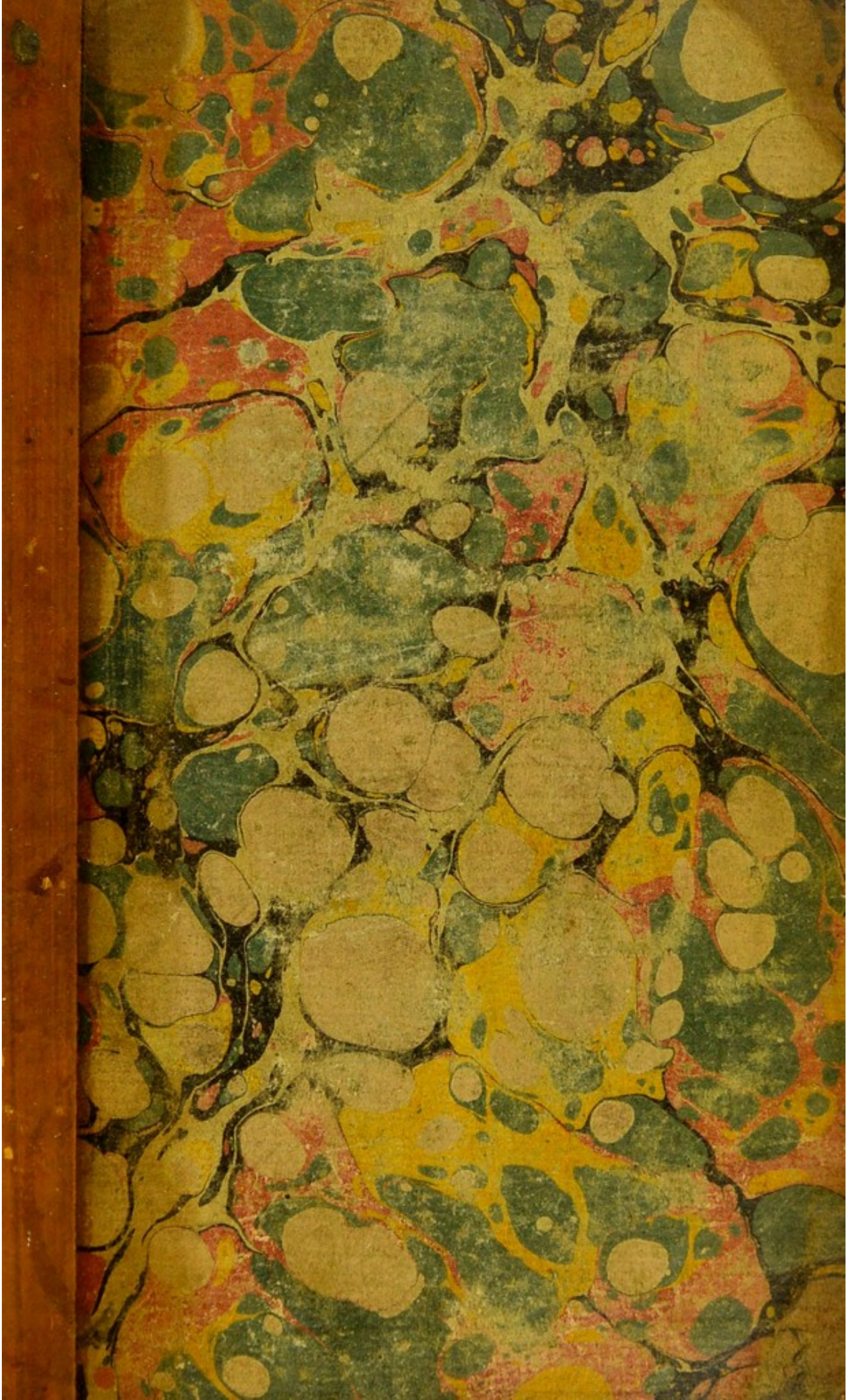

Dr. Withering

Birmingham

A

PRACTICAL TREATISE

ON THE

EFFICACY

OF

STIZOLOBIUM,

OR,

COWHAGE.

[Price 1s. 6d.]

A

PRACTICAL TREATISE

ON THE

EFFICACY

OF

STIZOLOBIUM,

OR,

COWHAGE,

Internally administered, in Diseases occasioned by

WORMS.

To which are added,

OBSERVATIONS on other Anthelmintic Medicines of the WEST-INDIES.

—"*To extend our Enquiries after the Powers of particular Medicines in the Cure of particular Diseases.*"

Bacon de Aug. Scient. lib. iv. c. 2.

By WILLIAM CHAMBERLAINE, Surgeon.

THE THIRD EDITION.

LONDON:

PRINTED FOR J. MURRAY, N° 32, FLEET-STREET.

MDCCLXXXV.

E R R A T A.

Page 30, l. 12, for, "*this* mucus," read, "*their* mucus."
71, l. 4, which ſhe "had" taken.

TO

DOCTOR JOHN LEAKE,

PROFESSOR OF MIDWIFERY,

MEMBER OF THE ROYAL COLLEGE

OF PHYSICIANS, LONDON,

AND

PHYSICIAN TO THE WESTMINSTER

LYING-IN HOSPITAL;

THIS TREATISE,

AS A

SMALL, BUT SINCERE TESTIMONY,

OF

RESPECT AND ESTEEM

FOR HIS

MEDICAL AND MORAL CHARACTER,

IS HUMBLY DEDICATED,

BY

THE AUTHOR.

PREFACE.

THE universality of complaints arising from Worms, *so destructive to the human body, must make every attempt to render those Maladies less frequent and fatal, a matter of importance to the public. The following sheets were therefore written, not only for the perusal of medical practitioners, but the information and benefit of the community.*

The inefficacy of European medicines, even those esteemed the most powerful of vermifuges, induced me to offer this Treatise to the public; for, although some detached pieces relative to the exhibition of COWHAGE, *have at different times appeared in print, (of which I have taken notice in the subsequent part of this work) I do not recollect that any thing has been written* professedly *and* practically *on that subject. It is therefore presumed, the present publication may not be deemed unnecessary, being intended for the introduction of this useful anthelmintic into more general use, and practically to identify two circumstances of the utmost importance, namely, its* SAFETY, *and* EFFICACY.

It

It is not, however, my design, in the following pages, to enter into a minute investigation of the nature and causes of worms *in the human body, or to take up much of the readers time in describing their symptoms; those have already been sufficiently enumerated and pointed out by preceding writers.*

My principal view is to recommend a Medicine, hitherto little known in Europe, but which, from its safety, and powerful effects when internally administered, and brought to the test of experience, will be found justly deserving a principal place in the Materia Medica.

The gentleman, to whom I have taken the liberty of dedicating this small Treatise, is requested to accept my sincere thanks for his politeness, and obliging attention in the perusal of it when in manuscript. The candor of his Remarks, and improvement it has received from the judicious alterations he was pleased to suggest, demand my warmest acknowledgment.

London, June 10th, 1784.

ADVERTISEMENT.

MR. Chamberlaine having been lately honoured with ſeveral letters from Medical Gentlemen, requeſting that he would inform them where the STIZOLOBIUM was to be had, as their application for it to their Druggiſts in London, and elſewhere, had been unſucceſsful ;—In order that thoſe Gentlemen, and others, deſirous of proving the Efficacy of the Medicine recommended in this Treatiſe, may have an opportunity of giving it a fair Trial, Mr. Chamberlaine reſpectfully informs them, that it is to be had at his houſe, No. 29, Ayleſbury-Street, Clerkenwell ; and that it may become more generally uſeful, it is diſpenſed by him, at a price that will bring it within the reach of every one, viz.

Cowhage in the Pod, 2s. 6d. per Ounce.
Prepared Cowhage, or the Setæ STIZOLOBII, taken from the Pod, 5s. 6d. per Drachm, or Two Guineas per Ounce.
Electuary of Cowhage, 8d. per Ounce, or 2s. 6d. per Pot, containing 4 Ounces.
Vermifuge Balls of Cowhage for deſtroying Worms in Horſes, 10s. 6d. per Box.

London, April 2, 1785.

DIRECTIONS

For taking the VERMIFUGE ELECTUARY, VERMIFUGE GINGERBREAD NUTS, *and* WORM-LOZENGES, *prepared from*

COWHAGE.

THE Operation of the STIZOLOBIUM, or COWHAGE is mechanical; and this Medicine though as yet ſo little known in Europe, is found to be ſo far ſuperior to all other *Vermifuges*, in thoſe parts of the world where COWHAGE is produced, that ſcarcely any other Remedy is there made uſe of for *deſtroying* WORMS.

Very little preparation is neceſſary before taking the COWHAGE; however, the Medicine is found to operate, in general, more effectually where a gentle *Vomit* has been taken (provided nothing forbids) previous to the firſt doſe.

A tea-ſpoonful of the ELECTUARY is to be given to Children, and two tea-ſpoonfuls, or a table-ſpoonful, to be taken by adults, at night, going to bed; and in the morning, an hour before breakfaſt, for three or four Days; after which, ſome gentle *purgative* is to be taken, ſuch as Salts, Rhubarb, Jalap, or Tincture of Hiera Picra; which will bring away the worms, if any; afterwards the ELECTUARY is to be continued as long as there may ſeem occaſion, repeating the *purge* at intervals of three or four days.

For thoſe who prefer *Pills* to any other form of Medicine, the Cowhage may be had, made up in *pills*, either ſimply, or combined with other Medicines.

As ſome Children are found to be exceedingly averſe from taking any thing that has the appearance of Medicine, the COWHAGE is to be had made up in GINGERBREAD NUTS, and alſo in CAKES, or LOZENGES.

Of theſe NUTS or CAKES, two, three, or four may be given at a time; or half a dozen may be eaten in the courſe of the day—but eſpecially when the ſtomach is moſt empty; and

and the ſame rules to be obſerved with regard to the previous *Vomit*, and a *Purge every three or four days* as before mentioned.

The little *Hairs* or *Setæ* of the COWHAGE ſometimes occaſion a *ſlight pricking pain* in the mouth and about the lips. This is of no manner of conſequence. A cup of warm tea, or a warm towel applied to the mouth, will give eaſe; but if neither of theſe applications are made uſe of, the pain will go off of itſelf, in a few minutes.

It is neceſſary to ſtir the ELECTUARY very well, as often as there is occaſion to uſe it, becauſe the little particles of the COWHAGE are ſo exceedingly light, that they will in the courſe of a few hours riſe to the ſurface of the Electuary, however viſcid the ingredients may be.

The above Medicines are prepared and ſold by Mr. CHAMBERLAINE, at his Houſe, N° 29, *Ayleſbury-Street*, Clerkenwell, at following Prices.

The ELECTUARY at 8d. per Ounce, or 2s. 6d. per Pot, containing four Ounces.

The GINGERBREAD NUTS at 7d.½ per Ounce, or 10s. per Pound.

The VERMIFUGE Lozenges at 1s. per Ounce.

COWHAGE in the POD at 2s. 6d. per Ounce.

PREPARED COWHAGE, or SETÆ STIZOLOBII, at 5s. 6d. per Drachm, or two Guineas per Ounce.

N. B. The COWHAGE, having been found as efficacious in deſtroying WORMS in HORSES, as in the Human Body, it is alſo prepared in BALLS, for HORSES, which are ſold as above, at 10s. 6d. the Box, with Directions.

A PRACTICAL

TREATISE

ON

COWHAGE, &c.

I HAVE already ſignified in the Preface, that it is not my intention to enter into a prolix detail of the cauſes and ſymptoms of worms: It may not, however, be amiſs in this place to enumerate the principal cauſes and effects produced in the human body by thoſe deſtructive reptiles, for the information of ſuch, who, not being of the medical profeſſion, may nevertheleſs be inclined to make trial of the remedy here recommended: A remedy, perfectly ſafe in its exhibition, and which has been attended with the happieſt effects after every thing elſe has failed.

WORMS may be divided into three ſpecies.

1. The *Teres*, or long and round Worm which are moſt common.

2. The *Aſcarides* which are ſmaller, and chiefly ſeated in the rectum.

3. The *Tænia*, or *Tape-worm*, which is ſometimes called alſo *Solium*, from a ſuppoſition that there is ſeldom more than one of the kind in the body; though others will have it to be rather a chain of many worms of the ſame ſpecies faſtened to each other.--- However this be, the matter is not here worth farther diſcuſſion.

Many inſtances have been adduced, of other kinds of worms found in different parts of the human body; but the three ſpecies above enumerated are the moſt common.

The Teres, or long and round Worm, is found in the ſmall inteſtines, particularly the jejunum, and ſometimes in the ſtomach. The ſtomach, however, does not appear to be their natural place of reſidence; but being irritated, they are liable to be diſlodged from thence, and not unfrequently thrown up

by

by vomit. When theſe worms (as ſometimes it happens) make their way into the cavity of the abdomen, the caſe is mortal.

CAUSES.

The *Cauſes* of worms are various. A relaxed and weak ſtomach affords them a nidus, where they propagate, and are nouriſhed.

Our food is full of worms, and their ova. It is ſuppoſed by many, that all liquors, even the blood itſelf, abound with their principia.

Among the chief cauſes—eating great quantities of crude vegetables, and green unripe fruit, may be conſidered.

Hence in the Weſt Indies, it happens, that among the negroes, (whoſe diet conſiſts chiefly of vegetables,) * complaints ariſing from worms, are much more fre-

* Plantanes—yams, cocco's, caſſada,—Angola, or pigeon peas, and the maize, or Indian corn, conſtitute the principal part of the diet of negro ſlaves. The latter, of which they are remarkably fond, when juſt beginning to ripen, cauſes worms, more than any thing I know of.—Very little animal food comes to the ſhare of a negro ſlave—and of this—only ſuch as is of the moſt indigeſtible kind, as ſalt herrings, cured beef, pork, Newfoundland fiſh, and the like.

quent than amongſt the white people; inſomuch that it is very rare to ſee a negro-child without a ſwoln belly, and other ſymptoms of this diſeaſe.

SYMPTOMS.

There is no appearance, which this complaint, in ſome conſtitutions, will not aſſume; inſomuch, that an eminent practitioner in the Weſt Indies frequently declared, that whenever he ſaw any uncommon and violent ſymptoms, not immediately to be accounted for, and which ſuperſtitious or ignorant people would be apt to attribute to witchcraft, he would without heſitation exhibit anthelmintics, and that in ninety-nine caſes out of an hundred, he found himſelf right in his conjectures.

In general, it is not difficult to know when a patient is troubled with worms. A hard ſwelled belly, diſagreeable breath—a particular heavineſs, or languid, livid look, about the eyes, a ſwelling and paleneſs of the lips---and eſpecially of the upper lip---an enlargement of the noſtrils; itching of the noſe, and an appetite, ſometimes loathing

all

all manner of food, at other times, uncommonly voracious, are almoſt always concomitant and unerring ſymptoms of this diſeaſe.

Beſides theſe, the face will be ſometimes pale, at other times, *crimſoned* over with an univerſal fluſhing.

To theſe ſymptoms ſucceed mucous ſtools*, looſeneſs---griping pains in the abdomen, a dry cough, vomiting---grinding of the teeth in ſleep, great thirſt---frequent pains in the ſide, a liſtleſſneſs and want of inclination to ſtir,---or take exerciſe---and a pulſe, ſometimes hard, ſometimes weak and quick, but always unequal. When the diſeaſe is farther advanced, the mucous ſtools increaſe---cold ſweats come on---convulſions, epileptic fits--palpitation of the heart, frequent faintings, loſs of ſpeech, hiccup---and finally, death itſelf.

CURE.

Various have been the medicines exhibited for the expulſion and deſtruction of

* From the irritation of the inteſtines, their periſtaltic motion will be increaſed, and the ſecretion of the mucus will conſequently be in larger quantity.

theſe inteſtine enemies. Bitter purgatives, oily medicines, preparations of tin---the juices of plants celebrated for their anthelmintic qualities, have all had their turn, and all in their turns have failed. Even mercury itſelf has frequently been given, in almoſt all its various forms, without any other effect than injuring the conſtitution.

And here, as it is not improbable that, the war being at an end, the number of medical practitioners, migrating to the Weſt Indies, will be daily increaſed ;---for the benefit of ſuch, and of the owners of negroes in general, I will take the liberty of obſerving, that *mercury*, unleſs very cantiouſly given, and in very ſmall quantities, is rank poiſon to the conſtitution of a negro. The many fatal effects I have ſeen, in the courſe of ſeveral years practice in the iſland of Jamaica, convince me of the truth of what I have here aſſerted.

Such practitioners, therefore, (and I have known ſuch) who indiſcriminately adminiſter mercurial preparations to the negroes entruſted to their care, conſult neither their own reputation, nor the intereſt of their employers, whoſe number of ſlaves is too

often leſſened, and many uſeful, healthy negroes deſtroyed, by the too frequent, and raſh exhibition, of that excellent, but dangerous mineral.---Nor are its pernicious effects confined to the ſons and daughters of Africa.---White people often feel the ill conſequences of an indiſcreet uſe of it.---Mercury is to be uſed with much leſs freedom in warm, than in cold climates---and the ſame quantity, which ſhall not produce any ſenſible effect in Europe, will in the ſame conſtitution, within the torrid zone, operate in a powerful manner.

The effects which mercury has upon the blood, is well known to thoſe who practiſe phyſic. It attenuates, and diſſolves the fluids.

The blood of ſuch negroes, as work hard in hot climates---take but little reſt, and live moſtly upon a vegetable diet, will, even in an healthy ſtate, be found much thinner, and leſs diſpoſed to coagulate, than that of white people. Mercurial medicines, therefore, are hurtful, by breaking down and deſtroying the texture of the blood, already too much diſſolved, by heat, and the nature of their proviſions.

In Jamaica, it is too common a cuſtom to ſend a negro, that receives the ſlighteſt ſcratch, or has the leaſt ſore on the leg, or foot, to the hot-houſe*, where the poor

* Upon plantations in the Weſt Indies, the apartment appropriated for the uſe of the ſick and lame negroes belonging to each reſpective plantation, is called, in Jamaica, the *hot-houſe*—in the other iſlands, with more propriety, the *ſick-houſe*. I cannot ſay I ever ſaw above *ten* well contrived ſick-houſes in my life. *One* of the beſt that ever I ſaw, and what may well be conſidered as a pattern for others, is at Water Valley, in St. Mary's, (the north-ſide of the iſland of Jamaica) the eſtate of the learned and ingenious Doctor James Naſmyth, a gentleman to whom I am much obliged for many curious particulars relative to the medical properties of many of the Jamaica plants.

This improper, and abſurd appellation, *Hot-houſe*, has been productive of more miſchief, than many proprietors are aware of.

A houſe for the ſick ought to be as cool, airy, and clean, in thoſe hot climates, as poſſible; but inſtead of this, the managers, or overſeers, to whom the building of the Hot-houſe, as well as every other office belonging to a ſet of works, is too often entruſted, ſeem unwilling, that ſuch a building ſhould have its name for nothing; and therefore take care that it ſhall be *literally* a HOT *houſe*, by building it cloſer, and with fewer windows, than any other houſe on the eſtate. Nay, I have actually ſeen Hot-houſes without any other aperture for the admiſſion of air or light, than the door! Architects who build after ſuch a faſhion as this, muſt have taken their ideas from the black-hole at Calcutta.—What muſt the poor wretches ſuffer, who are locked up at nights, ſometimes as many crammed together as the place will hold—in ſuch infernal dungeons, under the notion of "*getting them well*" of their different complaints!

And

poor wretch is immediately confined to the ſtocks, that the ſore may not be enlarged by walking about; and there doſed, twice a day, with a ſolution of corroſive ſublimate in rum, adminiſtered in a cup of the decoction of ſarſaparilla, or lign. guaiacum.--- In a good habit, the confinement, and keeping the wound clean, will effect a cure; but though in more obſtinate caſes, alteratives *may* be, and certainly *are*, neceſſary; yet, the indiſcriminate exhibition of Van Swieten's

And theſe abſurdities will ever triumph over common ſenſe, ſo long as overſeers are permitted to be architects, whether they know any thing of the matter, or not.

It is not to be denied, that among overſeers, are to be found many men of genius, men of a liberal education, and, in every reſpect, unexceptionable. But I muſt ſay, and I am ſorry to ſay, that far the greater number are ſtrangely deficient in points wherein they think themſelves amply informed. Indeed, in points wherein it is abſolutely neceſſary, they *ought* to be well informed.

I have known many people, who, though they had not a ſingle idea abſtracted from making the moſt of a ſugar cane, ſet up, on being made overſeers—for men of univerſal knowledge. A man of this ſtamp, as ſoon as he enters upon his office, becomes in a moment, like the Pope, *infallible*. He not only decides with authority upon all queſtions relative to the buſineſs of *planterſhip* and *ſugar-making*, but, as if by inſpiration, he commences architect, ſurveyor, doctor, grazier, diſtiller, and politician—cum multis aliis—and it moſt commonly happens, that he who would ſeem to know every thing, and be a proper judge of every thing, knows, in fact, nothing at all.

ſolution,

ſolution, as they call it, to every negro that has a little ſore on his leg, does more harm than good. I have known many good conſtitutions much injured by its uſe, and dropſies brought on by thoſe medicines that were intended at firſt to cure a ſore leg.

In like manner, mercury adminiſtered with intent to kill worms has often brought on a worſe diſeaſe; rheumatiſm---bone-ach, from taking cold---conſumption, aſthma---confirmed aſcites---have but too often followed the injudicious uſe of that medicine.

If mercury be given at all for the expulſion of worms, the ſafeſt way of adminiſtring it has always appeared to me to be in ſmall doſes of Dimſdale's powder*---But even this is not always effectual. And it is very extraordinary, that where *Nature* has pointed out and ſupplied us with the nobleſt and ſafeſt anthelmintics, the preparations of *Art* ſhould be ſubſtituted, and preferred, though inferior in virtue, and more hazardous in their conſequences.

* Calomel & Pulv. e chel. Cancror. comp. $\overline{aa}$ gr. iij. Tartar Emetic, gr. $\frac{1}{8}$ vel $\frac{1}{10}$.

Few

Few or none of the European medicines are equal in efficacy to thoſe vermifuges which the Eaſt and Weſt Indies ſupply us with.

Of theſe, the *Oleum Ricini*, or Caſtor Oil, has its excellencies.——All oily medicines, it is true, are deſtructive to worms. This oil, therefore, AS AN OIL---not only kills them, but from its purgative quality, carries them off by ſtool.---When, however, the worms have attained ſtrength and ſize, they elude the force of the oil, and remain unhurt.

The *Worm-graſs* is highly commended by many, and is allowed a place among the firſt Anthelmintics by thoſe who have been accuſtomed to give it. Its uſe principally obtains among the free black and Mulatto women of Jamaica, who make a livelihood by practiſing phyſic among thoſe of their own colour, with the medicinal herbs which nature ſo abundantly beſtows in that climate.

It is the *Anthelmia* of Doctor Browne, and the *Spigelia* of Linnæus. It is alſo the *Spigelia* ramis indiviſis, foliis terminalibus, verticillatis, Buttneri.

The preparations of it are an infuſion, decoction, and the clarified juice.

Doctor

Doctor Browne, who, in his *Natural History of Jamaica*, gives us the beſt methods of preparing it, ſpeaks very highly in its praiſe. Thoſe, to whom it is adminiſtred, are firſt affected, as if with a degree of intoxication. It then procures ſleep almoſt as certainly, and in the ſame degree as opium; and the patients eyes, after the ſleep is over, appear ſparkling, and diſtended. However, the exhibition of it is not unattended with danger; a very little, too little will do no good, and exceſs in the doſe, I have known productive of diſagreeable effects.

The *Aſclepias* *, which is the *Apocynum* erectum, folio oblongo, &c. of Sloane--- from its emetic quality, called Baſtard, or Wild Ipecacuanha, and by the negroes, Red-head, is a powerful vermifuge.

The uſual way of adminiſtering it, is either in a decoction, or the expreſſed juice of the leaves. Of the former, half a pint is the uſual doſe to an adult, when intended as an emetic. In the latter form, from a

* Aſclepias erecta, foliis anguſtis acuminatis, verticilliter ternatis, floribus umbellatis. Browne.

tea-

tea-ſpoonful to three table-ſpoonfuls may be given as an emetic according to the age, conſtitution, and ſtrength of the patient. The expreſſed juice may alſo be made into a ſyrup with ſugar.---I have known it to bring away worms (after operating as an emetic) from patients in whom there never appeared any ſymptoms of them. If there are any in the ſtomach, it certainly diſlodges them. When the crude juice is to be adminiſtred, I would recommend an addition of an equal, or a double portion of lukewarm water with it, which makes it operate more gently, and likewiſe more effectually.

Browne ſays, the juice is a powerful aſtringent. I cannot ſay I ever knew an inſtance of its being aſtringent, and therefore imagine he muſt have taken his account, not from his own experience, but the report of others.

The bark of the *Baſtard Cabbage-Tree* (hitherto, by Botaniſts, very imperfectly deſcribed, but which the ingenious Botaniſt and Ornithologiſt, Mr. Robins, of St. Mary's, Jamaica, has called *Geoffrea, Inermis*,) ſtands among the firſt, in the liſt of powerful vermifuges.

It

It is the bark of a tree, very frequently to be met with in the mountainous parts of Jamaica, which grows to a conſiderable height. The bark is of an aſh colour, ſometimes ſpotted with reddiſh, or iron coloured ſpots.---The outer thin bark, or epidermis, being peeled off, the inner bark appears, when dry, of a ruſty iron colour, and its *interior* ſurface of a cineritious hue. Altogether, when ſtripped off the tree, and kept for uſe, it is not unlike the eleutheria, or caſcarilla bark. The wood of the baſtard cabbage-tree is exceedingly hard and durable, and much uſed for the purpoſes of building where ſtrength and ſtability are required. The leaves are oblong, oval, ſmooth, and of a beautiful green colour, diſpoſed in a pinnate form along the ſtem.

Of this tree, there are two ſorts, the male, and the female. The bark of the female *only* is applied to the purpoſes of medicine. This latter, in the months of April, May, June, and July, appears moſt beautifully adorned with very large ſpikes of papilionaceous bloſſoms of a purple colour, which are ſucceeded by a fruit, of the ſhape, ſize, and appearance of a green walnut; being a dru-

pa,

pa, containing one oval kernel, inclofed in a hard, fmooth, thin fhell---*.

* Doctor Browne has given a very imperfect account of this tree, in his Natural Hiftory of Jamaica.—He has not defcribed it in its proper place, but refers it to his appendix, which treats only " *of thofe vegetables whofe characters are not fufficiently known.*"—Why he fhould call it a *Spigelia*, I cannot conceive, unlefs it was becaufe he was fond of altering Linnæus's names,—and as he had chofen to give Linnæus's *Spigelia, the worm-grafs*, his new name of *Anthelmia*, (or, as one of his editions has it, " *Anthelmenthia*,") he thought proper to transfer the name of Spigelia to *this* tree, which has not the leaft refemblance of a Spigelia.

He feems totally ignorant to what clafs and order it belongs, as alfo of the characters of the flower, which he leaves undefcribed. I have endeavoured to fupply his deficiencies, by adding that part of the underwritten defcription which is printed in *Italics*—and which, though not ftrictly conformable to the rules of Botany, may nevertheleſs be found fufficient to convey an idea of the flower.

SPIGELIA foliis oblongis nitidis pinnatis, cortice glabro cinereo.

Flores in aliis mafculini, in aliis fœminini dicuntur.

MAS defideratur.

FŒM. Perianthium? *Monophyllum, campanulatum, quinque-crenatum, purpurafcens.*

Corolla? *Papilionacea: Vexillum amplum, cordato-ovatum; Alæ oblongæ; Carina bipetala.*

Stamina? *DIADELPHIA: Filamenta decem, quorum novem infernè connata, fupernè, libera funt. Decimum vero fimplex, à cæteris fejunctum exftat. Antheræ minimæ, oblongæ.*

Piftillum. GERMEN ovatum. STYLUS brevis attenuatus, *aduncus, fubulatus.* STIGMA acutum.

Pericarpium. DRUPA carnofa, firma, ovata, lineâ longitudinali lateraliter notata, unilocularis, monofpermis.

Semen. NUCLEUS bilobus, ovatus, membranâ tenui obvolutus, & nauco ligneo glabro, lineâ longitudinali lateraliter notato, tectus.

The

The moſt uſual way of exhibiting this bark, is in decoction. About an ounce, or an ounce and a half, groſſly powdered, may be boiled in a quart of water, until it is reduced to half a pint. By this time, the decoction becomes very high coloured, like old Madeira wine, or porter; but if it ſhould not then attain that colour, (which is generally looked on as the criterion of its being properly prepared) the boiling muſt be continued longer; for in a ſtrong decoction only the efficacy lies.

The taſte of this decoction is not unpalatable, nor is it from any bitterneſs that the bark derives its efficacy, as ſome have imagined; but from a ſpecific quality, powerfully noxious to all kinds of worms bred in the human body.

The doſe to children, is from a table ſpoonful, to a ſmall wine-glaſs full. Adults of a ſtrong conſtitution may venture on a large wine-glaſs full. Of this decoction, a doſe proportionable to the age and conſtitution of the patient is to be given, either ſimply, or ſweetened with honey, ſugar, or molaſſes, for three or four mornings ſucceſſively.

A dose of some medicine of the purgative kind should be then interposed—such as jalap—rhubarb—sal. glaub. or what is still better, as more immediately answering the intention, an ounce of oleum ricini.

It is surprizing to see what effects will sometimes follow the exhibition of these medicines. Large knots of worms, amounting to some hundreds, have been voided, and the patient, from being reduced to the last extremity, has recovered health and vigour.

But if, as sometimes happens, the first three or four doses of the decoction should not have the desired effect, the medicine must be continued for a few days longer, omitting it on those mornings on which the purge is given; and it rarely happens, that so many as eight or nine doses are taken, without producing a favourable event.

Bad consequences have been said to arise from the too liberal use of this medicine. For my own part, I never found any; and I think I have tried it in as many different forms, and on as many different subjects, as most of the medical profession. It is true, I have known an over-dose of it oc-

 casion

caſion great ſickneſs at ſtomach, and vomiting. But there are very few, even of the moſt innocent and palatable medicines, that are not attended with peculiar inconveniencies, when taken in too large a doſe.

Much has been ſaid about the particular time for gathering, and likewiſe, for adminiſtering the cabbage-tree bark.

It is a vulgar error, held by many, that the bark is not effectual, unleſs it be taken from the tree when the moon is at full; others tell us, that its *effects* are only certain at the ſame ſeaſon, and no other.

I will not preſume to diſpute how far the lunar influence may extend its power over the juices of vegetables; or whether there is in fact any material difference between the circulating fluids of a plant, at this time, and at other ſeaſons. I muſt, however, beg leave to differ from thoſe who hold this opinion, as to the bark here mentioned, becauſe I have found it to anſwer all my purpoſes, although ſtripped from the tree when the moon was not near the full; and to be in all reſpects as effectual, when adminiſtered at any other time of

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the moon's age, as at the period ſo much inſiſted on.

Beſides the decoction, this bark has been found efficacious, when taken in ſubſtance, finely powdered.—From five grains to a ſcruple, may with ſafety be ventured on; and even farther. Combined with jalap, it operates with greater certainty of ſucceſs than when exhibited by itſelf.

Some years ago, the ſmall-pox happening to make its appearance in that part of the iſland of Jamaica where I reſided, it was thought expedient on that occaſion to make preparations for inoculating all perſons, both white and black, that had not had this diſorder.

Thoſe white people, whom I attended, and the negroes belonging to the different eſtates and ſettlements which I had the care of, were forthwith put under a preparatory regimen.

The antiphlogiſtic method, recommended by Baron Dimſdale, as being the moſt applicable to the climate—(as well as the moſt rational, in *any* climate) is of courſe the moſt univerſally adopted in that part of the world.

The mercurial preparation, given over night, I did not ſtrictly adhere to. To the ſtrongeſt negroes, the quantity of calomel given for a ſingle doſe, never exceeded three grains.---To ſome, I judged it altogether improper to give any.

But as the very ſmall annual ſum allowed to ſurgeons, for the care of negroes in the country parts, will not admit of the exhibition of very expenſive medicines, I was reduced to the neceſſity of ſetting my invention to work, to find out a cheap purgative, that ſhould at the ſame time be ſafe and efficacious.

Even Epſom, and Glauber's ſalts, were too expenſive; and ſo was jalap.

The four o'clock-flower (Mirabilis) grew in great plenty about the place. This is the jalapium officinale; and the roots of this, ſliced and dried, were not to be diſtinguiſhed from the common jalap of the ſhops.

But whether from the difference of climate, or ſoil, the Jamaica jalap has not the ſame effect as that which is brought to us from South America. I was obliged to give it in double quantity; and even then

then it did not always take effect. The largeneſs of the doſe rendered it diſguſting.

At laſt, I determined to try how far the cabbage-bark, combined with a ſmall quantity of the true jalap, might aſſiſt its operation; or rather, what effects might be the reſult of ſuch a combination. I gave ten grains of jalap only, with ten grains of the bark, in water, to an adult, of a robuſt conſtitution. It ſucceeded beyond my expectation as a purgative. I made a few more trials with equal ſucceſs.

After this, I prepared a large quantity of equal parts of jalap and cabbage-tree-bark, as a common purging powder for negroes of all denominations, which I found to anſwer very well in doſes of half a drachm; and in ſome few caſes wherein it did not operate ſo well, two or three grains of gamboge, thrown in, to quicken its operation, produced the deſired effect.

This experiment convinced me of two facts. Firſt, the univerſality of the complaint of worms among negroes; for, of *two hundred and fifty-four* negroes, whom I had then under preparation, *two hundred and ſixteen* took the cabbage-bark; of

whom, *one hundred and ninety-three* paſſed worms, after taking the powder two or three times. Among theſe, I do not reckon ſeveral new negroes, and others that I could expect no exact account from. The remaining number, to whom I *did not* give the bark, were either ſuch as from their conſtitution required other treatment, or elſe belonged to perſons who ſupplied their own medicines.

From that time I conſtantly adhered to the uſe of the cabbage-bark, and in the ſubſequent courſe of my practice, made the decoction of that bark the common vehicle for all medicines of the aperient kind, ſuch as jalap, pulv rhei, magneſia, &c. both to white patients and negroes, whenever particular circumſtances did not forbid it; nor did I ever perceive any ill conſequences ariſe from ſo indiſcriminate a uſe of this medicine.

I was now deſirous of examining how far a ſpirituous tincture of it might be of uſe; and infuſed four ounces of the bark groſly powdered, in two pints of rum, which I digeſted in the heat of the ſun for ſix days.

Of

Of this tincture I gave a ſmall wine-glaſs full, inſtead of a common dram, for five or ſix mornings running, by way of gratuity, to two or three luſty fellows that I knew to be ſubject to worms; but though they liked the dram, and came regularly for it, I never could find whether it had the deſired effect.

I drew a very ſmall quantity of extract from a pound of the groſs powder boiled in a gallon of water. This I gave in the quantity of a grain---then two grains, and by degrees as far as five, to three ſubjects I had choſen; but I found no remarkable effects from it, prepared in this manner. One of thoſe who took it was ſeized with a violent ſickneſs at the ſtomach, but whether it aroſe from the effects of the extract, or from ſome other cauſe, I had not leiſure to examine.

However, as I had already two very good and ſimple preparations---the *decoction*---and *powder*, I deſiſted from all farther enquiries into the virtues of the more operoſe preparations.

But notwithſtanding I had ſo much reaſon to be ſatisfied of the *general* efficacy of the

two former preparations of this bark, I found my hopes diſappointed in two or three very obſtinate caſes, wherein after almoſt every other anthelmintic, both native and European, had been tried in vain, I expected to derive very conſiderable advantages from a timely exhibition of the cabbage-tree bark.

The ill ſucceſs of the bark in thoſe caſes, induced me to make ſome enquiry concerning a medicine which I had heard of, as being ſucceſsfully given, in many parts, to all patients afflicted with complaints ariſing, or ſuppoſed to ariſe, from worms; and that, not only by regular practitioners, but even by ignorant negroes, at random, and without any juſt proportion in the doſe.

This was the STIZOLOBIUM, or COW-HAGE.

Satisfied, as I ſaid before, of the general efficacy of the cabbage-tree-bark, I had never given myſelf the trouble to make enquiry about any other more powerful vermifuge; nor did I think that there *could* be one more powerful, until the death of a negro girl, (See Caſe II.) evidently occa-

ſioned,

ſioned, as appeared upon my opening her, from vaſt numbers of worms lodged in the ſmall inteſtines, convinced me that I had not done my duty, and excited me to puſh my enquiries in ſearch of a more efficacious medicine ſtill farther.

I had heard ſo much of the *cowhage*, or *cowitch*, that I reſolved to make trial of it.

But the different modes of exhibiting it, were as various as the perſons who took upon them that office. One adminiſtred it in melaſſes. Caſtor oil was the favourite vehicle of a ſecond; and a third inſiſted, that it was of no ſervice unleſs mixed with honey.

The greater number agreed in giving melaſſes the preference; but there was even among theſe, a conſiderable diſagreement with regard to the proportions to be obſerved in the mixture. While ſome cautiouſly put but two pods of the cowhage into a quart of melaſſes, others boldly ſtirred up two dozen in a like quantity. Some again would have ſix pods to be ſufficient; and others imagined that ſome ſecret virtue, or charm was to be expected, from having

the

the number neither greater, nor leſs, than exactly *nine*.

By ſome, the ſetæ contained on the outſide of a ſingle pod, mixed with one or two table-ſpoonsful of ſyrup, honey, or melaſſes, was given for a ſingle doſe, without diſtinction, to young and old. By others, a quantity of each ingredient was mixed together, without bearing any exact proportion to each other, farther than was merely ſufficient to bring the compoſition to the conſiſtence of an electuary; and one, two, or three teaſpoonsful given as a doſe to children, and one, and ſometimes two table-ſpoonsful to adults.

As far as I could learn, however different the compoſitions and proportions of the ingredients, the effects were found to be pretty much the ſame in all ages, ſexes, and conſtitutions.

I conſidered, that the wonderful efficacy ſo generally attributed to the cowhage, could not be ſuppoſed to ariſe from any ſpecific medicinal quality reſiding in it, ſo much as from the ſharpneſs and elaſticity of the ſetæ, with which the pods are covered, which take the ſame effect on worms, as

they

they do when applied to our ſkin. The ſetæ piercing, vellicating, and tormenting them in ſuch a manner, as obliges them to let go their hold; acting like ſo many needles, as may be plainly demonſtrated by viewing the ſetæ through a microſcope; which ſhews them to be a number of long ſpiculæ, needle-ſhaped, hollow, tranſparent, and armed with points, exquiſitely ſharp and fine.

The idea, that their action is merely mechanical, is ſupported by the obſervations of ſeveral very judicious enquirers, who have made trial of the cowhage, particularly Doctor Leake; who, in his *Lectures on the theory and practice of midwifery, and diſeaſes incident to children*, enumerates the cowhage among the moſt effectual of thoſe remedies, given to children, for worms. He ſuppoſes, that it acts in the ſame manner as hair, cut fine, and given with the ſame intention---but much more effectually, becauſe of its inflexibility, and the exquiſite, and almoſt inconceivable ſharpneſs of its points.

Curious to know how far the application of the ſetæ to the external coats of worms

bred

bred in the human body would affect thoſe animals when expelled from the body, I waited not long before I had an opportunity of making the experiment.

A calabaſh full of very large ones, of the *teres* kind, in full vigour, voided by a poor emaciated patient, was brought to me. Among theſe, I ſprinkled ſome of the ſetæ. For a minute or two, no viſible effect was produced; but in a little time they began to writhe and twiſt themſelves in an unuſual manner, and exhibited evident ſigns of extreme torture. I took one of the worms, and viewing it through a magnifying glaſs, perceived that ſeveral of the ſetæ had pierced very deep, and others were ſticking looſely in various parts of its body, but that none of the ſpiculæ, which had once entered into the ſkin, dropped off.

Convinced in a ſhort time, both from what I had heard, and from my own experiments, on the internal exhibition of cow-itch, of the ſafety and efficacy of this incomparable medicine, I laid aſide the cabbage-tree-bark, and for ſeveral years have uſed no other vermifuge than this.

My

My uſual way of preparing and adminiſtring it, has been in the form of an electuary, with honey, melaſſes, or ſyrup, of a thick conſiſtence, without obſerving any very exact proportion of the quantity of ſetæ.

Of this electuary, a tea-ſpoonful is a ſufficient doſe to young children; and to adults, one, or even two table-ſpoonsful in a morning faſting. This may be repeated for two or three mornings; but in general, there is ſeldom occaſion to go beyond the third doſe; and a gentle purge of ſome kind or other, commonly completes the cure for the time.

The above-mentioned vehicles, (honey, &c.) blunt the ſpiculæ, and prevent their injuring the fauces and œſophagus; and are preferable to an oily vehicle, becauſe, being diluted in the ſtomach, by the ſuccus gaſtricus, the ſpiculæ are ſet free, and, regaining their elaſticity, enter into action; whereas oil, being not eaſily ſoluble by the ſecreted fluids of the ſtomach, ſtill continues to ſheath the points of theſe little ſpiculæ, and carries them through that viſcus, and the inteſtines, without ſetting them free; and by its lubricating quality, prevents them from taking effect, or injuring the worms they are

ſent

ſent to deſtroy. Oil is, therefore, an improper vehicle; and this will appear ſtill plainer, if we conſider, that to defend our hands from the troubleſome effects of the ſetæ, when handling cowitch, it is neceſſary to oil the fingers.

No anatomiſt will aſk, *Whether theſe ſpiculæ may not be injurious to the coats of the ſtomach and inteſtines?* But, as I have been aſked this queſtion by many people, who, ignorant of the ſtructure of the inteſtines, and the nature of this mucus, were apprehenſive of danger---and therefore afraid to venture on the medicine; it may not be amiſs to remark, for the ſatisfaction of ſuch as are in doubt concerning that point, that if a little honey or treacle is ſufficient to defend the tender nervous papilli of the mouth and fauces, from the troubleſome effects of the ſetæ, (which, when applied externally to any part of our ſkin, cauſe a moſt tormenting and intolerable itching, ſometimes almoſt even to madneſs) certainly the mucus of the ſtomach and inteſtines will be very ſufficient to defend thoſe parts from the irritation of the ſetæ.

Never-

Nevertheleſs, however inoffenſive in general the Cowhage may be, reaſon will dictate to us, that where the mucus of the ſtomach and inteſtines is abraded, or leſſened, from dyſentery, cholera-morbus, or any other cauſe whatſoever; or where there is a tendency towards inflammation in any part of the inteſtinal canal, the exhibition of this medicine cannot be unattended with danger.

I ſhall not go ſo far as to ſay, in praiſe of this my favourite medicine, that I *never* knew it to fail; but I will ſay, that I have experienced more certain good effects, and fewer ill conſequences, than from any other medicine, given with the ſame intention; inſomuch, that I have, ſince I firſt began to exhibit the Cowhage, had no occaſion to look for any other vermifuge.

The wonderful and ſalutary effects which I ſaw from the uſe of this medicine, both in my own practice, and that of others, among whom it obtained the ſame univerſality, and likewiſe among thoſe, who, though not in the medical line, freely adminiſtred it, both to their own children, and their negroes, without any dread of ill conſequences, induced

duced me, from the very firſt, to commit to paper my obſervations relative to the exhibition and effects of Cowhage; hoping that it might be no unacceptable ſervice to the community, to introduce into general practice in England, a medicine, which in the Weſt Indies, is of ſuch well known and indiſputable efficacy. I have therefore ſubjoined, by way of appendix, a few of the moſt remarkable caſes, which have fallen under my cognizance, as a farther illuſtration of the efficacy of this medicine; and ſhall, for the preſent, beg leave to give the remainder of this account of the Cowhage, or Cow-itch, in the words of thoſe gentlemen who have obliged the world with an accurate deſcription of this plant, and its uſes, taken from the ſecond volume of the Medical Commentaries.

Extract of a letter from Mr. Thomas Cochrane, *ſurgeon, at* Nevis, *to* Mr. John Balfour, *ſurgeon*, in Edinburgh. *Concerning the uſe of Cowhage, as an anthelmintic.*

From the Medical Commentaries, Vol. II. Part I. No. IV. Page 82.

" There is a medicine which is much " uſed here againſt worms. Planters give " it

" it to the negroes with great ſucceſs; and I
" have ordered it myſelf both to children
" and adults with very certain good effects.
" The plant is here called Cowhage, and is
" furniſhed with the *ſiliqua hirſuta* of Lin-
" næus. The parts which are uſed are the
" hairy ſpiculæ, ſcraped from the pods,
" and mixed with ſyrup. They are ſup-
" poſed to act by promoting the periſtaltic
" motion of the guts, and pricking the
" worms. The doſe is not exactly limited;
" but the ſpiculæ obtained from a ſingle
" pod, are eſteemed a ſufficient doſe for a
" child of ſeven or eight years old.

" This remedy is perfectly ſafe and in-
" nocent, although it occaſions ſome unea-
" ſineſs upon being firſt taken*. I have
" ſeen large cluſters of worms come away
" from patients on the firſt doſe. It is given
" at bed-time, and a purge in the morning.
" This practice is repeated after an interval

* Not if the ſyrup be thick enough. But if the vehicle be too thin, or in a ſtate of fermentation, the ſetæ occaſion a tickling in the fauces, and are ſeparated from their vehicle by the action of the tongue, and ſpit out.

" of two days; and it is ſeldom neceſſary
" to give more than a ſecond doſe."

* * * * *

' Our readers may remember, that Cow-
' hage has been mentioned as an anthel-
' mintic by Doctor M'Bride, in his intro-
' duction to the Theory and Practice of
' Phyſic, and by ſome other authors. But
' we have ſeen no deſcription of the plant.
' There is a good ſpecimen of it at preſent
' growing in the Botanic Garden at Edin-
' burgh. It has been but lately brought
' there, and is not in that ſtate which is
' moſt favourable for inveſtigation. We
' cannot, therefore, give ſuch a deſcription
' of it as could be of any uſe.' *Ibid.*
' *pag.* 83.

* * * * *

Extract from the ſame volume, page 202.

' In a former number, we gave an account
' of the good effects obtained, from the uſe of
' Cowhage, or Cowitch, as an anthelmintic.
' This plant is alſo a native of the Eaſt In-
' dies; and the following accurate deſcrip-
' tion of it was lately tranſmitted by Mr.
James

'James Kerr, at Patna, to the Professors 'of Medicine in Edinburgh.'

'*Nomen*. By Europeans it is called Cow-'hage, or Cowitch. By many writers, a 'Phaseolus. By the natives of Bengal, 'Cadjuct, from the itching and scratching 'it produces.

'*Classis*. According to the system of the 'incomparable Linnæus, it stands in his 'seventeenth class, DIADELPHIA, and 'fourth order, DECANDRIA.

'*Genus*. The flowers of this herbaceous 'plant differ very essentially from the *Pha-'seolus*. They have Linnæus's distinguish-'ing mark of a *Lupinus*; but in other 'parts of the flower, and habit of the 'plant, the difference is very considerable. 'From the remarkable length of the alæ 'alone, I imagine it is sufficiently distin-'guished from every other flower, and pro-'bably it deserves to constitute a new 'genus *.

"*Radix*.

* For which reason, it may not be improper to retain the name which I have adopted, being that which Doctor Browne, in his *Natural History of Jamaica*, has distinguished it by. He calls it STIZOLOBIUM, spicis multifloribus pendentibus alaribus, floribus ternatis, purpureis;

‘ *Radix*. The root is fibrous.

‘ *Truncus*. The ſtem is herbaceous, ‘ equal, voluble, climbing, cylindrical, and ‘ naked; diverging into many branches, ‘ and riſing to a great height, when properly ‘ ſupported.

‘ *Folia*. The leaves are alternate, and tri- ‘ lobate, riſing from the ſtem and branches ‘ about the diſtance of twelve inches from ‘ each other. The foot-ſtalk is cylindrical; ‘ from ſix to fourteen inches long. The ‘ lateral lobes are obliquely ovate, obtuſe, ‘ entire, and nervous, with ſhort petioles, ‘ and two very ſmall ſtipulæ between the ‘ lobes. The middle lobe is ſmaller, ovate,

reis: and thus characterizes the parts of fructification.

PERIANTHIUM. Monophyllum, tubulato-campanulatum, ſubventricosè ringens; Labium ſuperius, majus, obtusè emarginatum, reflectens—Inferius, tridentatum, ſub-erectum.

COROLLA Leguminoſa. *Carina* bipetala, petalis oblongis, ad apices agglutinatis.

STAMINA. *Filamenta* decem, infernè connata, ſupernè, libera. *Antheræ* ovatæ, alternè ſubmonſtroſæ, oblonge tumentes.

PISTILLUM. *Germen* oblongum. *Stylus* ſubulatus, ſtaminibus longior; *ſtigma* ſimplex.

PERICARPIUM. Legumen oblongum, ſub-æquale; ad utrumque extremum adversè ſubarcuatum; hirtis pungentibus obſitum, ſeminibus quatuor vel quinque refertum reniformibus.

‘ both

' both ends pointed, with the petiole much
' longer, and two ſmall ſubulated ſtipulæ.

' *Flores.* From the axilla of the leaf,
' deſcends a pendulous ſolitary ſpike, from
' ſix to fourteen inches long, covered with
' long, blood-coloured, papilionaceous flow-
' ers, riſing by threes in a double alternate
' manner, from ſmall, fleſhy protuberances,
' each of which is a ſhort pedunculus of
' three flowers. The partial foot-ſtalks are
' ſcarce half an inch long. The flowers
' upon the apex of the ſpike are firſt in
' bloom.

' *Calyx.* The involucrum to every three
' flowers of the ſpike, conſiſts of three
' ſmall, hairy, ciliated, deciduous leaves.
' The proper empalement is of one bilabiate
' leaf, with a bellied, gibboſe, perſiſting
' tube. The upper lip, ovate, entire, and
' preſſed a little backward by the vexillum.
' The under lip is trifid, acute, and more
' erect.

' *Corolla.* a. VEXILLUM. The ſtandard
' is ovate, concave, gently reclinate, and
' emarginate. It is about double the length
' of the empalement.

' b. ALÆ. The wings are of an oblong,
' lanceolate ſhape, double the length of the
' ſtandard, and both ſides connivent, with
' ſhort, furrowed, nectariferous tongues.

' c. CARINA. The keel is falcate, acu-
' minate, compreſſed, cloſely ſhut, very
' narrow, and ſcarce longer than the wings,
' with a curved, diſtinct apex.

' *Stamina*. The filaments are diadelphous,
' nine united, and one ſeparate; equal in
' length, and diſtinct above. The ſingle
' filament, and four others, terminate in
' thick truncated points, having orbicular
' antheræ inſerted into them by very ſhort
' necks. Alternate with theſe are five other
' filaments, much more ſlender, and of a
' ſubulate ſhape, having oblong and larger
' antheræ. When the flower is in perfection,
' the filaments extricate themſelves from the
' keel, by an elaſtic ſpring fly upwards, and
' preſs upon the ſtandard.

' *Nectarium*. There is a ſmall tubular
' nectarium with ten obtuſe points, incir-
' cling the pedicle of the germen.

' *Piſtillum*. The (a) GERMEN is cylin-
' drical, hairy, and almoſt the length of the
' empalement. The (b) STYLE is filiform,

' hairy,

' hairy, and as long as the filaments. The
' (c) STIGMA is globular and ſmall.

' *Pericarpium.* The fruit is a leguminous,
' coriaceous pod, four or five inches long,
' crooked as the letter *ſ*, and denſely co-
' vered with ſharp hairs, which penetrate
' the ſkin, and cauſe great itching.

' *Semina.* The ſeeds are five or ſix in num-
' ber, nearly of the ſhape and ſize of a ſmall
' bean, with the hilum near the middle of
' the ſeed.

' *Locus & qualitas.* It will grow in any
' ſoil; but it is generally eradicated from
' all cultivated grounds, on account of the
' hairs flying with the winds, and torment-
' ing every animal they chance to touch.
' If it were not for this miſchievous quality,
' the beautiful ſpikes of red flowers would
' deſerve a place in the beſt gardens.

' *Tempus.* It flowers in the cool months,
' from September to March *, according to
' the ſituation.

* This is to be underſtood of the *Eaſt* Indies, from whence the above account is tranſmitted. In Jamaica, it flowers at different times, in different places, but moſt commonly from March to November.

' From this accurate deſcription, it ap-
' pears, that the Cowhage is the *dolichos pru-*
' *riens* of Linnæus. Mr. Kerr has ſaid no-
' thing with regard to its medicinal virtues.
' But in confirmation of Mr. Cochrane's ac-
' count, we ſhall here preſent our rea-
' ders with the teſtimony given concerning it
' by Mr. Bancroft, in his eſſay on the Natu-
' ral Hiſtory of Guiana in South America,
' a work publiſhed at London ſome years
' ago.

' After mentioning the frequency of diſor-
' ders ariſing from worms in that part of the
' world, and aſſigning ſome reaſons for it, he
' adds, " But from whatever cauſe theſe
" worms are produced, their number is ſo
" great, that the uſual remedies are very
" inſufficient for their deſtruction; for which
" reaſon the planters in general have recourſe
" to the Cowitch, for that purpoſe. From
" whence its uſe was firſt ſuggeſted, I am
" uncertain; BUT ITS EFFICACY IS IN-
" DISPUTABLE. The part uſed, is the
" ſetaceous, hairy ſubſtance, growing on the
" outſide of the pod, which is ſcraped off,
" and mixed with common ſyrup, or mo-
" laſſes, to the conſiſtence of a thin elec-
" tuary,

" tuary, of which a teaſpoonful to a child
" of two or three years old, and double the
" quantity to an adult, is given in the morn-
" ing faſting, and repeated the two ſucceed-
" ing mornings; after which, a doſe of rhu-
" barb is uſually ſubjoined.

" This is the empirical practice of
" planters, who uſually once in three or
" four months, exhibit the Cowitch in this
" manner to their ſlaves in general; but
" eſpecially to all their children without
" diſtinction; and in this manner I have
" ſeen it given to hundreds, from one year
" old and upwards, with the moſt happy
" ſucceſs *. The patients, after the ſecond
" doſe, uſually diſcharged an incredible
" number of worms, even to the amount of
" more than twenty at a time; ſo that the
" ſtools conſiſted of little elſe than theſe
" animals. But though theſe were indiſ-
" putable proofs of its efficacy, I was far
" from being convinced of its ſafety. I

* It was my conſtant practice while in Jamaica, to have all the children of the eſtates and ſettlements, that I had the care of, from the youngeſt infant, to thoſe of twelve years old, brought to me once in two months, to all of whom, without exception, I gave the cabbage-bark, and latterly, the Cowhage, for three mornings, whether they had ſymptoms of worms, or not.

" obſerved,

" obſerved, that the ſubſtance given, con-
" ſiſted of an aſſemblage of ſpiculæ ex-
" quiſitely fine, and ſo acutely pointed, that
" when applied to the ſkin, they excited an
" intolerable itching, and even inflamma-
" tion, from whence I apprehended dan-
" gerous conſequences from their contact
" with the coats of the ſtomach and inteſ-
" tines. Indeed, when mixed into an elec-
" tuary, in the manner in which they are
" given, their elaſticity is ſo impaired, that
" they do not produce the ſame ſenſible irri-
" tation; but yet I could conceive no other
" quality, on which their efficacy depended;
" eſpecially after I had prepared both a
" tincture and decoction from the Cowitch,
" and given them to worm patients, without
" any ſenſible advantage. Influenced by
" theſe ſuggeſtions, I particularly examined
" the ſtate and condition of all ſuch pa-
" tients as I knew had taken the Cowitch;
" and yet, can with the greateſt truth de-
" clare, that, though prejudiced to its diſ-
" advantage, I was never able, either by my
" own obſervation, or a diligent enquiry, to
" diſcover a ſingle inſtance of any ill conſe-
" quence reſulting from its uſe, which has

been

" been ſo extenſive, that ſeveral thouſands " muſt have taken it; and as no ill effects " have been obſerved, I think, not only its " efficacy, but SAFETY, are ſufficiently " EVINCED, *to entitle it to general uſe*; " eſpecially when we reflect on the uncer- " tainty, and even danger, which attends " other vermifuges. It is to be obſerved, " that this remedy is particularly deſigned " againſt the *long round worm*: Whether it " is equally deleterious to the aſcarides, or " whether it has ever been uſed againſt " them, I am uncertain*."

* * * * *

I ſhall here ſubjoin a letter which I received from Mr. Neil Stewart, ſurgeon, in Jamaica, relative to the ſucceſs of the Cowhage in his practice, as a farther confirmation of its utility and ſafety.

" *Hope Eſtate, Liguanea, Aug.* 9, 1782.

" My good Friend,

" In compliance with your requeſt, that " I would give you my ſentiments, and re-

* When we conſider the nature of its operation, and that it is carried through the whole length of the inteſtinal canal, without ſuffering any alteration, I think there can be no ſort of doubt of its being equally troubleſome to every ſpecies of worm.

com-

" commendation of the Cowitch, in writ-
" ing, I now ſit down to give you a hiſtory
" of it; but muſt premiſe, that you can
" expect no more than I have already ſo often
" aſſured you of, *vivâ voce*:—which is,
" that the Cowitch, as a vermifuge, has not
" its equal in the world, either for the cer-
" tainty of its effects, or its perfect inno-
" cence. Too much cannot be ſaid in the
" praiſe of that excellent medicine. I have,
" for my own part, given it for theſe ten
" years paſt, in all ſorts of worm caſes, both
" to old and to young; and with ſuch good
" ſucceſs, that I have never had occaſion to
" look for any other anthelmintic. I have
" totally diſcarded the uſeleſs æthiops mi-
" neral: the uncertain crude mercury, and
" the ſtill more uncertain, and leſs innocent
" preparations of it; ſuch as calomel, cor-
" roſive ſublimate, and ſo forth; and in
" ſhort, all other medicines given with the
" ſame intention, except cabbage-tree-bark;
" and even *that* is not ſo great a favourite
" of mine, as it formerly uſed to be; not
" that I have any reaſon to find fault with
" it, but only becauſe I find the Cowitch
" to anſwer every purpoſe I can want. I

" have

" have given it even to tender and delicate
" white children under one year old,—with-
" out any ill conſequences. On the con-
" trary, it has frequently brought away
" worms from them, even at ſo young an
" age. Every body, that gives it with-
" out advice, has a diferent way of pre-
" paring it; but the manner in which
" it is moſt commonly prepared, and the
" manner in which I myſelf order it, is
" to throw a dozen or two of ripe pods
" into a calabaſh, or common quart punch-
" bowl, full of melaſſes, and ſtir all to-
" gether until the hairs or ſpiculæ are
" taken clear off the pod, and well mixed
" in the melaſſes. The pods, being uſeleſs,
" are then thrown away.

" Of this mixture, I order the hot-houſe
" man on every eſtate, to give all the little
" children, without diſtinction, a table
" ſpoonful for three mornings running,
" once a month; and not only to the chil-
" dren, but if any of the grown negroes
" are ſuſpected to have worms, it is like-
" wiſe given to *them*, but in larger quan-
" tity: and it is inconceivable to one who

" has

" has not known the good effects of Cow-
" itch, what wonderful ſucceſs it has in ex-
" pelling every ſpecies of worms; and I can
" ſafely aver, I never ſaw any ill conſe-
" quences, or had any complaints, from
" thoſe for whom I have preſcribed it,
" or recommended it to. However, I
" would not think it adviſeable to be
" given where there might be any diſorder
" tending towards inflammation in any part
" of the alimentary canal, or where the na-
" tural mucus is defective.

" I agree with you, in ſuppoſing, that the
" Cowitch acts only mechanically, in the
" ſame manner as cut hair would do, and
" from no intrinſic virtue; becauſe a de-
" coction of it is of no manner of uſe.

" I muſt deſire you particularly to take
" notice, that it is, and always has been my
" practice, to premiſe an emetic, where it
" can be done with propriety, previous to
" entering upon the Cowitch. I have often
" found the good effects of it, which in-
" duces me to continue it. A gentle doſe
" of ipecacuanha, or tartar emetic, clears
" the ſtomach of matters which might im-

" pede the action of the Cowitch; and to
" children, a little oxymel of ſquills, will
" anſwer the purpoſe; but ſome of the
" Creoles, who ſeldom uſe an European
" medicine when they can find an apo-
" thecary's ſhop in the buſhes, never uſe
" any emetic for themſelves or their ne-
" groes, but the wild ipecacuanha, or red-
" head.

" I have received the thanks of ſeveral
" ladies in and about Liguanea, and the
" mountains—and in the town of Kingſton
" alſo—who have uſed the Cowitch, from
" my recommendation—both for their own
" children, and for their negroes. They
" are all laviſh in praiſe of its virtues.
" In ſhort, I think it may be looked on as
" a more certain ſpecific in worm com-
" plaints than the Peruvian bark in the
" cure of intermittents.

" I am, &c. &c.

" Your's affectionately,

" NEIL STEWART."

IT

IT now remains, that I ſhould mention the manner of preparing this medicine, which is ſo exceedingly troubleſome, as to deter many from handling it that would have been glad to have made experiments with it.

Every one that knows what *Cowitch* is, muſt be ſenſible, that if the leaſt particle of it comes in contact with the ſkin, it cauſes a moſt intolerable itching, and ſometimes even a ſlight degree of inflammation, where it fixes. A ſingle briſtle of it, ſo ſmall as to be inviſible to the naked eye, is ſufficient to cauſe this inconvenience for a while, but it ſoon goes off.

As the ſetæ are ſo very light, that the leaſt breath of air is ſufficient to blow them off the ripe pods, and diſperſe them about a room, the beſt way will be to prepare them in a cloſe room, where no wind can enter.

The method I uſually followed when I had a large quantity to prepare at once, was firſt to take the number of pods I wanted, with a pair of tongs, or forceps, or with my fingers very well oiled; and put them into the veſſel I intended to mix them in. I then gently covered them all over with the quan-

tity

tity of melaſſes intended for them, and with a ſtick or ſpatula, ſtirred all together until the pods were ſtripped of their ſetæ. The pods were then taken out, and thrown away.

But this is at beſt but a clumſy method of preparing it. It may do very well for hot-houſe practice in the Weſt Indies, where Cowhage grows in plenty. However, as there muſt be by ſuch means, a great deal of waſte, eſpecially if the pods be not quite ripe (for unleſs they are, the ſetæ do not ſo readily come off) it will be more eligible, in *this* part of the world, to proceed with a little more œconomy.

When a ſmall quantity is to be prepared, the beſt way will be, firſt to oil your fingers, which will defend them from the irritation of ſuch ſpiculæ as come off, in handling the pods—for, take what care you will, the hairs or ſpiculæ are ſo light, that they fly about and torment the ſkin wherever they come in contact with it, unoiled. With your fingers, thus defended, therefore, take the pods, one by one, and dipping each into a cup of water, (ſtill to prevent the ſetæ from flying) with a knife or ſpatula, ſcrape off as

 much

much of them as you can, while wet, until you have obtained the quantity required for making a linctus, or thin electuary, with ſyrup, honey, or treacle.

Accident led me to a method of ſeparating the ſetæ from the pod, more effectually, and with leſs waſte, than I could otherwiſe have deviſed.

Having had occaſion to travel in a ſtage coach from Lancaſter to Liverpool, I packed up a ſmall box, which might contain about half a peck of this Cowhage, intended as a preſent to a particular friend in the medical line.

On opening the box, at my journey's end, I was not a little ſurprized to find the pods diveſted of their ſetæ, ſo effectually, that a child might have handled them without any danger of inconvenience. The ſetæ I found all together in a corner of the box.

I attributed this ſeparation to the jolting which the box underwent in the boot of the coach; and ſuppoſing that the ſame effect might be produced from agitating the Cowhage in a box, I tried the

experiment; but after ſeveral hours agitation, although the purpoſe was in ſome degree anſwered, yet the pods were not ſtripped ſo entirely bare as in the former inſtance; and ſome that had not come to perfect maturity, loſt few or none of their ſetæ.

I once read of a gentleman, who, after tying a phial of quickſilver to the arms of a windmill, and trying various other methods of reducing quickſilver to a powder, *per ſe*, found none ſo effectual as ſending it a long journey as far as York, by the ſtage coach.—On its return to London by the ſame coach, he found the agitation had produced, in a great degree, the deſired effect.

In like manner, if it ever happens, (as I hope it will) that Cowhage ſhould be received as a ſtanding article of the materia medica, the moſt effectual way that I can recommend (and I am ſure it is the leaſt troubleſome) to thoſe who would obtain a large quantity of the ſetæ, is to ſend it a long journey, in a box, not quite full, well lined with paper, and the crevices well

ſecured; care being taken to place the box about ſome part of the carriage; for inſtance near the fore, or hind wheels, where it may undergo the greateſt degree of agitation.

CASE

CASE I.

THE Surgeon of a Guineaman, juſt arrived from the coaſt of Africa, where he had been upwards of thirteen months, made application to me, for ſome medicines for the cure of worms, with which he ſaid, that not only he, but moſt of the negroes belonging to the cargo, were very much troubled, and for which the European medicines that he had tried were found inſufficient to anſwer his purpoſes. He had heard, he ſaid, that the Weſt Indies afforded medicines, far more efficacious for the cure of worms, than any in Europe; but that, being totally a ſtranger, he was ignorant of the means of procuring them.

He told me, he had been much ſubject to worms from his infancy—and he had, when I firſt ſaw him, a ſlight degree of fever, ſtinking breath, a pale countenance, and want of appetite—low, quick, irregular pulſe, and ſometimes an inclination to vomit. He complained of a troublesome

ſome huſky cough, and intolerable itching of the noſe. A diarrhœa, that had attacked him on his leaving the coaſt of Africa, and ſtill continued, had reduced him very much.

He had had recourſe to aloetics and other bitter purgatives, powdered tin, and filings of tin; mercurials, and almoſt all other of the known vermifuges, which prevented the diſorder from gaining ground with ſuch rapidity as it might otherwiſe have done, but had not the deſired effect of reſtoring him to health.

At his requeſt, I went on board his ſhip, where a great number of the cargo, conſiſting chiefly of Mundingoes, (a nation peculiarly ſubject to worms) were greatly emaciated, from the ſame cauſe.

I was not at that time acquainted with the Cowhage, but recommended to him the cabbage-bark, and undertook to procure him ſome. Not having a ſufficient quantity of it by me to anſwer his purpoſes, I ſent to my friend, Mr. Stewart, ſurgeon at Hope Eſtate, who with great politeneſs and humanity ſent me a large quantity of it. This I gave to the

ſurgeon

ſurgeon of the Guineaman, with directions how to uſe it.

What good effects it might have had on the greater part of the negroes to whom he gave it, he could not tell, as the cargo was ſold off in two or three days after he began to uſe it; but for himſelf, he found his health better in every reſpect, after taking two or three doſes of the decoction. His way of taking it was, by a teacupfull in the morning, at his breakfaſt, inſtead of tea or coffee, adding a little milk and ſugar to make it palatable. He did not perceive any immediate effects from it, unleſs, that on his taking a double doſe one morning, it operated very powerfully as a diuretic. The feveriſh complaint, however, ſtill continued, but in a ſlighter degree, and began to put on the appearance of a regular intermittent. I recommended to him a gentle emetic, which, with proper evacuants, and a few doſes of the cort. Peruv. afterwards—and the uſe of *vervain tea*, (a gentle aperient, and vermifuge,) to the quantity of one or two quarts a day, reeſtabliſhed his health before he returned to Europe.

I met with him about a year ago in Liverpool, and he told me he had, ſince I firſt knew him, given the cabbage-tree-bark to ſeveral children, and alſo been obliged again to have recourſe to it himſelf, with very good ſucceſs.

CASE II.

A gentleman, who had a plantation in the mountains at a conſiderable diſtance from any other ſettlement, ſent for me to viſit one of his negroes, who had been ſeized in a very extraordinary manner.

The patient was a girl, about eighteen, of a very delicate conſtitution, and conſumptive habit. She had, for about a month before I ſaw her, complained of an unuſual ſenſation at her ſtomach, which ſhe ſometimes deſcribed as a gnawing pain; at other times, like the heart-burn, for which her maſter had given her magneſia, pulv. é chel. cancror. rhubarb, and many other things, but without effect.

When I was called to her, ſhe had been attacked with a ſudden and violent pain near the ſmall of her back, towards the right ſide, which cauſed her to ſhriek out

inceſſantly, and roll herſelf upon the floor in the utmoſt agony. Her pulſe was quick and high—her tongue clean; lips ſwelled, and pale; and her teeth grinding againſt each other. This I attributed to the pain ſhe was in, but her maſter told me it was her uſual cuſtom. On enquiry, I found ſhe had very regular returns of the catamenia. As ſhe had been coſtive for ſome days, I ordered a clyſter; and that ſhe ſhould afterwards be put in a warm bath.

From many of theſe ſymptoms, and others which had preceded, I made no doubt of her having worms; and I gave her, as ſoon as it could be prepared, about three ounces of decoction of cabbage-bark, with twenty-five drops of tinct. thebaica. In two hours, ſhe ſeemed a little relieved, and had one ſtool. Towards evening, ſhe ſlept a little, but was in very great pain all the enſuing night; and the next day, was bad as ever.

The clyſters, and warm bath were repeated. From theſe ſhe ſeemed to obtain ſome remiſſion from her pain. The decoction was alſo repeated, in the quantity

of

of four ounces in the morning, and again in the afternoon. She had no motion, except from her clyſters. As her pains were not yet abated, I gave her an opiate at night, which made her ſleep ſoundly. In the morning ſhe took two ounces of *Ol. Ricini*, which gave her two ſtools, and ſhe was ſomething eaſier. I then left directions with the gentleman to whom ſhe belonged, to be attentive in giving her the decoction of cabbage-bark, and requeſted he would ſend me word every day how ſhe was.

Two days after, he wrote me a line, to inform me ſhe was very well, and had voided a very long worm. However, in about a week, a meſſenger came to me, deſiring that I would go to the mountain, to ſee the patient, who was worſe than ever.

I ſuſpected, that the medicines had been diſcontinued too ſoon; but was aſſured, that my directions had been adhered to very minutely.

On my arrival, I found ſhe had been dead about two hours. I then requeſted permiſſion of the gentleman to open the body, which he very readily granted. I found the lungs

more

more flaccid, and ſmaller than uſual; they adhered in many places to the pleura, and though adheſions of the lungs to the pleura are ſometimes to be found in healthy ſubjects, yet in this patient they were apparently *morbid.*—A ſmall quantity of purulent matter was lodged in one of the branches of the trachea.---The other viſcera of the thorax and abdomen were perfectly ſound, except a portion of the duodenum, about an inch and a half from the pylorus, which appeared to be a little inflamed.

On opening different portions of the inteſtines, large knots of worms, of various ſizes and lengths, appeared. I examined the parts very narrowly, in order to find out whether they had eaten their way through into the cavity of the abdomen, but no injury of that kind had been done; however, many parts of the inteſtines exhibited the ſame appearance of inflammation, as that which I firſt obſerved near the pylorus.

This girl had a huſband, who went under ſtrong ſuſpicion of having once or twice attempted to poiſon her; nor was he altogether

ther unſuſpected of the ſame deſign on the preſent occaſion; but I found no appearance that could ſerve to juſtify that ſuſpicion, and am clearly of opinion, that worms were the occaſion of this perſon's death.

I had heard of, but never, till after the time this caſe occurred, had *experienced* the effects of *Cowhage*. The cabbage-tree-bark had hitherto anſwered all my expectations; but on finding its inefficacy in this inſtance, I was induced to make ſome farther enquiry concerning the *Cowhage*; nor was it long before I had an opportunity of being perfectly convinced of its ſuperior efficacy. (See Caſe III.)

I have inſerted the above caſe, as one of few, wherein the cabbage-tree-bark failed of its general effects, but not with a view to depreciate its virtues---for a medicine like this, whoſe general efficacy is incontrovertible, is no more to be rejected, becauſe it *ſometimes* has not the deſired effect, than the Peruvian bark, becauſe it does not *always* cure thoſe diſorders, for which it is accounted a ſpecific.

CASE

CASE III.

S—— I———, a child of five years of age, daughter of Mr. E—— I———, a planter at the North Side of the Iſland, had been much afflicted with almoſt every ſymptom of worms, for upwards of half a year, without receiving the leaſt relief from any of the numerous remedies, which ſhe had taken. Scarce a week paſſed, that ſhe was not attacked with a fever, attended with inſatiable thirſt, and difficulty of urine. The other ſymptoms and appearances were, a pale, greeniſh complexion; grinding of her teeth, not only when aſleep, but in the day time when awake; a quick, weak pulſe; pain in the right ſide, and about the navel; a foul tongue; difficulty of breathing---a very ſtinking breath---laſſitude, and inattention to every thing that paſſed.---Her urine had a very bad ſmell, was exceedingly turbid, and ſtained her linen of a greeniſh colour, which did not eaſily diſappear in waſhing. Her appetite was in general very good, but ſometimes ſhe loathed all manner of food. She picked her noſe without ceaſing.

Her

Her mother, who had the care of ſeveral children, frequently gave the anthelmia, or worm-graſs, with very good ſucceſs to others; but it ſeemed to have no effect, except as an *anodyne*, on this, her youngeſt daughter. It is to be obſerved, that the worm-graſs always has the effect on thoſe who take it, of making them appear as if drunk, for ſome little time before it operated as an anodyne.

Satisfied that all the child's complaints aroſe from worms, I directed my views towards their extirpation.

An ounce of very ſtrong decoction of the cabbage-tree-bark was ordered to be given in the morning; and a large cataplaſm of the pulp of *ſempervive*, (aloes) with the freſh leaves of garden-rue, and halbertweed, (ſantolina) bruiſed, to be applied, warm, to the abdomen, and there retained by a proper bandage, and renewed twice a day. The very firſt doſe brought away a round worm, about twelve inches long; a ſecond doſe was attended with the like ſucceſs. I ordered the medicine and cataplaſms to be continued; and being obliged to go to South-ſide for a

week,

week, left proper directions for the management of the child, to be obſerved during my abſence.

While at South-ſide, I happened to mention this caſe to a gentleman of the profeſſion, who aſked me if I had never tried the *Cowhage*. I told him, I had often heard of its good effects, and would be very glad to make trial of it, were I but ſufficiently aſſured of its ſafety. He declared to me, that it was the only vermifuge he had made uſe of, in his practice, for ſeveral years; and on receiving from him the ſtrongeſt aſſurances of its innocence, and certainty, which were confirmed by the atteſtations of ſeveral white people, who had ſeen and known its good effects, I took ſome of it home with me.

On my return to North-ſide, I found the child much worſe, and was told, that ſhe had been ſeized with fits. Beſides theſe, a teneſmus was now added to her former complaints.

I conſidered, that while ſhe had this laſt mentioned ſymptom, and while in every ſtool large quantities of mucus came away, it would

would be altogether improper to begin with the Cowhage. It was, therefore, my firſt buſineſs to remove the teneſmus; and by a mucilaginous diet, ſupply, as it were, the deficiency of the inteſtinal mucus. To this end, opiates in ſmall quantities were given twice a day; ſago, okro, and farinaceous ſubſtances, free of acrimony, were her only food—and clyſters, with decoction of okro, (hibiſcus) were injected frequently.

In two days ſhe appeared rather better, but a third convulſion coming on, perſuaded me there was no time to be loſt. I conſidered her caſe as deſperate; and notwithſtanding the condition of her bowels ſeemed to forbid the uſe of Cowitch, and that it was a remedy I had never tried before, I ventured on it, as the laſt reſource.

I mixed the quantity of ſetæ, ſcraped from a ſingle pod, in one ounce of very thick honey. Of this, half was given to her at firſt, in a morning faſting.

The very firſt doſe was attended with the moſt happy conſequences. Upwards of fifty ſmall worms were diſcharged alive, in the

courſe

courſe of the day, with a large quantity of mucus.

Towards bed-time, the remainder was given, and in conſequence thereof, a few more worms were paſſed.

But the tenſion of the abdomen ſtill continuing, though ſome few of the ſymptoms were mitigated, I judged it neceſſary to continue the Cowhage a few days longer, and left directions accordingly. On my return to ſee her four days after, I was ſurpriſed at the alteration I found in her. She was lively, and active---her pulſe was regular, and her belly ſubſided. The pains had ceaſed; and, in ſhort, ſhe was in every reſpect much better; and only complained of weakneſs. The three or four laſt doſes of Cowhage, which ſhe had taken, produced no effect; I therefore adviſed, that it ſhould be diſcontinued for the preſent; but recommended that a little ſhould be given once a week, or twice in ten days, for ſome time afterwards. She continued well.

CASE IV.

A negro boy, about the age of eleven, was once in two or three weeks, ſeized with a kind of fit, which commonly laſted for four or five hours, during which it was uſual for him to ſhriek out with violence, and continue ſo to do without interruption for ſeveral hours. This, the negroes, who are exceſſively ſuperſtitious, attributed to the effects of *obeah*, as they call it---or witchcraft; and upon this ſuppoſition, the boy grew worſe and worſe every day, no methods being taken for his relief, except ſuch as the negroes themſelves applied, by way of exorciſm, or charm.

At laſt, his fits becoming more frequent, the overſeer of the eſtate, to which the boy belonged, ordered that he ſhould be brought to me the next time he was ſo ſeized.

When I ſaw him, he lay ſtretched out on his back; his upper and lower extremities being quite motionleſs---but the abdominal muſcles, and all thoſe, concerned in reſpiration, ſeemed to undergo an unuſual degree

degree of agitation, and to appear as if convulſed by his efforts in ſhrieking. His eyes appeared as if ready to ſtart from their ſockets, and his pulſe was quick, and irregular.

I firſt ordered a warm bath to be got ready, into which he was to be put, for an hour, and in the mean time, a common clyſter was adminiſtered. I alſo directed a ſaline draught, with twenty drops of tinctura thebaica, which I attempted to give him, but he ſpit the greateſt part of it out. I then prepared another, but had no occaſion to give it, for, after he had been in the bath about three quarters of an hour, he became quiet, and fell aſleep. He was then taken out, and laid in a clean, warm bed, where he ſlept ſoundly *ſixteen* hours, without once awaking, though in that time ſeveral attempts were made to rouſe him, but to no purpoſe. His breathing was free and unoppreſſed, all the while, and his ſleep, in all reſpects, like that of a perſon in perfect health.

I was at no loſs, from the firſt, to gueſs at the chief cauſe of his complaint. His belly

was prominent and very hard. His eyes had all that peculiar languor to be obſerved in thoſe who have worms; his noſtrils were widely dilated, his lips whitiſh, and the upper lip ſwelled, ſo as to be in contact with his noſe; his complexion, from a ſhining jet black, was turned of a dirty yellow colour, lighteſt about the eyes and mouth. In a word, I never ſaw a patient who had more evident ſymptoms of worms.

A few hours after he had recovered from his ſleep, I ordered him an emetic. During its operation, he felt ſomething in his throat, which, he ſaid, tickled him, but which he could not bring up. However, at laſt, he vomited up a worm, eight inches and a quarter in length, and in about two hours afterwards, was diſturbed by a fit of coughing, and the ſame tickling ſenſation felt before. In a little time, he coughed up a ſecond worm, about five inches long.

Next morning, I gave him a table-ſpoonfull of the Cowhage mixture; and left orders that it ſhould be given to him every morning until my return, which would be in three days. At the end of that time, on en-

enquiry, I found every dose had been attended with surprizing effects, and had brought away a prodigious number of worms, with a quantity of whitish matter, which appeared to be the mucus of the intestines, secreted in greater abundance from the irritation, and consequent increased peristaltic motion occasioned by these destructive reptiles.

I ordered a dose of jalap, and cabbage-tree-bark in powder, āā gr. xv. in ℥ij. of the decoction of the same bark, to be given, as a purge, on the fourth morning; and the Cowhage to be afterwards continued as long as any worms were found to come away in the stools.

In less than eight days, all the symptoms abated, and in a few days more, the boy was perfectly well, and able to go to his work with alacrity.

CASE V.

Mr. *John Edmonds*, a book-keeper on one of the estates which I attended, whose business it was to see the directions,

left in the hot-houſe book of the eſtate, put in execution, obſerving the good effects of the Cowitch, given to the negroes, in various worm caſes, took it into his head to take a little of it himſelf, in the way it was uſually preſcribed, on a ſuppoſition, that he might have worms, though he had no complaint that indicated their exiſtence. However, after the firſt doſe, he paſſed one very large and long one---and after the third, he paſſed three ſmaller ones. He found no farther effect from a few ſubſequent doſes, except, that he ſaid, it eaſed a pain like the heart-burn, he often felt before, eſpecially after meals.

This perſon ſometime after, went to live at a remote part of the iſland, from whence, in about two years afterwards, he wrote me a long letter, filled with eulogia on the virtues of Cowhage, and a liſt of caſes in which it had been given with wonderful ſucceſs.

CASE VI.

A young lady, aged 13, (the daughter of a gentleman in Kingſton) had from her infancy been very much ſubject to worms, for which ſhe had taken various medicines at different times. About the month of July, 1779, ſhe was ſuddenly ſeized with convulſions, as ſhe was ſitting at tea. The uſual remedies, ſuch as ſp. hartſhorn, aſafœtida, &c. were applied, which relieved her for a time.

She had been very much indulged in eating green fruit, unripe corn, and the like traſh. She had a hard tenſe belly, cough, and a moſt voracious appetite. Her breath, and urine, were uncommonly fœtid, and the latter ſtained her linen of a light ſaffron colour. Her ſtools had been very irregular; ſometimes ſhe was reduced by a diarrhœa, and at other times, an obſtinate coſtiveneſs occaſioned ſevere pains in her head. She complained very frequently of griping pains about the umbilical region; had a quick, low pulſe; her eyes had a peculiar deadneſs; but the young

lady, inſtead of being, as is uſually the caſe in complaints of this nature, oppreſſed with laſſitude, and averſe from all manner of exerciſe, was always very lively and alert.

From moſt of the ſymptoms, I had no doubt of her diſorder proceeding from worms. This, though very plain, was laughed at by the young lady's relations, who declared, that it was impoſſible ſhe could have worms, as ſhe had for a long time been taking medicines on that account; and, that though ſubject to them formerly, ſhe had not paſſed any for a long time. Theſe declarations, however, were by no means ſufficient to convince me that they were not the cauſe of her complaints, and with much difficulty I prevailed on the father of the young lady to let her take Cowhage, which perhaps would not have been complied with ſo ſoon, had not another convulſive fit, the following day, threatened her life.

The firſt doſe, to the amount of a tea-ſpoonful, given at bed-time, had no effect. The night following, I gave two tea-ſpoonſful, and in the morning, a table-ſpoonful.

To-

Towards evening, ſhe paſſed two very large worms. On the morning of the third day, an ounce of caſtor oil was given, which brought away an incredible number; ſome alive, others dead. She had no return of her convulſions after the firſt doſe; but I thought it proper to continue the uſe of the Cowhage a few days longer. In leſs than a week, its good effects were manifeſt. Her eyes regained their natural vivacity; her pulſe became regular; the hardneſs and ſwelling of the belly were leſſened, and by degrees entirely diſappeared, ſo that in a ſhort time ſhe regained a perfect ſtate of health.

CASE VII.

Charles Thompſon, a cabin-boy belonging to a ſhip in the Weſt-India trade, was, ſoon after her departure from England, for the Weſt-Indies, attacked with violent griping pains in the bowels.---His face and lips were exceeding pale, and he was conſiderably emaciated; nothing could perſuade him to ſtir out of his hammock, or take any kind

of

of exercise. He slept almost continually, and eat voraciously.---As he had some feverish symptoms when he first applied to me, I gave him an emetic, which brought off a great quantity of bilious matter from his stomach, but did not relieve the gnawing pain that he complained of. A few grains of magnesia, with rhubarb, procured him some stools the next day, but did not at all contribute to ease the pain.

Not doubting, from the symptoms, that worms were the chief causes of his complaint, I gave him, for four or five mornings successively, a table-spoonful, and sometimes two, of the Cowhage mixture. After the very first dose, the pain in his bowels went off---and in about a week the boy returned to his duty as well as ever.

C A S E VIII.

James Gilmour, a carpenter, aged 27, of an athletic make, and strong constitution, from an excessive and continual itching at his nose, imagined he had worms; and applied to me for relief. His other symptoms were great

great thirſt, feveriſh heat, and frequent fluſhings in the face. He had no appetite, and often vomited after eating. He was ſeldom free from a diarrhœa, and often complained of pains in his bowels and ſide; his tongue was foul, and he had a fixed pain in his head.

The firſt evening he came to me, I ordered him a gentle emetic, of vin. ipecacoan and an ounce of ol. ricini, to be taken the following morning.

After I had cleanſed the inteſtines by theſe evacuations, I gave him a ſmall quantity of the electuary of Cowhage made in the uſual manner, with directions how to take it.

According to theſe directions, he was not to have taken any, until the morning after the purge; but he was ſo impatient to get rid of his troubleſome inmates, as he ſaid, that he took a doſe of it, the ſame night, and a ſecond, early the next morning. He complained, that the medicine occaſioned a very diſagreeable tickling in his mouth; and on enquiry, I found that he had ſeparated the ſetæ from their vehicle,

and

and after ſucking and ſwallowing the melaſſes, had ſpit moſt part of the Cowhage out.---This electuary had been kept a good while; and from the heat of the weather was grown thin, and diſpoſed to ferment. However, I made him a freſh quantity with very thick treacle, deſiring him to obſerve the former directions. This gave no uneaſineſs in ſwallowing, or at leaſt, very little.

Two days after, he ſent to me, requeſting I would go to ſee him. I was afraid he was worſe, but was agreeably ſurpriſed to find him extremely well. He told me, he had ſent to me, to ſhew me the effects of the medicine, and produced near half a pint of worms, which he had diſcharged by ſtool that morning, and had paſſed as many more the preceding day.

I told him to continue the electuary as long as he perceived any worms to come away in his ſtools, but no more being diſcharged after the fourth or fifth doſe, he diſcontinued it, and was, in a ſhort time, perfectly free from all his complaints.

The

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The foregoing Caſes have been ſelected out of a great number, wherein the Cowhage was tried with equal ſucceſs. Many more might have been added, but it is preſumed, thoſe will be deemed ſufficient to prove the ſafety and efficacy of that excellent Medicine.

THE END.

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