A dissertation on the Oleum Palmae Christi, sive Oleum Ricini; or, (as it is commonly called) castor oil; in which its history is illustrated; its properties and virtues explained; and its uses in bilious, calculous, and other disorders recommended / By Peter Canvane.

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DISSERTATION

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ON THE

Oleum Palmæ Christi,

Sive OLEUM RICINI;

Or (as it is commonly called)

CASTOR OIL:

IN WHICH

Its HISTORY is illustrated; its PROPERTIES and VIRTUES explained;

AND

Its Uses in BILIOUS, CALCULOUS, and other DISORDERS, recommended.

The THIRD EDITION, revifed and corrected.

By PETER CANVANE, M. D. OF BATH,

Member of the Royal College of Phyficians in London, and Fellow of the Royal Society.

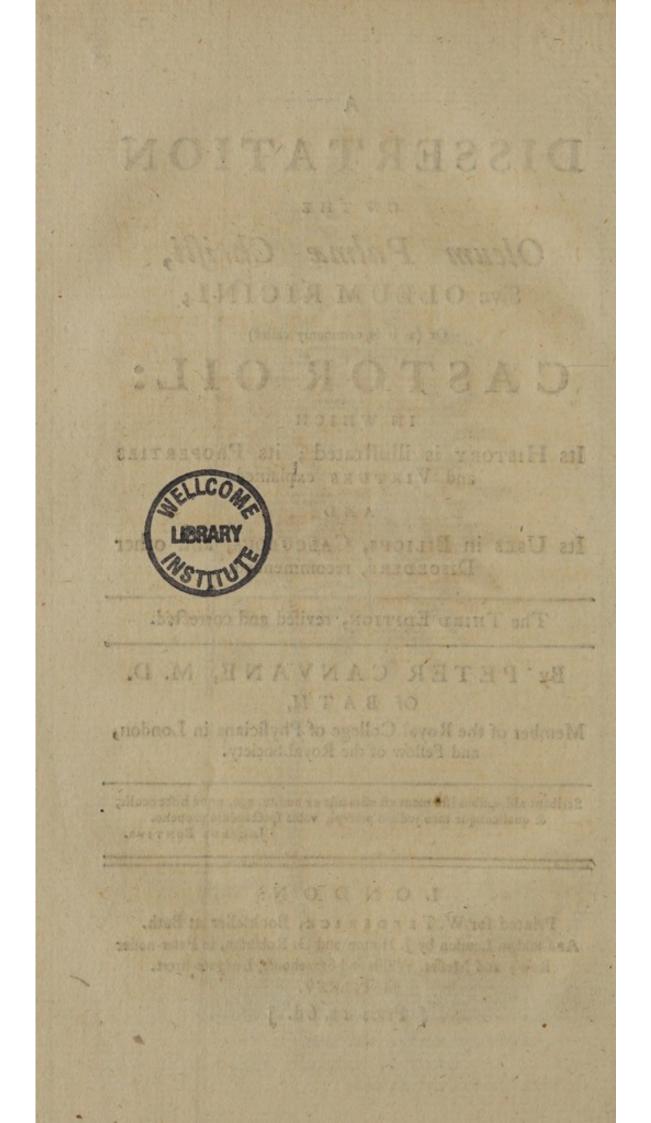
Scribant alii, quibus iftă mens est miracula ex auditu, ego, quod hisce oculis, & qualicunque meo judicio percepi, vobis spectandum propono. JACOBUS BONTIUS.

LONDON:

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MDCCLXXV.

[Price 1 s. 6d.]



PKEWJCE.

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PREFACE.

HAVE lately read, with great fes on the colica pictonum, or dry belly-acb, written by four living and thining ornaments of the profeffion, in four different parts of Europe; I mean by the incomparable Dr. Huxbam of Plymouth; the judicious Dr. de Haen of Vienna; the learned Dr. Thierry of Paris; and the methodical Dr. Tronchin of Amfterdam.

Those gentlemen have treated the subject with the utmost art; have investigated the causes and symptoms with the greatest perspicuity; and have all unanimously agreed to commence the cure with purgatives; but unfortunately none of that class of medicines we know of, in the B 2 mate-

materia medica, are appropriated to this terrible diforder.

Laxatives, given in fuch quantities and form as may feem to anfwer the intention beft, will frequently not ftay on the ftomach, on account of the great dofe required to be taken ; and *draftic*, rougb purges, are condemned by all with great juffice, as they draw the inteffines into fpafmodic contractions, and add irritation to irritation.

Therefore, as the oleum palmæ chrifti, the fubject of the following treatife, an incomparable medicine in this cafe, was not known to those learned gentlemen aabove-mentioned, I thought it would not be unacceptable to the public to fee a few observations I have made from a practice of near twenty years, in using and applying this oil; feven years of which I have constantly used it with fuccess in America, and near twelve years in my practice in England I have applied it occasionally, and as I could pro-

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cure it from abroad ; and I can venture to affirm, that, except the *peruvian bark* in intermitting cafes, I never met with a more valuable medicine in all *bilious complaints*, and fome other diforders, which will be fpecified in the courfe of this pamphlet.

The truth of this affertion I do not doubt but will be attested by those gentlemen of the profession, who have ever practifed abroad, and used this oil either in the English or French Leeward Caribbee islands.

Mr. Frafer, who was furgeon to his majefty's troops of the ifland of Antigua, has fome time ago given, in the medical effays of London, a very fhort but genuine account of fome of the properties of this oil; being the only tract I have ever feen published of it: which to me feems very furprifing, as I am fure it has been used in those islands with fuccess these thirty or forty years.—I could have corroborated every affertion in the fol-B 3 lowing

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lowing treatife by exhibiting cafes I have by me, but was afraid of fwelling this pamphlet to a volume ; which was not my defign. Befides, I have not leave from feveral gentlemen and Ladies, of publifhing their names in print ; without which I have always deemed it folly to publifh cafes, as it is very well known there is nothing eafier than to adapt and form fuch eafes, in order to fupport fome particular favourite hypothefis.

In treating of this oil, I have fketched out the principal difeafes to which it is chiefly adapted. In this I have not advanced any hypothefis, or given any rules of practice but what are deduced from the ftructure of the parts in the animal œconomy, and confirmed by obfervations of Dr. *Boerbaave*, his learned commentator, and Dr. *Mead*. Sometimes I have made ufe of thefe gentlemen's words in deducing practical inferences, not knowing where to find better, in order to ftrengthen, by the authority of fuch great

great names, my doctrine concerning this inedicine.

As this oil, fince my first publication of this pamphlet, is now become officinal, (it being fold at the Apothecarieshall and at feveral other shops in London and Bath) the feeds from which it is extracted may be easily imported, at a very reasonable rate, as the plant grows wild and in great plenty, in every one of the English and French islands. We have the best and most valuable of our medicines in this manner from abroad; such as the Peruvian bark, Rhubarb, Ipecacuabna, &c,

If, in writing and compiling this fmall treatife, I have any ways contributed towards promoting the *ars medendi*, my chief aim is anfwered.

If there should be any errors in this performance, (as fome no doubt there are) I hope the candid reader will make the proper allowances, when he confiders, B 4 that

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that I may in fome respect fay with Lucretius,

--- Peragro loca, nullius ante ---- trita folo.

Since my first publication of this treatife, I have never once had any reason to alter my opinion in any one point, concerning this oil and its effects. The public, I believe, is now sufficiently convinced of its efficacy in all bilious and other complaints specified in this pamphlet, as this medicine is now universally prescribed by the most eminent physicians not only in this kingdom but in feveral other parts of Europe and America.

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A Differtation, &c.

T is univerfally allowed, by all the I learned of the profession, that there is nothing more wanted in the art of bealing, and particularly in treating all bilious cases, than a vegetable purgative oil, that will act gently in a small quantity on the bowels, with little or no irritation : these qualities the oleum ricini, or castor oil, possifies in an eminent degree; and, tho' it is little known in Europe, yet it has been used these feveral years with great fucces in the English and French islands in America, as will appear from the following observations.

I shall first premise a *botanical* description of the plant; after which, I will treat of its oil in a particular manner.

DE-

DESCRIPTION of the PLANT.

The plant from which this oil is extracted is the ricinus americanus major, caule virefcente H. R. P. the ^a Nhambu guacu of Pifo; and Sir Hans Sloane's ^b Ricinus americanus fructu racemofo hispido. The French in the islands call it the greater palma christi with green stalks. ^c Mons. du Tertre and ^a Pere L' Abbat mention it under that name in their description of the French Caribbee islands.

There are four or five forts of *Ricinus*, that grow in different parts of Africa and America, which have much the fame virtues; their feeds are frequently fent into England intermixed with each other. There are two forts that grow in the warm parts of Europe, and are to be met with in Spain and the ifland of Crete.

Mr. Millar fays these plants deferve a place in every curious garden, for the fingular beauty of their leaves, especially those forts that are annual and may be cultivated as all other annual

* Vide Gulielm. Pifon hift. natur. Ind. Lib. iv. c. 31.

^b Vide history of Jamaica, vol. i. page 126.

e Vide histoire des antilles habitees par les Francois, vol. vii. page 103.

^d Vide nouveau voyage, vol. vii. page 78.

nual plants. He planted the Ricinus Africanus maximus near Chelfea; one of the leaves of this plant was upwards of two feet diameter, and the ftem was as large as a middle-fiz'd broom-ftaff, tho' but of one fummer's growth.

Some imagine the *Ricinus* to be the tree that fhaded *Jonas* after he was difcharged from the whale °.

It

* The following anecdote concerning this plant, which is called in Hebrew KIK, is recorded in Gerard's herbal, or universal History of plants; printed in the year 1633 .---Ricinus (whereof mention is made in the fourth chapter and fixth verfe of the prophecy of Jonas) was called by the Talmudifts kik, for in the Talmud we read thus, velo beschemen kik, that is, in English, and not with the oil of KIK, which oil is called in the Arabian tongue alkerva. Moreover a certain rabbin alks this question, what is kik? to which Refeb Lachifb makes answer in Ghemara, faying, kik is nothing elle but Jonas's kikaijon; and that this is true appears from the Greek name xix, which the antient Greek phylicians ufed, which Greek work is derived from the Hebrew kik, whereby it appears that the old writers long ago called this plant by its true and proper name, but the old Latin writers knew it by the name of cucurbita, which is evidently demonstrated by a history, mentioned by St. Auflin to St. Jerome, in these words : " The name kikaijon is of fmall moment, yet fo fmall a matter lately caufed a great tumult in Africa, for a certain Bishop, having an occasion to treat of what is mentioned in the fourth chapter of Jonas's prophecy, (in a fermon he made in the cathedral church) faid that this plant was called cucurbita, a gourd, becaufe it increased to hugely in fo thort a time, or, faid he, it is called bedera : upon the novelty and untruth of this doctrine the people were greatly offended, and there fuddenly

It is called in Latin *Ricinus*, because the feed refembles the animal of that name, which commonly infests horses and black cattle, called *tick*.

It is likewife called Palma Christi, because the leaves refemble the palm of the hand. It is called by Dioscorides, in Greek, xixi in xgotrow, a crotonis sive ricini animalis similitudine quod refert semen. The French sometimes call this plant the agnus castus, perhaps on account of the great efficacy of its oil in curing, and in temperating all sebrile heats, and especially the heats of venery; from whence, as I suppose, the people of St. Christopher's, who were formerly blended with the French in that island, have, by a corruption of agnus castus, called it castor oil.

It is certain this oil was used in St. Kitt's before it was in any of our other islands; what is very furprifing, there is little or nothing faid of its medicinal virtues by the gentlemen of the

denly arofe a tumult and hurly-burly, infomuch that the bifhop was obliged to go to the Jews to afk their judgment concerning the name of this plant; and when he had received of them the true name, which was kikaijon, he made an open recantation and confessed his error, and was justly accused as a falfifier of the holy foripture."—Sometimes the Greeks call this plant $z_{g} \delta \tau \omega v$, (i. e.) Ricinus, from its fimilitude with that infect.

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the faculty refiding at Barbadoes; and I have met with two or three furgeons from that ifland, who feemed not to have known the use of it.

membranes or pulleles, one exterior, and the This plant grows as tall as a little tree, very beautiful, and expanded into many branches; the leaves are large, rather round, parted into five, eight, or more fections, and fometimes into nine fharp-pointed or ferrated divisions, fashioned like the leaves of a fig-tree, but rather larger, spread or wide open like the hand of a man, and has towards the top a bunch of flowers, cluftering together fomething like a bunch of grapes : thefe flowers are fmall and ftaminous, growing on the top of the stalks ; but on the body of the plant grow bunches of rough triangular hufks, each containing three fpeckled feeds, lefs than horfe-beans (tho' fometimes as large); which, in their brittle shells, contain white kernels, of a fweet, oily, and fometimes nauseous taste. f

The week average, the Whiteness from which

f Vide Gulielm, Pison histor. natural. & medic. Indiarum, p. 180.—The Arabians call this plant cherwa, the Italians cataputia maggiore, the French palma christi, the Germans winderbaum, the Dutch wonderboome, the English the castor, palma shristi, or great spurge.

s extracted bo in themielves very

The kernel, from which the oil is extracted, is very acrimonious, and will in fome conftitutions work upwards and downwards, in a violent manner; it confifts of two very thin membranes or pellicles, one exterior, and the other in the heart of the feed; of which if the feed be ftripped, 'tis commonly deemed lefs purgative and emetic by half than it was before, infomuch that four grains will then be only equal to two.

The use of these feeds is of very antient date in the practice of physic: the divine *Hippocrates*, some hundred years before the Christian æra, made use of them instead of the grana Cnidia, and fays they were acrimonious, and sometimes very violent in their operation.

It is certain the feeds in fubftance are acrid, and fhould not be ufed but with caution. It is very remarkable, that all the oils obtained by expression are constantly very mild and lenient, even though the substances from which they are extracted be in themselves very acrimonious. *Mustard-feed*, ^s which is so acrid that it is even caustic, yields by expression an oil as mild as that of *fweet almonds*; but then the

5 See Monf. Macquer's elemens de chymie, p. 97.

the kernels, from which the oils are extracted, must not be old, but fresh and ripe, because they become more and more acrid as they grow old, and this acrimony is acquired even in the fruit itself.

Matthiolus, 'tis true, and fome antient phyficians, attempted to correct the emetic quality of the *feeds* of this plant by torrefaction, but were miftaken; as, on the contrary, they acquired by that means a greater acrimony.

Gulielmus Pifo has proposed a tincture of them, with brandy, as a very fase medicine: but, as the acrimony of this nut is sometimes so great as to become unsafe, I must advise it to be taken with caution.

The leaves of the palma christi are commonly used abroad, cut in small pieces, boiled with milk, and made into a poultice, which becomes very suppurative, and will bring boils to a head sooner than any plaister or poultice I know. The leaves are also used very often with success to dress blisters, especially if there be any dread of an approaching mortification; they are also of great efficacy steeped in vinegar; and will cure the berpes, the itch, and the scalded bead of children.

at whys of London, vol 2.

Having

the kernels, from which the oils are extr

Having premifed thus much, concerning this plant in general, its fruit and leaves, I must now return to the oil, which has been found fo efficacious in all obstinate constipations, and, in fine, is a fovereign medicine in all bilious, calculous, and nephritic complaints. And here I appeal to all those gentlemen of the faculty, who have practifed abroad in warm climates, fome of whom are now in England; I likewife appeal to the furgeons of his majefty's navy, who have tried this oil in the Leeward Islands,-whether they ever found any other than falutary effects from the use of it in almost all cafes where there is an indication for opening the body, especially in warm bilious conflitutions ? 'tis true it does not answer fo well in cold phlegmatic habits of body, as it is a cooling purge, and in those perfons fometimes apt to caufe gripings and spafms. I never knew any medicine answer to well in most affections of the bowels, and especially the colica Pittonum, commonly called the drybelly ach.

Mr. Fraser very well observes, that Sydenbam and Baglivi have both complained in their treatifes of bilious cholics; ^h that, tho' they preferred mild purgatives in those cases, yet these com-

^b See the medical effays of London, vol 2.

complaints fometimes were fo obstinate, as to require stronger efforts than any of the laxative kind could effect; and confequently they were obliged, in spite of themselves, to recur to *pilæ cochiæ* and other *drastics*: this oil would certainly answer their intentions in every respect.

Tho' it is the most efficacious medicine in removing the most obstinate complaints of the *dry belly-acb* and the *iliac passion*, (two of the most excruciating diforders that human nature is liable to) yet it is fo innocent in its operation, that I have often known it given with fuccess to infants, a tea-spoon-full the day after their birth, in order to lubricate the passages, and expel the *meconium*.

Mr. Brown, a gentleman of fortune, of the island of St. Christopher's, often used it instead of olive oil, in his fallad of an evening, it procuring him one or two stools, which he told me was always of great fervice to him and kept him cool in the gout and calculus, both which diforders he had in a violent manner.

This oil—which we may now call either oleum ricini, oleum palmæ christi, oil of kik from C the

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the Hebrew, agnus castus, or castor oil—this oil, I fay, I have given with fuccess in dysenteries, or bloody fluxes.

It is fometimes difputed whether mild oils, fuch as oil of fweet almonds, bind or relax the body; becaufe, if they are taken in a *dyfentery*, they bind, but in *bypochondriacal affections* relax.—But if we confider, that the caufe of a *dyfentery* is fomething acrid, vellicating the fibres of the inteffines, and that the property of mild oils confifts in obtunding acrids, by fheathing them, we fhall eafily perceive they muft be of fervice in a *dyfentery* : but in *bypochondriacal affections* the paffages of the inteffines are dry and crifp, and their furfaces unequal and rough ; hence mild oils, being applied to them, take away their crifpnefs and corrugation, by lubricating and then relaxing them.

The use of this lubricating oil is most beneficial to those bodies that are dry, hot, atrabilious, troubled with the piles, and that enjoy a plentiful perspiration; for these will be purged with oily medicines, when the strongest drastics will have no effect; for if we confult all the Italian eminent physicians who have written on bilious cholics, such as Baglivi, Bellini, &c. they are the most averse, in all all these cases, to acrid purges, and only order oil of fweet almonds, and other oily draughts, which immediately perform their effect, whilst drastics only cause anxieties, sweats, and vomitings, without any purgation.

I have often found this oil of the greateft efficacy in *clyfters*; and in outward application, by only rubbing the navel and hypochondria in children, when I could not get them to take any thing inwardly, which is often the cafe in infants, this embrocation alone has often produced one or two phyfical ftools.

The caftor oil given in fmall draughts, or by way of clyfter or embrocation, is an excellent and wonderful vermifuge: nay the very fmell and fume of this oil will purge fome delicate and weak children, the active part of fome purges being very volatile; this likewife appears from aloes, the fume of which will purge fome delicate frames; but when its fubtile parts are flown off, that which remains is quite unactive, the cathartic part of a purge, according to Boerbaave's obfervations, being the leaft with regard to the whole bulk : as appears evidently from euphorbium and coloquintida, which C 2 being being diffolved in water, and gently evaporated, become unactive maffes; whereas the part evaporated was very fmall, and fcarce perceptible.

mitings, without any purga

The Indians in Brafil, I am told, take an orange or lemon, and keep it macerating for a month together in this oil and the *oleum coloquintidos*, mixed together; and by rubbing it ftrong in the hands, till they become warm, by applying the lemon to the nofe, its odour will immediately caufe a ftool : but this, I believe, must be meant of the *oleum ricinoides* or *physic nut*, or rather the *oleum granorum tigli*, which are much ftronger than the *oleum palmæ chrifti*.

PREPARATION of the OIL.

This oil is prepared in two different manners : first, by decoction, in boiling water ; fecondly, by expression, which is counted the preferable method, tho' a greater quantity of oil is acquired by the former.

In order to prepare it by decoction, you must gather the feeds when ripe, strip them of their husks, pound them in a marble mortar, and tie them up in a linen cloth; put this packet into into a pan, with feven or eight times as much water, and make the water boil; the oil will be feparated by the ebullition, and float on the furface of the water; fkim it off carefully with a ladle, and continue boiling till no more oil appears.

By this method a much greater quantity of oil will be obtained, than by *expression* alone, because the degree of heat applied greatly facilitates the separation of the oil; for a convincing proof of this truth, take the remains of the seeds, from which the oil has been so thoroughly expressed that they would yield no more, boil them in this manner, and you'll obtain a great deal more oil.

This way of obtaining the caftor oil is not fo much efteemed in general, as that by expreffion; becaufe the heat, which the feeds are expofed to in the operation, occafions their being lefs mild than they naturally are, and more liable to become rancid.

In order to *exprefs* this oil, you must pound in a marble mortar, or grind in a mill, the kernels; tie up this mass, thus prepared, in a strong, thick, new canvas C 3 bag, bag, and put it into a prefs, between two iron plates; fqueeze it ftrongly, and you'll fee the oil run out in ftreams into the receiving veffel.

It is very remarkable, as I observed before, that oils, thus expressed, let the fubftances from which they are extracted be ever fo acrimonious, are mild and lenient.* Bitter and fweet almonds produce the felf-fame foft oil; and the oil of mustard-feed is equally as mild, tho' the feeds are fo acrid as to raise blifters, and are even cauftic. y Dr. James, in his new English dispensatory, fays, the oil of mustard, by expression, is prescribed with fuccefs in the feverest fits of the stone : but this oil is more mild, and by no means like oil of mustard-seed, which is procured by diffillation, and which is extremely acrid and igneous. The expressed oil of the West-India thiftle-feed is very lenient and mild; tho' the feeds bruifed, and taken a thimblefull, will vomit and purge feveral times, and are counted abroad, and really are, a fpecific in dysenteries.

Medicines

* See Monf. Macquer's elements of chemistry, p. 97.

r See Dr. James's new dispensatory, p. 443.

Medicines of the purgative tribe are commonly, by the beft authors, divided into two claffes; the drastic, and eccoprotic: the former act by a very powerful ftimulus, and, by greatly irritating the intestinal coats, very often cause such pains as bring on convulsions, diarrbæas, dysenteries, &c. infomuch that the celebrated Hoffman ' fays, they should be difcarded the practice of physic, except in cases of the utmost necessity, where a mild method stands no chance of succeeding.

There are, properly speaking, two kinds of eccoprotics; one of which does not diffurb the body in its operation, and expels little or nothing from it; fuch as all recent oils, freshly extracted from animals, and fome from vegetables, as olives and almonds. The fecond clafs of eccoprotics are now called lenitives, and formerly by the antients minoratives; that is, which do not draw out a quantity of the faces to be expelled, at once, but by degrees. To this clafs, therefore, belong all medicines whatever, that are able to ftir the villi of the ftomach into excretory motions : but this ought to be done without much diffurbance to the reft of the body; C 4

² See Hoffman's differtatio de purgantibus fortioribus e praxi medica merito ejiciendis. body; yet, as *Boerbaave* and his learned commentator obferve, it is abfolutely neceffary that thefe medicines be thick and fomething acrid, otherwife they will never become purgative. The oleum ricini we are treating of has both thefe qualities; for it lubricates, gently ftimulating the *inteftines* to perform their offices, and its thicknefs hinders it often from paffing the lacteal veffels: this we fee in whey, which by the thinnefs and lightnefs of its particles will pafs the lacteals; and, inftead of opening the body, will become a *fudorific*, or *diuretic*.

The Use and Dose of this OIL.

I commonly prescribe from two to three or four spoons-full of this oil to adults, in two spoons-full of *pepper-mint* water, or the *tinEt*. *stomachica* of the London dispensatory.

Sometimes I make a potio alba, by mixing two or three fpoons-full with a fufficient quantity of the yolk of eggs, to incorporate it thoroughly, and then add two ounces of fimple and two or three drachms of compound pepper-mint water. To children I order it by way of an oleofaccharum, or mixt with boney.

Tho?

Tho' this oil will keep a good while; yet, like all other oils by expression, it is apt by age and heat to become rancid.

My ingenious friend, Mr. Renaudet, furgeon, at Briftol Hotwells, who has used for feveral years the caftor oil with great fuccefs in North-America, and on board his majefty's navy, tells me, that he has often depurated this oil, and prevented its rancidity, by putting a quart of it into about half a gallon of pure cold water, and whipping it as women do fyllabubs; by which means the falts and groffer feculent matter either fell to the bottom, or were blended in the menftruum, and the oil floated on top, which he carefully fcummed off; and repeated the procefs a fecond time, which was well worth his trouble, as he often found by experience. I am likewife told, that a little falt will depurate this oil; which I have not tried.

As I have found this furprifing medicine in a very particular manner ferviceable, and preferable to all other purges, in the following *diforders*; I'll make a fhort abstract of my observations in those complaints.

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Ist-In the colica pictonum, or dry belly-ach.

2dly-In most fevers, where there is any indication for cooling and opening the body.

3dly-In all bilious complaints.

4thly-In the apthæ chronicæ, or thrush.

5thly-In the tetanus, or cramp.

6thly—In the gonorrbæa, fluor albus, and fome other complaints.





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Of the COLICA PICTONUM, or DRY BELLY-ACH.

I T is univerfally allowed, by all the authors who have wrote on this diforder, particularly the moderns, fuch as Huxbam, de Haen, Tronchin, and Thierry, who have given us their practical observations on it, made in very different countries and climates, that, whatever the causes of it may be, which they very accurately defcribed, keeping the body open is one of the main indications of cure, in order to give a free paffage to the noxious and irritating matter contained in the intestinal canal; which alone is the true caufe of all the difmal fymptoms that attend this dangerous diforder : but then the method for obtaining this end is attended with great difficulty; fharp, rough draftic purges, are condemned by all with great juffice, as they add irritation to irritation, and draw the intestines into spasmodic contractions, which must necessarily defeat the intention, they are given for; as these contractions will ftop the natural spiral motion of the intestines, and

and confequently the expulsion of the irritating caufe, with the addition of excruciating pain; which, beyond all doubt, will put the patient's life into immediate danger.

Eccoprotics, given in fuch quantity and form as may feem to anfwer the intention beft, will not frequently flay on the flomach, but be rejected as foon almost as they are given, on account of the great load and quantity of these mild medicines required to be taken, in order to render them *purgative*; by which means the fymptoms are again exasperated, and the *vis vitæ* or ftrength lessender ; which is a most material confideration, as weakening the powers of nature here is destroying every falutary intention, because it is by these powers we must expect a recovery, and destroying or lessen them is taking away our bulwark, and foundation of all hopes.

From this confideration it is, that the beforementioned gentlemen, of diftinguished abilities in their profession, are so cautious in regard to bleeding in this complaint, and are far from recommending it; so distant is the true genius of this disorder from an *inflammatory disposition*, except such may be brought on by imprudent treatment.

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REMARK the First.

In regard to gentle laxatives, all those who have had the *cholic* of *Madrid*, under the care of Doctor *Thierry*, who at that time refided there, not one had fo imperfect a recovery, as to be paralytic, or even weak in the limbs after the fit.

Now by taking a view of this gentleman's practice, which he candidly and minutely exhibits for the fake of young practitioners, we find his chiefeft ftrefs, in the medicinal treatment of this diforder, and I may fay his *fheetanchor*, to be an opennefs of body.

REMARK the Second.

No *palfy* was the confequence in fuch a number of afflicted people; therefore no more material indications can occur than that of keeping the body open, efpecially in the beginning, becaufe fulfilling properly that indication not only removed the complaint, but alfo prevented the *paralytic indifpofition* it generally leaves after it; which all obfervations confirm.

REMARK

REMARK the Third.

It is not furprizing that Doctor Thierry, i who found fo much fuccefs from laxatives, in his practice, fhould be fo fond of overlooking the immediate caufe of this diforder in acting on the inward coat of the inteftines, introduced there by what we eat, drink, or let down with the faliva, as to eftablifh the different changes in the air, fuch as heat, cold, drynefs, moifture, fharp winds, all governed in a great meafure by the refpective fituation of places, as the most general caufes of this diforder ; alledging the inclemency of the air, the feason preceding the memorable cholic of Poitoii, and that the people had incautiously left off the furred linings of their cloaths too foon.

I would willingly ask the doctor, why these changes of the air affected the bowels of such a multitude of people at the fame time, and no other part of the body ?---furely the lungs lay more particularly exposed to the consequences of such changes, than many other parts; and yet he gives us no account of the then reigning peripneumonies, pleuristes, opthalmias, catarrhal fevers, dy-

ⁱ See les observationes de Monf. *Thierry* docteur regent de la faculté de la medecine de Paris, sur la colique de Madrid & ses environs. dyfenteries, and other inflammatory complaints, which are the ufual confequences of fuch changes of the air.

Had the Doctor attended to the differtation on the cholic of Devonshire, by the defervedly admired Dr. Huxbam of Plymouth, he would have found the rough, four, or unfermented cyder " of that country, to be the caufe of that cholic he describes; he would have found that that great man, fo well acquainted with air. its variations, and effects, never had recourfe to it to explain the caufe of this endemial cholic; in fhort, he would have found, that this gentleman (whofe treatife on the air, and the diforders moftly depending on its various conftitutions, will be a never-failing monument of accuracy and Hippocratical judgment, grounded on principles of true theory) knew too well its infufficiency, to establish it as the general caufe of this difeafe.

Never-

* New rum, and a great quantity of fresh and unripe lemon and lime juice, made into punch, feem commonly to be the causes of this diforder in the West-Indies; as distillers of rum, boilers of fugar, and overfeers, are chiefly subject to it : the first (who are generally of the poorer fort) from immoderately drinking new hot rum; the second and third, from taking cold after sweating in hot boiling-houses, and drinking very strong punch made with fresh limes and newly-diftilled rum. Neverthelefs, the' this diforder is not epidemical, yet it may fometimes be endemial, and proceed from damp weather in rainy feafons; which, ftopping the infenfible perfpiration, may caufe all those terrible fymptoms attending the dry belly-ach: but this is not to be attributed to any deleterious particles in the air caufing this diforder.

REMARK the Fourth.

The learned and methodical writer on this fubject, Dr. Tronchin, 'has clearly fhewn the anatomical distribution of the eight pair of nerves thro' the intestines, forming their different plexus's, particulary the plexus mesentericus, and the communication of these nerves with those parts paralytically affected in this diforder; from which the true caufe of the palfy attending the complaint, and the true method of cure in general, (I mean by an opennefs of body, fupported without irritation) will appear to a conviction. The whole human frame must fuster convulsive spasms, whenever the meseraic nervous plexus is irritated : this is evidently confirmed and demonstrated by Webfer's admirable observations concerning the

¹ His differtation on the cholica pictonum was lately tranflated by Dr. Schomberg of Bath. the confent of nerves, and the convulsions which infants newly born are subject to, from an acid contained in their stomachs and bowels.

REMARK the Fifth.

The learned Dr. de Haen, " of Vienna, who has had a very great opportunity of feeing vaft numbers labouring under the worfe kind of this diforder, confirms the doctrine of laxatives : I fay the worfe kind, because it was the effect of poisonous effluvia on the poor working people in the mines near Vienna and other parts of Germany. It is true, indeed, he adds greatly to this method of treatment by obtunding the acrimony, and invifcating the poisonous and deleterious particles with mucilaginous and oily fubstances; by which he guards the tender fibres of the ftomach and bowels from their deleterious influence : a remarkable inftance of his preferving the lives of fo many miners appears by his recommending that they should eat fresh lard and brown bread before they went into the mines. Since this method has been practifed, he fays not one in ten of them is now brought to the D hofpi-

^m Dr. Anton. de Haen ratio medendi in nofocomio Vindobonenfi in articulo de colica pictonum. hospitals for cure; tho' before not one in fifty escaped; to the great detriment of those concerned in the mines, and the public in general; which, before, were obliged to support fo many poor widows and orphans. This physician's doctrine is elegant and sound, his practice bold and masterly, and not to be exceeded by any that ever wrote on this subject.

Whatever is the proximate caufe of this terrible difeafe, Dr. *Tronchin* very well obferves, it produces many remote ones, which, upon a clofe attention to the diforder, he reduces to the following :

ift-To the remains of a fever, carried off by an imperfect criss, or not well cured."

2dly-To poisons.

3dly-To the too free use of wine, or of acid austere fermented liquors, or of unripe acid fruits.

4thly-To the gout or rheumatism.

5thly-To an obstructed perspiration.

6thly

ⁿ See a treatife on the colica pictonum, by Dr. Tronchin, and translated by Dr. Schomberg; with notes. [27]

6thly-To the fcurvy.

7thly-To melancholy.

8thly and laftly-To the passions of the mind.

Now let the remote caufes be what they will, the proximate and primary indication of cure is to open the body first by an emollient *clyster*, with two or three ounces of the *oleum ricini*, or the following, which I commonly use:

R. Decoct. comm. pro clyfter. uncias viii. Ol. Ricin. uncias iii.
Sapon. nigri unciam fs.
Vin. Antimonial. turb. drachmas vi.
Afæfætid. (v. g. folut.) drachmas iii.
M. f. Enema ftatim injiciendum & pro re natâ fing. noctib. repetend.

After which I give a table-fpoon-full of the oil, either with *pepper-mint water* or the *tinEt*. *ftomachica*, and repeat it every hour, or halfhour, occafionally, till it produces a ftool, which the fourth fpoon-full most frequently effects; that is to fay, if it remains upon the ftomach: but if the ftomach is naufeating, and will not keep it, two ounces of the infusion of D 2 *ipeca-* ipecacuanha, drawn from a tea-pot with boiling water, (i. e. two drachms of the powder of ipecacuanha being allowed to a pint of hot water and ftrained) will fufficiently cleanfe the ftomach; this will act without much ftraining, and better than the powder or tinsture. After the stomach is thus fettled with one or two pukes, the oil will then commonly perform all that can be expected, and eafe the patient in three or four hours from the most excruciating pains; neverthelefs, fometimes, this ficknefs of ftomach, in fpite of all that can be done, is very violent and lafting; in that cafe I commonly order a neutral faline draught, with fimple and compound mint water, in allu " fermentationis sumendus; if this does not answer, I repeat the fame draught with a fmall pill of one grain and a half of extractum thebaicum, to be repeated occafionally with the draught according to the violence of the pains; this feldom fails preparing the ftomach for the reception of the oil; which, as I observed before, after the fourth fpoon-full will begin to operate, and find a paffage; this is by all means to be kept open for fome time, for otherwife the belly would be foon bound

⁴ See Dr. Barry on the three different digestions and difcharges of the human body, page 50. bound up again, and most fevere griping pains would most certainly foon fucceed, on account of the sharp humours continually falling on the intestines. This is to be done with the following potio alba, composed of a smaller quantity of the oleum ricini, and to be repeated every fix hours :

R. Aq. Menth. fimpl. fefquiunciam.
Ol. Ricin. (v. g. folut.) drachmas ii.
Aq. Menth. fpir. drachmas iii.
Syr. Alth. drachmam i.
M. f. hauft 6a. quâq. hora repetend.

to the chyfter befor

In the mean time the following, or the like anodyne bolus, is to be freely given, in order to take off the exceffive pains, which are vaftly apt to return, unlefs prevented by repeated ufe of opium and campbire.⁵

R. Valerian. Sylv. p. *fcrupulum* i. Caft. Ruffienf. gr. v. Extract. Thebaic. gr. i. fyr. E mecon. qs. m. f. bolus pro re natâ fumend.

The quantity of the opiate cannot, however, be abfolutely afcertained, as fome patients can bear much greater dofes than others.

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* As there feems to be here a convultive confiriction chiefly in the *ileon*, anodynes mixt with anti-hysterics will always be the likelieft means of relief. To prevent coftiveness, which these opiates are apt to cause, the *clysters* must be occasionally repeated.

If the patient complains of lofs of fight, great weaknefs of the loins, or a tingling uneafy fenfation thro' the whole fubftance of the medulla *fpinalis*, I repeat the clyfter before defcribed, and order blifters to the thighs and arms, and finapifms to the foles of the feet, to be renewed every fix hours; and the following or fome fuch volatile liniment:

> R. Spir. Volat. Ammon. unciam i. Camp. in f. v. f. drachmas iii. Liniment. vol. drachmas vi. Ung. Nervin, unciam fs. Piffelæi Indic.
> Ol. Palm. Chrift. aa unciam i. Balf. Peruvian. uncias ii. m.

F. Linimentum quo illinatur dorsum & spina dorsalis post frictiones.

At the fame time the Barbadoes tar is likewife to be taken inwardly, as there is nothing more likely to prevent the paralyfis fo often attending this diforder.

When the body is once open, there is no more danger of any bad fymptoms; it must there-

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therefore be kept fo by the oil, or fometimes (in order to diverfify and pleafe the patient's palate) by the following linctus:

R. Ol. Amygd. d. fyr. rof. folut. aa unciam i. Tart. folub. drachmas ii.

M. f. Linctus, fum. Cochl. i fubinde.

During the whole time of the paroxyfm, emollient embrocations, confifting of *this oil*, *fpirits of wine*, and *balfam of peru*, must be often repeated, and cloths dipped in the fame applied and bound tightly round the whole abdomen; this will be found of great use, especially if oily draughts and emulfions be conftantly and at the fame used, and bladders filled with warm water be applied occasionally to the abdomen.

After the *cholical* and *rheumatic* pains ceafe, the patient must be very cautious in regard to his diet; for this complaint is very apt to return by the fmallest error in this respect.

For drink, nothing fhould be given but Bath, or fome proper chalybeate water, with now and then two or three fpoons-full of fome generous wine. Every thing that is *flatulent* and windy is hurtful in this difeafe. Stomachics, and Huxbam's tincure of the bark, will now become very proper: frictions and riding to be D 4 abfoabsolutely infifted on, as the greatest prefervatives against relapses. Balsam of Peru, taken from ten to twenty drops every fix hours, will here likewise be of excellent service, as also fea voyages,

This is the method I have always found moft fuccefsful during the paroxyfm of this diforder. After the fit is over, then (and not till then) the prudent and fagacious phyfician will have an eye to the remote caufes beforementioned, and inveftigate every fymptom, in order to find out and adapt his cure accordingly, to prevent relapfes. After which, bathing, and drinking the Bath waters, with prudence, will be of excellent fervice : as bathing, even in the fit and paroxyfm of this diforder, has often proved very fuccefsful.

I have feen terrible confequences from the bad treatment of this complaint by medicasters and pretenders to physic '; who, fometimes, I have known order hot drastic purges, and even crude mercury in great quantities. These gentlemen, who often practife by rote, and play with the lives of mankind, are feriously advised by the learned Dr. Huxbam to peruse now and then the fixth commandment.

· Quorum stultitia quæstus impudentiæ est. Phædre

Of

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Of FEVERS.

SYDENHAM, in writing of fevers, fays, that diforders in general, and fevers in particular, are nothing elfe but a ftruggle of nature, endeavouring by all the means in her power to exterminate the morbific matter, for the recovery of the patient : now it is univerfally allowed, that there is no fever cured but by fome confiderable evacuation, either procured by nature or by art; but, of all evacuations and folutions of diforders, the moft defirable is, first by fweat, fecondly by ftool and urine,

Hippocrates, the father of a phyfic, fays, those things that are to be carried off are to be drawn to the parts they most incline to, thro' such ways and places as are fittest for their conveyance and expulsion. If nature is not able to expel the congested humours, then the art of the *physician* is required, to affist her that way by which she inclines to unburthen herfelf, either

* Vide Hippocrat. Aphor. 21.

ther by *fweat*, *ftool*, or *urine*; for every evacuation is not equally fuitable to all perfons, on account of the difference of conftitutions and difeafes: tho' we obferve *evacuations* thro' all or most of the emunctories are fometimes necessary, as is experienced in *malignant fevers*^b.

Now, when there is an indication for ftools, I maintain there is not, in the whole materia medica, a medicine equal to this oleum ricini, both for its opening and cooling qualities. I fay in most fevers; for I have found, by experience, it will not answer in low nervous fevers, even by way of clyster, on account, as I imagine, of its cooling and refrigerating quality.

As for ardent and inflammatory fevers and complaints, I have often feen it fucceed when nitrous medicines and James's powders have failed; giving twice a week or oftener, pro re natâ, two fpoonfuls of the oil and now and then occafionally three or four fpoonfuls of the caftor emulfion, every fix or eight hours: which is made like common emulfion, with fix or eight almonds and one caftor nut, ftript of its pellicle, and boiled in a pint of water.—This emulfion is moft frequently made use of by the French in

b See Dr. Mead's monita practica.

in the iflands, tho' it is fometimes apt both to purge and vomit; which I think proves the acrimony of *this nut* to confift entirely in its effential falt, and by no means in its oil. I never knew the oil to yomit, tho' given to four fpoons-full; and here an exceeding fmall quantity of the falt, diffolved in an aqueous menftruum, is apt to have from its acrimony an emetic quality.

I have a fervant, who fome months ago was taken with the worft fymptoms of an ardent and inflammatory fever and fore throat : there were ftrong reafons to fufpect that this pain in the throat was of a gouty nature ; for one night he had a pain in his great toe, during which the other greatly abated. As he had been for two or three days without a ftool, I gave him two fpoons-full of the oleum Ricini, in a little pepper-mint water (as I always have fome of this oil by me, myfelf and family never taking any other purging physic); this gave him four flools, and the next morning his fever left him; and he had a regular fit of the gout, that lasted ten days; which he had not for many years before. ys appeared to me to conside

I have even feen cured the worft of all kind of fevers, I mean the bilious yellow fever of of the Weft-Indies, by this fimple method; firft exhibiting an *emetic*, according to the indication; then *this oil* and *emulfion* occafionally; at the fame time diluting *acids*, efpecially in the commencement of the diforder, are of great fervice, as the blood from the beginning is full of *putrid alkaline* ^c falts.

I don't doubt but the judicious and learned of the profession will approve of this simple method of treating this terrible diforder, when they confider that the chief and principal feat of this fever is in the right bypochondrium, where the liver and biliary dusts are fituated, and that the bile of all the humours of the human body is the most putrescent, and that this degree of acrimony is heightened by the heat of the climate : thus the bile, in this exalted ftate, gets into the blood, brings the whole mafs into a putrid and almost gangrenous state ; will cause a deep yellowness all over the body, and sometimes livid fpots and mortifications in various parts. All these complaints arise from the great acrimony of the bile in its most exalted state; therefore, the chief indication of cure always appeared to me to confift in evacuating and have even feen cured the worft of all

• Tho' the bile is not abfolutely alkaline, I think it is allowed that it is alkalescent, and of the nature of an alkali. and carrying off the putrid, bilious bumours, by gentle vomits, laxative purges, and antifeptics, fuch as all vegetable acids, nitrous medicines, and the decostum ferpentariæ, occasionally.

I have always been of opinion, that the more fimple the method of treating *fevers* in general, the more agreeable to the practice of *Hippocrates* and all the antients, who always infifted on the regulation of diet in *fevers*, and expected the greateft part of the cure from a ftrict obfervation in this point; the thinneft aliment, fuch as *ptifan*, with *barley* and *bydromel*, were what they chiefly ordered. And, as Dr. *Towne*^d very well obferves, was *Hippocrates* to fee fome of the modifh mixtures and cordials, which are now-a-days prefcribed by fome in fevers, in defiance of all his fkill in phyfic, he would be at a lofs to guefs at the diforder.

Dr. Sutherland, in his analyfis of Bath and Bristol waters, observes, that the origins of diseases are not so complex as commonly believed; neither is the method of cure. He takes notice that Boerbaave (in his prælectiones academicæ)

d See Dr. Towne, on the diseases most frequent in the West-Indies.

mice) was wont to observe, " there were many who despised the practice of the antients, becaufe in difeafes differing in their fymptoms they applied the fame or fimilar remedies : they think themfelves well used if they meet with doctors, who ranfack difpenfatories; changing, compounding, and re-compounding, every hour; while far more furely and fooner they empty the pocket than the difease, dum longe certius crumenam exhauriunt quam morbum. Let those who despise simplicity of practice confider how many, and how different difeafes, in all ages, and all countries of the world, have been cured by the use of baths and mineral waters, of all forts and denominations; and cured too by thefe waters alone, only first preparing the body for the fame.

In all *fevers*, efpecially in *bot climates*, the diet fhould be cooling and moiftening; air fhould be admitted into the chamber, fo as to circulate thro' one or two adjoining apartments; the room fprinkled with vinegar, rofe-water, and cooling herbs; the common drink warm *lemonade*, which has often occafioned a *diaphorefis* when all the unnatural attempts by *alexipharmics* and *cordials* have ferved

* See virtues and analyfis of Bath and Briftol waters.

ferved only to aggravate the heat, and inflame the blood.

Befides the yellow fever there comes very properly, under this head, a particular class of fevers fo well defcribed by Heisler ^f in his compendium medicinæ practicæ.

These fevers are very common in Europe and the West-Indies, and deferve our attention in this place, as the *castor oil* answers almost every intention of cure in this complaint.

Those that are feized with this fever have commonly the following fymptoms: first, *borripilations* at different times; fecondly, the *tongue*, *teetb*, and *tbroat*, are filled with a vifcid and glutinous *pituita*; the patient's *breatb* becomes fometimes both offensive to himself and by-standers; thirdly, there is a gentle loofenes attending, with a most offensive simell of the *excrements*, throughout the whole diforder; fourthly, the *bypochondria* are tense and fometimes painful (no doubt from the great quantity of noxious humours contained in

f Vide Heisler compendium medicinæ practic. de febribus acutis stomachicis & intestinalibus.

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in the flomach and intestines); fifthly, frequent frights and terrors in their fleep, fometimes even when awake; this, Heisler fays, is a certain fign that the caufe of this fever is in the intestines; fixthly, pains commonly in the bead and neck, from spass; feventhly, the urine, at first like natural urine, (the cause of the diforder being not yet in the blood) in the progress of the difease becomes turbid, and deposes a muddy sediment.

Now it is univerfally allowed, that it is a very dangerous practice to ftop the loofenefs attending this fever, as the noxious humours, that ought to be evacuated, would by that means be retained; therefore vomits and gentle purgatives will, in this cafe, anfwer every intention of cure. Repeated experiments daily convince us thoroughly of the truth and justness of Dr. Sydenham's observation, when he 'fays, " vomitu peracto fæva " illa fymptomata (naufea v. g. & anxietas & " jactationes, fuspiria luctuosa, nigredo linguæ, " &c.) quæ & ipfos ægros excruciarunt & « aftantes perterrifecerant, mitigari solent ac " folvi, quodque morbi reliquum est, bene " tolerari."-After which puke the oleum Ricini internally, and by way of clyfter, will answer better

better than any other lenitive purge, as I have found by repeated trials.

It may, perhaps, here be asked, what this oil can perform better than manna, and other eccoprotics, which are used in these and fimilar complaints ? to which I anfwer, first, it will purge brifker, without irritation, in a smaller quantity, and is more likely to remain upon the ftomach; fecondly, it is more cooling, and more efficacious in temperating all febrile heats; thirdly, it corrects and obtunds the acrimony of the bile, better than any medicine I know; fourthly, it helps to diffolve, (as I imagine, and will endeavour to prove in the chapter on nephritic complaints) all bilious and calculous concretions. I believe, it will never be afferted that manna, or any other lenitive, is possest of all these qualities.

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Of BILIOUS DISORDERS in GENERAL.

without irritation, in 4

IT is not expected that I fhould here give a treatife of *bilious diforders*, (that itfelf would require a large volume) but I will endeavour to draw a few practical inferences from the theory and obfervations of Doctor *Boerbaave*, his learned commentator, and Doctor *Mead*, in order to fupport fome ^y practical and *medical* facts and obfervations which I have made in applying this oil to *bilious* cafes.

If, The bile, by its flimulating quality, as it is the most acrimonious of all the animal fluids, it, no doubt, helps to excite the peristaltic motion of the *intestines*, and hereby promotes concoction; and as it is purgative like *aloes*, which it greatly refembles, it helps the expulsion of the *fæces*.

My

7 See Mead monita practica, page 222.

My Lord Bacon very properly fays, that the bile is multarum in corpore functionum cos & stimulus, that is, the bile is the whet-stone and stimulus of many functions in the human body.

Its great utility is evinced by the extraordinary apparatus which nature uses for its preparation : we do not find in the whole animal *aconomy* a structure of parts like the vessels framed by nature for the separating and perfecting this natural sope : nature here, and no where else, as *Haller*, *Fleming*, and all *physiologists* agree, fashions and forms a venous system into an arterial one.

This natural *fope* is a mixture of oil, water, and falt, both *volatile* and fixt, feparated from the blood and the liver for the different ufes of animal life; and, as the blood itfelf is very often vitiated and liable to many changes, no wonder that this fluid, which is feparated from it, fhould be fubject to many alterations, and be rendered unfit, very often, to perform its office.

I fhall just touch briefly, in Dr. Mead's own words, ^x on the ways by which the bile E 2 may

* See Mead monita practica articul. de ictero.

may become vitiated; after which I will give a hint of the efficacy of this *oleum palmæ cbrifti*, in mitigating and removing thefe *bilious* complaints.

I use this gentleman's words, in order to confirm, by so great an authority, this doctrine of oily and emollient medicines, and especially this of the oleum ricini.

This ingenious physician fays, in his pratepta medica, " that the bile is often rendered ** faulty by its lentor and vifcidity, and fome-" times by its exceffive thinnefs; in the first " cafe the fecretory glands of the bile are " obstructed, and the small quantity of what " is fecreted stagnates in the bepatic duels; " whence the liver grows hard, and under " its tunicle are formed whitish concretions " that refemble hard sope; in the fecond " place not only the bile's vifcidity, but " its exceffive thinnefs, is likewife in fault; " for here the volatile falt, which is one " of the compounding principles of the " bile, over-abounds; whence the bile be-" comes too thin, too exalted, hot, and " irritating, to the intestines : in the former " cafe the body is too coffive, and the " fæces

" fæces are hard, and of a clay colour; in the latter cafe a diarrbæa, attended with a fever, and thin yellow ftools, conftantly teaze the patient: perfons who fpend their lives in a fedentary manner, without proper exercife, are most liable to that lentor and vifcidity of the bile, because its oily part grows too thick and viscid for want of a due proportion of falt; on the contrary, those who render their faculties useles by too high feeding, and drinking spirituous liquors, are generally most exposed to the latter, that is, the bile's excessive thinnefs."

Here feem two opposite complaints from the *bile*, requiring two different methods of cure : I have, nevertheless, treated these indications in the following manner, and have always met with fuccess in fuch treatment.

First, In case of costiveness, with ash-coloured and whitish stools, the oleum ricini, or castor oil, was of the greatest service, in purging gently the intestines; especially when often repeated : after which nitrous and saponaceous medicines came in very apropos. Lastly I advised the Bath waters, which perfectly compleated the cure.

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When

When the body was loofe from the thin, hot, and irritating *bile* in the inteffines, I alfo gave *this oil*, which, obtunding and fheathing the acrimony of the falts, was of more fervice than *rhubarb* and all the clafs of *anodynes* that could be given; after which the *Batb waters* anfwered to a miracle.

This is conformable to the Hippocratic doctrine, and confirmed by the most eminent moderns; Hippocrates, in his book de Morbis, juftly observing, that it conduces very much to the relief and safety of feverish patients, and such as abound with bile, to have the bile evacuated in due time by soft purges. For which reason Hoffman makes this most excellent remark, that in all fevers, especially bilious, a soluble belly, whether it is fo naturally, or made fo by medicines, is a highly lucky and falutary circumstance: when, therefore, the bile becomes acrimonious, and lodges in the primæ vie, it excites horrors, anxieties, and vomitings; and, being afterwards received into the blood, is generally thrown off the third day by febrile motion and heat.

Arthritic and gouty pains, which, according to Hoffman and the antients, draw their origin from a hot cause, are in like manner principally produced

duced by a fault in the prime vie, arifing from a vitiated bile, which, being conveyed into the blood, proves the caufe of all thefe pains; whilft the cauftic falts, with which the bile is impregnated, are fixt upon the membranes of the joints; and this is the reafon why fits of the gout are for the most part ushered in by pains of the ftomach, anxieties, naufeas, and lofs of appetite. Hence Hoffman and Dr. James rightly observe, that the perfon who knows how on these occasions to evacuate the pimæ viæ, without raifing tumultuous commotions in the animal œconomy, and at the fame time to correct the acrimony of the humours, is the likelieft to fucceed in removing, or at least in mitigating arthritic and gouty complaints. This is most wonderfully performed, especially in hot bilious conftitutions, (which is commonly the cafe in all gouty complaints) by this excellent oil.

It likewife deferves our attention, that periodical and critical *bæmorrbages* have commonly their caufe in the primæ viæ; and the medicines, which are beft calculated for allaying and reftraining the violence of the *flux* and *bæmorrbage*, are those that are purgative, and render the *bile* temperate and balfamic; E_4 this this the *oleum ricini* performs in a wonderful manner.

Therefore, in the bepatitis and most bilious disorders, (as Boerbaave and his learned commentator obferve) whenever the bowels begin to fend forth a bilious flux before the fourth day, it will be proper to promote that evacuation, according to Hippocrates's general rule; not by draftics and ftrong purgatives, but by mild emollients, fuch as this oil, using at the fame time mild abstersives, which are able farther to attenuate the matter of the diforder, and render it fluxile; fuch as fresh whey, made of new milk, in the fpring or fummer feafon, while the cattle chearfully feed on the green pasturage; but this will be rendered more efficacious if it be boiled, as the learned Baron Van Swieten 1 obferves, with those herbs the botanists call planipetalous and lastescent, such as endive, sowthistles, succory, dandelion, viper-grass, and the common gramen " officinarum.

This

¹ Vid. Boerbaave aphorism. de istero multiplici & commentar. Baron Van Swieten.

^m Vel ipfi bubulci vim graminis detergentem nofcunt, obfervando enim flercus bubulum notant obstructiones & crustas pene This noble phyfician fays, that, whenever he met with any *itterical* patients in his practice, he always remembered the advice given him by his excellent mafter *Boerbaave*, to think the caufe of thefe complaints might poffibly be *calculi* in the *gall-bladder*; and to this fcope he always directed his curative indications, commonly with fuccefs: he fays he made many trials in order to find out a menftruum that would diffolve and expel thefe concretions, but hitherto has never been happy enough to accomplifh his end.

I think, with all due deference to this great man's opinion, that faponaceous medicines, and the frefh juice of thefe plants mentioned above, would anfwer the firft indication of diffolving; and *this oil* I am fure will gently, and without irritation, expel thofe matters that are diffolved by gentle ftools'; for *Gliffon*'s obfervations, as well as daily experience, convince us that thofe concretions, found in the livers of ftall-fed cattle, are fufed by the vernal juice of grafs, and are carried off by a fupervening diarrhœa.

I find it more difficult to contract than to enlarge this chapter, as there offers fo ample a field

pene lapideas, cum stercore excretas, dum recentia gramina carpunt boves ; qui in stabulis detenti, diu languidi fuerunt admodum & icterici prorfus.—Vide Haxham de aere & morbis epidemicis, vol. ii. page 170.

a field in treating of bilious diforders : I'll therefore end with the words of the excellent * Hoffman; who well observes, that, as the bile when in its natural state, both as to quantity and quality, may be confidered as a medicine of the higheft use and importance to the body, fo likewife, when vitiated, it becomes a poifon; and confequently, that the health of man may be either preferved or destroyed by the bile ; and that for this reason, in accounting for the symptoms of most difeases, in taking our indications and prefcribing the means of relief, we are in a particular manner to advert to the ftate and condition of this humour, and carefully observe, whether it is faulty, either with regard to its quantity, quality, and the degree of its motions; for certainly many medicines, which are very efficacious in the cure of difeafes, operate no otherwife than by increasing the quantity of bile, when deficient; evacuating it, when redundant and fuperfluous; correcting it, when vitiated; and preferving its motion to the inteftines, in its due and proper state : for few medicines act directly and immediately upon the blood and humours, but most of them exert their virtues and efficacy upon the primæ viæ; where, in a fecondary manner, they correct the vicious humours

k See Hoffman de morbis a bile oriundis,

mours (of which the *bile* is the principal) which are the direct and formal causes of difeases.

This obfervation holds good in regard to emetics and laxatives: it will always hold in a particular manner in regard to a vegetable purgative oil, fuch as the oleum Ricini, which operates on the bowels with little or no irritation, and will always in a most efficacious manner obtund and correct the acrimony of the bile, and at the fame time cool the fever that is produced from the fame caufe.

I will venture to affirm that there is not, in the whole materia medica, a medicine like this *oleum Ricini*, which, at the fame time, poffeffes in fo eminent a degree thefe three qualities, of *cooling*, *purging*, and *correting* the *acrimony* of the *bile*.

ple complaint : but l'am fame l'eannor a-

out in general, which he preferibes, can mever

a newspire we fire in Februar a

[52]

Of the APHTHÆ, THRUSH, or SORE MOUTH.

THIS is a new diforder, and has never been known till within these few years abroad : it is endemial in warm climates, and seldom or never seen in cold countries, but when brought thither by the patient.

All the *aphthæ* we fee in Europe are acute diforders, commonly attended with a fever : this is intirely *chronical*, and will continue months, fometimes a year or two, without deftroying the patient.

Dr. Hillary, of Barbadoes, has lately written a very ample and accurate hiftory of this terrible complaint : ⁵ but I am forry I cannot agree intirely with this gentleman in his treatment of this diforder ; for I am fure antimonials in general, which he prefcribes, can never be of fervice when there is fuch an acrimony of the lympb.

I know

* See Dr. Hillary, on the diforders of Barbadoes.

I know that a dofe of this oleum palmæ cbrifti, administered in the beginning of this distemper, will prevent the aphthæ; because, by this means, those viscidities, which stick in the ducts, and afterwards cause the fore mouth, are intirely carried off.

The following are the fymptoms that commonly attend this difeafe.

1ft—A burning heat in the upper part of the afophagus, fomething like a cardialgia.

2dly—This heat gradually increases, without the patient's being able to attribute it to any cause whatever; either of intemperance, or irregularity in his way of living.

3dly—After this burning heat, little pimples or ulcers, with an acrid *lympb*, begin at the gums, and fpread to the palate and over the mouth, and defcend even to the *uvula* and *fauces*; the infide of the lips, and the whole mouth, appear hot and reddifh, and refemble very much the zigzag of lightning.

4thly—After this a cruft or thin pellicle falls off from thefe little ulcers, which renders the whole mouth fo raw, as not to admit any thing thing but the fofteft and fmootheft decoctions. Sometimes a falivation will enfue, which feldom or never proves critical; on the contrary it often finks the patient.

DONT

5thly—The patient will continue in this manner fome days, and then these pimples and pustules will disappear, he thinking himself pretty well, at least much better.

6thly—A little time after he is taken with all the fymptoms of a diarrbaa, the vomiting of an acrid lympb, which becomes very hot : this diarrhœa will continue fome time ; after which, the fame matter and the fame complaints will return to the bowels ; and thus a continual translation of this peccant matter, and a metaftafis of this acrid humour through the whole intestinal tube, will be continually forming during the whole courfe of the diforder : from hence thefe ulcers or pufules fall down from the primæ viæ to the anus.

Sometimes a troublefome and fatal *biccough* will attend the laft ftages of this diforder; becaufe, in this cafe, the ftomach is covered with an *aphthofe* cruft; which falling off, the extremities of the nerves are left bare, and are confequently fequently eafily irritated to convultions, and liable to inflammation and gangrene.

phileem, with which the ftonneh and howels

The excoriation and forenefs of the mouth, tongue, gula, ftomach, and the whole inteftinal tube, plainly fhew that the caufe of this diforder is an *acrid lympb*, turned upon those parts, and producing those effects abovementioned.

The coldnefs, drynefs, and roughnefs of the patient's fkin, which ufually attend this difeafe, demonstrate an obstruction and great want of perfpiration and fweat, which in warm climates is or fhould be very great in a state of health.

In fine, obstruction and acrimony of the humours, arifing from thence, feem to be the immediate causes of this diforder; confequently the indications of cure are to cleanse the prime vie, to correct the acrimony of the humours, and promote perspiration.

frace

First, as there is an afflux of humours to the stomach and bowels, attended with a sickness, reaching, and sometimes vomiting, an *emetic* is clearly indicated; I accordingly commence the cure with sister grains of *ipecacuabna* cuabna in fubstance, exhibiting at night a diaphoretic anodyne; this will carry off the acrid phlegm, with which the ftomach and bowels are generally loaded.

The next day the fecond indication of cure, viz. cleanfing and correcting at the fame time the acrimony of the humours, will be beft performed by a full dofe of caftor oil; this, by cleanfing the bowels of their foulnefs, will contribute to render diaphoretics, and other medicines indicated, much more effectual. This is to be repeated occasionally in smaller dofes, according as the phyfician shall fee it neceffary : after this the workings and efforts of nature, in this diforder, ought by no means to be diffurbed by too frequent purges, fince the end in general is better answered by gentle diaphoretics and temperating emulfions, prepared with almonds and a fmall quantity of the poppy-feeds. i

Riverius recommends narcotics in the cure of the worft and most dangerous aphthæ; because they not only ease pain, but prevent a fluxion of humours to the parts affected.— Therefore, after thus cleansing the primæ viæ, I com-

i See Dr. Hillary, on the diforders of Barbadoes.

I commonly order the following bolus and mixture to be repeated every fix hours:

R. Theriac. Androm. fcrupulum i. Pulv. Rhei. gr. iv.
Rad. Ipecacuah. gr. ii. vel iii. Syr. e Mecon. q. f.
M. f. Bol. fextâ quâq; horâ fumend. fuperbibend. cochl. iii. feq. mift.

R. Aq. Menth. fimpl. uncias vi. Confect. Raleigh. drachm. ii. Aq. Menth. Spir. uncias ii.
Ol. Palm. Chrift (v. g. fol.) drachm. iii.
Magnes alb. Syr. Papaver. albi aa unciam fs. F. Miftura.

The patient fhould, during the whole cure, take every morning and evening a pint of warm milk, in which an ounce of mutton fuet was melted; this will be of excellent fervice in this cafe, as well as in dyfenteries.

In the above prefcription the oleum palmæ christi and magnesia alba will correct and obtund the acrimony of the humours; whilst the theriaca andromachi and ipecacuahna will promote F perspiration, and prove, as Dr. Akenside observes, an excellent antispasmodic.

Whenever the patient complains of pains in the shoulders or feet, which is often the case, I have always found a *perpetual blister*, applied to the part affected, of great service; I have likewise, even when the patient has not complained of those pains, applied a perpetual blister to the back, by way of revulsion.

Mr. Renaudet, whom I mentioned before, in one of his letters to me, fays, " that he of-" ten experienced the good effects of perpetual " blifters, dreffed with the following ointment, in that terrible difeafe of the Weft-Indies, called the *tbrufb*, which is most common to the inhabitants of Barbadoes, viz.

R. Cantharid. opt. contuf. unciam i.
Coque in Aq. Fontan. lib. fs. ad uncias iv.
M. cum ung. bafilic. flav. uncias iv.
Coq. lento igne ad liquoris confumptionem.

" This is the most excellent ung. epispasticum in this case that was ever made use of; it acts with so small a degree of irritation, that the patient is not sensible of any pain or in-" con** convenience from it ; the falts of the flies
** being probably more intimately engaged by
** the unctuous part of the *bafilicon*, guards them
** from ftimulating the urinary paffages, fo as
** never to occafion a ftrangury, which too of** ten is brought on by all other forms that have
** yet been tried : befides, this ointment not be** ing loaded with the filaments and fubftance
** of the flies, the opening is kept much clearer
** and free from those floughs and foulness that
** are with the utmost difficulty prevented by
** the use of the *unguentum epispast*. of the dif** ferent dispensatories."

Whether the caufe of this diforder, I have now defcribed, be fimilar in every refpect to the caufe of a *rheumatifm*, I will not pretend to determine; but have lately read with pleafure an elegant Latin treatife on the dy*fentery*, written by Dr. *Akenfide*, ^a who greatly infifts on the clofe affinity of a *dyfentery* and *rheumatifm*, infomuch that he generally fuppofed them to have one common caufe; and fometimes does not fcruple to call the former a *rheumatifm* of the bowels, in the following terms: —" Denique hanc morborum fimi-" litudinem toties jam obfervavi & perfpexi, F 2

^d Vide de dyfenteria commentar. authore Marco Akenfide.

⁶⁶ ut dyfenteriam jamdudum pro rheumatifmo
⁶⁶ inteftinorum habeam—nos vero id vocabu⁶⁶ lum a doloribus artuum et muſculorum ad
⁶⁶ inteftina transferendo fimilem plane utriuf⁶⁶ que morbi cauſam & materiam effe con⁶⁶ tendimus.⁹⁹

t been tried : belides, this oint

This I must observe, that I have always found a great fimilitude between the *aphtbæ* above described and *dysenteries*, in warm climates; they both continue very long, with little or no fever; are both chronical diforders; having seen patients continue months together under each complaint; they both appear to have their translations and metastafes from the bowels to the joints, and vice verfa; gripings, and frequent stools, are common to both; the cause in one seems to be an acrid mucus, corroding the intestines; in the other an acrid lymph, or sharp humour turned upon those parts.

In regard to the method of cure, I have for these four years past treated this fore mouth, or aphthæ, with success, in much the same manner as I find Dr. Akenside has treated dysenteries; that is to say, in giving Ipecacuahna in very small quantities; sometimes with, and sometimes without

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out diaphoretic anodynes; with this difference, that I never omit the oleum palmæ christi, especially at the beginning of the diforder. This medicine I infinitely prefer to rhubarb in the first stages of the aphtha, notwithstanding the extraordinary recommendation of it by fome eminent modern phyficians.

Dr. Akenside, who treats elegantly of the rationale of the falutary actions and effects of ipecacuabna in dysenteries, resolves the whole virtue of this root into its aperient power of keeping the body open, and its faculty of relaxing the coats of the inteffines, and, in fine, mitigating the tormina or gripes.

ingenious

in boarpalowing an I would willingly afk this queftion : Which of these two medicines, the ipecaeuabna, or the castor oil, is most likely to posses these aperient powers of keeping the body open, of relaxing the coats of the inteflines, and of abating the violence of the gripes ? If the ipecacuahna be supposed, by the doctor, to posfess such an anodyne and antispasmodic virtue as cannot be expected from opiates in this diforder, what are we not to expect from the oleum ricini, which poffeffes all those powers and virtues, above defcribed by the doctor, in a most eminent degree ? aninks to son ma I .woll

to dities of this End officion were well di-

s wath uns of acence.

Notwithstanding these heroic medicines, the oleum Ricini, Ipecacuahna, and Rhuharh, the aphthæ chronicæ are often so obstinate, the small pustules and ulcers are so foul, that fometimes we have been obliged to recur to forrel whey, vinegar whey, and other acids; which have been of service, when all other means have proved ineffectual, in order to deterge and cleanse the said ulcers. This method (however strange it may appear to some) has frequently been of service when every thing else was of no signification,

The rationale of this method of cure feems confirmed by what my learned and ingenious friend, Dr. Sarsfield, of Cork, tells me. This gentleman, who has often had opportunities of feeing in practice the worfe kinds of aphtba, affures me, that he has often ufed the following topical composition with fuccess; and, where he could touch the aphtba with the fame, it was almost infallible:

R. Mell. Rofar. uncias ii. Borac. drachmas iii. Sp. Vitriol. drachmas ii.

Now, I am apt to think, that, if fmall quantities of this composition were well diluted luted and conveyed to the flomach and inteftines, it would in every refpect anfwer, and be as efficacious as *forrel* and *vinegar whey*, which has been fo often of fervice in the last stages of this diforder.

I have likewife used the following medicines in the aphthæ and dysenteries, occasionally, and pro re natâ, as specifics.

A ftrong decollion of the fimaruba, given in fmall quantities, and often, in both diforders promifcuoufly; the decollum arabicum; the wax emulfion; warm milk punch; common punch, or toddy, in which a hot poker has been quenched. Which fhews the great analogy there fubfifts between these two complaints.

The cortex of the baftard Locus, and the milletoe of the lemon-tree, are both excellent medicines at the end of a *dyfentery*, after having occafionally used the Ipecacuahna and *caftor oil*.

frould now take a borfs for his phylician, and

Bathing in Bath waters, with prudence, is a powerful remedy in the aphthæ chronicæ of the Weft-Indies; it will greatly increase perspiration, and at the same time strengthen the F_4 folids,

folids. We daily fee palfies cured at Bath by bathing; which, in a furprifing manner, will corroborate in relaxations, and relax in contractions. It is therefore furprifing that the celebrated Dr. Mead should decry the use of Bath waters, and bathing, in paralytic cases in general; fince we have the united testimonies of most writers, in different countries, who have written on warm waters and bathing, to youch for their powerful effects in these cases : sed quandoq ; bonus dormitat Homerus.

The patient, in the aphthæ chronicæ, when he finds himfelf recovering, should by all means be careful of his diet, as the least error in this regard will bring on relapfes. Riding should, at this time, be infifted on ; he should now take a borfe for his physician, and an als for his apothecary ;-virefque acquirat eundo. 9 diod era conserver ent to soulling

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Vech Indice ; it will greatly increase perfuira-

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firstill quantities, and often, in both dilorders

medicines at the end of a defeatery, after hav-

Caller.

See Dr. Rutty on mineral waters. 9 Huxbam.

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ch and inching up of the jaws ; the face

from being flay, that its particles do not cohere

THE tetanus is a continual and involuntrary contraction of all, or most of the muscles of the human body, and rigidity without relaxation. When the body was bowed down forward, the Greeks called it an emprostbotonos; when it was bended backwards, it was called opistbotonos; when the body was fixt in a rigid erect posture like a statue, it was called tetanus; very often when only one limb was stiff, in this manner, it was likewise called tetanus.

In the *tetanus* the anterior and pofterior mufcles are equally contracted; the fpafm or convultion is felt commonly as it were tending from the *fternum* to the *vertebræ*; most acute pains during these fpasms all along the fpine of the back, with a contraction and stiffness of the dorfal muscles. The patient complains of a tenseness about the *præcordia*, a stiffness

stiffness and locking up of the jaws; the face becomes red; the eyes look ftern; and, as the difease advances, these strong convulsive spasms become more frequent, and more violent. The poor patient is now in a most distressed condition, dreading every quarter of an hour a return of these symptoms; the pulse is very often præternaturally flow; the blood is fo far from being fizy, that its particles do not cohere as much as they do in the natural state; the body is commonly conftipated; often an intermiffion in the pulfe; fometimes the body is covered with fweats, from the violence of the agonies, yet no feverifh heat attends; the exterior and interior fenfes all the while remain whole and intire. All the balloo enty ai abrew

This is a fhort but true defcription of this terrible diforder; which is *endemial* in very hot climates, but especially in rainy weather fucceeding great heats.

body was fixt in a rigid creft pollare like a

In the teranns the anterior and

If this diforder proceeds from a wound, it is feldom or never cured. According to Hippocrates,—convulsio vulneri superveniens letbalis: tho' I have feen one cured, and two others much mitigated in their symptoms, by first dividing the nerve above the wounds, then drefdreffing it with a digeftive with opium : after which I commonly treated it in the following manner, as I did all other *cramps* from whatever caufes they proceeded.

First, in order to relax the rigid contraction of the nerves, I fomented the præcordia, jaws, neck, and spine, with warm castor oil, with (and sometimes without) Barbadoes tar; I then gave two or three spoons-full of the oil, with a clyster of the same; still repeating every three or four hours emollient fomentations, and anointing the parts affected as above. After which I had recours to musk and opium boldly, without any fear, according as the symptoms were more or less violent; so as to give ten or twelve grains of extractum thebaicum in twenty hours.

To prevent coftiveness, which this quantity of opiates might occasion, emollient relaxing clysters, with the oil of palmæ christi, are to be repeated every day.

After the cure, the bark, and anti-epileptics, are to be infifted upon for fome time, in order to ftrengthen the parts fo much weakened by this diforder.

This

dreffing it with a digeflive with opium : after

This method fometimes fucceeded, but oftener failed; as indeed all methods hitherto found out to conquer this moft terrible diforder: but, as cramps in general fall under this head, I do not doubt but it will be agreeable to my readers to fee the following letter, concerning the effect of tar-water in this diforder, which I received very lately from Col. Martin of Antigua. This ingenious gentleman has favoured the public with feveral curious and philofophical remarks on Weft-Indian hufbandry; and, without being a phyfician, has a general tincture of medical knowledge.

ly, without any fear, according as the fymptoms, were more or lefs violent; to as $t_s R_1 I_c S_1 c_1^{22}$ or

"The variety of cures made by tar-water I have often feen in many printed cafes, as being very effectual in pains of the ftomach, by indigeftion, flatulences, &c. but I do not remember it recommended as a cure for the cramp, for which I efteem it a fpecific.

I discovered this virtue by accident, thus:
my wife in her last pregnancy was frequently
afflicted with the cramp in all her limbs;
at length she was taken suddenly, in the
night, with a cramp in her bowels, to such for a de-

** a degree, that I thought her expiring; I ** ftarted out of bed much frightenzd, and, not ** having laudanum or any other medicine at ** hand, I poured fome *tar-water* out of a bot-** tle upon the table, into a filver panakin, (all ** which I commonly kept on the table with a ** wine glafs to wafh the mouth) and, immedi-** ately warming the fame over a candle, I gave ** it to the patient, who was inftantly at pre-** fent eafe, and continued fo all night.

"This induced her to drink a wine glafs of tar-water every night going to bed, and then fhe had not the cramp; but, as foon as fhe neglected to take the tar-water, the cramp returned, and was conftantly and inftantly cured by the fame remedy.

"This gave me fo high an opinion of its efficacy, that I put a woman of forty years old into a courfe of *tar-water*, for five or fix weeks; which intirely cured her of a moft dreadful *cramp*, which had afflicted her for feveral years, and for a week together had her limbs drawn up and convulfed by the *cramp*, under the moft excruciating pains; but that courfe of warm *tar-water*, taken by half a pint morning and evening, cured her "fo

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fo effectually, that for five years the never had a fit of it.

" My method of making tar-water is this:---

" Take a pint of the beft Norway tar, put it into fix quarts of foft water in an unglazed earthen veffel, ftir it well together, let it ftand twenty-four hours, then draw toff clear from the fediment at the bottom, and from the oil on the furface. If an hole be drilled within two inches of the bottom of the veffel, it may be drawn off the eafier, and bottled for ufe : it will keep thus for any time, and be lefs diftafteful ; but, by wafhing the mouth morning and evening, the palate will be foon reconciled to the tafte of the *tar-water*, and it is moreover thought a good antifcorbutic for the gums."

*** The above account I have not had fufficient opportunities of confirming.

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mical manuer; it relatives jefelf inen has lio an alal auoO Folislov y CALCULOUS COMPLAINTS.

THINK it is univerfally allowed, that whatever is the cause of nepbritic complaints, (whether the stone, or any other cause of inflammation) it is abfolutely neceffary, after bleeding, to recommend fuch things as are emollient and lubricating, inwardly taken, and externally applied; for it is from this method only that one can fafely prevent the inflammation in those parts that are injured by a ftone; or even remove the inflammation when it is once formed, and relax the paffages by which the calculus must pass from the kidnies to the bladder : but the oleum palmæ christi, which I have been endeavouring to recom-· mend, conduces in a most particular manner to this effect; and is therefore extremely useful for the cure of a gravelly nephritis; infomuch that in these complaints I never faw any medicine anfwer fo furprifingly.

· summafini eds nedw .ban ; e

The calculus confifts commonly of a nuice cleus, and concentric tunics and crufts, treated in a chymical manner; it refolves itfelf into air, phlegm, volatile urinous falt, an oil, and caput mortuum.

Helmont, Dr. Hales, and Dr. Mead, were of opinion, that the matter of the calculus was a certain tartar, formed in the kidnies by a præternatural coagulation; and the proximate caufe of this difeafe is tartarous falts conveyed out of the blood into the fmall ducts of the kidnies. Therefore, to prevent those falts from shooting in crystals, lixivial falts, or the lees of sope, feem to be extremely proper : next, to keep the crystals from coalescing into a calculous substance, oily medicines, and in a particular manner the castor oil, must be very efficacious. And this rule, the ingenious Dr. Mead fays, ought always to take place, with regard to diet as well as medicine.

Therefore, the *ftone* is to be treated in a quite different manner during the fit, and out of it. During the paroxyfm, the inflammation is to be taken off the parts by bleeding, emollient and turpentine clyfters, with *caftor oil*; the fame oil taken by way of purge; with warm baths; and, when the inflammation

tion is taken off, opiates, and emollient oily decoctions. After the paroxyfm is over, then (and not 'till then) we muft recur to lithontriptics and diuretics : which muft be ufed with the utmost caution; for a ftone is never forced out, when the patient is in great torture; tho', when the pain ceases, it fometimes comes away unexpectedly, and almost of its own accord, with the urine. On the contrary, fharp diuretics do mischief; as they increase the fever, and the present inflammation, while they give a greater acrimony to the urine; from all which the painful parts are more irritated, and the feveral fymptoms increased.

When there remains no inflammation or pain, we may fafely recur to fmall quantities of the *lixivium faponaceum*, diluted in ale or veal broth. This medicine, and the *caftor oil* blended, I have known relieve, and often cure, many *calculous* complaints.

I do not pretend to fay (tho' there is great reafon to fufpect) that the fope lees is Dr. *Chittick's* medicine; but this I will venture to affirm, that it never performed any cure but what the *caftor oil* in the fit, and the lixivium out of it, has executed, and will execute.

I com-

I commonly, out of the paroxyfm, give twice a week two or three fpoons-full of the oil; and the intermediate days begin with ten drops of the lixivium, which I increase to a tea spoonfull in a pint or half a pint of veal broth every day, morning and evening, I often give, instrand of it the aq. calcis which is an excellent medicine, especially the oyster and cockle-shell lime-water, which possibles a much greater power of disfolving the calculus, than that of stone lime.

Here I cannot help recommending the ufe of lime-water, to prevent mifcarriages of women. Col. Martin (whom I mentioned before) writes me, that he had tried the experiment on a lady who had mifcarried often, and it fucceeded fo well, that it not only faved the child of which fhe was then pregnant, but fhe afterwards became mother of another ; and fhe is now going on to furnifh her hufband's table with more olive branches : this I have not had an opportunity of trying.

That this oil alone will diffolve calculous and bilious concretions, I do not pretend politively to affirm : but am really of opinion, that it has some lithontriptic quality, and will greatly help

ift—As I have been fubject to gravelly complaints, I have often taken this oil; and I can affirm, that I never used it but there always fucceeded, more or lefs, a difcharge of fabulous matter.

2dly—Tho' the groffer parts of this medicine, as I faid before, on account of its thicknefs, will not pafs the lacteals, yet its most fubtile and active parts may; which I think is evident from its colour and fmell, which I have obferved to have been fometimes communicated to the urine.

3dly—Three fpoons-full of this oil will commonly give me (who am hale and ftrong) feven or eight gentle ftools; yet, twice or thrice within these two years, I have found that the fame quantity of this medicine purged me but once, the rest having passed off in a great discharge of urine.

4thly—I have observed, that, in those islands where this oil is commonly used, the inhabi- G_2 tants tants in general are not fo fubject to calculous complaints, as in other parts.

5thly-Since I have used this oil myself, (of which I commonly take a dole once in two months, without any other physic). I find myself intirely freed from the stone; tho', after every dose of this medicine, (as I observed before) I still find a discharge of gravel, but without any pain or molestation.

It is very remarkable, that there are fome patients who don't diflike the taste of this oil; while others think the fmell and tafte very difagreeable. For the fake of the latter, a few drops of the oil of rofes, or a few fpoonsfull of rofe-water, may be added, in the beating up the feeds or nuts into a paste; this will rarify the oil, facilitate its extraction, add to its odour, and rectify in fome manner its tafte ; at leaft 'twill hinder it from being fo difagreeable to delicate patients.

I can't difmiss this subject of the calculus, without acquainting my West-India readers, that they have, befides this oil, an excellent medicine for all gravelly complaints, called in those parts the bottle-cod root : the botanical name I don't know, but take it to be a species of

of the raphanus, or raphanoides. This root has all the pungency of the raphanus, or borfe-radifh, and at the fame time all the mucilaginous property of the marsh-mallow.

Since my first publication of this treatife, I have received feveral letters from the most eminent physicians in *England* and abroad, concerning this oil, which is now fold in most apothecaries shops in *Great Britan*. I have two letters by me from the incomparable *Dr. Huxbam*, of *Plymoutb*, wherein he mentioned the fucces he had found of the *castor oil*, in feveral cases; but, in particular, in the *Devonskire colic*, and in nephritic complaints; at the fame time defiring I would procure " him a great quantity of the *oil*, " cost what it would; he did not value the price " for fo excellent a medicine :" (These are the Doctor's own words.)

Last February, I received the following Latin Letter from the learned Baron Van Swieten, first physician to their Imperial Majesties, and my quondam professor at Leyden; which, I think, will not be unacceptable to the public, as every thing, that comes from his pen, must be agreeable to all true lovers of the medical art :

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Hono-

[78°]

Honoratifimo Viro

PETRO CANVANE, M.D. s. p. d.

GERARDUS L. B. VAN SWIETEN.

Differtationem tuam, de Oleo Palmæ Christi, miserat mihi Nob. Eques de Brady Principis Caroli Ducis Lotharingiæ Archiater, quam hinc avidè legens, inveni, quod confirmet pulchrè illa, quæ de eodem hoc oleo, ejúsque usu, habentur apud Labat, Nouveau voyage aux Isles d? Amerique Tom. I. Part 2. p. 212, ubi etiam monet oleum hoc, internè datum, furfum quandoque & deorfum purgare ficque colicis doloribus opitulari : addit, idem oleum, pressione solà paratum, rancescere nunquam, sed æquè fideliter alterum exemplar unà cum gratiffimis litteris tuis attulit Lord Taafe, nobilitate & virtutibus venerandus fenex, qui & fimul tradidit olei specimen; pro duplici hoc munere debitas ago gratias, uti etiam quod mei meminisse volueris.

Planta hæc non infeliciter crefcit in Europa. Tentabimus ejus effectum, quem falutarem fore non dubito. Vale & res tuas feliciter age!

Dabam 16 Janu. 1769.

[79]

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Of the FLUOR ALBUS, GONORRHOEA, &c.

IN regard to the *fluor albus*, the principal intention of cure ought to be directed towards mending the habit of body, from fome fault from which it may derive its origin.

^s Wherefore, generally fpeaking, it will be proper to begin the cure, as most authors agree, by giving a vomit, especially with *ipecacuabna* wine.

Frequent purging is indicated, chiefly with this oil; which will not only purge, but mend the habit of body. As it will prove an excellent balfamic, it may be taken with the addition of aromatics; and in fome cafes of a little calomel now and then: after which the laxity of the fibres requires aftringents, particularly fuch as have the cortex peruvianus and fteel in their composition.

G 4

More-

· See Mead de fluore albo.

[80]

Moreover, it is to be observed in this place, that women of a spare and lean habit of body, who are apt to be coffive, efpecially after delivery, often become languid and melancholy, labouring under a most obstinate and miserable obstruction, from an indurated matter in the colon; and this hardness in that place is fufficiently evident to the touch; and by the unskilful is sometimes taken for the placenta, and fometimes for the *spleen*; when in reality it is only the obstructed matter stopping in the large inteffines; whence it cannot be removed by any medicines except eccoprotics; for, if ftronger purges are given to women in this cafe, dreadful fymptoms are immediately excited, as vomitings, cholics, and bysterics : wherefore, at that time a spoon-full of this oil is to be taken; and three or four fpoons-full thrown up in form of a clyfter, to remove and expel the infarction.

This oil is likewife of fervice to fome artificers : as also to all fludious perfons; whose abdomen is usually much and frequently compressed : because, whilst they are intent on their studies, they generally sit with their bodies dies bent, and fo compress the contents of the abdomen. ^a

In regard to gonorrbaas, the oleum palma christi, in every stage of this diforder, is an excellent medicine. 1st, as a cooling purge; 2dly, as a balsamic and vulnerary; 3dly, it answers in the same manner as balsam capivi, which it very much refembles in its effects.

In the Influenza, that was epidemical in the year 1762, this medicine, taken twice a week, with fufficient diluting, was of excellent fervice. It was neceffary fometimes to take at night fix grains of the *pil. è flyrace*.

And in all pectoral and confumptive cafes this is the beft and fofteft purge, taking at the fame time an infusion or decoction of the wild liquorish or bead-vine, fweetened with the fyrup of calabash.

We have nothing in Europe to be compared to this laft medicine in confumptive cafes. I have been lately told it is now in great vogue in fome parts of France.

This

^a Vide Rammazini de morbis artificum.—See, alío, Dr. Cheyne's treatife on health and long life, page 221. This oil not only acts on the prime vie as a purging medicine; but, given in fmall dofes, and affifted by proper diluents, will become aperient and deobstruent; and be rendered either fudorific or diuretic; as I have found by repeated trials. Hence its ufefulnefs in feveral chronic difeafes is evident. And I don't doubt, but (when its different virtues are more investigated) the palma christi will be called the vegetable antimony, as its different preparations will vomit, purge, or sweat almost in the fame manner as the different preparations of antimony, that great mineral, fo productive of fovereign medicines and fecrets in physic.

In fine, the *caftor oil* is an excellent purge in moft gouty complaints; tho' we are fometimes obliged to recur to warmer phyfic in this diforder. It has alfo been ufed *externally*, in *dropfical* cafes, with fuccefs. For it has been lately found, that, after premifing a few draftics, efpecially the *elaterium*, this *oil*, being well rubbed over the whole abdomen, has occafioned a great and fudden difcharge of urine.

This method of friction with oil is not a new practice, but was often used by Aetius : and Celfus takes notice of the fame, in his cure of a dropfy, a dropfy, in the following words :--Utendum fricatione, madefactis tantum manibus aquâ, cui fal et nitrum & olei paucum sit adjectum, sic ut pueriles aut muliebres manus adbibeantur, quo mollior earum tactus sit.

After all I have faid concerning this medicine, I would not be underftood to mean, that it should be looked upon as a catholicon : with the excellent Boerbaave, -nullum ego cognosco remedium, nisi quod tempestivo usu fiat tale. -I know of no remedy in phyfic, but what becomes fuch by due application. This, like all others, will be excellent or otherwife, ac-/ cording as it is well or ill applied. Nor will it agree with all conftitutions : perfons afflicted with bilious diforders, acute fevers, inflammatory difeafes, and all those of warm bilious conftitutions, will find great benefit from the use of it. On the contrary, perfons afflicted with cold diforders, cachexia, leuco-phlegmatia, and dropfical complaints, and all those of a cold, phlegmatic habit of body, fhould by all means refrain from the use of it, as it is apt, in those diforders and constitutions, to cause fpasms.

As we are in all likelihood indebted to the American Indians for this medicine, as well as for the bark, bark, ipecacuabna, and feveral others; I think there will be no impropriety in finishing this treatife with a short account of the practice of physic at the court of Montezuma, emperor of Mexico; chiefly taken from the conquest of Mexico, by Antonio de Solis, ^a secretary and historiographer to his catholic majesty: to which I will add two or three observations from the learned Dr. James, ^b in his introductory preface, tracing the practice of physic thro' its different revolutions.

This laft-mentioned gentleman observes, that, of all the people, of whom history gives us any information, the *American Indians* appear, with respect to *physic*, to have been the wifest; as indeed it is indisputably better to have no theory at all, than one that is bad, and capable of introducing errors into practice.

Don Antonio de Solis, fpeaking of Montezuma, emperor of Mexico, fays, that there was nothing to be feen in his gardens but flowers of delightful variety and fragrancy; with medicinal

² See Dr. James's introductory preface to his medicinal dictionary.

^b See hiftory of the conquest of Mexico, by Don Antonia de Solis, vol. 1, page 329.

cinal herbs, fet in squares ; and summer houses, where he used to sup.

He took a particular care to transplant into his garden all the choice fimples that benign climate produced; where the only fludy of the phyficians was to attain to the knowledge of their names and properties. They had herbs for all kinds of pains and infirmities; and in the juices and application of these herbs confisted all their remedies; and with these they effected furprifing cures, having by long experience found out their virtues; and, without diftinguishing the cause of the distemper, applying them, to the patients great benefit and recovery.

The king freely diffributed to all, who had occafion for them, fuch of his fimples as were preferibed by the phyficians, or defired by the fick ; and was wont to inquire if the patient had received any benefit therefrom : either gratifying a fort of vanity he had, in the fuccefsful operation of his medicines; or believing that he fulfilled the obligation of a fovereign, in taking fuch care of the health of his vaffals.

Don Antonio de Solis, in another place, speaking of the sickness of Cortez, informs us, that the senate sent for all the best physicians of their councountry; whole fkill confifted intirely in the knowledge and choice of medicinal herbs; which they applied with a wonderful difcernment of their virtues and effects; varying the medicines according to the condition and different turns of the diftemper. And to them he was intirely beholden for his cure. For, making ufe at firft of wholefome, cooling fimples, to correct the inflammation, and mitigate the pain; which occafioned the fever, they proceeded by degrees to apply others, proper to ripen and heal the wound; with fo much fkill and good fortune, that in a little time they reftored him to his perfect health.

REMARK the First.

the part

Let the rational phyfician laugh as much as he pleafes at empirics; it is certain, however, that the first knowledge of phyfic was intirely from experience. And, in a country intirely unacquainted with natural philosophy, (which fearches out causes by effects) it was no fmall mater to find fo great a progress made in the knowledge of nature, as we find among these Indians.

REMARK the Second.

Theory cannot affume, with any appearance of reason, the power of discovering the virtues of of fimples, in curing diftempers; tho', by inveftigating the caufes of diforders, it may adapt known remedies with greater propriety, and perhaps with greater fuccefs to particular cafes; provided always that the theory has its foundation more in truth, than in the imagination of the whimfical and triffing.

REMARK the Third.

In confequence, therefore, of neglecting all manner of theory, and cultivating experience alone, the American Indians have been able to discover to the Europeans the most effectual medicines yet known; as the Peruvian bark ipecacuabna, and a multitude of others; for which we are indebted to the experience of the illiterate inhabitants of the new world : whilft alt the boafted learning of the Europeans has been fo little productive of improvements in phyfic, that, with respect to our own plants, we know very little more of their virtues, than what we have learned from Dioscorides, and some others of the antients : and, as to diftempers, those that were deemed incurable two thousand years ago would have remained fo to this day, if the experience of the virtues of the peruvian bark, ipecacuabna, rhubarb, and this oil, had not furnished us with the means of relieving patients labouring under fome few.

To conclude-Many medicinal discoveries have been brought about by infpiration, (that is; by the peculiar direction of providence) which are ufually attributed to accident; otherwife, it should seem very surprising, that after the labour of a multitude of men, both of learning and abilities, who have fpent their intire lives in phyfical refearches, and after all the advantages of our reason, we find (to the mortification of human wifdom) that the most important remedies have been originally difcovered by favages and madmen : whilft they had nothing lefs in view than the improvement of physic. By the former I understand the Indians, and by the latter I mean the Alchymists; who, in their pursuits after the transmutation of metals, have blundered upon fome medicines of efficacy.-Thus we are told in scripture : God has made fooligh the wisdom of the world; God has chosen the fooligh things of the world, to confound the wife.

FINIS.