to introduce it into Portugal. Many Indian physicians make a sudorific with cloves, nutmeg, mace, and long black pepper, and they say it draws out the Castillian itch. I have also seen Portuguese physicians use it, but I do not think it is a good medicine. Some people apply pounded cloves to the head, and say that they find it good for headaches. Women are much addicted to chewing cloves to make the mouth smell sweet, and not only Indian women but also Portuguese.

RUANO

Serapiam, quoting Galen, says that it is the leaf of the nutmeg. Is the tree of the clove and nutmeg all one?

ORTA

They are from entirely different countries, one from Banda, the other from Maluco. The tree of the nutmeg has round leaves and is like those of a pear tree, and those of the clove tree are like a laurel.

RUANO

Avicenna and some others say that the tree is like *sambacus* but more black.

TWENTY-FIFTH COLLOQUY

ORTA

It is not like *sambacus*, a plant which we call jasmine, nor like *sambucus* which we call an elder tree. You will see the difference between the one and the other.

RUANO

It is said that it has been taken to some islands of India, and that the gum or resin from it is like *trementina* in virtue.

ORTA

The statement that it has been taken to some islands of India is true, but there is no such gum in Maluco. I have spoken to several people who have been in Maluco, and they all say there is no such gum. I do not deny that many trees yield gum, especially when they are cut, but up to the present time this has not been tried. Nor with your pardon can I allow the truth of what has been written in New Spain, that the gum of the clove is gum mastic. For trees are of different natures and do not yield gums contrary to their natures.

The leaves of the clove do not come to India, so I do not write about them. The scent of the clove is said to be the most fragrant in the world. I experienced this coming from Cochin to Goa, with the wind from the shore, and at night it was calm when we were a league from the land. The scent was so strong and so delicious that I thought there must be forests of flowers. On enquiry I found that we were near a ship coming from Maluco with cloves, and then I understood the truth. Afterwards, men from Maluco told me that when the clove is dry it gives out a strong scent extending far from where it is.

RUANO

In Serapio and Avicenna I find many names which must be corrupt, such as the names of authors. I should be much pleased if you would tell me what you know about this.

CLOVES

ORTA

I do not know except that some words are wrong. They call Rasis Benzacaria, and Mesue Menseus.

RUANO

Serapio seems not to read without an aspirate ; Hachim, it seems to me, should be Aly.

ORTA

No ; it is Hachim which means a philosopher, and, as among them, some are called philosophers specially, it may be that they use it as a name.

RUANO

Is the herb which we call *cravos* (pinks) in Maluco or in India ?

ORTA

It is not in Maluco. I have seen it in these parts coming from China ; but it has not the same scent as that of Portugal. The cause may be that it is very superficial, or that the heat of this country works out the scent. I will not say more, as you know more about these pinks than I do. I may tell you that in a certain part of the island of San Lourenço there is a very round fruit, larger than a filbert with the husk, which smells very like cloves, but is not a clove nor like one.¹

¹ *Ravensora aromatica.*



PLATE XI.—CLAVOS.

TWENTY-SIXTH COLLOQUY

GINGER

RUANO



LET us talk of ginger, which gives us a flavour on fish days, and excites the appetite in the salads made with it in the preserve, which your slaves call ACHAR. It seems to me that it is to rectify the fish diet, as it is laid down by our doctors.

ORTA

It was certainly unnecessary to speak of this product, because there is no doubtful point of which to write. However, I will treat of what every one knows, on condition that you repeat it to no one in India, but only in Spain. For all do not care for what I tell you in this way. That you may not ask in vain I may tell you that with us it is called GENGIBRE; the word is GIMZIBIL among Arabs, Persians, and Turks. When it is green the Guzaratis, Deccanis, and Bengalis call it ADRAC, and when dry SOCTE. In Malabar it is known as IMG1, and the Malays call it ALIÁ. It is a herb with a root like a flag or like a *lirio espadanal*: but the root is larger, and the leaf a deeper green, and 2

TWENTY-SIXTH COLLOQUY

to 3 *palmos* long. When green it is not so sharp to the taste, especially that which is grown in Baçaim where it is milder, or to speak more directly it is not so sharp to the taste, the land being moister. For the great axe of necessity makes things warmer. It reminds me of the common saying that the axe has a warm edge. This is the feeling of authors when speaking of ginger, that it does not become warm as quickly as pepper owing to its humidity. The green ginger is eaten in salad mixed with other herbs, oil, vinegar, and salt, and in pasties of fresh fish. Some eat it in the pasties of meat. They grow in all parts of India, at least those we know. They are sown, and doubtless some grow without being sown, but so few that they hardly count. It is grown in Malabar, and this kind is most liked by the Arabs and Persians. It also grows in Bengal, Dabul, and Baçaim, and along all that coast. From the interior there is little, and none comes to us. There is ginger in the island of San Lorenzo and the Comoro Islands, which are near the coast of Ethiopia, and there are those who say that it is in Trogoldita and Arabia. It is gathered in December and January, dried and covered with clay in holes to prevent it from decaying. It is also enclosed in clay to make it weigh more and to keep it fresh, preserving its natural humidity. Besides, if it is not well covered with clay the worms eat it. It is also more humid and has a better taste.

RUANO

Few questions arise respecting this ginger, Serapio calls it *lingibil*, and some nations use that name.

ORTA

I have enquired, but I do not find where it is so called. Where is this name correct?

RUANO

Galen says it came to us from Barbary.

GINGER

ORTA

If by Barbary is intended the coast of Barbary it is not true; but if by Barbary is meant the unknown interior it may be, for no country can be more strange as regards India. But this is to speak very vaguely.

RUANO

Dioscorides says that they have it in Trogoldita and in Arabia.

ORTA

It is in Trogoldita, and in the Comoro Islands which are near that coast. It is also in Ethiopia, according to what I am told, but only enough to supply the country. As for what Dioscorides says, that it is in Arabia, asking your pardon, he does not speak the truth, for it is an article that is imported there. He says what is true about its use when green, as we use it on fish days in salads, as I have already said. He also says, for example, that the root is much used, and it may have been more in those days than now, the scent being strong. They also used the root more medicinally, both against the plague and against poison. Some practitioners now prescribe a salad made of the root and other things, against the plague.

RUANO

It is said that the roots are small like that of the *junca avelanada*.

ORTA

It is not so. They are much larger than the root of a reed.

RUANO

You say that they choose the roots that have not been covered with clay. Why then do they say that they are so covered? To prevent them from rotting?

TWENTY-SIXTH COLLOQUY

ORTA

I did not say that to be bored through by a worm was good, but that to be covered only with clay is not so good. I now say that it is better, for it protects them from the attacks of worms, and that is the object of doing it. Those who say that they are taken to Italy in *canteiros* may be right, but it would be better first to cover them with clay. Those that say that ginger causes looseness have reason, for it promotes good digestion; and those who say that it closes the stomach also have reason, because the looseness caused by indigestion is stopped.

RUANO

Tell me whether it spreads out like flax.

ORTA

No such thing. But it is rough like flax. It cannot be called a bush, as Serapio calls it.

RUANO

Well, Musa, a diligent writer, says that it spreads like flax, and that it has a leaf-like cane.

ORTA

It is not a good comparison, for the leaves of ginger are rough, and the leaves of the cane are not rough.

RUANO

He also says that the conserve leaves a sting in the mouth.

ORTA

This statement is not good, or it has been falsified, or he has fixed upon the conserve to indulge his malice. For it is not bad preserved with sugar, and well washed through many waters; first pricking it into holes for the water to enter, and

GINGER

keeping it for many days well sugared. It is then very good, and does not burn nor leave a sting in the mouth. As they produce much sugar in Bengal it is better there. The women also make it well in Chaul, Baçaim, and Dabul; but in Betecala it is not so good because it is not made in the right way, nor with such good sugar.

RUANO

Where was that made which you gave me the other day?

ORTA

In the house. Another kind, quite as good, I will give you in a jar. It came from Bengal. Bring it, girl, and show it.

SERVANT GIRL

Here it is.¹

RUANO

Both are so good that I do not know which is the best. I kiss the hand of your worship.

¹ Ginger is the rhizome, or underground stem, of *Zingiber officinale*, Roscoe; the word "Zingiber" being derived, through the Greek *ζιγγίβερις* and Sanskrit *shringibera*—meaning "horned root"—from the Arabic *zanjabil*; referring to Zangibar (?). It is not a native of India: and its proper Sanskrit name is *ardraka*, meaning, literally, "of the wet" season, *i.e.* the "monsoon"; "green ginger" is in Hindustani denominated *adrak*, and "dry ginger" *sont*.



PLATE XII.—GENGIBRE.

TWENTY-SEVENTH COLLOQUY

Two kinds of herbs for dysentery, and of another which cannot be touched without its withering.

RUANO



FROM what I have seen in the hospital there is here, and as regards those patients, that I see you treating, the worst diseases are cholera and dysentery. I therefore desire that we should talk of the herb¹ with which you cure the dysentery. According to what is said in Portugal it is very efficacious.

ORTA

The cholera, as you have seen, is a very strong and dangerous malady, and dysentery, when it has become old (what we call chronic), is very difficult to cure, and when there is a hot humour it is very dangerous. The treatment must be more cautious and more careful than in Portugal, for any mistake made in the course of it is difficult to remedy. The herb, or, more properly speaking, the bush is called CORU in the Canarese language used at Goa, and we call it the herb of Malabar, because the people of Malabar effect good cures of

¹ *Holarrhena antidysenterica*, R. Brown, a Dog-bane, the source of "Conessi-bark," or "Tellicherry-bark"; and of the seeds known by the name of *inderjao*; both being often confounded with the bark and seeds of *Wrightia tinctoria*, Rox., another Dog-bane.

TWENTY-SEVENTH COLLOQUY

this sickness, and here come some who will show you. Certainly they, as well as we, cure this infirmity well, after the greater part of the material is evacuated. Most of these plants are the size of an arbutus or smaller, the leaves like those of a peach tree, the flowers white with a scent like that of a honeysuckle. We use the dry bark of the root because when fresh it gives out some milk.

RUANO

Should it be classed as hot?

ORTA

So I thought before trying it, and when I tried it I found it to be insipid and cold, and I saw the effect it had, so I classed it as cold and dry as more correct than coldness alone, and so it is classed in this country.

RUANO

With regard to what you say the Licentiate Alvaro Fernandes told me the other day that he had a very dangerous attack of dysentery and took the herb of Malabar by your advice in the way it is administered by the Malayalims, and not in the Portuguese way. It seemed to him to be the most bitter thing in the world, whence I conclude that a thing so bitter cannot be cold.

ORTA

It may well have different effects in different parts like the ZARGATOA¹; and with regard to the bitter taste it has, it is only slight, just as the opium, though so cold is bitter. It therefore seems to me to be cold; at least we shall be right in saying that it stops. To return to the subject in hand, I say that we make the bark of the root into a powder,² and take as much as will go on the cup of a still. It is then mashed well with sour milk. We then take *ameos*,³ the seed of *aipo* and

¹ *Cineraria campestris*, Flea-wort.

² Caçola de alembique.

³ Wild Cummin. (For continuation see p. 485.)

MEDICINAL HERBS

coentro dried and black cummin seeds pounded—those which come from Ormuz. All this is mixed together in an ounce of crude butter, and so it is put to be distilled. We give four ounces of this distilled water to the patient, mixed with two ounces of rose water, or “root of roses,” or plantain. When it is necessary we mix lozenges of Malabar herb and make the liquid in the same way, not using butter, and it is given with the same water as the above. This water is also used in clysters to take at night, and it is a thing with which I have been successful many times. We give these clysters actually cold, as the climate is very hot, and this is also the custom of the native physicians. It does not seem bad to you? If there is urgency we give these waters to drink twice a day, once at six in the morning and again at two in the afternoon. During this treatment we give the patient boiled milk with rice and chicken soaked in this rice water (which they call CANJE), and according as we judge of the weakness of the patient, so we give him food. The Malabars never give wine, nor do we, there being many reasons for this in cases of chronic dysentery. This medicine is very good, and I have often succeeded with it, yet I feel bound to confess that it is not so valuable nor so certain as the herb which the Malayalims give, very roughly compounded, but in the same way as the other, powdered and soaked in sour milk, or in rice water much boiled, and almost dissolved. Others make this liquid of the green herb pounded. This is stronger to take and very bitter. It is given to the patient, seven ounces in the morning and the same in the afternoon, if necessary; as the herb is not pleasant to the taste they give it with some sour milk.

RUANO

What kind of water is found best for the patients?

ORTA

That of the Malabars is found much the best. When we

TWENTY-SEVENTH COLLOQUY

find that our patients do not appreciate our gentle medicines, we deliver them over to Malabars to be given the stronger medicines. Now the Malayalims give us their water, which is compounded in the royal hospital. If the Malayalims see greater urgency they mix opium with this medicine. Some Arabs cure all dysenteric illnesses with opium rectified with nutmeg. I saw an Arab cured in this way when I was marching with that great Sultan Bahadur, in company with my master, Martin Affonso de Sousa.¹ An honourable and discreet gentleman from Portugal told me that Dom Manoel Telo de Meneses cured several people in this way. For the medicine had run out, and it smelt of opium, the use of which medicine he learnt in Xael, being a captive.² But I do not look upon this as certain.

RUANO

And to me it appears doubtful, at least in principle, for there are other things for rectifying opium, better than nutmeg.

ORTA

The Malayalims never care to confess that they give opium. I cured a very honourable gentleman, whose name is well known in Spain, and who was near to death. He had a regard for a Malayalim who had saved his life in a difficult case of dysentery. Finding himself in Goa with a slight attack, he called in this doctor who, to take the shortest way, cured him with a medicine containing opium. I was afterwards sent for and found him at death's door, with all the symptoms of having taken a dose of opium. I cured him and restored him

¹ This was the occasion when Orta accompanied Bahadur Shah in his adventurous march against the Mongol soldiers of Humayun, crossing the whole peninsula of Kattiawar from Diu to Ahmedabad.

² Meneses was sent by the Governor Nuno da Cunha to the coast of Arabia to examine into some complaints of the Chief of Xael, of violence from Portuguese. He was himself made prisoner, but eventually released. (Correa, *Lendas*, iii. 844.)

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to health. But this Malayalim doctor would never confess that he had administered opium in the medicine he gave, and showed me the medicine he had prescribed, which was so unfit for the purpose that I was of opinion that he had given opium. I was more convinced of this when I had cured the gentleman. I found this medicine to be most efficacious when the greater part of the material has been discharged, and, by other treatment, there is a relapse many times.

RUANO

Is this medicine used for any other diseases ?

ORTA

For vomiting and weakness of stomach, taken with a mixture of mint water and some powder of gum mastick. In this island there is also a small tree that yields more than the other shrub. It has leaves and flowers like a myrtle, and yields a fruit like myrtle berries, with the same taste but more styptic. It is called AVACARI. An old Portuguese, who had been a long time in the country, told me that it grew on a hill in his estate, and that it was very efficacious in cases of chronic dysentery. He said that he had a daughter who had been ill with dysentery for a year, and that other medicines were of no use, while this one restored her to health. I asked him who told him that this plant was good for dysentery. He told me that one of the native doctors gave him the powdered bark in rice water. They say that the root of this shrub smells like clover. I asked the doctors here about it, and they said that it was good for dysentery, and that they mixed it with another herb called CORU, which makes a very good mixture. This is what I know about these medicines, and I will take you to see patients being cured by Malayalims and Canarese, that you may know it all more thoroughly.

TWENTY-SEVENTH COLLOQUY

SERVANT GIRL

A boy has come from the Franciscan Friars with a basket.

ORTA

It will not be things to eat, for it is the Friars who are in need of those.

BOY

Here are the herbs you asked for.

RUANO

Some are roses, and on the other side are they medicinal herbs?

ORTA

No, but they have a strange property, showing that they do not like to be touched. That herb will not consent to have itself touched, for if you do so you will see how it presently shrinks.

RUANO

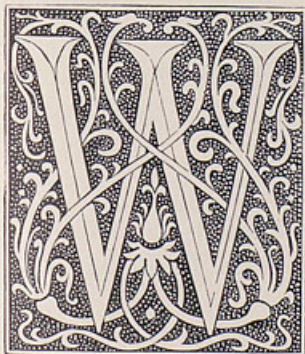
It is a very notable thing that this plant should be so clean and so modest that it will not consent to be touched. I speculate touching this philosophy. The leaves resemble a polypody frond, the flowers are yellow, and neither Dioscorides nor Pliny mention such a plant.¹ But the author of a book on New Spain says that there is a plant in Peru the leaves of which dry up when they are touched. As I think that you are now weary, we had better go to dinner.

¹ *Biophytum sensitivum*, Dec., an Oxalid, the "Yerba Biva" of Acosta.

TWENTY-EIGHTH COLLOQUY

JACA, JAMBOLÔES, JAMBOS, JANGOMAS

RUANO



WHAT is that fruit which is the size of a large nut?

ORTA

You have been eating the chestnuts that are inside it, and you said that roasted they tasted like chestnuts; and now you may eat the rinds that cover them, which are yellow and have a pleasant taste.

RUANO

They taste like melons, but not so good as the best.

ORTA

Just so, and owing to their viscosity they are bad to digest, often passing without any change. I do not use them much. In Malayalim they are called JACA,¹ in Canarese and Guzerati PANAZ, and they grow near the seaside. In the interior they

¹ *Artocarpus integrifolia*, Willd.; Sanskrit, *panasa*, "laudable," i.e. "well"-fruiting, and Hindustani, *chakra*, "circle," i.e. "round"-fruited; the "Bread-fruit" of the East Indies.