MATERIALS

FOR THE

HISTORY OF ORIENTAL STUDIES

AMONGST THE PORTUGUESE.

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BY

I.

While the nations, which, long after the arrival of the Portuguese in India, following in their track and forming settlements of their own, as well as these which never occupied an inch of ground there, have made considerable progress in the languages and literatures of the East; the pioneers of that commercial movement, which, after transforming the giant Adamastor into the promontory of the Cape of Good Hope, to borrow a simile from Camoens, carried the intrepid sons of the far West

By seas till then unnavigated Even beyond Taprobane (2)

have been lagging behind, and it is not an easy task to detect in the group of nationalities which crowd at present the noble phalanx of Orientalists a name of pure Lusitanian origin.

Os Lusiadas, c. I, v. 3-4.

The first line of this couplet forms now an appropriate motto of the newly founded Geographical Society of Lisbon.

⁽¹⁾ Di questa erudita Dissertazione, di cui una parte brevissima fu letta in una seduta del Congresso, si dà qui un notevole saggio, dispiacenti i Compilatori di questo volume degli Atti, che la sua estensione non consenta d'accoglierla tutta.

⁽²⁾ Por mares nunca d'antes navegados, Passárão ainda além de Taprobana.

It was not so, however, in the sixteenth and sevententh centuries, when considerable activity was displayed by the Portuguese in the study of Eastern languages, as evidenced by the numerous works they have left behind; although influences of an untoward character appear to have been at work to keep them in the background. Two causes have mainly contributed to bring about this result, viz: nearly all those works being written in a language which is scarcely read beyond the boundaries of the Spanish peninsula, and their being, nearly all, written by missionaries, whose chief aim was the diffusion of Christianity, rather than the promotion of the interests of philology or archaeology. To these may be added the neglect which had so long prevailed in Portugal and her Colonies of their valuable archives, consigning to utter oblivion valuable writings, which have but of late been brought to the light of publicity, as exemplified by the Lendas da India by Gaspar Correa, the Roteiro da Viagem de Vasco da Gama, the Roteiros by D. João de Castro, the Chronica do Discobrimento da Guiné, and several other works which have for more than three centuries remained unknown, and been recently printed.

The Portuguese, though numerically small, is an historic and literary people. Their kingdom is in size little more than that of Greece, but, like the early inhabitants of that glorious peninsula, they were from time immemorial attracted to the sea, and possessed the love of freedom and the spirit of adventure, which have always characterised those born in maritime districts. They were also accurate observers, and the works of De Barros, Do Couto, and other South-Indian chroniclers contain many important facts relating to the ethnology, antiquities, natural history and commerce of India, which have not seldom been put forth by others as new discoveries. Lucena in his Vida de S. Francisco Xavier enumerates the principal classical works of the Hindûs, long before Jones, Colebrooke or Wilson attempted to make them known to Europe, and in the Commentarios do Grande Alfonso Dalboquerque we

II.

Although the Ocean highway for the East Indies was discovered by the Portuguese in 1497 A. D., and settlements formed soon after, no attempt seems to have been made until 1540 for the organisation of a missionary society for the evangelisation of India and adjacent countries. Several isolated efforts at the conversion of the heathen by detached bodies of both secular and regular clergy, who were despatched with each fleet that sailed from Lisbon for the East, are recorded. Such are for instance those of the Dominican friar Roderic, whom Albuquerque left at Quilon, being the second Roman Catholic missionary that ever landed there since the time of Jordanus de Severac, who was there some time previous to 1328, when, on his return to Europe, was by the Pope named Bishop of Columbum or Quilon, as alluded to by the annalists. But the first comprehensive plan for the propagation of Christianity in the East dates from the time when two priests by name Miguel Vaz and Thiago Borba founded in Goa, the capital of the Portuguese Empire in the East, a religio-educational establishment called Confraria da Sante Fé, or « Confraternity of the Holy Faith. » Santa Fé is, indeed, one of those phrases, which, even at this distant time, afford us an insight into the character of the epoch, and spirit of the creed which animated the first adventurous companions of Vasco da Gama, who rounded the Cape of Tempests; and Camoens mentions it often in the historical parts of his poem, where his heroes speak and act.

The object of this institution may be summed up in four words: — persecute idolaters, favour neophytes. — This

^{(1) «} Que era para o hindú o que era o latim para o europeo. »

Confraternity was associated with a Seminary with two classes, of low and high standards for the instruction and education of professed converts to be sent out as missionaries or as interpreters. The foundation of this building was laid on the 10th of November 1541 and completed within six months. The vedor da fazenda or « superintendent of the Royal treasury, » Fernão Rodrigues de Castello Branco, defrayed its expenses, and made donations for its maintenance, partly from the Royal treasury, and partly from the confiscated private estates and income of the Hindû temples, which had by the Portuguese been destroyed. Thus the seminary got at first from the royal treasury the annual contribution of 800 cruzados, which Simão Botelho, writing in 1554, says was increased to 845,000 reis, besides 600,000 reis derived from the revenue of the lands belonging to the pagodas, and four hogsheads of wine for masses, of the value of 40,000 reis. (1)

The seminary was soon in working order, admitting youths of diverse Asiatic and African races, which the primitive documents enumerate as «Canarins, Decanis, Malavares, Cingalas, Bengalas, Pegús, Malaios, Jaos, Chinas e Abeixins.» This was, indeed, an interesting anthropological collection; but from the heterogeneity of the mass does not appear to have proved very harmonious.

In the meanwhile padre Mestre Francisco, afterwards known as St. Francis Xavier, arrived at Goa, on the 6th of May 1542, and took up his abode in the Ermida da Santissima Virgem, contiguous to the Hospital of St. Lazaro. (2) He was invited to take charge of the Seminary, which he declined. He had, however, sufficient shrewdness to calculate the importance of the institution, the transfer of which he obtained for his own society, and called it Collegio de S. Paulo, from a picture representing the conversion of this saint in its chapel,

⁽¹⁾ R. J. de L. Felner's Subsidios para a historia da India Portugueza, etc., Pt. II, p. 70. Lisbon, 1868.
(2) F. N. Xavier's Gabinete Litterario, vol. I, p. 110. Nova-Goa, 1846.

which eventually gave rise to the designation of Indian Jesuits as Padres de S. Paulo or Paulistas. (1)

Notwithstanding the intimate connection subsisting between the Seminary of Santa Fé and College of S. Paulo, which probably induced St. Francis Xavier to name his Japanese convert Angiró Paulo da Santa Fé, the two establishments were always kept separate, the former for converts, the latter for Jesuits.

The saint sailed from Goa to Comorin in October 1542, carrying with him two deacons and one minorite, all of them alumni of the Seminary, and natives of Southern India, to act as interpreters. They were, however, unequal to the task, and the great missionary felt then the inconvenience of not knowing himself the tongue; for in a letter from Cochin, dated the 12th January 1544, and addressed to the Fathers in Rome, he says: « Y como ellos no me entendiessen, ni yo à ellos, por ser su Lengua Maravar, y la mia Española, etc., » (2) such a confession being a sufficient rebuke to his officious encomiasts who tell us that he was endowed with the gift of tongues. He, at last, gave up his interpreters, and through some of his converts, who understood more of the Portuguese, preached to the natives, and even translated from Latin into Tamil the words of the sign of the Cross, the Apostles' creed, the Commandements, the Lord's prayer, the Salutation of the Angel, the Salve Regina, and the Confiteor. (3)

The Seminary of the Holy Faith and the College of St. Paul were not, however, the first educational establishments of the Portuguese in the East. They were preceded by the one built at Java before 1540 by Antonio Galvão for the children of native converts. Galvão was not only a sailor and a soldier but also an author and a missionary, on which account

⁽¹⁾ Some Anglo-Indian writers tell us that the Portuguese called them Paulistines, which they never did. Not content with mangling Portuguese words they have now begun to invent them.

⁽²⁾ Gabinete, ut supra, p. 38.

⁽³⁾ Xavier's Resumo Historico da Maravilhosa Vida, etc., p. 38. Goa, 1861.

he is often styled « the apostle of the Moluccas. » As an author he is known to be the founder of historical geography. One of his works, entitled *Tratado dos diversos e desvairados caminhos*, etc., was first published at Lisbon in 1563, and translated into English for the Hakluyt Society in 1861 and 1862, the latter time by the vice-Admiral Bethune, and printed along with the original text in Portuguese. Galvão is further said to have written a history of the Moluccas, which was divided into ten books, but his MS. has not yet been found.

III.

One of the first qualification for Christian missionary in India is, doubtless, a thorough knowledge of the languages spoken in the country of his labours; for India is, as every one is aware, not one county but a continent with many countries. This knowledge the Portuguese could only acquire colloquially or by personal intercourse with the natives, and not from those books which were, by a strange prejudice of the time, consigned along with their idols to flames. Unlike the policy of the present rulers of Hindustan, which we hope will also be that of the future eras, the spirit which guided the true missionary, in his noble task of imparting to the heathen the news of peace and good-will, was not of tolerance but of aggression. He forced the native, whenever he could do it with impunity, to exchange his ancient faith for his own, having recourse to promises and threats according to circumstances. His opportunism, as the politicians would call it now, found in Fr. João d'Albuquerque, a Bishop of Goa, a stanch champion. This bishop having met with resistance from the mild Hindû to his not very persuasive eloquence, was in 1548 going about the country in search of images and Hindû writings solely intent to indulging his propensities of an incendiary, and had further the effrontery to communicate to the king the ludicrously triumphant conflagrations he had committed. (1) He dit not fortunately interdict his subordinates learning the native languages, as was done at a later time, when they tried in vain to supplant the vernacular of Goa by the Portuguese idiom. Grammars and vocabularies more or less correct were written, and, by the timely introduction of the art of printing into India, made accessible to all.

IV.

The art of printing, invented in 1440 by Guttemberg at Strasburg, had already made some progress in Europe. (2) In Portugal there was, as early as 1537, an excellent printing press with both Roman and Greek types in the monastery of Santa Cruz. At a later date the Portuguese also cultivated Hebrew, Arabic and Syriac, and printed works in their respective characters. Ribeiro in his Historia dos Estabelecimentos scientificos etc., de Portugal, gives a long list of his countrymen, who, in the course of four centuries, cultivated Oriental, African and American languages. To name only a few:

The Provincial Fr. Marcos da Trinidade knew Hebrew. Fr. Pedro do Espirito Santo knew Greek and Hebrew. The Bishop of Meliapur, D. Paulo da Estrella, used to

⁽¹⁾ The letter on this subject addressed to D. João III, and dated the 28th November 4548, is preserved in the Torre do Tombo at Lisbon.

⁽²⁾ In Italy the invention of Guttemberg appears to have made very rapid progress, having been introduced in 1455. Sig. A. Mario writes in the *Diritto* of Rome of the 13th June 1878: « Dopo dieci anni dalla pubblicazione del primo libro con caratteri mobili, *La Bibbia Mazzarina*, nel 1465 s'impresse il primo libro in Italia a Subiaco, *Il Lattanzio*; ma i tipografi venivano di Germania. I tre primi tipografi italiani furono il Lavagna, lo Zanotti e il Canozio. » But the printer in those days was not a mere artizan, he was also a scholar; for the writer adds: «Il tipografo emendava i testi con pazienti studi di grammatica, di filologia e di storia. »

Regarding the oriental works printed in Italy much useful information may be gleaned from Saltini's Della Stamperia Orientale Medicea, etc., in the Giornale Storico degli Archivi, vol. IV, 1860; from Bertolotti's Le Tipografie Orientali e gli Orientalisti a Roma nei secoli XVI e XVII in the Rivista Europea, vol. IX, 1878; and from Landi's La Stamperia Mediceo-Orientale, Florence, 1878.

preach in the tongue of Hindustân to the Hindûs of his diocese. (Probably Tamil.)

Mestre Fr. Joaô Gualberto de Miranda knew the language of the mountainous districts of the Congo.

The venerable D. Fr. Caetano Brandão knew the tapuia dialect of the diocese of Para.

And the Bishop of Pekin, D. Fr. Alexandre Garcia made all his pastoral exhortations in Chinese, in which he also wrote a Catechism. (1)

The exact date of the introduction of the press into Goa is unknown; most probably about the time the College of St. Paul was built, where it was established. The first work printed there seems to be *Tratado or Cathecismo da Doutrina Christā*. Goa, 1557, ascribed to St. Francis Xavier.(2) This was soon followed by numerous religious tracts, catechisms, translation of the Bible, grammars, vocabularies, etc. Though few specimens of these works have been preserved, there is ample evidence of a large number of works, and some of considerable size, having been printed. The earlier of these works were printed by three celebrated men of the time-Joāo de Endem, João Quinquenio de Campania, and De Bustamante.

A second press was, some time after, set up at the College of St. Ignatius at Rachol, and then a third at the College of Ambalacâtta, near Cochin, where the Portuguese had built some Churches. The number of Colleges was in the meantime increasing rapidly, some of them being built at the sole expense of fidalgos, who had amassed a fortune in India. There were colleges at Daman, Diu, Bassein, Thana, where it was built at the expense of Gaspar da Costa, Chaul, at the expense of Sebastião Pinto, whose portrait is still to be seen at the top of the first flight of the grand staircare leading to the convent of Bom-Jesus at the old city of Goa, Tanor, Caulão, and Cranganore. The cities of Tanor and Coulão had

⁽¹⁾ Vol. I, pp. 69 and 228-257; and vol. II, pp. 245-257.

⁽²⁾ F. N. Xavier's Resumo Historico, ut supra, p. 22.

under their jurisdiction fifty-two churches. The Company of Jesus alone had then eight colleges in their Eastern missions, some of which are now but a heap of ruins, while others have entirely disappeared from the surface of the earth. (1)

In Goa also the number of colleges increased rapidly, one of them being known by the name of the University of St. Roque, inferior, perhaps, in no respect to the now extinct Dutch University of Colombo, or to any of the Universities of the so called Presidencies of British India, a term which the new Imperial system must soon render obsolete. Of all these educational establishments none has undergone more vicissitudes than the College at Rachol; and while all the others have disappeared, this is still in a flourishing condition. It was originally built at Margão (Mathagrâma or « conventvillage »), the present capital of the province of Salsette, close to an hospital, at the expense of the confiscated property of the Hindû temples of that province, in 1574. There it remained until the year 1579, when, being burnt down during a Muhammadan riot, the whole establishment was transferred the same year to Rachol, on account of its being a fortified place. But in 1597, the Visitador Nicoláo Pimenta compelled the students to return to Margão from its being the centre of the province. At last padre Gaspar Soares laid the foundation of a sumptuous edifice in 1606 at Rachol, and, having completed it in the month of October 1609, opened on the 31st day of the same month, which was Saturday and Vespers of All Saints, after singing a solemn mass; and in 1610 the professors and their pupils went to reside there. On

⁽¹⁾ This state of things appears to justify the following observation of Dr. Döllinger: « The experience of three centuries, » says the writer, « shows that the Jesuits have no lucky hand. No blessing ever rests on their undertakings. They build with increased assiduity, but a storm comes and shatters the building, or a flood breaks in and washes it away, or the worm-eaten edifice falls to pieces in their hands. The Oriental proverb about the Turks may be applied to them; « Where the Turk sets his foot, grass never grows! » Reunion of the Churches, quoted from the Dublin University Magazine, vol. 89, pag. 229 (1877).

the expulsion of the Jesuits in 1761 the college was placed under the immediate rule of the *Congregados* or Padres de St. Filippe Neri, and, on the suppression of religious orders in 1835, it was handed over to the secular clergy. Among the works printed at Rachol the earliest that has been preserved bears the date 1616.

Most of the works printed at Goa and Rachol were in the Roman character. The early Portuguese missionaries had no conventional rules or system based on the phonetic value of letters for the application of their alphabet to the Eastern vernaculars. Each writer interpreted the sound by his own mode of transcription, giving thus rise to a confused and capricious system of romanization. But the Portuguese alphabet being more regular than the English, their system was far more accurate than the innumerable ones proposed for adoption by several English Orientalists, who in their turn are not less fantastical in this matter.

The Portuguese did not, however, remain content with so unsatisfactory an arrangement, and began soon to cut Indian types, the earliest known being Tamil characters cut in 1580 by João de Faria, who printed works in that language. He was the celebrated engineer who built those gigantic arches of the ancient church of St. Paul of Goa which gave it eventually the designation of Sam Paulo dos Arcos.

In the ancient city of Ambalacâtta (Ambala-kadu or « Church-wood »), which is now a small village with a scanty population of Nestorians, a few miles to the north of Angamale, — and which was once raised to some importance by the Portuguese building there about 1550 a Seminary and a Church dedicated to St. Thomas, and then making it the centre of their missions in Southern India, from the time the Synod of Diamper (Udayompura) (1) was held there, under

⁽¹⁾ See Synodo Diocesano da Igreja e Bispado de Angamale, published by snr. J. H. da Cunha Rivara at Goa in 1860. In the Vatican Library there is a codex corresponding to the above under the following heading: Concilium Diamperense in India Orientali, idiomate et caractere Malabarico-Samosc.

the presidency of the Archbishop of Goa, D. Fr. Aleixo de Menezes, in the month of June 1599, — the Sanskrit, Tamil, Malâyalam, and Syriac languages were cultivated, and in some of them several important works printed. Types of what they called Malabar-Tamil (Malâyalam) were also cut in 1577 by a lay brother by name João Gonsalves at Cochin, where there was another printing-press, as well as at Panikkayal. The early Portuguese failed, it is said, to distinguish Malâyalam from Tamil, just as the Sanskrit Pandits did, although they knew that is was distinct from Telegu, which they called «the language of the Badages» (Tam. Vadugas, Can. Badagas), the Telugu followers of the Nâyakkas of Madura. (1)

Of the works printed at Ambalacatta we have only the names left. They are recorded by some Portuguese writers and latterly by Fr. Paulinus a S. Bartholomeo. (2) Since the

exaratum. In the same Library are found several MSS, written by Portuguese missionaries in India. Among others we may mention Diccionario Lusitano-malavarico, por padre F. Geminiano de S. Ottavio, 1742, 4°, and Rudimenta linguæ Malabarico-Samoscardamicæ, which are explained in Portuguese, its author being a Carmelite. Another work of some interest is this: Grammatica et Dictionarium vulgaris seu nationalis linguæ Malabaricæ conscriptum a R. P. Faraz Lusitano olim regni Madure Missionario postea Rectore Collegii Ambalacattensis in Malabaria, qui vixit adhuc anno 1789 ætatis habens circiter 76.

⁽¹⁾ D. Caldwell's, Comp. Gram. of the Dravid. Lang., pp. 11, 14 and 25. London, 1875.

⁽²⁾ Fr. Paulinus was a voluminous writer. His Mss. enclosed in large cases, about eight in number, bearing a label with the words Miscellanea Indo-Malabarica, were exibited at Florence during the sittings of the 4th Oriental Congress. Being then unable to see them, I had recourse to the Barone Podestà and sig. Buonanno of the Biblioteca Vittorio Emanuele of Rome, where they are deposited, and was kindly allowed to read them. The MSS. of Fr. Paulinus are written in sanskrit, latin, italian, french, portuguese and german. In his printed works he informs us that the title of the book printed by the Portuguese at Cochin in 1557 was Doctrina Christiana, which was followed the next year by a Flos Sanctorum. Then he writes, « Anno 1679 in oppido Ambalacatta in lignum incisi alii characteres Tamulici per Ignatium Aichamoni indigenam Malabarensem, iisque in lucem prodiit opus inscriptum: Vocabulario Tamulico com a significação Portugueza composto pello P. Antem de Proença da Com. de Jesu, miss. de Madure.» In his MSS. he refers to the works of the Portuguese writers by name Cruz and Fernandes which were issued at Malabar. Besides these, Paulinus himself wrote a work in Portuguese under this heading: Grammatica malavar ingleza e portugueza ingleza para

Portuguese ceased to publish works in vernacular languages in Southern India, the Danish missionaries of Tranquebar have printed many valuable books. It redounds to the credit of the Portuguese, however, that they should have at so early a date, after their settlement in India, been able to cut Indian types; while the English who arrived there about the beginning of the 17th century did not cut any type till the year 1778, the first work printed by them being a Bengâlî grammar by Halhed, the types for which were cut by a native blacksmith by name Panchanan, under the direction of the Sanskritist Wilkins, and was issued from a press at Hugli in the same year. (1)

The printing offices introduced by the Portuguese into India disappeared rather suddenly from the country, the date of their disappearance being as unknown as that of their introduction. The last work hitherto known as printed at Goa bears the date 1660. (2) Thus the art of printing seems to have flourished in India for a little above a hundred years, its disappearance being not improbably occasioned by the gradual decline of the Portuguese power in the East. In 1754 attempts were made to reintroduce printing presses into Goa, but the Government did not allow it. The excesses and mis-

o uso de Sua Magestade el Rey de Travancor, anno 1784, comp. a Paul a S. Bart. ac ipsi Regi Travan. seu Malabariæ Rama Varner dicto oblata in arce Padmanaburam. » It is followed by a Vocabulary and Dialogues. My friend prof. Angelo De Gubernatis has published very interesting articles on the MSS. of Fr. Paulinus in the vol. I of the Bollettino Italiano degli Studi Orientali. Florence, 1876-77.

⁽¹⁾ The first English newspaper was published in Bengâl (at Calcutta) in 1781, being named *Hickie's Gazette*, but was soon suppressed by the Government. The first English newspaper in the Bombay Presidency was the *Bombay Gazette*, founded in 1789, the second being the *Bombay Courier* in 1791. The first native paper was the *Samachar Darpan* or « Mirror of News, » issued by the Serampore missionaries in 1818.

⁽²⁾ In the Bollettino Italiano degli Studi Orientali, vol. I, pp. 184-187, reference is made to works of an Italian Missionary, who having begun to print a work at Canton in China discontinued it through some mishaps, but being eventually arrived at Goa completed the printing there in 1669. The heading of the book runs thus: Sinarum Scientia Politico-Moralis a Prospero Intorcetta Siculo, Societatis Jesu in lucem edita: — In fine, Goae iterum recognitum, ac in lucem editum die 1 Octobris, anno 1669.

deeds of the priests and friars were then a warning against permitting so powerful a weapon to be placed in their hands. There is, about this fact, in the Archives of the Secretariate of Goa a curious document, dated 20th March 1754, addressed by the Secretary of State, Diego de Mendonça Corte Real, to the Viceroy of Goa Conde d'Alva, wherein the latter is informed that having His Majesty the king of Portugal received several petitions praying that printing establishments be allowed in Goa, he should exercise his utmost care to prevent such establishments, even by individuals or communities enjoying the highest privileges. (1)

Again, the great Marquis of Pombal in two of his letters, which have happily been preserved, addressed to the Archbishop of Goa, D. Francisco de Assumpção e Brito, dated 10th of February and 2nd of April 1774, and also in the letter addressed through the Secretary of State, Francisco Xavier de Mendouga Furtado, dated 22nd of January 1761, to the Viceroy Conde de Ega, refers to works written by the Jesuits in India, which he disapproves for any educational purpose, and sends instead books printed at Lisbon. He also advises to institute a careful search among the sequestrated archives of the Jesuits in India for grammars of vernacular languages for use in schools, provided they be beforehand well looked into and weeded of (Jesuitical doctrines). (2) It seems at first sight extremely ridiculous that so wise a statesman as the Marquis of Pombal should entertain the puerile fear of the Jesuitical maxims, their principles of probabilism, mental reservations, or justification of means by ends, being in-

⁽¹⁾ Livro de Monções, n. 127, fl. 415. Also, Chronista de Tissuary, Goa, 1867, vol. II, p. 95, and Lagrange's Instruçções do Marquez de Pombal, Goa, 1841, n. 5.

⁽²⁾ The words in the original are: « Com tanto que sejam primeiro muito bem revistas e expurgadas. » The sequestrated archives of the Jesuits were sent to Lisbon in 1774 (see the Arch. Port. Orient., fasc. III, p. x et seq. Nova Goa, 1861) and those who think that the Jesuits possess valuable documents on the Portuguese in India are sadly mistaken. Their archives in India are as empty as those in Rome, the only thing they possess being the Decadas de João de Barros.

stilled into the minds of students through so innocent works as grammars and vocabularies. But when one considers that this was a time of probation for the Portuguese, an epoch of trial to be followed by the dawning of a new era for Portugal and her colonies, the period of transition, over which the great genius of Pombal presided, will believe to have been one of extreme peril and inquietude, requiring much foresight and circumspection. And this admirable policy bore its fruit in due time. After the expulsion of Jesuits came in turn the suppression of convents, which were now the nests of idlers, intent on gaining their selfish aims rather than in preaching the words of peace and goodwill. With regard to this state of things it strikes me as very appropriate the following remarks of prof. Angelo De Gubernatis, who says: - « One thing is certain, no quarrels would happen in the world if egoism did not predominate, alike with individuals and nations, if christian charity were not a dead letter, if religion, on which so much is spoken and written, for which people and governments profess to strive so hard, had only some true and deep efficacy on life. But religious dogmas are learned like Greek and Latin, in order that people may know something about them, not with the view of putting them into practice. The habit of meditating on the practical obligations that a knowledge of religious truth imposes is but slight. Few, I repeat, seek to conform the actions of their lives to it. If only did so, and so got a rule of life for all, new studies in religion would be superfluous. I think more serious occupation of the mind with the subject is needed, and should be placed at the foundation of our life. » (1)

But to return once more to the press in India. On the establishement of constitutional Government at Lisbon and Colonies, which now became integral portions of the monarchy, on the dynasty of the house of Bragança identifying

⁽¹⁾ The Contemporary Review for June 1878, pag. 598.

itself with the aspirations and instinct of the Portuguese at home and abroad, a printing-press was set up at Goa in 1821, to be rapidly followed by several others, rendering excellent service to the cause of progress and civilisation. There are now at Goa seven printing offices from which newspapers and other publications are issued in Portuguese and Marâthî, satisfying the literary wants of half a million of population. Journalism expecially has made considerable progress there since the first private printing-press was established at Margão in 1858. (1)

Thus it seems that the art of printing after having being introduced by the Portuguese into India about the middle of the 16th century was in full swing during a little more than a century, and it suddenly ceased about the end of the third quarter of the 17th century, and was not reintroduced until the establishment of constitutional government at Goa in 1821.

As the works printed at Goa and at Rachol during the 16th and 17th centuries, besides having some historical interest, are now extremely rare, I shall offer no apology for appending here a list of those works, as far as they are known, adding at the same time some short notices of the writers and the subjects treated of. (2)

⁽¹⁾ See on this subjet an excellent work by my friend and relation cav. Francisco João Xavier of Goa, entitled: Breve Noticia da Imprenta Nacional de Goa. Nova-Goa, 1870.

⁽²⁾ Among the bibliographers who refer to these works I must mention the name of Diego Barbosa Machado, who published his Bibliotheca Lusitana at Lisbon in 1741-59. His collection of books, some of which were unfortunately destroyed by the fire and earthquake of Lisbon in 1755, was originally deposited in the Royal Palace of Ajuda in Lisbon, and now forms part of the National Library at Rio de Janeiro. See Annaes da Bibliotheca Nacional do Rio de Janeiro, vol. I, where is found an essay on the life and writings of the bibliographer. The other name is that of Innocencio Francisco da Silva, who wrote the Diccionario Bibliographico in 9 volumes, octavo, partly compiled from the works of Machado, and continued to the year of his death which took place on the 27th June 1876.

V.

The following is the list of works hitherto known as printed at Goa during the 16th and 17th centuries.

- 1. Tratado da Doutrina Christa. Goa, 1557. It is ascribed to St. Francis Xavier.
- Compendio Espiritual da Vida Christā, tirado pelo primeiro Arcebispo de Goa, D. Gaspar de Leão: por João Quinquenio. 12^{mo}. Goa, 1561.
- 3. Colloquios dos Simples e drogas medicinaes da India, etc., de Garcia d'Orta, por João de Endem. 4to. Goa, 1563.
- 4. Carta do primeiro Arcebispo de Goa ao Povo de Israel, com a Traducção dos dois Tratados contra os Judeos de mestre Jeronymo de Santa Fé. 4^{to}. Goa, 1565.
- 5. O Primeiro Concilio Provincial celebrado em Goa em o anno de 1567, trasladado de Latim em Linguagem, por ordem do Arcebispo D. Jorge Themudo. 4to. Goa, 1568.
- Goa, 1568. (1)
 Goa, 1568. (1)

 Goa Arcebispado de Goa, pelo Arcebispado de Goa, pelo Arcebispo D. Gaspar, impressas por João de Endem. Fol.
- 7. Mappa Mundi de Fernão Vaz Dourado. Goa, 1571.

It seems that this work, although written at Goa, was not printed there or anywhere else. The original MS. has happily been preserved, and was exhibited along with other

⁽¹⁾ This work has had four editions, two at Goa in 1568 and 1643 and two at Lisboa in 1592 and 1810. Of the first edition with this heading a Constituições do Arcebispado de Goa, approvadas pello primeiro Cócilio provincial. Anno 1568, before are only two copies extant. It consists of a prologue in 4 pages which are unnumbered, 99 pages numbered on only one side and then again 10 unnumbered pages. It bears the following colophon: a Foram impressas estas constituições na muyto nobre e leal cidade de Goa per João de endem, por mandado do muyto magnifico e muyto reurendo senhor Dom Gaspar, primeiro arcebispo de Goa, do côselho del Rey nosso senhor. Acabaram—se nos 8 dias do mez de abril de 1568. There is an Index of 12 pages. For details, see Silva's Dic. Bibliog., vol. II, pag. 102 and Abreu's articles in the Ultramar of the 26th July, 2nd, 9th and 30th August 1878.

MATERIALS FOR THE HISTORY OF ORIENTAL STUDIES, ETC. 195 rare MSS. in the Portuguese section of the Exposition Universelle de Paris in 1867.

- 8. Desenganos de perdidos, pelo Arcebispo D. Gaspar, 4^{to}. Goa, 1573.
- 9. Discurso sobre a Vinda de Jesu-Christo Nosso Salvador ao Mundo, dividido em dous Tratados, pelo padre Thomaz Estevão, Inglez, da companhia de Jesu. Impresso em Rachol com licença da Santa Inquisição, e Ordinario no Collegio de todos or Santos da Companhia de Jesu. Anno 1616.

This work has had three editions. It is a selection from the Bible, or rather an abridgement of the New Testament with explanatory remarks on the incarnation, passion, and resurrection of Jesus Christ. The work is said to have been originally written in Portuguese and then translated into Konkani. The translation took place in 1614, as attested by the rev. Paulo Mascarenhas on the 3nd of April 1614, and was printed in 1616, as declared in the colophon. It is dedicated to dom Frey Chistovão de Lisboa, Archbishop of Goa and Primate of the East, etc.; the dedication being dated from the College of Rachol the 29th of April 1616. It bears among the licences from ecclesiastical authorities, which precede the work, the imprimatur of padre Francisco Vieira, Provincial of the Society of Jesus, dated the 22nd of June 1615, he having been charged with this commission by the very rev. Claudius Aquaviva, their Praepositus general. The second edition was begun in 1646, revised by Fr. Gaspar de S. Miguel and others between the 22nd of November 1646 and 18th of May 1649, in which year it was completed. Lastly the third edition, which bears the following colophon: Em Goa com licença da Santa Inquisição, e Ordinario no Collegio de S. Paulo novo da Companhia de Jesu. Anno 1654, has licences signed by Fr. Lucas da Cruz, from the 2nd of January 1653 to the 22nd of June 1654. The place where the second edition of this work, which from 1649 obtained the Indian designation of purana, was printed is unknown.

This purana, as it is now found, preceded by licences of ecclesiastical authorities, a dedication, and an introduction in prose and verse, in praise of the author, by Fr. Gaspar de. St. Miguel in 14 strophes, first published along with the second edition of the work in 1649, is divided into two treatises, properly called puranas. The whole is written in the ovi metre, a particular measure in which stanzas of Prakrit verses, such as the airs of Muktes'war and the Dnyanes'vari, or a paraphrase in Marathi of the Bhagavad-gîtâ by Dnyânobâ, are written. Prof. Suriajy Ananda Rau tells us that Padre Estevaô in this work « imitates the Prâkrit poems of Dnyanes'warî, Mucundâ Raz, the Ramâyana of Muktes'war and other ancient works which hold a distinguished place among the classical poems of the Hindûs. » (1)

The first purana consists of 36 cantos, and the second, which is again subdivided into four parts, contains 59 cantos. The whole of the work has 11,018 strophes, 4296 of which belong to the first purana, and 6722 to the second. Latterly Padre Pascoal Gomes de Faria, priest of the order and habit of St. Peter, a native of Goa, added to it, in the year 1722, 237 strophes to the cantos 45, 46, 47, 48, 49, 50 and 51 of the second purana. A few extracts from this work will be given hereafter from a bibliographical notice of the work in the Ensaio Historico da lingua Concani by the distinguished Portuguese savant Mr. J. H. Da Cunha Rivara, published at Goa in 1858.

Southwell speaking of their purana in his Bibliotheca Soc.

Jes. says: «Opus magnum cui purana titulus est idiomate
Indostano in quo praecipua Fidei mysteria metro exponit, quod
tanto plausu exceptum fuit, ut dominicis festisque diebus in
Templis a sacro prolegatur, magna omnium approbatione et
voluptate. » I have not heard this purana read in any
church at Goa, but older people appear to have heard it,
and Mr. M. V. d'Abreu, a diligent historian of Goa, writes to

⁽¹⁾ Grammatica da Lingua Maratha, pag. XXIV. Nova-Goa, 1875.

me, perhaps from his recollection of the past, thus: «O purana que este padre compoz, os naturaes lêm e ouvem nas solemnidades da quaresma e semana santa com tanta attenção que começando a lição deste livro na Igreja todos se calam sem dizer palavra, » or « the purana which this priest wrote, the natives read and listen to in the solemnities of the Lent and Holy week with such attention that on beginning the lesson of this book all remain silent without saying a word.» This extract is from a letter dated the 2nd of April 1873.

But it seems that it is read and even sung, passages of it being made by heart, by some of the lower classes at a peculiar ceremony called sotî (shasti-pûjan) or the 6th day, which must not be confounded with the satî, or immolation of a widow at the funeral pyre of her husband. This sotî appears to mean a night-watch kept on the sixth day after a child's birth, to guard the infants against evil spirits, which they suppose are especially prone to attack them on that day, by singing profane songs and beating of the madvem, a kind of drum. This fatalistic doctrine prevailed for some time not only among the lower classes of the natives, but also among some Portuguese families, as we are told in an edict issued by the Inquisition on the 14th of April 1736 forbidding the practice. The edict is in the original said to have been written by the Inquisidores Apostolicos contra a heretica pravidade e apostasia nesta Cidade e Arcebispado de Goa e mais partes do Estado da India. The soti has not yet ceased entirely; but instead of the profane songs, they now read the Christian Purana, probably one of the Jesuitical conciliatory measures, of which we shall have more instances hereafter. Some of the natives among the lower classes consider its reading to have special virtues as a charm. There is no doubt that the object of the writer was that his translation of the Bible should resemble a Hindû purana, and with this view be mixed up in the Gospels miraculous events and stories, which are not in the original, but which served to attract the attention of the converts from hinduism to the book, and make them read it in the

same way as their discarded purânas, without however lessening their relish for the purânic style. And in this rather disingenuous compromise he seems to have succeeded remarkably well. The MS. copies of this work which are extant, mostly written in the last century, are said to have been written with considerable caligraphic ability and artistic skill. They also contain some drawings, which are said to stand for engravings in the original printed text.

10. — Doutrina Christâ em Lingua Bramana-Canarim, ordenada á maneira de dialogo, para ensinar or meninos, pelo padre Thomaz Estevão, Jesuita, no Collegio de Rachol. 8^{vo}. 1628.

This work is said by Padre Francisco de Souza in his Oriente Conquistado to be a translation of a little work by Padre Marcos Jorge, commonly known under the name of its improver Padre Mestre Ignacio Martins. Reference is also made to the improvement this work underwent in the hands of Padre Martins in the Agiologio Lusitano, tome I, p. 382.

11. — Declaraçam da Doutrina Christam collegida do cardeal Roberto Bellarmino da companhia de Jesu e outros Autores. Composta em lingua Bramana vulgar pello padre Diego Ribeiro da mesura companhia, portugues natural de Lisboa. Impresso no Collegio de Sancto Ignacio da companhia de Jesu em Rachol. Anno de 1632. 4to, p. VII-105.

The author of this book was, according to De Backer's Bibliothèque des Ecrivains de la Compagnie de Jésus, admitted into the order at Goa in the year 1580. He is said then to have been about twenty years old. He passed more than forty years of his life in the province of Salsette and died at Goa on the 18th of June 1863 at the age of 73. Southwell says of him: « Idioma illius gentis perfectissime calluit. Plures libros concanica lingua ab aliis antea compositos partim emendavit ex mandato superiorum, partim auxit. » He is

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said to have translated into Konkanî the Vidas dos Sanctos of Padre Ribadeneira, and printed them at Goa, or as Southwell puts it « in typis Collegii Goani. » He also added to the Arte da Lingua Canarina by Thomas Estevão published at Rachol in 1640, and to the Vocabulario of the Konkanî-Portuguese and Portuguese-Konkanî languages, written by some fathers of his order « with various modes of speaking. »

12. — Discursos sobre a Vida do Apostolo S. Pedro em que se refutam os principaes erros do Oriente, compostos em verso em lingua bramana-marasta, pelo padre Estevão da Cruz, impressos na Caza Professa de Jesus. Vol. II, fol. Goa, 1634.

This author is said by Crétineau Joly to have « given to the Brahmâns the rules of their tongue, » (1) but his name is not mentioned neither by Barbosa Machado in his Bibliotheca Lusitana, nor by J. F. da Silva in his Diccionario Bibliographico, probably because they knew that he was a foreigner; for F. Pyrard De Laval tells us that be was a Frenchman, and native of Rouen. (2)

13. — Arte da lingua canarina, composta pelo padre Thomaz Estevão, accrescentada pelo padre Diego Ribeiro, e revista per outros quatro Padres da Companhia. Impressa no Collegio de S^{to} Ignacio da mesma Companhia. 4^{to}. Rachol, 1640.

This was reprinted in 1857 by Mr. J. H. da Cunha Rivara. We shall have to refer to it more at length hereafter.

14. — Discurso ou falla que fez o padre Fr. Manoel da Cruz, mestre em Santa Theologia, no acto solemne em que o Conde João da Silva Tello e Menezes, Viso-Rei da India, jurou o principe D. Theodosio aos 20 de ontubro de 1641. Impressa em Dezembro do mesmo anno. 4^{to}. Goa, 1641.

⁽¹⁾ Hist. Relig. Polit. et Morale de la Cie de Jés., tome IV, pag. 164 and 169.
(2) Viagem, etc., vertida do Francez em Portuguez por J. H. da Cunha Rivara, tome II, p. 237. Nova-Goa, 1862.

15. — Magseph assetat, ou flagello das Mentiras: pelo padre Antonio Fernandes, Jesuita. Obra impressa em caracteres Abexins, que haviam sido mandados ao Patriarcha D. Alfonso Mendes, pelo Papa Urbano VIII. Goa, 1642.

Reference will be made to this work furter on.

- 16. Relação do que succedeo na Cidade de Goa e em todas as mais Cidades e Fortalezas do Estado da India, na felice acclamação del Rei D. João IV de Portugal, e no juramento do Principe D. Theodosio, conforme a ordem, que a huma, e outra cousa deo o conde de Aveiras João da Silva Tello e Menezes, Vice-rei, e Capitão geral do mesmo Estado: dedicado ao Principe D. Theodosio, por Manoel Jacome de Misquita, morador na cidade de Goa, no collegio de S. Paulo Novo da Companhia de Jesus. Goa, 1643.
- 17. Vida da Santa Virgem, pelo padre Antonio Fernandes. 4to. Goa, 1652.
- 18. Tratado dos Milagres, que pelos merecimentos do glorioso Santo Antonio, assim em Vida do Santo, como depois da sua morte, foi nosso Senhor servido obrar; com a vida do mesmo Santo; traduzidos e compostos na lingua da terra corrente, para sevem de todos mais facilmente entendidos, pelo padre Antonio de Saldanha da Companhia de Jesus, natural de Marrocos. 4^{to}. Goa, 1655.

Padre Saldanha was born at Mazagão in Africa from a Portuguese father and Italian mother. He sailed for India with the intention to devote himself to military life, but at Goa be changed his mind and entered the Society of Jesus in 1615. He died at Rachol on the 2nd, according to some, and on the 15th, according to others, of December 1663.

He also published the following works:

- Rosas e boninas deleitosas do Ameno Rosal de Maria, e seu Rosario, traduzido e composto com proveitosos Moraes para bem das almas. 4^{to}. Rachol.
- Fructo da Arvore da Vida a nossas almas e corpos salutifero, illustrado com varios Moraes para proveito das almas e horna de Nosso Senhor Jesus Chisto. 4^{to}. Rachol.

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Both these works are undated. They must have been published between the years 1615 and 1663.

He is said to have written, but not published, the following works:

Vocabulario da Lingua concanica.

Beneficios Insignes dos Anjos Custodios.

Baculo Pastoral para a administração dos Sacramentos, e mais obrigações parochiaes.

19. — Jardim dos Pastores ou Festas do anno na lingua brahmina. Livro doutrinal. 8^{vo}. Goa, no Collegio da companhia, 1658.

A work on sermons.

Sinco Praticas sobre as palavras « Exurgens Maria. » Goa, no dito collegio.

Sermões de Santos, e do tempo quaresmal. Vol. II, 4to.

All these works are attributed to Padre Miguel de Almeida. The latter two bear no date of publication, and the last not even the place of printing. Padre De Almeida was admitted into the Company of Jesuits at Goa on the 12th of September 1624, when 16 years old. He professed the fourth vow, was appointed rector of the College of St. Paul at Goa, and was eventually raised to the rank of Provincial of his order. He died at Rachol on the 17th of September 1863 at the age of 73. He was a native of the Villa de Gouveia, in the Province of Beira. This author is said to have written a Diccionario da Lingua Canarina, which is still preserved in its MS. form. But Southvell believes it to be a mere translation of the Thesauro da Lingoa Portugueza by Bento Pereira, and Machado says that the first translator was Padre Diego Riberio, who named the work, as above mentioned, Vocabulario da Lingoa Concanica, com varios modos de fallar, and the

second, Padre de Almeida, who made some additions to it. It was divided into two parts. — Port. konk. and viceversa.

21. — Soliloquios divinos. Compostos pelo padre Bernardino de Villegas, da companhia de Jesus, Cathedratico de Prima de Theologia em o seu collegio de Santo Estevão de Murcia, e calificador do Sancto Officio. Traduzidos em lingoa brahmana pelo padre João de Pedrosa da mesma companhia, Missionario em Salcete da Provincia de Goa. Impresso no collegio novo de S. Paulo. 4to, fl. 128. Goa, 1660.

This work is divided into so called soliloquios, and these again into Chapters, of which there is an Index in Portuguese at the beginning, and in Konkanî at the end of the book.

Padre Pedrosa was a native of Coimbra in the diocese of Leiria, son of Joaô Fernandes and Antonia Pedrosa. He entered the Noviciate of the Society of Jesus, at Coimbra, on the 26th of February 1631, according to some, and 1632, according others, at the age of 17. He shortly left for Goa, where he was appointed Master of the Novices, and some years after became Rector of the College at Rachol. He died at Goa in their principal house (caza professa) on the 18th of May 1672. He is said to have written in Konkani, but not published, a work entitled: Instruçção para a Confissão Sacramental. According to De Backer the Soliloquios were printed in 1640; but according to Mr. da Cunha Rivara in 1660. (1)

Of the XXI numbers above, five require special notice, viz n° III, the work of Garcia d'Orta, printed at Goa in 1563; n° IX, X and XIII, the works of Thomas Estevão, printed at Rachol between 1616 and 1640; and n° XV or Magseph Assetat, the Abyssian book printed at Goa in 1642.

⁽¹⁾ For details on these works the reader may also consult « Memorias da Litteratura Portuguesa, por Antonio Ribeiro dos Santos, » published in 1812 by the Royal Academy of Lisbon, besides the Biblioteca Lusitana, by Diego Barbosa Machado; Diccionario Bibliographico, by I. F. da Silva; Ensaio Historico da Lingua Concani, by J. H. da Cunha Rivara; and the works of Southwell, de Backer, Crétineau Joly, Cordara, Alegambe, etc.

VI.

The book of Garcia d'Orta has the following heading:

Coloquios dos simples, e drogas he cousas mediçinais da India, e assi dalguãs frutas achadas nella onde se tratam alguãs cousas tocantes a mediçina, pratica e ontras coouas boas, pera saber, copostos pello Doutor garçia dorta: fisico del Rey nosso senhor, vistos pello muyto Reverendo senhor, ho liçençiado Alexos diaz: falcam desembargador da casa da supricaçã inquisidor nestas partes. Com privilegio do Conde viso-Rey. Impresso em Goa, por Joannes de endem as x dias de Abril de 1563 annos. 4to, fl. 249.

This edition is now very rare. The scarcity of copies may be owing either to a small number of copies issued, or to their loss by shipwreck, which in those days was not uncommon, on their way from Goa to Lisbon. Attempts were made in 1863 at Goa, three centuries after its first edition, to reprint the work there; but without success, as no copy could be got. (1) It was only in 1872 that a second edition was published at Lisbon by an eminent Brasilian savant, snr. F. Ad. de Varnhagen.

It may appear strange that so important a work should have so long remained without demand as not to induce any publisher to undertake a second edition; but the fact is that the work was already known throughout Europe by means of its compilations and translations into Latin, French, Italian, and others European languages by Clusius, Briganti, Ziletti, Colin, Frampton and others.

This is an important work, its interest lying not to much in its botanical descriptions, in which it has long been superseded by works of larger scope and greater merit, as in

⁽¹⁾ Il. de Pharmacia, etc., vol. I, pag. 53. Nova-Goa, 1862-1863.

its antiquarian value, being the earliest contribution, since the Portuguese arrived in India, to the study of natural history of the East. The typographical errors of the first edition, however, detract much from its worth. It contains twenty pages of errata, and these scarcely contain a moiety of misprints. The author himself was aware of this; for he writes: « Outros muytos erros ha n'este livro que ho Autor na (sic) poem, porque por estes se tiraram os outros. » The art of printing must, indeed, have been in its infancy, when the printers corrected in each copy the errors committed in a previous one, making it impossible to have the text of two copies identical. But reasons are alleged for this untidy arrangement by the Licentiate Dimas Bosque (Bosco?), probably an Italian naturalist, and by « Christovão da Costa or Christobal Acosta, » as he writes it himself, a native of Ceuta in Africa, who published a compilation of Garcia d'Orta's Colloquios in Castillian at Burgos in 1578, under the title of Tratado de las drogas, y medicinas de las Indias orientales, adding some notes of his own from the personal acquaintance he had made while in India, during the first vice-royalty of D. Luis d'Athaide, with the objects treated of by d'Orta in his book. The former uses as a plea the absence of the head printer, and the latter the incompetency and carelessness of the printers at Goa.

Garcia d'Orta studied in the Universities of Salamanca and Alcalá where he obtained his diploma of doctor of medicine, and while practising as physician at Castello de Vide passed another examination before the chief-physician (physico-mór) which qualified him to practise in Portugal and her colonies. This second diploma is dated the 10th of April 1525 and is preserved in the *Torre do Tombo*. (1) He was for some time professor of the faculty of philosophy at Lisbon, and sailed for India in 1534, where he lived to an

⁽¹⁾ Chanc. de. d. Joao III, Liv. 35, fl. 96. It was published in the Gazeta de Pharmacia of Lisbon, and reprinted in the Archivo de Pharmacia of Portuguese India, vol. IV, pp. 141-142. Nova-Goa, 1867.

advanced age. He must have died before the year 1572 or 73 in India, as his name is not found recorded among those physicians who signed the Pauta das Mesinhas na India; while that of his friend Dimas Bosque or Bosco is. (1) D'Orta was also a friend of Camoens, who dedicated him an ode published with the Colloquios. The island of Bombay, soon after its acquisition by the Portuguese, was rented in perpetuity to d'Orta, paying the annual fee-rent of 1432 1/2 pardaos or nearly L. 85. He mentions it three times under the name of Bombaim and Mombaim in the Colloquios 22nd, 28th and 34th, as well as his tenant Simão Toscano, who sent him mangoes from a tree which gave two crops a year. Simão Botelho, however, in his Tombo do Estado da India, written in 1554, tells us that this island was in possession of Mestre Dioguo (Diego), who, according to the ancient foral or « register, » paid first 14,400 fedeas (2) and then 1375 pardaos. (3) But this is supposed by the late Mr. Felner to be an error from the confused state in which the accounts and registers of terms and fiefs in this part of India were kept. (4) This supposition is further confirmed by the fact of d'Orta calling Bombay in 1563 minha ilha « my island, » it being his manor, and, perhaps, that of his heirs, if he had any. There is no record of his having left any descendant in India. Cardinal Saraiva, however, in his Portugueses em Asia, etc., mentions not only the name of Garcia d'Orta, but also of Nicoláo d'Orta, wo went from Goa overland to Madrid in 1606 and returned to India by the command of king D. Filippe. (5) At the time of the cession of the island to the English in 1661 as a part of bride's portion of the Infanta Dona Catherina, married to Charles II of England, it

(1) It. de Pharm. e Sc. Med., p. 53 et seq. Nova-Goa, 1862.

⁽²⁾ Fedea is a nominal coin, of the value of $\frac{1}{30}$, etc., of a pardao, which was in use in Diu and Bassein districts.

⁽³⁾ Pardao is nearly equivalent to a shilling.

⁽⁴⁾ Subsidios ut supra, p. XI and Pt. II, p. 160-161.

⁽⁵⁾ Tome I, p. 100 and 120. Lisbon, 1848.

was owned by Dona Ignez de Miranda, widow of D. Rodrigo de Moncanto. She lost through this cession the dominion she held over the place, but not her estates. Or as an original document of the time says: «tiroulhe o senhorio e não a fazenda.» Apropos of Bombay it may be worth while to mention that it was occupied as early as 1528 by the Portuguese, after the defeat of the fleet, in the Bombay harbour, belonging to the king of Kambay, during the governorship of Lopo Vaz de Sampaio, and was in 1531 selected by Nuno da Cunha for the rendezvous of his formidable expedition to Diu. (1)

The soldiers of Hector da Silveira gave to the island the name of ilha da Boa Vida from the pleasant days they spent there, which designation was current till the middle of the XVIth century, as stated by D. Joaō de Castro, (2) when the native name of Mumbai prevailed, assuming, however, the divers forms of Mombaym and Bombaym met with in the Portuguese documents of the XVIIth and XVIIIth centuries, until it was changed by the English into Bombay. (3)

Although the island was ceded to the English crown in 1661, it did not come into its possession till 1664, and in 1668 the king made it over to the E. I. Company for the annual rent of L. 10 in gold. The delay in the cession was caused by the Portuguese Viceroy Antonio de Mello e Castro, who, having been appointed for this post on the 11th of March 1662, left for India with the English commissioner Earl Marlborough and a fleet of five men-of-war, with 500 troops under the command of Sir Abraham Shipman, arriving at Bombay on the 29th of September of the same year. He declined to make over the island to the English from both political and personal motives, complaining to the

⁽¹⁾ Details of these two historical events will be found in my Notes on the History and Antiquities of Chaul and Bassein.

⁽²⁾ Roteiro de Goa a Diu, p. 81.

⁽³⁾ See my articles entitled: Words and Places in and about Bombay in the Indian Antiquary for 1874-75.

king of the ill-treatment be had received on board from the Earl and Capt. Richard Mircors. The English troops were in the meanwhile compelled to seek a refuge in the island of Angediva, about 52 miles to the south of Goa, and lord Marlborough sailed for England with two ships, leaving the rest with Sir Abraham, who with 300 of his troops died on the island soon after. (1) At last, under most positive advice from Lisbon, the treaty for the delivery of the island of Bombay was signed on the 10th of January 1665, its formal cession taking place on the 17th of the following month, the English crown being represented by Humphrey Cook, secretary of Sir Abraham Shipman.

The Viceroy De Mello e Castro, did not, however, sign the treaty without a protest. In a letter dated the 5th of January 1665 he says to the king: « I confess at the feet of your Majesty that only the obedience I owe, as a vassal, could have forced me to this deed, because I foresee the great troubles which from this neighbourhood will result to the Portuguese; and that India is finished the same day in which the English Nation take possession of Bombay. » (2) The italics are mine.

The 14th article of the treaty of the 23nd June 1661, confirmed by the 3nd article of the treaty of Vienna dated the 22nd January 1815, stipulated that, on the event of the English possessing the island of Ceylon, they should restore to the Portuguese the city of Colombo, the cinnamon trade being common to both nations. Another term of this treaty was that England should assist the Portuguese in India against their enemies. The Marquis of Pombal in his despatches to the Por-

⁽¹⁾ A narrative of this eventful period in the history of Western India is given in my Historical and Archaeological Sketch of the Island of Angediva in the H B. B. R. Soc., 1875, vol. XI, p. 288.

⁽²⁾ The original is as follows: « Confesso aos pés de V. Magestade, que só a obediencia, que devo, como vassallo, pudera forçar-me a esta acção, porque antevejo os grandes trabalhos, que desta vizinhau cahão de nascer aos Portuguezes; e que se acabou a India no mesmo dia em que a Nação Ingleza fizer assento em Bombaim. » See Memorias sobre ass. Pos. Port. na Asia, por Teixeira Pinto, edited by J. H. da Cunha Rivara, Nova-Goa, 1859, p. 185, and Mem. dos Estabel. Port., por Loureiro, p. 201 et seq. Lisboa, 1835.

tuguese Minister at the Court of St. James, dated the 4th, 5th, and 29th August 1774, reminds him of this alliance, which was further confirmed by the treaty of the 16th May 1703. (1)

But from the moment the English took possession of Bombay scarcely a year passed without some quarrel or other arising between the two allied nations. At last, the Portuguese losing all patience, thought of purchasing Bombay back from the English, and with this view negotiations for the valuation of the property were begun in 1726 and protracted until the year 1739, when the loss of Bassein and Chaul put a stop to them. (2)

The Portuguese, however, did not lose heart at this unexpected disaster, depriving them of two valuable settlements, which they had possessed for more than two centuries; but asked the mother country to supply them with reinforcements in order to retake them. In 1741 D. Luiz de Menezes arrived at Goa with 12,000 troops from Brazil, which only succeded in the restoration of the dependencies of Bardez and Sâlsette in the vicinity of Goa. Another armament was despatched from Portugal in 1774 with the same object of wresting their ancient possessions from the hands of the Marathas, but to know the result one must retrace a step back to the 1st of April 1772 when the Court of Directors of the E. I. Company ordered that a resident should be appointed to the Peishwa Madhu Rao's Court at Poona. Thomas Martyn was selected for this duty, the principal aim of his mission being to obtain possessions of the island of Salsette, part of Bassein, islands of Kenery, Hog, Elephanta, and Karanja. Madhu Rao died in 1774, and the English signed a treaty of alliance with Raghoba, a pretender to the throne of

⁽¹⁾ See the treaty and the Hist. do Roinado d'Elrei D. José e da administração do Marquez de Pombal, por S. J. da Luz Soriano, tome II, pag. 576.

⁽²⁾ See Dic. Expl. to Lagrange's Viagem de duas mil legoas, p. 16. Nova-Goa, 1848. And Deducção Chronol. de algumas infracções dos tratados da paz practicados pelos inglezes nos Estados da India, etc., in the Chronista de Tissuary, vol. I, pag. 130 et seq. and vol. II, pag. 14 et seq.

the Peishwas, one of its stipulations being, on his establishment in the government of Poona, to cede them in perpetuity Bassein and its dependencies. Raghoba declined to accede to this proposal, but offered instead to cede some districts in Gujarât, with which the English agreed. At this stage of negotiations the English were alarmed by the receipt of intelligence from their envoy at Goa that the Portuguese had sent a formidable armament from Europe for the avowed purpose of recovering their lost possessions of Bassein, Salsette, etc. What followed is told by Major Hough, who says: « The Bombay government resolved to anticipate the Portuguese, and Brigadier-General Robert Gordon was employed in an expedition, consisting of six hundred and twenty Europeans, including artillery, one thousand sepoys, and two hundred gun Lascars, to take Tannah, and Commodore Watson commanded the naval part of the force. The expedition proceeded on the 12th December 1774, and next day, a part of the Portuguese fleet anchored in the mouth of the harbour of Bombay, and formally protested against their proceedings. Finally, the place was taken, after a second assault. Another detachment, under Lieut.-Colonel Keating was sent to take possession of the fort of Versovah, on the northern extremity of Salsette. The island of Caranja was also occupied, and the whole of Salsette reduced before New Year's day, 1775. » (1) Thus the fears entertained with prophetic instinct by De Mello e Castro that the settlement of the English at Bombay would ruin the remaining Portuguese possessions in India were realized.

But to return to the work of Garcia d'Orta. He was not the first writer among the Portuguese on the natural products of the East, although probably the best qualified of all, in his time, from his medical training, to deserve the praise bestowed on him by Haller as primus glaciem fregit et naturam vidit.

⁽¹⁾ Polit. and Milit. Events in Br. India from the years 1756 to 1849, vol. I, p. 58. London, 1853.

His style, however, is very redundant and periphrastic, in spite of the dialogal form in which he conveys to the reader much valuable information, and which renders its perusal somewhat wearisome. This appears to have been a form common to the epoch in which our author lived; for we notice it also in his contemporary, the Spanish court-physician Villalobos. My friend Mr. G. Gaskoin of London, who has translated his works, says: « The age in which he lived has been called the watershed of human history. In spite of its bold, intrepid character, there is profuseness, intricacy, futility, in many of its literary productions. From such faults the special training of Villalobos and the lucidity of his thought have preserved him. » (1) This is equally applicable to Garcia d'Orta. (2)

VII.

Before d'Orta, however, there were other writers on his favourite subject, although not so well qualified, as above said, nor having so large a scope for their observations as this opulent physician, the former owner of Bombay. It is evident that what induced the Portuguese in the first instance to discover a passage by the sea to India was their desire to snatch away from the hands of the Venetians and Genoese the monopoly of the Eastern trade, rather than undertake conquests or make converts to Christianity. They sought by all means in their power to make themselves thoroughly acquainted with the drugs, gems, spices, and manufactures of India and China, their principal articles of trade being drugs, gems, and spices, of which the most valuable were cinnamon,

⁽¹⁾ The Medical Works of Francisco Lopez de Villalobos, etc., by G. Gaskoin, p. 47. London, 1870.

⁽²⁾ Details of the life and writings of Garcia d'Orta will be found in the Correio Medico de Lisboa, nos 21st, 22nd, and 23d of the vol. III, p. 242 et seq., by snr. Pedro Josè da Silva. Also in the articles under the heading of α Garcia da Orta, der Arzt, und Luiz de Camoès, der Dichter » by Dr. Ullersperger in the Deutsche Klinik, nos 50st and 51st for December 1874.

pepper and indigo. Falcaõ tells us that from 1586 to 1598 there arrived at the Lisbon harbour 34 ships with a cargo yielding 1227 contos or nearly L. 368100 sterling of custom dues, and that the importation of pepper alone within that period amounted to 150,000 quintaes (each quintal = 128 lbs), the price per each quintal being in India 30 cruzados. Each cruzado was worth 400 reis. (1)

It was by the sheer exigencies of their situation in India that the Portuguese were at last compelled to ally trade with conquest, at first raising numerous factories, and latterly surrounding them with forts, churches and convents. Eventually the influences of churches and convents prevailed over those of forts and factories, the clamour for the diffusion of Christianity drowning all voices for the extension of trade or territorial aggrandizement. And this clamour reached the highest pitch about the middle of the XVIth century, as we are told by the biographer of D. Joaô de Castro, who writes: « And from a letter written on this subject to him, we learn how warm an interest the king and his minister took in the cause of God; and of which we shall give a copy in order that the world may see that our arms in the East brought more sons to the Church than vassals to the state. » (2) The italics are mine.

There is, indeed, no doubt that the progress of the Portuguese in the East formed a brilliant triumph of military ardour and religious zeal, and when the former cooled down, the latter grew in intensity until the priest built temples where the soldier failed to raise a stockade. They entered on a task of magnitude, determined to conquer not only a new world for their king, but also fresh votaries for their creed; and where they could get wo worlds to conquer, they

⁽¹⁾ Quoted from the Archivo de Pharmacia, vol. IV, p. 126. Nova-Goa, 1867.

⁽²⁾ In the original it is written thus: « E de uma carta que sobre esta materia lhe escreveo, se colhe bem, quão inflammados andavão na causa de Deos el-Rei e o ministro; de que daremos a copia, para que veja o mundo, que nossas armas no Oriente trouxérao mais filhos à Igreja, que vassallos ao Estado. » Vida de Dom João de Castro, por Jacinto Freire de Andrade, p. 48. Paris, 1869.

had still converts to make to their faith. Thus, to choose one out of several religious communities settled in the East, the Portuguese Augustinians gained admission and built chapels and monasteries where the soldier could not obtain an inch of ground. There were also among them what are called military monks, and one of them by name Frey Joao reigned for many years as a petty sovereign on the island of Sundiva at the mouth of the Ganges, which was conquered by the Portuguese in 1609, and governed as an independent power by Sebastiao Gonsalves Tibão. Also a Franciscan monk by name Fr. Antonio da Purificação obtained from the Mogul the title of Nababo Dilavargenga Xamaner Bahadur, as it is given in Portuguese documents, and by the Portuguese themselves called Cavalheiro de Fortuna e Emprehendedor temerario. He was an intimate friend of Dupleix, governor of the French settlements in India from 1698 to 1750, and became eventually Bishop of Halicarnasse. (1)

The following list of Convents and Colleges of the Augustinians, giving their invocations, places, years in which they were built, and the number of churches or parishes under them, shows the extent of power enjoyed, as an example, by one only out of many Portuguese religious orders in the East.

Convent of Nossa Senhora da Graça, built at Ormuz, in 1573.

of N. S. da Graça, built at Thânâ (Sâlsette), in 1574.

of N. S. da Purificação, built at Cochin, in 1580.

of N. S. da Graça, built at Chalé, in 1587.

of N. S. da Graça, built at Chaul, in 1588.

de Sant'Antonio, built at Malacca, in 1590.

of N. S. da Graça, built at Macao, in 1591.

of N.S. de Annunciada, built at Bassein, in 1595-96, with one church.

of N. S. de Rozario, built at Muskat, in 1595.

⁽¹⁾ See Esboço de hum Diccionario Historico Administrativo, por Filippe Nery Xavier. Nova-Goa, 1850, sub voce Bispo d'Halicarnasse ou Alicarnasse, p. 245.

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Convent de Sant' Antonio, built at Mombassa, in 1597, others say 1567.

of N. S. de Graça, built at Goa, in 1597, others say 1572.

de Sant'Agostinho, built at Damaun, in 1599.

of N. S. do Rozario, built at Bandel (on the Hugli), in 1599, having under it 24 parishes.

of N. S. de Assumpçaö, built at Aspan (in Persia), in 1599.

Others call it Convent de N. S. Graça, built at the same place, in 1603.

College of N. S. de Populo, built at Goa, in 1602.

Convent of N. S. da Graça, built at Meliapur, in 1603.

de Sant'Agostinho, built at Colombo, in 1604.

de Santa Monica, built at Goa for nuns only, in 1606.

of N. S. da Graça, built at Georgistan, in 1607, with 50 parishes.

of N. S. da Graça, built at Bassora, in 1624.

de Santa Maria Maior, built at Shiraz, in 1625. of N. S. da Graça, built at Negapatam, in 1626.

Besides these twenty-two convents, they had several so called Hospicios with chapels for their travelling missionaries at Bombay, S. Thomé de Meliapur, Diu, etc.

With regard to the early trade of the Portuguese with the East, or their imports and exports, many valuable data may be gleaned from the annalists. The most ancient writer, however, on the subject was Tomé Pires, a native of Leiria and apothecary of prince D. Alfonço. On the conquest of Malacca by Albuquerque in 1511 he was appointed a writer of its factory, from which humble position be rose to be « factor and superintendent of drugs » on a salary of 30,000 reis and 20 quintaes of drugs a year.

Having the Portuguese on their return from Malacca informed the king that there existed eastwards a great kingdom, whose ruler, whom they called o rei do Cattayo, was the richest and most powerful monarch on earth, D. Manuel hastened to equip a fleet and send in discovery of this kingdom. The fleet sailed from Lisbon under the command of the ad-

miral Fernão Peres d'Andrade, having on board, among others, the newly appointed Governor of India, Lopo Soares de Albergaria, who was to select an ambassador carrying a letter and presents from the king of Portugal to that of Cathay. It would seem that the Portuguese were then little acquainted with the travels of Marco Polo in the 13th and of Nicolò Conti in the 15th century, and their visits to the territories of Kublai Khan, that being a time of little or no publicity.

The fleet having started in April 1515 arrived at Goa on the 18th of September of the same year. Lopo Soares's choice of an ambassador fell on Thomé Pires, who was then at Cochin. He received his credentials and sailed for China, arriving at Canton about the middle of the year 1517. His landing was attended with much pomp and circumstance, the fleet greeted him with a salute, the Chinese authorities came in solemn processions to receive him and he was allotted for his residence the best kiosk in the city. But this princely treatment was but an harbinger of misfortunes which were in store for him. While Pires was still at Canton another Portuguese fleet arrived there in August 1518 under the command of a brother of Fernão named Simão de Andrade. His indiscreet conduct is said to have apparently caused the negotiations undertaken by Thomé with the Celestial Empire to fall through, and eventually make him a prisoner. At last, after considerable delay, he was allowed to go to Nankin, where be arrived in January 1520, and then to Pekin in January 1521. He was to be a prisoner for life, or obtain his release under the condition of never leaving China again. It is said that he accepted the latter alternative, and that even took, as a solace, for spouse a china woman, by whom he had a daughter, whom he named Ignez de Leiria. Some of the statements, however, from the chroniclers are contradictory. We are told that when the fleet of Alfonço de Mello arrived at Canton, they were told that Tomé Pires had died in 1523; but Fernão Mendes Pinto tells us that in 1542 be saw his daughter, who informed him that Pires had but recently died after 27 years of residence in China. (1)

Thomé Pires is said to have written a latter to king D. Manuel in 1516 giving a detailed account of drugs, and also a work entitled Summa Oriental começando do Mar Rouxo até China, which be dedicated to D. João III. It is perhaps this work which Gaspar Correa tells us he wrote on the riches of China and sent to the Viceroy. There are said to be preserved in the Torre do Tombo four of his letters, which have but recently been published. (2)

It appears on the other hand that the mission of Pires and Andrade was not altogether a failure. The envoy from the viceroyalty of Goa obtained from the Chinese Government the concession of a narrow strip of land close to Canton, on which the Portuguese founded a settlement, whose Convents and Seminaries trained men for the missions of China and Japan. I forbear entering on geographical or political details, but confine myself to record the progress made in the languages and literatures of these two eastern kingdoms by the Portuguese missionaries and others who laboured with them. These missionaries first entered China by the way of Canton in 1581, the pioneers being Ricci, Roggerio, Paccio and Duarte, and only in 1583 gained a footing there. Semedo, who followed them, speaking of the difficulties experienced by them with respect to the Chinese language, says: « The language seemeth more difficult than any in the world, being curt and equivocal, and in this difficulty the Fathers were without any interpreter to explain what was said to them; so that they neither understood others nor others them; but by force of diligence and unwearied pains they went on conquering and gaining; and although they never arrived at any perfection

⁽¹⁾ Peregrinações, etc., pp. 120-121. Cl. Yule's Cathay, etc., vol. I, p. CXLI. London, 1866.

⁽²⁾ See Silva's Elogio historico, etc., in the Gazeta de Pharmacia, and also Jl. da Soc. Parm. Lisbon, 1836 and 1862. Also Barbosa Machado's Biblioth. Lusit., act Thomé Pires and the periodical Artes e Letras, n. 7. Lisbon, 1875.

in the language or good accent in pronouncing it; yet they discovered the mysteries of that tongue and set them down in so plain a form that they made it much more easy for those who came after them. » (1)

With regard to Japan, where traces of the influence of the early Portuguese missionaries are still found near Nagasaki in the retention of words of the Portuguese language, etc., the Portuguese trading vessels began to visit that country as early as 1542. About seven years after Xavier, Torres and Fernandes landed at Kagoshima, and Rodrigues was in 1591 to the mission of Japan in a lesser degree what Ricci was to that of China. But we shall refer to this subject again hereafter.

To return to the natural history of the East, although Tomé Pires and Garcia d'Orta were the earliest Portuguese writers on the subject, several of the Portuguese settlers in India appear, however, to have contributed to enrich the flora of the country by introducing many exotic plants. Besides several useful fruit-bearing and flowering trees and shrubs, they imported and naturalized such important plants as capsicum, potatoe, tabacco, between 1556-1605, and several others which now constitute valuable articles of trade. The aloe, two species of the prickly pear (opuntia), perhaps the whole cactus tribe, the yellow thistle (Argemone Mexicana), and many others, which now grow wild in India, are natives of America, brought by the Portuguese. The rose, coloured periwinkle (Vinca rosea) was brought from Madagascar; the Allamanda cathartica, from the Guianas; the Cantanas from the West Indies; the Asclepias curassavica, or the Ipecacuanha plant, as it is erroneously called, from South America; the Mimosa pudica, or the sensitive plant, from the same; several species of Crotalaria from Jamaica and the Cape of Good Hope. The Carica papaya or the papaw tree, which has many valuable properties, appears also to have been brought by the Portuguese from the Antilles, where it is indigenous.

⁽¹⁾ Quoted from Trans. of the As. Soc. of Japan, 1878, vol. VI, Pt. I, p. 4.

The Barmese name of this plant Thimbawthî, which means a fruit brought by sea-going vessels is a further confirmation of its foreign origin. The Pine-apple tribe (Bromelia-cae) is also an American family, and Abul Fazl in his Ain-i-Akbari says that in his time (about the end of the 16th century) it was introduced by the Portuguese into Bengâl, the precise time being the year 1594. But while introducing exotic plants into India, they did not fail to carry useful Indian trees to their western settlements. Thus they introduced the cocoa-nut tree (cocos nucifera) from India into northern Africa and the Cape Verd islands.

Amongst the works on natural history and agriculture written by the Portuguese in later centuries, we have the Arte Palmarica, which has been printed in the Bosquejo Historico das Communidades, by F. X. Xavier at New-Goa in 1852, p. 45 e seq.; Tratado de Agricultura, written in 1773 by Fr. Clemente de Resurreição, published by Mr. Bernardo Francisco da Costa in his Manual Pratico do Agricultor Indiano, Lisbon, 1874, vol. II, pag. 281 et seq., where also the Arte Palmarica is reprinted with some corrections, and the Observações sobre a Historia Natural de Goa, written in 1784, by Manuel Galvão da Silva, and published by Mr. J. H. da Cunha Rivara in 1862. We may also mentions the excellent work of Joaö de Loureiro, entitled Flora Cochinchinensis in two volumes (4to major), published at Lisbon in 1790.

Besides studying drugs, gems, and spices of India; besides promoting agriculture and introducing useful plants into the country, the Portuguese devoted special attention to the subject of weights, measures and coins of the Eastern peoples. The work entitled: O livro de Pesos, Medidas e Moedas by Antonio Nunes, written between 1532 and 1551, and published for the first time in 1868 by Mr. Rodrigo Felner in his Subsidios, is a valuable contribuition to the study of this subject. Duarte Barbosa also in his work, which has already been translated into English by the Hon. Mr. E. J. Stanley, under the heading of Description of the Coasts of East

Africa and Malabar in the beginning of the sixteenth Century, gives abundant information about the weights, measures and coins of the two coasts. (1)

With regard to coins, mintage was introduced into India soon after the conquest of Goa. It was Alfonso d'Albuquerque who in 1510 founded a mixt there and distributed money among the people with a quaint ceremonial described by his son in the Commentarios of the Portuguese Cæsar. (2) They were in this respect much in advance of their old and faithful allies, the English, wo did not coin money in Bombay till 1687, and in Bengâl till 1715 at Mûrshedabâd. To conciliate as much as lay in his power the fiscal and financial systems of the Portuguese with those of his predecessors, Albuquerque adopted the Quaternary scale, which is the heritage of masses in India, having survived alike Aryan intrusion and early Muhamadan conquest; although in his own country the decimal division of money has prevailed from a very remote period. (3) The great Akbar made the Quaternary scale more effective by dividing his rupeia into 40 dams or peisas of copper, and each dâm into 25 jitals. This system still flourishes undisturbed by its 4's, 16's, 32's, and 64's by the presence of British decimals; and it induced the great Albuquerque to divide his tangas brancas into 4 barganins, and each barganim into 24 leaes, basing on this scale his meias esperas, and esperas, having a cross of the order of Christ on the obverse, and a sphere, the device of D. Manuel, on the reverse. (4)

It seems that the quaternary scale is a natural division to which people adhere themselves most readily. Even in

⁽¹⁾ This is a translation from the Spanish, published by the Hakluyt Society, 1866. 8°.

⁽²⁾ Commentarios do Grande Afonso Dalboquerque, Pt. III, p. 48 et seq. Lisbon, 1774.

⁽³⁾ Cf. Mr. E. Thomas's Chronicles of the Pathan kings of Delhi. London, 1871.

⁽⁴⁾ Annaes Maritimos e Coloniaes. Parte não official. Lisbon, 1844, p. 51 et seq.; and Memoria sobre as moedas cunhadas em Goa, por F. N. Xavier, p. 71 et seq. Nova-Goa, 1866.

France, in spite of the decimal system being enforced by law, and its adoption unanimously recommended by the learned of all countries, on account of its greater practical facility in accounts, the duodecimal or rather quaternary division of weights, measures and money continues still in use. And the reason of this obstinacy in adhering to a less perfect mode of reckoning may be the fact of the value of the perducts of art and nature being the time and labour involved in them. Indeed, one of these elements, time, regulates in a considerable degree the value of the other, labour, and is the usual measure of it. But time is divided by nature duodecimally and not decimally, the four seasons, the twelve months, the four weeks, and the twenty four hours being the natural divisions of time connected with changes in our planetary positions. Some such ideas, at a time when astronomy was in its infancy, and political economy was yet unborn, must have actuated in the mind of Alfonso d'Albuquerque in not altering the quaternary scale in vogue among the natives of India.