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## CORRESPONDENCE

OF

## DR. ANDERSON.

PHYSICIAN GENERAL OF MADRAS.

Since the latter end of the year 1796.

EXTRACTED FROM THE PUBLIC PAPERS.







454 59



# CORRESPONDENCE

## DR. ANDERSON,

#### To JAMES ANDERSON. Esq.

I AM favored with your latest publication, for which I re-

turn you many thanks.

I have found it fo very difficult to prevent the Nopal plants from being destroyed by the Insects, that I am now trying a different method, which as far as I can judge, will answer very well; after I have obtained as many crops of Insects as the plant can give without being destroyed, I cut it down and divide it into several small pieces, which from their fize can be perfectly cleaned of the Insect, these I put in some fresh ground about an inch or two below the surface, and from the very rapid growth of the plant, I expect that in eighteen months, they will be of a size fit to receive the Insects; in this way, I can have a variety of plantations to any extent, without any risk of the Nopal being destroyed by the Insects; and attended with very little trouble or expence. I have tried this on a small scale, and find the Nopals are now coming above ground, after having been buried about fix weeks.

J. CARNIE.

ROYACOTTAH, Odober 11th, 1796.

#### Extract of a Letter from Dr. Scott, dated Bombay, September 20th, 1796.

"I wished to have been able to have added some of the plants you mention to your valuable collection, and shall yet I doubt not accomplish that wish. The Almond is not to be found on this side of India, nor the Pistachio-nut tree; I shall endeavour to get them from the Persian Gulph, and wish I may be more successful than I have hitherto been.

The large Mango of Sallette, and Mamme tree of Bombay, I may venture to promife you; they shall not be forgotten.

The Nopals with the Cochineal Infect, that you put on board the Success Galley, were entirely destroyed by the Rats before their arrival here, but I had no reason to regret it, for we have not been able to find in Bombay, a fingle plant of that species or variety of Cactus, which is is so very common on your Coast; I have no where in Salfette been able to find it, although the Nopal with red flowers, is every where common as hedges.

I got from Bengal a numerous breed of Infects, which we in vain attempted to preferve with the Nopals that are found here; they remained long on the plants, but gradually difappeared, no doubt from want of fufficient nourishment; for I

cannot afcribe my want of fuccels to any other cause.

If you will have the goodness to send me round a quantity of the proper Nopal, I shall make a plantation of it, and send it to others, who may be inclined to try the cultivation of Cochineal; when we are in a fituation to provide for the strangers, I shall take the liberty of informing you, and begging a supply of them."

#### To DOCTOR H. SCOTT, at Bambay.

I am greatly obliged by the attention you have shewn to the different fruit Trees we wish to try here, and either Doctor Berry or I will take care to send you abundance of Opuntia plants; as Ships going your way, can take them up at every place on the Coast to the southward of Madras, as well as at Trincomallie, and hope in return you will send us some of those you mention with red slowers, which may be a kind we have not yet got, and fuitable for rearing the Grana Fina, if it should ever chance to be brought to India. J. ANDERSON.

FORT St. GEORGE, Od. 13th, 1796.

#### To E. W. FALLOFIELD, Esq.

President and Members of the Board of Trade.

LORD HOBART having faid that the Board of Trade would receive the Cochineal which I prefented him by Letter on the 17th ultimo, I have now the pleasure to fend it to you packed in three boxes, and hope that you will favor me with a written receipt in teturn.

J. ANDERSON.

FORT ST. GEORGE, Od. 1816, 1796.

Received three boxes of Cochineal, directed to the Prefident and Members of the Board of Trade.

EDWARD HOLLAND,

MADRAS, Odober 18th, 1796. DEFUTY SECRETARY.

#### To DOCTOR ANDERSON.

DEAR SIR.

I HAVE at length the pleasure to acquaint you of the success of my Cochineal speculation at Pondicherry, and am happy to offer an additional fact, in support of those assurances which your observations have enabled you to give the Public.

The number of poor Children I employed to collect the Infect, procured me in twenty days, Seven hundred and Fifty Pounds; from this quantity I obtained one Hundred and Ninety Five Pounds of prepared Cochineal, about Thirty-eight of which were of a smaller kind; I forwarded the whole to the Collector, and as a testimony of its good quality, the following is an extract of his Letter: "Yours is the first Cochineal that has been offered me, and the best I have seen,"

JULIUS GRIFFITHS.

PONDICHERRY, if November, 1795.

#### To DOCTOR ANDERSON, P. G.

DEAR SIR.

Accerr my thanks for your kind attention, in fending me your different publications, for although a filent, I have not been an inattentive or entirely idle observer of the success your truly laudable and philanthropic schemes have hitherto met with.

A refidence of fome years in this Country, has given me opportunity of being fully convinced, that many parts of the Baramahal, are eminently adapted to the cultivation of Sugar and Indigo, yet I fear that the very long Land carriage, would render any attempts to cultivate these articles, either for the Europe or India Market, entirely unproductive.

How far the southern parts of the diffrict, on the vicinity of the Cavery, and the probable advantage of water carriage, may be better adapted to this species of cultivation, remains

yet to be determined.

The Mulberry thrives admirably in all fituations, where there is any command of water, but fuch are univerfally occupied as Paddy Fields, and whatever may be the opinion of the Natives in regard to Sugar and Indigo, it will require more than private influence to perfuade them that Mulberry leaves are as valuable a Crop as Paddy; until this is done, and the cultivation of the Mulberry, entirely in their hands, all idea

of making Raw Silk to advantage must be dropt.

The Naga Calli is in great profusion all over the Country, but the importation of the Cochineal Infect, has proved fatal to every Bush it has hitherto been put upon.——I brought some from Trippatore, six or eight months ago, and put them on a strong and vigorous Hedge, which is now levelled with the ground, to the utter assonishment of the Chucklers, whose Village it surrounded; they were in some degree consoled for the loss of their barrier by the encouragement I gave them for picking off the Insect and bringing it to me——I send you a specimen of the produce, which amounted to several Pounds.

I might have made a great deal, if I had not used every means to prevent the dispersion of the Insect on the different Clumps of Naga Calli, in this neighbourhood, until some Piantations I am now laying out are in readiness to receive Infects and secure a stock of the Plant, the utter extirpation of which which tiems to be threatened by the very alarming progress made to be Infect, in various parts of the Country already.

I have to thank you for fome Pine feeds, fent me by your defire: they and fome Nutmegs, have been fome weeks in the ground, but none of them have yet made their appearance.

The Bastard Cedar, when sheltered from the westerly winds, succeeds well; but such plants of it, as are exposed without support, are either strangely distorted or entirely overthrown.

The Vine thrives admirably, and although we cannot yet boaft of a great variety of Fruits, our Kitchen Gardens, are

equalled by few, or none on the Coaft.

Indeed the Climate is particularly favorable. ———I have not kept a regular diary of the weather, but upon comparing the flate of the Thermometer in different parts of this diffrict, with the accounts I have had from Vellore, Arcot, and Madras, I think I may venture to fay, that we are at an average five degrees cooler, all the year round than the Carnatic: and at Ryacottah, the Thermometer generally flands three or four degrees lower than in any place below the Ghauts.

Land winds and the intense and fatal heats that sometimes accompany them, we never experience.—The westerly winds fet in, in March, and blowing during the month of April and May are merely disagreeable, until the commencement of those refreshing Showers, that beginning to fall about the end of April, continue at short intervals 'til the setting in of the N. E. Monfoon, rendering the weather in June, July and August, extremely

agrecable.

Several persons (Officers and others) having died during the first twelve months of our being in possession of these Countries, impressed people in general with an idea, as was very natural, of their being extremely unhealthy; I have however much satisfaction in being able to assure you, that to the best of my knowledge (and I have taken some pains to qualify mysself to make the assertions) only one European has died of any disease that could with propriety be considered as peculiar or endemic in this District; in extenuation even of this fact, I might observe that the person in question, was so circumstanced as not to have had the chance that might have been afforded by early Medical Assistance.

The other deaths were all occasioned either by accidents, or fuch diseases as might have been contracted at Madras, Montapeller, pelier, or any other healthy fituation in the know. World; and of these the number is rather under than above the proportion that annually takes place in Provinces long inhabited by Europeans, and where the advantages of superior acommodations of every description, are added to those to be derived from attentive observation, and local experience.

Intermittents are the complaints to which we are chiefly liable; they are in most instances slight and seldom fail to give way to a change of air, almost without the aid of Medi-

cine.

A Journey to the Coast has always proved a never failing remedy, in the most inveterate cases that have hitherto occurred.

I have met with some instances of Fever amongst the Natives followed by the Barbiers, some of whom I have not been able to relieve entirely, the rigidity, and stiffness of the Joints remaining for months, nay years after every other symptom of disease has disappeared; the treatment recommended by Bontius (who gives a particular account of this disease) I have found the most successful.

The guinea worm was very common among the Sepoys fome time ago, but is not fo much fo now, at Sankrey droog in the Year 1793, feveral of the European Officers were feverely affected with them, this they attributed to the water, with what

justice I will not pretend to fav.

The Small Pox has not been Epidemic in the district for feveral years past, such Children of Europeans and Sepoys, as have been Inoculated have done well, but I have not as yet been able to prevail on one of the Inhabitants to allow me to Inoculate their Children, although I have repeatedly made the offer.

Cancerous affections, particularly of the glands of the Cheek, are very common amongst the Old Women of this Country, in one or two instances when applied to in time, I have had the happiness of affording some relief, but a great majority of all the cases, I have seen, proved fatal.

A foul and malignant species of ulcer was very common, amongst the Sepoys, on their first arrival in the ceded districts,

they have now entirely disappeared.

Upon the whole, notwithflanding the prejudices that were, and I believe ftill are entertained against the coded districts as being unfavourable to the health of Europeans, I must declare the result of my observations proves directly the reverse,

and

and the I cannot help confidering the climate to very favorable conthole, whose duty it is and will be, to guard and protect these valuable Territories, as in itself to constitute a point, adding not a little to the estimation, in which this useful acquistion to our possessions on the Coast, ought to be held.

As you of all others are the Person to whom observations of this Nature (however imperfectly made and inaccurately communicated) ought to be addressed, I trust you will excure

me for intruding to long on your time.

DEAR SIR,

With respect and effects,

Your very obedient Servant,

WILLIAM ORD.

KISTNAGHERRY, O.G. 2016 1796.

#### To DOCTOR JAMES ANDERSON, P. G.

MY DEAR SIE,

I am extremely obliged by your kindness in sending me your two last publications, the first I deserved replying to until I had made inquiries whether the Naga Cash grew in this District. I have now the pleasure of informing you that I have already discovered three, from which I have taken three hundred Plants, which promise to flourish.

If fuecefsful in finding more I shall form an extensive hedge sound a piece of ground which I cleared of Jungle for exercise.

When my Plants grow to a full fize I shall be able to put leaves in the Jungle, with which this Country abounds, and shall apply so you for the Insect.

I am with much efferm,
My DEAR SIR,
Very truly yours
JAMES OLIVER.

Pulman, Odober 14th, 1796.

#### MONSIEUR LE DOCTEUR ANDERSO

Fort St. George.

Monsteur,

Vos ecrits sur la Cochenille m'ent dèterminé a faire un essay, je vous envoy la montre de ce que j'ai prèparè et je vous serai obligé de me fairé savoir, Si elle est parvenu au degrès necessaire pour être vendu. J'ai Phonneur d'être avec consideration,

Worre très humble et obeiffant Serviteur, COLLIN.

PONDY. le 17 8bre. 1796.

To Mr. COLLIN,

At Pondicherry.

SIR,

I am favoured with your Letter of the 17th Inftant, but cannot refolve the queftion whether the Cochineal is yet in fuch a flate of perfection as you wish to be informed, feeing that none of it has been fold excepting upon an arbitrary arrangement, and in an open Market the opinion of the Buyer must prevail.

All that I can fay is, that it possesses more colour than the Sylvester of the Shops, and there is every probability its real value will rest fomewhere between that and the Grana Fina.

The specimen you have sent is as good as that I have prefented to Government, with the view of inducing them to follow up the subject as much as it appears to deserve, and therefore you will be so obliging as accept my best wishes for your Success.

I am with much regard,

SIR,

Your very obedient humble Servant, JAMES ANDERSON.

FORT ST. GEORGE, Odober 22d, 1795.

## 3

#### To DOCTOR ANDREW BERRY, Superintendant of the Hon. Company's Napalry

SIR,

I am directed by the Board of Revenue, to send the two accompanying Pots, faid to contain 67 lb. of Cochincal, for

your inspection.

They are fent to you in the ftate in which they were received from the Jaghire Collector, and you will be picased to fuggest any alterations that may appear to you necessary for the guidance of the Inhabitants, in preparing this article,—and your opinion, whether it be of that description for which one Pagoda per lb. should be paid.

I am, Siz,

FORT ST. GEORGE, S. R. LUSHINGTON,
November 1st, 1796.
SECRETARY.

To S. R. LUSHINGTON, Eag.

Secretary to the Revenue Board.

SIR,

I have to acknowledge the receipt of your Letter of the rst infrant, with two Pots, faid to contain 67 lb. of Cochineal, from the Jaghire Collector, which the Board of Revenue wish me to report on, and to suggest such alterations as may appear necessary, for the guidance of the Inhabitants in preparing this article.

I may much pleafure in reporting that the Cochineal has been properly prepared, is well cleaned, and though not forted into large and fmall Insects, which as an article of trade might be proper, yet as all the Insects are equally colouring, it is such as I would recommend a Pagoda per 15, to be paid for.

As to suggesting any alterations for the guidance of the Natives in the preparation of the Infect, so much has been already pointed out in Dr. Anderson's Correspondence, and my letters, and the whole is so simple and easy, that nothing further can be required.—Doctor Anderson's Tamul directions being sufficient for their guidance.

In regard to the Plant, I have at present to mention, and after the Leaves become yellow, from two or three generations of Insects, if cut down, the ground dug and made to cover the roots, they will shoot up leaves, that in fix or eight months may grow to tolerable fized Plants; at leaft, fome I treated fo in August, at prefent promise well; but if the Plants are allowed to be destroyed, the roots in general lose all their vegetating power; this with what Mr. Carnie has mentioned of cutting off the leaves after the collection of the Infect, and planning them fo as to be covered with earth when they are vegetable, may probably avert the defirection of the plant hitherto apprehended-for the washing and keeping clean plants that Infects have been on, requires more attention than is likely to be given ; and for a long time, the Leaves flowly recovering from their exhaustion, and feldom I believe attaining their former luxuriance, or vigour fufficient to throw out other healthy leaves.

For this reason it may be prescrable to cut them down to the ground, that the root not yet much injured from the check to the circulation of its juices may produce a new plant.

Having shewn your letter and Cochineal, to Doctor Anderfon, he requested I would mention his fatisfaction at even this
heginning; but that unless the Collector of the Jaghire will
induce the Antildats, and other Native Revenue Officers so,
as to induce their interesting the Ryots, to the care of the
plant, and collection of Cochineal, very little advantage can
be taken of the great quantities of Nopal in the Jaghire, as the
greatest part of both the plants and Infects must otherwise be
less;—and from which it is impossible to say how much might
have been collected, and how much the poorest and most infirm
of the Ryots might have been benefited; as Doctor Anderson
in the neighbourhood of Madras alone, has collected above
1000 lb. weight of the dried Infect.

I have weighed the Cochineal which you fent, and by fome miffake, it is only a little more than 54 lb. Averdupoife, inflead of 67. I have again covered and fealed the Pots, which

are herewith returned.

I am, Sir,

Your most obedient Servant, FORT ST. GEORGE, Nov. 2d, 1796. ANDREW BERRY, PONDAMALLIE, le 7me November, 1796.

#### Mon chen Docteus,

Loss que je pourais avoir du fil de fer je travaillerai aux Cardes, dont je vous ai parlè ci devant, ayant a peu près tout ce qui m'est necessaire d'ailleurs.

Pai essayé de faire ramasser la Cochenille qui est venue sur les Nopules a l'entour de mon Jardin, j'en ai cus fort peu,

mon frere vous la remetra.

J'ai observe tant aux gens que j'ai employe quà ceux que Monfieur Parkifon a envoye pour le meme jujet que le veloure epineux de la feuille bruloit les doigts des ouvrices, ce qui etoit la cause qu'ils ne ramaffient pas un tier de ce qu'ils auroient du, j'ai pense que des petites pinces faciliterolent beaucoup l'ouvrage, et seroient que la recolte Scroit beaucoup plus confiderable. J'ai voulu en faire faire a un Mareschal, il na paspu Saisir mon idee, d'ailleurs ce Seroit un objet de depense, & les habitans de ce pais ont de la peine a concovoir que la depense en outile est un avance a tres gros intereta, j'ai fait differents essais, enfin je croi avoir trouvé des pinces a la ported des habitans, puis qu'il n'est question que d'un morceau de petite Esmboue, que tout individu avant un couteau peut ajuster. I'en ai fait l'essai moi meme, et je trove qu'il remplie l'objet. Je vous en envoye deux, je souhait que vous les aprouviez, et qu'elles contribuent dans leur simplicite a augmenter la recolte de la Cochenille.

> J'ai I'honneur d'etre, avec une parfaite consideration,

Mon cher docteur, Votre tres humble & tres obcissent Serviteur

> MEURON. B. G.

To ERIGADIER GENERAL MEURON, Commanding Posnamallee.

MY DEAR GENERAL,

I am favoured with your Cochineal amounting to fix lb.

1b. which shall go to Market, and be accounted for with my own, in acknowledgement of the use that must result from the Bamboo forceps, in fleadily holding the leaves of fo thorny a plant with one hand, while the other hand employs the wooden knife to scrape off the Infects, as the Cloth, or Vessel, for receiving them, may be placed on

the ground.

The Cards which you likewife proposed for rendering our waste Silk useful, is the only thing now wanting to attach the Natives to the culture of Mauritius Cotton, the staple of which is so thort, close, and fine, that unless it is previously Carded, they cannot spin it into an even thread; of which Mr. De Laurent has fatisfied me, by a piece of cloth he has been fo obliging as to manufacture at Ingeram, from the produce of my Garden.

I have got intelligence of fix lb. of iron Wire of a proper fize, which will be fufficient to begin with, and which thall be fent you without loss of time, believing as I do, that your skill in card-making will give a greater fpring to this important article, than untold

gold.

Yours without alloy, JAMES ANDERSON.

FORT ST. GEORGE, November 8th, 1796.

To EDWARD SAUNDERS, Esq. President, and Members of the Board of Revenue.

GENTLEMEN.

THE Bearer, Swamy of Pondicherry, ignorant of the arrangements of Government; having brought fixty two Pounds of Cochineal here for Sale, instead of carrying it to the Collector there-To avoid the rifque of its being spoiled on the road, in this unfettled and rainy weather, in cafe he is obliged to carty it back again; I have given him this introduction to your notice, that as the Drug appears of good quality, and is cured agreeable to what has been recommended, you may take it off his hands, and pay him the amount, at a Pagoda a Pound, without putting him to further trouble.

I am GENTLEMAN
Your Obedient & very humble Servant
IAMES ANDERSON.

FORT ST. GRORGE, Nov. 19th 1796.

Extrast of a Letter, from ROBERT WISSET Esq. dated Eaft

India Honje, April 8th 1796.

I had this day, by the Mary Packet, the favor of a continuation of your Printed Correspondence, on raw Silk, Cochineal &c. for which be pleased to accept my thanks—The quantities of Silk that have from time to time, been forwarded to England, having been inspected by experienced Persons, is pronounced excellent; and some of the sner Skains, have been deemed equal to Italian Silk, which has always been prefered to the Bengal, from its being of a firmer texture.

The Coast Silk approaches nearer to that from Chinz. The various public duties attached to my station prevents my entering so largely into private Correspondence as I could wish, or would sooner have ventured to have broken silence, on a subject on which our hearts seem to beat in unison, the promoting the Commercial intercourse between the two Countries."

Extra@ of a letter from MAJOR GENERAL FLOYD dated Trichinopoly October 20th 1796.

"I THANK you very kindly, for having had the goodness to fend me regularly, the Publications on improvements in India, which have folely originated in your intelligent and active mind, and were so justly conceived, that although to most people they appeared visionary at first; they are actually advancing into articles of Trade, National objects: and the Cochineal, which seemed the most difficult of all to procure and propagate, is now flourishing every where, and soon eat me out of House and Home, and bids defiance to any attempt to eradicate.

It was not in my power to give the attention to them, I wished, but I see with fatisfaction that many abler hands,

have foffered and followed them up, to compleat success.

All I have to boost of, is a small but surprizing fine Plantation of the Bastard Cedar which appears to me almost a miraculous effect of the powers of Vegetation—It is now about twenty-eight months old from the Seeds, and the Trees are now from twenty-five to thirty feet high, with proportionate stems and branches, and of beautiful growth.

The Guinea Grafs, flourithes in most situations. The Silk you have established, and all the Spices of the Dutch, from all the Islands of the Indian Ocean, are now domesticated in

the British possessions in India.

Be our Countrymen, but united and devoted to the fupfort of our Glorious Conflictation, and our Laws, whole foundation is laid in Wifdom; fo shall the Fabrick of the British Empire be handed down to future ages, in splendor, and in vigour, though all mankind besides, should affail."

#### To MAJOR GENERAL FLOYD,

FORT ST GEORGE, November 3d, 1796.

#### MY DEAR GENERAL,

In support of my sensibility to such emotions as a Picture drawn by so able a hand may be supposed to excite I will state the progress of Cochineal for six months, collected in my Garden until the Plants were destroyed, and in the neighbourhood, until the difficulty of drying it in rainy weather, has interrupted for a while the collection, as appears by my accounts taken with the Pound Averduroise.

16 241 493 1921 1078 1409 1102	Collected in May June July August September October
Total 3796	
This	Liver to the second of the second

This collection of Infocts has produced of dry, and I suppose Marketable Cochineal, that which I some time ago presented to the Court of Directors,  To the Governor in Council,	lb 21	5
	Total 35	H C
And leaves on hand fome that I intend to fend to Bombay, for the market of China, Surat, the Gulph, and Red Sea; amounting to	1b 656	
Grand Total of Cochineal,	- 1007	in the

Notwithstanding all that you have faid however, we must yield the Palm, to the late Colonel Kyd, who stands foremost in Indian Gardening.

Believe me truly yours,

JAMES ANDEP

Extra3 of a Letter from Ma. STREET.

Affifiant Surgeon, N. C. Arcot, to DOCTOR BERRY.

off for Arcot, which prevented me from answering it earlier.

The Muster of Marketable Cochineal you sent me was certainly most excellently dried and clean, but I think it was very small, if you call it the first fize—I collected at Cuddalore upwards of Five hundred Pounds of the live Insect, which is now fit for the Market, but in its present state, I have but little more than One hundred Pounds.

I have not reduced it to a first and second fort, because I think it all larger than the muster you sent me.

I am not at all altered in my opinion relative to the quality of the Cochineal, as I believe I used the fame quantity, as is generally made up in England, that is an Ounce Once of Cochineal to a Pound of Cloth, two Drams of which I used in the first boiling, and fix Drams in the last——my composition, was made, by making an Aqua Regis of the strongest Spirit of Nitre, by the addition of Sal Ammoniae—to this was added a small proportion of sal Nitre, and then the Tin dissolved—the Cochineal should be most finely powdered, and two Ounces of Cream of Tartar mixed with it each boiling; the quantity of water I used was thirty eight quarts, to the above proportion of Cochineal—but I understand the Scarlet Dye is the most dissolut of any, almost every Dyer keeping his own particular receipt for it—The quality of the water, the time of adding the Cochineal and Cream of Tartar, and the moment of putting in the composition; must be particularly attended to.

If you wish to know the difference, and will send me a little English Cochineal, and a few Ounces of good Aqua Regis, I will ascertain it with the greatest exact-

nels, and give you the information.

As Government have authorized the Collectors to purchase the Cochineal of every one that sends, it is necessary you should send a muster to every one of them, as some of those Gentlemen, know little of the quality of Cochineal; it may prevent large quantities of rubbish being bought. I have already seen near 200 Pounds sent in by one Person, of which I am certain there is 40 or 50 Pounds of sand and filth.

Had I remained at Cuddalore, I intended carrying it on upon a very large feale, as I am certain the Natives will never expend a fanam upon it till they fee how it

answers with others.

I had a Bramin came to me upon the fubject, who was willing to lay out any fum in conjunction with me, but was fearful of undertaking it by himself, though I did all I could to convince him of the advantages."

To JAMES ANDERSON, Esq. P. G. Medras. Sin,

The Telegraph of this day, which I have the pleafure to forward you by Dawk, will mark the expedition I have

have used in preparing your valuable Letters and Correspondence for the Preis.—The Telegraph, though a young Paper, has made its way into almost every part of India? and is therefore well adapted, for diffeminating those useful communications.—I shall be very happy, Sir, on all occasions that may offer, to afford my assistance, in giving publicity without expence to any Letters &c. on those important branches of Commerce which have so successfully engaged your attention.

I am Sta, with great respect,
Your Obedient Servant,
HENRY Mc, KENLY

Editor of the Telegraph, CALCUTTA, Odober 29th 1796.

> To HENRY Mc. KENLY Esq. Editor of the Telegraph. Calcutta

Sin,

I have the pleasure to acknowledge the receipt of your Letter of the 29th ultimo, enclosing a Copy of my Correspondence until the 3d of that month, which confirms intimation lately received from a Gentleman in your Office.

The fequel of my Correspondence being divalged in one or other of our Public Papers here, puts it in your power to reprint whatever may appear to descrive attention in Bengal, and in token of my approbation request you will confider me, a Subscriber to your Weekly Paper.

I am your Obliged and Obt. Servant, IAMES ANDERSON.

FORT ST GEORGE, November 15th, 1796.

To DOCTOR ANDERSON, P. G. Madras.

DEAR SIR,

I have been favored with your kind Letter enclosing your different Packets for London, which I have duly delivered vered to Captain Johnstrop who fails this night, and has promifed to take care and forward them to their defination.

I have also fent accounts to our German Societies, of the progress of your Cochineal, Silk, Cotton, and other Plantations, and have transmitted a good deal of the Cochineal to be tried at Copenhagen, Berlin, Erlangen and Jena.

I have fent famples of Cochineal both in a cleaned state, and without the trouble of cleaning, and think the white covering of the infect, will not be prejudicial to the Dye,

and only lessen the specific weight.

You will excuse my keeping the fourth Volume of the Asatic Researcher till I have copied some interesting subjects and will peruse the whole with more leisure and attention during the rainy season, than I have hitherto been able, on account of the time necessarily employed in my dispatches for Europe.

I acknowledge with the most fineere thanks, the receipt of your Printed Letters, which have given me the greatest plea-

fure.

Having received Copies of the Diplomas conferred on Mr. Rottler and myfelf, by the Imperial Academy Naturæ Curioforum, from the Prefident Doctor Schreber at Erlangen, I have the pleafure to enclose you one of them, and in case I should not be able to write Doctor Berry, I heg you will tell him, with my best compliments that I have duly received the Plants from Doctor Rosburgh which he fent by Captain Beck, and that I will answer both his Letters as soon as I am at leisure.

We have likewife got a good number of Plants from Doctor Heyne, together with a Box of very fine Infects, from the Northern Circars, but as his Collector has been obliged for want of pins, to fix many of them with the Prickles of the Cactus Opuntia, you will be fo good as to forward the enclosed Pins to him, with the addition of such others of a larger and

leffer fize, as may be procurable at Madras.

I remain with great regard DEAR STR.

> Your most Obedient and very humble Servant, C. S. IOHN.

TRANQUEBAR, October 26th, 1796.



To

#### To THE REVEREND DOCTOR JOHN,

at Tranquebar

DEAR SIR,

I am favoured with your Letter of the 26th ultimo, and am much obliged by the care with which you have forwarded my Letters; the different of the Imperial Academy in conferring titles of honor on such deserving characters as you and Mr. Rottler, gives me an additional opportunity of acknowledging the support which your countenance has frequently afforded to my pursuits, as well as substantial assistance derived from your more adequate knowledge of the Tamul Tongue.

The specimens of Cochineal which you have fent to Germany, will give us correct information of its real quality, but in the mean time there appears sufficient documents to warrant all ne-

ceffary expences for its care and cultivation.

Putting the means of earning a fablificance into the hands of an industrious Poor; and relieving a Country that has no dependence bet on Rain falling at a certain feafon, from famine, or even the idea of Vamine, by the culture of such articles as require little water: with the produce of which, grain may be purchased from other Countries, is the object I have had in view.

The attempt it is true has not been made without fome fuccefs, in establishing facts; but the use that has yet been made of these is hardly worthy of notice.

Rely on my executing faithfully the few Commissions you

have mentioned .- and believe me,

Your sincere well wisher and very Obedient Servant,

JAMES ANDERSON.

FORT ST. GEORGE, Nov. 13th, 1796.

To JAMES ANDERSON, Esq. P. G.

I may been honored with the receipt of your last published Pamphlet, and reading over the proposals therein enclosed request that you may be pleased to get my name inferred in the list of Subscribers.

The

The Cinglee Language is divided into two parts, (viz) the Acromatic, or Poetical, and the Exoteric or Vulgar. The former is flyled the Candean Sanferit, properly denominated Paullee, or Mangada whereas the latter is called Cinglee, —each part has a peculiar Grammar, and I am fludying these

two Grammars at once.

I retain three instructors, of whom two are Cinglee Priests, and the third a lay Narive; about ten o'clock in the morning, I go to the Revenue Office, and attend the Translating business until three or four o'clock Afternoon, I then return home, and study the Cinglee Grammars, until eight or nine o'clock at Night, fo that I am always busy, and consequently unable to write you often; yet I have made enquiry into several matters, and have likewise got some seeds and thelis, which I shall send you by the first convenient opportunity.

I am, with respect, Sra,
Your most obedient and dutiful fervant,
TEROOVERCAUDOO MOOTIAH.

COLUMBO, November 10th, 1796.

#### To JAMES ANDERSON, M. D. P. G.

DEAR SIL,

I nave read your kind favor of the 13th Inflant, with the greatest pleasure; and sympathize fully with your observation on the object of Natural History to apply to the meaner wants of mankind, which never should be neglected.

I congratulate you therefore, not only on the happy fuccess which has followed your encouraging the culture of Cochineal, Silk, Cotton, &c. &c. by which thousands of poor wretched People have already found a kind of support, but trust that equal success will attend your intention, of farther preventing the calamities of famine, by establishing granaries, which may be filled when the grain is cheapest and sold, in case so bad a reverse should happen, at a tolerable and fixed price, that the Jews may not profit more by them than the wretched poor. But give me leave to observe, what I have long mentioned to many of my Friends, that more attention should be paid to multiply the Native fruit trees, to which the Inhabitants are already accustomed, and which do not require so much care and trouble in the cultivation, which we know they are not fond of. We say in Germany, and you I am sure in England too, that a rich year of Tree Fruits is a half harvest. Could the sine Wandilpaliam Hills near Cuddalore and those between Chingle put, and the Mount not be trowned by degrees, with millions of Palmiras which thrive in every soil, and the fertile foot of them with Tamarinds, Basa Longisolia, Jambolifera, Pedunculata, Phyllanthus Emblica, and many more such trees, which want almost no surther attention, after the feed is only put in the ground, and give within ten or twelve years, Leaves, Wood, and Fruits for many purposes.

I heard once of a Gentleman, that carried fuch like feeds along with him on his frequent travels, and put them into the Earth occasionally-fuch a noble character deserves the highest esteem. Blessed are those in time and eternity who do the fame, and have the common interest at heart as well as their own: let us add to the fum of the good which, is, thank God, ftill in the world, as much as lies in our power, I can express only good wifees for the Public benefit: you have executed already a good deal, and can ftill do more by your exercions and publications, which I read often over again and again, and observe with the greatest satisfaction, how many generous Gentlemen are encouraged by them to exert their public spirit, and to publish what has already been performed and what can still, be done for the benefit of the Country.

If the poor are first relieved in their distress, and the Inhabitants in general, are put in a comfortable fituation; in thort, if the Country is made rich, European Nations will become rich too, in an encreasing and more lasting

manner than hitherto.

I am with regard, &c. C. S. JOHN.

TRANQUEBAR, November 19th, 1796,

#### To THE REVEREND DOCTOR JOHN, at Tranquebar.

DEAR SIR.

I have the pleafure to acknowledge the receipt of your Letter of the 14th ultimo, and confidering your intimate knowledge of this Country, am happy that you afcribe fome relief to the poor in confequence of my humble endeavours.

The establishment of granaries would no doubt more effectually preferve the people from famine, but is of a nature in which Government alone can act, as their refources arise almost totally from the immediate necessaries of Life.

That it is my most fineere and ardent wish to see so valuable a purpose as the establishment of granaries properly carried into execution, you need not doubt; when I tell you that I have witnessed three horrible famines attended with the loss of millions of the labouring poor.

I am, &c. &c.

IAMES ANDERSON.

FORT ST. GEORGE, December 8th, 1796.

#### To DOCTOR ANDERSON, P. G. Madrai.

DEAR SIR,

I HAVE great fatisfaction in informing you, because I know, it will give you much Pleasure to learn, that Mr. Uthof, (Affishant to the Resident at Poonah,) has at length been able to forward a plentiful sopply of Silk Worm Eggs, (white as well as yellow, both to Bombay and Surat, They where the produce of some which I lately fent him, in pursuance of your suggestion in 1794, my first attempt having sailed.

I emforry to tell you that my last breed have thrived very ill; for although it is now one and twenty days, fince the Eggs were hatched, yet the worms are more dwarfs compared to what their progenitors were at the age of fifteen days.

Major Mackay feems to think that their degeneracy, proceeds from the coldness of the temperature at this time; but

perhaps

perhaps it may be with them as with force of our exotic Vegetables, the feed of which after a feafon or two, ceafes to be productive, and requires to be replaced with fresh.

I remain with real effects,

DEAR SIR,

Your faithful humble Servant, WILLIAM KIRKPATRICK,

Hydnanad, November 19th, 1796.

#### To MAJOR WILLIAM KIRKPATRICK, Refident at Hydrabad.

DEAR SIR,

I am favored with your Letter of the 29th ultimo, acquainting me of the transport of a breed of the monthly Silk Worm, across the whole Peninsula, which is the more pleasing as a doubt of succeeding in so difficult an undertaking, had induced

me to promife Doctor Scott the annual breed,

Major Mackay is perfectly right in imputing the falling off of your Worms to the prefent cold, for in this low latitude and fituation of Madras, the breed has fometimes been loft at this feafon, and believe that mine are preferved in health by defending them from the N. E. wind, and in the night time, excluding the cold damp air altogether.

The analogy you have fuggetled, between the nature of fuch Infects and Vegetables is too extensive a fubject for a Letter; but you may rely on me for any occasional supply, if

you wish to render the Silk Worm of further utility.

I am your obliged; and very humble fervant, IAMES ANDERSON.

FORT ST. GEORGE, Dec. 10th, 1795.

#### To DOCTOR JAMES ANDERSON, P. G.

DEAR SIR,

The bearer has requested a few lines to you, having gos fome Cochineal of his own preparing, which he wishes to have your your opinion of, also your advice respecting some new mode he has advend, and of which he wishes to keep the merit and advantage to himself, in case it meets your approbation when you have seen his preparation.

He would not divulge the method here. There is plenty of the Opuntia here, and this Man has been very active

in gathering and fpreading the Infects.

I have the pleasure to be with respect,

DEAR SIR,

Your's most obediently, A. MACPHERSON.

Amboon, December 3d, 1796.

To EDWARD SAUNDERS, Elq. President and Members of the Board of Revenue.

GENTLEMEN.

In a new work many unforeseen circumstances will occur, and therefore you will excuse my again troubling you with another collection of Cochineal by the bearer, Serjeant Field, who comes with a recommendation of active attention in the business from his Commanding Officer, Colonel Macpherson, at Amboor,—as a means of enabling a man of Serjeant Field's industry to continue his exertions, I give him introduction, that you may receive the Cochineal he has brought, amounting to 25lbs, at the rate allowed by Government.

I am Gentlemen, Your very obedient humble fervant, JAMES ANDERSON.

December 12th, 1796.

To DOCTOR JAMES ANDERSON, Madras.

SIR,

You will herewith receive fome copies of an account, of the origin of the Board of Agriculture, and its progress for three three years, after it was first constituted. I am persuaded that every Native of Great Britain, must feel much satisfaction, at the successful progress of so valuable an institution, which I hope, will soon be the means of adding incredible sources of wealth, and general prosperity to the Country.

It is much to be regretted, that from the expenses of this War, the Government cannot afford the sums that are necessary, for carrying on such an institution, with proper energy and spirit. It has been found necessary, therefore, to raise additional supplies by private contribution, and is, after perusing the Paper, herewith sent, you should view the exertions of the Board of Agriculture, as likely to be of material public service, and will recommend a subscription for that purpose, you may be affored, that any money that may me remitted, will be laid out in the manner, the most likely to prove serviceable, to the Agricultural improvements of your Native Country.

JOHN SINCLAIR.

WHITZHALL, Offiber 1ft, 1796.

## BOARD OF AGRICULTURE. WHITEHALL, February 21/1, 1797.

#### RESOLVED,

THAT the thanks of this Board be given to Dr. James Anderson, of Madras, for his very interesting communication, respecting the Drill husbandry of the East Indies.

JOHN SINCLAIR, PARSIDENT.

## To SIR JOHN SINCLAIR, BART. Prefident of the Board of Agriculture.

I HAVE received all your different Letters of a public pature, until the 21st of February, whereby I am pleased to

to see, the Drill hufbandry has been found worthy of notice, and Capt. now Lieuterant Colonel Halcot, who is about to fail for England, will communicate some observations, which he has made on the culture of Grain, with a view to the introduction of a fimilar practice, in the West Indian Islands.

In answer to your Letter of October 1st. No propofals bave yet been made public here, for defraying any expences of the Board of Agriculture, although it would be better to support your exercions in reclaiming waste lands, than to be fending Grain from this Country to England.

I have read all the Printed Papers you favored me with, admire the well supported perseverance of the Prefident of the Board of Agriculture, and enclose some remarks of a learned Traveller, on the Pearl Fishery at Ceylon, which although not within the plan of your prefent parfuits, may nevertheless contain something new, to recommend the peruial.

TAMES ANDERSON.

FORT ST. GEORGE, September 22d, 1797.

REVENUE DEPARTMENT. To JAMES ANDERSON, Esq. M. D.

I am directed by the Right Honorable the Prefident in Council, to fend you the enclosed Extract of a Letter, from the Committee of Government on the Malabar Coast, and to request that you will comply with their application for information, in regard to the culture of Bourbon Cotton. A. FALCONAR.

FORT. ST. GEORGE. OR. 21ft, 1797. SUB-SECRETARY.

R. SHERSON, Examiner.

(Copy) Extrast of a Letter, from the COMMITTEE of GOVERN-MENT at TELLICHERRY, dated September 26th 1797.

" Betwo also defirous to try the raifing of the Bourboun Cotten Plant within this Province, and underfianding it has already been foccessfully introduced into several parts of Coromandel, we shall be much obliged by your Lordship's crusing a small quantity of the Seed to be transmitted to us, by the Post, that the Scason for sowing it (which is here, the present and ensuing month) may not elapse, and if Doctor Anderson will tayour us with the information derived; from the experience he may hitherto have had of the Soil, the best adapted for this Piant, and the most approved method of rearing it, and bringing it to perfection, that Gentleman may, thereby, contribate on this side of India, to that public advantage, which he has already so materially promoted, in the same line, on yours."

(A true Extract) A. FALCONAR, SUB-SECRETARY,

(Compared.) R. SHERSON, Examiner.

#### (Copy)

#### To THE RIGHT HONORABLE LORD HOBART.

I have the honor to inclose a copy of what I have written to the Committee of Government at Tellicherry, in compliance with your defire.

JAMES ANDERSON.

FORT ST. GRORGE, Odober 25th, 1797.

#### (Copy)

## To THE COMMITTEE OF GOVERNMENT. at Tellicherry.

I am favored with your requisition to Government, for Mauritius Cotton Seed, and fend a handful by this Post, with a few Seeds likewise of the Nankeen or Brown Cotton, from Malta, which I conceive may also prove

a valuable article: both of which I will continue to fend you by every Tapal, until such time as the N. E. Monfoon, which is already fet in, affords Sea conveyance, for transporting to your Coaft, the Bourbon or

Mauritius Cotton Seed in greater quantity.

I am greatly pleafed and flattered that my humble endeavours have attracted the notice of Gentlemen, possessed of power, and disposition to encourage this valuable culture, which revives my finking hopes of seeing the purchase of Cotton transferred from the Maratta States, to

the possessions of the Henorable Company.

With regard to culture: the Mauritius Cotton, is fo fimilar to that which is foread over Hindoftan, that I believe the fame treatment would be fufficient, as a Seed falling on the Roads, or walks through our grounds, fprings up abundantly luxuriant; but as it has not yet found its way to the Natives, the particular management of Gentlemen, who have cultivated it upon a large Scale, has been confined to one method, as follows:

Their exertions being limited to wafte, dry grain lands, after clearing the ground of brush wood, and running over it with the Plough, they line it out, at distances of four feet, with lines at the same distance, crossing the first

lines at Right Angles.

Where the lines interfect each other they dig a small space, of a foot or fifteen inches in diameter, with the hoe,—smooth the earth with the hand, and then plant five Seeds, in the same manner as Pompions, Melons, &c. are

planted.

As the Plants grow up, any Weeds, that happen to come with them, should be removed, and as time and opportunity may ferve, the interflices between the Plants, may be dug over with advantage; the use of Manure likewise is very beneficial, so that in garden ground, a plant will give ten

times more Cotton, than on a poor foil.

Where the Plants have been highly manured on any foil, I must observe, that it has been found necessary to cut them down, within fix inches of the surface every year, to prevent them from choking each other, at sour seet distances, as the silling of the pods requires a free circulation of air, and this method has the advantage of producing a greater number of branches from the Trunk.

I have

I have thus counterated the circumstances of which you defire to be informed, for the cultivation of the plants; and as to Soil, a deep black Loam, not liable to be flooded, is called Cotton ground here, but I can affore you, that the Gentlemen who have cultivated this Cotton, with abundant fuccess, bave had no choice, some confined to Clay, others to Clay and Sand, others again to Tophus Gravel, and even the shelving sides of granate Hills; in all which Soils it thrives, even where no kind of Cotton had been reared before; but, a certain rule may be drawn, from observing where the Country Cotton grows, as there the Bourhon will likewise shourish.

JAMES ANDERSON.

Fort Sy Gaonge, Odober 25th, 1797.

#### To DOCTOR ANDERSON.

Tuz zeal, with which you apply to alleviate the numberlefs evils which afflict humanity, makes me hopeful, that you will kindly receive every discovery, that may have a tendency to leffen and remedy them .- There exists in these Countries, a plague, which every year carries off a great number of human beings, without any efficacious remedy to fo great an evil, having till now been found out; I mean the bite of Snakes. I therefore believe, that making known a remedy, which will effectually stop the forrowful confequences which proceed from the bite of those mischievous Reptiles, and whose virtue is acknowledged by a long and fuecefsful experience, made upon Perfons bitten by the most venemous, that are to be found in the Country, will find a kind reception, not only from you, but also from all fenfible and compaffionate minds, as well as fociety at large. A few days ago, I became acquainted with that remedy, and I have not yet had it my power to try it upon human Creatures, but I have feen the most fuccefsful effects upon Beatls; and in order that you may try it, and be witness of its efficacy, this Letter will be accompanied with a finall quantity of it; It is formed as you will fee in little Pills, one or two are folded in a leaf of Beetle, and given to the bitten Person, who must fwallow

fwallow the whole. If within five or fix minutes, no good effect is perceived, he must take it a second, third, and fourth time, until he be out of danger. In desperate cases, twenty and even thirty Pills may fuccetavely be swallowed without danger, when that remedy cannot be given in a leaf of Beetle, as is the case in Animals as well as in those Persons, who have loft all cognizances, the fmall Pills are diluted in a little lukewarm water, and fwallowed in that manner. This precious remedy is known to a very few Natives in the Country, and they keep it fo fecret, that nobody besides them is acquainted with the manner of composing it; yet after many folicitations, I have prevailed upon two Manive Physicians of my acquaintance, to let me know at least, the ingredients that are employed, they are as follows in the Malabar ftyle. known to be and we are on powers and a series of the end

Neriven/ham, Chairenaby, Arittaram, Mansfilei, Kevoory, Yely Paffana, Beerle,

TO BE ONE THE TOTAL

After being acquainted with the fignification of these Malabar words, you will be able to judge, Sir, whether these ingredients poffefs a fufficient natural virtue; to avail as an antidote to counteract the poison, injected by Snakes. The Perfons acquainted with that remedy, will by no means confess the manner of preparing it, without receiving a reward; on my enquiring what might be the fum they demanded, I was manswered, that on an afforance of having zo Pagodas, they will comply with making it Public. If after trying it, you may judge, that the advantage resulting from its publicity. require such a facrifice, and you meet with any femille Man " ready to do it. I may, upon your celling for it, fend to you the Perion acquainted with that fecret. As forme, I should feel myfelf too happy, If I could by this application, co-operate to fave the life of a fingle Man. Pardon, Sir, the incorrectnefs nels of figle, that my unacquaintance with the English language may have occasioned.

DUBOIS, MISSIONARY.

DISTRICT, Nov. Sto, 1797.

## TO THE REVEREND ME. DUBOIS, MISSIONARY AT DARAMFOORT,

I am favored with your Letter of the 8th inflant, mentioning the Medicines in of with the Native Doctors, against the bite of venemous Snakes, which I find, consists chiefly of Arsenic, and so far agrees with that, communicated by the Reverend Mr. Swarts to General Campbell, which was ordered to be part of the Surgeon's Stores on the Coast, the effects to be reported to the Medical Board at Madras, but although an interval of ten years has now elapsed, no report has ever been made.

Whether this is owing to the dread of using Arsenic as a Medicine, and that our Gentlemen have found less hazardous means sufficient, or greater confidence in the faill of Native Physicians, so that sew cases have come under the care of the Surgeons, I will not pretend to say, but there can be no doubt, that many accidents must have happened in the course of ten years.

The fact feems to be, that we do not yet think ourselves warranted to administer, so powerful a mineral uncombined, except in very small quantities, and in the attempts I have made to translate the Medical text of Darawanter, wherever Passanum or Arienic is proposed to be given, I and it is always

directed to be Sheudi or killed.

Not being possessed of any of the chemical works of the Hindoos, I am at a loss to say, what this Sheudi or killing of Arsenic means, but from any accounts I have been able to procure, it is by the use of calcareous earth or line; it is true, the Arittarum, which is orpiment or yellow Arsenic, is in some degree killed by the combination of Sulphur, but from the necessity of repeating the administration of the Pills, every five or six minutes, there is reason to suppose, that the hopes

hopes of relief depends on the action of the Yely Pollanum or white Arfenic.

It is a common faying, that desperate diseases require desperate remedies, and I am well aware, that the Bramins inculcate so rigid an adherence to their Shasters, that whatever is directed in the ancient text, must be complied with, if it is

even to give Arfenic to a confiderable extent.

The reward required by the Native Doctors, for the communication of their feeret, is so moderate, that in case they will communicate the composition, and give a candid account of the failure, as well as success of their Medicine, I will cheerfully pay it them, in hopes that some benefit may result, and that I may have the pleasure of thanking you, for the interest you have taken in the cause of humanity.

JAMES ANDERSON.

FORT ST. GEORGE, Nov. 17th, 1798.

#### To DOCTOR JAMES ANDERSON,

I HAVE read in the Gazette of last Saturday, your kind answer to the Letter of the Reverend Mr. Dubois, Missionary, about the remedy given by the Natives for the cure of the bite of Snakes. I have known that fecret for many years, as I learned Physic while I lived at Pondicherry, in the Convent of the Reverend Missionaries. I have feen the happy effects of that Medicine, not only upon Beafts, but also upon human Bodies, every time it was administered, even in the most desperate cases by a Reverend Friar, who lived in the fame Convent as Phyfician, and I being his Friend and Disciple, he taught me all his fecrets. I have hitherto always believed, that other Phylicians were acquainted with their exellent reme. dies, fo that I remained quiet till to day, But fince I find it is the contrary, I think it my duty to inform you, that I am perfectly acquainted with the Ingredients, and the manner of preparing them, their Names in the Malabar Language, and the Dofe proper to be given.

I therefore take the liberty of affuring you, that I am ready to discover the whole to you, provided some reward be granted to me for the discovery. The Reverend Mr. Dubois, has mentioned only a few Ingredients, because he is not acquinted with all of them, and the multiplicity of his con-

cerns, will perhaps hinder him from taking the trouble of smaking any further enquiries on the subject.

You will greatly oblige me, by doing the henor of fend-

ing me a few lines in answer.

### FATHER PETER DROUILLIARD.

CHURCH AT MADRAS, Nov. 28th, 1797.

P. S. I left off the findy of Physic when I became a Minister of God.—Nevertheless, I can give you some curious and useful information, relative to the Native Physic (which ought not to be neglected) as I am well enough acquainted with the Malabar language, to read, speak and write it tolerably correct.

#### To FATHER PETER DROUILLIARD.

I am this inflant favored with your Letter, and am happy that the communication of Mr. Dubois's Letter, has produced a prospect of such adequate information on the abstrace subject of the remedies to much in vogue here

against the venom of Snakes,

I fhail at any rate, be happy to fee you when it fulta your conveniency, and to hear fuch details, or fee fuch experiments as you may be diffosfed to make, with the view of elucidating the knowledge of your Reverendfriend, having no doubt of being able to fatisfy every expence or troubles.

JAMES ANDERSON.

FORT ST. GRORGE, Nov. 1810, 1797.

#### To DOCTOR ANDERSON.

Exact in September, I did myfelf the pleafure of forwarding a small Package of Seeds from hence, by savor of Captain Frazer, who is sole Manager here, and has great credit for his exertions. The Secon I have every reason to think good, as they are now thriving with us.

The

The inflitution bids fair to become an object of great National importance not only in the breed of Bullocks and Horfes, but

in Agriculture, &c. &c.

The Lucerne Seed is to be fown in Drills about 18 inches apart, on Beds well rose, in ground rather friable than otherwife, and a thin Coat of black Mould to cover the Seed, after which it is necessary to keep the Beds free from weeds, and now and then a flight watering, which is required no longer than the Plants are getting to a certain height. It will pay for any trouble or expence attending its first state. As foon as the Plants are arrived to any degree of height, the Earth should be drawn towards the Roots, and kept in a loofe flate, which is all that is required. The Seeds may be faved the same year, and will be found for the use of Cavalry and Beasts in point of Fodder, the greatest acquistion ever introduced in India. The foil of Bengal is by no means fo conducive to the growth of Plants as Madras, for the Country is fo flat and fo fubject to overflowing, that the Seed continues in a conflant uliginous state, and is by no means congenial to the growth of artificial Graffes, when compared to that of the Carnatic : for it is there, (under proper management) fuch institutions ought to be adopted. It is to this cause alone, that the Cochineal Plant cannot be brought to any degree of perfection, added to the want of agricultural knowledge in those who have failed in their attempts. I wish you and your Patriotic endeavours all possible success, and shall be happy at all times to give any testimony of my good withes.

WILLIAM MALLET.

POONAH, Odober 22d, 1797.

#### To WILLIAM MALLET, Esq.

I am favored with your Letter of 22d October, previous to which I had received the Lucerne, Timothy, and other Grafs Seeds from Captain Frazer. But, want of that knowledge which yours expresses, has been attended with their intire destruction by the fetting in ot the Monsoon. I must therefore request that re room as your Grasses, are productive, you will fend me seeds under cover of a Letter.

The Coast is no doubt adapted by the diversity of hill and dale, to various productions : from Plants that live in water to those that thrive in the driest soil, and your Grasses will thrive in a figuation that is a little elevated and only liable to be flooded by Art.

I understand that Government, notwithstanding as high a price as it could be supposed to bear, have only collected about twelve Tons of Cochineal, and the Infect has nearly exterminated the Plant in this Country, fo that all profpect of doing any thing with this Article, is likely to be as abortive here, as in Bengal. JAMES ANDERSON.

FORT ST. GEORGE, Nov. 26th, 1797. The angle sections also because of ageing \$1. And the property of the Box

## To JAMES ANDERSON, Esq. PHYSICIAN GENERAL, . &c.

As foon as I received your favour of the 17th inftant, I fent for both the Native Doctors, who had promifed for a reward of twenty-five Pagodas, to communicate their antidote against the bite of venemous Snakes, and told them, that you had confented to let them have that fum, upon their giving a plain and candid explanation of the fecret; accordingly, they have confented to fet out for Madras, in order to make you perfectly acquainted with their remedy. I flated to them your objections, that Arienic being one of the Ingredients, you was afraid, that giving so powerful a mineral uncombined, might be attended with pernicious confequences : their answer was, that other ingredients were also employed, to temper and counteract the acrimony, or other mischievous qualities of the Arfenic, as well as other poifons, compoling a part of the remedy; among themselves, they make use of a great quantity of the juice of Beetle, &c. I have further to fay, that although both the Men I now fend you, are truftworthy, and would not impose upon any one, yer, not wishing in a matter of fuch confequence as this, to depend folely upon their testimony, I fent for several Persons, whom they pointed out to me, as having experienced the happy effects

of their remedy, and I am extremely happy to have it in my power, to affore you, that they all agreed in faying, they were indebted for their life to that remedy alone. I am forry! I have not yet been able to administer it my felf, and be an eye-witness of its efficacy: however, if that event should ever happen, I will not fail to inform you of the refult. Before I ventured to fend thefe Men to you, I have made all reffible enquiries, in order to be convinced, that this remedy is neither trifling or perpicious, and from all the information I have been able to obtain on the fubject, I remain completely perfuaded, that if it does not possess all the virtue, and infallible fuccess which they attribute to it : at least, it will prove both uleful and efficacious in a great many cases. I can affure you too, that this is not the remedy ordinarily used by the Native Doctors, but is only known to a very few Perions, who keep it a prefound fecret. I have frequently observed myself, that the Medicine usually employed, has no other effect, than that of abridging the life of the Patient : but the Natives, who confider the bite of venemous Snakes, as a punishment inflicted on Men by a fupernatural malicious Being, whenever they give this remedy, employ many incantations and prayers, and when the Medicine is not attended with the defired faccefs, they attribute its failure to the fins of the bitten-person, that the anger of the malicious Being, is not to be appealed by their prayers and charms, and that he hinders the operatien of the Medicine. The Men I now fend you being Christians, are of course forbidden by their religion, to have recourse to such absurd and superstitious practices, and adminifter it fimply, they fay, always with fuccess, They have confented to give you the most fatisfactory account of it, and make it up under your own eye, or any other Person you may please to appoint,

I wish, Sir, that under your patronage and recommendation, it may justify the idea I have entertained of it, and thereby be the means of lessening an evil, that annually occasens the death of so many Men. I hope, Sir, you are persuaded that I can have no other wish or interest in this application, beside that of succouring afflicted humanity, and contributing to lessen these evils, which all mankind are heir to. I hope you will consider my motive as a sufficient apology for the length of this Letter, and am happy to have this opportunity of again affuring you, of the particular regard with which, &c. &c.

DUBOIS, MISSIONARY.

DARAMPOORY IN THE BARAMAHL ]

# To THE REVEREND Mr. DUBOIS, Missionary.

Two days ago, the Men named Souce and Sebaffian came here with Mr. Drouilliard, and delivered your Letter of November 24th, which gave me great pleafure, as the clear manner in which you have written, thews confiderable attention to the fubject, and you may eafily conceive that Perfons like you, who are acquainted with the Languages of the Country, may be of great use in promoting the investigations of professional Men, without which they must ever grope in the dark, when they attempt to difcover, what most be explained in a language so different from their own-On enquiry it appeared, that they had not got the Ingredients feparately, but only in Pills, which I told them was of no confequence, as it was knowledge we wanted, and not Pills ; whereupon they required two days to provide themselves, which they could readily do at Madras, and promifed to return this morning, but in the mean time produced a Vagadum, or Medical book written in Tamoul. from which Mr. Drouillard and my Servant who underflands the Language, took the following extract.

" Directions, and names of the Ingredients of the

Navevillum, (a Root, literally counter-poison,)
Aristanum, (Yellow Arfenic,)
Manofely, (Red Arfenic.)
Gaveore Passanum, (White Arfenic,)
Pargunepaley or
Andoothenouroupali,
Marookanri Root Bark, (Gardenia Dumetorum,)

The above articles to be taken in equal quantities, and ground together with juice of Beetle Leaf for nine hours, then make them into Pills as big as a black Pepper Corn, with the addition of Raw Rice Conjee-Water.

Soon after the Snake bites, one Pill to be given mixed in Water, if that fettles in the Bowels it is sufficient, if not, continue giving a Pill at a time till the Stomach settles,

when Tamarinds or Acids must be avoided.

The People have at last produced specimens of the abovementioned Drugs, whereby it appears that the Pills consist chiefly of Arsenic, in different states, and having weighed one of them, find it amounts to more than two

Grains.

They have declined giving the history or account of any particular cases, and as the Gentlemen on whose experience the Pills were first introduced into our own Stores. have only inlifted on their having administered them in many cases without causing death, we have thereby acquired no additional certainty of relieving a Patient, as none have faid that the morbid fymptons existed which attended venemous bites, and therefore it is very probable, that the administration of any remedy was unnecessary. The Pfylli, or Snake fellows as they are commonly called here, likewife fell Medicines, but I have observed that when they have the Itch which is not unfrequent, they are greatly alarm ed in case a drop of the venom happens to spurt upon their hands, left it should touch some of the fores, and I have frequently feen them throw the Snake fuddenly from their graip, when foucezing the venom from the Jaws of the Animal for their exhibitions of fwallowing and rubbing it on their skin, &c. With venom collected in this manner, I have made feveral experiments whereby it appears that Animals are affected in proportion to their temperature that is to fay hot blooded Animals more than cold ones, as I found that Birds, fuch as Fowls and Pigeons, whose Blood is ten Degrees hotter than ours, stagger, fall into Convulfions, and die, in fifreen or twenty minutes, when the venom of the Coluber Naga, is introduced by a wound, whereas Puppies that are about our temperature, after being treated in the same manner will not be convulsed in less than an hour, and frequently recover without any remedy. This effect of the difference of temperature is rendered more obvious.

ebeious, by charving that Frogs, which are the most common food of Snakes kere, will fometimes leap away with great strength, and velocity, after having been in the Jaws of their enemy for several hours, and severely wounded, an accident however generally owing to the great size of the

Frog, and the fmail fixe of the Snake.

I am well aware that you have no other motive besides the laudable desire, which I hope possess us all, of contributing so public utility as far as we are able, and as we are pledged to the poor Men, who have come so far to shew us how generally Arsenic is in use in these Countries, I have paid them the twenty-five Pagodas you promised, and distribution.

JAMES ANDERSON

FORT ST. GEORGE, Dec. 7th, 1797.

# A REMEDY AGAINST THE EFFECTS OF POISONS.

Extraged from the DARAWANTER SHASTER of ARNACHILLUM PANDARUM, of YORK ST. GEORGE.

TARE Brimftone, Quickfilver, Vellow Arfenic, Counter Poifon Root, Buffora Salt, a Neutral Salt called Avaderum, Affafærida, Red Arfenic, Hemlock Poot, Crude Sal Amoniue, of each equal pasts, kernels of the feeds of a very Drafile species of Ricinas named Walum, ten parts.

The Walam men first be boiled for the space of ten minutes in water mixed with Cow-dung, and the Hemlock found an

hour in Cow's Uring.

BALL BURGER THE

Then grind all the ingredients in a Mortar for the space of twelve hours with the juice of a species of Aschipias named Nonda Manni, and the same length of time in Cocca Nat Mills mail the mais is of a confidence to be formed into Pills of the size of Pepper Corns.—one Pill to be taken into the Sromach, one to be applied to an inciden made in the Scalp of the head, and one to be rubbed into the Eyes, and on the Toward.

This is a certain and infallible remady against the effects of any Posson, in the real violent Spasan of which there are thirteen kinds, i. c. with cold extremities, Lock'd

Jaw &c. &c. and against the effects of bites of the most venomous Snakes.

To DOCTOR JAMES ANDERSON,
FORT ST. GEORGE,

BOARD OF AGRICULTURE, WHITEHALL, May 9th, 1797.

RESOLVED,

THAT the thanks of this Board be given to Dr. Anderson, for his obliging presents of two Books on the Progress of his Improvements in the East Indies, and that the same be preserved with the other communications on that subject.

(Signed) JOHN SINCLAIR.

PRESIDENT.

To DOCTOR ANDERSON, MADRAS.
LONDON, May 131b, 1797.

SIR.

I TAKE this opportunity of transmitting to you the thanks of the Society for the encouragement of Arts, Manufactures, and Commerce, for the presents they have received of several Tracts containing your Correspondence on the subject of Silk Worms, Nopal, &c. which you will find has been the occasion of the Society having this year exteaded their premiums to the East Indies. I have also, Sir, to return you my thanks in my private capacity for the Copy you were so obliging as to send to me, and also to acquaint you that those you had addressed to the Bishop of Landass, (Dr. Watson,) were given to his Lordship,

I am, Sin, &c. &c. SAMUEL MOORE.

# To DOCTOR JAMES ANDERSON, ADELPHI, May 13th, 1797.

SIR,

I have the honor to inform you, that the Society for the encouragement of Arts, Manufactures, and Commerce, have elected you one of their Corresponding Members, and I am directed by the rules and orders of the Society to acquaint you therewith, and to say that no Member of this Society shall be a Candidate for, or entitled to receive any premium, bounty or reward except the Honorary Medals of this Society, and that they request their Corresponding Members as often as shall be convenient to favour them, with accounts of such useful discoveries or improvements in any of the polite or economical Arts, as may come to their knowledge.

I am, Sir, &c. &c.

SAMUEL MOORE

To JAMES ANDERSON, Esq. P. C. Sr. Sc.

East India House, London, May 16th, 1797.

Sin,

By my Son who came on the General Goddard, I did myfelf the honor to address you on the subject of Raw Silk. This is for the purpose of informing you, that the Society for the encouragement of Arts, Manufactures, and Commerce, Established in London, having this season refolved to extend their views to the East Indies, now forming a component part of the British Empire, they were desirous of being honored with the names of some intelligent Gentlemen Resident in the various parts of India, to be admitted into the list of their Corresponding Members, and conceiving from the public spirit you have manifested, it might not be difagreeable to your wifter, I have taken the liberty of giving in your name. With this you will receive a Packet from the Society containing advice of your election accompanied with the usual Papers. The Society's views are generally every thing that tends to protect and introve the Arts, Manufactures, or Commerce, but more especially the transplanting into, or procuring in British Territories any of those useful Commodities, for which we are at present obliged to have recourse to foreign Nations. This seems to be so copyrial to your pursuits that I have no coubt you will chearfully contribute your aid in forwarding their views, and I can answer that the Society will be highly gratified by your communications.

I am, DEAR SIR, Your's &c. &c. ROBERT WISSETT.

To ROBERT WISSETT, Esq. East India House, London.

Sin,

I am favoured with your Letter of May last, and observe what you say regarding my name being mentioned to the Society for the encouragement of Arts, Manusactures, and Commerce, as a Corresponding Member, to which that Society have been so polite as to attribute the extension of their Premiums to this Country, for the different Articles of Pauglevere Cotton, Annatto, and true Cochineal. The Gold Medal,

It will be found that Covernment bene, much to their bonor, have purchased Forry thousand Pounds Weight of Cochineal, which will be delivered in the port of London, in the course of this year, and whatever premium, it may bear, there can be no doubt that such premium at least, is due to the Relations of Capain Nelson, who brought the Infect have tren Brasil, as he told me that they had purchased the Commission, which he held in his Majesty's Service, and one-bled Lim to return to this Country.

The premium of a Gell Medal cambe no object to the Re-

lations of that deceased Gentleman, but a fuitable reward to indemnify the expenses they have incurred on his account, is not only an act of justice, but may eventually encourage others to bring the Mexican Grana Fina Insects alive to India.

Mr. William Webb of the Civil Department here, who has about a thousand acres under Mauritius Cotton, great part of which will form the raw material of the Manufactures of Great Britain, has conftructed capital carding and spinning Machines for preparing it into thread, and being solicitous that his work should equal, or even excel any other, has requested me to apply for models of the best that have come to the knowledge of the society for the encouragement of Arts, Manufactures, and Commerce.

As the execution and transport of such models must be attended with some expence, he has likewise permitted your drawing on the house of Messrs. David Scott and Co. for the amount.

I am, Dear Sir, Your very Obedient Servant, IAMES ANDERSON.

FORT ST. GEORGE, Feb. 5th, 1798.

To SAMUEL MCORE, Enq. Secretary to the Society for the Eucouragement of Arts, Mann-factures, and Commerce.

SIR,

I am favoured with the I etters you have written on your own account, and likewife that of the Society, which are very pleafing, in the affurance, that so tedious a Correspondence will be reviewed by the intelligent and capacious mind of Doctor Watfon, as well as that the premiums of the Society will be extended in confequence of my exercions.

The Society will be femible of my respect for the honor they have conferred on me, when you sequaint them, as I trust you will, that I have caused the Letters to be published in our

weekly

weekly Prints, as the most likely means in my power, of promoting their views.

Pam, Str,
Your Obedient, and Obliged Servant,
JAMES ANDERSON.

FORT ST. GEORGE, Feb. 5th, 1798.

Sir John Sinclair's Compliments to Dr. Anderson, and understanding that there is now an opportunity of sending some Papers to the East Indies, has the pleasure of transmitting herewith some copies of his last address to the Board of Agriculture, staring the progress made by that Institution during the 4th Session since its establishment.

WHITTHKLL, July 4th, 1797.

## To SIR JOHN SINCLAIR, BART.

SIR,

I HAVE had the honor to receive the Papers you mention which I shall endeavour to insert in some of the periodical Publications here, as I find that separate Publication involves an unaccostance expense, especially as my principal object, the

introduction of Cochineat, is now accomplished.

Having stambled upon a Kermes Infect, of a brown Colour and unable to find any Cochineal Infect that gave a dye in Hindostan, a brilliant coloured Coccus was at lest brought from Brass, which is now in the hands of administration who may propagate it, or not, as they think proper, so that my farther attention may well be excused.

So happy an iffue however has not been effected without fome exertion in preferving the necessary attention of the Pub-

Lie by a Journal of nearly 12 year.

The Correspondence with which I have been favored by Memos learning and abilities in many different parts of the world for this purpose, demands my most fincere acknowledge, moure, and as you fland diffinguished, the thanks I hereby.

resumn

return'you, will, I hope be likwife understood as offered to every other Correspondent on this, and fimilar subjects.

In multiplying fome fine kinds of Mango Trees, either by Potting after taking off a circular space of Bark, or ingrafting by approach, which is the only method of succeeding in this hot and dry climate, I find that the young Frees from these processes frequently slower immediately, and sometimes even carry the Fruit to perfection, of which I know no former notice, excepting in a paper if I recollect rightly by a Mr. Fitzgerald on Apricot Trees, which is published somewhere in the Philosophical transactions.

I am Str.,
Your very Obedient Servant,
JAMES ANDERSON.
FORT St. George, Feb. 7th, 1798.

#### PREMIUMS.

Offered, by the Society for the encouragement, of Arts, Manufactures, and Commerce; for the advantage of the British Settlements in India.

### BAUGLEPORE COTTON.

For one Ten imported into the port of London in the year 1793. The Gold Medal.

N. B. Cloths are made of this Cotton of a Nanksen Colour, without dying.

Certificates, Signed by the Secretary of the Board of Trade of Bengal, with famples, not lefs than ten Pounds, to be produced to the Society on the last Tuesday in February, 1799.

#### ANNATTO.

For not less than five hundred Weight, imported into the port of London, from any of the British Settlements in the East Indies in the year 1793. The Gold Medal.

Certificates.

Certificates, Signed by the Secretary of the Board of Trade of the refpective Settlement, with lamples, not lefs than ten Pounds, to be produced to the Society, on or before the laft Tuesday, in February 1799.

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#### TRUE COCHINEAL.

For not less than five hundred Weight, imported into the port of London, from any of the British Settlements in the East Indies, in the year 1798. The Gold Medal.

Certificates, Signed by the Secretary of the Board of Trade of the refacilive Settlements, with famples, not lefs than ten Pounds, to be produced to the Society, on or before the last Tuesday in February, 1799.

#### To the EDITOR of the Gazette.

SIR,

ALTHOUGH it is probable that the Cochineal Infect will perish by famine, before the eyes of the Directors can be opened, yet you will readily infert the enclosed Extract, to

thew that they have it in contemplation.

You may likewise insert in your next Paper, the enclosed Letter from Mr. Brown at Mahe, to satisfy him that I have received it, and will not fail to send him, two or three hundred weight of the Bourbon Cotton seed, by the first Ship that sails for Malabar, and a thousand weight before the month of May, if he can make use of it.

JAMES ANDERSON.

FORT ST. GEORGE, Feb. 14th, 1798.

Extrast of a Letter from the HONORABLE COURT of DIRECTORS, under date the gric May, 1797.

The feedmens of Cochineal, forwarded by Dr. Roxburgh and Mr. Tafwell, as alfo two parcels fent from the Coast by Dr. Anderson and Dr. Berry, the whole raised from the infect procured

procured at Rio Janeiro, by Captain Nelfon, have been shewn to some of the best Judges of the commodity in the Kingdom, who all agree, that it is the Sylvefler or wild foecies, and that there is little prospect of its being cultivated to any advantage, for the fupply of the European Market, unless it could be afforded at about one third of the price of the Grana, or fav at from es. to 6s. per lb. Freight and all charges included. From the opinions of Dr. Dinwiddie and other Chemists, the Article would feem to rank in higher estimation. We are therefore not disposed hastily to check the whole of its progress, and in consequence, have given a quantity into the hands of some of our Dyers, for the purpose of trying it practically, on a larger Scale than has yet taken place. The operations are now under trial, and from the refult, we may be better enabled to draw our final conclutions, which shall be made known to you by some subsequent opportunity.

The zeal that has been manifelled by the feveral persons, who have given their attention to this object, merit our fullest approbation, but we sear there is little prospect of their endeavours, being attended with the success they so well merit. In the Packet will be found, specimens of the real commodity, which we are given to understand, is from an Insect of a very

different species.

You will of course see the necessity of not engaging, in any measure that leads to expence, until you are possessed of our

further instructions.

#### To JAMES ANDERSON, Eag. PHYSICIAN GENERAL, &c. &c.

To you, Sir, whose affiduous and successful exertions, for the encouragement of Manufactures and Agriculture in India, have been so conspicuous, no apology can be necessary from a stranger, for addressing you on any subject relative to them. I therefore make none, but shall proceed briefly, to explain the favours, which I now take the liberty to request of you.

During the late refidence of the Committee of Government in Malabar, I had occasion to deliver my fentiments to the Governor,

verner, on the advantages that might be derived to the Company, from the cultivation of certain productions in this Province of which the Bourbon Cotton was one. The fuggeftions I then offered, being approved of by Government, it was refolved to undertake a plantation on an extensive Scale, on account of the Company, which occasioned the address of the Committee to the Madras Government, and the Letter of the latter to you, respecting the Cotton Seed, of which you were fo obliging as to transmit a considerable supply by the Tappel. These were delivered to me as they came to hand, together with the instructions you had the goodness to fend with the first Packet, which I found perfectly fatisfactory on every point, excepting as to the feason for planting. April and May when the Rains fet in this Province, I confidered to be the proper fersion here, but anxious to secure if possible, a supply of fresh Seed, I lost no time in preparing a small spot of Land, and planting about 300 holes agreeable to your directions, with this difference only, of the holes being in Quincunx in lieu of being at Right Angles, the Rains being over, (15th November) I took care to supply the defects in point of feafon as well as I could, by manure, conftant watering, and protection from the midday Sun. But in fpire of all my care, only a fmall-proportion of the Seed germinated, which led me to inspect more attentively what remained, when I found a great part of it, indeed by far the greatest part, perforated by a small Infect. After this, I had the Packets opened as they come to hand, and the good Seeds picked out and put into Bottles, where I hope they will be preferved from every farther attack, until the feafon for planting comes round. But the quantity I have thus preferved is very trifling, and I therefore take the liberty to remind you of your promife to the Committee, of Government, of fending when opportunities by Sea offered, a more confiderable supply. Until the month of May, the Navigation between the Coasts will be open, and during that time, I hope you will find an opportunity of finding from 40 to colles, weight. If directed to Murdock Brown, Overfeer of the Honorable Company's Plantation in Malahar, they may be Isnded at any part in the Province, and will, I have no doubt, arrive lafe. I must not omit to mention, that the Cotton Plants which have come up, promife remarkably well.

In this Province, there is neither the Mulberry Tree, nor I believe, the Nepal; if by your obliging affiliance, they