

TWENTY-EIGHTH COLLOQUY

only dry the chesnuts and eat them roasted or boiled. The tree is large and high, and the fruit grows from the trunk and upwards, and not from the branches like other fruit. I assure you of this; I will here show you a JACA whence these were taken. See here that they are the size of very large melons, and some larger. The rind that covers these chesnuts is very thick and hard, as you see, and of no use.

RUANO

There never was a melon so large or so beautiful as this fruit.

ORTA

It is dark green and all surrounded by spines smaller than those of a hedgehog, but they do not prick as those do. I do not think the JACA should be eaten, except at the end of a meal, and then you might taste the chesnuts of this fruit as you did the other day.

RUANO

I have eaten those olives, for so they seemed to me, and I found them very sharp; for the rest they were like ripe olives of Cordova.

ORTA

They are called JAMBOLÔES and grow in the country on a bush like a myrtle, and leaves resembling those of the arbutus. This fruit, like the JACA, is not considered very wholesome by the people of this country.¹ But this that I show you is much esteemed here.² It is not long since it came here from Malacca, where it is abundant. I ask what you think of this fruit. It is the size of a chicken's egg or rather larger. You

¹ *Eugenia Jambolana*, Lam., a Myrtle-bloom. Ibn Batuta also compares the fruit to the olive. It is the "Black-Plum" of Anglo-Indians, and *jambu*, *jamam*, and *jambul*, all meaning "eatable," "toothsome," of the people of India.

² *E. malaccensis*, Linn., the "Malay-Apple" of Anglo-Indians, and *Malaka-jamrul* of Southern India, and known also by the name of *kavika*. The Anglo-Indian "Rose-Apple" is the *E. Jambos* of Linnaeus.

JACA, JAMBOLÔES, JAMBOS, JANGOMAS

see that the colour is white and yellow, and the scent like that of rose water, so that both senses are gratified. Now it is necessary, as it seems good to the sight and the smell, that it should be tried as regards the taste, and for this purpose it must be eaten.

RUANO

I have tried it and it tastes very good. It is a taste which does not cause much craving, the fruit being watery, but for me the taste is very pleasant. The appearance and smell remind me of large gall-nuts when they are new (those we call *maçans de cuquo*¹). Tell me what they call this fruit in the country where it grows.

ORTA

In Malacca the name is JAMBOS, and it is so called also in this country.

RUANO

These are better than the JAMBOLÔES. I had heard much of it, and I say that it justifies its fame, and is agreeable to all the four senses. It is certain that this fruit is fit for a prince in our Spain, and it does not seem to me that it would do any harm to eat it before a meal. I perceive that it is cold and humid. Now tell me about the tree.

ORTA

You can see the trees in my garden from this verandah. The small ones have been planted two years, and in four they will yield plenty of good fruit and several times in the year. The shape of the tree, like that of the fruit, is oval, with fruit the size of a plum. The flower is red and very sweet, with a taste like sorrel. The leaf is like the point of a lance, large and of a very pleasant green colour. The roots of this tree strike far into the ground to uphold the tree when it is loaded with

¹ Oak apples.

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fruit, which is the case many times in the year. Conserves are made both of the fruit and the flower.

SERVANT GIRL

The man is here who brings letters from your tenant at Bombay.

ORTA

Send him here.

THE CAPTAIN

The letters are from your tenant, and also this basket of JAMGOMAS.¹

ORTA

I will read the letters afterwards. We will taste the fruit, and you can open it first between the fingers—so.

RUANO

It seems from a first taste like a plum, and styptic.

ORTA

There are many in Baçaim and Chaul, and I have also seen them in Batecala. The tree is like a plum tree, and so are the leaves. It has white flowers. There are many spines in the trunk. They call it JAMGOMAS, and for the most part it grows in the country. It has also been transplanted, and persons worthy of credit have told me that the best way of planting it is to find the seed in the excretions of a certain bird with which it is mixed. In this way it soonest yields fruit.

¹ *Flacourtia catophracta*, Roxb., of the Savantvari country; the *paniala* of Hindustan, and *talishapatri* of the S. Deccan, the latter being one of the Indian names of the Cinnamon tree.

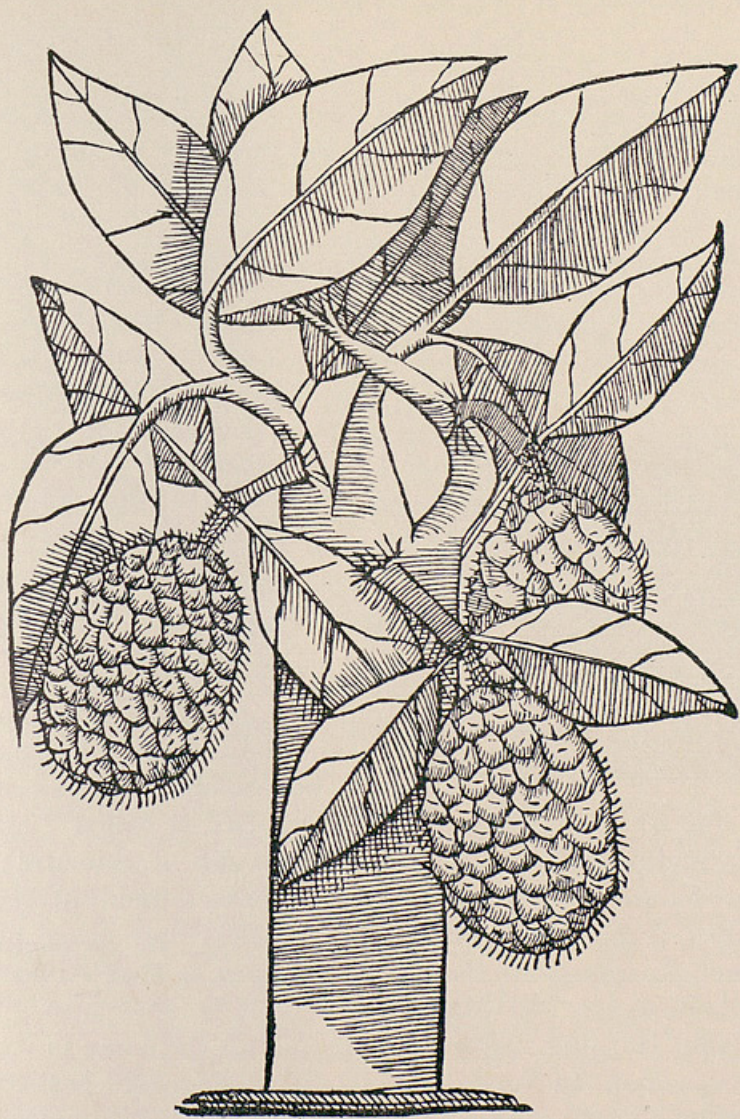


PLATE XIII.—IACA.

TWENTY-NINTH COLLOQUY

LACRE

RUANO



OW the turn comes for LACRE, which is used so much in this country in closing letters and for seals, instead of wax.

ORTA

Rather the wax is used for want of LACRE, for the LACRE is hard to unfasten, and the seal cannot be opened but must be broken. LACRE is the name for what, in the books of druggists, is called LACA, in Arabic and Persian LOC SUMUTRI or LACRE of Sumatra; not because Sumatra is near Pegu, where it is found, but because it comes from those parts. The Arabs and other people supposed it was from there, and so gave it that name. In Bengal, Balagate, and Malabar where it is, they also give it that name, learning it from the Moors, but the name in its own country is LAC. In Pegu and Martaban, whence the best comes, it is called TREC. There are some who say that it comes from Jamay,¹ whence also comes the ALMISCRE; those of Martaban and Pegu taking it to Sumatra for sale. This is the reason

¹ A province in the kingdom of Laos.

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that the Arabs call it *LOCSUMUTRI*. The Pegu people bring back pepper in exchange.

RUANO

Tell me what it is and how it is made, and in what way it is produced, for you will tell the truth as you know it, and I will then discuss what is written in books ancient and modern.

ORTA

I was deceived for a long time. For they said that in Pegu the channels of the rivers deposit mud into which small sticks are driven. On them are engendered very large ants with wings, and it is said that they deposit much lacre on the sticks. I asked my informants whether they had seen this with their own eyes. As they gained money by buying rubies and selling the cloths of Paleam and Bengal, they replied that they had not been so idle as that, but that they had heard it, and it was the common fame. Afterwards I conversed with a respectable man with an enquiring mind, who told me that it was a large tree with leaves like those of a plum tree, and that the large ants¹ deposit the lacre on the small branches. The ants are engendered in mud or elsewhere. They deposit the gum on the tree, as a material thing, washing

¹ Lac, from the Sanskrit *laksha*, and Hindustani *lakh*, meaning "100,000," as in the phrase a "lao of rupees," is the resinous exudation produced on various Indian trees—as *Butea frondosa*, *Ficus bengalensis*, *F. religiosa*, *Schleichera trijuga* [*kusumba*], *Shorea robusta* [*sal*], and *Zizyphus Jujuba*, and also on the plant *Cajanus indicus*, the "Pigeon-Pea,"—by the puncture of the females of the lac-insect, *Coccus* or *Tachardia Lacca*, as their common nuptial and accouchement bed, the seraglio of their multi-polygamous bacchabunding lord, the male *C. Lacca*. As freshly gathered from the tree this resin is called "stick-lac"; when the females, known as the colour "lake," are washed out of it, it is called "seed-lac"; and when this is melted and run out in layers, and cooled, it is called "shell-lac," from which "lacquer" and "sealing-wax" are formed. Both the males and their colonies of females live only for the time they are ceaselessly reproducing themselves, and as if only to dower the world with one of its most useful resins, and most glorious dyes, the colour "lake." Lac has been erroneously identified with the *kankham* of the Arabs, the *κάγκαμον* of the Greeks; which was probably the resin *dikamali*, yielded by *Gardenia lucida*, and *G. gummifera*. See pp. 246 and 247.

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the branch as the bee makes honey; and that is the truth. The branches are pulled off the tree and put in the shade to dry. The gum is then taken off and put into bamboo joints, sometimes with the branch. But the best is that which has the least bits of the branch with it. For they presently say this lacre has much branch, or has little. They also told me that some was very dirty and turned into powder, and that this was because it was mixed with earth. I sent to Pegu to enquire about this and found it was quite true. Being in Balagate, where there is some which is brought for sale to the seaport from the territory of Cotamaluco, they told me the same. Here in Goa a boy brought me a branch he had torn from a tree we call MACEIRA and the Deccanis BER,¹ of which I have spoken before, and here it is in my garden. I see it with my eyes. As it has little lacre, the country not being suitable, no account is taken of it. But many tell me that it is the MACEIRA that is suitable for those ants, and this is clearly true, for the wings of the ants are often found mixed with the lacre. This lacre of which we speak, when it is mashed, becomes a fine red, and of this they make those sticks that you see for closing letters. They stain and so increase the necessary colour for the stick with the dye which makes that colour. Of these sticks, or large thin plates, the carpenters or turners dye those they choose on the lathe, drawing off the lacre from the stick to the lathe. With this lacre they fill up the silver and the gold which is empty, to make their best works. Further I know that the tree is not like a myrtle either as regards size or the leaves. It is sometimes as large as a walnut tree, sometimes smaller. It is not called AEC, the name given it by the Pandetario, nor ANCUSAL, these names being corrupt.

RUANO

Avicenna calls it LUC in the amended translation by the

¹ *Zizyphus Jujuba.*

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Belunensis, and Paulo states that the tree is like the tree yielding myrrh, that it has a good scent, that it is necessary to administer it with caution, that those are wrong who say that it is like the carrob, and that it is true that it has the virtue of the carrob in some respects. What do you think of that?

ORTA

I say that Avicenna did not know the LAC and spoke from conjecture. He may never have seen the stick. I would swear he had never seen the tree if he thought it was like the myrrh tree. Yet I do not know the myrrh tree to confute his statement; but I know that the gum of lacre is formed on overlaid sticks, and the other is distilled from the tree. The myrrh has a scent and the lacre has not, though Avicenna says that it has. It is called LUC by the Belunensis; perhaps he found it so written in ancient originals, for now all the Arabs call it LOCSUMUTRI. Those who say, after Avicenna, that the lacre has the properties of the carrob are to be reprehended, for this is false. The carrob is glutinous and styptic. The lacre is aperitive, and, for being very aperient, Avicenna says it must be administered with caution; and, as you know better than I do, at first we used aperients less than we do at present. But what is to be regretted in Avicenna is that he thought the lacre was the *cancam* of Dioscorides. For Paulo seems to speak by his mouth. And clearly it is false, for our lacre has no smell, while the *cancam* is fragrant and used as a perfume. Avicenna says another thing calling for reprehension, that, when lacre is wanting, dragon's blood takes its place, which is also a styptic medicine.

RUANO

Why do they call it LOCSUMUTRI? Is it, by chance, in Sumatra?

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ORTA

No; as I have told you, it is in Jamay, and it is taken from there to Sumatra, pepper being given in exchange. Now this route is not so much used, as the lacre is only sold by the Pegus to the Portuguese, and we sell it to Arabs, Persians, and Turks. We also take it to Portugal, whence it finds its way to Africa and other parts; so that there is no longer any reason for calling it *LOCSUMUTRI*, as formerly. The Chinese who brought it to Ormuz and other lands did not care whether it was from Sumatra, and as from Sumatra they sold it; but there is none in Sumatra, or if there is any it is a very small quantity, and up to the present we have no notice of there being any in that island.

RUANO

Having now examined Avicenna, we will proceed to examine Serapio. He calls it *SAC*, meaning *LACA*, and refers to Dioscorides in the translation of Abtabharic, who says that the gum found in Arabia is like the tree of myrrh. He quotes from Rasis that it falls from heaven on to the branches of *GUBERA*, and alleges that Isaac says that the red stuff which falls over the sticks is used as a dye for cloths. He also says that they bring it from Armenia, a land well known in India. Now tell me the truth about all this.

ORTA

SAC is a corrupt word, and the lacre of Dioscorides is not lacre, of which neither Dioscorides nor Serapiam knew anything. For Serapiam thought it was the *cancamio* of Dioscorides, and said it was like myrrh or storax. You can see that this lacre has no scent whatever. Galen, in the translation of Abathabarich¹—some suppose it was Paulo—alleges the same. Neither Serapiam nor Paulo say what is true as

¹ There is diversity in the spelling of this name in Serapio (ed. Brussels, 1531), Athabarich, Albatarich, Atabari. He was the Arabian translator of Galen.

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regards what Galen wrote. For they say that the gum of a tree which grows in Arabia is like myrrh. But this lacre does not belong to Arabia, for there is a trade with it to Arabia from India. How then can there be any credit for these statements? Rasis also states that the lacre falls from heaven over the branches of the GUBERA. This is false, for GUBERA¹ in Arabic means SORVA, and there is no SORVA in all India. The Nizamoxa has it brought from Persia and Khorasan, and I have seen it in his house.

RUANO

Perhaps NESPERA is intended, for other books say that it is over the branches of NESPEREIRA.

ORTA

It is badly translated, for GUBERA is SORVA and ANZURUT is NESPERA, but there is neither one nor the other in all India. And the assertion that it comes from Armenia is also false, for neither is there any in Armenia.

RUANO

The Italian Friars, who wrote on Mesué, say that no man has ever seen the true lacre in our parts, and that it is not credible that nature can be at fault, for many believe that it is the *cancamo* of Dioscorides, because the descriptions of Dioscorides and Paulo agree. Yet no person has even seen this *cancamo*, and some say that it is what we call *benjoim*, while many good physicians hold it to be dragon's blood.

ORTA

To me it seems that the Friars say well in affirming that nature is not at fault as regards these simples; and they are right in saying this because the lands are better known and the use of medicines is better understood. But in saying that

¹ *Sorbus domestica*, or *Pyrus Sorbus*, The "Service Tree."

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it is not here they are wrong, and would be more correct if they said it was here; for it is brought to India every day, and is used by Moors and Gentios. They would be still more correct if they said it was unknown to Avicenna and Serapio, or to those who turned the mention in Dioscorides and Paulo of *cancamo* into it, which we have not got. For what we use is it, and we know nothing of *cancamo* nor of *benjoim*. I note this because it is not in Arabia, as I have told you, speaking of *benjoim*. I have already put dragon's blood in its proper place. Taking you to Spain, the lacre is used there with much boldness. Here the learned Moorish physicians in Balagate use the DIALACA, which they call DALLACA, the AL being the article of genitive; so they call DIATURBIT DALTURBIT, a compound of TURBIT; and so with all the other compound words, where we put DIA they put DAL. You, who are a good Grecian, know that DIA is right, for I have heard you say so, who am not a good Grecian. Of this I will say no more, so as not to get beyond my depth.

RUANO

What you have said appears to me to be right, but I cannot form a judgment because I am not a good Grecian, and Ruelio, a curious and cautious writer, is doubtful on this point.

ORTA

He has reason, but you should speak on it and relieve yourself of doubt.

RUANO

What you say is well said as regards my feelings notwithstanding your argument. I think ours is not the true lacre, for the Greeks knew it as *cancamo*, as did Avicenna and Serapio; and neither the one nor the other have scent, nor are they used to perfume dresses; but, mixed with myrrh and storax, the addition neither causes nor increases scent, but

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diminishes it. I therefore conclude that we have not got the lacre but the *cancamo*.

ORTA

You say and then unsay, for first you say that nature has not been deficient in these medicines so celebrated by the Greeks and Arabs, and then you say that we have not got them.

RUANO

So I say again, until you give me reason for altering my opinion.

ORTA

It is no less inconvenient that Serapio and Avicenna did not know the lacre than to err in saying that nature has failed. You know that lacre is that which you see being sent from India to Portugal, and over all the regions of Asia and Africa and many parts of Europe, and what it is called here in India. You do not doubt what it is, nor do the Friars nor others. I say, as I have said before, that Serapio was mistaken in thinking that it was the *cancamo* of Paulo and Dioscorides, and Avicenna was much more mistaken, for he gives an account of *cancamo*, and then has a chapter on *cheickem*¹ as if they were two different things. When he makes such a mistake as this, it is not much to be ignorant of lacre.

RUANO

Very well, you have persuaded me of that. Now about *cancamo*, how is it we have not got it?

ORTA

It is a less evil that we should be wanting in one simple than in two. I will tell you what the *cancamo* is, according to my opinion. I have not got certain evidence to enable me

¹ *Keikhem*, or *kamkeham*. Sprengel held the word in Avicenna to be an Arabic transcription of *κάρκαμον*. *Kankham* is the Arabic, and *khumiham* the Persian for *dikamali*, the resin of species of *Gardenia*. See footnote on "Lac," p. 241.

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to come to a conclusion ; but when I get better proofs I am ready to change my opinion.

RUANO

I think you are going to say that it is *benjoïm*, and to this I cannot agree, for *benjoïm* is not in Arabia, as we have already seen.

ORTA

I do not say that, but I think it is *anime*, which has a good scent and is used as a perfume. It comes to Portugal from Ethiopia, a country bordering on Arabia.

RUANO

Certainly that satisfies me, but some say that the *anime* is a kind of *carabe* ?

ORTA

This helps me for, according to some, *cancamo* is a species, and Avicenna, reprehending that opinion, says that it is not *carabe* though it has the same virtues, yet it is not that but *anime*.

RUANO

A chronicler of the Indies of Castille says that there is *anime* in Çirvamlha near Maluco, and in Brazil.

ORTA

The Castillians, if you will let me say so, are a people who exaggerate greatly, and in this there is a mistake. It refers to a certain material for caulking ships of which much comes from Sumatra and many other places. But it has not the smell of *cancamo* nor of any other gum. In this way you may speak of *lacre* or *cancamo* until you find another medicine which more truly complies with all its signs.

RUANO

God be praised that I am satisfied as regards *lacre* and

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cancamo, and now it all seems clear. But which is the land where this gum is principally called LAC or LOC or LUC?

ORTA

This is the cause of many errors. In the case of the *ESPODIO*, as we now call it, it had another name, that of *TABAXIR*, the name where it grows, and the confusion caused much contention among Arabs, Latins, and Greeks, because the medicine is not known under the name of *Espodio* in the place where the plant grows. This gum, which is wanted and needed for dyeing, was called *LOC*, and so the gum was known as *LUC*, and it remained as the name in Arabia, to which land it was brought from where it had been bought by the Chinese. After a time it got the name of *LAC* among the natives of India, and those names which are so much alike no doubt originated in that way.

RUANO

So much is established in the affirmative that I can no longer raise a negative, and especially as regards two reasons so like each other. Now I want to ask you a question relating to trade. It is to obtain license to send 100 quintals of lacre to Portugal or Ormuz. It seems to me best to take it to Portugal, because they tell me that it is now worth four times less than what it used to be worth here.

ORTA

I will tell you. The Captains of Ormuz have an establishment and factory in Baçora, a city of Mesopotamia, whither merchants of Aleppo come to make purchases. Lacre may be sold to them at very good prices. The factor of the Captain of Ormuz who had it for sale, without much hope of getting much for it, was offered a good price by a very great merchant of Aleppo who saw it. He gave, as a reason, that there was a very rich dyer in Aleppo. He was sent for by the Governor

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(called by them Pasha) who told him that the great quantity of money he had belonged to the king. His house was searched and it was found that he had 100,000 *venezuanos*. The Pasha said to him, "You are a dyer, and a rich dyer may not have more than 1000 *venezuanos*, how then is it that you have 100,000?" So they took all from him. As no justice can be had against Moorish Kings, this man made his complaint to the Grand Turk. He, by agreement, discovered in his land some dye in earth or on trees or bushes, which was better than lacre, consequently lacre is no longer needed in those lands, which yield to the Grand Turk more than 100,000 *cruzados* a year. For the service thus done to the Grand Turk all his money was restored to him, and many privileges besides. For this reason very little lacre is wanted in Ormuz for Persia, and none at all for Turkey or Arabia.

RUANO

What is that dye? It cannot be *kermes*, for that is in Spain and other parts.

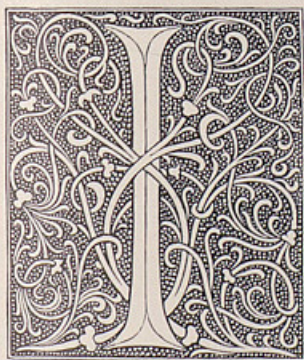
ORTA

I am unable to say, but what I have told you happened as I related it. One thing I pray of you, that, when you return to Spain you will not allow them to pass dragon's blood for lacre, nor let them believe that lacre is what the Arabs call *QUERMES*, for one is a gum and the other a seed, of which there is plenty in Spain.

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LINALOES

RUANO



INTENDED to ask you about the LINALOES,¹ but I have not done so because it seemed to me that all that can be known about it has already been written.

ORTA

On the contrary, my dear Sir, it would be more true to say that little is known about it; yet not so little but that the tree has been seen by some Portuguese, or I should say a branch of it, and the whole tree by many of our slaves, as I will explain presently.

RUANO

Will you refer to what is said on the subject by Greek, Arabian, and Latin writers, and tell me where they are right

¹ *Aquilaria Agallocha*, Roxb., growing in Tenasserim, and on islands near Mergui, and in the valleys of Assam and Silhet, and the chief source of "Aloes-wood," "Lignaloës," "Eagle-wood," or "Calambac," the *Agallochi* of the Arabs. A similar product is yielded by *Aloeoxylon Agallochum*, of the Leguminosae, and by *Excoecaria Agallochum*, a Spurgewort. See p. 262.



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and where wrong, and above all your own opinion, and what has come to your knowledge ?

ORTA

I say that you shall be served by me as regards what I know, although there can be no doubt about these simples or what relates to them.

RUANO

Galen, according to Serapian, quoting the translation by Albatari,¹ states for what it is useful.

ORTA

The best modern authors all say that Galen does not mention this drug, and where he is otherwise quoted it is in books which falsely attribute statements to him, therefore this Grecian author may be left apart.

RUANO

Dioscorides calls it AGALOC, and says that it comes from India and Arabia and that it is sometimes used for incense.

ORTA

The true LINALOES is only found in these parts of India, and the land referred to by Dioscorides may be traced to Arabia for, as I have often mentioned, all the merchandize of that land goes by Gida, or Torso, or Ormuz to Cairo, Alexandria and Aleppo, and so to many other lands. If some is heard of in Arabia it is not this special LINALOES, or if so it was adulterated. As to what Dioscorides says about its being used as incense, this cannot have been the statement of so grave an author. It would be less wrong to say that for want of LINALOES they used incense. A quintal of incense is worth

¹ The name of the Arabian translator of Galen referred to in the Latin edition of Serapio (Brussels, 1531) occurs in several forms: Athabarich, Albararich, Atabari, Albatari.

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1 *cruzado* and a half of the best, and it would be much cheaper in the land of Dioscorides. An *arratel* of the best *aguila* is worth 3 *cruzados*. Now judge whether this permutation of Dioscorides holds good.

RUANO

It seems to me that in this you have much reason, for those which remain in Arabia ought not to be so dear as these.

ORTA

Do you know how far it is to come from India to Dofar, Caxem, Xael, or Barem?¹

RUANO

Let us examine Avicenna as an authority.

ORTA

He gives two chapters—one, 742, to XILALOE; another, 14, to AGALUGEM.

RUANO

How is that? Are there two medicines?

ORTA

No, there is only one; and he made two because he was doubtful, so that he explains better the second time than the first, and says that there was not more than one medicine. The names he gives in Chapter 742, when stating what lands they come from, are to be made out. ALMUDILUM may be presumed to mean Melinda, because in that land there is a black stick which sinks to the bottom in the water. Another, Avicenna says, is brought from Sofala. Now it is found in Encuama, and it is not inconvenient to call Sofala a region of India, for so we called it formerly. Another name is ALCAMERI which is Cape Comorin, a well-known promontory

¹ Ports in Arabia.

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called CORI by the ancients. Other names of LINALOES are ALSEUFI¹ and ALBERI, another in the region of Catai and Seni, and others the derivations of which I confess I do not know.

RUANO

And what do you say of these parts? Do the true LINALOES come, or are they native here?

ORTA

The true kind is not native. It is true that in the parts of Cape Comorin and Ceylon there is a plant that smells like it, which we called *aguila brava*; but the scent is that of other plants we have here. This plant was taken as an article of trade to Bengal under the name of *aguila brava*, but afterwards the Bengalis were undeceived and would no longer buy it. This plant is what they call ALCAMERI and ALSIFICASI at Cape Comorin and Ceylon. If these derivations do not satisfy you now, at another time they will seem good to you.

RUANO

Please me by saying whether it is from Catay or Seni?

ORTA

From Cantam (most famous of all China) and Seni is Chincheo.

RUANO

Is the LINALOES in that land?

ORTA

No. How many times have I told you that the Chinese who navigate those seas bring the good LINALOES from Sumatra and Malacca, and the bad from Ceylon, buying it well and selling it. What they buy is very good. They

¹ A misprint. In Avicenna it is ALSAMFI.

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take it to their country, for the LINALOES in China is an article of great price.

RUANO

Avicenna also says that in boiling it, in the land where it grows, the plant loses its virtue. Tell me what you think of this, for many say it besides Avicenna.

ORTA

Nothing of the sort. It is not the custom to boil this wood, of this you may rest assured. Presently I will explain the way of selecting it and how it is treated, and here you can answer that the plant is not boiled.

RUANO

Serapio states this from Dioscorides, and I can well believe that it is true, for he says that it has a rind rather than bark, and that it has bitterness with styptic properties, and that it is brought from India and Arabia.

ORTA

This is not wholly true. They speak the truth when they say that it comes from India and Arabia, but it is not true that it grows in both those countries. It grows in India¹ and is brought to Arabia as merchandize. It is wrong to say that it has skin rather than bark, for it has bark like any other plant. But the scent is not good except that of the pith (what the Portuguese call *cerne*²), but as the bark and wood become dry the scent gets stronger.

RUANO

There are many species of LINALOES INDO, and it is said that some grow in an island called Fuma,³ which is better, being black and variegated. Then it is said that another kind comes from parts of India called Model, Sief, and Alcomori,⁴

¹ India beyond the Ganges.

³ Fimua in Serapio.

² The core or heart of a tree.

⁴ Sief and Alkumeri in Serapio.

THIRTIETH COLLOQUY

from which places the journey by land takes three days, that the best is the kind that sinks in the water, and which does not burn when put in the fire.

ORTA

Those names are very corrupt, and I confess to you that I do not know the interior very well. I cannot, therefore, criticise Serapio on this point, nor tell you whether he says well or ill. If by Fuma he means Sumatra he says well, but the derivation is very doubtful, and as to Model I cannot tell what place he alludes to. Alcomari and Sief are Cape Comorin and Ceylon, the voyage to them by sea taking three days, as he says. That this is right may be proved because those countries have a kind of LINALOES which we call AGUILA BRAVA. And with this *aguila brava* the Baneans are burnt when they die, these Baneans never eating anything that can have died. The Chinese, who bring LINALOES from Sumatra, touch at Ceylon and Cape Comorin, and when they sell it they would say whence it comes. Serapio also says that they bury it, and the sign that it is good is that it comes full of earth. This test may be applied to any fragrant wood. The other statement is that besides this there is the *abel* brought from Sofala. It is not to be wondered at that the sticks from Sofala and Mozambique should be black, or that they make scented things from them, for it is said that combs and boards are so made. As for the statements that they cut the branches and bury them for a year, that the earth does not injure them in the slightest degree, and that they come by the rivers, there is a certain amount of truth in them, as I will explain presently.

RUANO

They also say that it has a red fruit like pepper.

LINALOES

ORTA

Nothing is said on that point where I have been able to verify. The Muhammadans do not speak of it; for neither Rasis, nor Avenrois, nor Isac mention this plant except as to its uses, not as to whence it comes.

RUANO

Pliny says, according to Ruelio, that there are two places whence the *casia* comes; from the countries of the Nabateos and Trogoloditas; and that the merchants sell the *aspaltum* for it.

ORTA

Pliny does not make a good road in this. It may be that *aspalto* may have been adulterated and sold as *linaloes*. You do not suppose, as some do mistakenly, that *aspalto* is what we call *betume judaico*, for that is a cheap drug brought from the strait of Mecca, and sold here as pitch for ships.

RUANO

I also want to know this. Sepulveda, and the Friar who wrote *Modus faciendi* and the author of *De proprietatibus rerum* says that it comes from the terrestrial paradise.

ORTA

I have never deserved to go to the terrestrial paradise. But I may say that the rivers which are said to come from the terrestrial paradise are far enough from where it grows, and that these authors have no excuse for repeating such a fable.

RUANO

A modern author is surprised that it should go to the bottom, when it is so light.

THIRTIETH COLLOQUY

ORTA

He is wrong, for the centre or core is quite light, and some of it floats on the water, being very good, and for this I will cite other experiences and better proofs before we have done.

RUANO

The Italian Friars say that Avicenna is wrong in making two chapters for this drug when there ought to be only one, and they reprehend Savanerola for making a difference between *xilaloes* and *linaloes*, there being really no difference, but one word being Greek and the other Latin. Savanerola does that in his fifth treatise, *de lignis*.

ORTA

I do not want Friars as reproachers except in the pulpit. I say that Avicenna makes two chapters, as of a thing that is not well known, and the second is more copious than the first. To the first he gives the letter *alif* of the Arabic alphabet, and to the last he gives another letter H(*ayn*), whence it may be deduced that when he got more information he wrote a fuller chapter. With regard to the fault found with Savanerola it should not be supposed that, though he was doubtful, he did not know that *xilaloes* and *linaloes* were the same. What he wrote was not from bad writing or forgetfulness, as often happens, for such a man would not err in a matter of importance.

RUANO

Sinforino says that he had never seen the true *linaloes* anywhere but at Liam in France.

ORTA

Come here, and pay well, and take it. To tell the truth the very good kind (which is called *calambac*) is worth more in

LINALOES

Malacca than here. Much comes from Malacca to this country, and is taken to Arabia, Turkey, Persia, and is used by the Moors and Gentios here. I will choose a sample for you to take to Castille, from the house of a merchant who has 10 quintals here, he to whom I gave the *benjui de bonina* the other day. When you want to go you will find the ships of Malacca at Cochin, and you can choose and buy them as you please.

RUANO

I kiss the hand of your worship for what you intend to give me so graciously, and for the advice you have offered me. The Pandetario says that the best LINALOES is on the higher slopes of the mountains, either owing to the force of the winds, or the age to which the trees attain, or the long time since they have come from the river below. It is also said that he falsified the plant, putting *camalea* in its place. So says Acacio Felici, that one of his species is from an island called in India Camar, and another Caemer, and a third Sares. I do not wish to repeat what he says about boiling it, because you have said that it is false.

ORTA

They do not grow on mountains, but in valleys; and they do not come by the rivers, or very few, for the best grow where they are and are brought by the river for sale, and sometimes by land, but the route by the river is most used, being the safest. For the tigers are very numerous in the woods, and are called *reimôes*. The land where they grow may be Sumatra or Ceylon as I have said; and the *camalea* is a false attribution, saving your reverence, for it is not in that land.]

RUANO

Valerio Probo,¹ a diligent writer, who has written some

¹ Or Cordo. "The errors of the press in the first edition are very numerous in this Colloquy" (Portuguese Editor).

THIRTIETH COLLOQUY

additions to Dioscorides, says that the worst and vilest kind is of Rhodes. Have you seen it?

ORTA

No, as you may see, nor are included in this genus the *agaloco* or *linaloes*. It is well to know what is correct.

RUANO

Ruelio and Antonio Musa are writers, who being more modern and being persons having some knowledge of Portuguese navigation, should be more accurate.

ORTA

I well believe that they are more truthful, but I shall say what I say, and I say what I know.

RUANO

Well Ruelio says that the *agaloco* is in our land, and that the first Grecian who called it *linaloes* was Aecio, I do not know why, and the whole company of physicians and druggists followed him. He says that Galen does not mention it, and that Paulo calls it *lenho Indico*. Aecio says that in the east it is principally found in the parts nearest the sun, also that it never has the scent until it has first been powdered with certain insects, then buried in the earth and pounded, and with rottenness the scent is attained. He adds that the natives break it in pieces and bury it, and when the scent comes they sell it to the merchants. There are four kinds, namely (*Indico* the best known and most celebrated of all), the *Safico* (after a town called *Safo*), *Hispeon*, and *Higron*. The Arabs say that its fruit is a red berry, smaller than pepper, which is called *piperala*, and the *linaloes* is not subject to rottenness.

LINALOES

ORTA

In this he speaks correctly, and in saying that it is not known up to the present time he is right. But I say that it is now known in this land, and from this time it will be better known whence it comes,¹ and I will tell you how the scent is produced. Of the four kinds I only know one, namely that of India, and it may be that the other kinds are not really *linaloes*, but only scented wood. I do not know and have not heard what fruit it bears, but the statement that it is not subject to becoming rotten cannot be entirely true. This plant powders very slowly in the pith (or core as we call it), so that in those parts it is less [subject to decay. It is wrong to say that to make it into powder it is eaten by insects and that the scent then comes out. Afterwards he says that it is not subject to decay. From this it is to be understood that the core does not decay, and the second and other part next the bark does decay.

RUANO

Antonio Musa says many things in agreement with your views. He further says that your Portuguese find it in the forests, cut down the trees, and leave there until it decays, and that they are worth much in Sumatra whence they come, and that in spite of this much good *linaloes* does not come here, and when it is on the open hand the scent is strong, and that this is the kind called *calambac* taken to China and Canton, a very celebrated port, and that it is long before it burns when put in the fire.

ORTA

For the most part what he says is very true, but there are not a great many trees in the forests, for they are not numerous and it is dangerous to go there on account of the tigers. I

¹ Count Ficalho thinks this statement of Orta rather audacious, for he did not himself know whence it came any more than the others.

THIRTIETH COLLOQUY

must tell you that a great deal of the good kind comes to our hands through the captains of Malacca who navigate in those parts, if they wish to buy well. Here I will show you some of it.

RUANO

Now I would know the names in the different languages, and the appearance of the tree.¹

ORTA

They call it *AGALUGEM* and *HAUD* in Arabic and the *Guzeratis*, and *Deccanis UD* which is nearly the Arabic. In Malay *GARRO*, and the very fine kind *CALAMBAC*. The tree is like the olive, sometimes much larger. I do not know the fruit, as I have told you, nor the flower, for I have not seen them, owing to the difficulty there is in procuring them. It would suffice if I should see the leaves and branches brought from Malacca coming from higher up the river. They say that when it is cut there is no scent. But it is not necessary that it should decay before the scent comes out, as some say. You must know that the bark is thick, and that the scent is not there but in the core or pith, as it is called in the cork tree. When it decays outside there is a concentration on the pith and the grease of the plant and the scent becomes very strong, all the virtue centering on the inside. Owing to this, I say that it is necessary to decay first to produce the scent. When the plant is very dry the central part is better and the scent stronger because there is nothing to work against it. Persons who smell the plant presently say that it has a strong scent. For throughout the plant there is a difference in the wood. The Malays clean the plant, which is a drawback when they bring it for sale.

¹ The names by which Eagle-wood, or "Aloes-wood," is known in India are:—Sanskrit, *agaru*, meaning "without weight"; Arabic, *ayalugi*; Persian, *ayalurchi*; Hindustani, *agar*; Telugu, *krishna-agaru*; and Malay, *kalamba*. See page 251.

LINALOES

RUANO

Is the CALAMBAC of the same species ?

ORTA

All is one. The finest is called CALAMBAC and the others as I have said.

RUANO

How is the best kind known ?

ORTA

That which is very black with grey veins, and heavy with much oil in it, is the best. As a test put it in the fire, and that which sweats most and has most grease is the best. Besides these points the Guzeratis and Deccanis require that it should be large, like a gem or a pearl, for they say that the largest have most virtue. That you may try this work I have taken this piece of CALAMBAC which they do not value much.

RUANO

Certainly I have not heard so much in all my life, and it surely seems to me to be good, and I well know that I owe much to you for it, and many thanks.

ORTA

What I wish you to know is that it has given me much trouble and some cost to acquire the little I know of this drug, and it gives me much satisfaction to know that you appreciate it.

THIRTY-FIRST COLLOQUY

CATE¹

RUANO



COMPLAINING of relaxation and softening of the gums, your cook told me that I should eat (chew?) BETRE, ARECA, and CATE well mixed together; she added that CATE was the best of all. She provided it, and I found it to be styptic and rather bitter. She also said that she knew very well that drinking water should be taken after it. This she brought, and I know not anything as good as that, but with a bitter taste. Then she told me that, with a mixture of BETRE and ARECA, she knew it would be very good. Certainly it seemed to me to be a very good medicine to dry and open. We know where it is, what it is called, and how it works. But I want to be informed respecting the appearance of the tree, for what the medicines are used in this land, and some of the writers who refer to it.

ORTA

This plant is most abundant in the territories of Baçaim, Manora, and Damam, cities of our King. It is also in the

¹ *Areca Catechu.*

CATE

mainland of Goa and in many other parts, but not in such quantity as in the places I mentioned first, whence it is taken to Malacca and China in large quantities, as well as to Arabia, Persia and Khorasan. As a medicine the demand is not large, but a great quantity is used in China and Malacca to chew with betel. They all call it CATE, in Malacca CATO with some variations. The Arabs, Persians, and all the people of India call it CATE. In its own proper country they call it UPLOT, also PUCHO, owing to the great trade in it to Malacca, where it is so called. The tree which yields this CATE is the size of an ash tree, and the leaves are small like those of the gorse (or *jounas*, as they call it in Portugal). We may also compare it to the tamarisk, for it has many spines and leaves all the year round, and the branches are very strong and heavy. It never decays, according to the natives, neither from the sun nor from damp, and among themselves they call it "the plant that is always living." It endures blows, and for this and because of its weight, they make certain sticks of it, with which they beat the husks from the rice. They call them *piloes*. They tread it into a very large stick made like a pestel, and this stick, which they put inside to stamp, is made like the handle of a pestel, and 6 *palmos* in size. They call this tree in its native habitat HACCHIC. As I do not know the language of this country so well as I know Portuguese, I do not know the reason that they call it CATE. Well, this is enough on the subject.

RUANO

All you have said explains things very well, but I want to know about the flower and fruit.

ORTA

It has flowers, but they tell me there is no fruit.

THIRTY-FIRST COLLOQUY

I RUANO

Tell me how these lozenges are manufactured and the shape they are given.

ORTA

They cut very small twigs from the tree, boil them and pound them into shapes like lozenges or wafers, or like the flour of NACHANI,¹ which is a small black seed with which they make bread like rye. With that flour and the ashes of a black stick found in that land, or without them, they make slices and dry them in the shade, that the sun may not draw out their virtue. These people all use it, and also the Chinese, being so discreet and well informed, affirm that it is a very good medicine. I have tried it for dysentery and for pain in the eyes and found it very good. As to what is known of mention made of some writers, I will tell you a thing which I believe to be perfectly true, if you will give me leave.

RUANO

I shall be much obliged to you.

ORTA

I say that CATE² is what Galen and Pliny and Dioscorides, Avicenna and Rasis call LICIUM, because it was first found in Lycia, a province of Turkey, or because the best kind was found there in former days. The Arabians, Avicenna and Serapiam called it HACDADH.

RUANO

How is it that you say it is the LICIUM? Is it not called

¹ *Eleusine Coracana*, Gaert., a dark-coloured millet, the *korakan* of Ceylon, the *rugi* and *nachni* of the Bombay Presidency; these names being corruptions respectively of the Sanskrit *rajika*, and *natchini*.

² *Berberis Lycium*, Boyle, and other species of *Berberis*, the *λόκιον Ἰνδικόν* of the Greeks; the watery extract from the wood of which is famous all over India under the name of *rusut*. The Hindustani name of the wood of these trees is *chitra*, the Sanskrit *daruharidra*, i.e. "wood turmeric," the Persian *pilzahra*, the Arabic *ambarbaris*, and the Chinese *kauki*.

CATE

CATE by the Arabian writers, and this being so why do you call CATE the LICIUM?

ORTA

I call it so because all the modern and ancient writers, Greeks and Latins and Arabs and Indians, all prefer the LICIUM of India to all others; still more because it is this with which is taught all that here is known; still more because all the things for which LICIUM served are used in this country for CATE; still more because it has the conditions for making good LICIUM. It serves for weakness of the eyes, strengthens the gums and teeth, kills parasitical creatures, and is good for the throat, for rheumatism and for dysentery. You ask why the Arabs do not call it CATE. To this I reply that many things lose their correct names when transferred to an alien language. Now it may be that, in speaking with Arabian physicians, they will give me another name that is used in their language. You say that all speak of this simple. Well, Galen says that it is a thorny tree and that the best comes from India; also that there is plenty in Lycia and Cappadocia, and that their virtue is astringent and dry. Others contradict this. Pliny gives the advantage to India and says that it comes in leathern bottles of rhinoceros and camel hide, and tells how they are made, to which all agree. Why, then, do you ask how it is made? I will not talk of this any more.

RUANO

So as not to hinder so good a discourse I will not ask about the leathern bottles, but will remember what you have said.

ORTA

I will answer everything. I say that Dioscorides praised the Indian kind most, and described the tree, which did not differ from the CATE, at least only a little, for he says it is a small tree when it is a large one. He says it is like box and

THIRTY-FIRST COLLOQUY

that most of it grows in Lycia and Cappadocia, and when he speaks of its uses he says the same as the others—that it has the virtue of opening and soothing. Referring to the chapter in Dioscorides, it will be seen that the Indians use it in the manner that he describes. Avicenna calls it **HACDADH**. He says that the kind from India is stronger and better than that which comes from Mecca, but I believe that the kind from Mecca is the same that comes from India. He adds that when it cannot be had, they put in its place **ARECA** and **SANDAL**.

RUANO

As to this your cook says one better, that she puts in **BETELE** and **ARECA** and the same **CATE**.

ORTA

These they had for use from the beginning of the peopling of this land. Rasis says that it is made of the juice of *berberis* made very thick for boiling, and Serapiam says the same, calling it **HACDADH**.

RUANO

Do the modern writers agree with this ?

ORTA

Sepulveda says that they make it of the juice of honey-suckle and Valerio Probo says the same. Laguna says that we have not got the true **LICIUM**. Antonio Musa also says we have not got it, but, from the indications of Dioscorides, it seems to be the box tree. The Friars desired much to find the true **LICIUM**, for **FELUZALANGE**, which, by the advice of Avicenna, may be put in its place and is the tree of **LICIUM** according to the translation of Belunense, is also wanting. To put in its place the **FAUFEL**, which is *areca* and *sandal*, according to Avicenna, is more difficult, for Avicenna says it is not well known what it is.

CATE

RUANO

There is much red *sandal* in Portugal, and cannot they bring plenty of *areca*?

ORTA

Yes. But the Portuguese druggists show little diligence in obtaining medicines and much in making money. If they would apply to the India House they would get it in abundance.

RUANO

So that if we cannot find our LICIUM we must profit by the other Indian one, and be careful to call it LICIUM, since the best is in Lycia and Cappadocia, which ought, it would seem, to be preferred to all others.

ORTA

I do not say that Indian LICIUM should take the place of Lycian LICIUM, but I maintain that when the Indian kind fails, that of Lycia should be given, for this is the view of all the writers. When that fails the medicine made of the juice of berberis or honeysuckle may be used, or of styptic wild plums. As to what you say that the kind of Lycia should *par excellence* be called LICIUM, this is not so, if you will pardon me for contradicting you. The use of this medicine was first adopted in this country and was the Indian kind, and for want or defect of that of India it had to be rejected; and this is the truth and the other view is not; for in no other region is the CATE so much used as in India.

RUANO

I will take it from this country and will use it, for it has the effects which you describe. It will be well that you should tell me if there are not many leathern bottles of camel and rhinoceros hide in this land, as Pliny says that they carry it, that we may see the quantity of it by this leather.

THIRTY-FIRST COLLOQUY

ORTA

I have not seen leathern bottles of camel skin in this country. There are some camels in the Deccan and Guzerat which take the kings and captains to war, but not so many camels die as horses, and of skins of the latter leather bottles are made. As for rhinoceroses, which the Indians call GANDAS, they are not domesticated in our land. It may be that there are wild ones in Bengal or in Patane, and in the lands of the Patane some are made tame. I have never seen a rhinoceros, but I know that in Bengal they use the horn against poison, taking care that it is the unicorn. But it has not got one, according to the testimony of those who well know. For the Nizamoxa would weigh two hundred times of gold against a little proved unicorn, and much more for a rhinoceros.¹ I know that in 1512 one was presented by the King of Cambay to the King Dom Manoel, now in glory, who sent it to the Pope. This animal is mentioned by Pliny (lib. 8, cap. 20), and by Strabo.

RUANO

From what you say it seems to me that there is no unicorn in India, for you do not speak of any, and the King, your friend, has not got one, a reason for thinking there are none here, and we do not know where this animal lives.

ORTA

There are so many uncertain things said about this animal, from its not being well known, that it is not worth while to recount them, for the persons who relate them are not eye-witnesses. But I will tell you what I heard from a person of authority. He told me that between the Cape of Good Hope and Cape Corrientes he saw some animals which, though they were disporting themselves near the sea, were terrestrial. The

¹ This is not clear. Count Ficalho thinks the meaning may be that he would buy the horn of a rhinoceros if he judged it to be a unicorn.

CATE

shape of the head was like that of a horse, yet it was not a sea-horse. It had a horn which it used, raising and lowering, and turning to right and left, in a way that made it like a finger, and this animal fought bravely like an elephant, but with its horn, which measures 2 *palmos*, and it is said to be an antidote against poison, this being the common fame.

RUANO

They say that these animals do not want to drink if they can put their horn into the water.

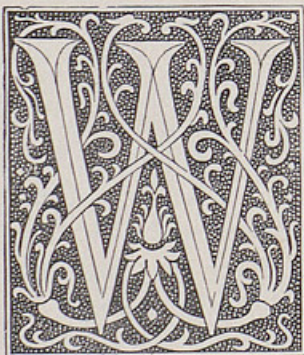
ORTA

Not only do they say that it is a good drink against poison, according to general belief, but persons worthy of credit say that arsenic was given to two dogs, one receiving a double dose. To the one with the double dose, the scraping of the horn was given him to drink. This one lived; the other that had taken the smaller dose of arsenic died. I know nothing more of this animal, but I saw some of its horns, and how they are fastened to the forehead. I pray to God that we may come to know more, and that what we discover may be for His service; and that what I write may be short rather than long, for I would only record what would be most useful.

THIRTY-SECOND COLLOQUY

MACE AND NUTMEG¹

RUANO



E know the names of mace and nutmeg, the country whence they come, namely Banda, and also the names in Arabic and Latin. According to the order, as we cannot first speak of the nut, which is fruit, we will talk of the appearance of the tree, of the leaves and flowers, and of any medicinal qualities connected with them.

ORTA

These names I can tell you. I asked for them in Malay, Malayalim, Persian, Arabic, Turkish; but for you is only necessary the Arabic and Latin, and that of the land where it grows, which is Malay. Well, I say that the tree of the nutmeg is the size of a pear tree, and the leaves are round like some pear leaves. Banda, the native place of the nutmeg, belongs to the King our Lord. Some writers on Peru say that it is in Maluco, but this is not so; for the tree there does not bear fruit, and it is the same in Ceylon. It is like a pear

¹ Mace, *jatri*, is the "aril," and nutmeg, *jaiphal*, the "albumen" or kernel of the fruit of the Myrtle-bloom, *Myristica officinalis*, Linn., the *M. fragrans* of Houtt.

MACE AND NUTMEG

tree, or, to be more exact, like a small peach tree. The rind is hard, the outer skin being harder than green pears. Removing the thick rind, there is a very fine rind like that which encircles our chesnuts. This goes round the nut. The nut is like a small gall nut. The delicate skin which encircles it is the mace. We need not refer further to the thick outside rind except that it is very good made into a conserve with sugar, and it has a pleasant scent. This conserve is very good for the brain and for nervous complaints. It comes from Banda in jars of vinegar, and some people eat it as a salad ; but all that comes to this land is in the form of conserve with sugar, a very beautiful fruit, leaving an agreeable scent in the mouth. You must know that when the nutmeg begins to swell, it breaks the first rind, as our chesnuts burst their prickly covering, and the mace becomes very red, appearing like fine *gram*. It is the most beautiful sight in the world when the trees are loaded.¹ Sometimes the mace splits, and that is why the nutmeg sometimes comes without the mace. When the nutmeg is dried it does without the mace, which changes in colour from red to a pale orange. The mace is worth three times as much as the nutmeg, and this is the truth, well known to those who come from Banda. This Banda is very unhealthy. Many go there and few come back ; yet people are always eager to go there because there is much profit.

RUANO

Galen knew this mace and nutmeg, and Dioscorides, and some other Greeks, and Pliny.

ORTA

Galen makes a chapter in Book VII. of the simples, and says it comes from India. As for the others, it appears to me that they did not know the mace for several reasons,

¹ "Few cultivated plants are more beautiful than nutmeg trees."—WALLACE.

THIRTY-SECOND COLLOQUY

though they have the word MAÇIR.¹ One is because the temperature is said to be between warm and cold, being warm and dry at the end of the second or between it and the third. And it is said that it is good for dysenteries and for those who have issues of blood, which is not a thing that Galen would have said or have known. Avenrois says that it is one of the medicines that Galen did not know. Many modern writers believe that the MAÇIR of the Greeks and the MAÇA of the Arabs are different medicines. This is why Avicenna makes two chapters, 456 for MAÇA² and 694 for TALICIFAR, and he did this imitating the Greeks whom he always held in much respect and veneration, thinking that they could not be wrong. Yet Dioscorides says it is the bark of a root, not the rind of fruit. Pliny says he does not know the MAÇIR. Much less could these Greeks have known the MAÇA when they are silent about the nut, because the one could not be without the other. They knew so little of MAÇIR that Galen would trace it to India, and Dioscorides to Barbary, where it seems no one knew the MAÇA. About this there ought not to be any doubt.

RUANO

Well, there are not wanting modern writers who say that the CHRISOBALANUS³ of which Galen writes is the nutmeg of the Arabs.

ORTA

They have not reason, and there are many things against them in the description both as regards colour and taste.

¹ μάκερ.

² Avicenna knew of the Mace and Nutmeg. He called the former *besbasah*, شجر البساس. Its common Arabic name is *shajrati-jauzut-tib*, i.e. "tree of nut-fragrant." Avicenna's *besbasah* looks like some corruption of the Persian *burjah*, "scented."

³ The Chrysobalanos of Galen was the "Black" or "Chebulic" [Cabul] Myrobalan of India, the fruit of *Terminalia Chebulica*, Retz.

MACE AND NUTMEG

RUANO

Did not the Arabs know something of the mace and nutmeg?

ORTA

Yes, sir! Avicenna especially spoke very distinctly.

RUANO

Well, Serapio says that the Greeks knew these medicines.

ORTA

That was because he was afraid to say anything against the Greeks. Do not be surprised at that because even I, when in Spain, did not dare to say anything against Galen or against the Greeks. Yet when seen in the proper light, it is not strange that medicines should be known in one age and not in another, new things being constantly found. Certainly if the Greeks knew the *Pao de China* they deserve much praise, and it would be much celebrated by them. Avenrois boldly says that there were certain medicines which the Greeks did not know.

RUANO

Now will you finish with these ancients, and give the names of nutmeg and mace?

ORTA

I am content to do so. In the country where it grows, the nutmeg is called PALA and the mace BUNAPALA. In the Deccan the nutmeg is JAPATRI and the mace JAIFOL. In Arabia and by Avicenna the nutmeg is JAUZIBAM, which means the nut of Banda, and Avicenna calls the mace BEFBASE, the derivation of which name no one can tell. These are the Arabian names most used by all, but many Moors, Arabs, Turks and Khorasanis use corrupt names which have been altered in the course of time. Then the corrupt words appeared in books, and Avenrois, being a very good

THIRTY-SECOND COLLOQUY

MOOR, called it GEOZA. Serapio also has many corrupt names. If these, being Moors, are wrong, it is not to be wondered at that Matheus Silvatico should err. Maça is so called from the similarity of the word to MAÇIR, because the Greeks paint it vermilion.

RUANO

If the nut in Arabic is called GEAUZI, ought not the Arabs to mention the nut of India, which is called COQUO?

ORTA

The Arabs make mention of all the nuts. The COQUO you allude to is called GEAUZIALINDI, and the nutmeg GEAUZI, no more. This is the reason that the city which we call Badajoz should be called GUADAL-GEAUZI, or the river of nuts, from which Badajoz is corrupted.¹

RUANO

Who told you that, and how do you know it?

ORTA

A Jew who was in Portugal, born in Cairo. He brought to Portugal the news of Sultan Bahadur's death.² His name was Isaac of Cairo, a discreet man and learned in many languages. I asked him if Guadalupe meant "the river of wolves," as Lucio Siculo Marineo would have it. He answered me that it did not, but that the meaning was "the river of love." I said to him that a very learned man had written that

¹ Fray João de Sousa (*Vestigios da lingua arabica en Portugal*, 1789) has another derivation for Badajoz *بال ل العيش*, *belad el aisch*, "Land of Provisions." Count Ficalho thinks that both are wrong. Edrisi writes the name *بحاليرش* (*Batalios*).

² Isaac came from India, by way of Suez and Cairo in 1537, with news of the violent death of Sultan Bahadur (Correa, *Lendas*, 792-846).

MACE AND NUTMEG

this was the meaning. He replied that if it could all be in one language it would be better, rather than make one part in one language and the other in another. As Guadalupe is all in Arabic, the meaning is the "river of love."¹

RUANO

Though this is not physic, I also rejoice to know more about it than about other things, to relieve the boredom.

ORTA

Why do you not remain without it? I knew that an oil is made from the mace, which is a very good medicine for the nerves, and is much used for it in Banda.

¹ Sousa gives *وَالِ الْغِي*, *uad el ub*, "River of the Bosom."



PLATE XIV.—NUEZ MOSCADA.

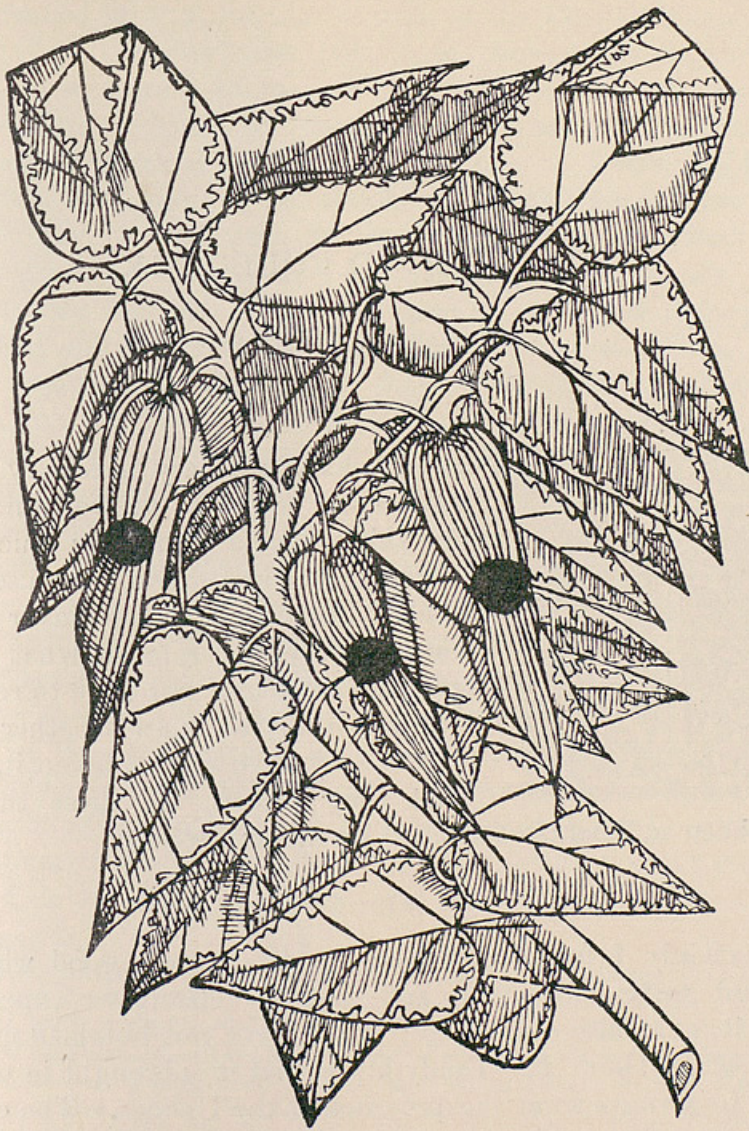
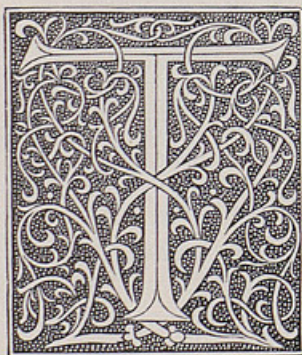


PLATE XV.—MACER.

THIRTY-THIRD COLLOQUY

PURGATIVE MANNA

RUANO



THINGS which are very necessary and much used ought to be well known. For this reason I want very much to know about the *manna* you use so much. For this it is my prayer that you will be very careful of what you tell me, that I may not have to reply. I do not want to know whether the Greeks may have written about it, nor what they call it, for these things have been sufficiently discussed by modern writers.

ORTA

Certainly I found this medicine to be very good with a pleasant taste and smell, and that the effects we expected from it were also very good ; but I have not obtained much information about it. I only know that it is brought in three ways to Ormuz from the province of the Uzbeqs. The chief kind is the first, which is what you see in the druggists' shops in flasks, like sweetmeats, and with the taste of honeycomb. They call it XIRQUEST or XIRCAST, which means the milk of a

MANNA

tree called QUEST, for XIR is milk in the Persian language, so that it is the dew that falls from these trees, or the gum that exudes from them. We have corrupted the word to SIRACOST.¹ Avicenna belonged to that country of the Uzbeqs, native of a city called Bocora,² as I have told you, so that it is natural he should know the name very well. This may be well seen in Avicenna, where he treats of it. The other kind is called TIRIAMJABIM or TRUMGIBIM, as the Belunense has it. They say that it is found among the thistles and in small pieces, somewhat of a red colour. It is said that they are obtained by shaking the thistles with a stick, and that they are larger than a coriander seed when dried, the colour, as I said, between red and vermilion. The vulgar hold that it is a fruit, but I believe that it is a gum or resin. They think this is more wholesome than the kind we have, and it is much used in Persia and Ormuz. For here we do not use it for children until they are past fourteen years, but I tell you that for all it causes purging without doing any harm whatever. Another kind comes in large pieces mixed with leaves. This is like that of Calabria, and is worth more money, coming by way of Baçora, a city of renown in Persia. Another kind is sometimes seen in Goa, liquid in leather bottles, which is like coagulated white honey. They sent this to me from Ormuz, for it corrupts quickly in our land, but the glass flasks preserve it. I do not know anything more about this medicine.

¹ Bokhara.

² The chief sources of the Manna used in Europe are the Ash-trees, *Fraxinus Ornus*, Linn., and *F. rotundifolia*, DC., of Calabria and Sicily and other countries of Southern Europe, and it is still known throughout India, as throughout Europe, by its Egyptian [*mēna* of the Malabar Coast] and Hebrew and Arabic [*mānā* of Hindustan and the Deccan] names, meaning "a gift given us." It is also known in India by the name of *shirkhist*, meaning "dried juice." The *turanjabin*, i.e. "Persian Manna," of the Indian bazaars is the product of the leguminous "Camel Thorn," *Athagi maurorum*, Tourn., of the continuous desert region from Marocco to Rajputana; and *gazaryabin*, of the Tamarisk, *Tamarix gallica*, Linn., of the same region, most of this variety of manna being imported into India from Arabia. Mannas are also produced by a great many other trees in hot and dry countries.

THIRTY-THIRD COLLOQUY

RUANO

Certainly I will listen to you for a long time if you will say more. Though you may not want to say more, at least tell me where this Uzbeg province is.

ORTA

The province of Uzbeg is in Tartary, so called from a city called Tartar which is in it. The men who are natives of it are called Tartars and the rest are Uzbegs, as you may say Toledano or Spaniard, Lisbonéz or Portuguese. These Uzbegs formed part of the Mogores, it being a short time since they were detached from them. These Uzbegs are very valiant men, and great archers both on foot and on horseback. They take pay from foreign kings. I knew one serving under Idalcam who was called Meliquetartar, and another with Sultan Bahadur, the great King of Cambay. These Uzbegs border on China according to what I am told, and possibly they are the Parthians so detested by the Romans. But I confess that I do not know the cosmography of the land very well.

RUANO

Tell me about that manna that comes by way of Baçora. I want to know whether this is Babilonia, originally so called, or Bagada, which is further off.

ORTA

Both Baçora and Bagada¹ are in Mesopotamia, but it is not Babilonia, though it is vulgarly supposed that Bagada is Babilonia. It is, however, very certain that the true Babilonia is distant ten or twelve leagues from Bagada. It is much defaced and neglected by men. Jorge Gonçalves told me this, a discreet merchant, a great searcher after truth, and very well

¹ Bagdad.

MANNA

instructed. He was informed by one who was a native of Babel itself; and he said that Babel was reached by the Euphrates, and that Bagada is on another river called Digilá and not Tigris, but that this name Tigris is used now.

RUANO

This Baçora and Bagada, whose are they now, the Turk's or the Xatamaz?¹

ORTA

At first they belonged to other kings, but now to the Turk.

RUANO

What titles have the Xatamaz and the Turk?

ORTA

The Xatamaz is called Xa,² which means king *par excellence*, and all the other kings are called Paxa,³ which means "foot of the king." Such are the King of Ormuz and the King of Lar and others. The Turk is called Honencar, which means "maker of Lords," for "*hon*" in Persian is a Lord, and "*ecar*" signifies to make, but his title is not conformable to this meaning, for it is very humble.

RUANO

How is he humble?

ORTA

Faquir Suleiman,⁴ which means the poor Suleiman.

RUANO

Well, with all these humilities, he may go to hell.

¹ Shah Tahmasp of Persia, son of Ismail, founder of the Suffavean dynasty.

² Shah.

³ Pasha.

⁴ Soleiman II.

THIRTY-FOURTH COLLOQUY

MANGOES¹

RUANO



HEY praise the mangoes here so much, when they are in season, that they say that they can compete with peaches. For myself it is necessary that I should know all the fruits of this land, and this not that I want it only for myself, but that you may be induced to write on the subject.

ORTA

The more that is said about the taste of this fruit, the more is asserted, but I do not wish to praise it except in order to describe it to you. There are some Portuguese who are so pertinacious that they would rather die than confess that there is any fruit equal to those of Portugal. Yet there are here many fruits which have the advantage, as are all the fruits of thorny trees; the lemons here are so large that they are like citrons, and very tender and well tasted, especially those of Baçaim, and the citrons are much better, the limes also much better, while the oranges exceed ours in every respect; still more those of Pegu, Martaban, Brinjam,² and

¹ *Mangifera indica*, Linn.

² A small port of Malabar near Cape Comorin.

MANGO

Ceilam. I do not speak of China and many other places because they are outside India.

RUANO

I confess to you that all the fruits of thorns are better, though the degree of superiority is not very great, except the oranges which you praise so highly, when like those they brought you from Cochin. Those, I confess to you, have a great advantage over ours in softness and juiciness. Moreover, their inside rind which contains the bitterness does not cause bitterness to the fruit in the slightest degree, and on cutting an orange here one eats it with the greatest delight in the world. This is not so with our oranges because there is always the bitter rind. Not only are those here not bitter, but I also tried the outer part, and then it gave me no bitter taste, or very little. Of the other fruit of India which you praise, you have not good grapes, figs, pears, or pippins, or many other fruits we have in Spain, so that your fruits may be pronounced to be good for want of better. For myself I prefer, before the fruits of Portugal, your mangoes and your *durioes* which you praise so highly.

ORTA

I do not praise the *durioes* except from hearsay, for I have not seen them. As for the mangoes I may tell you this. In Ormuz, at the time when they were selling grapes, figs, very good pomegranates, peaches, and apricots, the mangoes were not bought by reason of the very high price asked for them.

RUANO

This will be as you say. I shall rejoice to be here until January, to hear and believe.

THIRTY-FOURTH COLLOQUY

ORTA

The season¹ for them in temperate lands is April, and in other lands later, in May and June, and sometimes they come with a turn, as they call it in our land, in October and November. Boy, go and see what those two vessels are that are coming in. I see them from the verandah.

BOY

I will go at once with the message.

ORTA

The mangoes grow in the season I mentioned, and those of Ormuz are the most praised. Those of the kingdom of Guzerat are also very good, especially some they call GUZARATAS, which are not so very large, but with a splendid scent and taste. The stone is very small. Those of Balagate are large and very toothsome. I saw two that weighed two *arrates*² and a half. The parts of Balagate where the best grow are Chacana and Quindur, also Amadanager and Dultabado,³ principal cities of Nizamoxa. They are also very good in Bengal, Pegu, and Malacca.

BOY

Sir, it is Simam Toscano, your tenant in Bombaim. He has brought this basket of mangoes to present to the Governor, and he says that when he has made the boat fast he will come here to rest.

ORTA

He comes most opportunely. I have a mango-tree in that island of mine which has two gatherings, one at this season, and another in the end of May. As other fruit may exceed

¹ Monçam, "Monsoon" of Anglo-Indians, from the Arabic *mausim*, literally "season," and also a mark, a station.

² *Arratel*, 1 lb.

³ Ahmednagar and Dauletabad.

MANGO

this in scent and taste, so much this exceeds others in coming out of season.¹ We will first prove this fruit. Boy, get out six mangoes.

BOY

There are twenty mangoes here, and six are damaged. You may take the six of little worth, and I will take the rest to his Excellency, who ought to be given the best.

ORTA

Give them here. They ought to be cut with a very sharp knife, that the slice may not be injured, and I want to taste them first, for allowance must be made on account of the season.

RUANO

If now allowance must be made, I say to you that at another time they will surpass all the fruits of Spain.

ORTA

Well, I want to show you how to eat it in another way. Boy, cut these mangoes, and prepare them in slices, because in that way they have a better taste, and the chief thing is to soak them in sweet-smelling wine, like nectarines.

RUANO

Truly these two, which have scales, are like skinned peaches, for their colour is between vermilion and clear green, and the smell is proper to them.

¹ Count Ficalho here footnotes :—"Dr. Birdwood, in the *Bombay Saturday Review* of 28th July 1866, mentions a famous mango-tree at Colaba which gave fruit twice in the year, at Christmas and in May." This was the Mango-tree in the garden of Mrs. Hough, who consulted every botanist who came to Bombay as to the cause of its fruiting at Christmas; and on her consulting me in 1857,—it was the 8th of December,—I told her it was obviously "the Benediction of Mary," but I ultimately found that the tree had some thirty or forty years before been blown during Christmastide, when it at once burst out into flower and fruit; which led to the habit in which it had ever since indulged.—Geo. B.

THIRTY-FOURTH COLLOQUY

BOY

Here they are.

ORTA

Try them both ways, with wine and without wine.

RUANO

With or without wine it is good in both ways, so good that I think it will be necessary for me to remain here all this year to try the others, and in the year that is coming. It does not seem to me that I can now leave with my brother.

ORTA

This is only talking. I pray that you will not write down what is passing here now, for I would not be thought guilty of such levity as to indulge in trivialities.

RUANO

I am not so strict a physician as you would make me, for I also pride myself on being a man of the court. Now tell me further in what ways it is the custom to eat the mango.

ORTA

In conserve of sugar, in conserve of vinegar, in oil and salt, stuffed inside with green ginger and garlic, salted, boiled—in all these ways I have seen them served, and you may try them in this house.

RUANO

Of what complexion¹ are they?

ORTA

Cold and damp. This is clear in conformity with the canons of the second of Avicenna and the sayings of Aristotle in the fourth of the *METAUROS* and in other places. As I keep remote from these scholastic matters, I will not give you more about it, except that they place them with peaches.

¹ "Humour."

MANGO

They are at first pricking and styptic, afterwards acid, at last sweet, and the nearer to the stone the more acid, whence it appears that they are cold and damp.

RUANO

All these reasons appear to me to be good. But it is commonly said that they are warm, and some physicians in Portugal said so to me, and they say that those who eat them get boils. There may be some reason in this.

ORTA

I have had a discussion with some physicians, and I am not satisfied with this reason nor with others they gave. For the boils of this season come with the excessive heat there is then. So that the mangoes are not the cause of the boils, though they occur when they are in season. And it is subject to decomposition, to have these fruits heating the stomach, when they will cause fevers, colics, bleeding, or erysipelas, which are infirmities of heat. The same might happen with peaches, plums, cherries, melons, being also fruit in the class of cold and damp.

RUANO

Are the stones of any use in physic?

ORTA

No, except that, as I heard it said, when roasted they are good for the flux. I have tried them and they seemed to me to be efficacious, for they are like the acorns of cork trees, which in our country are called *landes*. They say that the stone, or rather the kernel of it, kills the worms when green, and they have reason, for it is bitter.

RUANO

If the fruits are good for all these things, it is not much

THIRTY-FOURTH COLLOQUY

that, as you say, the Banians will not eat meat. And now there is this proposition. I would ask who are those Banians or Bramenes who, you say, do not eat meat. Are they what they call Genosophists, for these use the same clothes that the authors describe? And according to them there are, in many parts, those who come from Guzerat and the Deccan, who have not much to learn in Egypt and those parts, where they say that their doctrines prevail, for they say that they came to Arabia, Persia, and Egypt.

ORTA

These are so, but now they care more for trade than for learning. There are many classes of them, but all agree that they must not kill, nor eat what has died. They maintain this precept to such an extent that they buy birds in order to let them fly away. They will not eat radishes, nor onions, nor garlic, nor spinach that are vermilion, on account of the colour. They give water with sugar to the ants, saying that they offer alms to the poor. They give water to the birds, and they come to drink every day. Many of those that die leave a certain portion to those persons who travel in desert places, and they give water to travellers. In Cambay I saw a hospital for birds, where they cured them, and removed their ailments; and there I saw parrots and many other birds cured. When they were cured they did not keep them longer in the house, but let them fly away. They do not drink wine, nor vinegar, nor *nimpa*,¹ nor orraca,² nor wine of raisins.

¹ Fermented liquor from the creeping palm, *Nipa fruticans*, Roxb., one of the sources of *tari*, "toddy," or palm wine, and of *arak*, "arrack" and "rack," distilled from palm wine. Our "Fool-rack," that is *phul-arak*, literally "flower of arak," means the "strongest arak." Our phrase "Gooseberry fool" refers to the similar Indian "dish" made with the "flowers," *phul*, of the Mango. Our word "punch," the strong drink, is simply the Hindustani *panch*, "five"; that is, the five ingredients of which it is composed, *arak*, lime-juice, spice, sugar, and water.

² Arrak.

MANGO

RUANO

Do other Gentios of this India hold the doctrine of transmigration of souls?

ORTA

Yes, the Bramenes of Balagate and Cambay, and those of Malabar, and others of whom I have no certain notice. All these wash their bodies before they eat, and are more venerated than the Baneans. These serve the kings as treasurers, writers, collectors of rents and ambassadors.

RUANO

And have those who are called Bramenes here got the same customs?

ORTA

These, and those inhabiting the sea-coast, called the Concan, eat all kinds of meat except that of cows, and pork raised at home. All believe in the transmigration of souls, and, besides that, they have faith in many things worthy of much laughter, which I will not repeat, so as not to waste time. The Baneans fast much, and eat little at night, only sugar and water or milk. Some are very religious, and fast for twenty days without food, as I was told by a person well worthy of belief.

RUANO

Avicenna says that the Indian experimenters¹ state that they do not eat milk or fish because it causes leprosy. Tell me whether this is said by the physicians of this land, or any others that you know of.

ORTA

The Gentios, for the most part, eat milk with some fish, but I do not know whether they say that it does so much harm. The Indian physicians with whom I have conversed

¹ Esprementadores.

THIRTY-FOURTH COLLOQUY

do not condemn that diet nor abuse it to such an extent. However, most of the Gentios eat fish with grease, whence I deduce that this saying of Avicenna was only what he had found written as common fame. It may have been said by some ancient physician who repeated these things as the sayings of learned men in India, to sell his work better, for any distant and unknown country was called India by the ancients.

RUANO

For you, as you have noted, this land where you live is India, called so both by the natives and by yourself, but how do you know it is right? For it does not seem to me to agree with what a writer on New Spain says, that the West Indies and Brazil are like the East Indies. Also Ethiopia was called India by the ancients. There must be another reason why this is called India, and also the other western one.

ORTA

Your author knows that the Castilians like their affairs to be grand, and for this they fill the mouth with "Western Indies"; but not only are your lands not Indies, they were never known to the ancients, nor was Brazil. They may have liked to call them Indies as being distant and unknown. But this, our India, has been called so from the time of Alexander down to this day. Of this Alexander they have many histories, more than we have, and among them he is the most celebrated who is called EZCADER. The river Indo, from which is the name India, is not more distant from Goa than 200 leagues, and it is called by the natives Diul. If the men of that land, and those of Persia or Arabia, want to ask whether one is a Moor or Gentio, he uses these words, "Are you Moçalmam or Hindu?" If he is a Gentio he says he is "Hindu," if a Moor he says "Alhandulila,"¹ which means "thanks to God." For *moçal-*

¹ *Alhamdu lillah, الله الحبيب لله.*

MANGO

nam means safe. By that you will see what proud names the Muhammadans put to their things. It is common fame in Persia, Khorasan, Arabia, and Turkey, that this land is called Industam, Arabia Arabistam, Christendom Franguistam, for *istam* means a region, and *Indu* India.

RUANO

All this seems to me very good, except the word *Franguistam*. For I believed, like many others who come from there, that they called the Portuguese *Franges*, because *Franges* means bubos, and the name was given in contempt, as much as to say bubo-people, or leprous.

ORTA

Bubos are not called *Frangue* but *Fringui*, and they are not looked upon as infamous by the natives. For the disease originally came from Brazil and your so-called Indies. There are not wanting those among your historians who say that the Castilians brought it from the West Indies in 1493, a year before they went to Naples, to help in the war of Dom Fernando of Naples,¹ and that they gave it to many cortesan women, who gave it to the Italians, and for this reason it was called the Neapolitan disease, and seeing themselves made infamous by this name, they called it the French disease, and because there were many Castilians and Spaniards with it our Portuguese called it the Castilian itch. There is nothing more to be said about it.

RUANO

Why do they call the Portuguese in this country *Frangues*?

ORTA

I will tell you. They do not give that name only to the

¹ Fernando, King of Naples, son of Alfonso V., King of Aragon, but illegitimate. He was besieged in Naples by the French, and a Spanish army came to the rescue under Gonsalvo de Cordova.

THIRTY-FOURTH COLLOQUY

Portuguese, but to all Christians from the West. The reason was that the first Christians known in Asia were French, so they called Christianity *Franguia*. They call it so in Ormuz and in all these lands, and all who dwell in their countries. I, when I came from Portugal, asked a Christian, who had been a Jew, being a Spaniard and resident in Cairo, how many Christians there were in Cairo in the time of the Soldan, and how many Jews. He told me so many thousand Christians, so many Arabs, so many Franks and Jews. Asking him what he meant by Franks, he said they were the Christians of Europe, and that *Franguia* was Christianity. And so I make an end of your questions.



PLATE XVI.—MANGAS.

THIRTY-FIFTH COLLOQUY

PEARLS AND CHANKA SHELLS

RUANO



ONE of the medicinal stones is the pearl. May it be called a stone or not? It is usual to call it so in medicine.

ORTA

It is called *perla* in Spanish, *perola* in Portuguese, *unio* in Latin. The larger pearl is in Latin *margarita*, in Arabic and in Persian *lulu*, in Malabar *mutu*, in other parts of India *moti*, in Portuguese and Spanish *aljofar*.

RUANO

What are these names derived from?

ORTA

Respecting the Latin, Spanish, and Portuguese words, I will presently give you answers, but as to the others you must pardon me, for I do not know. *Perla* and *perola* are from *prefero*, *preferes*, because of their pre-eminence they are preferred to all others of their kind. *Unio*, so called because it would be a marvel to find two equal in size and shape

PEARLS

and being. *Aljofar*, because it means in Arabic "of Julfar," the principal place where they are found. For the best are from Julfar, a port in Arabia near the strait of Ormuz. The best are from the fishery of Barein, Catifa, Julfar, Camarao, and other ports on that coast. Because the place best known to us was Julfar it was given that name, taken from the port of Julfar.

RUANO

I am glad to know that derivation; but why do they call the good pearls *oriental*, perhaps because their colour is golden?

ORTA

No. It is because they come from the East, the strait of Ormuz being to the east with respect to our Europe.

RUANO

Are there any other kinds besides the *aljofar*?

ORTA

That is the best and largest, and it is also found near Cape Comorin and Ceylon. That fishery belongs to the King our Lord. It should yield much, for there is so much zeal for the faith among more than fifty thousand Christians who do the work there. This Christianity was the work of one man, no less virtuous than learned, named Miguel Vaz, who was Vicar-General of India. This conversion to Christianity was afterwards increased by Master Francisco,¹ theologian, who was a principal of this holy company jointly with Father Ignacio, whose virtues and sanctities, if they were written down, would make a large book. This Christianity is now fostered and

¹ Miguel Vaz was an intolerant and cruel fanatic. He initiated the missions near Cape Comorin in 1541, sending there Father Diogo de Borba. Francisco Xavier arrived in India with Martin Affonso de Sousa, and went, five months after his arrival, to the south missions in Tinnevely and the island of Manaar. He baptized more than 40,000 pearl fishers wholesale. Orta calls him "Master Francisco."

THIRTY-FIFTH COLLOQUY

encouraged by fathers and brothers of the company of Jesus, and is honoured by the martyrdom of some of the religious of this holy company. The ALJOFAR obtained from this fishery is more unequal, but amongst them there are some very good and also large. But, on the whole, they are not so large as those of Barein¹ and Julfar, nor do they fetch so high a price. There are also pearls in Borneo which, though very large, are not so good. They also come from China, but neither are they so good. Those which come from the lands and islands of your king, or from Europe, you know more about than I do. And that I may not be contradictory without clearly seeing good reason for it, I will not say that the writers of Peru are wrong when they say that there are green pearls, and many other things of the same kind.

RUANO

So many and such good ALJOFAR comes from these lands that my brother, the factor, brought some to sell here, and says that he doubled the outlay twice over. But I do not know, as you say, that there is trade in pearls with Portugal.

ORTA

All may be true. For the ALJOFAR that comes from here, and the PEROLAS are large and round, and in all respects perfect, and those that come from the Indies are scored, badly shaped and not round, and with dead water.

RUANO

And are they worth more or less than the good ones?

ORTA

Those badly shaped fetch a lower price here in India than in Spain, for in Spain, whether they are round or not round,

¹ Bahrein.

PEARLS

alive or dead, a good or a bad shape, makes a great difference. The PEROLA that has these good qualities is worth there ten and one or two here. Here it is not so near the Canaras as are the inhabitants of Bisnagar and their territories, where the perfect ones are worth ten and the imperfect of the same weight have a value of five or four. So that your brother can double the profit here, and taking ALJOFAR from India make his money there.

RUANO

This is good ; but I am a doctor, and I want to know how they fish, and how the physicians use them here as medicine, whether they are pierced or not, naturally and without art, as some of our doctors write, saying, "Take *margaritas* pierced or not pierced." Please tell me, if in this it does not give you trouble, which are the best PEROLAS you have seen, and whence come the ALJOFARS used in medicine, and the price of an ounce of them.

ORTA

The shells are found when they fish for them in the proper season. Those which are highest have the largest pearls, and those in the lowest depths have smaller ones. They are put to dry and then opened. The pearl is found in the meat after it has been dried to some extent. They find in one shell sometimes many, at others few, according to what the shell has, and not only one, as some say, they sometimes find more than 200 seed pearls. Some say that the pearl is pierced naturally, but they would speak of grace and find fables that suit their palates. The Gentios use the pearl as a medicine to some extent, and the Moors very much, putting it into all their cordials just as we use it. The best of the shells that the pearl-fishers bring up are white and smooth, and are called by the natives CHERIPO. They make spoons of them and drinking-cups. There are also pearls in the oysters we eat but not so good.

THIRTY-FIFTH COLLOQUY

The largest pearl found near Cape Comorin weighed 100 grains of wheat. I saw many much larger from Borneo, but not of such a good shape. Another weighed 160 grains of wheat, or 40 *quilates*, which is the same. The weight of 100 grains of wheat is 5 *quilates*, which they call a *calanja*, worth 1500 *cruzados*. As to higher prices I will not quote them, for it is better to be a philosopher than a merchant. The pearl-fishers sift the pearls in sieves of tin, and those which only pass through larger holes are worth much more. The merchants of this country have these sieves and fix the prices by them. This is a very subtle way of counting, and your brother will be glad to know, for the rules are very artificial. Pearls which are too small to bore are sold to the druggists or to be taken to Spain. They are worth less than a *ventem* an ounce.

RUANO

Does a pearl fall off in weight in the lapse of time? For they tell me so, and for that reason it is not good as treasure.

ORTA

Yes, it diminishes. I have not tried the experiment, but what is said, and what may be held as most certain, is that the *ALJOFAR* shell-fish in the waning of the moon is that which dies and the other not, and this may be taken as very certain.

RUANO

If this pearl had not been made so clean and polished as we make it, would it yet have cleanness and life and polish? Tell me this if you know, for you are not such a philosopher as you make out, and you also want the pearls and stones, like the rest of us.

ORTA

Yes I know, and will tell you. Take rice slightly mashed with salt and rub the pearl well with it, and you will find it as clean as the best in the world.

CHANK SHELL

RUANO

And the other kind of which they make things which we call MADRE-PEROLA and CHERIPO?

ORTA

There is another they call CHANQUO,¹ of which they make boxes, tables, and counters, for though it is rough outside, inside it is very smooth and beautiful. This CHANK is an article of trade to Bengal, and used to be worth more than it is now. The large ones, which we call BUZIOS, go to Bengal and are worked up very beautifully, remaining very smooth and white. For this only a small quantity is used, the rest being wanted for bracelets and other ornaments. It was the custom in Bengal that no person of distinction who was a virgin could be corrupted if she had bracelets of the CHANK shell on her arms. After the arrival of the Patans this custom was neglected, and the CHANK became cheaper in consequence. You see here a chess table and board at your service, where you may see the Chank when you like.

RUANO

Very many thanks, but tell me what the black squares are.

ORTA

Tortoise shell. They make many other fine things of tortoise shell, but I do not talk about them because they are not medicine. For we have now been talking about many things which have nothing to do with our subject.

¹ *Turbinella rapa*, the "Chank" or "Chunk" shell of commerce, the Sanskrit *shankha*, "soothing," and so called from the muffled murmurings it makes when held to the ear, as of tranced seas at blissful rest along far distant shores. It is a most sacred object; the emblem of Vishnu and other gods of the Hindus, the trumpet of their epic heroes, and the ensign of the State of Travancore. It is also cut into prophylactic jewelry. A *sankha* with its spiral opening to the right is among Hindus priceless.

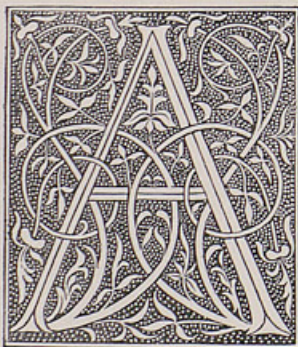


THIRTY-SIXTH COLLOQUY

MUNGO

Melon of India and Water Melon

RUANO



LL things pall upon one, how luscious soever they may be, when one eats too much, and so it happens with me, in talking of medicinal simples, when you talk much of them to me, although there may be things to note. For this reason it is well that there should be something to excite the appetite like capers or olives, and I found the mangoes so delicious that I should be pleased to discuss some other fruit of India.

ORTA

I can give you melons¹ of India or water melons to eat.

RUANO

Not one of those melons that I saw in the house for they

¹ *Citrullus vulgaris*, Schrad., the *tarbuza* of the Persians, the *kalangari* of Southern India, the *batich* of the Arabs and *abatich* of the Israelites [Numbers xi. 5], and *pateca* of the Portuguese.

WATER MELON

deceived me. I smelt the finest melon in the world, but when I came to try it the taste was like mud, and it was one of your buyers who took me in. I asked her if it was good and she said yes, and as I had seen cucumbers here like ours in Portugal I thought the melons were also like ours.

ORTA

She told you according to her taste, or as a person who had not eaten melons in Europe. But I must inform you that in Diu there are melons very good to eat, guaranteed to have the taste and smell of those in Portugal. So there are in many parts of Balagate, and those in Ormuz are as good as those in Spain. But they are not the melons that I want to talk to you about. The others are what the Portuguese call *patecas*, which are large and round, or rather it is better to say oval. It is not eaten, cut in slices, as we eat a melon, but cut lengthways. When ripe the seeds are black, when green they are white. Though they are not sweet like our melons, they are suave, very cooling, humid, and very good for fevers and affections of the liver and kidneys, as we know from experience. They promote the urine very much, and the people in good health are accustomed to eat them four hours after dinner, which is the most heating time. To me it seems better to begin with them at dinner time. The seeds of these melons are provocative of sleep, and are the best cooling seeds¹ we have here, so that we do not need others. With regard to this kind of melon it cannot be doubted that its complexion is cold and humid, while as regards our melons being abstergent, cleaning, and sweet, it is doubtful whether they are to be classed as cold. As, however, you have them in sight, sit down to eat and try these melons which we call *PATECA*. Bring that melon or *pateca*.

¹ The four great cooling seeds of ancient Pharmacy were those of the melon, cucumber, water melon, and pumpkin.—FICALHO.

THIRTY-SIXTH COLLOQUY

SERVANT GIRL

That melon, sir, is not fit to eat. But here are patecas which come from Chaul, and other better ones from Dabul. Here they are.

ORTA

Throw the seeds aside and try what a good thing a *pateca* is.

RUANO

It is one of the best fruits I have seen in all my life; and at certain seasons I should prefer it to our melons; for it is not more than an alterative, in great part it seems to aid the urine, and some part for the dysentery. It does not seem a thing liable to turn bad, as happens to our melons, cucumbers, and *cogombros*,¹ and I will take these seeds with me to sow in Spain. Tell me its name in all the languages, and why it is called *pateca*.

ORTA

According to the Arabs and Persians this fruit was brought to their countries from India, and for that reason they call it **BATIEC INDI**, which means "melon of India," and Avicenna so calls it in many places. **BATIEC** only means a melon, and the name of the Indian land is **CALANGARI**.

RUANO

Who told you it was called **BATIEC INDI**? Was it by chance mentioned by some Arabic writer?

ORTA

The name is common, and is used by the physicians who know the Arabic language. Serapio wrote another name, it being so called in his country, and must have been a corrupt form. Avicenna clearly has **BATIEC INDI** in the fourth book, and the chapter on pure tertian fever. He has great praise

¹ A smaller Cucurbitaceous plant.

WATER MELON

for it, as you know better than I do, though I have had more practice than you have. If it pleases God that you should return to Spain and should there sow it, you must remember what an excellent thing it is for coleric fevers, and for many other infirmities.

RUANO

I heard it said that there are in many parts of Spain very fine melons which they call BUDIECAS, which may be these PATECAS with the name corrupted, calling them BUDIECAS for PATECAS.

ORTA

I saw those melons in some parts of Castille which they call BUDIECAS, and others they call SANDIAS, but it is a fruit very different from this one, and cannot be considered as the same species as that called BATIEC INDI. The PATECA has not the same leaves as melons, and very different from the BUDIECA, which grows higher and not extended along the ground like the PATECA. They tell me that in Africa they have the same kind as in India, which may well be, but I only put faith in what I see.

RUANO

You, when you tell me that this is not medicinal, nevertheless find curative properties in it, and you tell me things that I esteem as effecting cures. Do the physicians of this land know about this melon of India?

ORTA

No one knows it except those to whom I have told it, not because there are not many learned men here, but because they do not appreciate a thing so lowly. Yet I have asked some great physicians, both Arabs and Gentios.

RUANO

And how did you know the way to ask this of the Arabs?

THIRTY-SIXTH COLLOQUY

ORTA

Because I know all the infirmities of the third and fourth of Avicenna, and all the simples of the second in Arabia. This was very useful for me, in curing that King who was my friend, and his sons, work which at first was troublesome for me. I profited by this in the liking the King had for me. He taught me the names of illnesses and medicines in Arabic, and I taught him the same in Latin, which pleased him very much. For this reason I was also taught by the Arabian and Khorasani physicians in his employment.

RUANO

And do the Gentios understand also ?

ORTA

Very well, for they are men who cure according to experience and custom. It is so good to them to deceive the Portuguese that they are easily deceived by them, and the worst of it is that some Portuguese, either to content the people, or to clear themselves from the cure of their illness, do not care about working to try cures, but go according to their idea of them. In order to make things pleasant for the people they practise in the way to make most money, and on that principle use their medicines.

RUANO

Do they use ours ?

ORTA

Very often. But most of them not correctly. For they say there is bleeding, and they never bled before we were in the land ; but they used cupping-glasses, sawing,¹ and leeches. According to what I knew from the physicians of Sultan Bahadur and Nizamoxa, they were never accustomed to look at

¹ Çarrafar.

WATER MELON

waters, except by watching what we do, and copying like apes. Whence it happens that when they see the urine white they take it for a good sign, and when it is red and thick, they look upon it as bad. These and many other things I had from their own lips; and why not from those who know so little should there not be something good? I can tell you that they cure the dysentery well, can tell whether there is fever or not from the pulse, and whether it is weak or strong, and what is the humour that offends, whether it is blood or heat or phlegm, or melancholy; and they give a good remedy for obstruction.

RUANO

Do they give syrups or distilled waters, and is the custom ancient among them?

ORTA

They do not use them in Balagate, but I know those here who practise, and they say that they give violet syrup, *lambedor*¹ water, against flux, plantain or barley, cordial slices, sugared rose and almond water, but none of these things was it the custom to use before we came. I only know that in Balagate the Moors and Gentios used the seeds of endive pounded, and drunk with fresh water, for all kinds of fevers. They did not distil water before we came, but they had the custom of giving boiled water of legumes and seeds to drink, and juice of herbs roughly prepared. They walk along one street curing all out of one flask that they carry.

RUANO

Galen does not come here, who cured at Thessaly; but according to what your words show, you are on bad terms with these people, and I fear they may give you poison.

¹ "Lambedor," another kind of syrup.

THIRTY-SIXTH COLLOQUY

ORTA

Before all things I am well with myself for they say that I am not very covetous, or to speak more correctly and without prejudice, I try to cure them and to effect as many cures as I undertake ; but I first ask what the patient would like to do, and if it is the medicine that I know is good and will do no harm, I say that he should use it if he wishes to be cured by it, and if it is bad to refuse it. If I do not know whether the medicine is good or bad (as often happens) I also refuse it. These doctors are also wrong in the classification of the medicines, for they call pepper and cardamon cold and opium hot. As for anatomy they do not know where the liver is, nor the spleen, nor anything else.

RUANO

Do you confess to me that you take any of their things ?

ORTA

Yes, many, but first I try the medicines of my doctors, and when they do not approve themselves to me I take them to the Brahmines of this land.

RUANO

That girl who you brought from the Deccan asked me for MUNGO, and said that in her country it was given to eat, with the rind torn off and boiled. Is it given in that way ?

ORTA

They give it to eat in that way if it is wanted, but it is better boiled with bread and chicken, for she is from a country where they eat bread and not rice ; that is Balagate where they have little and in small *measure*.

RUANO

Have they wheat in Balagate or Cambaya ?

CURE OF DOM MARTIM A. DE SOUSA

ORTA

Much ; but they do not till the land with manure and labour as we do. They sow on the face of the earth after very little tillage in November, and in the middle of January they gather much and very good, sometimes without there having been any rain at all, merely the dew and richness of the soil, which is very good for this crop.

RUANO

And what medicine is it that this girl speaks of ?

ORTA

It is a green seed which becomes black when very ripe, of the size of a dry coriander seed. Horses eat it and sometimes people. The Guzeratis and Deccanis use it in fevers. All men who have fevers do not eat for ten and sometimes fifteen days. At the end of that time they are given boiled water of mango, in which there is some little sustenance. Afterwards they give it to eat, with the rind torn off, and boiled with rice. They do not give wheaten bread until after many days. I will relate to you what once happened to me. Travelling with the Sultan Bahadur, in company with Dom Martim Affonso de Sousa, the latter was taken ill with a fever. The King sent for me and asked me how I would cure Dom Martim. I told him that I should have to bleed the patient, to give him syrup made of lime juice, pomegranates, and sugar, and purge him with a little rhubarb and manna I had brought with me, for other medicines they had none in the camp. He replied that the Portuguese did not know so well as the Guzeratis how to cure fever ; for that the Guzeratis did not cure in any other way than to give nothing to eat. In order to avoid contradicting him I said that he was quite right, and that my patient had had nothing to eat for three days, but that now I was going to give him the syrup, and put him on some special diet. He

THIRTY-SIXTH COLLOQUY

replied that four days were very few, and that he ought to be without food for at least twenty days. He confessed to me that the Portuguese were very good physicians for other infirmities, but that they did not know so much about fevers as the Guzeratis. I did not want to contradict him as he was the greatest king in Mourama. Further, as their physicians are not learned, there are none that cure according to our rules. Some years afterwards I found myself in Cambaya, the principal city of Guzerat, where a very rich Moor resided, a native of Tripoli in Barbary, who could talk Portuguese. He called me in to cure his son of fever, after he had been ill for four days. I cured him, first giving him chicken to eat, for he had eaten nothing whatever for four days. Afterwards I bled him; and without purging, he was free of fever. The father told me that the treatment of the Guzeratis for fever was what the King stated. I answered that a shoemaker did not fit every one with the same pair of shoes: that the cure was for the Gentios who eat nothing with blood. But for his son and for rich merchants who were accustomed to eat much meat and drink wine, a different treatment was necessary when they had fever. What I said seemed to him good, and that my treatment was better. From that time, during the time I was there, all the Moors wanted to be cured by me.

RUANO

I pray you of your kindness to tell me how you would cure the Nizamoxa your friend. Would the cure vary much from our way, and contain anything that you chanced upon with him and seemed appropriate? for these things dispel in great measure the errors which occur in the work of curing.

ORTA

He had the wish to be cured in our way, but the custom of the country is much against it and it had to be withdrawn,

CURE OF THE SON OF NIZAM SHAH

especially because the educated physicians at his court liked to gratify the natives and to oppose me. So that when I was present they cured in one way, and when I was absent in another. If it does not bore you I will relate what happened in curing the hereditary prince, then a man of the age of thirty, strong and with a good constitution and appetite. He had learnt the Portuguese language from me. He asked me in Portuguese what would be the best cure. I said that he should be bled and then take some rhubarb with whey. He said he was content to be bled, because in the last few days he had been bleeding through the nose. Wishing to do it, I was hindered by a physician of his who was the lord of many lands. Though both the father and the son were my friends, they decided to do what the other physician ordered. For they said that he was much exhausted by women, the patient having told me the opposite, and this was done owing to the envy of the doctors. At the end of fifteen days the same man fell ill of a fever, and my vote was that he should be bled. But the physicians and the father would not consent for the reason already given. They further said that what he had was small-pox, which is a very dangerous illness in that land. I said that he had not got the symptoms of small-pox, but that if he should have them it was better to bleed him during the three first days in conformity with the rule of Avicenna, and to give him some drink made of tamarinds. They replied that it was true that Avicenna said what I had repeated, but that the custom of their country was different, also that the Deccanis held tamarinds to be bad for small-pox, so that neither quotation nor reason would prevail with them, at which the father and still more the son were grieved. Presently they began to give infusions of figs, fennel, and ferns and saffron to throw back the small-pox which had never been there. By this treatment he became very hot and a very slight rash came out on his sides, which were not small-pox. But they told me

THIRTY-SIXTH COLLOQUY

he had small-pox, and that the fever would now end. Fourteen days had now passed and the fever had not ceased, nor were there further signs of small-pox, but they would not bleed nor purge, nor give him anything to eat except *mungo* and rice water. He was dying of hunger, and complained to me of this every day in Portuguese. I secretly advised his father that he should be bled, as it was better late than never, and be given a fat fowl to eat, for he was a great eater and drinker of our wine when he was well. This appeared good to the father, and still better to the son. So I bled him copiously twice, and gave him plenty to eat, without the knowledge of the physicians, but in the counsels of the King, until success was in sight. At the end of twenty days he was well, without fever or any rash, the physicians being content with this success, boasting of their method of treatment and asking for rewards. The father replied that for their treatment they deserved a roasting, and that if I had not been there his son and heir would be dead. After fourteen days I explained the treatment by which he had been cured, and when they heard it they put their fingers in their mouths saying *Ala quibir*,¹ which means "great God"; but not for this were they ashamed or confused.

RUANO

The King and his son must have been grateful to you.

ORTA

Yes, they were.

RUANO

It seems to me that neither the Arabs nor the Greeks wrote on the subject of what you call *mungo*,² yet it is much used here.

¹ *Al-Kabir*, "the Great," *al-Khabir*, "the Aware," and *al-Kadir*, "the Almighty," are all among the hundred names of God, *Allah* being the first.

² *Phaseolus Mungo*, Linn., var. *radiatus*, *mung*.

MUNGO

ORTA

I know that they have it in Palestine, according to what a Moor told me who came from there. Avicenna also describes it in book ii. chapter 489. This entailed upon me a good deal of trouble for he calls it MESCE, and the Belunense, amending, has MES, but I found from doctors and other learned persons that it should be MEX, and the letter at the end should be pronounced very lightly, for that is the way they pronounce it. I know well that this does not explain much, nor to relate to you the stories I have told you, but Galen often tells them, whose shoe-latchets I am not worthy to unloose. You must, therefore, pardon my prolixity, for when once a man begins to chatter he is apt to do so a good deal. But you need not write down more of this than is necessary.

RUANO

Of the superfluity may God take care of it, of the rest I may write. But tell me whether Avicenna mentions this MEX in any other place.

ORTA

In the first book, chapter 7, he says that birds should not be eaten with MEX,¹ and he says well that MEX should be digested first, or else the MEX makes food indigestible.

¹ Orta mistook the word. It is MEST or acid milk. Avicenna gave the advice not to eat the meat of birds with sour milk, as it would be indigestible.

THIRTY-SEVENTH COLLOQUY

THE MIRABOLANOS

RUANO



HAVE detected myself in great carelessness, for one of the principal things about which I wanted to ask you was the MIRABOLANOS so much praised by all the Greeks and Arabs, ancient and modern, and yet I have never asked you until now.

ORTA

Also, if you please, it is praised by the Spaniards, for they say *that man who saw so much, has eaten MIRABOLANOS.*

RUANO

Leave these adages and proverbs, and tell me the names of it in the native languages, and why we call it MIRABOLANOS amongst ourselves, and what the Arabs and Indians call it, also whether the physicians of this country use it, and for what illness it is serviceable.

ORTA

It is clear that the MIRABOLANOS of the ancient Greeks was not ours ; neither Dioscorides nor Galen nor Pliny knew

MIRABOLANOS

our MIRABOLANOS. But they gave that name to another medicine from which they made oil. MIRABOLANOS was in Greek as much as to say a fragrant and oily nut or acorn. As these nuts appeared to be nuts or acorns, for that reason those we used were so called also, although to me they are more like plums; but that has nothing to do with it. Serapio, translating Avicenna from Arabic into Latin, put this name so as to look better, and where Avicenna had given the name of DELEGI he put MIRABOLANOS.

RUANO

Well, Serapio calls it ALILIGI, being as much an Arab as Avicenna.

ORTA

This must be an error of the scribe, or time has corrupted these names. For the Arabian physicians of whom I enquired, told me that these names were used, namely, DELEGI by all, and the citron-coloured ones AZFAR, the Indian AÇUAT, the Quebulos QUEBULGI, the Belericos BELEREGI, and the Emblicos EMBELG, whence we derive the names.

RUANO

Why do you not mention the Negros, those of Seni mentioned by Avicenna?

ORTA

The Negros are no other than the Indians, so called because they are darker than all the others. There was no need for me to ask about them. Many modern doctors have written about them, especially your Italian Friars, who call them Negros because they are darker than any of the others when they are ripe. This is proved in the texts of Serapian

THIRTY-SEVENTH COLLOQUY

and Mesue, for they show it very clearly as you can see. I will not say more about it.

RUANO

Well, so far it is well. But the Friars, to whom you refer, say that there are no more than four species, leaving out those of Seni given by Avicenna. I asked you to give me the reason of this, and you, evading the question, gave me no answer on that point.

ORTA

Those of Seni are the *Emblicos* which are counted by Mesue and Avicenna who call it SENI, and in this way make five species.¹ Avicenna does not mention the *Belericos*, and that is the truth. For Serapiam says that they have a thin bark, so that they are *Emblicos*, the bark of which is the thinnest of all.

RUANO

Serapiam has another species on the authority of Mesarunge, which he calls of *Damasquo*, and says that it is good against melancholy. How do you answer that?

ORTA

I say that there are no MIRABOLANOS there, except that some MIRABOLANOS INDOS may arrive in conserves, and, because they arrive there, are called of DAMASQUO, and as to their being good for melancholy I concur, but they are no other than what we call INDOS.

RUANO

Serapiam himself says, quoting Mesue and Albasor, that those of Seni are a species of olive.

¹ Acosta names five species, *Cebulos*, *Indos*, *Emblicos*, *Citrinos*, *Belericos*. See p. 320.

MIRABOLANOS

ORTA

There are no olives in all this land. It is only because the *Emblicos* are eaten with salt in this country, or in another way with vinegar, when they are called ACHAR, that they are called olives. But they are more like round plums, and in this it does not take much to be deceived.

RUANO

It seems to me that all are from one tree, some ripe and some unripe, so that when some are dry others are green. Some are of opinion that the *Quebulos* and *Citrinos*, at least, are from the same tree. It is true what Mateo Senense says, that this is neither proved nor disproved. You who have seen them are able to undeceive them all.

ORTA

They are all wrong who say that the different species come from the same tree. For there are five trees of five species of MIRABOLANOS. You will further be surprised to hear that one kind is in one land, and the others sixty or one hundred leagues from it. For in Goa and in Batecala there is one, and in Malabar and Dabul, and in all Cambaya there are four kinds of MIRABOLANOS. Then there are the *Quebulos* in Bisnaguer and the Deccan, and Guzerat and Bengal, and may be in other parts. All these plants are wild, and not cultivated. Those which they take dried to Portugal are, for the most part, from Dabul or Cambaia. It is found by experience that fruits from lands furthest north are least liable to corruption, as I gather from the Gento physicians in this island of Goa. I found that there are three kinds of MIRABOLANOS here which are used for purgatives, when it is desired to cause little strain and to administer small doses. They call these three kinds, in the language of the country, TINEPALA, which means three kinds, namely ARARE, the name used by the people but not by the

THIRTY-SEVENTH COLLOQUY

druggists, who call it ARITQUI. These are round, and purge the bile. We call them *Citrones*. Others are called by the natives ANVALE, and by us EMBLICOS, others REZANVALES, being those called by us INDOS, others GOTIM, which are round, and known to us as BELERICOS. The QUEBULOS which clear the phlegm, found in Bisnaguer, Cambaia, and Bengal, they call ARETCA. You here have four kinds, namely, three used in Goa, and one in Cambaia, Bengal, and Bisnaguer. To make up the five I must tell you that the MIRABOLANOS called ANVALE is found in Goa, but as it is not used as a medicine it is not counted. The kind which the natives call ANVALE, and we call EMBLICOS, is used in tanning skins, like the sumach for ink, and when green to give an appetite. So here you have the five kinds, and now what do you want more of me to serve you? I want from you to tell me whether that which the writers of Peru say, namely, that there are MIRABOLANOS in many lands, is true or not.

RUANO

I never saw those in Spain who came from Peru, and I would rather that you would tell me the appearance of each species, and about the trees and leaves.

ORTA

I say that the ARARE, which we call CITRONE, is round, and it has a leaf like a cork tree. The ANVALE or EMBLICOS has a leaf like a fern. The REZANVALE or INDOS has eight points and a leaf like a willow. The BELERICOS, called GUVI, has a leaf like a laurel but more grey. The QUEBULOS, called ARETCA by the natives, are large and round, and when they are ripe somewhat long. They have angles, and the leaf is like that of a peach tree. All the trees are the size of a plum tree. This is what you may know and see respecting the appearance of the trees of all the species.

MIRABOLANOS

RUANO

Your explanation is so clear that it will not be necessary to say more about it. Now I want you to satisfy my doubts as to what properties the Indians give these trees, for all confess they are cold and dry. Serapiam, quoting Xarach, says they are all warm. What do you say to that ?

ORTA

I say that they are cold and dry, though this is not what the Indians, Arabs, and Latins say. Because their taste is piquant and oily, like green *sorvas*¹ but more acid. They are all heavy, and all these things are arguments for declaring their complexion to be cold and dry.

RUANO

As to the mode of preparation, tell me how this is done by the Indians, for Serapiam says they should be prepared with plums to remove the prickly taste.

ORTA

They do not make the preparation in that way because they only want to compress or repress. They do not use them to purge, but in cooking, and they take a much greater quantity than we do in Portugal. They also use them in conserves, namely, the QUEBULOS which they prize highly. They make them in Bisnaguer, Bengal, and Cambaia; and also use the CITRINOS and INDOS for conserves in Batecala and Bengal. Without any doubt this is a medicine which they hold in great esteem, and no physician is dishonoured in using it. I made these three species into conserves because they would be very good merchandize in Spain; and I will make two jars of them for you, which I had sent to me from Bengal,

¹ Berry of the service trees.

THIRTY-SEVENTH COLLOQUY

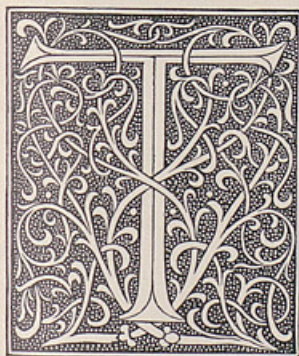
coming at a good hour. Know that I also ordered the water of green MIRABOLANOS to be distilled to use for drink over some piquant conserves. I also ordered syrup to be made when necessary. The water works very well over these green MIRABOLANOS. I use the CITRINOS and BELERICOS at the beginning of a meal, for it causes looseness in the stomach. Being acid it is also a styptic. They also use the juice of the MIRABOLANOS a good deal for dysentery, when they are green. Now you may try many of them in my house.¹

¹ The following trees yield the Myrobalans of commerce :—(1) *Terminalia Bellerica*, Roxb., the “Belleric Myrobalan,” the Sanskrit *tusha* and *baheruka*, and Arabic *helelyuj*, found throughout India and Burmah; (2) *T. Chebula*, Retz., the “Chebulic [*i.e.* Cabul] Myrobalan,” the Sanskrit *haritaka*, the Hindustani *hurda*, the Mahratti *hulda*, the Persian *helilah*, and Arabic *helilah-cabuli*, found all along the slopes of the Himalayas, and in Central India, of the fruit of which seven varieties are recognised, including *helilah-asfar*, or “yellow-helilah,” *helilah-jawi*, or *helilah* dried when no larger than a “barley-corn,” *helilah-zingi* or “nigger”-black *helilah*, etc.; (3 and 4) *T. citrina*, yielding “Citrine Myrobalans,” and “Indian Myrobalans”—its unripe fruit; and (5) *Phyllanthus Emblica*, Linn., the “Emblie Myrobalan,” a Spurgewort, the Sanskrit *amalaka*, the Hindustani *amlaka*, and Mahratti *aonla*. The Myrobalanus, or “Glans Ægyptia” of the older Pharmacists, was the seed of the leguminoid *Moringa pterygo-sperma*, Gaert.; the *Ben*-nut of the Arabs.

THIRTY-EIGHTH COLLOQUY

MANGOSTAES

RUANO



THAT gentleman who talked with you on the affairs of Malacca complained to me, saying, that you seem to have a dislike of the fruits of that land, because you have barely mentioned the *doriam*,¹ being the most highly praised fruit there is in India. Of the things of China you say nothing, though from there come also much esteemed fruits, such as the LIXIAS² and other very good fruits that grow there.

ORTA

I do not speak of the things of China because there is so much to tell that there would never be an end. I spoke of some of the medicine of that country, such as *galanga* and *pau de China*,³ because they were medicinal. I did not fail to refer to the other fruits, and of the DURIÕES of Malacca I said more than usual, because it has a large tree of the size of a

¹ Colloquy XX.

² The *litchi*, *Nephelium Litchi*, Sapindaceae, Camb.

Orta was the first European

³ Colloquy XXIV.

THIRTY-EIGHTH COLLOQUY

walnut; and in general I have always said that the most delicious fruits in the world are those of Malacca.

RUANO

They praise a fruit called mangostaes. Tell me what you know about it.

ORTA

What I know about the mangosteen is that it is one of the most delicious fruits in this land.¹ It is the size of a small orange and the rind is separated from the inside. The inside is murrey colour and clear. Drawing the rind away, in the inside there are seeds like those of small oranges. The tree is the size of an apple tree, not being very large. The leaf is like a laurel, the flowers yellow. They say that the scent of this fruit is not sweet and causes loathing. I do not know with what it may be compared, as I have not tried it.

¹ This passage is quoted in Yule's *Glossary*, p. 557. The Mangosteen, the *mangusta* of the Malays, is the *Garcinia Mangostana*, Linn., Guttiferae. The pulp of the fruit is of an exquisite flavour, rivalling that of the grape, but it is hard to get at through its thick and tough, almost woody, rind.

THIRTY-NINTH COLLOQUY

NEGUNDO OR SAMBALI

RUANO



OUR servant girls praise very highly a tree which is here. They say that we wash our feet with the knowledge of it, and that it is astonishing how useful it is for so many things.

ORTA

I think it is in this garden. Let the girl who praised it come here.

SERVANT GIRL

What does your worship want?

ORTA

Which is the tree you have been praising so much?

SERVANT GIRL

The NEGUNDO.

ORTA

It is a tree that has many excellent properties, and the more the branches are pulled off, the more it increases. It is

THIRTY-NINTH COLLOQUY

a very efficacious medicine, mitigating pain to a great extent, where there is no wound, either by boiling it, or the same herb warmed, or fried in oil and put on the top. Truly it seems to need no physicians, for upon entering a house to cure some pain, there is sure to be some person saying that the NEGUNDO should be used boiled or fried in oil. Many people also say that it should be put on a wound, and that in one night it will work in such a way that the pain will be gone and the wound closed up. This is stated by many persons and not one only. Women consider it to be very good for preparing a mother to conceive, and they say that drinking it has the same effect. I consider it to be a better medicine and stronger than MACELA. It has a very pleasant smell; in chewing it there is a little burning like mustard, by which it is clear that the complexion of the plant is warm. The tree is usually called NEGUNDO, and in Balagate some call it SAMBALI. The people of Malabar call it NOCHE and use it with the juice of tamarinds. The leaf is like that of the willow, barbed in the same way, and like it rather downy at the back. The tree is the size of a peach tree, the flowers a greyish white, the seed black, and the size a little larger than a peppercorn. There was a druggist in India, much relied upon by a chaste and virtuous governor, who was anxious to repress lustful desires. He asked the druggist if he had anything to effect this. The druggist replied in the affirmative, and that it was a tree called AGNOCASTO. The governor used NEGUNDO for many days, for there was not wanting a physician who said that in truth it was the same as the tree called the AGNOCASTO. When I was told this I read the chapter on AGNOCASTO and compared it with the tree called NEGUNDO; I found them to be as different as possible. I then said that AGNOCASTO was not the same as NEGUNDO, and any one who affirmed the contrary had not seen the book, for there was no druggist who had seen the AGNOCASTO in

NEGUNDO

this country. Afterwards I met a druggist in this country who was learned and accurate in what he said.¹ He told me that there were many AGNOCASTOS in Portugal, and that they differed from NEGUNDO² in their leaves and everything else.

¹ Dimas Bosque.

² *Vitex Negundo*, Linn., Verbenaceae, the Sanskrit *nirgandi*, and Persian *panjangusht*, i.e. "five-fingered," and so named from its frequent "five-foliolate" leaf. But its leaves are more frequently "three-foliolate," and it is undoubtedly identical with the *V. trifolia* of Linn., the true Ἄγνος, and Ἄγνος of the Greeks [Pliny, xxiv. 38 (9)], and "Agnus Castus," "Chaste Tree," "Salex amerina," "Abraham's Balm," and "Hempe Tree" of our older Pharmacists; see *The Nomenclator* of Adrianus Junius, 1585, p. 148b. It may be that its Greek and Latin names were derived from its Persian name *panjangusht*! Dr. Waring says that there are few plants in India that have such varied medicinal uses. It is especially used in the treatment of Beri-beri.



PLATE XVII.—NEGUNDO (MALE).

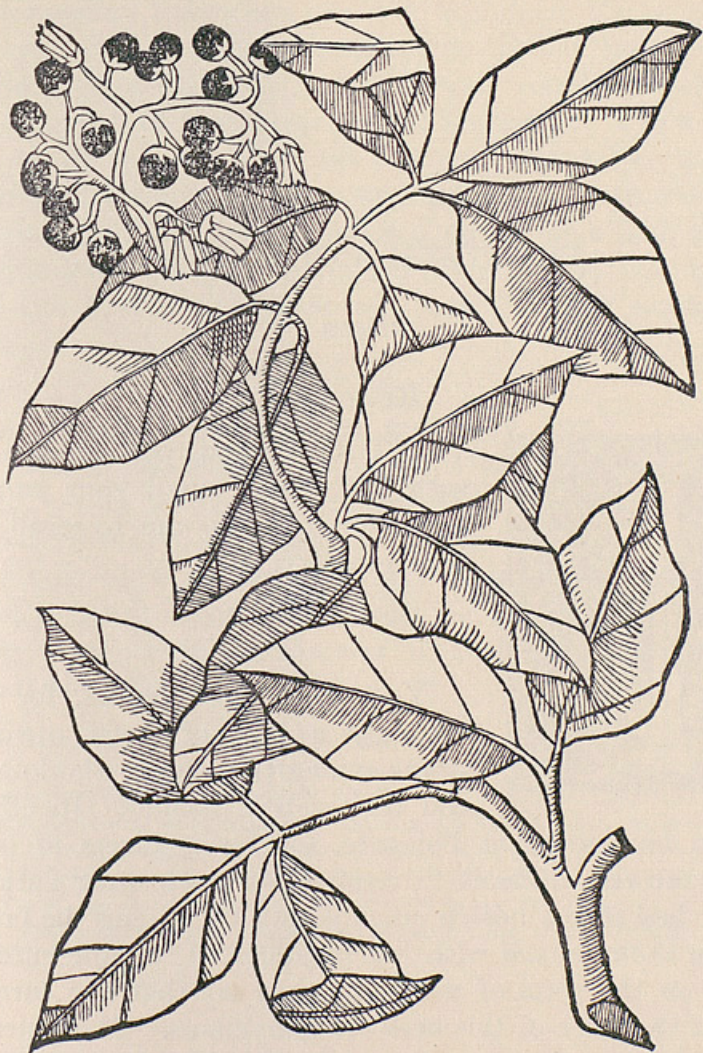


PLATE XVIII.—NEGUNDO (FEMALE).

FORTIETH COLLOQUY

NIMBO

RUANO



WANT to remind you of the tree with which you cured your valuable horse, for you told me to recall it to your memory.

ORTA

You have good reason, for it is certainly a tree of great medicinal virtue among the people who know it, and they call it NIMBO. Its efficacy came to be known in Balagate, for I saw ulcers of horses which were very difficult to clean or to wash quite cured by it. The bad places healed quickly only by placing the bruised leaves on them, mixed with lemon juice. The same cures are effected on the sores of men, and they say that the cures by means of the juice of this herb are marvellous. Many persons praise it here, and they tell me that in Malabar it is much used in the way I have described. The juice of this herb is also used for rheumatism, and it seems that this is right, for it is very bitter.

NIMBO

RUANO

I remember that when you told me about the cure of the horse, you said that, in this city, you did not know of more than one tree of that kind, and that you would show it to me when we went to hear Mass at San Domingo. I saw it, and it was about the size of an ash tree with leaves like an olive, but serrated round the edges and green on both sides, not grey nor hairy, but more pointed than an olive leaf, and the tree with dense foliage. I say this to you that you may see that I can describe the tree well, but I do not know about the fruit.

ORTA

You certainly describe the tree very well. You must know that it has a very useful fruit like small olives, and yielding an oil which is excellent for the nerves, as many people have found, anointing themselves with it when warm. It is much used in Bisnager and Malabar, and they have brought it here to Goa for sale, making good profit. I know nothing more of this tree, and if I should obtain further details I will write.¹

¹ The NIMBO of da Orta is the *Melia Azadirachta* of Linnaeus, the *Azadirachta indica* of Jussieu, and *nimba* and *limba* of the people of India, and "Neem" of Anglo-Indians. Orta was the first European writer who treated of it, and of its medicinal qualities. Acosta gives an account of it, and a good drawing of a branch. See also Hanbury and Flückiger, *Pharmacographia*. *M. Azedarach*, Linn., is the *maha limbo* of the people of India, and "Persian Lilac" of Anglo-Indians; and *M. composita*, Willd., the *nimbara* and *limbara* of the people of India. *Azadirachta* is the Persian name of the tree, meaning "Free-growing tree." *Nimba*, the Sanskrit name, means "Health-giving."

FORTY-FIRST COLLOQUY

OPIUM

RUANO



SHOULD like to have accurate information about the AMFIAM which is what the people of this land use, and we call OPIUM. Whence comes such a quantity as is used here, and how much is taken each day?

ORTA

The AMFIAM is the opium, and as for its being much used to eat among many people, it is really eaten in small quantity, though much is required in trade to supply all the things it is in demand for. If it is not used there is danger of death ensuing, so that in the land where it is wanting its price is very dear, and there is a very strong desire for it among those who use it (as he who guards the wheat for May). The men who eat it go about sleepily, and they say that they take it so as not to feel any trouble.

RUANO

And they do not take it as a luxury as they told me, for

OPIUM

this is against all medicine and reason if it is efficacious for the work of Venus.

ORTA

There is much reason in what you say, for it is not efficacious in that way but rather harmful; so that those who take it for that are not kings, nor powerful persons, nor rich merchants, for they all know the truth very well. These only take it in small quantities, and for other effects. All learned physicians tell me that it makes a man impotent, and soon makes Venus take leave of him. I knew a Portuguese in Balagate who came there elevated and became impotent from its use; and the Portuguese there certified me of this.

RUANO

But so many people use it for fleshly lusts, they cannot all be deceived.

ORTA

I will tell you for what it serves, if you will give me leave, for this subject is not very decent, especially when discussed in Portuguese.

RUANO

I spoke because things are not dirty until they are said to be dirty, when not being clean they intensify.

ORTA

The imagination respecting the effect of anything helps much in carnal lusts, and as it is superior it gives expulsive virtue; and this imagined power, as it is stronger so it more quickly effects the act of Venus. For the imaginative dominates the expulsive virtue which forces the genital seed, and how much the imagination prevails, so much the quicker does the member expel the seed. As those who take opium are beside themselves, the act of Venus comes more slowly.

FORTY-FIRST COLLOQUY

Many females do not give the seed quickly, and when the man is slow, the female also reaches the act of Venus more slowly, so that they both complete the act at one time. The taking of opium assists in the completion of the act of Venus more slowly. The opium also opens the channels by which the genital seed comes from the brain, by reason of its coldness, so that they complete the act simultaneously. I know that this is very well known to you, but if it is written down in common language, it does not appear a very honest practice.

RUANO

Those who practise this have some reason, though not a very decent reason. Now tell me the names of the *amfiam*, and by whom they are given.

ORTA

All call it *AFIOM*, namely all the Moors, who took the name from the *Gentios*, and it got corrupted into *AMFIAM*, so that the Moors call it *AFIUM* or *OFIOM*; and as the Arabs took many words from the Greek language, in which it was called *JHUNANI* (almost the *YAVANA* or *IONICA*), the Greeks called it *OPIUM*. For in Arabic the letter *F* includes the letter *P*, one taking the place of the other. So they called it *OFIUM* or *AFIUM*.

RUANO

How many kinds are there?

ORTA

There are many forms of it, different in the various lands. In Cairo (where they call it *MECERI*) it is white and fetches a high price, and may be what we call *TEBAICO*. At Aden and various neighbouring places in the Red Sea it is black and very hard, the price varying. In Cambaya, Mandou, and

OPIUM

Chitor it is softer and more of a yellowish colour, and is worth more in many lands, because it is customary to eat it there, so that it is worth more in the countries where it is more used. I say this of Cambaya opium, as I called it, most of which comes from a country called Malvi.¹

RUANO

How is it made and brought, for it smells like spurge laurel ?

ORTA

It is no more than the gum of the poppy which I knew in Cambaya, seeing them sell in the market the heads of poppies so large that one of them weighed a *canada*, and I also saw some small ones like ours. Asking for the name they told me it was CAXCAX, and in truth that is what they call it in Arabic. They told me that these poppies make the AMFIAM, cuts being made in them and the AMFIAM runs out. As for spurge laurel there is none in all Cambaya, nor have I heard of any in India, so you may rest assured that it is not raised here.

RUANO

They will be black poppies, for Avicenna says that when it is found necessary to cause a stupor or to paralyse a member they do not use white poppies, for those that cause stupor are cultivated. He also says that opium is made of black poppies.

ORTA

I did not see a black poppy in Cambaya, nor did I hear it said that there were any, so that Avicenna must have been deceived or the black ones are made in other countries.

¹ Malwa.

FORTY-FIRST COLLOQUY

RUANO

I am much surprised at that, it being so narcotic and stupefying. Now I want to know the quantity a person takes in a day.

ORTA

My information is a weight of 20 to 50 grains of wheat. I knew of a Secretary of Nizamoxa, Khorasani by nation, who took 3 *trollas*¹ every day weighing $10\frac{1}{2}$ *cruzados*.² But this Khorasani, though he was well instructed and a great writer and annotator, always was drowsy and sleepy. Yet, when put to work, he spoke like a discreet and educated man. From this you can see how strong the custom is.³

¹ 96 *rattis* equal to 180 grains troy. Three *trollas* would weigh 540 grains; but the weights varied at different times and in different districts.

² A *cruzado* weighed about 52 grains.

³ Indian opium is obtained from the capsules of *Papaver somniferum*, Linn., the "White Poppy" of Greece, Egypt, Syria, Persia, and India; but it is also obtained in the Levant and in Persia from *P. Rhoeas*, Linn., the "Red Poppy" of temperate Europe and Asia. The plant yielding it is the *μήκων*, and its juice the *μηκόνιον*, of Theophrastus, and the "opium" and "meconium" respectively of Pliny. The Sanskrit name of the juice is *ahipena* contracted to *aphena*, meaning "serpents' froth," but it is found only in modern Sanskrit writings; and of the plant *madrika*, meaning "stamped," the reference being to the seal-like form of the dried stigmas crowning the capsule. The Persian name of the plant is *koknar*, i.e. plant of the "cough-capsule," the Arabic, Hindustani, and Mahratti *khashkhashk*, the Hindustani also *afiyun*, and the Malay *apnyun*; while old English names of it are "Balewort," "Cough-capsule," "Joan-silver-pin"; and an old pharmaceutical name of opium itself, "Manus Dei."

FORTY-SECOND COLLOQUY

PAO DE COBRA

RUANO



ERE, in this house, I have seen given to the children a root or stick called PAO DE COBRA which is said to be good for rheumatism. I beg that in a few words you will tell me what it is, from what country it comes, whether it is considered detrimental by the people, or whether it is useful in any way.¹

ORTA

It is not only efficacious in the treatment of poison from serpents or cobras. It has been tried for rheumatism, small-pox, measles, and cholera, which is called MORDEXI in these parts, and it has the common fame among the people where this stick is grown. They also say it is useful in fevers which are difficult to treat, at least so I was told by a Franciscan Friar worthy of credit, who had twice given it to a man suffering from a returned fever. On these two occasions he had administered it, one ounce in water, and it caused a vomit of much bile, and from this he concluded that it was profitable in cases of old fevers.

¹ Acosta gives drawings of two plants which he says are both called *Palo de Culebra*.

FORTY-SECOND COLLOQUY

RUANO

How is it known that it is good against the bites of serpents?

ORTA

In the beautiful island of Ceylon, where there are many good fruits, forests and beasts for the chase, there are yet many of those serpents vulgarly called COBRAS DE CAPELO, but called by us in Latin REGULUS SERPENS. Against these God has given this PAO DE COBRA. It is found to be good against snake bites because in that island there are small beasts like ferrets¹ which they call QUIL. Others call them QUIRPELE. They often fight with these serpents. When one of them knows that it must fight with them, or fears that it may be so, it bites off a piece of this root and rubs it, or rather anoints, with its paws which are wet with the juice. It puts this on the head and body, and the parts where he knows that the cobra will bite when it springs. It then fights with the cobra, biting and scratching until it is dead. If it does not succeed in killing the cobra, the snake having more force than its antagonist, the QUIL or QUIRPELE rubs itself again with the root and returns to the combat, and at last conquers and kills its enemy. From this the Chingallas took an example, and saw that this root would be good against the bites of cobras. The Portuguese believed the good things that the natives said about the stick, and in time they gained some experience founded on reason, after having profited from this antidote, also having seen the effect with their own eyes, and that the fights between the cobra and mungoose were true. To give you more faith in its credibility I will relate to you what this Franciscan Friar, who is worthy of belief, saw in Negapatam, which is on the mainland near Ceylon.

RUANO

I shall be much obliged if you will tell it to me.

¹ Mungoose, *Herpestes* sp.

PAO DE COBRA

ORTA

Many Portuguese have these mungooses in their houses, tamed and domesticated, to kill the rats, and to fight the cobras de capello which the Yogues¹ bring who seek for charity. These Yogues are Gentios who go about begging all over the country, sprinkled over with ashes, and are venerated by all the common people and by some Moors. Travelling over so many countries they know numerous medicines and modes of treatment, some true, others false. Some of the Yogues bring these cobras with their teeth drawn, for in that condition they can do no harm. By this means, and for the gain they make, they hold the cobras in their hands, put them round their necks and on their heads, and hold them to be enchanted, but I consider this to be a lie. It happened that a Portuguese in Negapatam sent to a Yogue to bring a cobra to have a fight with his mungoos. But the Yogue did not wish to do this because he had drawn several teeth of the cobra, in which its power lies. The mungoos, seeing that a fight was intended, first went under the seats to see if it could scent some stick or root of the PAO DE COBRA. Not finding any it made itself wet with its own saliva, and came to fight with the cobra. The cobra darted at its head and wounded it badly two or three times, and the mungoos returned the blows with interest. They were parted, both being badly wounded, but the cobra worst. The Yogue, finding how the battle went, and that the cobra was alive, for it was healed afterwards, brought out another cobra whose teeth had not been drawn, and delivered it to the Portuguese who wanted to make the animals fight again. The Yogue had to stake most, as his cobra seemed to be dying, and he had to produce another. So the Portuguese gave him more than he had given him before, and the Yogue was satisfied. For his new cobra came better armed and the Portuguese, with his mungoos, got ready for the war. He brought the root and the mungoos

¹ Yogis.

FORTY-SECOND COLLOQUY

bit it for some time, and then anointed itself with its paw, wetting it where it had been bitten. This it did on its head, loins, and stomach. The mungoos being prepared for the fray, the Yogue came with the serpent, which raised itself up nearly half its length and made a spring on the mungoos, wounding it on the body, then springing back it struck again, and so they went on, sometimes the cobra striking the mungoos, at others the mungoos biting the cobra. Finally the mungoos jumped at the cobra's head biting a little further back, and tore the cobra so that, being tired, it was killed, and the Yogue made desperate.

RUANO

Certainly this was a good fight, and it must be true, the monk being a man worthy of credit. Tell me whether this stick is found anywhere except in Ceylon, and describe its appearance to me.

ORTA

Of this stick there are three kinds in Ceylon. The most esteemed kind, of which I spoke, is called in Ceylon (the land of the Chingalas¹) RANNETUL, a bush rising to two or three *palmos*. It gives out few branches, only four or five, and those very slender. The root is the profitable part, and that also is very slender, finer than the finest of our vine roots, and some root of this stick is always above ground. If it is broken or bitten off at any part, presently other roots spring out where the place is that was broken. The fruit of this stick is like the elder, only vermilion and harder. It grows in round clusters, like honeysuckle, the vermilion grains being smaller and more open as I said. The flower is a very deep vermilion and apart from the leaf, which is like that of a peach tree, the green colour being deeper. The colour of the root is between white and grey, and is very smooth to the touch, and very

¹ Cingalese.

PAO DE COBRA

bitter. This stick is found in many parts, both in Goa and on the mainland. It is drunk in water, being first well mashed. We also give it in wine or in some cordial water. It is also ground like sandal. It is called *BOQUETI AVALE* in Cingalese, so the ambassador told me. In Ceylon there is another stick or root used as an antidote. The tree is like a pomegranate and not larger, and the leaves yellow and very beautiful. The whole stem is thorny. The bark is white and thick, cracked, very smooth, and bitter, but not so much so as the first. The stick and the root and the bark are what is given, all mixed, but they say the root is the best. This tree grows like a pomegranate, and is with the other trees of the forest that are neighbours to it, but leans to them in the same way as a gourd, and so the highest branches embrace the rest. I ordered cups to be made from this tree for the sick, when they had been touched with poison, and I believe that it did them good. These cups also serve to make a posset of treacle as some of our doctors prescribe, to prevent a poison from doing harm. They say that some of this stick is in the island of Goa, but I have not tried experiments with it. When the Viceroy Constantino¹ was at Jafanapatam, which is an island off Ceylon, they presented a fagot of sticks, with their roots, as a thing much esteemed for an antidote. The root has a pleasant smell; it is slender, hard, and black. They say that there are many of these sticks and roots on the mainland of Goa. The leaf is like that of a mastic tree, as fine and long, with white and grey spots, not green. The branches are slender and extend far over the ground, more than four or five *covados*. The leaves are very few, and the branches few and slender, unable to bear much weight. The licentiate Dimas Bosque told me about this in his last letter. He is a person of learning, very truthful, and of very good judgment as regards the cures he has effected.

¹ Constantino de Braganza, brother of the Duke.

FORTY-SECOND COLLOQUY

RUANO

Tell me whether, in the parts of Malacca, they shoot with poisoned arrows, for they say that there is a root which is a very good antidote. I want to know what it is.

ORTA

The forests there are full of tigers and the people have little curiosity. I have never been able to obtain a description of the tree, so that I cannot tell you anything about it; except that a few persons who have seen it say that it is the same as the *Pao de Cobra*¹ of this country. So it seems, as the roots are said to be alike. It may be, but I cannot affirm it, as I have not been well informed.

¹ The tubers of *Aristolochia Serpentaria* are the "Ceylon Snake-root" of modern botanists. The *Ophiorhiza Mungos* of Linnaeus, the *mendi* of Ceylon, a Chinchonad, is used for snake-bites in Ceylon and India. Among many other "Snake-roots" and "Snake-woods" may also be named the Dog-banes *Ophioxylon serpentinum*, Linn., of Ceylon; and *Rauwolfia* sps. of the West Indies and tropical America; the Solanaceous tree *Strychnos Nux-Vomica*, which is useful in staying the victim of a cobra's bite against collapse; and the Asclepiad *Hemidesmus indicus*, R. Brown.

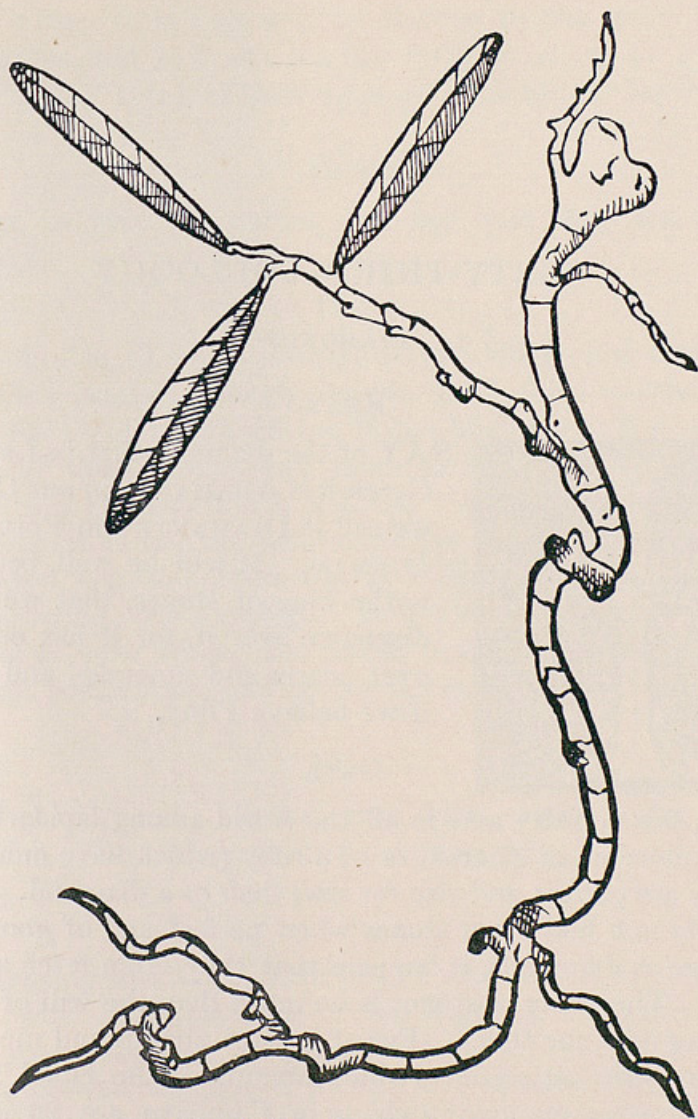
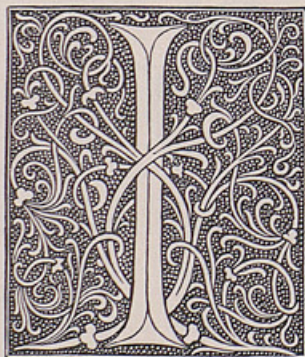


PLATE XIX.—PALO DE CULEBRA.

FORTY-THIRD COLLOQUY

DIAMONDS

RUANO



SAY of the diamond that in Latin and Greek it is ADAMANS; in our Castilian we call it DIAMANTE; in Portuguese, DIAMAM. It will be well, because it is the king of stones, that we should discourse over it, for it has eminence over pearls and emeralds and rubies, if we believe Pliny.

ORTA

In this country and in all the world among lapidaries they think more of an emerald or of a ruby (which have more value if they are perfect and size for size) than of a diamond. But as they do not find other stones when perfect and of good water so large as diamonds, it happens that they often fetch a higher price. The value of stones is no more than the will of buyers and the need for them. For of greater virtues and more tried is the *pedra de cevar*¹ which staunches the blood.² They sell them by maunds³ (which in Cambaya are 26 *arratis*),

¹ Or *pedra imam*, the magnet.

² The carnelian.

³ That is the diamonds. The maund was about 26 *arratis*. The Bombay maund is equal to 28 lbs.

DIAMONDS

and emeralds are sold by *rattis*,¹ weighing three grains of wheat each. Other stones are sold in Europe by the *quilat*,² which is 4 grains, and in India by the *mangeli*, equal to 5 grains. Pliny did not speak of their value as a jeweller or lapidary.

RUANO

Let us give the names, and say how they are used in medicine.

ORTA

In Arabia, to which country all the Moors send them, they are called *ALMAZ*, though Serapio gives them another name (chap. 391). All the Gentios, in the land where they find the mines of these stones, call them *IRAA*. The Malay name, where they are also found, is *ILAM*. As for their employment in physic, it is not the custom to use these diamonds; yet I have seen Gentio doctors who give them to break the stone, administering with a syringe. But it is not given inwardly, as there is an error among the people that it is poison because of its great penetration, and boring the entrails.

RUANO

Is not that so? Laguna, with many others, looks upon it as poison. Do they have it in common use?

ORTA

Speaking the truth with you, I may say it is not so. I have heard, in these lands of the negroes, of lapidaries who swallowed diamonds and confessed to their lords that they had swallowed them, and waited and expelled the diamonds from below without any harm done. Of this I cannot myself testify.

¹ A *ratti* = 175 grains troy.

² A carat.

FORTY-THIRD COLLOQUY

RUANO

They told me that it is poison when made into powder, which seems reasonable, for it reaches the parts of the stomach and bowels, and bores through them.

ORTA

It will not be a poisonous powder, because the virtue attracts the parts of the stomach and will not draw it to itself, and it will drop lower, being heavy, for it is a stone. I knew a woman who had a husband ill from chronic dysentery, and, abhorring the long continued illness, she gave orders to buy ground diamonds, and gave them to him for so many days without his dying that she got tired of it. Afterwards she left off administering it, because it was certified to her that he could not recover. So, without taking any more, he died a long time afterwards. I knew this from the person who went to buy the diamonds. So that those who say that diamonds are poison deceive, for it is not a thing written by authentic doctors.

RUANO

Well, now, I want to ask you about some errors, and this will be by mentioning what the ancients have said, respecting which I have felt some doubts. They say that originating in the minerals of crystal near the mineral of iron, the crystal does not take the colour of iron but is clearer than crystal. They also say that ADAMANS means a force not easily subdued, and put on an anvil they cannot be broken by the force of a hammer, but resist it and throw out the parings of the iron. But if the diamond is first dipped in the blood of a he-goat, it softens, especially, as some say, if the he-goat has first eaten celery and other opening things, and has drunk some wine. They further say that in this way it can be worked, and in any other it cannot. They also say that it is never found

DIAMONDS

larger than a hazel nut. "Why do you not assert that it is false?" says Pliny, when he talks of the he-goat's blood poisoning a man. But some say that the text of Pliny is corrupt, and that it should be, "It does not poison a man," and that this about the he-goat's blood happened by revelation, for in any other way he could not be known.

ORTA

Do not go on any further, for my memory is not good enough to answer so many objections, not to call them fables. You must now know that diamonds are found in three or four places. In Bisnaguer they are in two or three rocks which yield much to the King of Bisnaguer. As in Spain the tunny fishery provides large rents for the King, so in these mines the diamonds yield a great income to the King of the country. The stone, which has a weight of 30 carats, belongs to the King. For this a guard is placed over the diggers, and if any person is found with any, he is taken with all he has. The other rock is in the Deccan, near the territory of Imadixa (whom we call Madremaluco),¹ a land of a Gentio lord, with better diamonds, but not so large. These are called, "of the old rock," and they come to sell them at a well-known fair in the Deccan at a city called Lispor, within the territory of Madremaluco. There the Guzeratis buy them, and take them for sale to Bisnaguer, where these diamonds of the old rock fetch a very high price, especially those they call NAIFES, being those which nature has worked; while the Portuguese value those most which have been polished. The Canarese say that as a virgin is more valuable than a woman who is not one, so the NAIFE diamond is worth more than the cut one. There is another rock in the strait of Tanjampur, in Malacca, also an old rock. The diamonds are small but very good, except that they have a blemish, and they weigh much. It is a

¹ Imad-ul-Mulk.

FORTY-THIRD COLLOQUY

thing that is not good for those that buy but good for those that sell. In none of these parts is there crystal, nor in all India; for crystal prefers very cold countries like Germany. But in India there is the beryl, which is like crystal, and is obtained in large pieces for making jars and porringers. I gave 200 *crusados* for one, and they did not like giving it for that. But this beryl is not in Bisnaguer but in a few places between rocks. There is much of it in Cambaia and Martavam and Pegu, where there is a good market for diamonds, as there are none there. The beryl is also in Ceylon, where there are no diamonds. As to what you say about diamonds being so strong as to resist a hammer and anvil, and to break the hammer, I tell you if you try it with a diamond of price you will not have that experience, for when you try you will smash the diamond all to pieces with a hammer. They are easily broken in a metal mortar, and in that way they are made into powder to work up others. I have seen this with small diamonds. The lapidaries here had one large diamond which, owing to its bad shape, they wished to make into three or four, so they broke it in that way. It is true the diamonds are only to be worked with other diamonds put on a wheel, and they cannot be bored, though a modern doctor says that they can. The way to know a diamond, whether it is one or not, is to touch it with the point of another diamond or with a fragment of one. If it is not a diamond it makes a scratch, for there are other diamonds so strong that they would wound the other diamond. Diamonds will not be bored nor clipped, nor does the fire injure them.

With all this I would have you know that the diamond is well known to lapidaries, and they say that it has live water, while the topaz, sapphire, and crystal have dead water. But to soften it with the blood of a he-goat is a fable taken from the fact that the he-goat's blood breaks the stone in the kidneys and veins. I have myself tried it. As to what you say that no

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diamond is larger than a filbert, neither Pliny nor any other writer is in fault. They only speak of what they have seen, but there are diamonds four times the size of a filbert. The largest I have seen in this land was 140 carats, another 120, and I have heard that a native of this land had one of 250 carats. I know he had it, and made a large profit though he denied it. Many years ago I heard from a person worthy of credit that he saw one in Bisnaguer the size of a small hen's egg, and this might be. What astonishes me most is that a substance should be set far within a mine to grow during many years; and yet I see that they do so in two or three years. For in one year they dig in the mine to a height of a cubit, and at the end of two years they return to dig in the same place and find diamonds as before. Many people say this, but others tell me that the large diamonds do not occur in the face of the rock but well within it. But it seems doubtful whether they can be produced in so short a time, even small ones. As to what you say about their being overcome by lead on account of the quicksilver, it is not reasonable, seeing that the diamond overcomes iron and all other metals and stones. For if so it would cut a diamond as a knife cuts a turnip, and he who wrote it was dreaming or, to speak more plainly, he did not say what was the fact. I told you so in reply to your questions, and I asked further on for the doubts you entertain. If my answers are not agreeable to you, you should not be surprised, for he who speaks against common beliefs is detested.

RUANO

A chronicler named Francisco de Tamara says that there are diamonds in Peru. What do you think of that?

ORTA

I never heard it said by persons who have seen them in Peru, but you should know best being in Spain. I saw, in

FORTY-THIRD COLLOQUY

this author you quote, many fables concerning the working of diamond mines in these our lands, saying that they are guarded by serpents that may not be extracted, and that the people who own the mines throw poisoned meat in a certain place for the serpents to eat, while they in another place extract the diamonds at their will. It would be well, if Francisco de Tamara wants to invent fables, that he should tell them of his Indies and not of ours.

RUANO

A Dominican friar named Domingo de Baltonas also says that there is a diamond mine in Spain.

ORTA

I knew that friar in Salamanca, according to my recollection, and held him to be good and religious. He must have quoted what he found written by others, but I never heard of it.

RUANO

They say that there is another kind of diamond in Arabia which is not so strong because it is broken by the blood of a he-goat, but it has not the same splendour and is therefore cheaper.

ORTA

I never saw nor heard of such stones being found in Arabia. There are stones which we call topazes, the colour of gum mastic, and some sapphires of a water like diamonds, but I never heard that they came from Arabia. They are not diamonds but are called so because of their resemblance. Stones which have not the same indomitable strength are not diamonds. I have not seen those that are said to be in Cyprus or in Macedonia, and it seems to me that the Turks do not make much of them if they are in their land. I say this because the greater part of these diamonds are taken by the Turks.

DIAMONDS

RUANO

They say further that they all draw the iron, and what astonishes me most is that the *pedra de cevar*,¹ a diamond being present, does not attract iron.

ORTA

As to a diamond attracting iron, I will presently show you the contrary when I try the experiment. That the *pedra de cevar* does not attract iron, a diamond being present, is an absurd fiction. I proved the contrary before a number of people, both with diamonds of the old and the new mine, and I will do it again if you like. Of the other virtues of which they write, if they are not contrary to reason, they may be true. A stone which God created with such strength may well have these other gifts. But to say that when one is put behind a woman's head unknown to her, and when she is asleep, she will embrace her husband if he has been faithful, and if the contrary will avoid him, is a thing I am unable to believe, though they tell me that it is stated by writers of authority; for they say the same of certain herbs and we know that to be nonsense. But I will tell you one thing about diamonds of the old mine, which is that they have points that fit one with the other, fasten themselves, are fastened, and cannot be unfastened. Thus I saw a diamond warmed, attracting a straw like amber. As I have seen these things, and you can see them if you like, I have faith in them. I do not want to discuss writers who falsify stones, for it is not the province of a philosopher much less of a theologian. For this writer to make a diamond of a sapphire of water, he showed that a sapphire is not a diamond whatever it may look like.

RUANO

That we may not dwell too long on things unconnected

¹ A magnet.

FORTY-THIRD COLLOQUY

with medicine, I will ask you whether you have seen the *pedra armenia* in *these* lands, for we are without it in Europe, though we have *lapis lazuli* in some places.

ORTA

I will let you see the *pedra armenia* at once. Girl, bring me that key.

SERVANT GIRL

Here it is.

ORTA

Draw out the cloth on which large stones are fastened.

SERVANT GIRL

It is here.

ORTA

Now see the *pedra armenia*.

RUANO

Many signs point to what you say, being to some extent blue and a clear green. But how do you know it is *pedra armenia*?

ORTA

The Moors, great physicians who attend the Nizamoxa, gave me these stones, with which they cure melancholy. They call it so in Arabic—HAGER ARMINI, which means the same as *pedra armenia*. I asked them where they had these stones and they replied in ULTABADO, a well-known city in Balagate. Enquiring whether the stone was found in Turkey and Persia, they replied that it was, but in small quantity. They did not know whether it came from Armenia or not. As a medicine it purges very little, according to my experience. I asked many Armenians here in this country, but they did not know whether it was in their land or not.

DIAMONDS

RUANO

The PEDRA DE ÇEVAR is very common, but I want to ask you what you know about it, for Laguna and others say it is poison, and that it turns a man into a lunatic.

ORTA

The PEDRA DE ÇEVAR does not turn a man into a lunatic, nor is it poison. For they have it here among the Gentios, who eat it in small quantity to prevent them from growing old and to preserve their youth. For this the King of Ceylon, an old man, ordered cakes to be made of this stone for him to eat.

RUANO

How do you know this ?

ORTA

Besides its being common fame, Isaac of Cairo says that he ordered them to make it. This Isaac of Cairo is a Jew who came to Portugal with news of the death of Sultan Bahadur.

RUANO

Antonio Musa says that the Portuguese who navigate to Calicut find that the ships have wooden nails by reason of the mountains of PEDRA DE ÇEVAR, which would draw out the nails if they were iron.

ORTA

These are fables, for the Portuguese never saw anything of the kind, and at Calicut, as well as all along that coast, the vessels have iron rather than wood. It is true that in the Maldivé Islands they use wooden nails, but the only reason is that wood is cheaper than iron.



FORTY-THIRD COLLOQUY

RUANO

They also say that the mine of PEDRA DE ÇEVAR is near an iron mine, and that the former mineral draws the iron to itself.

ORTA

No such thing. They are found in different places, the PEDRA DE ÇEVAR where there is no iron.

RUANO

A Parisian philosopher says that the PEDRA DE ÇEVAR moves the iron of itself, a virtue which is not imprinted in it, but which moves to it. For this reason the PEDRA DE ÇEVAR does not weigh more with much iron than with little.

ORTA

On the contrary, we tried the experiment here, I and some other persons, and at this you need not be surprised, because men make all sorts of statements.¹

¹ The PEDRA DE ÇEVAR OR PEDRA IMAM is the loadstone or magnet.

FORTY-FOURTH COLLOQUY

PRECIOUS STONES

RUANO



OW it will be well if we discuss the precious stones that enter into the composition of cordial lectuaries, which are so necessary in physic.

ORTA

I will only speak to you of medicinal stones, and of those which are in India, for if we discussed them all we should never come to an end. I must tell you that the medicines which enter into the composition of the lectuary *de gemis* are usually called *fragmenta preciosa*.

RUANO

I will ask you afterwards to tell me about some of the others.

ORTA

I will tell you in few words. But as to those others it is necessary to advise you to take back 10 *crusados* of them to give to the Spanish druggists, that henceforward they may buy the true stones, for they are not very dear. First the sapphire,

FORTY-FOURTH COLLOQUY

which deserves to be worth a great deal, but which may be bought with little money. Its blue is very delightful to the eye. There are two sorts, one very obscure, the other very clear, which is called a "water sapphire." This has not so high a price, and sometimes they set them with colour to look like diamonds, by which some people have been taken in. One and another is found in Calicut and Cananore, and in many parts of the kingdom of Bisnager, also in Ceylon, and much the best in Pegu. These stones being so delightful to the eye, yet a large and clear one of the first water scarcely reaches to a price of 1000 *crusados*. I say that on the authority of what I have heard from those lands. When you are on your way to Cochin you can buy, in Calicut and Cananore, lots which, when washed, leave a good quantity. I also bought them in a lot, for they cost little money.

RUANO

Tell me about jacinths and garnets.

ORTA

There are some in such quantities that it is only necessary to spend a little money to buy a sackful. You will find many in Calicut and Cananore. A score of those that have been washed go for a *vintem*. Those uncleaned are much cheaper. Garnets are not only in the places I mentioned but also in Cambaya and Balagate, where they are sold at very low prices.

RUANO

Next comes the sardonix.

ORTA

That stone is not in our country. Some of them come from abroad, but there is much divergence as to what stone it is. My advice would be to leave it in its place, when you do

PRECIOUS STONES

not find jacinth or garnet. The jacinth is also brought to Lisbon from a place called Belas, and they may be found in many corners of Spain if they are sought for. Some consider these two stones, the jacinth and garnet, to be species of the ruby.

RUANO

What can you tell me about the ruby and carbuncle?

ORTA

I say that under this name of ruby there are many kinds. The principal is called in Greek *antrax*, and in Latin *carbunculus*, which is as much as to say "a live coal."

RUANO

I want to get one for myself, not to use as medicine, but I have heard that they light up at night.

ORTA

Do not you believe it. These are the sayings of dotage.

RUANO

Have you not seen it yourself, or heard that it is so?

ORTA

I have never seen it. But it is true that a lapidary told me that he counted on a table a few very fine rubies from Ceylon, very small, such as we call score rubies, because they are sold at twenty the *vintem*. One got between the folds of a table, and at night, in the dark, the table seemed to have a spark of fire, so that it was like a candle. A very small ruby was found, and when it was taken up the spark no longer appeared on the table. I do not know whether this is the truth or a lie. But I know that the lapidary who told me

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this professionally, told lies sometimes, as he found them profitable in his trade, and he got so used to it that he occasionally related marvels of his own accord.

RUANO

Now when a ruby is very fine as regards colour and water—I mean when it is 24 carats and quite perfect as to colour—should we call it a carbuncle?

ORTA

I think so. I have seen some called TOQUES, which have a price according to their size, shape, and water, and the clearest I saw were those the price of which was 20,000 *crusados*.¹ It was owned by a great Lord of the Deccan, who showed it to me, as I was a great favourite of his, and he made me give my word that I would not mention it to any one in that land nor to the King of it. He told me it cost him 6 *maunds* of gold, equal to 5 Portuguese *arrobas*.

RUANO

This would be a good stone to use in pharmacy, if the druggists are liberal.

ORTA

No. For the druggists you can find many as cheap as the jacinth, and indeed a certain quantity has been sent to Castile. There is another kind which we call BALAX, which is somewhat red and with a lower price, and another called ESPINHELA. This has a colour more inclined to flame, but it is of less price, because it has not the water of the true ruby. There are other white rubies in many shades. Others are slightly encarnadine, or of a whitish cherry colour. Others half-white half-vermilion, others half-sapphire half-ruby. All these I have seen, and if

¹ 43,000,000 reis = £8600. Four times that in present money.

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you like I can show them to you before you go. There are many other kinds of these rubies about which I do not care to talk to you, nor about their prices.

RUANO

Can you excuse me for asking the cause of this variation in the colour of the rubies?

ORTA

That which I have heard said, that is most conformable to reason, is that the ruby in the rock, when it is near its birth, is white, and that as it matures it reaches to the perfection of vermilion. As this perfection cannot be acquired at once, sometimes stones are found becoming red, as I said, and sometimes with bands of yellow and white. As they say that the ruby and sapphire come from one rock, there are other stones that become a mixed blue and red, like a true composition of dark blue and vermilion, and almost red. In some languages of India they call such a stone NILACANDI, which is as much as to say "ruby and sapphire."

RUANO

Tell me the names of these stones in Arabic and in the language of this land.

ORTA

The Arabs and Persians call the ruby JACUT, and the people of this land MANICA. The jacinth and garnet have special names, as when one says "yellow ruby" or "black ruby" for garnet. The sapphire is NILA.

RUANO

It is very desirable that you should tell me about the emerald, the best stone of all, which is an ingredient in the lectuary *de gemis*, and they call it *ferruzegi*.

FORTY-FOURTH COLLOQUY

ORTA

Emeralds are not so cheap, and for emerald the *ferruzegi* should not be understood. The true emerald is rare and fetches a very high price. The proper rock where it occurs is not known, so that those who come to where it is washed do not find sufficient. He who says that *ferruzegi* means an emerald does not understand Arabic. The intention of Mesué was to enter emerald in this composition, though Cristoforo de Honestis, the commentator of Mesué, felt differently. The reason is that the name of an emerald in this country and in Persia is PACHEC and in Arabic ZAMARRAT. Serapio, in the chapter on emeralds, has ZABARGET instead of ZAMARRAT, but it should not be ZABARGET, as the Pandetarian¹ shows.

RUANO

What does FERRUZEGI mean?

ORTA

You must know that in Arabic *p* and *f* as letters are like brothers, as I have said before, whence Mesué in Arabic has this FERRUZEGI, which means a turquoise, or of a turquoise, for PURUZA is a turquoise in Arabic, of which there is a great quantity in Persia.

RUANO

Truly for this alone one would wish to come to India, but if I did not find you perhaps I should not say that. From this time forward when I find FERRUZEGI in Avicenna or in any book of the Arabs, I shall understand it to be a turquoise, and I will not allow the druggist to fling green enamel into the lectuary *de gemis*, nor any other green stones. For I remember, the other day, one came here to sell a jewel with many small emeralds, and you said that they were all false

¹ Matheus Silvaticus.

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and that they were made of bits of glass in Bisnaguer and Balagat, at least the largest of them, and that it was a thing so common among them that no one noticed it. Henceforth when I come to an emerald I shall say, beforehand, that it is not to be put into the lectuary without being quite certain what it is, "*A viride vitro libera nos Domine!*" A modern doctor says that our emeralds of Peru are of much more use for medicinal purposes.

ORTA

I say that those stones of Peru, called emeralds, were brought to this land. At first they fetched a high price, but afterwards they were found to be false¹ and cannot be sold. You will have to be on your guard against them.

RUANO

Tell me whether the turquoise is used in medicine?

ORTA

Some people have told me that it is, others that it is not, among the Gentios. Among the Moors all say that it is used in medicine.

RUANO

Tell me about the chrysolite, amethyst, beryl (you say there is no crystal in this country), and the jasper.

ORTA

Of the jasper I need not speak to you, as there is plenty in your own country, and you know more than I do about it. There are small porcelains² of jasper or green stone, which is like emerald, and it may be that the stone found in Genoa, and called emerald, may be this stone. But it has been sought,

¹ This is not true. Those from South America are true emeralds of excellent colour and water.

² Word used for a cup, irrespective of the material it is made of.

FORTY-FOURTH COLLOQUY

a few times, to obtain better authority for this, and the Genoese may speak in due time. In Balagate they gave me a porcelain for 200 *pardos*, and if it was emerald, a thousandth times that amount would not be taken for it, according to the value they put on emeralds. I spoke to you of the beryl when we discussed the diamonds. There is a good deal of it in Cambaia, Bisnaguer, and Ceylon, and in other places. Chrysolite and amethyst come from Ceylon, and they have both these stones and many others in Balagate of Nizamoxa. All that Balagate is surrounded by many kinds of stones. That called *ALAUQUECA*¹ by us, but *QUEQUI* in Arabic, is worth a Castilian real for one *arratel* of the stone worked in small pieces. This stone has a more certain virtue than all the rest, for it staunches the blood very suddenly.

RUANO

Cat's eyes are, I believe, very good. Where do they come from?

ORTA

The best are in Ceylon, and are worth more there than in Portugal, for I saw one taken to Portugal which was worth 600 *cruzados* here, but in Portugal it would not fetch more than 90. It was brought back here to be sold for its value. For this reason the cat's eye is not taken to Portugal for sale.

RUANO

What properties has it?

ORTA

The people of this country say that it has the property of keeping a man's wealth in his possession without its diminishing, and rather it will be increased.

¹ Carnelian.

PRECIOUS STONES

RUANO

Whence are those rubies of the localities of which you have not told me?

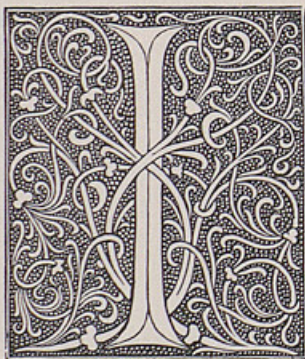
ORTA

Some few are from Ceylon, but not very good, others from Pegu, and they say that they come from the lands of Burma, which is much farther off. This is the best information I have. If I am wrong in anything you must pardon me, for I do not know everything thoroughly.

FORTY-FIFTH COLLOQUY

BEZOAR STONE¹

ORTA



AM much surprised that you have never asked me about the bezoar stone, for it is so praised by all the Arabian writers, and with much reason.

RUANO

I did not ask you about it because you spoke highly of it at the time when we had practice with the cholera patient, and I waited for you to speak of it, for to me it seems to be a false thing to a great extent. Not that it is so much praised as the medicines which are antidotes to poison, which we call *BEZEDARICAS par excellence*. At the same time I shall be much obliged if you will tell me, in a few words, of its origin, falsification, the use it is put to by the people of this country, and whether it is much esteemed.

ORTA

They call the sheep (or more correctly the he-goat) *PAZAM* in the Persian language, and it is met with in Khorasan and

¹ The name of the Bezoar, or Bezoard, called also the "Snake-stone," is derived, through the Portuguese, from the Persian *padzahr*, meaning "expelling poison." The Persian for wine is *zahr-i-Kush*, "the poison of delight."

BEZOAR STONE

in Persia itself. I saw one here in Goa, large and of a reddish-yellow colour. They told me there were others smaller, of the same colour and of different colours. This stone is engendered in the paunch of these he-goats on a very fine straw which is in the middle, and so it goes on twisting and forming a rind like that of an onion. Thus it is formed into a round column, but not always the same shape. That straw is often found in the stone, as I have seen it, and at other times it is not found there. For the most part it is loose and the colour of a brinjal. There are large and small ones. They esteem them according to their size, for it is thought that the greater the size the greater the virtue. I have had one which weighed nearly 5 *oitavas*, though in Portugal it was not valued highly, where they sold it for 2000 reis; and but for the diligence in pushing the sale, they would not have been sold at all, for they worked hard to sell them.

RUANO

Are you certain how they are generated ?

ORTA

Yes, because in taking out the stone, some fine pieces of straw are found on it, and persons worthy of belief tell me that this is so with regard to all those at Ormuz. I afterwards found them when serving in the fleet off the *Ilha das Vacas*¹ (near Cape Comorin), when many he-goats were killed for the fleet. For the most part they contained this stone in their paunches, and the people who sought for them found a great many. Afterwards those who occupied the island had the custom of killing a great many. Those of Benfiala touched

¹ In 1543, serving under Martim Affonso de Sousa. The Dutch called the "*Ilha das Vacas*" the Isle of Delft, in Palk Strait, an island six or eight miles long, with water in a small lake and abundant pasture.

FORTY-FIFTH COLLOQUY

at that island to discharge part of their cargoes, on account of the reef of Chilam, so that they always got many bezoar stones.

RUANO

Then it is not only found in Persia ?

ORTA

You are quite right. It is also found in the island I have just mentioned, and in parts of Malacca. But those in Persia and Khorasan are much the best, and the Moors know the difference between some stones and others. They open them on their hands to see if they are false, and blow on them; those which are blown away by the wind are held to be counterfeit. This stone is called PAZAR, from PAZAM, a goat so called. So that when they ask you for some medicine against poison, they call it PAZAM, and so some call the unicorn¹ and treacle.² This name of PAZAR is used by all Khorasani, Persians, and Arabs, and we, in Europe, corruptly call it BEZAR, while the Indians have a more corrupt form BAZAR, which means "stone of the market or fair." For BAZAR means a place where they sell anything.

RUANO

And for what is it used, and who use it most ?

ORTA

The people of this country use it against poison, and the Moors of Ormuz and Khorasan take as much as 30 grains for all illness caused by poison or melancholy. All wealthy persons purge themselves twice every year, in March and September, and after purging they take 10 grains every morning for five days, in rose water, and they say that with that it preserves their youth. I may say to you that in many

¹ LOCORNIO, a misprint for UNICORNEO.

² Triaga.

BEZOAR STONE

old melanchoitic infirmities, such as prickly heat, leprosy, itch, ringworm, I was told by a governor that it was found to be good. I have used it for other diseases and found it to be very good. I therefore believe that it would be good for quartan ague.

RUANO

If a man took a great quantity of it would it do harm ?

ORTA

Though this may not be a poisonous medicine, nor composed of poison like *triaga*, yet I think it more prudent to take it in small quantity. In Ormuz very little is given. A factor of Ormuz, a friend of mine, said that the Moorish physicians told him that a patient would die if he was given much bezoar stone ; and this is reasonable, for things they use properly have their effects in smaller quantities. Certainly a man of Ormuz, who is worthy of credit, who was the agent of the captain, had much conversation with respectable Moors. They told him there were Moors who were much debilitated, and who wanted to take bezoar stone for such weakness, and that they were so feeble that it seemed as if they could not survive, and he said to the physician that they could not survive, and the physician said that after taking the bezoar stone he would not know them. He heard afterwards that they became very strong, for which they thanked God who had created such a stone.

RUANO

Mateolo Senense says that this stone touches the flesh, preserves those who have taken poison, taken outwardly that it is good for ulcers, that it draws out poison, and is good for the bite of any mad dog or other animal.

FORTY-FIFTH COLLOQUY

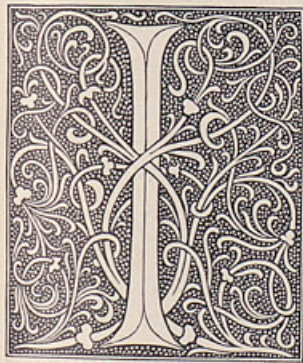
ORTA

As to its preservative effect in application outwardly it is not so used in practice. For some poisonous wounds it is true that it is efficacious, given in powder. I know that it is useful for poisonous bites, and for postumes of the plague where they are open. They say that it is preservative from the plague, and that it cures it. As in this country bladder complaints and measles are very virulent and often fatal, many hold that this bezoar stone should be given every day, in quantity of a grain or two, with rose water, and thus the poison is extracted.

FORTY-SIXTH COLLOQUY

PEPPER¹

RUANO



Sh it not unreasonable that, after such labour as the Portuguese have gone through to have all the pepper in their own hands, they should consume the smallest part while Germany and Flanders use the rest? I want you to tell me where the greatest quantity is grown, and the names of the countries where it is found, also what it is called in Arabia, how it is gathered, what the tree is like, and whether it is used in medicine.

ORTA

The greatest quantity of this pepper is in Malabar, or along the coast from Cape Comorin to Cananore. There is also a certain amount in the parts of Malacca, which, however, is not so good, being less fruitful. There is some in Sunda and Java, and in Queda and other places, and it is consumed in China, in its own country, and is also taken to Martaban and Pegu. In Malabar also it is largely consumed in the country itself, where much more is used than in any other land. Some is used by the people along the sea-coast, some taken to

¹ See footnote at end of this Colloquy.

FORTY-SIXTH COLLOQUY

Balaguete on oxen ; and a large quantity goes to the Red Sea, against the orders of the king, but nothing can be so well guarded but that much will be taken to the westward by the Moors. These are the places where the pepper is raised, and though there are some trees to the north of Cananor, they are so few that we do not take account of them, as the people of the country consume all that is gathered. For these trees do not grow in the interior nor in other parts, so that the trade is good, and I have seen much taken inland by oxen.

RUANO

Tell me the names in the countries where it grows.

ORTA

It is called in Malayalim, where there is the greatest quantity, MOLANGA, and in the parts of Malacca where, as I have said, it is also grown, LADA. In Arabic it is FILFIL, a word used both by the Arabian physicians and the people. Avicenna, according to the translation of the Belunense, calls it FULFUL, and the long pepper DARFULFUL and FALFEL, and Serapio, who was also Arabian.¹ It seems to me that FILFIL, not FULFUL or FEFEL, is the more correct form, it being so easy to corrupt a written word when taken from the mouth of the people. There is nothing more to detain us on this point, except that in Guzerat and the Deccan pepper is called MERICHE and in Bengal MOROIS and the long pepper PEPILINI.

RUANO

Tell me the appearance of the tree, how it grows and how all is grown on one tree, for in this Greeks, Latins, and Arabs all agree, as well as the writers who have treated of the subject recently.

¹ This sentence is very confused, but Ficalho says that the meaning is clear.

PEPPER

ORTA

All agree, with one accord, not to tell the truth, although Dioscorides may be pardoned because he wrote with false information and at a great distance, with intervening seas not navigated as they now are. He was copied by Pliny, Galen, Isidore, Avicenna, and all the Arabs. But those who write now, such as Antonio Musa and the Friars, have the greater fault, because they merely repeat in the same way without taking the trouble to ascertain things so well known as the appearance of the tree, pepper, the fruit, how it ripens and how it is gathered.

RUANO

Are all those you have mentioned in error ?

ORTA

Yes, if you call saying what is not true an error.

RUANO

This being so, tell me what you have seen or heard from persons worthy of belief, and afterwards I will come with my doubts.

ORTA

The tree of the pepper is planted at the foot of another tree, generally at the foot of a palm or cachou tree. It has a small root, and grows as its supporting tree grows, climbing round and embracing it. The leaves are not numerous, nor large, smaller than an orange leaf, green, and sharp pointed, burning a little almost like betel. It grows in bunches like grapes, and only differs in the pepper being smaller in the grains, and the bunches being smaller, and always green at the time that the pepper dries. The crop is in its perfection in the middle of January. In Malabar the plant is of two kinds, one being the black pepper and the other white; and besides these there is another in Bengal called the long pepper.

FORTY-SIXTH COLLOQUY

RUANO

It seems to me that you abolish all the writers, ancient and modern, by this that I have heard you say. For Dioscorides says that the tree of the pepper is low, and produces a long fruit like a sheath, which they call long pepper, and inside this sheath there are small grains like gram, and that this is the perfect pepper, for at the proper time these sheaths open and discover some close clusters and the grains which we know, and that they are gathered before they are quite ripe. He says that they are sour and these are the white pepper. They are ingredients of the medicines they make for sore eyes and against poison that has been drunk, and against the bites of venomous beasts. The long pepper is strongly biting and rather bitter, owing to having been gathered before it is ripe, and is therefore efficacious for the things I mentioned. The black pepper is more suave and sharper, and more agreeable to the taste, from having been gathered at the right time, and also more aromatic than the white kind, and so it is more profitable for tempering the food. The weakest of all is the white pepper, owing to having been gathered before it is ripe. The black pepper is heavier and better. The people of the country call it *BARCAMANSI* because some empty grains are found amongst it. This is what Dioscorides says on the subject, at present it being unnecessary to enter upon medicinal qualities. At the end of chapter x. he says that the root is like that of *costo*.¹ Pliny says that the trees are like junipers, and that they grow only on Mount Caucasus according to what some say, also that the seeds are like those of the juniper, and that one seed divides or goes apart from another in a small part of the pod, like figs. The prices of them was 25 *livras* for long pepper,

¹ *Costus*, the Sanskrit *kushta*, and the *kut*, pronounced *koot*, and *kustum* pronounced *koostum*, of the Indian bazaars, formerly attributed to the Ginger-wort *Costus speciosus*, is now known to be the root of *Saussurea Lappa*, C. B. Clarke [the *Aplotaxis auriculata* of De Candolle, and *Aucklandia Costus* of Falconer], Compositae, of Cashmere.

PEPPER

of black 16 to 18, white 17, a *livra* equal to 3 *cruzados*. He says that pepper in its own country is wild and not planted, and that in Italy he heard of a tree which was like a myrtle, also that there is pepper in the part of Arabia called Trogoldita, which is called in the language of that country BARCAMANSI. Everything else about its use is copied from Dioscorides, so it need not be referred to here. Avicenna has two chapters, one on FULFUL, the other on DARFULFUL, which is the long pepper, and both Avicenna and Galen do no more than copy from Dioscorides, and so with Serapiam, who only has what he found in Dioscorides and Galen. Something that Paulo Egineta wrote is not relevant. These are the remarks on the subject made by the ancients. Turning to St. Isidore, he must, as a saint, be considered a high authority. He says that when the people of the country find that the pepper is ripe for gathering, they set fire to the wood for fear of serpents and burn the serpents. The pepper turns black owing to the fire applied to the wood. But I, to tell you the real truth, look upon this as a fable; so I wrote it first and then spoke. St. Isidore cannot have said this because he believed it, but to relate what others said. So I do not care to make excuses about these things, for I do not believe them. But I must tell you that I do not know for what reason you discredit such ancient doctors, and of such high authority, whose statements are confirmed by modern writers such as Mateas Silvatico, Sepulveda, Antonio Musa, the Spanish Friar, the Italian Friar, and so many others who have written on pharmacy. On this account I require you, in the name of God, to tell me only what you have seen and heard from persons well worthy of credence, confirming what you say by reasons which you know so well how to give, and finally we will consider how it is used in medicine by the physicians of this land, then I will put any necessary questions to you, and I regret if I have spoken too freely.

FORTY-SIXTH COLLOQUY

ORTA

In the first place, your worship must understand that pepper does not grow either on the skirt or on the slope of Mount Caucasus, as Pliny says. For there the price of pepper is higher than in any other country. This you must know, for you know how far Mount Caucasus is from Malabar or Sumatra, places where there is the greatest quantity of pepper. Nor is it like the juniper, for it is a climbing plant, while the juniper stands by itself, nor are its leaves like those of the juniper. Their shape is as I have already described to you, and the bunches grow like those of grapes. When they are green, with the berries apart and unripe, they put them into vinegar and salt. This I know very well from the testimony of my eyes. In the same way I know that the tree of long pepper grows in a land very distant from Malabar, the nearest point being 500 leagues off, for it is in Bengal and in Java. This long pepper is worth at Cochin, where there is the greatest quantity of black pepper, 5 *cruzados* the *quintal*, and four years ago at that place, when there was a greater demand for long pepper at other places, the *quintal* was worth 15 to 20 *cruzados*. The usual price of black pepper at Cochin is $2\frac{1}{2}$ *cruzados*, but in Bengal 12 *cruzados*; while the long pepper sells in Bengal at $1\frac{1}{2}$ *cruzados*. This is enough to show that the long pepper does not come from the same tree as the ordinary kind, much less is it needful for a man who has seen a thing with his eyes to give further proof of it. The white pepper comes from a tree of its own, and, to tell you the truth, there are not many but very few in Malabar or in Malacca. They put this pepper on the tables of the lords as we put salt. It is esteemed in both parts of Malabar as good against poison and for the eyes. It would be well if all that Dioscorides said was as true as that this pepper is good against poison. You will now see that these three trees are different, namely those of long, black, and white pepper. The long pepper is called PIMPILIM in Bengal. The tree of the

PEPPER

long is no more like that of the black pepper than a bean is like an egg. The black and white pepper trees are very like each other, and only the people of the country can tell them apart, just as we cannot tell the black from the white vines unless they are bearing grapes. If you do not want to believe me, believe in these three seeds, that one is of long, the other of black, the other of white pepper. As for pepper being called BARCAMANSI no such name has ever been heard of in any of these countries, nor anything like it.

RUANO

Truly I find myself corrected, as I do not see it as the others do, it being made so clear.

ORTA

You see here the green pepper grown in clusters on this branch of a tree, and you see there another done with vinegar and salt, which you should taste before all.

RUANO

I see it all well, and now that I am corrected I see that the new writers never investigate satisfactorily. Laguna complains of the Portuguese because they do not describe these things and only care about skinning and robbing the Indians.

ORTA

It is true that the Portuguese are not very curious, nor are they good writers. They are greater friends of doing than of talking. They labour to acquire by their lawful trading, but they do not ill-treat the Indians; on the contrary peaceful Indians are much favoured by the Governors. The root of pepper is not like *costo*, nor is *costo* a root, but a branch. That you may not be surprised when the common people do not know these things well, I will tell you a story about what

FORTY-SIXTH COLLOQUY

happened to a druggist in the time of a Governor who was very curious about medicines, to whom I spoke of the three kinds of pepper, and told him their names. As to the long pepper being another tree, I confessed that to be the truth; and when I said that the black and white pepper were separate trees, he told me I was mistaken. On this the Governor related to me that when he was wintering in Mozambique, he found that his ship was making much water and was unfit to go to sea. So he unloaded the ship and, to pass the time, he examined the pepper and found amongst it some white from having cast off the outer rind, a thing which often happens with old pepper when much rubbed. I replied that there might have been, in such a quantity of pepper, some that was white, and it might be found in Mozambique, but it would be found much better in the India House in Portugal, where the pepper is older and more rubbed. The Governor saw that the druggist did not believe me, so he wrote to the King of Cochin to send and tell him the truth about it. The King sent him a sack of white pepper, and wrote that he had many trees of the white kind in his territory. Then the druggist gave up his argument, so as not to go against the Governor.¹ With this we may end our discourse on pepper, for to say for what it is used is nothing new. The Indians calling it cold is a thing to laugh at rather than to treat seriously. I say, and often repeat, that I know not how to prove that fire is hot. The proof is that it burns.

RUANO

And the physicians of that King who is your friend, what do they say, for they are learned?

ORTA

They, like the Portuguese, say that it is hot in the third degree. As you now know that there are three different trees,

¹ The druggist was right, and Orta was mistaken. The white is simply the black pepper without the external layer of the pericarp.

PEPPER

it is not necessary to place black in place of white pepper, for neither Galen nor Avicenna knew this, nor do you need to know more than that the white pepper burns more and is more aromatic; and when you have to use it, always take the black rather than the long pepper which is a different plant. They do not take the long because it is their custom to use among themselves the black rather than the long. And because you have not any black pepper to see, you can see here these smooth seeds which in this country are called *pimenta canarim*, used for reducing swellings and for toothache. It is a very good medicine and is given to those who have cholera. I do not tell you the appearance of the tree, it not being necessary as you are going to Portugal. We drink it over some conserve, for it will not kill you, and it will be over conserve of peaches. They come, very good, from Ormuz.

RUANO

They are fresh and good, and it is not to be wondered at, for last week they gave them to you, so that they must be of this year. Tell me—they say that they are poison in Persia, and that when transplanted to Egypt they lose their poison.

ORTA

Those you are eating are from Persia, for all the fruit of Ormuz comes from there, and as regards these I never heard, nor is it within the memory of man, that they were poisonous. I have talked to Persian physicians about it, and they say it must be understood of the fruit which Dioscorides calls *persea*, of which they could not give me any account. But they consider this¹ to be very good. It is also in Balagate, where I saw it and partook of it without fear.

¹ The *περσέα* of the Greeks was an unidentified Egyptian tree; their *περσικός* or *περσικόν*, the "Malum Persicum" of the Latins, was our Peach; and the *Persea gratissima* of modern botanists is the "Alligator" or "Avocado Pear" of tropical America.

FORTY-SIXTH COLLOQUY

RUANO

I know the conserve very well, though I now know better what you have told me about the pepper; and a modern author also writes what you said, that there are three distinct trees, but I feared he was a person to whom entire faith should not be given.¹

¹ The species of *Piper* known in India are:—(1) *Piper nigrum*, Linn., of Southern India and the Indian Archipelago, our “Black Pepper,” the uncorticated berries of which are the *kala maricha* or *mirich* of the people of India, and the *filfil aswad* of the Arabs—that is, “black pepper”; and the corticated berries, their *safid maricha* or *mirich*, and *filfil abead* respectively, that is, “white pepper”; (2) *P. longum*, Linn., of the Circars, our “Long Pepper,” and the Sanskrit *pipala*, the Persian *pipal*, and Arabic *dar-filfil*; (3) *P. Betle*, Linn., or “Betel Vine” of Southern India, Ceylon, and Pegu, the *vetila* of the Malays, and *vetili* of Southern India, whence we derive our word “Betel,” and Linnaeus “Betle,” and the Sanskrit *tambala*, Arabic *tambal*, and Hindustani *pan*, which, with the Malayan *vetila*, means “leaf,” that is, the Leaf *par excellence* [compare *opium*, the Juice, and *Chinchona bark*, the Bark]. Its leaf, with some areca nut and slaked lime folded in it, is used universally in India as a masticatory and digestive. The leaf of *P. Chaba*, Hunter, of the Moluccas, is also used in India along with “Betel Leaf.” *P. Cubeba*, Linn., the source of “Cubeb,” the *kubaba* of the Arabs, is also a native of the Indian Archipelago. Pimenta or Pimento, “Allspice,” is the berry of the West Indian and South American Myrtle-bloom, *Eugenia Pimenta*, DC.

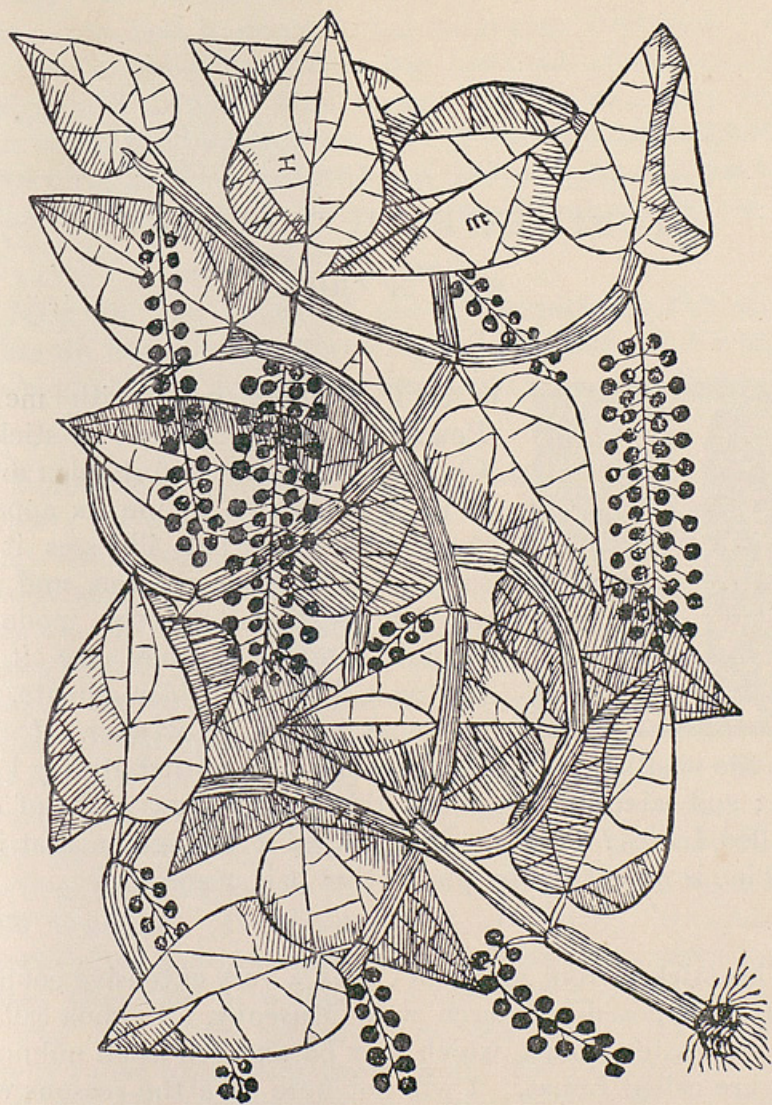
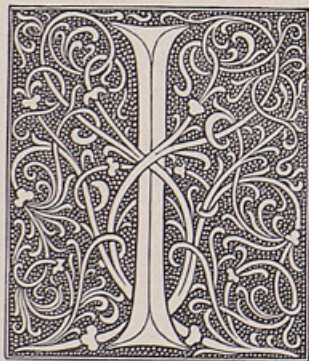


PLATE XX.—PIMENTA.

FORTY-SEVENTH COLLOQUY

ROOT OF CHINA

RUANO



WANT to take back with me to Portugal some of the root or stick of China,¹ for it is not a forbidden drug. Will you describe to me its appearance, and for what illnesses it is serviceable in your opinion, and tell me all its signs and the mode of administering? If they use it in Portugal, being a colder climate, the medicine would be weaker. I also want the best way of preserving this root so that it may keep fresh; and which is the best—this or the GUAIACAM of our so-called Indies? Do not be annoyed if the reason that this medicine is more used by you is that it is nearer.

ORTA

This stick or root grows in China, a very extensive country which is supposed to march with Muscovy. Laguna calls it the most eastern India, which may be excused as all unknown lands are called Indias. I will not here give the reasons why

¹ The root of *Smilax China*, Linn., or "Chinese Sarsaparilla," the *kub*-[pronounced *koob*]-*chini* of the Indian bazaars; for which the roots of the Indian *S. lanceaefolia*, Roxb., *S. glabra*, Roxb., and *S. ovalifolia*, Roxb., and also of the Asclepiad *Hemidesmus indicus*, R. Brown, are substituted throughout India.

ROOT OF CHINA

it is supposed to border on Muscovy, because it is a matter of little profit, and is unconnected with your questions. As all these lands and China and Japan have this *morbo napolitano*, it pleased a merciful God to provide this root as a remedy with which good doctors can cure it, although the majority fall into error. As it is cured with this medicine, the root was traced to the Chinese, when there was a cure with it in the year 1535.

RUANO

How did you know the use of the root, for the ships of China do not come nearer than Malacca, and the Portuguese who go to China do not converse there with the Chinese?

ORTA

I came from Portugal in the year before, and brought little property (as happens with many). But amongst what I did bring were five quintals of *guaiacam* which, in the time it needed shelter, was not well lodged, and they would take it from me, or those who wanted it wished to take it. Arriving in this land, I found that many perished of swellings and other sores of the *sarna castellana*, and for many of them they did not apply the remedy of ointments. Arriving in this land, I was much welcomed for having brought this remedy, for some persons had already been cured by it, their treatment having been very successful, so they had looked forward to some arriving from Portugal, and I sold what I had brought for 1000 *crusados*. It pleased God (I having brought little merchandize, and besides this I gave away some, and much was stolen from me in embarking and disembarking) that with all who used it the remedy succeeded very well. When my supply came to an end they bought the root, already boiled, at 5 *crusados* the *arratel*, and because it cost so much, it pleased God that it should be provided. At that time the people lived in the hope of the arrival of the ships from the kingdom, to see if they would bring much of the root, little, or

FORTY-SEVENTH COLLOQUY

none. At this time a very honourable and rich man was cured who, being in Diu, told my master Martim Affonso de Sousa, who was there taking possession of the fortress which Sultan Bahadur, the King of Cambay, had ceded to him, how he had been cured by the root of China, which restored him to complete health, not requiring any special diet except that he was not to eat beef, pork, fish, or green fruit. In China fish is conceded, because they are great eaters of it. As this became well known, people had a strong desire to have this root. For all men are inclined to eat and drink, and much more in this land owing to their laziness. Then they began to take the *GUAIACAM* as part of their diet, as they did in Spain, so that when the ships of Malacca came, a small quantity of the root which I saw on board was valued at 10 *crusados* the *ganta* (which is a weight of 24 oz.). In subsequent years it was cheaper, valued at 30 *reis* the *ganta*. From this time onwards the root of the Spanish Indies was contemned, like a Castilian who comes to kill by starvation the people who live here, so that the ships corresponding to that in which I came brought a quantity of the root from Portugal, expecting to make a good profit, but they could get no price for it, and little by little it was destroyed. Now, sir, I have reason to hold that this *guaiacam* is better than the root of China. It is certain that the other is efficacious given with reference first to the quality and character of the patient, then to the nature of the illness, the season, the country, the heat, the cold, the sex and age of the person who takes it. Be not surprised that I praise it, for I have heard no one else praise it, so many writers praising the *guaiacam* every day. Among them there is a German writer who composed a book on his labours in a very copious style and very pure Latin, which might all have been written on one sheet of paper. Of this other root of China, Vesalio and Laguna say many evil things, that it is rotten and without virtue and very dear. I do not

ROOT OF CHINA

care whether it costs much or little, whether it is dear or cheap, but I consider what Mateolo Sinense says to be good, that it is sufficient proof that this medicine is valuable that the Emperor Charles V. took it and benefited by it. It is certain that, given with the condition above mentioned, it is very profitable to all.¹

RUANO

What quantity of this root do they prepare for one person ?

ORTA

If the illness is very bad they cook an ounce of this root in 4 *canadas* of water and use half the water. The rest is kept in glass or in a glazed jar. They take off the froth at the boiling, because it is good to put on any sores ; sometimes we put it on swellings when it is being boiled, and it is very good for allaying pain. At other times we make fomentations with this hot water to apply to swellings. At others we put wet cloths on the sore, which is a very good cleanser. The Chinese are accustomed to give larger doses of the root in their country, and some people here wanted to imitate the Chinese, cooking 2 oz. or 1½ oz. of the root, but it was found to do harm, for it is very heating. I took the same root, with sudorifics, for a sciatica I had, without suspicion of *morbo gallico*.² But because I took sudorifics and drank hot water, as is usual at the beginning, when this root took effect I was filled with erysipelas and pains, from the great heat engendered in my liver. It became necessary to bleed me, and to give me barley water and sweetened rose

¹ There are two West Indian Guiaes, *G. officinale*, Linn. (the Lignum-vitae of Jamaica), and *G. sanctum*, Linn. (the source of the Lignum-vitae of the Bahamas and Hayti). In medicine it is used as an ingredient of the compound decoction of Sarsaparilla. Guaiacum resin is diaphoretic and alterative, and used in gout and rheumatism. No doubt it found its way to Lisbon, and thence to the East Indies. It is quite different from the root of *Smilax China*.

² Syphilis: unknown in Europe before introduced from America by the returned sailors of Columbus, at Cadiz ; and unknown in India before introduced by the sailors of Vasco da Gama, at Calicut. Such were the first-fruits of "the augmentation of the Indies."

FORTY-SEVENTH COLLOQUY

water, and in that way I was restored to health. Many persons took example from me afterwards, and refrained from hot water and such a quantity of the root as they give in China. For that land is very cold while this is hot. Only in taking it here, when a sudorific is needed, apply heat in the morning, and something to cause perspiration morning and evening. If the weather is very hot, we do not give the root, but more soporifics. This is the largest quantity we are accustomed to give, namely 1 oz. boiled in 4 *canadas* of water, and boiled until half is gone. To others they give less of the root with less boiling.

RUANO

And are there not rectifications with some medicines?

ORTA

Yes, sir. For they order to rectify when the disease is slight or the compress less hot, by giving 1 oz. of root boiled in 4 *canadas* of water or $1\frac{1}{2}$ or sometimes 3, but to that quantity we seldom reach. We also take care that the root shall be good and of proper weight, and free from rottenness. For these conditions it should be white, or better if it is vermilion. With regard to rectification, the Chinese put celery into the boiling water, and I give it, there being reason in the Chinese practice, but I am not accustomed to give the root without rectification. When the patient suffers from headache or neuralgia I give rosemary or roses, or celery if the liver is torpid. At other times for ulcers of the kidneys and bladder I give liquorice. Here is a ptisic¹ which I give, mixed with the same quantity of barley as there is of root, with little boiling.

RUANO

What moved you to give the root in such a heated illness, *em membros esperituaces*?

¹ The Goa edition has *fisico*. Count Ficalho thinks it a misprint for *tisico*.

ROOT OF CHINA

ORTA

It moved me to see a patient covered with swellings on the head and other parts, discharging matter, and not to provide remedies, but let him go on suffering. So he was treated and it succeeded well, and afterwards many others were treated successfully. But now no one takes the root without being first rectified with some other medicine. Though I have a right to boast that I was the first that used this, others following my example.

RUANO

Tell me whether it is best first to purge the patient who takes this medicine, and whether any accidents have befallen those who take it, and whether the root does most good at the beginning of an illness, or in the course of it, also whether it is most efficacious in great or in slight illnesses.

ORTA

The general rule is to give syrup and purge the patients before they take it, and if the case is very bad we make the syrups soluble. And as in most cases there is inflammation, we add *turbit* or *agarico*, and order the syrups to be watered with water of the root. After purging, the rule is to begin to administer the root, and, after fifteen days, if it is necessary, we give another slight purgative, and sometimes another at the end of thirty days. If in that time it does not cause looseness, we crystallize every day with water of the root, honey in rose water, oil, and *cañafistula*, and this according to the necessity of the case. These slight purgatives, which we give occasionally, are nothing more than manna and *cañafistula*, or rhubarb diluted in water of the root or of endive, or an infusion of prunes or liquorice, or barley water. We then give water of the root in less quantity, or mixed with endive water and fumitory if it is to be had, or bugloss. If

FORTY-SEVENTH COLLOQUY

the patient is very feverish the root is given up and he is given other treatment more suitable to his case. Sometimes this root does good in twenty days, at others it takes a longer time, but usually the pain increases for fifteen days and from that time it goes down. But I saw the case of a youth whose pains increased very much for twenty-five days, and on the thirtieth he was quite free from pain; I therefore say that we should never despair. I have seen others who took it many times and at last got benefit from it, and others who did not. My advice to your honour is to give the root of China in Portugal, trusting to God for the root, increasing the quantity that we give here because the country is colder, doing as we do here, and when the need is great, administering a chicken cooked in water of the root, or bread mashed in it, according to the nature of the case.

RUANO

Do they drink it hot or cold, and do they eat it with salt or not?

ORTA

It is seldom given hot as it was given at first. In the morning feed with fowl or mutton seasoned with salt, saffron, and dry coriander, or sometimes it is given roasted, according to the need of the patient. Wine is always forbidden, only when the root is given for weakness of the stomach, for in that case the root with wine does much good, for it takes away the loathing and secures good digestion.

RUANO

In using *guaiacam* we always give salt, because it is an enemy to arid humours and inflammations. Many men have told me that they also give it, but I do not know how they would use salt with this root.

ROOT OF CHINA

ORTA

Salt may be used moderately, for it is not necessary to be very exact in physic, leaving much to the good judgment of the physicians. I think that the use of a little salt cannot do any harm to the arid humours, nor to salt inflammations, for I have always done well in using it, and I trust in God that I may continue to do so. In making this cure the Chinese also use bread with honey.

RUANO

Have you seen any one who has taken it many times and in great quantities?

ORTA

I knew a friend of mine who took ointments and *guaiacam* and this root also, and each time he got worse. He went to Malacca and got worse there, and thence to China, where they gave him root of China in a boiled fowl, which did him so much good that he never was taken ill of it again. For this root is better for chronic diseases than for new ones, and for great swellings and very bad sores. Marvel not that he should have found health at the end, for the tardiest cures are for the oldest griefs. This aphorism applies to the diet and also to the cure. Above all, hear well what is given and done, for there are many who die consumed by high fevers.

RUANO

That is well said, but I should like to know whether there is any other way of taking this root.

ORTA

In Balagate I saw some people who took the root in the way I have described. They mixed it in warm water to take night and morning, each time one *drachm* and a half of root pounded. With this they said that they benefited, and they did it by advice of their physicians. Others take it in the

FORTY-SEVENTH COLLOQUY

morning with a good slice of conserve made of powdered root with honey (or sugar if the fever is high), and on this they drink water of the stick or root. This conserve is taken with the powdered root, in quantity according to the advice of a good physician. It may be rectified according to the need of the patient, for you know better than I do how the treatment should be regulated. Now it may be seen how much root is required for this conserve. We usually require for a cure of thirty days 30 oz. I cured two persons who had the testicles much swollen for a long time. One was completely cured. The other got well with local remedies only. I would advise you to vary the remedies, and I will tell you more if you are not tired.

RUANO

From this time for a thousand years I should rejoice to listen to you. I have said as much.

ORTA

In China they eat this root cooked with meat, as we eat turnips. For it is very tender when fresh, and it seems to me that it would be a very good thing to take distilled water from it. I do not know whether they will want me to distil and bring it; but now it has been ordered to be brought, and for this I ordered the alembic.

RUANO

This is based on reason, for the distilled water would be a very good medicine. For what illnesses is it found efficacious?

ORTA

For any infirmity connected with *morbo napolitano* or for humours engendered by it. It is also good for paralysis, and for shivering fits, of which I cured Nizamoxa with it in a short time, for arthritis, exema,¹ sciatica, gout, scrofula,

¹ CIRAGRA. Scales like wax formed on the skin.

ROOT OF CHINA

indigestion, swellings produced by melancholy or by white tumours,¹ old hurts, stone and ulcers of the bladder sometimes, for with this root the stone is got out which never could be removed before. What will surprise you most is that I knew a learned physician, well practised in curing others, who fell ill sixty leagues from this city, where he lived, and where he cured people in the hospital of a city belonging to the King our Lord. He fell ill of a lymphatic disease, and was down with it for four months. Finding that the fever would not leave him, and being more a friend to himself than to any one else, he took to drinking asses' milk. But he got no better; on the contrary he became worse, with inflammation of the stomach. He then came to me to be cured, and I had him in my house. I found some swellings on the liver and excrecences, and I was convinced that it was lymphatic, accompanied by some arid melancholy. He confessed to me that he desired that I would tell him as if the patient was any one else, and not deceive him, for those who care most for the patient always think worst of him. I cured this man in a few days, and he was without fever but with a pain in his stomach. For this I gave him conserve of ginger which made him better. This doctor could never be quite cured without giving him root of China rectified with a little distilled cinnamon water, and so at last he was perfectly well.

RUANO

Certainly you have told me many things relating to the good practice, and I do not wish you to finish so soon. Tell me the name and appearance of the wood or root of China.

ORTA

I say that it is a shrub, three to four *palmas* above the ground with a root one *palmo* long, a little more or less. It

¹ "Freima como gesa."

FORTY-SEVENTH COLLOQUY

has a thick root and another thin, as here you see these roots which come from there. When the root is taken up it is very tender, and it is eaten in mouthfuls, raw or cooked. When they eat a moisture exudes like sugar cane. From the root there come out some small fibres the size of writing pens, and as the root grows so the fibres shoot out, and from these shoots grow some leaves with the shape of young orange leaves. This shrub is called LAMPATAM by the Chinese. This is what I know about the shrub and root. I saw a small plant of it in Goa, but it withered before it could grow up. Before we finish the history of the root, I will tell you what happened to me in former times. Before the root was ever seen in India, there was a merchant of stones, a lapidary as we call him, or a jeweller to give a more honourable title. This man had universal paralysis in all his body, arms, legs, hands, and feet, so that he could not move a ring to look at it. He had been in this state for six months without getting any better. He asked me to advise him whether it would be a good thing to take *guaiacam* and I told him that at least it would do him no harm. I cured this man, first giving syrup and purging, and also at the end when he was getting better. Having paid me very well, he finally gave me a ring and a diamond for which I got 50 *crusados*, also a watch as a remembrance. He also gave me some advice. He further said that when he felt very sad and thought he was about to die, it was only a feeling of having sinned against God and against his health. The root you take to Portugal should be put in Martaban jars, for they are glazed inside and the root will not be injured.¹

¹ Made of glazed clay. Duarte Barbosa says they were of porcelain. Linschoten describes them as being of immense size. Pyrard de Laval wrote in praise of them.

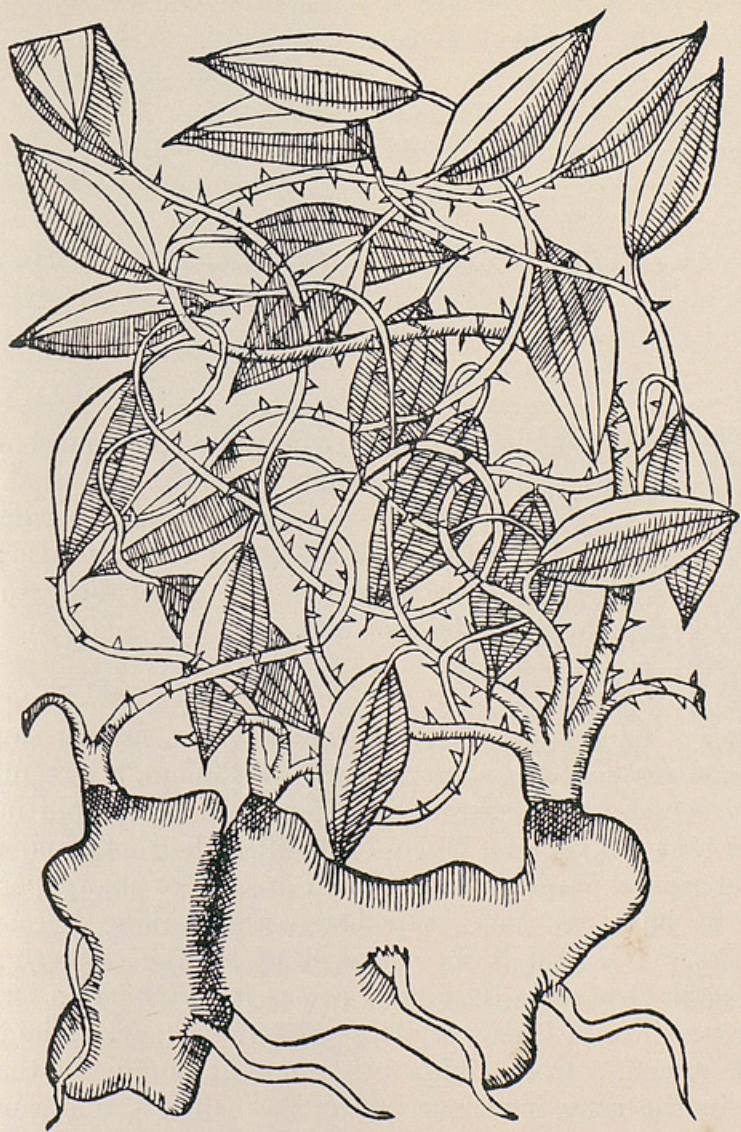
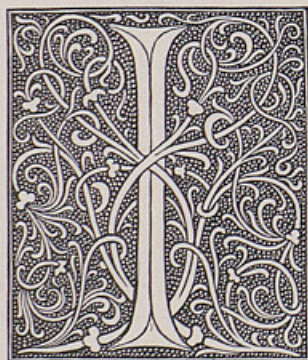


PLATE XXI.—PALO DE LA CHINA.

FORTY-EIGHTH COLLOQUY

RHUBARB

RUANO



WANT to know the appearance of the tree yielding rhubarb, and what the leaves and fruit are like, and whether this root we see is true or false; for certainly I would give much to see the true one.

ORTA

It is many years since I saw, in the treasury of Cochin, a box full of rhubarb which had all turned into powder. They told me in Cochin that the Chinese boiled or distilled the roots, and used the water as a purge. After this I talked to many persons about it, but was never satisfied, because none were eye-witnesses. We hold it for certain that all the rhubarb that comes from Ormuz to India first comes from China to Ormuz by the province of Uzbeg which is part of Tartary. The fame is that it comes from China by land, but some say that it grows in the same province, at a city called Çamarcander.¹ But this is very bad and of little weight. Horses are purged with it in Persia, and I have also seen it so used in Balagate.

¹ Samarcand.

RHUBARB

It seems to me that this is the rhubarb which, in Europe, we called *ravam turquino*, not because it is of Turkey but from there.

RUANO

I would ask you whether none who come from China have spoken the truth.

ORTA

At last I came to know this, told by the merchants who come, not from the port of Canton, but from the interior to sell, and thence go to China and some to this India, where their goods arrive so damaged by the sea that we do not care to use them, better arriving from Ormuz.

RUANO

How are you certain that there is no rhubarb except in China?

ORTA

Because those who arrive from Ormuz confess that it comes from China by Tartary or Uzbek to Ormuz and Persia, and it is therefore called *ravam chini*, and the Moors call it only *ravam*, but all confess that there is no other but that from China. So that the rhubarb or *ravam indico* does not come from Barbary, but that which is brought to India is taken on to Barbary, coming first from China to India.

RUANO

Speaking the truth to you, my belief is that the best rhubarb is sold in Castile, at Medina¹ or Seville. That which is sold in Portugal is much dearer.

ORTA

The rhubarb that comes to Persia or Uzbek goes thence to Venice and to Spain. Some comes to Venice by way of

¹ Medina del Campo, then a great market for Indian goods.

FORTY-EIGHTH COLLOQUY

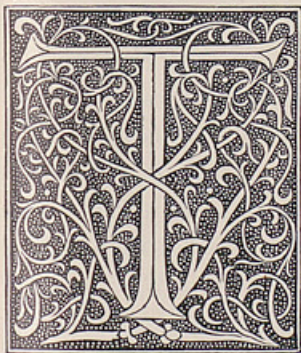
Alexandria, a good deal by Aleppo and Syrian Tripoli, also to Venice. All these routes are partly by sea, but chiefly by land, and the rhubarb is not so much powdered for it is more rubbed in a month at sea than in a year going by land. The rhubarb that comes to India in May is there until September and is not yet fit for use. Then better and fresher comes from Ormuz, and is bought for India and to send to Portugal. That which remains in India goes to the interior, for India's interior land is not a place where drugs are subject to rot, so those who want to preserve them send them to Bisnaguer or to Balagate. I must beg you to excuse me for not discussing rhubarb, because I do not know much. I trust in God that it will be much better known, as China now has so much intercourse with the Portuguese.¹

¹ Rhubarb, that is "Rha barbarum" [compare "Rha barbarum monochorum" of the older Pharmacists, *Rumex Patientia*], is the root of various species of *Rheum*—*R. palmatum*, Linn., *R. Rhaponticum*, Linn., and *R. officinale*, Bail., N.O. Polygonaceae, natives of Tartary, Thibet, and Western China, and known in commerce as "Chinese," "East Indian," "Turkey," and "Russian" Rhubarb, according to the route by which the drug is imported into Europe. In India the natives use also the root of *R. Emodi*, Wallich, *R. moorcroftianum*, Royle, and *R. webbianum*, Royle, of the Himalayas. *Ravaud-chini* is the Indian name of the foreign, *i.e.* "Chinese" rhubarb, and *ravaud-chini-hindi* of native Indian rhubarb.

FORTY-NINTH COLLOQUY

SANDAL¹

RUANO



THE sandal is very necessary as a cordial, and being cold it has a good scent (a thing which happens in few medicines), and for this reason what the Arabians say of the appearance and properties of the sandal appears wrong to Mateolo Senense. They tell me in this country that the red sandal is avid for more cold because it has no scent. In order to understand more about this, I should like to know its names in the countries where it grows and in Arabia, and whether it is used as a medicine by the natives.

ORTA

The sandal grows in Timor, where it is in greatest quantity

¹ Sandal-wood, or White Sandal-wood, the Sanscrit *chandana* [i.e. "refreshing"], Arabic *sandali-aswad*, Mahratti *gandha* [i.e. "fragrant"], and *sri-gandha* ["holy incense"], and Hindustani's *safid-chandan* ["white Sandal-wood"], is the wood of *Santalum album*, Linn. It is also the *σάνταλον* of the Greeks; but their *σαγάλινα*, also identified with it, was probably teak-wood, the *sag*, *sagun*, and *sagwan* of India. Red Sandal-wood or Sanders is obtained from *Pterocarpus santalinus*, Linn., f. *rakta chandan* and *Caesalpinia Sappan*, Linn., *bakam*, both of the N.O. Leguminosae.

FORTY-NINTH COLLOQUY

and is called CHANDAM, and it is known by that name in all the lands round Malacca. The Arabs, as persons who have a scent for the commerce of those lands, corrupt the word and call it SANDAL; and all the Moors of whatever nation call it so. The Canarese, Deccanis, and Guzeratis call it CERCANDA. The trees grow in Timor where there is the greatest quantity, and the woods do not become exhausted either on one side of the island or the other.

RUANO

And is all the sandalwood only in these islands?

ORTA

It grows in other parts as I will tell you, and though the red sandal is not in Timor, it is met with in Tenasserim and on the coast of Coromandel. I have not been able to ascertain the appearance of the tree up to the present time, but it is certain that all the red sandal comes from it which is little used here, and only for fevers, and some is sent to Portugal and the west. The red sandal is used in pagodas where there is a demand for very large poles, so that the larger the pole the fewer there are in a *bar* (4 *quintales*) and the higher the price. A very great quantity of the white and yellow sandal is used throughout India. For most of the people, whether Moors or Gentios, anoint themselves with sandal soaked in water and pounded on stones, prepared so for this need. With this they anoint their whole bodies, and let it dry, for when cold it smells well. For this land is very hot, and the natives are very fond of pleasant scents.

RUANO

Mateolo Senense says that it grows in both the Indies, both this side and beyond the Ganges.

SANDAL

ORTA

The red sandal does not grow beyond the Ganges,¹ but this side. The natives call this river Gamgua, but the white and yellow sandal grows beyond the Ganges.

RUANO

How do you know that this red kind is sandal and not brazil, for neither of them has scent ?

ORTA

It is true that neither has a good scent, but the brazil is softer and more dyed. It was in this way that a friend of mine, a merchant, was a loser. For he bought red sandal for brazil, and the dyers found that it gave no dye, and he found no sale for it.

RUANO

Does not red sandal fetch more money than brazil ?

ORTA

The red sandal is worth more, though little is used, and of brazil much is used, so that when much sandal comes it is worth little. I must resume the account I was about to give of the places where the white and yellow sandal grows. I say that it is in Timor, an island which has many ports on both sides, and that the port of Mena is the best of all. Matomea is another port where there is much yellow sandal. There are many trees, but little pith, and the scent is in the centre. Another port called Camanace has bad sandal, much wood and little or bitter pith. Of this kind also is that of Cerviagu, another port so called. Merchants trying it, ask whence it comes and take much or little. At Verbali, a port of Java, there is yellow and white sandal with a very strong scent, but

¹ He has just said that it does, in Tenasserim.

FORTY-NINTH COLLOQUY

this sandal lasts only a short time. If it is a year without being sold, it is necessary to cut the pole and draw out more of the scent. It is also found in Macaça¹ where there is a wood of sandal, but it is so bad that there is no market for it.

RUANO

Are there two kinds of sandal in Timor, or is it all white, and which is most valuable?

ORTA

The most esteemed and best scent is that of the *amarelo* (yellow), but in the place where the sandal is best, that is in Timor, there is little yellow; in fifty sticks there is one. When there are many more the price rises. In the other yellow sandal I mentioned, the scent lasts only a short time, which is not the case with the Timor sandal, so that little comes. Talking, the other day, with a merchant who knows those lands well, he told me that in parts much exposed to the sun there is much yellow sandal, but in both kinds the trees are alike, so that we cannot tell the difference of one from the other. The natives who work on these trees may know it.

RUANO

Tell me the appearance of the tree, whether it has fruit or flowers.

ORTA

The sandal tree is about the size of a walnut tree. The leaf is very green, in shape like that of the mastich, the flower dark blue, the fruit the size of a cherry, and droops. It is first green, then black, with no taste.

RUANO

Now I want to state the doubts caused by what is written

¹ Perhaps Macassar.

SANDAL

in the works of Arabs and Latins. The ancient Greeks did not know it. Rasis does not say what it is, only what it is used for. Serapiam prefers the citron¹ to all, and you also affirm that. He says that the red comes next, and other things which are not doubtful, except what he says about Syria, and a quotation from Galen who did not write about it.

ORTA

Serapiam was wrong in both statements. As there is traffic between India and Syria it is not much to say that it is there, as long as he does not say that it grows there. What he says about Galen is also wrong, though the Arabs have often said the same without ever having seen Galen. They hear some Greek say that Galen knew the medicine and so believe it. Nor does Avicenna say anything about sandal, so that there can be no doubts which have not been well explained—nor does Avenrois.

RUANO

Antonio Musa says that we owe the sandal to the Portuguese, that it is brought to Calicut where it is collected, being the principal market in India. Yet you say that it is in Timor, and the red in Tenasserim, lands bordering on India.

ORTA

The city of Calicut, where all kinds of merchandize were bought and sold, was celebrated in these parts. Thither goods were brought from elsewhere, and the Chinese came with their trade, including the sandal which they sold there, whence it was taken to the west. I have told you already that the Chinese factory, called CHINACOTA, in which the Chinese reside, is to-day still established there. But as the people of that land committed treason against the Portuguese when

¹ Dark yellow.

FORTY-NINTH COLLOQUY

they first came to India they went to Cochin, and laid Calicut waste. So little by little its trade fell off, having been the chief city full of rich Moors who brought wealth to it. This is the reason why Antonio Musa said that sandal grew in the plain of Calicut. There is no plain in Calicut, but palm groves along the beach, and hills inland. That which came was in the Portuguese ships from Malacca in great quantity, and was taken to Cochin and Goa, and from those ports it was distributed to Malabar, Canara, Bengal, the Deccan, and Guzerat. A small portion goes to Ormuz, Arabia, and Portugal, as I told you.

RUANO

They usually call the yellow sandal MACHAZARI or MAHAZARI, or some name like that, and for this reason I want to know whence the name was derived. For the Friars say that in some books of synonyms they have MACHAZARI or ODOLIFERI; and that Serapio says that when the name SANDAL is used *par excellence* it means the yellow kind. The same Friars say, in another place, that the yellow is not met with in Europe, only in the pith of many of the sticks. Many others say the same, including Sepulveda. This Sepulveda says further that the best is half the powder of red and half of the white, and he also says, praising it, that he has seen the yellow sandal. Give me your views on all this as one who has been an eye-witness, and you need not give me any further evidence than your own sight.

ORTA

There is no doubt that the yellow sandal has the best scent and the highest price. It is so in many places, and I have seen much here, and many others have seen it. As it is bought here better than in Portugal they do not take it there, owing to the little care taken by the Portuguese druggists

SANDAL

who do not ask at the India House that it may be brought there, and also those are in fault who make these drugs for the King and do not send them to Portugal. As to the names MACHAZARI and MAHAZARI, I think (failing better judgment) that it means "brought from Malacca," or it may have been written MAZAFRANI, which means the yellow or saffron. However that may be the *citrino* or yellow is the best of all. The delivery of half red and half white will not be *citrino*. It is better to receive all white, for the white is nearer in its nature to the yellow. Both are found in one and the same land, while the red is a long distance from where the white grows. I would also have you to know that this sandal wood tree is found in other parts. I saw it in Amdanager,¹ where it was brought to be sown. This Amdanager is a city of the Deccan where Nizamoxa resides, where I have been many times. I saw there, at a pleasure house where there were many fruit trees, trees of sandalwood, and many of ours, some yielding fruit. But this sandal stick has no smell on the tree, and many say that the sandal has no smell until the bark is removed and it is well dried.

RUANO

Is there sandal in any other parts?

ORTA

The native negroes say that it is in the island of San Lorenzo² and some parts of the coast of Melinda. But I afterwards learnt that there is a scented wood there, as there are many with us, which has not the signs of sandal. The Malayalims also say that they have a scented wood which is like white sandal, and they anoint themselves with it for fevers. They call it SAMBARANE.

¹ Ahmednagar.

² Madagascar.

FIFTIETH COLLOQUY

SPIKENARD

RUANO



PIKENARD was of great price and much praised in ancient times. For it is said in the Gospels that that unguent could be sold for more than 300 *dinheiros*¹; and 300 *dinheiros*, calculated according to the reckoning of BUDEU,² is 40 of our *crusados*.³ This was, in those days, a great sum which the unguent cost. Now, owing to the great abundance of perfumes, natural and manufactured, it is not worth so much. Of the scents are the soft PASTILHAS and CAÇOLEAS, the delicate PIVETES, the AMBAR, and ALMISQUE, ALGUALIA, LINALOE, and many other perfumes. So, for this reason, and for its use in physic, it is well that we should discuss it, the more so because some writers doubt whether we have the true ESPIQUE.

ORTA

We do not lack the true spikenard, but we have medicines which are not so falsified as they were at first, from the great

¹ John xii. 3, 1 lb. for 300 pence or *denarii*.

² Guilherme Budeu, *De asse et partibus ejus, Libri quinque*, 1533.

³ £4.

SPIKENARD

quantity that goes from the east to the west. For we have heard the sayings of Pliny¹ on these medicines, and we must not be surprised that they should be falsified, for the high prices conduce to it. Now that the navigation is better known, and that there are more ships, both to Portugal and to other parts of the West, it is not to be wondered that we have so much, and so cheap, without being falsified. And they buy these medicines better and they are grown better now, because more are cultivated.

RUANO

Tell me where they are, and what name they have in their own land among the natives, also what they are called by the Moors, for I know well what the names were among the Greeks and Latins. When this is done we will examine what the writers say who have written on the subject.

ORTA

They call it **ESPIQUE** in the country where it grows, among the **Gentios CAHZCARA**, and it is found in Mandou and Chitore and some parts of Bengal on the river Ganges, which the Indians call Ganga, a very famous river, and held to be so holy that the Bengalis, when they want to die, order them-

¹ xii. 12 [26]. The true Spikenard, the "*Nardus Assyriæ*" of our older Pharmacists, the "*Aspic*" or "*Espic de l'outre mer*" of the French, and our "*Valerian Spikenard*" [all these names being given to it to distinguish it from "*Nardi Spica*," or "*Lavandula Spica*," "*Sweet Lavender*," yielding "*Oil of Spike*," the French "*Huile de Spic*"; and again from "*Nardus rustica*" obtained from *Valeriana celtica*, *V. Phu*, *V. dioscorides*, etc.] is the fibrous root of *Nardostachys jatamansi*, DC., N.O. Valerianaceae, of the southern slopes of the Indian Himalayas. Its Sanskrit names are, when fresh and soft, *pisita* [compare *νάρδου πιστικῆς πολυτελοῦς* of St. Mark xiv. 3 and 5; John xii. 3], and when dry *jatamansi*, meaning "*matted-hair plant*"; and its Arabic and Persian name *sumbul atibhindi*, meaning "*Indian fragrant Arsenic*," from, it is said, being poisonous to sparrows! In India its name of *jatamansi*, in its many corrupted forms, is also given to the roots of *Acorus Calamus* and *Cyperus rotundus*, and the combs of *Celosia cristata*; and to the oils of the grasses *Andropogon Nardus*, Linn., "*Citronelle*," *A. citratum* seu *Schoenanthus*, "*Lemon grass*," and *A. muricatus*, Retz., "*Kuskus*."



FIFTIETH COLLOQUY

selves to be taken there and their feet to be put in the water, which water is very good, as I have proved.

RUANO

Do the Gentio people of other nations hold that river in veneration?

ORTA

Yes, in great veneration, for a river which is said to be a branch of it, running north-east to south-east, is also called Ganga.¹ It is in the territory of Nizamoxa, and every year his subjects go to wash themselves in it. As some of them are poor and unable to undertake the journey, the King ordered, tyrannically, that he who wished to go and wash in the river was to go, and that the rest were each to pay him 180 reis, being half a *pardao* of gold. For this he caused the number of persons to be counted, and the rich were to pay for the poor. Thus a sum of money is got together. Of this I can bear witness, for I saw it collected, and they paid me out of it the sum the King owed me. On the banks of the Ganges in Bengal and Orissa there are certain pagodas to which the merchants of Orissa and Guzerat go in pilgrimage and to bathe in the river Ganga. They offer great gifts to the pagodas, and thence come bathed and taken by the devil, which they call being sanctified.

RUANO

This is a new form of tyranny. What is the name in Arabic, and do the Moors and Gentios use it in medicine?

ORTA

Avicenna and all the Arabs call it CEBUL, which means ESPIGUA in Arabic, and so the ESPIGUENARDO became CEBUL INDI, which is as much as to say ESPIGUA DA INDIA. What

¹ The Godavery.

SPIKENARD

we call *ESPIGUA CELTICA* is in their language *CEMBUL RUMIN*, as we might say *ESPIGUA* of the land of the *Rumis*. *Mateus Silvaticus* calls it *CENUBEL* and *SO-BEL*, as one who does not know Arabic, or it may be that the names were corrupted little by little. As to what you asked if it is used as medicine, I reply in the affirmative as regards the Moors, and much more so as regards the *Gentios*.

RUANO

It is now necessary that we should examine the writers on this subject that I may get rid of some doubts. *Dioscorides*, the most ancient writer, says that there are two species, one Syrian and the other Indian, not so called because they are found in those regions, but because they grow on one mountain with two aspects, one facing Syria and the other India. Afterwards it is said that, among the Indian unguents, there is one called *GUANJETICO* from being found near the river *Ganges*, and it grows on a mountain. They report that the most luxuriant is on the loftier part, but of less virtue, and that the scent is like that of the *cypress*. Tell me your opinion on these points.

ORTA

I do not know any spikenard in this land except that which I mentioned to you, and that which comes from *Chitore* or *Mandou*, countries which border on *Delhi*, *Bengal*, and the *Deccan*. All these lands, and others beyond them, are in India. I do not understand the statement that there are Syrian and Indian *ESPIGUA* on a mountain with two aspects, one facing east the other west, for the mountains are in India, and those in Syria are far to the west. Further, it does not all grow on the mountains, but in many parts where they sow it. It does not grow unless it is sown, except in very small quantities. A growing root throws a short shoot over the ground, some with a length of 3 *palmos*, others much

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shorter. Presently a shoot comes out at the top of the root, and these they take for sale to Cambay, Surat, and Guaga and other seaports where the Arabian and Persian merchants buy them, for we only consume a smaller part. The people of the country also use a great quantity, and I bought some at Diu for the King our lord. There is some in powder made from the hairs of the same *ESPIQUE*, and the above merchants buy it all. They tell me that they wash their hands with the powder. We do not find in this land that one is better than the other, but those who come to sell say that they grow in the valleys and in the mountains, and that those from the mountains are the best. All the others grow near the ground, which is what generally happens. Of one thing you may be sure, that if Dioscorides saw this *ESPIQUE* which we see and order, he would say that it was the true *ESPIQUENARDO*, and certainly he would be astonished at those modern writers who say that they have not cinnamon nor cassia lignea, confessing that, like espique, they come from India. They had much better say that what they talk about is not this India, but another which we do not know. It is certain that many of the medicines are worth little because it is found that on the voyage it is doubtful whether they are themselves.

RUANO

You do not speak unadvisedly, because Mateolo Senense is of your opinion, rebuking Menardo and Fucio for saying that this is not the true *ESPIQUE*. He says that Pliny describes it as small and black, and that one kind, growing near the river Ganges, is all spoilt by rot. He further says that the price of it is 90 *livras*; if this had been a quintal of the true spikenard it might be true, for it is worth in Diu 25 to 30 *crusados*, which are 90 *livras*. They say that those with large leaves are worth 30. But, in his annotations of Pliny, Hermalao Barbaro says they are not *livras* but *dinheiros*, for they have

SPIKENARD

this note made with x, meaning that the value is x *dinheiros*. This is more reasonable as the true price of this medicine, as of that of pepper and many other drugs.

ORTA

In this land I have not seen any other **ESPIQUE** but this which is sent to the West, and all comes from near the Ganges. This is what is used by physicians of India, Turkey, Persia, and Arabia who come to live in this land, curing the kings and princes. It is not to be wondered at that the prices are high, for the roads by which it comes are unknown. Pliny may be right in what he says, but not in the assertion that the **ESPIQUE** of the Ganges is to be condemned altogether, for there is no other, or if there is it is in such small quantities that it has never come to my notice.

RUANO

Laguna says that the **ESPIQUE** sold in the druggists' shops is not **ESPIGUA** but the root, and this Dioscorides does not contradict, saying that it is like **ESPIGUA**. They say further that the **ESPIQUE** of India is to be suspected, because they make a poison of it called **PISSE**. They say that this **PISSE** not only kills internally but also when it is applied externally, and they add that it comes from Syria. What have you to say to that?

ORTA

I say that I have not seen any composition called **Pisse**, nor have I heard of it. I affirm that, the Nizamoxa wanting to try a little of the liquor called **NAPELLO**, he gave it to a prisoner condemned to death. It would seem that **Pisse** is more poisonous when given to drink. But I have never heard of it, and its fatal external application appears to me still more fabulous. Those who say that spikenard comes from Syria mean that it arrives by way of Aleppo, whence a part reaches

FIFTIETH COLLOQUY

Venice and is consumed in Europe. In this way Sepulveda is to be understood, who mentions *ESPICA ALIEP* as much as to say *ESPIGUA* of Aleppo; for Aleppo is always the head of Syria and the principal step from India to the West, and now more than ever. Sepulveda mentions a species called *SATIECH* or *SATIACH*, and this means *SATIGUAM*,¹ which is a well-known port in Bengal near the mouth of the Ganges. This medicine, which is highly celebrated and much used, is not found to be false; only when it is old it loses some of its scent. There is no necessity for us to talk more of the spikenard.

RUANO

What city is Aleppo? Is it by any chance Haran?

ORTA

The Bishop Don Ambrosio² came to this land by Arabia and Turkey, moved by zeal for our faith. He knew Arabic and read it very well. Conversing with him in the convent of St. Domingo, to which order he belonged, he told me that Abraham, when God called him from Ur, a city of the Chaldees, went to Aleppo, the chief city of Syria, and took great quantities of cattle. He gave milk for all the necessitous and poor to drink, and they came for it every day. These poor people when they came asked for *yalep*, which means a question: "order where shall we eat now." This was the reason why that name was given to the land. The Bishop said that this was the tradition of the old people of Aleppo, who believed that it was inhabited and ruled by Abraham.

¹ Chittagong.

² Friar Ambrosio de Rontecalli, a native of Malta, was sent to India by Pope Paul IV. with powers of a Legate. He was some time at Goa in the convent of St. Domingo, with the fame of a good theologian, orientalist, and mathematician. He died at Cochin.

SPIKENARD

RUANO

Could I converse with that Bishop ?

ORTA

No ; because when he was about to embark for Portugal, he died at Cochin.

RUANO

Certainly I should have rejoiced to have had a conversation with that Bishop.

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ESPODIO

RUANO



THE ESPODIO enters into so many preparations made by the Arabs that it makes us doubt what the composition is, the name of which is taken from the mouths of the ancient Greeks; or whether the Latins use a different ESPODIO, taking the name from the Arabs. For this reason I want to know from you what the ESPODIO may be which is used by the physicians.

ORTA

There is only one ESPODIO¹ in the world or POMFOLIX or TUTIA, and for want of it the Greeks took another medicine

¹ The Spodium and Pompholyx of the Greeks and Romans were substances formed in the furnaces of copper-smelting works, Pompholyx being an imperfectly combusted form of Spodium, both being a combination of copper and cadmium. "Antispodos" was obtained from the ashes of the burned twigs and leaves of the fig, olive, myrtle, quince, and other trees. [Pliny xxxiv. 13 (33 and 34).] Tutia is known in India in three forms, *safid tutia*, the "white" sulphate of zinc; *nila tutiya*, the "blue" sulphate of copper; and *hira tutiya*, the "green" sulphate of iron. Tabashir, the Sanskrit *tabakshira*, meaning "bark-milk," is the siliceous concretion formed within the stems of "bamboos."

ESPODIO

and called it ANTISPODIO, which means false ESPODIO. But the Arabs do not mention this ESPODIO except under the name of TUTIA or POMFOLIX.

RUANO

Well, how did this distinction arise of calling one medicine ESPODIO of the Greeks and another ESPODIO of the Arabs?

ORTA

From Davus of Terence,¹ who disturbs everything. On this occasion the Davus was Gerardo of Cremona who translated ESPODIO in place of TABAXIR, the two not having any resemblance whatever to each other, being as different as black from white. And he is not alone in this mistake, for all those who have translated the Arabic books into Latin say TABAXIR instead of ESPODIO, the blunder not being that of the writer but of the translator.

RUANO

Does it not seem wrong, wanting a name, to impose another in its place?

ORTA

If the name means something quite different from what appears in the book, the mistake may lead to many errors, and if physic is given under such a mistake, it is dangerous and becomes a greater error.

RUANO

Tell me, what is this TABAXIR according to the doctors and people of this country?

ORTA

The name TABAXIR used by the Arabs is derived from the Persian, whence the Arabs, Avicenna and others, took it. It

¹ Davus was the slave of Simo, in the *Andria* of Terence.

FIFTY-FIRST COLLOQUY

means milk or juice, or moisture, and it is known by this name all over Arabia, Turkey, and Persia.

RUANO

If the medicine is used in India, what is it called in these parts?

ORTA

The people where it grows call it SACARMAMBUM, which means "sugar of mambu," because the canes are called by the Indians where it grows MAMBU. Now the people of this land call it TABAXIR because the Moors, who come to buy it from Persia, Arabia, and Turkey, call it by that name. It is worth much when there is a dearth of it, and little when there is plenty to sell, as with all other merchandize. The ordinary price in Persia and Arabia is its weight in silver.

RUANO

What are the trees or canes they raise, how are they gathered, and what country is the principal source of these canes?

ORTA

The trees are lofty and large like ash trees,¹ and in Bisnaguer and its territory they are smaller, also in Malabar. For the most part they have their branches straight, but some of them, having a good appearance, are twisted, and these serve for the canes of the palanquins used in this country. From knot to knot these canes have a length of 1 *palm*. The leaves are little longer than our olives. Between the knots these canes generate great humidity, like starch when it is much coagulated. It is white, sometimes much, at others

¹ Acosta says that some of the canes are so large that they are used on the rivers. The natives sit on the canes naked, with a small paddle in each hand, and so cross the river. He says he saw two men on one cane on the river of Cranganore, in the part where the current was strongest.

ESPODIO

little, like that which forms in canes for writing, and which the boys call *ladras* in Portuguese. As to what you said, you will see that the roots of our canes are not destroyed, as some Arabs assert.

RUANO

Have you seen the **TABAXIR** in the canes, and how is it that some are black or ash-coloured ?

ORTA

I have seen it many times, those of Bisnaguer and Batecala, and some of Malabar. The people of the country, namely, the carpenters, when they work at them to make some wood-work, find thick juice or pith which they put on the lumbar region or reins, and forehead if there is headache, and if the master carpenter does not take it. Some of them are black or ash-colour, and they are not the worse for that, because there is much in the cane and the moisture reaches to the heart of it. It may be taken for certain that the reason they set fire to the canes is to reach the heart. But afterwards the truth comes out, because sometimes they do not set fire to the canes, for many come which have never seen fire, whence it appears to be the truth that there is much moisture in the canes, and so I was told by natives.

RUANO

The Arabians and Latins have much to say of this simple ; therefore, will you kindly take a little trouble to explain to me, declaring what they say, and pointing out where they are wrong and where right ?

ORTA

Rasis, in writing of the **TABAXIR**, does not say of what it is made, but only of what use it is. Serapio says that **SATAXIR** is more certainly **ESPODIO**, and states what use is made of it,

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quoting Rasis, and Rasis quotes Galen. In this he says well, for Galen never wrote any such thing, nor any other Greek. But this could not stop Serapio, who referred to Dioscorides and Galen, who never said anything of the kind. He also says, quoting the same Galen, that the taste is bitter. It is manifest that this is wrong, for it is sweet; it being for this reason, as I have said before, that the Indians call it "sugar of mambu." Calling it SATAXIR instead of TABAXIR is some mistake, for Serapio had written TABAXIR, and time must have corrupted the name. To write more directly, ESPODIO is an error of the translator. Avicenna says that they are roots of burnt canes, which is wrong. The Belunense says that ALCANA is the name of the tree whence comes the ESPODIO; and in his so-called "Vocabulary" he gives a description of the tree, and says that the roots of the cane are the TABAXIR. Thus Avicenna errs in both translations. Avenrois says that it is the charcoal from the knots of the burnt cane of India, from which it is clear that he had not seen it, or he would not have called anything so white coal.

RUANO

And what is your opinion of the mistakes of these men?

ORTA

It seems to me that the navigation not being so much used was the reason that information was false and meagre. Valerio Codro says much that is bad about the Arabs, because they make ESPODIO from the roots of canes, the ESPODIO being metal or made from metal. In this he is wrong, for the Arabs, as I told you, do not know that name, but call it TUTIA in conformity with the Greeks. Antonio Musa says that Avicenna used the ESPODIO of canes because he could not get that of metal. You know well that TUTIA never fails to be metal, and they do not use it to drink. He further

ESPODIO

says that we do not use this ESPODIO, for what we get is counterfeit and false. He adds that modern writers are not wanting, such as Menardo and others, who say that nothing is used for making ESPODIO except metals. In this they are quite wrong, for Dioscorides explains how ESPODIO is made in Book 5. Avicenna is free from all these errors, for he only treats of TABAXIR, and is not answerable for having had bad translators who confuse the names, making ESPODIO to mean two things. In fine, it is said that we use ESPODIO made of the canes of Avicenna, of burnt coral, of burnt ivory, or of burnt bones of elephants. You see, sir, how many errors we have to excuse. With the Greeks you would use the true ESPODIO of metal. With the Arabs you would use the ESPODIO brought from India. With the Latins you would take a medicine to be applied internally and externally, in conformity with the intention of the writer who prepares the composition. But it will be seen that to cool the heart, the brain, the liver or the kidneys, or to check diarrhœa, it will be well to use the TABAXIR of India. Many doctors and druggists and composers of medicine will inform you on this subject. Nearly all treat of one material. Those who say that less harm is done by taking ESPODIO made of our canes are in error, for this is not a cordial medicine like the ESPODIO, but has a cooling effect like TABAXIR. If it is said that it is made of coral or burnt ivory, if this was the intention, Avicenna and the others have said well. Those who say that it is made of elephants are, I declare, worth nothing at all. When an elephant dies the Gentios eat the flesh, and the ivory goes to Europe for sale.

RUANO

You have spoken very well. But, to conclude, I want to be informed how the physicians in India use this medicine, as well those in the service of the King, as those

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of Persia, Arabia, and Turkey. For with that I shall rest satisfied.

ORTA

Those in this country who understand physic use this TABAXIR against over-heating, external or internal, and for fevers and for dysentery. The physicians of Nizamoxa and those of Arabia, Persia, and Turkey use it in the same way, and make lozenges with the seed of sour fruit trees. In this way I cured, by advice of Nizamoxa, a Portuguese, native of Matosinhos, named Sancho Pirez, who was such a favourite that he was visited daily. The Nizamoxa would let no one treat him but me, because he feared that the other doctors would kill him because he was a favourite.

RUANO

He must have been much beloved. Was he a Moor or a Christian, and was he rich ?

ORTA

In secret he told me he was a Christian, and he ate with me things forbidden to Moors, and spoke ill of them. He was not circumcised, though all supposed that he was, but I have seen, and he was not. But he pretended to be a Moor and died worth 6000 *crusados* of rent. It is true that, with this rent, the people who served him were paid. Certainly, whether or no, the devil caught him first in the combat of Calaburga,¹ I had a promise from him to come with me ; and I was eager to tell the secret to Don Affonso de Noronha. He made many gifts to Portuguese churches and charities in his will.²

¹ Kulburga.

² He had been an artilleryman under Nuño da Cunha, and passed into the service of Nizam Shah, who raised him to be a general of cavalry. Bahram Nizam Shah died in 1553. His successor, Hosein, employed Sancho Pires in his war with Adil Shah, and he attacked the fortress of Kulburga, being slain in the breach. Orta obtained a pardon for him from Affonso de Noronha, governor from 1550 to 1554.

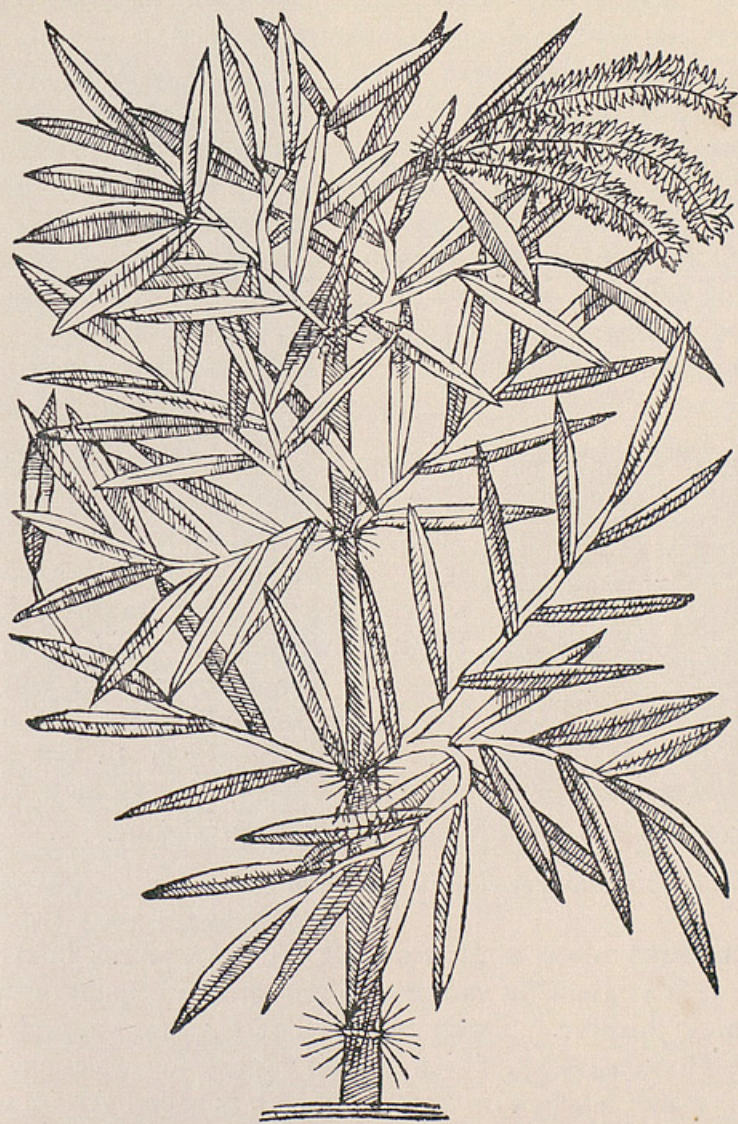


PLATE XXII.—SPODIO.

FIFTY-SECOND COLLOQUY

ESQUINANTO

RUANO



N Portugal they say that **ESQUINANTO**¹ (the medicine used in pharmacy) comes from India, and in Spain also it is said to come from the East. I should like to know its name in the country whence it comes, and in Arabia. For I agree with you that the Greek or Latin need not detain us. I also want you to tell me of the land whence you know it comes, and whether it is much used by Indian physicians.

ORTA

Its native place is Muscat and Calaiate, places in Arabia, where it is as plentiful as the common grass in Spain on which the cattle browse. There they call it **CACHABAR**, and some call it **HAXISCAÇULE**, which means "grass for washing." In Persia, which borders on these cities, it is called **ALAF**, which means grass, and it may be so called *par excellence*. In India it has no other name than the grass of Muscat. In Portuguese,

¹ See footnote at end of this Colloquy, p. 420.

ESQUINANTO

and in Greek and Latin you already know the names. In our land they call it *PALHA DE MEQUA*, nor are they far wrong, for this land, though a long distance from Mecca by sea, is not so far by land, so that the Arabs of Muscat and Calaiate reach it in a short time. Nor do they err much in calling it pasture for camels, because there are camels in that land. There are so many that feed on the herb and the flower; mules, asses, and the horses called Arabs, of great price, and many cows, goats, and sheep browse on the same grass, which is abundant in that land. It comes to India as a medicine recommended by the faculty, but most of it arrives in the ships bringing horses, for their fodder, and as it gets wet and bruised it is thrown into the sea, and a fresh lot is strewn under the horses. Some sailors also bring it in bundles for sale. I saw many bales in Diu offered at a low price, to be sent to the kingdom with other drugs. I told you that it was called *CACHABAR*, but I do not deny that it has other names in parts of Arabia. Avicenna calls it *ADHAR*, and Serapiam *ADHER*, and this name is used by Arabian and Persian physicians in India, and they call the flower *Foca*. Few or none of these flowers come to India. I have not seen any, and they are of no account where they grow, the natives being wild and ignorant. Mateus Silvatico calls them *AZQHIR* and *ADCARAM*, being names corrupted. In this country the natives do not use the medicine, only we use it and the Arabs and Persians; but in its native land it is a common medicine.

RUANO

It remains for us to examine the authors. Beginning with Dioscorides, as the oldest authority, he says that they have it in Africa, in part of Arabia, and in the region of the Nabateos, whence the best comes. He also states that in Arabia it is called by some *BABILONICO* and by others *TEUCHITES*. The worst of all comes from Africa, and the flower is used in

FIFTY-SECOND COLLOQUY

pharmacy. Do you know whether it is found in those parts?

ORTA

I know that in these parts all point to Arabia. As to the land of the Nabatea I am ignorant whether it is there or not. I say that Nabatea is a province of Arabia, near Judea, so called after Nabatoch, a grandson of Ishmael.¹ Doctors tell me that in Jerusalem and Galilee it comes from Cairo, and the supply in Cairo comes from Muscat, but often the medicinal herbs are not known by the natives, who have little curiosity. This is the reason why I did not ask whether they had it in Babilonia. Dioscorides says that the worst comes from Africa, but he does not say in what part of Africa. What he says about the flower is, I confess, true; for the doctors are not curious enough to send for it. I am also in fault, for the use of it is lost, owing to making no demand for it. I know well that *ESQUINANTO* is a word corrupted from the Greek, meaning a flower, as you well know.

RUANO

Others call it *JUNCO ODORATO*, and nearly all the Greeks, with Cornelio Celso, call it *JUNCO REDONDO*.

ORTA

It is something like a rush, but it does not grow so high. Celso has *JUNCO REDONDO*, or *JUNCO TRIANGULAR*, others *JUNCO CHEIROSO*, to distinguish it from the common rush which we use. Avicenna also says that it has a sweet scent, and that one kind is from the land of Agiami, that is, of Damascus. But I do not know whether it is in those parts, as you say.

¹ Nebajoth, son of Ishmael, Genesis xxv. 13.

ESQUINANTO

RUANO

Avicenna also says that ESQUINANTO has a black fruit, quoting from Dioscorides. Is what Dioscorides says false?

ORTA

It may be that the text was faulty, or that Dioscorides was mistaken.

RUANO

Serapian says, quoting from Bonifá, that the ESQUINANTO is a herb with roots, having many fine branches under ground, like the root of CHULEM, but much longer, and that it has a fruit like the flower of canes, though softer and smaller. He says that it grows in meadows, and that when it is dried it becomes white.

ORTA

I say that it is not a plant¹ but a herb, as he himself says, being lower. It does not smell like a rose, but it has a good smell when it is fresh.

RUANO

Mateus Silvatico says that it may be kept for ten years.

ORTA

I say that in this land, near the sea, it cannot be kept long, though in other countries it may be preserved for a long time.

RUANO

Antonio Musa says it grows in Apulia.

ORTA

That may be true, if he saw it.

¹ Meaning a bush.

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RUANO

The Friars, after describing it, say that it is not the flower but the grass and root, and that the grass they sell in the shops as *ESQUINANTO* is not it, and that many believe that the root of *CALAMO AROMATICO* is the root of *ESQUINANTO*, while others think it is the root of *GALANGA*, and that *JUNCO AROMATICO* and *CALAMO AROMATICO* cannot be very different, owing to the similarity of the names.

ORTA

It may well be that all the details given by Dioscorides do not square with *ESQUINANTO*, yet *ESQUINANTO* is the same as it always was. So the learned physicians of Nizamoxa call it, and the flower *Foca*, confessing that these names are Greek, the physicians being Arabs. I do not know what further proof you want, for Dioscorides could not know about it so well as those of Muscat which, by land, is not very far from Mecca. As to the writer who says that the *calamo aromatico* resembles the *esquinanto* one with another, the facts are, the former is like a rush, has leaves like lilies, and the *calamo* is much warmer, and has a much longer root. Also the *ESQUINANTO* belongs to Muscat, and the *calamo* to India, whence it is taken as merchandize to Arabia. As for the *galanga*, it belongs to China, and is 2000 leagues from Muscat. Likewise the roots and leaves are very different. Here in Goa we have the *galanga* sown. *ESQUINANTO* is abundant in its own country without being sown. *Galanga* and *calamo* are cultivated. Those who mistake *galanga* and *calamo* for *esquinanto* are deceived by the prices, for they will cost him ten thousand times more than the *esquinanto*. He would do good by curing us at the will of these men who write, and they would do well to adopt a new plan in trying to cure us, which would be to use no medicine that is doubtful in the opinion of Fuchio. For I observe that the moderns who write now use medicines

ESQUINANTO

in their Arab practice, though they are very doubtful about them.¹

RUANO

Do not be so angry that men should say they are doubtful, it is when they are perverse and obstinate, without giving good reasons, that they are at fault. Let us now pass on, and converse about the tamarinds, for they are so medicinal that a discourse respecting them will be pleasant.

¹ "Esquinanto" here is undoubtedly one, or more, of the scented grasses of India and Southern India, such as the *Andropogon Schoenanthus* of Linnaeus, or *A. citratum* of De Candolle, and *A. Iwarancusa*, Blane, the *alapu* of South-Western India, and *ivarankusha* of India generally. The latter word is Sanskrit, meaning [literally "fever-goad"; compare *ankus*, the elephant-"goad," and our word "anchor"] "febrifuge." It is the *zakhara* and *izkir*, meaning "forage" for camels, of the Arabs, and *gorgiyah*, meaning "camel-hay," of the Persians. All we can say of the *σχόινος* of the ancient Greeks and Romans ["schoenus"] is that it was an aromatic rush; and of the "juncus odoratus," or "squinanthum," "squinanth," "sweete rushe," and "camel's meate" of our older Pharmacists, that it was some fragrant sedge or rush, which they catalogued along with their "juncus holoschoenus," "the matrushe," or "bulrushe," and "juncus mariscus," or "juncus laevis," "whereof watching candles are made." The "Squinancywort" of modern florists is the "Woodruff," *Asperula odorata*.

FIFTY-THIRD COLLOQUY

TAMARINDS

RUANO



THE taste of the tamarind is pleasant, and its medicinal virtues are beyond price, so that it will be well that we should know the names in the Indian languages and in Arabic, and you should tell me what the tree is like and how it is used by the native physicians.

ORTA

There is no deception in the statement that it is a medicinal fruit well known to all, and met with in many places. In the mountains the best are grown, and those that last longest are from Cambaya and Guzerat. In Malabar they are called PALI and in Guzerat AMBILI, as well as in all other parts of India. The Arabic name is TAMARINDI, for TAMAR, as you know very well, is TAMARA, or, as the Castilians call it, DATIL, so that TAMARINDI means the TAMARA of India. This was because the Arabs could find no other name so appropriate, and not because the trees or fruit are alike. The tree is large, like the walnut or ash or chesnut, and the wood is strong, and not porous or soft. It is very well covered with

TAMARIND

leaves, like fern leaves, on all the branches. The food which covers the fruit is green, and becomes grey when dry, and is easily torn off. Inside there are stones,¹ and being thrown out we use the marrow, which is sticky. These tamarind pods are like a finger curved in the shape of a bow. When they are green they are more acid, but not so much so as not to have a pleasant taste. I use many of them, eating them with sugar, and they agree with me better than acid syrup. Also I may say that I have derived much benefit, in my pains, from an infusion of tamarinds, putting 4 oz. into cold water, or endive water, after standing for three hours, putting in the tamarinds with a little sugar. It has the effect of discharging some of the choleric humour, and throws out and cuts the phlegmatic humours. The people of the country take a purgative of this tamarind with cocoa-nut oil, which is certainly a good medicine, causing neither trouble nor molestation. The Indian doctors used the pounded leaves for application to parts affected by erysipelas. We also use it in our food in place of vinegar, because it is a more agreeable acid when it is ripe. They take them to Portugal with salt, and in the same way to Arabia, Persia, and Turkey, because they say it makes them last longer. I have often had them in the house with their pods on, and they keep very fresh. But the natives preserve them in salt; also making a very delicious conserve of the tamarinds with sugar, and made fresh and without salt. I believe that tamarind is a very good digestive and purgative, very pleasant to the taste. Girl, bring the tamarind in conserve.

RUANO

I shall be much pleased to taste it.

SERVANT GIRL

Here is the tamarind.

¹ *Caroços*, "fruit-stones," which is an incorrect description.

FIFTY-THIRD COLLOQUY

RUANO

It is a very nice conserve, with a pleasant taste. Kindly let me have some to take; I like it best with red sugar of Alexandria, and I should not consider it inconvenient should it be necessary to throw in some rectified scammony.

ORTA

It may be: just at the proper time, and by advice of a good doctor. Further, I caused the tamarinds to be distilled, and used the distilled water as a digestive: but I do not make much now, because I found this sweet water. Pardon me if I wearied you by talking of this more than is necessary.

RUANO

On the contrary, I should like you to spend another hour on this subject, and as nothing can be so well stated but that some doubt will arise, I wish to submit some questions, that the truth may become more manifest. As the ancient Greeks did not know this medicine, we will examine the Arabs and Latins. Mesué, who is so much admired by his Arabian imitators, says that they¹ are from the wild palms of India, and Avicenna does not say what they are, but that the electuary is better when new. Serapio, quoting Bonifá, tells us that in Cesarea, in the lands of Amem,² they are found, and that they have a leaf like a willow. He further states, on the authority of Aben Musuai, that the outside of the tamarinds we use comes from India, and that the fruit is red. What do you know of this?

ORTA

I say that there are none in Cesarea, nor in the Amem or Jamen which are the lands of Syria.² But the first thing

¹ Tamarinds.

² Yemen.

TAMARIND

he says is true, that the outside (which is the pulp) comes from India. This is not to say that the stones are not used in medicine. When Mesué says that they are the fruit of wild palms, he does not know what he is talking about, for in all India there is no fruit of palm trees, except the *tamaras* coming from India, which are used dry, in great quantities, as well as when mashed without stones, and some are like those we call datiles.¹ It is true that in Cambaya I saw some fine palm trees, though they were very different from tamarinds, which are taken to Arabia for merchandize.

RUANO

Laguna, the translator of Dioscorides into ordinary Castilian, mentions his author's silence about tamarinds, and accounts for it, if we rely upon the Arabic vocabulary, by its being supposed to be a kind of date coming from the East Indies. For this reason it seems to him that tamarinds do not differ from Thebaic dates, seeing that they come from the East and have the same properties. He further says that, according to some, the tree of the tamarind is a kind of wild palm having its leaves long with sharp points like a willow leaf, also that sometimes white stones are found inside, of various shapes, and that the red ones are looked upon as the most perfect, being thick, fresh, and tender.

ORTA

It is not a kind of date, nor has it the form of a date tree except that both have stones, nor are there date palms in this country that yield fruit. Yet there are fine palms in Guzerat, but they give no fruit whatever, neither tamarinds nor dates, but, as I told you, there is a trade with that land. As to his saying that tamarinds are like Thebaic dates, it seems to me that he speaks without sense. He has mistaken the true

¹ Dates.

FIFTY-THIRD COLLOQUY

tamarinds coming from this country for dates. The buyer thinks that what he buys comes from the country where he makes the purchase, as happens with other drugs; for instance we call good cinnamon of Aleppo, though it comes from India. The Arabs who trade in this land call them *tamaras de India* because they have stones, and not because they are like dates. The tree which produces them has not a leaf like the leaves he describes, nor are the stones yellow, nor are they bright and the colour of earth, nor are they of different shapes, but of one size and shape, like a lupin, round and massed together above. They are not thick, fresh, and tender, but as I say. They are not used because the tamarinds come massed together, bring few stones with them, and are not well known.

RUANO

Valerio Codro makes additions to Dioscorides, saying that XIFERIIX is tamarind, and that FENICO BALANO is different.

ORTA

He may be right in this, but I do not know them.

RUANO

The Friars say that the true ones seldom come to Europe, and that the good are LEIROM according to Mesué, which they select for the confection of ALIFRACOST.

ORTA

That the tamarinds come adulterated is a foul and base falsehood, for they are so cheap that in Portugal they can yield a very good profit. The tamarinds which Mesué calls *alcairo* are better. The reason is that they come from India to Cairo, and thence, by Alexandria, to Venice, not because they have them in Cairo.

TAMARIND

RUANO

What name had Cairo formerly, and why is it so called now? I ask this, not being connected with medicine, because it is a very famous and ancient city.

ORTA

Cairo was called Memphis by the Greeks in ancient times, where there are now the famous pyramids, and where José was a captive. Now the vaults are to be seen where the stores were kept. The Moors call them *Meçera*.¹ And because a Queen named Alcaire increased the size of that city in one direction, the whole city got the name of Cairo.² That city, since the Turks have been at Constantinople, continues to fall off in population. To return to the tamarinds I say, what Antonio Musa states, that it will be very unreasonable to dislike the Arabs owing to the tamarinds. Truly they have reason, for I use them, and not *caña fistula* or manna, in very coleric fevers, and this because, being sweet, they increase the heat. This is not wanting in authority, for Avenrois so orders it. This receipt is much used by the doctors of this country, who do not care to give sugar in burning fevers. So says Antonio Musa, who is clear that the *mirabolano* of Pliny and Dioscorides is not the tamarind, for it has no stones and the tamarind has. He also finds fault with Menardo for reprehending Mesué, and says that the FENICO BALANO has restringent properties and the tamarind is purgative. He also has not much ground for reprehending Mesué, who says it is cold in the second degree, while Avenrois places it in the third, for this may be a clerical error, some books of Mesué also saying that it is in the third. With this I say that the account of the tamarinds to your honour is finished.

¹ Misr, from Mizraim, son of Ham.

² El Kahirah, the "Victorious."

FIFTY-THIRD COLLOQUY

RUANO

Do not think me tiresome if I ask about a thing that your gardener told me.

ORTA

If he told you that they sleep at night protected from the cold by the leaves, he spoke the truth; for at night I have seen them close together among the leaves, and in the day they open and come outside the leaves.¹

¹ He alludes to the movements of the sleep and vigils of the leaves of *Tamarindus indica*, Linn.

The names of the *Tamarindus indica* current in India are :—Sanskrit, *tintrina*, meaning literally “to become wet,” i.e. to “excite salivation,” and *amlīka*, meaning “sour” [compare *Phyllanthus Emblica*, footnote, page 320], and *chincha* [the name also of the “Baobab-tree” of Africa], meaning “tart,” or “biting sour”; and Arabic *tamarihind* [in Persian *tamarihindi*], meaning the “Indian date-tree.” With the “Mango-tree” it enters largely into the “folklore” and “proverbial wisdom” of the people of India; one of the “old saws” of them being, “The full flowering of the Tamarind is prophetic of prosperity, of the Mango of drought and adversity.”

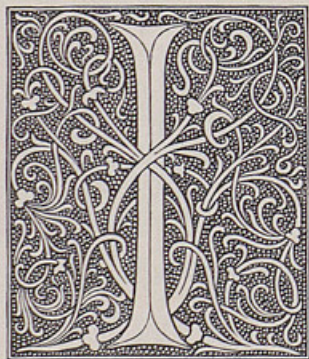


PLATE XXIII.—TAMARINDO.

FIFTY-FOURTH COLLOQUY

TURBIT ¹

RUANO



HAVE often heard it said, in very notable cities of Spain, that the manufacture of **DIAFINICAM** and other confections had been abandoned for want of **TURBIT**. Others said that it was not genuine, not being black or gummy. Others said that the **TURBIT** of the Arabs was one thing, and that of the Greeks another, one being called **TURBIT** and the other **TRIPOLIO**. These names, they say, are taken from Dioscorides, and to make out their point they amend ancient texts, attack Pliny, and blame Teodoro Guaza.² It is certainly a pity to see

¹ The true Turbith of the Arabs, or "Indian Jalap," is obtained from *Convolvulus Turpethum*, Linn. [*Ipomoea Turpethum*, R. Br., *Opercularia Turpethum*, Mauso], a Bindweed closely allied to *C. Scammonia*, Linn., the source of Scammony [the *σκαμμώνιον* of Hippocrates], and *Ipomoea Purga*, Hayne, *Exogonium Purga*, Bentham, the source of Jalap. It is quite different from the "Turbeth barbarum" of the old Pharmacists, obtained from one of the Umbelliferous *Seseli*; and from the *άλυπον* of Dioscorides and Pliny ["alypon"], the *Turbith blanc* of the French, obtained from *Globularia Alypum*. The word Turbith is the Arabic *turbud*, a corruption of the Sanskrit *tribet*, or "three-virtues," i.e., that it is anti-costive, anti-bilious, and anti-phlegmatic. In Western India it is known also by the name of *chivaka*.

² Theodoro Gaza, a translator of Theophrastus.

TURBIT

what trouble was taken by the most learned Lioniceno, Menardo, and others to find this TURBIT in Dioscorides or Pliny, which they could not do, only finding the horn of Amaltea or the city of Platam.¹ Other more modern writers want to reconcile the Greeks and Arabs, leaving themselves at variance. I pray you of your kindness to disentangle these questions, also giving me the names in Arabia and in the countries where the plant grows. If it should be what I have seen, it will be to me a thing of great price. I also wish to hear how the native doctors make use of it, and whether they use much or little.

ORTA

I will tell you, Sir, all I can, for I know this simple very well, and have seen the fruit it yields when it is green, and the flowers. From thence you will yourself see how these modern writers are to be answered, and whether it is the TURBIT of the Greeks or not. I say that what we call TURBIT has the same name in Arabic, Persian, and Turkish, though Andreas Belunense, in his amended text, calls it TERBET. All other educated doctors of those nations call it TURBIT and not TERBET. The Guzeratis, where it is in greatest quantity, call it BARCAMAN; while the name for it among the Canarese of Goa is TIGUAR. It grows on the surface of the earth. I mean that the root does not go down deep and is small. The trunk is the size of a finger, sometimes larger, and it crawls along the ground like ivy. The beginning of the root or branch is the good part, and as it goes tapering away it becomes full of leaves, not having the appearance of TURBIT, nor is it good, nor does it form the gum except at the root which is the proper stick, and this becomes like the real TURBIT. The leaves and flowers are like those of the French mallow, and the flowers do not change three times a day as some say. The taste of the trunk, branch, and leaves is insipid when it

¹ Things that no man hath ever seen.

FIFTY-FOURTH COLLOQUY

is gathered. It grows in maritime countries, but not very near the sea. I have seen it two or three leagues from the sea in a place where the sea does not reach, though some say that it does. It mostly grows round Cambaya, Surat, and Diu, and Bazaim. It also grows at Goa, but the doctors do not think it good, preferring to use that from Guzerat. From thence it is taken in great quantities to Persia, Arabia, and Turkey, and a small quantity goes to Portugal. I sent forty quintals when I made the drugs for the King, and heard it was considered a great quantity. The physicians of Nizamoxa in Balagate ask for it, which is a sign that it does not grow in that country or is not good. It may be that it is in other parts of India, but it does not sow itself, and perhaps, if the natives were more curious, they might find it. Some people say that it is in Bisnaguer, which is 150 leagues from Guzerat. Some doctors here in Goa told me that they took it from Guzerat to Bisnaguer, and others that they have it in Bisnaguer, but that it is not so good, and also in Goa, where it is not considered good and is not used, but only that of Guzerat. It is true that what was seen by Mesué, Serapio, and Avicenna was from Guzerat, for the ships that go to the west always bring it as merchandize. I tell you that the plant does not have a branch divided, nor a high part, but all is full of leaves and flowers, in the way I have said.

RUANO

Before you discuss the statements of Grecian and modern Latin writers, I want you to tell me how you know these things that you have explained to me, not because I do not put entire faith in what you say, but that I myself may be able to give reasons to those you do not know.

ORTA

You have reason in what you say. Well, I knew because

TURBIT

when that invincible Captain Martim Affonso de Sousa came to Diu with forty men, by order of Sultan Bahadur, who was the most powerful king of Mourama, and, with so much force and risk, occupied that his city of Diu, so renowned throughout the world, I was with him. After we received the *prazme* of the King to build a fortress, I was idle, looking upon the opulence and traffic of that city. One day being in the bazar (as we call the market or fair) in the afternoon, sitting at the door of one of the merchants they call Banians, a woman came past with a sack of dried TURBIT for sale. As I was an expert in medicines, and had heard that they were brought there for our ships, I asked the Banian what it was. He replied that it was TERUMBU, and that we and the Moors gave it that name, but that the Maratas (who are Gentios) call it BARCAMAN. I then asked for what it was bought and its use. He said it was of use to purge the stomach, that it was considered a good medicine, and was taken by the merchants in their ships to Arabia and Ormuz. He praised it much and asked me if I wanted to buy it, and he showed me its gummosity and whiteness. As I knew that our people valued it, I bought it, each maund for a *tangua*, which is 60 reis, one maund being 27 *arrateis*. But he gave the woman very little. From what I afterwards heard from some other Banians he doubled the price to me, twice over.

RUANO

I am satisfied that this is the TURBIT we use, and that they so call it; but how could you know that the signs of its good quality were that it was white and gummy unless you knew it from our books?

ORTA

I must tell you that I knew that from our books, but not from what the Banian said, for, to tell you the truth, those are not the signs which identify the TURBIT only. For it is

FIFTY-FOURTH COLLOQUY

possible that it may be TURBIT without gum so good as to be gummy. For the gum collects, because those who gather it twist and prick it when it is green, causing it to press out and exude gum. It is a sign by which we distinguish the good from the bad. I knew this afterwards, for I have a relation who is a doctor in Baçaim, one of our cities, 50 leagues from Diu by sea, and he told me that he had been gathering it with the Indians many times. At first they twist, cut, and prick it, and then, after some days, they gather it, finding it full of gum. He arranged that they should not twist nor cut one, and afterwards he found that there was no gum, and that in some others there was very little.

RUANO

Is the gummy kind as good as the other, and are they from the same plant?

ORTA

You are quite right to ask that. The gum forms within, but some TURBIT is gummy without the twists and blows upon it, as it gummifies more easily. It is our arrangement that we make, according to which the Indians twist the plant, and that no doubt is the truth.

RUANO

How is it that the black is worthless and the white good? What are the conditions of its goodness?

ORTA

The custom of the native druggists, who are called GUANDIS, is to dry it in the sun. They say that it turns black if it is dried in the shade. Then they bring it to our druggists, and they have learnt this way of drying this medicine from experience. It may be that that which becomes black from being dried in the shade is the best, but up to the present time I have not tried the experiment.

TURBIT

RUANO

Do the Indian doctors use this TURBIT to reduce inflammation ?

ORTA

Yes, sir ! and on this point I wish to call in a native doctor who seems to me to be the best, that I may question him in presence of your worship. Girl ! call Malupa.

SERVANT GIRL

He comes here every morning to cure those negresses, and he is coming up. [*Enter MALUPA.*]

ORTA

Malupa ! tell this gentleman, who is a doctor, how the TURBIT is used in this country, if it is mixed with ginger, and from what part the best comes.

MALUPA

Yes, we use it to reduce inflammation, sometimes mixing ginger with it when there is no fever. We also mix ginger with other purgative medicines, but we also give them without ginger. The best TURBIT is that of Cambaia, whence it is brought to other parts of India. I have shown the TURBIT to this gentleman here present. I may tell you that we sometimes cure with that grown at Goa, but not unless it is gathered near the sea. They tell me that it is at Bisnaguer, but not good.

ORTA

What you say is very true, for the Nizamoxa asked me for this TURBIT of Cambaia and I sent for it. But after all it may be in the interior, and is not found owing to the want of curiosity among the natives. I myself saw in Balagate the bugloss which is wanting here, and the fumitory. You can

FIFTY-FOURTH COLLOQUY

go with God, Malupa, and I have told this gentleman already what you know of these medicines.

MALUPA

Dr. Orta knows better than all of us, for we only know the Gentios, but he knows Christians, Moors, and Gentios better than us all. I kiss the hand of your honour.

[*Exit* MALUPA.]

ORTA

This Indian has told you the true rectification. For Rasis does not rectify with ginger, but with oil of sweet almonds, for fear of the excoriation it may cause.

RUANO

Now let us examine the writers, commencing with the Arabs, for with them we are on more certain ground as you have said, the Greeks having learning and the invention of good letters.

ORTA

Do not go on too fast. I do not say anything against the Greeks as the inventors of good letters, but they were also the inventors of many lies, had many bad habits, and were effeminate in their customs. The Romans, besides what they received from them, received many more things. But after all I do not speak evil of them as regards what they wrote of things in their own land, but only what they wrote about things of which they were ignorant. They filled their books at their own sweet wills, as is shown by what they wrote of the things of India, which are so fabulous. I affirm that as regards India the Arabs are better authorities and err less than the Greeks. Now let us have your contradictions that we may the better reach the truth.

TURBIT

RUANO

Mesué says that it has leaves like the *ferula*¹ except that they are smaller, and that those of the plants give milk; and that there are wild and cultivated, small and large, black and white and citron colour; also that it grows in the driest places for the production of the milk; and that it has seven properties, white, hollow, reedy like a cane, gummy, a bark the colour of ashes, smooth, easily broken, and that the thick kind is not good.

ORTA

Mesué told the best he knew and had heard, but he is not altogether right. For the leaves are not like the *ferula*, but like the mallow called by the Portuguese *Malva francesca*, and they have no milk. They are not cultivated but are all wild. There are large and small, as he says, white, yellow, and black, but they are not so from their birth. Those which are badly kept are not white. It thrives in damp and dry places, but more damp than dry. They are not dry, as he says, because of their milk. They are not better for being white and gummy. They are not like canes. The bark is not ash coloured nor smooth, but curled and wrinkled and grey. When new it is good, and not fragile except when dry. He also says that the thick kind is not good, in which he is wrong, for it appears to have more virtue.

RUANO

What think you of Avicenna, who says that in preparing the bark it is scrubbed that it may not be ash coloured but white?

ORTA

I say that this only serves for selling it, and for nothing else.

¹ Giant fennel.

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RUANO

Serapio says, on the authority of Dioscorides and many others, that it is born on the sea-shore in places where the sea covers it at high tide, and that when the tide goes down it is not touched; also that it has a leaf like that of a plant called *arasidis* only the leaves are thicker, and that the trunk is two *palmos* long, and that the upper part is divided, and the flower changes its colour three times a day, being white in the morning, red at noon, vermilion at night, that the root is odoriferous and that when chewed it heats the tongue, that it is an antidote to poison, like another medicine called *BEZEDARICA*. These things and others have the authority of Galen, translated by Albataric and many other Arabians.

ORTA

I have already told you that I have seen the *TURBIT* growing near the sea but not so near as that it would be touched by the tidal waves, because its place is two leagues from the sea, which the spray does not reach. The leaf is not like that of the plant called *ARASANTIS* or *AHISATIS*, nor like the mallow, nor the *murtinhos* as *Lioniceno* would have it. Indeed they are very different from the mallow. The trunk is sometimes two *palmos*, at others eight and ten *palmos*. The flower does not change colour three times a day, but is always a mixed red and white, sometimes white. The root is not odoriferous, nor biting to the tongue. We do not use the root, only the branch with leaves extended on the ground. It is never used as an antidote for poison. What I say to you I have seen with my eyes.

RUANO

Dioscorides says, speaking of *PITIUSA*, that it is a species of *LATICINIOS*, or of the herbs which yield milk which seems to be the *TURBIT*, and this is the opinion of some modern

TURBIT

writers. They also say that the TRIPOLIO of which Dioscorides speaks is translated literally in Serapio. Autuario, a Greek doctor of authority, also says that PITIUSA is TURBIT and that it is white and black, and he says that some falsely use TURBIT PRETO for HESULA, and Mateolo Sinense also thinks so. He also says that ALIPIUM is TURBIT, and ALIPIA the seed of it. But this Mateolo does not believe, because the TURBIT has not seed, and while ALIPIUM cures melancholy, TURBIT reduces inflammation. The Friars say the same as the moderns and as Antonio Musa, and also hold that what Dioscorides, Galen, and Pliny say of TRIPOLIO is true. They say that they have the TURBIT of Serapiam and that it appears to be all one. These reverend Fathers affirm further that the TURBIT sold in most druggists' shops is not the TURBIT of Mesué, and that those who have gathered it with their own proper hands have said so because it has not got the leaves of purslane. It is also conceded that the TURBIT of Mesué is not TAPSIA, because in washing and scrubbing it causes swelling on the hands and face. They say further that the TURBIT which they bring from Apulha is the true TAPSIA and has great roots, but that it must not be administered until six months after it is gathered, nor when it is eaten by an animal.¹ These things and others, which I do not repeat because they are not relevant, are said by many modern writers of repute, who, as you have heard their views, can be answered by you as you see fit, for you must receive belief as you speak, from the testimony of your own eyes.

ORTA

I have myself read all the things you have repeated and more. What I answer to you is that the milk-yielding plants are numerous and that most of them are poisonous. The lands of India and of Europe are full of our kind and of many others.

¹ Bicho.

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It pleases God, for the sins of our first parents, that some should be poisonous and, by the divine mercy, some of these are of use in other ways, and for those which are pure poisons we know that there are antidotes. I will give you examples in this country and in Portugal. The *ESULA*, called by the Arabs *ALFEBRA*, is poisonous, and its juice or milk causes a swelling where it falls, as I have often seen in Portugal. In these parts there are plants which do the same. One is a species of wild *manga*. For this reason the ancients wrote of seven species of milk-yielding plants, besides which there are many unknown kinds. Here in India there are many other plants with which the doctors purge and cure various infirmities. One of these is *TURBIT*. It has no milk, or if it contains any it is very little; it is not a poisonous plant, but purges without annoyance or trouble. Here the natives take it in chicken broth, or in water in greater quantity than is the practice with us, either in Portugal or here. It does not cause swelling in the face or hands as you say on the authority of the Friars. It is not this species of milk plant but *ESULA*, and *ESULA* is not this *TURBIT*, nor is *TRIPOLIO*, nor *PITIUSA*, nor *HISIATIS*, nor *ALIPIMUM*, nor is *ALIPIA* its seed, for it has no seed. Its leaves are not like either *FERULA* or *BELDROEGA* or *MURTINHO*. It does not grow so near the sea that the waves cover it, nor do its flowers change three times a day as these Greeks affirm. So that for these and many other reasons it is clear that *TURBIT* was unknown to the Greeks and, properly speaking, to the Arabs, although they use it for their people when it is brought from India. This led them to search among the Greek writers for some plant that was like it, for they look upon the Greeks as very high authorities. The reason is that the Greeks were the first writers on human things, though the first who wrote on divine things were the Hebrews. This is why Serapian translated literally the chapter on *TRIPOLIO* from Dioscorides, thinking that there could not

TURBIT

be a medicine on which the Greeks had not written. Certainly he would have done better to have written a chapter from his own knowledge, and time is better spent in research, as is now done, and proving it to be a medicine of this land. He says that the TRIPOLIO and other medicines are species of milk plants, but he did not know, nor did Dioscorides know everything, for he often says "as is the common fame."

RUANO

Laguna holds that PITIUSA is black TURBIT and that ALIPIUM is white TURBIT and good.

ORTA

I have already told you that none of those medicines are either black or white TURBIT. The ESULA is a very strong laxative and TURBIT is not. ALIPIUM purges melancholy, and TURBIT only reduces inflammation. The TURBIT has not a fragrant root nor does it bite the tongue, nor is it like FERULA nor BELDROEGA nor MURTINHO, nor does it rise from the ground but extends along it. For these and many other reasons it is clear that it is not identical with any of these medicines mentioned by the modern writers.

RUANO

And the TURBIT that is brought from Apulhas. Is not that TURBIT?

ORTA

No! only some milk plant. Some say it is the true TAPSIA because it has great roots; and the TURBIT we use in this country has very small roots, so that we only use the stick.

RUANO

These reverend Fathers say that it must not be used until six months after it is gathered, and that it must not be used if it has been eaten by any animal.

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ORTA

The last statement is clearly true, for in this country things are subject to putrefaction to such an extent that rhubarb and other medicines can only be kept during the four winter months, June, July, August, and September. But the other statement that it must be kept six months before it can be used is wrong, for it is gathered in November, December, and January, and if it was kept for six months it would be rotten. It is true that in the interior the medicines are not subject to corruption, as they are near the sea-shore. You may be assured that the Greeks were totally ignorant of this drug, but I would not say worse of them, nor that they are more wrong than the moderns, who say that they do not know the root which, in our time, is sold for TURBIT. Yet this is true in a way, for it is the branch not the root, and we do not call it TURPETUM but TURBIT. Now let us get on, for to-day is Saturday and we have to go to *Madre de Dios*.

RUANO

I have many other things to say, that I may have much noted down to relate in my country, where to hear them will be much appreciated. For this you should tell me of the cities and countries where the TURBIT grows, namely Baçaim and Diu, which are territories of the King of Portugal.

ORTA

Diu is an island which includes a city and a good port, with a very considerable trade, and concourse of many merchants, Venetians, Greeks, Rumes, Turks, Persians, and Arabs. It was given by the great Sultan Bahadur to Martim Affonso de Sousa, being Chief Captain of the Indian Sea. The grant to him was that he might build the fortress in any part of Diu that he chose, and this he did, so that it could be

TURBIT

defended by land and by sea. Afterwards, owing to many treasons that they practised upon us, they lost the city and the whole island of which we have been possessed of for many years. It is a very great and strong city, which, with a small besieged force, we defended against the Grand Turk, with a great power, in 1539. Afterwards, in 1546, it was besieged for seven or eight months, the walls being beaten down, the few Portuguese in the garrison defending it gallantly. At last the Governor, Dom Joam de Crasto, entered the island and city and drove out the Moors, killing a great number. He then resolved to build another and a larger fortress. As these events have already been well described in Latin and in Portuguese I will not write more about them for, as I said, they have already been described in a better style. One thing I will add, that Dom Joam Mazcarenhas, who was captain of that fortress, did deeds worthy of a very valiant captain during the siege, showing much industry, ability, and fortitude, as well as patience when it was necessary. His merits deserve the highest praise.

RUANO

Speak now of Baçaim, for it is a greater thing, and not so well known.

ORTA

Baçaim is a very great city, and under its jurisdiction there are many lands and cities. It gives a rent to the king of more than 160,000 *cruzados* with its land and fortresses, afterwards granted to Francisco Barreto. The said lands are called MANORA. They include, in one part, an island called Salsette where there are two pagodas or houses of idolatry under ground. One is under a very lofty hill built of stones in greater quantity than in the fortress of Diu, and which may be compared, in Portugal, with a town of four hundred houses. This hill has a grand ascent, and on arriving at the hill it is

FIFTY-FOURTH COLLOQUY

found to be a great pagoda worked and cut within the rock, where the Friars of San Francisco afterwards built a church called San Miguel. There are many pagodas of stone on the ascent, and near the summit there are other stone houses with their chambers, and still higher are houses cut in the rock, and in them there is a tank or cistern of water, with pipes to lead down the rain water. Altogether there must be three hundred houses, and all contain idols sculptured in stone. But they are very heavy and dark, as things made for worshipping the devil.

They have another pagoda in a part of the island called Maljaz, which is a very grand thing, also cut out of the rock. Within there are many other pagodas very dark and dismal. All who enter these houses say that it makes their flesh creep, it is so dreadful. Another pagoda, the best of all, is on an island called Pori, which we call the Isle of the Elephant. On it there is a hill and in the upper part of it is a subterranean house worked out of the living rock, and the house is as large as a monastery. Within there are courts and cisterns of good water. On the walls, all round, there are sculptured images of elephants, lions, tigers, and many human images, some like Amazons, and in many other shapes well sculptured.¹ Certainly it is a sight well worth seeing, and it would appear that the devil had used all his powers and knowledge to deceive the gentiles into his worship. Some say that it is the work of the Chinese when they navigated to this land. It might well be true seeing that it is so well worked and that the Chinese are sutis. It is true that, at the present day,

¹ This is one of the earliest descriptions of the Cave of Elephanta. Linschoten was there forty years afterwards. The first description of the cave, fuller than the one in the text, was by the Viceroy Dom Joao de Castro, 1545-1548, in his work *Roteiro de Goa a Diu*. It is reprinted in the recent *Life of Dom Joao de Castro* by Manuel de Sousa Pinto (Lisbon, 1912), pp. 29-31. But Orta probably saw the cave before Joao de Castro; as the first visit of the latter to India was in 1538, while Orta was there in the time of Nuño da Cunha, 1529-1538.

CASTES

this pagoda is much defiled by cattle getting inside, but in the year 1534, when I came from Portugal, it was a very fine sight. I saw it at the time when Baçaim was at war with us. Soon afterwards the King of Cambaya ceded it to Nuño da Cunha.

RUANO

What sort of people inhabit this land of Baçaim ?

ORTA

The Moors were originally lords over it but now there are few there, only those who trade by sea and are called NAITIAS, what we call mestizos, descended from Moors who intermarried with the people of the land. The GENTIOS are of many castes. Those who till and sow the land for rice and other crops are called CURUMBIS,¹ and by us labourers. Those whom we call gardeners, who cultivate flower and fruit gardens, are called MALIS.² Clerks and accountants are known as PARUS.³ They collect the rents of the king and of others, and of estates, and are great negotiators. Others bear arms. Others are called BANEANES, being those who observe the precepts of Pythagoras very exactly. In each inhabited locality there is a caste despised and abhorred by all, who have no intercourse with the others. These eat anything, even dead animals. They are given food to eat in common, without touching the givers. Their work is to clean up filth in houses and streets. They are called DERES or FARAZES.⁴ They are also employed as executioners. There are also merchants called COARIS, and in the kingdom of Cambaia they are known as ESPARCIS.⁵ We Portuguese call them Jews, but they are not so. They are Gentios who came

¹ *Kumari* cultivators who clear patches in the forests, cultivate them for a year, and then clear another patch.

² Gardener caste.

⁴ Pariahs.

³ Parvu, clerk caste.

⁵ Parsees.

FIFTY-FOURTH COLLOQUY

from Persia, and have special letters of their own and many peculiar superstitions. When they die the bodies are taken out of another door, not the one generally in use; and they have sepulchres where their bodies are put and left until they corrupt and dissolve. They look to the east. They do not circumcise nor are they forbidden pork. Beef is prohibited. By these things we see that they are not Jews. Nor are the Jews who are in the territory of Nizamaluco, and who remain there, held to be Jews. They take strange oaths which, as they do not refer to the subject we are considering, I will not relate to you.

RUANO

Do not tantalise me, but tell me briefly.

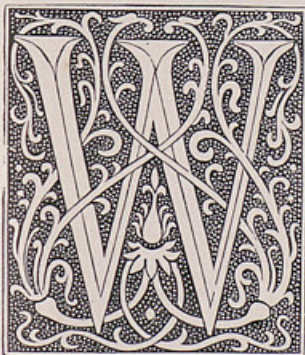
ORTA

A cow is used for taking the oath, and they put water on one side of the cow and fire on the other. Then they take a knife in their hands, and say certain words which mean that as this cow is killed with iron, and is encircled by water and fire, so may it be to him and so may he suffer if he swears falsely. It is a thing worth noting as with these men so with others, that no one changes the business of his father, and all those of the caste of shoemakers are so.

FIFTY-FIFTH COLLOQUY

THURE AND MYRRH¹

RUANO



HY do they write of two kinds of incense, one of Arabia, and the other of India? It is necessary to know the tree of each, what it is called in the land where it is found, and to know whether it is a medicine used in that land.

ORTA

In this land there is no incense, but it is sent to the King of Portugal from here, for giving alms to many religious houses. But in India there is none. It is brought from Arabia where it is called LOVAM, corrupted from the Greek word OLIBANO, which is much used by them. They also call it CONDER, namely Avicenna, for CONDER or CONDROS means resin, and ÇAMAC means gum in Arabic. For this reason they call the gum of Arabic ÇAMAC ARABI. It is true that Serapio calls it RONDER, but that name is corrupt. For I have spoken with many Arabs about it and they all call it LOVAM, except a few who call it CONDER, but none

¹ See footnote at the end of this Colloquy.

FIFTY-FIFTH COLLOQUY

call it **RONDER** here nor in its own land where it grows. I have asked the Portuguese, who have lived for a long time in this land, and all say that it has no other names, and that the tree is also called **LOVAM**. These men say that the best is from the hills, while that from the plains is bad, as it gets mixed with the resins of other trees and is used as pitch for the ships. The trees are the property of the king and no one can gather from them without his license. The merchants come from **Adem**, **Xael**, and other parts of Arabia and contract with the king for the quantity they are to be allowed to gather, and the price they were to pay for the incense, being good and what we call *incenso macho*. The price is not high. The best that is brought from Arabia to India is worth 2 *cruzados* the quintal.

RUANO

Do they call it *macho*?

ORTA

No. The good incense is called **MELETO** in India. The bad kind has another name and grows on the plains and not on the hills. Sometimes the two kinds are mixed to send to India, and fetch a much lower price. It comes mixed with the bark of the tree. The tree which produces this gum is not very large, and the leaves are like those of mastich. In India they do not adulterate or falsify it, as they would gain so little by doing so. The Indian doctors use a great deal of the incense for unguents and perfumes, and it is eaten for many diseases of the head, and for dysentery. But the greatest quantity is taken to China for sale, where it is largely used. Those who trade with it there make large profit, and it is also used in the parts bordering on Malacca, where the myrrh is also in demand, called **BOLLA** in India.

THE MAGI

RUANO

Dioscorides, Avicenna, and others say that it is in India, and that it is black; but I know, as you have said, that there is no incense in India.

ORTA

This word INDO is often taken for black. For instance Mesué speaks of MIRABOLANOS INDOS, which are the black kind, as I told you in discussing them.

RUANO

Now tell me about the myrrh. You have said such a few new things about incense, that it is fair that you should now say where the myrrh comes from and what it is like.

ORTA

Much comes to India from Arabia and the land of Abexim¹ which is in Ethiopia, but the truth about this gum has never been ascertained, nor what the tree is like; only a merchant who traded between Melinde and Mozambique told me that the Bedouins brought it by land from Brava and Magadaxo, and that they came, according to what they said, from Caldea, so called by these Bedouins. These men were mountaineers, and spoke pure Arabic, which is said to be nearer the Caldean language than the ancient Syriac. This was told me by an Abexim priest and an Armenian bishop. I asked him why Pico Mirandolano, in his *Apologia*, said that MAGO in the Caldean language signified one who knows. He said that the Holy Scripture was written in the Caldean language, and that he would tell me what MAGO means. He said that MAGOXI, in that Caldean language, means a man of letters or learning, and that these were the MAGOS that came to worship our Lord. He said that these men were not kings but men of

¹ Abyssinia.

FIFTY-FIFTH COLLOQUY

great learning, as well in the stars as in other things of nature. This bishop further told me that the star which guided these MAGOS was not a natural celestial one, but an elemental one, such as we call a comet. Tell me what appears to you as regards these stories. None of them seem to me to be good, or what is said by those who rule the Holy Mother Church of Rome.

RUANO

What you say appears good to me, but I should rejoice if you would tell me something more about the incense, for our Castilians say that it is in the Western Indies of our King.¹

ORTA

I only tell you what I know to be well authenticated, or told me by persons worthy of credit. As to that which you say of writers on the Western Indies I have read it, but as I have not seen, I cannot say whether it is true or not. You can find out in Castile and write there, if it pleases God that you should return, for here you cannot find out much.

¹ Tus, or Turis, meaning incense in general [from *θυσία*, an "offering," a victim "offered" in sacrifice], here refers to Frankincense [*i.e.* "pure" "Incense"], the Hebrew *lebonah*, "milky," "white" [cf. Lebanon, "the White (*i.e.* 'snowy') Mountain"], the Greek *λίβανος*, and Latin *olibanum* [as if "oil of Lebanon"!], is the product of the Burceraceous trees, *Boswellia carterii*, Birdw., the *mohr-modow* of the Sumalis; *B. bhaidagiana*, Birdw., the *mohr add* of the Sumalis; and *B. freriana*, Birdw., the lemon-scented *yegaar* of the Sumalis. The two first make up the bulk of the Frankincense of commerce, while the last is reserved, chiefly in South-Western Arabia and North-Eastern Africa, for special use. See Sir George Birdwood's paper, "The Genus *Boswellia*," *Transactions of the Linnean Society*, 1871, xxvii. 111-148, and plates 29-32; and his articles "Incense" and "*Boswellia*," *Encyclopædia Britannica*, 12th Ed. *B. serrata*, Roxb., *B. thurifera*, Colebrooke, supplies a semi-fluid oleo-resinous exudation, the *salika*, contracted to *salia* [meaning "running," "drooling"], of the people of the country, and "Indian Olibanum" of Anglo-Indians. The *thus terrae* of Pliny and our older Pharmacists is the "Ground Pine."

Myrrh is obtained from the Burceraceous *Balsamodendron Myrrha*, Nees, of North-East Africa and South-East Arabia; and in the bazaars of India is always mixed up with "Indian Bdellium" produced by the *Balsamodendron roxburghii*, Arnot, of Assam.

FIFTY-SIXTH COLLOQUY

TUTIA¹

RUANO



HEY take TUTIA from here to Portugal, according to what they told me there. Avicenna also says that there is TUTIA in India, and Serapio tells us that a species of TUTIA grows there. Will you tell me what this TUTIA is, and in what part of India it grows?

ORTA

The parts of India we know do not yield TUTIA nor ESPODIO, as the Greeks call it, nor the copper or other metals of which this TUTIA is composed. But if you want me to believe, you will tell me what is the TUTIA they use in India, Portugal, and Spain, and what is the mineral, whether it is only the ANTISPODIO mentioned by Dioscorides, or another like it.

RUANO

Where does this TUTIA come from, how is it made, and whither does it go?

¹ See Colloquy LI. *supra*. Marco Polo found an impure "Tutia"—sulphate of Zinc—in Kerman, obtained from a zinc mine there. Teixeira gives a similar account.



FIFTY-SIXTH COLLOQUY

ORTA

A rich merchant of these lands, who is very curious in such matters, told me that he learnt from native merchants of Persia that it was certainly made in Guirmon,¹ a land of Persia not far from Ormuz, and that it consists of the cinders of a plant called GOAN, yielding a fruit also called Goan, and that they take the crust or bark, eating the pith and outside, but not the inner bark. From this tree, yielding this fruit, they make this TUTIA out of the cinders. The city of Guirmon is very celebrated for the best cummin seed in Persia. It is brought to Ormuz and other parts of Arabia, whence it finds its way by Alexandria to Portugal. In many ships this TUTIA is found, brought as merchandize, and I saw it sent to Portugal for the King. A Portuguese druggist told me that the TUTIA was what was used in Spain and France under the name of ALEXANDRINA, not made there but brought from Persia, and this is one of the ANTISPODIOS of the Greeks.

RUANO

I am not surprised at these counterfeit things, for I saw that a doctor brought you some counterfeit copperas, and told you that the Indian surgeons used it with good effect, because it was a good caustic.

ORTA

The Indian doctors know the use of mineral substances in medicine. I have seen them melting and pulverizing metals such as steel, iron, and mercury. The King of Cranganor in Malabar was given pulverized mercury to drink for a long time, as he had a previous disposition to leprosy of which I cured him, and he is now much better. He was cured by the Portuguese method.

¹ Kerman.

FIFTY-SEVENTH COLLOQUY

ZEDOARY¹

RUANO



YOU know well what doubt there is about the drug called ZEDOARIA and the other called ZERUMBET. Avicenna devotes two chapters and Serapio one to ZERUMBET, and Rasis gives a chapter to each. Tell me about them, giving the names and the uses in their native countries.

ORTA

I had the same doubts as you profess for a long time. I found that ZEDOARIA, being the most famous, was what we call ZERUMBA, a drug used at Ormuz and taken thence to Turkey and Venice. The ZERUMBET is what we call AÇAFRAM DA TERRA, which on the face of it seems like our RUIVA SECA of which I have spoken to you as the CROCO INDIANO. After much enquiry and research I concluded that this was a mistake owing to the different effects produced by the AÇAFRAM DA TERRA and those by ZEDOARIA and ZERUMBET, so called by us. For Avicenna makes a chapter for ZEDOARIA and for

¹ *Curcuma Zedoaria*, Roxb., the *Curcuma aromatica* of Salisb. The *C. Zedoaria* of Roscoe is the *C. Zerumbet* of Roxb. See also Colloquies XVIII. and XXIV. *supra*.

FIFTY-SEVENTH COLLOQUY

ZERUMBET, but that which we call ZEDOARIA Avicenna calls GEIDUAR, and I know no other name, for it is not known elsewhere, except on the confines of China. This GEIDUAR is a medicine of great price and only known in the hands of the Gentios called Joques,¹ or others called by the Moors CALANDARES. All these are mendicants who pass lives of begging and travelling and visiting pagodas. These and kings or great persons have this GEIDUAR, which we corruptly call ZEDOARIA.

RUANO

And how do you support this which you so boldly assert?

ORTA

The physicians of Nizamoxa told me. Wanting to give something, for the bite of a rodent, to a man in the retinue of Nizamoxa, they ordered me to petition the king. I said to them that the druggists must have a remedy, and I showed it. They answered that what I showed them was ZERUMBA and not GEIDUAR. Giving it against the bite it did the workman good, restored the circulation, and proved its efficacy.

RUANO

And what was this ZEDOARIA like?

ORTA

It was the size of an acorn and nearly the same form, and the colour was light. I asked the King for an *arratel* of this medicine and he replied that he could not give me so much, giving a bit weighing half an ounce. I showed it to the druggists of Chaul and Goa, and they all told me that they did not know that medicine, and did not use it. I sent it to Portugal with an Armenia stone, and all were lost with the ship on board which they were. God be praised. Afterwards

¹ Yogis.

ZEDOARY

I found some in the hands of a Joque, but I did not buy it because I did not know it well. If I find any doctor here with some, I will buy it, and show it to you.

RUANO

Is this GEIDUAR useful in other ways?

ORTA

Mula Ucem, a learned physician, with whom I conversed when I was at Juner curing the sons of Nizamoxa, told me that it was efficacious for thirty-six things, telling me of many of them. I saw him apply it to a knee from which a merchant was suffering pain. At least you may believe that it is much esteemed as a medicine, principally as an antidote for poison.

RUANO

Well, Avicenna does not make so much of it.

ORTA

Avicenna did not know, and was very doubtful about this medicine. He devoted two chapters to what was dubious, and in chapter 752 he has "GEIDUAR what is it," and adds that it may be ALGEIDUAR. Dioscorides never alluded to it. So that you will see that Avicenna was doubtful about this medicine. The Belunensis, in his exposition of Arabic names, seems to have scented this, for he makes mention of ZEDUAR and of ZEDOARIA and ZERUMBET. From this you will know that ZEDOARIA is a corrupted word and that GEIDUAR is the true word. Now I will tell you what ZERUMBET is, and you will see the end of the contradictions it is your habit to make. For I am on foot, it being true that I have feet and can walk and never die. I say that the Arabs, Persians, and Turks call the ZERUMBET ZERUMBA, the Guzeratis and Deccanis CACHORÁ, the people of Malabar ÇUA. Most of it is in

FIFTY-SEVENTH COLLOQUY

Malabar, namely Calicut and Cananore. It grows in the woods, but is planted or sown and thrives in many parts. Some people call it *wild ginger* and with some reason, for the leaf is like that of ginger, except that the ginger leaf is longer than the ZERUMBA and more open, and the ZERUMBA leaf is larger. What is collected is dried in slices and sent to Ormuz as merchandize for Arabia and Persia, then to Jidda and Alexandria, to Venice and other places. The trade is profitable. They also make a conserve of it with sugar, which is better than ginger. This is an account of it, by which you will see that it is not a tree as some have falsely stated.

RUANO

Now it is necessary to face the doubts which have arisen from this account. I say that the statement of Avicenna is that the ZEDOARIA has certain slices like those of ARISTOLOGIA, and that that plant is better, growing near the NAPELO or water cress of Pero Jogral, and the NAPELO is believed to have virtue against poisons. In chapter 745 he says of the ZERUMBET that it is a herb like the CIPERO or JUNCA AVELANADA except that it is more fragrant, and in another sentence he says that it is a tree. But he does not say all that Serapio affirms about ZEDOARIA. Serapio in chapter 172 says that ZERUMBET is ZEDOARIA on the authority of Isaac Aben Amori, that ZERUMBET has round roots like ARISTOLOGIA, and that it is like ginger in colour and to the taste, and that it is brought from SENI. Now consider this, and tell me how it appears to you.

ORTA

Avicenna only saw ZERUMBA or ZERUMBET as I told you, and as these are sent by the strait of Mecca,¹ they are made into round slices or compressed, which may have given rise

¹ Red Sea.

ZEDOARY

to the idea that they were two species, namely ZEDOARIA and ZERUMBA. He never saw the leaves, nor a picture from India, but only the form in which they were brought from India, as roots like those of ginger. Now the round and pressed ZERUMBAS have different prices, and the small ginger roots are worth less than the larger ones. He who says that it is better when it grows near the NAPELO repeats a very fabulous tale, for the NAPELO is scarce and ZERUMBA grows wherever it is sown, but the greatest quantity is in Malabar, in the woods. What they sow in those parts is very little, and the woods are not suited for the growth of NAPELO. If the name of NAPELO is in the language of this land, I never heard it used by the people of Malabar who live where it grows. Avicenna says of the ZERUMBET that it grows like it, and another amended version says that it is *lignum* or tree, by which you will see that Avicenna did not know, for it is not a tree but a legume. Serapio has not written positively of the ZEDOARIA, for this is a mistake of the translator, who did not know the difference between ZEDOARIA and ZERUMBET. At the end he says that these roots come from Seni, and that in India these roots do not grow, but in Seni, and that the few in India are brought from China, as I have already told you. So that there is ZERUMBA in India and ZEDOARIA in China.

RUANO

How do you know that China is the same as Seni?

ORTA

For many reasons that you will know. At present it suffices to know that RABAN SENI means "root of China," and so it is, for the good RUIBARBO is not in China. On this point you need have no doubt.

FIFTY-SEVENTH COLLOQUY

RUANO

Antonio Musa put great dishonour on ZEDOARIA by calling it barbarous. He could not use greater abuse. Serapio, talking of ZERUMBA, must have meant ZEDOARIA, for what Simao Genovense says is a proof that they are different medicines, for Mesué, describing the electuary of *gemis*, makes mention of ZEDOARIA in one place, and further on refers to ZERUMBET in another place. He further says that some others said that ZEDOARIA was ARNABO or ZARNABO, which with Paulo and Aecio is ARNABO. Others allege that it is BEM ALBUM and RUBEUM, others CARPESIO, so that I do not know what I can say about it.

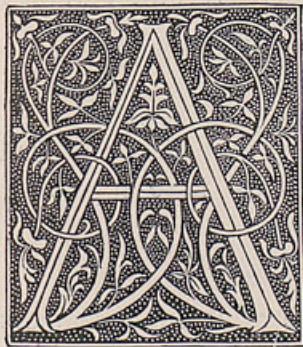
ORTA

The CARPESIO is not any of these medicines, and there is no such drug in this land except what comes from the Strait, which fetches a good price. Of the others there are plenty here and they are very different. The clear CARPESIO is not the same, for one is a root and the other grains. ZARNABO it cannot be, for it is a large tree, as Avicenna says, and further it has little scent. ZARNABO or ARNABO is a very large tree, while the ZEDOARIA or ZERUMBA is a legume. With this you can answer Fuchsio, Mateolo, Ruelio, and the Friars, who all say almost the same thing.

FIFTY-EIGHTH COLLOQUY

Treating of some things which came to the notice of the author and of medicines already discussed; increasing them by some other medicines and fruits; also speaks of a kind of wild rice, of betel, of the city of Badajos, of the caña fistula, and of cirifoles, a medicine praised for dysentery; also of the city of Chitore, of ivory, of the mangosteens, patecas, root of China, and of a stone much praised as an antidote which is found in the skin of the porcupine.

LICENTIATE DIMAS BOSQUE¹



MONG friends all things are common, so that I have the privilege of amending the things which have been discussed by them, much more so when I am asked to do so and to tell you about the things with which we have both practised, to see if we can discover truths not known to all. You thus give me leave to make such corrections as seem to me desirable, and so I come now, but it is necessary that you should give permission anew.

¹ The Licentiate Dimas Bosque was a Spaniard, a native of Valencia, who graduated at Salamanca and also studied at Coimbra. In 1558 he went to India with the Viceroy Dom Constantino de Braganza as his medical adviser. He acquired the small island of Santa Cruz, near old Goa, in 1561. He accompanied the Viceroy in his expedition to Jafnapatam at the north end of Ceylon. He wrote a detailed description of the Dugong (*Halicore Indicus*), published in a volume of the *Historia de Sociedade de Jesus*. The date and place of his death is unknown.

FIFTY-EIGHTH COLLOQUY

ORTA

You are excused from asking it anew, because you before had done me a great favour in this.

DIMAS BOSQUE

I want to say that there is a kind of rice brought from Java to Malacca called PULOT which, when boiled only in the steam, sticks to the hands and is so moist that it is as if it had been boiled in butter.

ORTA

I am not surprised at the first effect, for it must have been boiled with the steam like *cuzcuz*;¹ for the same thing happens with the other rice, and to that which goes to Portugal when boiled in the same way, with salt water in the absence of fresh. The other kind, which becomes greasy and damp, I have never tried, for I am not very fond of rice.

DIMAS BOSQUE

Well, I asked every one in your house and they will tell you; further, I have tried it, and you may take my word for it.

ORTA

That I will do willingly. But tell me what the gardeners of your island say about the betel. Do they tell you anything new?

DIMAS BOSQUE

I never get more from them than that it is very much liked, and that when it is collected it is not well to touch it much with the hand, and that it does not like either much heat or much cold.

¹ A kind of *pâté d'Italie*.

MARMELOS DE BENGALA

ORTA

It seems to me that you have reason for this *betre*. It does not thrive in the interior, and is brought from the skirts of the sea to Balaguete. I know that it will not grow in China because the climate is too cold, nor in Mozambique nor Sofala owing to the heat, and in all these lands they require much of it.

DIMAS BOSQUE

I also find in one of your colloquies, written by the way, that the city of Badajos, so written by the Spaniards, ought to be written *Guadajoz*, city of nuts. But I find it stated by a learned modern author, named Gaspar Barreiros, that the Moors corrupted the name, for it was originally called PAX AUGUSTA, and as the Moors have no P they put B in its place and called it *Bagus*.

ORTA

I have seen that writing, and the author seems to be a man of learning and judgment, yet I think his derivation strained, and mine seems to me to be best for it is adopted by the Moors and it is common fame. I may be wrong, for all men think their own ideas better than those of others, though it is true that the Moors have no P, but B serves them as P when it has two points and is then pronounced P.¹

DIMAS BOSQUE

With reference to what you say about *canafistola*, they now have it in Malacca, and there is much in Malacca and Siam and in all those parts. These things do not fetch much

¹ ب is B, but the additional two dots پ belong to the Persian alphabet, not the Arabic. Orta had spoken of the etymology of Badajos in the Thirty-second Colloquy.

Gaspar Barreiros' book was published in 1561. It gives several derivations for the name Badajos—from the river or country of nuts (Lebrija), from the land of supplies (Fray Joas de Sousa y Marmol), and from a corrupt form of the Latin *Pax Augusta* turned into Bagus or Badaxus.

FIFTY-EIGHTH COLLOQUY

there, for they are nothing more than curiosities, and are often found in the city of Chitore. I do not know whether you know what *sombreiro* means, for so a chronicler of India writes it, and people rejoice in any new thing.

ORTA

Derivations of names are much better ascertained in the countries where they originate, and where we know the languages well, than in strange countries where we scarcely know a word much less know the derivations. I must tell you that CETRI means *sombreiro*, called by some CHATRI. Talking to some Guzeratis on this subject they told me that CHITOR signified a bird so called, and, more properly speaking, a drawing or picture. It seems to me that this derivation fits better, but as in this I know little, it must be as your worship pleases, for truly the city is a picture, according to what people say who have been there. I have not seen it.

DIMAS BOSQUE

These things that I have said to you up to this time are but the flourishes of fencers. What I now speak of is a medicine very good for dysentery. You know that one of the principal cures we have to effect in this land is that of dysentery. For though there are many medicines which cure it, yet we sometimes meet with it so old and chronic that none of them will take effect. I have since seen a simple medicine which even then effects a cure, and I have brought it here for you to see.

RUANO

What you say of it we also say, and we have already tried it.

DIMAS BOSQUE

Have you ever heard of *Marmelos de Bengala*?¹

¹ The Orange-bloom, *Aegle Marmelos*, Correa; the Sanskrit *bilva*, i.e. "destroyer" of disease, and *shriphala*, "holy-fruit"; Arabic *safarjalihindi*, i.e. "Indian Quince." Cultivated throughout India, along with *Feronia elephantum*, Roxb., the "Wood-Apple Tree."

MARMELOS DE BENGALA

ORTA

Yes, I have heard, and sometimes I have seen it in conserve. It seems to me to be very styptic, and the physicians of Guzerat use this fruit when young and tender as a conserve in vinegar, which they call *ACHAR*, and also in conserve of sugar as we use it. It always preserves that styptic taste however ripe it may be.

RUANO

Now that you both agree that it is a styptic and good for the dysentery, it will be well that the doctor should state the names and appearance of this fruit or tree.

ORTA

This fruit had the name of *Marmelo de Benguala* because the conserve was brought in a ship of mine, and I saw it mixed with others when they came. Now I see, with that name, that it is good for dysentery. I having praised it to my very good friend, a man of rare intelligence, who often went into the woods to hunt for game, he told me that this fruit need not be called *Marmelo de Benguala* for that there are many such trees on the mainland, and some in this island. If you want to know the name of this fruit I tell you that in Bengal and in all that part the name is *CIRIFOLES* and *BELAS*. As I knew that it was called *BELI* in *Baçaim* I asked the native doctors what was its proper name, *CIRIFOLES* or *BELAS*. They replied that *CIRIFOLES* was the vulgar name and *BELI* the name in pharmacy and in their writing. The tree is the size of an olive or larger; the leaves are like those of a peach tree and with the same scent, of little use, and last but a short time. At first they are tender, the colour dark green; the bark thin at first, and afterwards it becomes thicker. It is dried when the fruit is ripe, because then it becomes as hard as a coconut. At first the fruit is the size of a small orange, but it

FIFTY-EIGHTH COLLOQUY

increases till it reaches to the size of a large quince. They draw out the inside, which is very tough when ripe, and cutting it into large slices make into a conserve with sugar, as I have said. When it is younger and more tender they eat it in *ACHAR* or salted. This is all I know about this fruit or medicine. The Senhor Licentiate may now say what he knows of this medicine, and what has happened to him with respect to it, for he also is among the number of physicians who are lovers of the truth.

DIMAS BOSQUE

When the Viceroy Dom Constantino was in Jafanapatam, owing to the continual labour of fighting and the heavy rains to which the soldiers were always exposed, a great many sickened with dysentery; and their cure always fell into my hands, as there was no other doctor in the fleet. All the medicine we brought with us had been expended in the island of Manar, on the illnesses of two royal ships, where in forty days I cured over 300 men. Having nothing left with which to treat the sufferers from dysentery, whose sickness gave so much work to the army, I was forced to try experiments with these *Marmelos*, of which I heard from the natives. I cured many cases with them, ordering plasters to be made for the belly and stomach. I also ordered a marmalade to be made which did not taste bad, and had a pleasant acid flavour. I ordered the sick to eat it roasted, with sugar. During the time that the dysentery lasted I caused clysters of the boiled bark to be applied, which had an effect not very different from the *balaustias* which we use. Thus with this drug called *MARMELOS* cures were effected in the absence of other medicines. I cannot refrain from relating an incident which happened to me in connection with these *marmelos*. Augustinho Nunez, son of Lionardo Nunez, Chief Physician of those kingdoms, had many of his soldiers in the sick list. I ordered two *marmelos* to be roasted by a negro, and taken to a

DORIAM—MANGOSTEEN

sick soldier. The kernels of these *marmelos*, bursting in the fire, the negro that was roasting them was so burnt that it looked as if it had been from a pan of gunpowder, on the breast, arms, and face, and it did not leave a place that it had not reached. It appears to me that this fire did more, for the material was more styptic and compact, the fire burning more in iron and stone than in the tow. This is what I saw of the medicine in question, respecting which I can bear testimony.

ORTA

There is much reason in what your worship has said, for that inside part, when the fruit is not very dry, is so glutinous and sticky that those who eat it cannot get it clear of their hands.

RUANO

I am taking some jars of the conserve of these *marmelos*, if I can find any.

ORTA

I will do you the service of seeking for one. I said that I brought you some letters from Malacca in that *catur* which arrived from Cochin yesterday, and the news is that the ships of Malacca are coming.

DIMAS BOSQUE

They bring me letters and news from my estate. I rejoice that Dr. Ruano is here, because he can see the *doriões* and *mangosteens* before he goes. For they will bring me here each sort of fruit made in wax.

RUANO

This year I have not yet seen a pear in the kingdom, and when the ship arrives I shall rejoice much to see these fruits.

FIFTY-EIGHTH COLLOQUY

ORTA

It is a very beautiful fruit, the size of a very large pineapple, and with the same appearance, though its nibs are finer, like those of a hedgehog.

DIMAS BOSQUE

In my letter it says that there are others much larger than these, and they are called *elephant's head*. They have four divisions on the top, which they call *peitacas*, and between them a leaf like a small lance, divided down the middle into two threads, and others which twist round the inner sides. The tree is very green, very large and well tufted. They say it does not yield fruit for forty years. The fruit when ripe has the green more clear.

ORTA

A man who is married at Malacca told me that it gives fruit every four years, and that he has seen it.

DIMAS BOSQUE

It may be so, and we cannot get at the truth too clearly. He writes to me, with reference to the *doriam*,¹ that the pulp inside is like cream. Here you see the *mangosteen*.² It is also dark green and the size of a small orange.

ORTA

Well, they are planted here, so they may yield fruit, and we shall see by experience if God spares us long enough.

DIMAS BOSQUE

I am also reminded that, in your chapter on ivory, I saw that you speak of mineral ivory mentioned by Andreas de Laguna. One of two things occurs to me in this: either you have not seen this author, or some friend of yours has not seen

¹ See Colloquy XX. *supra*.

² See Colloquy X. *supra*.

MISTAKE IN NAME OF LAGUNA

the whole chapter, and you do not wish to find fault with him. This may be and you do not know the title, for you are wrong as regards the name. You call the author *Tordelaguna* when his name is Andreas de Laguna.¹

ORTA

Laguna makes a statement so contrary to reason that I was ashamed to denounce it, it being false on the face of it, nor does he refer to any author as his authority, so that the error is self-evident. What I have to say about the mistake in the name is that I cannot blame myself because I did not read the title well, and also because I knew a pharmacist in Alcala who called it *Tordelaguna*, a man who knew a little Arabic, and was a great herbalist, and I therefore thought that it was right. I am glad to be corrected. For he was my friend, and I would not rejoice over such a mistake as he made.

RUANO

If we begin to expose errors, there was Leonardo Fuchsio, a learned man, who said that there was no true ivory in the world.

ORTA

There are some lies so gross that it is not well to expose them, nor do they merit exposure; better to let them pass on, giving them a dozen strokes like the clock at noon. This man wrote many years ago, and I do not mention him by name, for he knew little of physic, and still less of things to save his soul, being a heretic condemned for Lutheranism. His books were put in the condemned catalogue. A monk of the order of preachers told me that he knew him in Germany, and often conversed with him, but could never convince him, for which

¹ Orta did this throughout, and Count Ficalho has substituted Laguna in consequence of this correction.

FIFTY-EIGHTH COLLOQUY

reason I came to abhor his works. Though medicine is not the science of the Christian religion, still I abhor the author, and his statement that there is no true ivory was very disgraceful, when there are so many elephants in several parts of India and in Ethiopia, and they have been taken to Portugal. I suppose the Lutherans have some ivory in hell which they are taking care of.

RUANO

It seems to me that you may excuse Andreas de Laguna, for you showed me here, a few days ago, horns which made roots, and I saw them with very large roots.

ORTA

It is true that I showed them to you, and there are many in this land, as it is moist. But the ivory is not buried, at least not in that way.

DIMAS BOSQUE

Have you written about this fruit called *ananaz*, for it is certainly the king of fruit as regards taste, and more so as regards scent?

ORTA

Oviedo has written on this fruit, he who wrote of the Western Indies, as one proper to that land, so that it was not necessary for me to treat of it. In the province of Santa Cruz, called by us Brazil, they know better how to describe it.

DIMAS BOSQUE

About the *patecas*, I find it written that they are not the *balancias* of Africa. In this I think you are mistaken. For here men born and bred in Azamor, Tangiers, and Arzilla have told me that the *balancias* of India are the same as the *datecas* of Africa.

PAO DE CHINA

ORTA

I did not say that the one fruit was different from the other, for, to judge of that, it was necessary to know both the fruits, and I never saw them in Portugal. But I say that I may be mistaken in this, for the plantation of these *patecas* is very different from the ground where the melons of Portugal are grown, and the *albudiecas* and *sandias*¹ of Castile are different from the *patecas* of India. I must refer it to persons who have seen both.

DIMAS BOSQUE

You also have to further increase what you said of the *Pao de China*. Where they sow it, the plant binds itself to the trees like ivy.

ORTA

I believe this, and I wish that it could be written from testimony of eye-witnesses.

DIMAS BOSQUE

This medicine that I want you to speak about now is very necessary, because it is an antidote against poison, and is brought from Malacca by an educated man, a friend of yours who you know very well.

ORTA

If it is the man you met the other day when we went to visit that gentleman, I know well what medicine it is. I had rather not write about it until you have first told me that you have seen it, and what you have to say about it. Then we shall have two witnesses touching the public voice and fame this medicine has in the parts of Malacca, which will give us authority.

¹ Water melons.

FIFTY-EIGHTH COLLOQUY

DIMAS BOSQUE

I know that you saw it, from the signs that you gave.

ORTA

I have not seen it, but your man told me that it was a stone against poison, that it belonged to you, and that if I came to your place he would show it to me. He further showed me the appearance of the stone, and said that it was held in great esteem in Malacca. This stone is found in Pam,¹ a country bordering on Malacca. It is found in the skin of a porcupine, and the natives put a high value upon it.

DIMAS BOSQUE

Do you know in what esteem? Do you know that another was found, sister to this, and sent to the Count of Redondo, Viceroy of India? In the land of Pam, where they find the bezoar stone in great abundance, or at least in greater quantity than here, it is more esteemed than the bezoar concerning which you have already written.

ORTA

I do not remember having read of this stone of the porcupine's skin, and therefore I desire to gain some knowledge of it.

DIMAS BOSQUE

Well, I will give you reason and experience.

ORTA

You promise me much.

DIMAS BOSQUE

You have told me, treating of the bezoar stone, that the Moors of Persia say that it is found in three places, namely

¹ Pahang.

STONES IN PORCUPINES

Coraçone,¹ the Isle of Cows near Cape Comorin, and Pam near Malacca. You add that the pasture on which the cattle and sheep feed is all of the same kind in those parts, and that for that reason the sheep and goats secrete in their stomachs a stone which is useful against poison. Now the stone of the porcupine's skin is found in the same land, and the natives know its value. It is conformable to reason that they are not deceived. As for experience, I gave it to two persons who had been given poison. Being very ill, I gave them the water of this stone and they were soon much better. Now you see how I have kept my promise. They gave you an account of the stone and its use against poison, and I give you my experience as the result of an experiment.

ORTA

I have nothing to reply to all this except that it is well said. God prolonging my life, I will try the same experiment many times, for poisoning is very common in this land.

DIMAS BOSQUE

Now I wish to show it to Dr. Ruano. See, it is here.

RUANO

The colour of the stone is a clear vermilion. It is bitter to the taste, and to the touch it is like French soap. It is necessary that you should tell us how you made experiments with it.

DIMAS BOSQUE

I put it in water and gave it to drink. The patient said that the taste was bitter, and that it left the stomach strong and comforted.

¹ Khorasan.

FIFTY-EIGHTH COLLOQUY

ORTA

All this is true, for the man who was treated told me that the taste was bitter, and gave his stomach much content. I am well satisfied with the stone, and should like to know more about it.

RUANO

And I want one to take back to Portugal.

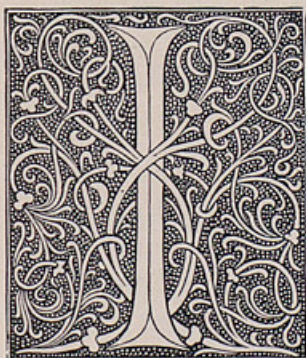
ORTA

If I had one I should wish to give it, but this does not seem likely, for there are not many. When the time comes to find out all, it will be discovered. Certainly the physicians of this land are much indebted to you for making the experiment, for the more medicines we have against poisons the more they are wanted. It also seems to me that if this stone was taken to Rome it would be highly valued.

THE LAST COLLOQUY

On betel and other things, in which some mistakes throughout the work are amended, which have been left through forgetfulness.

RUANO



T appears to me, sir, that we forgot to speak of betel.¹ The people throughout this country are so accustomed to eat it. But I have never seen your worship eat or taste it, and the people in this house tell me that they never like to be seen to eat it. It seems that either you are very pertinacious, or you only remain in the faith of a Portuguese.

ORTA

Well! my memory is so weak that you must pardon this instance of forgetfulness, as well as many others that I may have passed over. As for my not eating it, this is no proof that it is not very good, but it is a proof of my obstinacy, as you said. I tried the betel when I came from Portugal, in Pangim, which is a small fort at the mouth of the river, and it embittered me as it embitters all who eat it. It is mixed with *areca* and a little lime, and with this mixture it is said to

¹ See Colloquies XXII. and XXIII. *supra*.

LAST COLLOQUY

make a very pleasant juice. But my first trial left me with such an abhorrence of it that Nizamoxa, who eats it, never could induce me to do so. Many women have it in their mouths (though they may be Portuguese), for no woman converses with a man who has not chewed it in her mouth.

RUANO

Do they mix nothing with it besides what you have said ?

ORTA

They mix CATE with it and important persons add camphor of Borneo, some LINALOES, and ALMISQUERE, or AMBRE.

RUANO

I should not think that they throw camphor in, for it makes men impotent.

ORTA

Yes, they do ; and the great Sultan Bahadur, King of Cambay, laughed, saying, "You may tell the Portuguese that this camphor makes men impotent." I replied that camphor in small quantities, mixed with other medicines, does not have that effect. In our colloquies that treat of camphor, *areca*¹ and *cate*, you have discussed these other medicines, so I will not speak of them to you now, but only of the betel. When it is made with this mixture, it is so agreeable to the taste, and makes such a pleasant scent, that every one chews it continually. Very little time passes when those that can afford it are not chewing it. I say this because in the countries far from the sea it is very dear. It costs the Nizamoxa 30,000 *cruzados* a year, for all the fruit they give you is this, and when you want to take your leave, with this you have to depart. Each person spends what he can afford on his betel. Sometimes the King presents it with his

¹ See Colloquy XXII. *supra*.

BETEL

own hands, or else by others called XARABDAR or TAMBULDAR. I know two persons who hate this betel: one is myself, the other is an Arabian physician of Nizamoxa named Mula Ucem. We cannot chew it.

RUANO

I have seen many people who never use it.

ORTA

That is true. But if those people could eat it, they would like it. I cannot eat it, because I have no appetite for it. The Indians prize it so much because the betel has veins and nerves along the length of the leaf. They take the leaf in one hand and tear it with the thumb nail, which is not round like ours but with a sharp point in the middle, which they grow for this purpose. In that way they double the leaf and mix the lime with it in small quantity, and the *areca* in pieces ground, and the leaf folded three or four times for chewing. They spit out the first juice, which is the colour of blood. Some persons do not do this, but chew it all, and afterwards take other leaves made in the same way. It is usual when some person is taking leave to give him leaves in a purse of taffeta, with some grains of *areca* and *cate*, and a little mashed-up lime. This lime does not do harm because it is in small quantity, and also because it is made from burnt shells for the most part. I have said that according to the person who gives or receives, so is the number of leaves—the most when a prince takes leave of any person, or when he himself departs. A guest does not go until he has been given his betel, and with it he goes, as it is a hint to depart.

RUANO

This thing is a great deal used and chiefly, it seems, in this land. Is it used in all parts, and what is the time most taken for chewing it?

LAST COLLOQUY

ORTA

Chiefly when men go to have an interview with some person of quality, they approach chewing it in their mouths, so as to give out a pleasant scent. Among these people it is so detested to smell bad or musty that common people put their hands before their mouths so as not to give out an unpleasant smell when in presence of a person in authority. Also a woman having to treat of love never seeks her man without first chewing a little. Every one chews it after meals, for they hold that the two things should be done alternately. Many Portuguese say that when they eat fish they presently alternate it with betel. Many say that habitual chewers smell musty or bad if they do not chew, owing to indigestion of food in the stomach. When they chew this goes off. Those who have lost father or mother do not chew for several days, nor when there are fasts. The Moors, and those called Moalis, who are the followers of Ali, fast for ten days. For they say that the sons of Ali, besieged in a fortress, died of thirst. About this they tell a thousand interesting stories, some of them laughable, and they at that time do not chew betel. You ask where it is used. I reply in all parts of India known to the Portuguese, and this applies to all parts near the sea, for in the interior it has to be brought from the sea. It is true that in Dultabado, the chief city of the Deccan, and in Bisnaguer they have it, but in small quantity. For the parts of Persia and Arabia it only goes to Calaiate, eighty leagues from Ormuz, and is imported thence, but it is very dear for those who are able to buy it. Others chew areca with cardamom or cloves.

RUANO

I should like to know the appearance of the tree. I have seen the leaf. I would also wish to be told which is the best, and whether it is of any use in physic.

BETEL

ORTA

The name in Malabar is BETRE, and in the Deccan, Guzerat, and Canara, PAM. The Malays call it CIRI.

RUANO

Why is the Malabar name adopted rather than the others? It would be more reasonable to call it *Folium Indum*, or we might call it PAM, as it is called in Goa.

ORTA

We call it betel because Malabar was the first part of India known to the Portuguese, and I remember in Portugal that they did not say they came to India, but to Calicut. This was because Calicut was the place whence all the drugs and spices were taken up the Strait of Mecca.¹ It was a very rich place, and now, in revenge for what we did in Calicut, all that business is lost. Although the King of Calicut is emperor, he has less power than he of Cochin, because we helped him at first. This is why all the names you see that are not Portuguese are Malayalim. For instance BETRE and CHUNA, which is lime; MAYNATO, washerman; PATAMAR, a runner; and many others. As for calling it "Folium Indum," as you suggest, it is not so called in any language; besides, the "Folium Indum" is quite different. Avicenna gives chapters for one and the other separately.

RUANO

I am much surprised at this, for I always held that "Folium Indum" was the most appropriate name for *betre*.

ORTA

I had your mistake when I first came to India, and after some days I went to see the Nizamoxa, who is vulgarly called

¹ Red Sea.

LAST COLLOQUY

the Nizamaluquo. Wanting to have a prescription for the stomach, I gave a receipt. He laughed at me, saying that "Folium Indum" was what he chewed every day, for he understood that word "Folium Indum" in Portuguese. Then he showed me Avicenna in Arabic, in which there are two chapters different from each other, the 259th "Folium Indum" and the 77th on *betre*, in which he also showed me "Folium Indum." As in the chapter of "Folium Indum" there is mention of it, we do not put it here. I only know that Avicenna calls the *betre* TEMBUL, which appears to be rather a corrupt form, because every one calls it TAMBUL and not TEMBUL.

RUANO

You refer to a king, but you have no other proof. Yet it is usually said that the word of a king is proverbial; but I do not care to say that a king never lies, but that they never have to lie, being kings.

ORTA

I have the two different chapters of Avicenna, and I can ask any Arab or Ethiopian what they call *betre*, and they will reply *tambul*. Avicenna says the same, that it comforts the gum between the teeth, and the Indians always chew it for that; further, it is comforting for the stomach, and for this also they chew it.

RUANO

I do not know what to say to such strong proofs as regards Avicenna, and I, therefore, want to see the book, for, as they say, seeing is believing.

ORTA

Here is the book with the commentaries by the Belunensis.

BETEL

RUANO

So it says ; yet I feel a doubt in saying that it is cold in the first and dry in the second degree.

ORTA

The text is corrupt. All learned Moors say that Avicenna was mistaken, and that in this he had false information. For people often err as regards these degrees, holding pepper, cardamom, and *cebolla* as cold. As for the *betre* being cold and dry in the second, I have held it to be so myself, judging from the taste and scent, as I have found it useful for several things in physic.

RUANO

I said that I wished to hear about the shape of the leaf and the seed, and about the plant, and which is the best.

ORTA

The shape of the leaf, as you see, is more compressed and narrow towards the point than the orange leaf, and when it is ripe it is nearly yellow. Some women like it best when it is not so ripe, because it excites and then settles well in the mouth. In Maluco this *betre* has seeds like the tail of a newt, and they eat them, finding them good to the taste. This seed was brought to Malacca, where they eat it and find it very good. They plant it and have a place for it to climb over. Some people, to secure more profit, do the same with pepper and with *areca*, making very graceful arbours of the climbing plants. It should be well cared for, kept very clean, and well irrigated.

RUANO

You have explained very well. I wanted to know if you held it for certain.

LAST COLLOQUY

ORTA

I say that all who have written to the contrary, ancient and modern, are wrong. Musa and the Pandecta,¹ who have *malabattrum*, are far from the truth. In the colloquy on "Folio Indo" you will see that what all these authors say is false. Let us go and I will show you the *betre* in the garden.

RUANO

You might also tell me some things that have been forgotten, or that need to be declared.

ORTA

In the chapter on aloes, I say that the aloes and many other medicines go to Ormuz, and thence by Aden to Cairo. This needs correction. It should be that what goes to Ormuz is taken by Bussora to Cairo, and that which goes by Aden is taken to Cairo and Alexandria, and not by Ormuz, for that would be to go twice over the same road. I said this without considering well. I also remember that the *arbore triste*, when water is distilled from it, wetting a cloth in the water, is good for the eyes.

RUANO

Tell me whether there is much good cinnamon in the island of Mindanao.

ORTA

In truth there is, and also in the island of Aynās, which borders on China, and which is where China obtains its *betre* and *areca*. You may add this to the chapter on cinnamon.

¹ Mathaeus Sylvatico who wrote *Liber pandectarum medicinae*.

BEZOAR STONE

RUANO

Tell me also whether you have not something further to say about *Jaca*.¹

ORTA

I wish to say that the *castanhas* of *Jaca* are useful to stop diarrhoea, as has been experienced by myself and other persons. It is not much that you can add to that chapter. You may do so where I speak of the tower of Babylonia, and say that it is neither Bagada nor Baçora. I have very sure information that the tower of Babylonia, according to the people of the country, was on an adjacent hill, but on this hill there neither appear stones nor bricks nor anything else; yet the traditions are that it was there, though these things do not reveal much nor can they enlighten. Where I speak of *morbo galico*, which the Persians call *bade frangi*, in our language it is *mal francezezi*.

RUANO

Do these men of Persia say nothing more of the bezoar stone?

ORTA

They say that now it is carefully guarded in the land where it is found, and much care is taken that all should reach the hands of the King, and they make parks for it as they do in Spain and throughout Christendom. You have not asked me about the stone of Malacca. Every day I receive more and more praise of it, and I hope to write on the subject if God spares my life.

RUANO

Also with reference to the *ohlo de gato*,² can you tell me of any virtues it possesses?

¹ See Colloquies, XX. and XXVIII. *supra*.

² Cat's eye.

LAST COLLOQUY

ORTA

Placed on the top of an open cloth, no fire will make it burn. I have tried it with a candle and found it was quite true. You can try it yourself.

RUANO

I will try it. Further, I beg that we may eat that peacock which you have just had brought in, for they say the flesh does not get bad. This is not a fable, for it is stated by Pliny and other writers, including St. Augustine. Some doctors, in their rules about the plague, praise the flesh of the peacock because it is free from putrefaction.

ORTA

That may be true elsewhere. But in this country, as I have told you before, things are so subject to putrefaction that a peacock will not last longer than a partridge, and I have found this by experiment many times.

RUANO

It may be so on the sea-coast, but inland, where it is not so damp, and is colder in the cold season, as every one says, it may be different.

ORTA

They eat more peacock in Balagate than in any other part, especially in the city of Juner, which is near the mountains and the cold country; and those who have experimented find that it putrefies more than in Goa. So you may believe that these properties that are attributed to it do not belong to it here. Those who so write about it in Europe may tell the truth, while we speak the truth with reference to this country which we know.

POISON AND ANTIDOTE

RUANO

Reading yesterday in a chronicle of the King of Portugal which that boy showed me, I found a place where it treated of many mixtures which the writer had seen in his time. I there found that in the kingdom of Delhi there was a deadly poisonous root that bears a fruit which cures every man that is poisoned, and was very wholesome. The root was called BAÇARAGA, and the fruit MIRABIXI. I am very much surprised that you have never written about it.

ORTA

We are very little conversant with things in the kingdom of Delhi. We gather what we know about it from people called *Jogues*,¹ and what they tell us on one day they deny on the next. They are a people who live by begging for alms, as I have told you. But I never heard this, though I have conversed with many of them, and none have ever spoken of it. It seems to me contrary to all good philosophy, for the root maintains the trunk, the trunk the branches, the branches the fruit, so that the fruit which is an antidote to the poison is maintained by the root which is poisonous. This is contrary to reason. I say so because the principal base of a serpent's poison is rectified by sixty-three different medicines.

RUANO

If you go by philosophy, we find plants and seeds every day which, in their different parts, have different effects. For instance the ZARGATOA.² Some trees in India have roots, the water distilled from which is very cold, and the bark and seed very hot. Men from Malacca also tell me that the herb which kills, when arrows are anointed with it, has on one side of the tree that looks to the west an antidote, as they told me, while the poison is on the side looking to the east.

¹ Yogis.

² *Cineraria campestris*, Flea-wort; *Senecio campestris* of De Candolle.

LAST COLLOQUY

ORTA

These materials for simples need not be treated with such subtlety, nor is so much philosophy needed, for all can be answered. It is not remarkable that any plant should have the root cold and the leaves and fruit hot; but it is another thing for the root to be poisonous, and the fruit fit to eat, and included in the class that may be called nutritive. For poison is totally opposed to this. Poison in itself has not the nourishing but the destructive property. Those who say that the antidote and the poison used for arrows are both from the same tree say what is false. However, this requires investigation, and I promise you that it shall be made when I light upon those *Jogues* of Delhi. Believe me, that if God prolongs my days, I will find out the truth for you, or at least I will make a good attempt to do so.

RUANO

Referring to the way of Ormuz, conversing with the Moors of Persia, they tell me about the *Persian roses*,¹ so called by Avicenna, which we call *açuquare rosado de Alexandria*. Are these roses of Persia held to be soluble? for we find those that are brought and planted to be so.

ORTA

That medicine is much used among the inhabitants of Persia and Ormuz. For a man it is a light purgative in a good quantity, and boiled it is stronger. They give it boiled in 10-ounce doses with a little sugar, which causes five or six motions. A very honourable gentleman told me that it caused twelve, and he had gone for a month without any motion. But in truth the men to whom I have given this medicine never have passed more than six.

¹ *Rosa damascena*, Linn.

PERSIAN ROSES

RUANO

I rejoice much to know this that you have told me. I have a doubt about one thing. The roses have a very superficial value, like all other flowers.

ORTA

Here we have less experience in the roses. In so far as they are styptics and purge fully, it should not cause surprise that there is virtue in the roses, as with all other things that are styptics.

FOOTNOTE ON THE WORD "AMEOS"

(continued from page 230).

Without the seeds before you, it is most difficult to identify the various umbelliferous plants producing them, from their current names in the bazaars of India. The principal of these seeds are:—(1) *Pastinaca grandis*, Dalzell, *baphali*, "Hog's Fennel" of Anglo-Indians. (2) *Cuminum Cyminum*, Linn., Sanskrit *jiraka*, "digestive"; Persian, from Sanskrit, *zirah*; Arabic *kamun*, the Hebrew *kamon*, and our Cymen, Cumin, and Cummin. (3) *Carum Carui*, Sanskrit *sushavi*, "curative"; Arabic *cariya*, i.e. "of Caria," and *kamunirumi*, i.e. "Roman (i.e. Turkish) Cummin"; Persian *ziraharmini*, "Armenian Cummin"; Hindustani *methazira*, "Sweet Cummin," and *vilaitizira*, "Foreign Cummin," our Carway or Caraway. (4) *Carum Bulbocastanum*, Koch, *Bunium Bulbocastanum*, Linn., *Carum nigrum*, Royle, the *gunyon* of Kashmir, *umbu* of Ladak, and *shiazira* and *kalijiri* of all Indian bazaars, both these names meaning "black Cummin," and it is the "Black Cummin" of Anglo-Indians; these same Indian names being given in the bazaars to the seeds of *Bupleurum falcatum*, another Umbellifer, of *Nigella sativa* ("Fennel-flower," a Frog-wort), the "Niger seed" of our older Pharmacists, and of *Vernonia anthelmintica*—all of which seeds are used in different parts of India for adulterating the seeds of *Carum Bulbocastanum*. (5) *Carum Ajowan* and *Ptychotis coptica*, DC., *Carum copticum*, Benth., Sanskrit *yamani*, i.e. "of the Greeks [cf. Javan]; Persian *nankhah*, "appetising"; Arabic *kamanimaliki*, "Royal Cummin"; Hindustani, from Sanskrit, *ajawan*; Mahratti *omva* and Tamil *omau*—both corruptions of the Sanskrit *yamani*, the "Ajwan" and "Omum" of Anglo-Indians, and $\alpha\mu\mu$ [compare *oman*] of Dioscorides, iii. 70. (6) *Carum roxburghianum*,¹ Benth., *Pimpinella involucrata*, DC., and *Apium involucratum*, Roxb., Sanskrit *ajamoda*, "goat-odour"; Persian and Arabic *karafs*; Hindustani *ajmud*; Telegu *ajamodaomamu*, "goat-smelling *ajwan*." The *kharasaniajwan* of the Indian bazaars is "Henbane" seed [*Hyoscyamus niger*], the "Jovis faba," "Faba suilla," and

“AMEOS”

“Sissili Indicum” of the older Pharmacists. (7) *Pimpinella Anisum*, Linn., Sanskrit *shataphaspha*, “hundred-flowered”; Hindustani and Mahratti *sont*; Persian *badiyan*; Arabic *raziyanaj* and *anisun*; Cyngalese *devadaru*, “divine Cummin,” and *mahadaru*, “great Cummin,” the *ἀννηθον* or *ἀνηθον*, and *ἀννισον* or *ἀνισον* of the Greeks, until they came to discriminate between Common Dill and Anis or Anise. (8) *Foeniculum Panmori* or *Anethum Panmorium* of DC. [not to be distinguished from *Foeniculum vulgare*, Gaert., our Common Fennel, Fenel, or Fenoil], the *panmuhori*, that is “bette-leaf-fennel” of the Indian bazaars. And (9) *Anethum Sowa*, Roxb. [not to be distinguished from *Anethum graveolens*, Linn.; *Peucedaneum graveolens*, Benth., our Common Dill]; Sanskrit *shataphuspha* (v. 7), and *madhura*, “sweet Anise,” and *mishriya* “of Egypt,” the *μάραθρον* of the Greeks, and the “Sowa Dill” of Anglo-Indians.

ERRATUM

Page 301, line 12. For "*if* she had bracelets of the CHANK shell on her arms" read "*unless* she had bracelets of the CHANK shell on her arms."



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- again, where he had charge of young Commodus, aged 9. There, in 170, he prepared the compound medicine for the Emperor, called *THERIACA*, which Marcus Aurelius took daily. Galen also made it for Septimius Severus. At Rome he finished two of his principal treatises. The place and date of Galen's death are uncertain, probably about 200 A.D. His authority is not considered so high as that of Dioscorides. The earliest published edition is *P. Pintium de Caneto* (Venice, 1490). *De simplicibus Medicamentis ad Paternianum*. Gives the same virtues for acoro as for amomum, 28. Lebrija and Serapiam careless in quoting him, 33. Orta not to be frightened by having Galen quoted at him, 60, 99. Use of cardamomo in conformity with his teaching, 106. Gives many kinds of costo, 148. Shows Cubeba to be *Mirto Agreste* of Dioscorides, 170. Avicenna might know cubebas without understanding Galen, 172, 173. Never mentions bananas, 196. Says nothing new about spikenard, 206. Cariofilo not in Galen, 214. Serapiam quotes Galen about cloves, 219. Did not write of the linaloes, 252. Often wrongly quoted, 313. Merely quotes Dioscorides as regards pepper, 369. Knew the nutmeg and mace, 273
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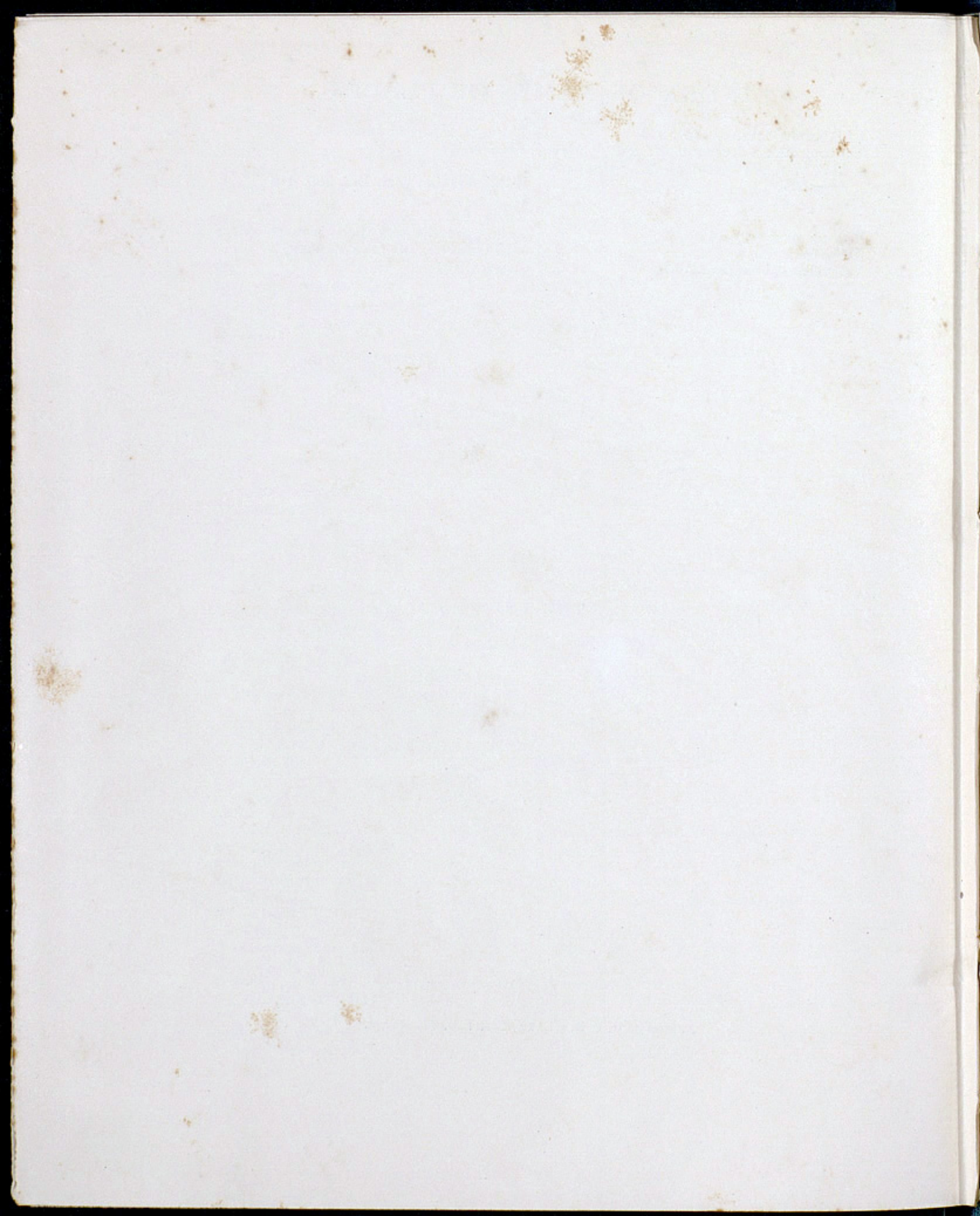
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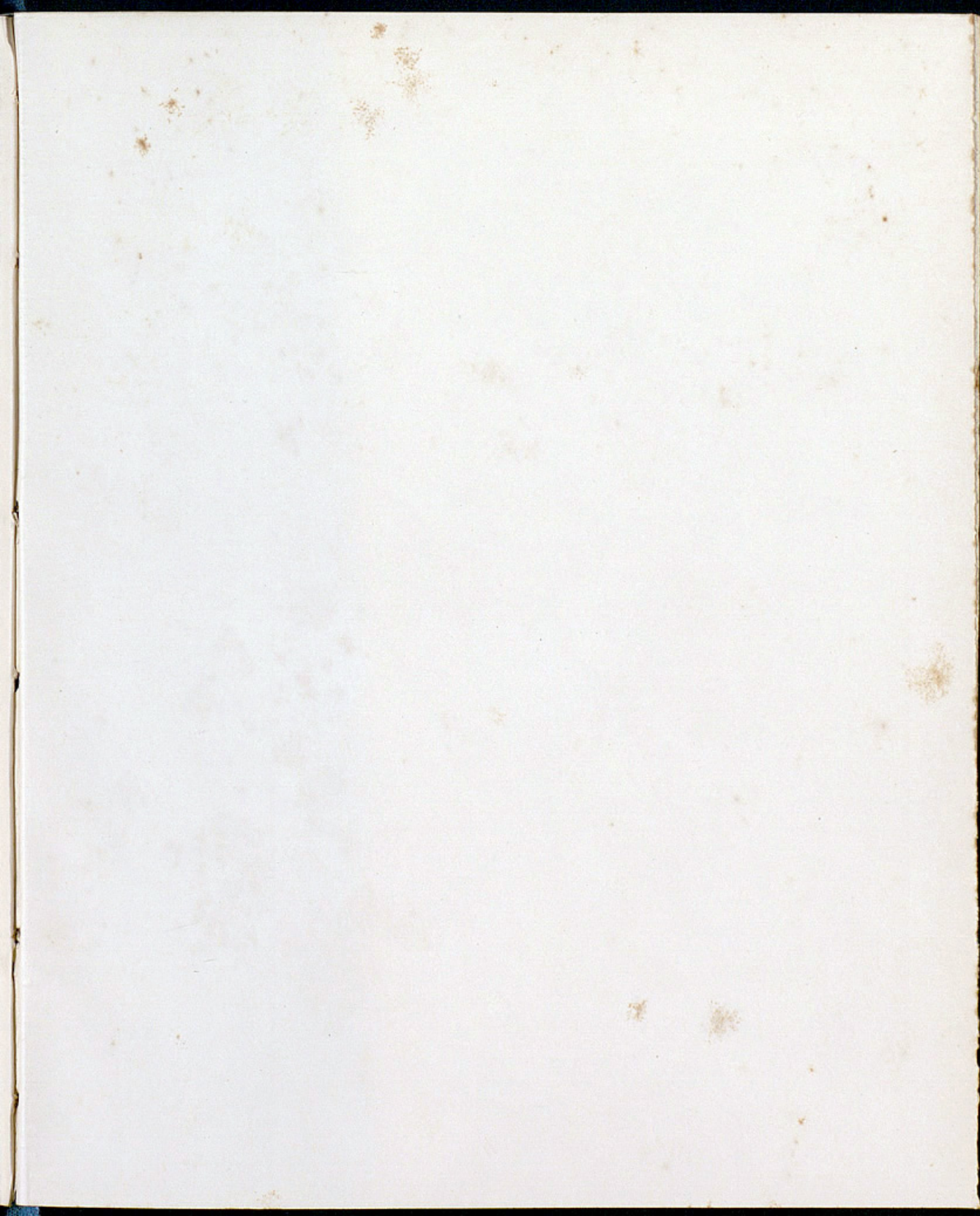
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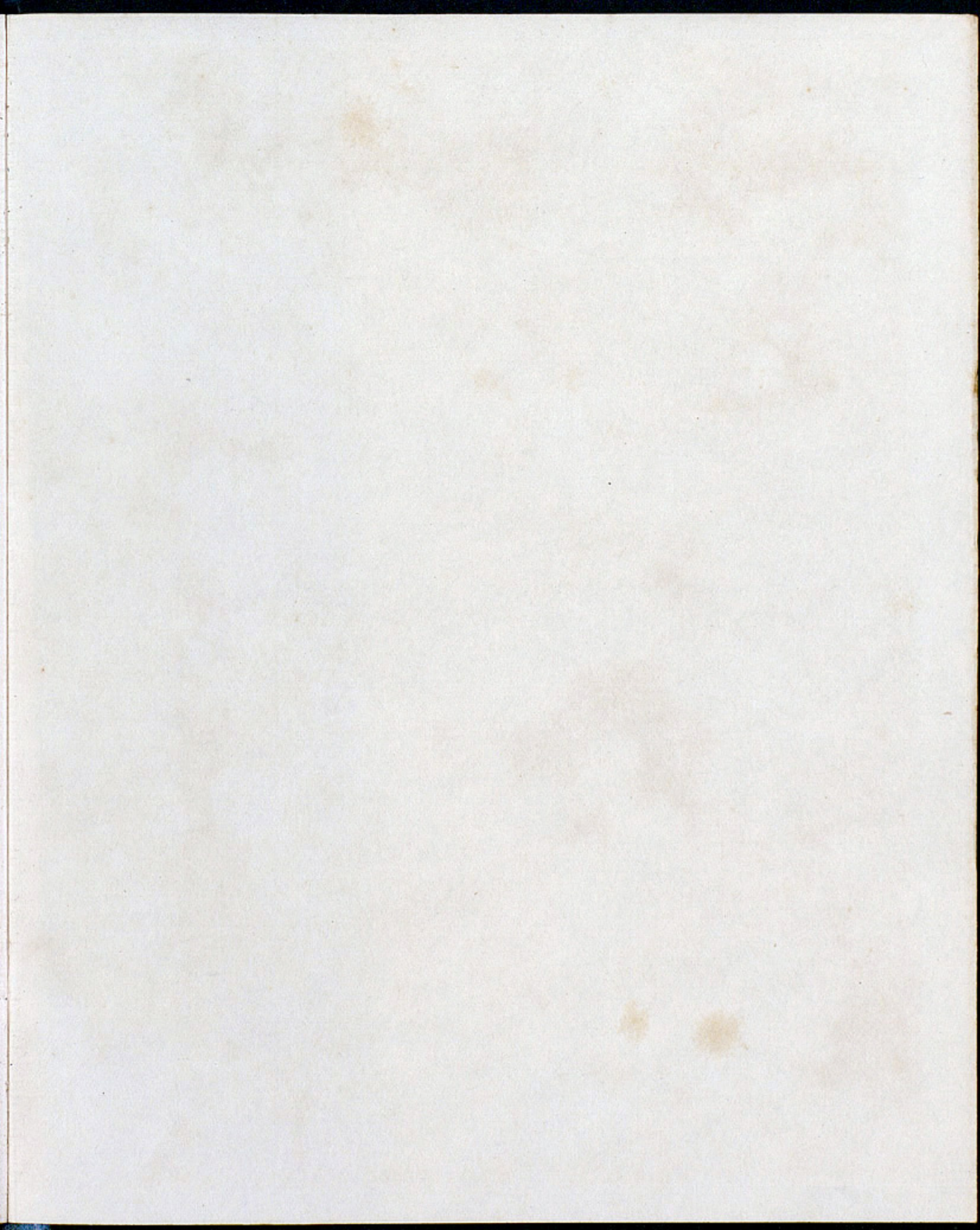
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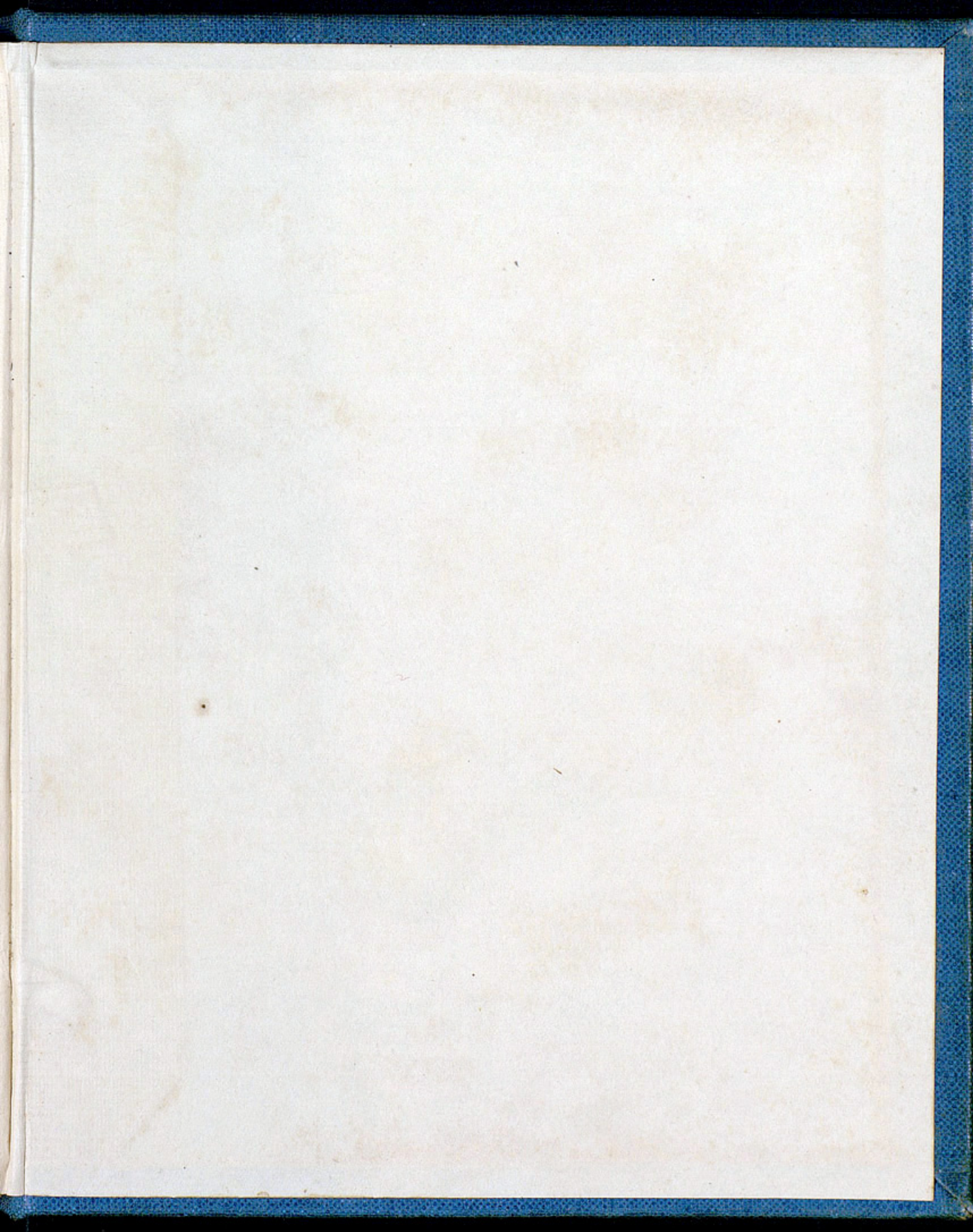














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